

CHARTER TOWNSHIP OF
YPSILANTI BOARD OF TRUSTEES

Supervisor

BRENDA L. STUMBO

Clerk

KAREN LOVEJOY ROE

Treasurer

LARRY J. DOE

Trustees

STAN ELDRIDGE

HEATHER JARRELL ROE

MONICA ROSS WILLIAMS

JIMMIE WILSON, JR.

June 16, 2020

Revised June 15, 2020

Regular Meeting – 7:00 p.m.

**Ypsilanti Township Civic Center
7200 S. Huron River Drive
Ypsilanti, MI 48197**

DEPARTMENTAL REPORTS

**14-B District Court
Revenue Report For May 2020**

<i>General Account</i>	<i>Account No.</i>	<i>Amount</i>	<i>Subtotal/Total</i>
Due to Washtenaw County		\$ 2,927.00	
Subtotal Due to Washtenaw County	236-000-000-214.222		\$ 2,927.00

Due to State Treasurer			
Secretary of State	228.30	\$ 1,560.00	
Civil Filing Fee Fund	228.58	\$ 1,995.00	
State Court Fund	228.42	\$ 650.00	
Justice System Fund	228.59	\$ 7,572.00	
Civil Jury Demand Fee	228.57	+	
Drivers License Clearance Fees	228.57	\$ 1,560.00	
Crime Victims Rights Fund	228.37	\$ 1,872.00	
Expense State Police	228.47	\$ -	
Expense DNR	228.48		
Judgment Fee DNR	228.20		
Children's Trust Fund	228.38	\$ -	
E-File Fee	228.56	\$ 510.00	
Subtotal Due to State Treasurer	236-000-000-228.001		\$ 15,719.00
TOTAL DUE TO COUNTY AND STATE			\$ 18,646.00

Due to Ypsilanti Township			
Court Costs	602.136	\$ 24,244.36	
Civil Fees	603.126	\$ 2,735.00	
Probation Fees	604.000	\$ 6,180.00	
Ordinance Fees	605.001	\$ 16,107.00	
Bond Forfeitures	605.003		
Expense Write-off	957-000	\$ -	
Bank Charges	957-000	\$ (216.60)	
Subtotal Due to Township			\$ 49,049.76
TOTAL TO GENERAL ACCOUNT	236-000-000-004.136		\$ 67,695.76

<i>ESCROW ACCOUNT</i>	<i>Account No.</i>	<i>Amount</i>	<i>Subtotal/Total</i>
Court Ordered Escrow		\$ 2,155.00	
Bonds		\$ 250.00	
Restitution		\$ 3,063.91	
TOTAL TO ESCROW ACCOUNT	236-000-000-006.136		\$ 5,468.91

Total to General and Escrow Accounts		\$ 73,164.67
Total of Transmittal Report - Funds Collected	\$ 73,381.27	
Difference Due to and Collected - Should be Bank Charges		\$ (216.60)

14-B District Court

Monthly Disbursements

May 2020

Revenue received as a Fine for violation of a State Statute is disbursed to the Washtenaw County Treasurer, for library purposes.

Revenue received as a Fine for violation of a Township Ordinance and all Court Costs are disbursed to the Ypsilanti Township Treasurer. Local revenue also includes Probation oversight fees and Bond Forfeitures.

Revenue received as State Filing Fee, State Court Fund, Justice System Fund, Juror Compensation, Crime Victims Rights Fund and Dept. of Natural Resources Judgment Fee is forwarded to the State Treasurer.

Money received as Garnishment Proceeds, Criminal Bonds, Restitution, and Court Ordered Escrow are deposited in the Escrow Account of the Court.

All other revenues are transferred to the Ypsilanti Township Treasurer.

December 2019 Disbursements:

Washtenaw County:	\$ 2,927.00
State of Michigan:	\$ 15,719.00
Ypsilanti Township Treasurer:	\$49,049.76

TOTAL: \$ 67,695.76

YPSILANTI TOWNSHIP FIRE DEPARTMENT
MONTHLY REPORT

APRIL 2020

Fire Department staffing levels are as follows:

1 Fire Chief	3 Shift Captains	19 Fire Fighters
1 Fire Marshal	3 Shift Lieutenants	1 Clerk III / Staff Support

All fire department response personnel are licensed as Emergency Medical Technicians by the State of Michigan Public Health. During the month, the fire department responded to 289 requests for assistance. Of those requests, 123 were medical emergency service calls, with the remaining 166 incidents classified as non-medical and/or fire related.

Department activities for the month of April 2020:

- 1) The Public Education Department participated in the following events:

There was no Public Education due to the Covid-19 pandemic

- 2) Fire fighters received training in the following areas:

There was no Training Classes due to the Covid-19 pandemic

The Fire Marshal had these activities / events for the month of April 2020:

- 1) Plan Reviews: 3
- 2) Fire Investigations: 4
- 3) Zoom Meetings: 4
- 4) Covid 19 Supply pickups: 4

The Fire Chief attended these meetings / events for the month of April 2020:

- 1) Obtained Covid 19 supplies (4 times)
- 2) Received Accountability Tags for staff
- 3) Established Midwest Environment to sanitize all Fire Stations & Trucks biweekly
- 4) Renamed fleet
- 5) Established Covid 19 addressing in township
- 6) Received Thermal Imaging Camera & nozzles through AFG Grant
- 7) Township Covid 19 Leadership meeting
- 8) WAMAA Zoom meeting
- 9) Virtual Fire Chiefs meeting
- 10) 2 Washtenaw Emergency Operations Center Zoom meetings

There was 0 injuries and 0 deaths reported this month for civilians.

There was 0 injuries and 0 deaths reported this month for fire fighters.

This month the total fire loss, including vehicle fires, is estimated at ***\$115,900.00***. All occurred at the following locations:

DATE OF LOSS	ADDRESS	ESTIMATED LOSS
1) 04/01/2020	6024 Lake Drive	\$ 23,000.00 (building)
2) 04/04/2020	9249 Martz	\$ 0.00 (outside rubbish)
3) 04/04/2020	291 Stevens Dr #304	\$ 0.00 (cooking)
4) 04/05/2020	Brinker @ S. Huron	\$ 0.00 (grass)
5) 04/10/2020	1326 Holmes	\$ 70,000.00 (building)
6) 04/11/2020	5326 Ellis	\$ 0.00 (brush)
7) 04/12/2020	2189 Glory Lane	\$ 0.00 (cooking)
8) 04/21/2020	374 Bedford Dr	\$ 400.00 (cooking)
9) 04/28/2020	1320 Redleaf Lane	\$ 22,500.00 (building)

Respectfully submitted,

Rhonda Bates, Clerical Support Staff
Charter Township of Ypsilanti Fire Department

Attachment: Image Trend Incident Type Report (Summary): 04/01/2020 – 04/30/2020

Ypsilanti Township - Incident Type Report (Summary)
monthly

Basic Incident Type Code And Description (FD1.21)	Total Incidents	Total Incidents Percent of Incidents	Total Property Loss	Total Content Loss	Total Loss	Total Loss Percent of Total
Incident Type Category (FD1.21): 1 - Fire						
111 - Building fire	3	1.04%	90000.00	25500.00	115500.00	99.65%
113 - Cooking fire, confined to container	3	1.04%	0.00	400.00	400.00	0.35%
142 - Brush or brush-and-grass mixture fire	1	0.35%	0.00	0.00	0.00	0.00%
143 - Grass fire	1	0.35%				
151 - Outside rubbish, trash or waste fire	1	0.35%	0.00	0.00	0.00	0.00%
Total: 9		Total: 3.11%	Total: 90000.00	Total: 25900.00	Total: 115900.00	Total: 100.00%
Incident Type Category (FD1.21): 3 - Rescue & Emergency Medical Service Incident						
300 - Rescue, EMS incident, other	7	2.42%				
311 - Medical assist, assist EMS crew	29	10.03%				
320 - Emergency medical service, other	23	7.96%				
321 - EMS call, excluding vehicle accident with injury	42	14.53%				
322 - Motor vehicle accident with injuries	1	0.35%				
324 - Motor vehicle accident with no injuries.	6	2.08%				
381 - Rescue or EMS standby	15	5.19%				
Total: 123		Total: 42.56%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Incident Type Category (FD1.21): 4 - Hazardous Condition (No Fire)						
400 - Hazardous condition, other	1	0.35%				
412 - Gas leak (natural gas or LPG)	1	0.35%				
424 - Carbon monoxide incident	2	0.69%				
440 - Electrical wiring/equipment problem, other	5	1.73%				
444 - Power line down	1	0.35%				
445 - Arcing, shorted electrical equipment	1	0.35%				
Total: 11		Total: 3.81%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Incident Type Category (FD1.21): 5 - Service Call						
500 - Service call, other	1	0.35%				
511 - Lock-out	1	0.35%				
531 - Smoke or odor removal	3	1.04%				
550 - Public service assistance, other	1	0.35%				
552 - Police matter	1	0.35%				
553 - Public service	1	0.35%				
554 - Assist invalid	1	0.35%				
555 - Defective elevator, no occupants	1	0.35%				
561 - Unauthorized burning	10	3.46%				
571 - Cover assignment, standby, moveup	1	0.35%				
Total: 21		Total: 7.27%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Incident Type Category (FD1.21): 6 - Good Intent Call						
600 - Good intent call, other	1	0.35%				
611 - Dispatched and cancelled en route	98	33.91%				
622 - No incident found on arrival at dispatch address	2	0.69%				
650 - Steam, other gas mistaken for smoke, other	1	0.35%				
651 - Smoke scare, odor of smoke	2	0.69%				
652 - Steam, vapor, fog or dust thought to be smoke	1	0.35%				
Total: 105		Total: 36.33%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Incident Type Category (FD1.21): 7 - False Alarm & False Call						

Basic Incident Type Code And Description (FD1.21)	Total Incidents	Total Incidents Percent of Incidents	Total Property Loss	Total Content Loss	Total Loss	Total Loss Percent of Total
700 - False alarm or false call, other	6	2.08%				
713 - Telephone, malicious false alarm	1	0.35%				
733 - Smoke detector activation due to malfunction	2	0.69%				
735 - Alarm system sounded due to malfunction	1	0.35%				
736 - CO detector activation due to malfunction	1	0.35%				
740 - Unintentional transmission of alarm, other	1	0.35%				
744 - Detector activation, no fire - unintentional	1	0.35%				
745 - Alarm system activation, no fire - unintentional	2	0.69%				
746 - Carbon monoxide detector activation, no CO	3	1.04%				
Total: 18		Total: 6.23%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Incident Type Category (FD1.21): 9 - Special Incident Type						
900 - Special type of incident, other	1	0.35%				
911 - Citizen complaint	1	0.35%				
Total: 2		Total: 0.69%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Total: 289		Total: 100.00%	Total: 90000.00	Total: 25900.00	Total: 115900.00	Total: 100.00%

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Charter Township of Ypsilanti
Hydro Station

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 544.3690
Fax: (734) 544.3626

www.ytown.org

Date: June 8, 2020
To: Clerk's Office
CC: Brenda Stumbo, Supervisor
From: Michael Saranen, Operation Manager

Subject: Departmental Report (activities in May 2020)

Activities:

Ford Lake Dam

General Operation Summary:

The Hydro Station continues to operate safely and continues to get routine safety inspections and preventive maintenance. Covid-19 has not impacted operations. Operators had 7 after hour call-ins for the month.

Average precipitation for the month of May is around 3.62", this year it was about 3.86".

Production for the month above average.

Regulatory:

For 2020-

- update DSSMP
- DSSMR, **Filed Complete**
- Owners Dam Safety Program Review – **Complete**
- EAP Reprint
- EAP annual update and test-
- EAP Training- TBD
- Part 12 Inspection- **Scheduling**
- WQ Report – **Equipment deployed**
- Nuisance Plant Plan Report –
- Wildlife Plan Report –
- Historical Activity Report –
- Gate Certification –
- Security Review –
- FERC Security Inspection- Scheduling
- FERC Annual Safety inspection -
- Annual DEQ Lake Operation Monitoring Report- **Review at State**
- 5 year shoreline survey and report
- 5 year Owners Dam Safety Program Audit- Planning

Projects:

Transformer Maintenance- Replace the low voltage insulators and clean the oil. Scheduled for March. This is now complete, the bushing hotspot has been corrected. Oil analysis will continue on a regular schedule. No changes.

PLC Replacement- Replace the 1980's obsolete PLC controller. The new PLC will be able to be expanded and has modern security features. This project was approved in April, installation schedule is in development.

Operation Summary

2020	June	YTD	5 Year Ave.
Precipitation total (inches) ¹	3.86 ¹	15.21	40.0 ²
Days Online	31.0	149.5	356.3
Generation MWH (estimated)	1,319.771	6,598.523	10,096.6
Generation MWH lost (estimated)*	0	396.945	549.4

After Hour Call In

Water levels	6	36	38
Mechanical/Electrical		2	3
Other	1	2	2
Totals	7	40	43

Recent History	2015	2016	2017	2018	2019
Precipitation total (inches) ²	34.9	36.5	40.8	42.2	45.4
Days Online	345	359.5	362.0	364.2	350.6
Generation MWH (estimated)	7,723.0	8,803.4	10,744.9	10,635.0	12,576.7
Generation MWH lost (estimated)*	419.1	229.8	269.6	552.9	1,005.8

After Hour Call In

Water levels	32	31	26	30	69
Mechanical/Electrical	1	4	5	3	4
Other	1	2	3	0	2
Totals	34	37	34	33	75

¹Preliminary totals from NOAA for Detroit

²Total from NOAA at U of M Ann Arbor

*losses related to scheduled & unscheduled maintenance and water quality discharges.

Gate Spilling Summary:

Releasing water from the sluice gates is primary to maintain lake level when flow exceeds the powerhouse. At certain times, we can use the gates to help keep the lake mixing to maintain oxygen levels (effectiveness depends on a number of factors) at the bottom of the lake.

The water quality monitoring begins on June 1st and will end on September 30th; operators monitor the water quality conditions and take readings as outline in the WQ Plan. The hydro discharges from the bottom gates to maintain run of river and/or help with water quality in Ford Lake. The Federal License requires we pass water with a minimum of 5mg/l of dissolved oxygen all the time. Therefore, spilling from the bottom gates in the summer for improving the lake is not always possible.

Sluice Gate Usage Summary:

Current Year 2020	Current Year Days Spilled	Current Year Lost KWh*	Current Year Lost \$*	Prior Yr. Lost \$*
January	28.8	0	0	0
February	13.3	0	0	0
March	24.6	0	0	0
April	13.9	0	0	0
May	16.7	0	0	0
June				823
July				9,653
August				0
September				0
October				0
November				0
December				0
Totals	97.3	0	\$ 0	\$ 10,476

*estimated losses from diverting water away from generators for the **purpose improving WQ**.

Sargent Charles Dam

This dam continues to get routine safety inspections and appropriate maintenance.



Charter Township of Ypsilanti

7200 S. HURON RIVER DRIVE • YPSILANTI, MI 48197

SUPERVISOR BRENDA STUMBO • CLERK KAREN LOVEJOY ROE • TREASURER LARRY DOE
TRUSTEES: STAN ELDRIDGE • HEATHER JARRELL ROE • MONICA ROSS WILLIAMS •
JIMMIE WILSON, JR.

THIS MEETING WILL BE CONDUCTED ELECTRONICALLY. PLEASE USE THE INSTRUCTIONS BELOW OR VISIT YTOWN.ORG

REGULAR MEETING AGENDA

TUESDAY, JUNE 16, 2020

7:00 P.M.

Revised 6-15-2020

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE AND INVOCATION
3. PUBLIC COMMENTS
4. CONSENT AGENDA
 - A. MINUTES OF THE MAY 19, 2020 REGULAR MEETING
 - B. STATEMENTS AND CHECKS
 1. STATEMENTS AND CHECKS FOR JUNE 2, 2020 IN THE AMOUNT OF \$1,444,469.69
 2. STATEMENTS AND CHECKS FOR JUNE 16, 2020 IN THE AMOUNT OF \$879,790.19
 3. CHOICE HEALTHCARE DEDUCTIBLE ACH EFT FOR MAY 2020 IN THE AMOUNT OF \$34,435.55
 4. CHOICE HEALTHCARE ADMIN FEE FOR MAY 2020 IN THE AMOUNT OF \$1,183.50
 - C. MAY 2020 TREASURER'S REPORT
5. ATTORNEY REPORT
 - A. GENERAL LEGAL UPDATE

OLD BUSINESS

1. REQUEST TO APPROVE ENGINEERING STANDARDS AND DESIGN SPECIFICATIONS ADOPTED AND USED JOINTLY BY YPSILANTI TOWNSHIP AND YPSILANTI COMMUNITY UTILITY AUTHORITY
(TABLED AT THE MAY 19, 2020 REGULAR MEETING)
2. REQUEST TO APPROVE THE MINUTES OF THE MAY 5, 2020 REGULAR MEETING
(TABLED AT THE MAY 19, 2020 REGULAR MEETING)
3. 2ND READING OF RESOLUTION 2020-10, PROPOSED ORDINANCE 2020-490, AN ORDINANCE PROHIBITING RECREATIONAL MARIJUANA BUSINESSES WITHIN YPSILANTI TOWNSHIP AS PROVIDED BY THE RECREATIONAL MARIJUANA BALLOT INITIATIVE 1 OF 2018
(1ST READING HELD AT THE MAY 19, 2020 REGULAR MEETING)

NEW BUSINESS

1. REQUEST TO APPROVE A VARIANCE TO THE PRIVATE ROAD ORDINANCE, SECTION 47-29, PRIVATE ROAD DESIGN STANDARDS, SUB-SECTION (L) FOR 6575 MUNGER RD PARCEL #K-11-30-300-022, 6501 MUNGER RD PARCEL K-11-30-300-011 AND 5285 MERRITT RD. PARCEL K-11-30-300-033
2. REQUEST TO APPROVE A VARIANCE TO THE PRIVATE RD. ORDINANCE, SECTION 47-28.1, PRIVATE DRIVEWAY DESIGN STANDARDS, SUB-SECTION (A), FOR 5287 MERRITT RD. PARCEL K-11-30-300-032 AND 5285 MERRITT RD. PARCEL K-11-30-300-033
3. REQUEST TO APPROVE AGREEMENT WITH CONDITIONS ATTACHED TO PRIVATE ROAD AND DRIVEWAY VARIANCE APPROVAL BETWEEN YPSILANTI TOWNSHIP AND JOHN SAUTER AND JEFF AND KIMBERLY BULLOCK
4. 1st READING OF RESOLUTION 2020-13, PROPOSED ORDINANCE 2020-491, AMENDING THE CHARTER TOWNSHIP OF YPSILANTI'S CODE OF ORDINANCES TO CLARIFY THE PROCEDURE FOR THE ESTABLISHMENT OF "HOUSES OF WORSHIP" IN CONFORMITY WITH THE REQUIREMENTS OF THE RELIGIOUS LAND USE AND INSTITUTIONALIZED PERSONS ACT
5. REQUEST AUTHORIZATION TO DEVELOP AN YPSILANTI TOWNSHIP EQUITY COMMITTEE FOR THE PURPOSE OF DEVELOPING STRATEGIES TO CHANGE THE CULTURE OF TOWNSHIP GOVERNMENT TO ELEVATE THE QUALITY OF LIFE OF WOMEN, VETERANS AND PEOPLE OF COLOR IN OUR COMMUNITY AND TO AUTHORIZE THE HUMAN RESOURCES DEPARTMENT TO SEEK A SPECIALIST IN OUR AREA TO ASSIST IN FACILITATING THE NEEDS OF THE EQUITY COMMITTEE
6. REQUEST AUTHORIZATION FOR THE TOWNSHIP BOARD TO REQUEST THE PLANNING COMMISSION TO ACT ON THE MOTION APPROVING RESOLUTION 2017-05, ORDINANCE 2017-473 TO REVISIT THE BACKYARD CHICKEN ORDINANCE LANGUAGE
7. RESOLUTION 2020-15, RESOLUTION FOR GRANT APPLICATION WITH THE U.S. ECONOMIC DEVELOPMENT ADMINISTRATION (EDA) PUBLIC WORKS AND ECONOMIC ADJUSTMENT ASSISTANCE PROGRAM
8. REQUEST TO WAIVE THE FINANCIAL POLICY AND APPROVE THE PURCHASE OF BS&A ONLINE SERVICES FOR THE BS&A BUILDING SOFTWARE FROM SINGLE SOURCE PROVIDER BS&A IN THE AMOUNT OF \$12,650.00 BUDGETED IN LINE ITEM #249-249-000-801-000 AND TO AMEND THE BUILDING DEPARTMENT FEE SCHEDULE TO ADD \$2.00 TECHNOLOGY FEE TO BE APPLIED TO ONLINE APPLICATION SUBMITTALS FOR COST RECOVERY
9. REQUEST TO APPROVE 2020 L-4029
10. BUDGET AMENDMENT #7

AUTHORIZATIONS AND BIDS

1. REQUEST TO ACCEPT THE PROPOSAL AND DESIGNATE TRENDSET AS THE TOWNSHIP'S PREFERRED NETWORK CABLE INSTALLER AND TO AUTHORIZE FORGOING THE BID REQUIREMENTS FOR NETWORK CABLING JOBS UNDER \$7,500.00

OTHER BUSINESS

BOARD MEMBER UPDATES

Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
STAN ELDRIDGE
HEATHER JARRELL ROE
MONICA ROSS WILLIAMS
JIMMIE WILSON, JR.



Charter Township of Ypsilanti

Clerk's Office

7200 S. Huron River
Drive
Ypsilanti, MI 48197
Phone: (734) 484-4700
Fax: (734) 484-5156

**Charter Township of Ypsilanti
Public Meeting Notice
Board of Trustees Regular Meeting
June 16, 2020 7:00pm**

PLEASE TAKE NOTICE that the Charter Township of Ypsilanti Board of Trustees will hold a Regular Meeting scheduled for **June 16, 2020 at 7:00pm**. This meeting will be conducted virtually (online and/or by phone), due to health concerns surrounding Coronavirus/COVID-19 under the Governor of Michigan's Executive Orders 2020-75 and 2020-70.

Public comment will be handled by the "Raise Hand" method as instructed below within Participant Controls.

To comply with the Americans with Disabilities Act (ADA), Any citizen requesting accommodation to attend this meeting, and/or to obtain this notice in alternate formats, please contact Clerk's Office at 734-484-4700, at least two business days prior to the meeting.

Meeting Information:

Hi there,

You are invited to a Zoom webinar.

When: Jun 16, 2020 07:00 PM Eastern Time (US and Canada)

Topic: Township Board of Trustees Regular Meeting June 16, 2020

Please click the link below to join the webinar:

<https://ytown.zoom.us/j/97590655212>

Or iPhone one-tap :

US: +13017158592,,97590655212# or +13126266799,,97590655212#

Or Telephone:

Dial(for higher quality, dial a number based on your current location):

US: +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099 or +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833

Webinar ID: 975 9065 5212

International numbers available: <https://ytown.zoom.us/u/aojwEeUHD>

Zoom Instructions for Participants

To join the conference by phone:

1. On your phone, dial the teleconferencing number provided above.
2. Enter the Meeting ID number (also provided above) when prompted using your touch- tone (DTMF) keypad.

Before a videoconference:

1. You will need a computer, tablet, or smartphone with speaker or headphones. You will have the opportunity to check your audio immediately upon joining a meeting.
2. Details, phone numbers, and links to videoconference or conference call is provided below. The details include a link to “Join via computer” as well as phone numbers for a conference call option. It will also include the 9-digit Meeting ID.

To join the videoconference:

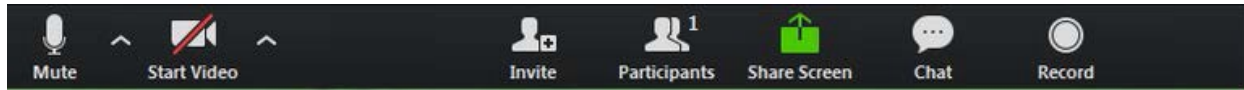
1. At the start time of your meeting, enter the link to join via computer. You may be instructed to download the Zoom application.
2. You have an opportunity to test your audio at this point by clicking on “Test Computer Audio.” Once you are satisfied that your audio works, click on “Join audio by computer.”

You may also join a meeting without the link by going to join.zoom.us on any browser and entering the Meeting ID provided.

If you are having trouble hearing the meeting, you can join via telephone while remaining on the video conference:

1. On your phone, dial the teleconferencing number.
2. Enter the Meeting ID number (also provided above) when prompted using your touch- tone (DTMF) keypad.
3. If you have already joined the meeting via computer, you will have the option to enter your 2- digit participant ID to be associated with your computer.

Participant controls in the lower left corner of the Zoom screen:



Using the icons in the lower left corner of the Zoom screen, you can:

- Mute/Unmute your microphone (far left)
- Turn on/off camera (“Start/Stop Video”)
- Invite other participants
- View Participant list – opens a pop-out screen that includes a “Raise Hand” icon that you may use to raise a virtual hand during Call to the Public
- Change your screen name that is seen in the participant list and video window
- Share your screen

Somewhere (usually upper right corner on your computer screen) on your Zoom screen you will also see a choice to toggle between “speaker” and “gallery” view. “Speaker view” shows the active speaker. “Gallery view” tiles all of the meeting participants.

If you have any further questions or concerns, please call 734-484-4700 or email Clerk Karen Lovejoy Roe at klovejoyroe@ytown.org or Deputy Clerk Lisa Stanfield at lstanfield@ytown.org.

PUBLIC COMMENTS

CONSENT AGENDA

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MAY 19, 2020 REGULAR BOARD MEETING**

Supervisor Stumbo called the meeting to order at approximately 7:00 p.m. on a Zoom Virtual Board meeting. Supervisor Stumbo stated because this meeting is on Zoom we would not be able to do The Pledge of Allegiance or a moment of silent prayer. Supervisor Stumbo asked to pray for those who have been affected by the virus and those who we have lost and have not been able to grieve properly

Members Present: Supervisor Stumbo, Clerk Lovejoy Roe, Treasurer Doe
Trustees: Stan Eldridge, Heather Jarrell Roe
Monica Ross-Williams, and Jimmie Wilson

Members Absent: none

Legal Counsel: Wm. Douglas Winters

PUBLIC HEARING

**A. 7:00PM – RESOLUTION 2020-11, CREATION OF NEIGHBORHOOD
STREETLIGHT SPECIAL ASSESSMENT DISTRICT #219 CRYSTAL POND
(PUBLIC HEARING SET AT THE APRIL 21, 2020 REGULAR MEETING)**

Supervisor Stumbo declared the Public Hearing Opened at 7:01pm

Charles Rutkowski, Township Resident, stated he was a resident of Crystal Ponds and he was for it but talking with some of his neighbors they didn't quite understand what this was for. He asked if people could look at the tapes from the cameras.

Supervisor Stumbo stated historically it has been for law enforcement only.

Clerk Lovejoy Roe said she received a late email from Ms. Errington stated she was opposed because she said she didn't want to pay for Lombardo security and during this time of loss of income she didn't think people could afford it. Clerk Lovejoy Roe said she thought there was a miscommunication because the SAD isn't for Lombardo security.

Supervisor Stumbo declared the Public Hearing Closed at 7:06pm.

A motion was made by Clerk Lovejoy Roe, supported by Trustee Eldridge to Approve Resolution 2020-11, Creation of Neighborhood Streetlight Special Assessment District #219 Crystal Pond (Public hearing set at the April 21, 2020 Regular Meeting).

Supervisor Stumbo stated she was a little concerned that the residents did not understand this Resolution and that more residents would have

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MAY 19, 2020 REGULAR BOARD MEETING
PAGE 2**

come to the Board meeting if it was not a zoom meeting. She said the streetlights have to be created within the district.

Treasurer Doe stated that he would like the twenty residents to be able to voice their opinion. He said with this virus he wondered if everyone is getting the information. He said if it was not deemed to be done in the next 30 days he said he would like to wait until we were back to a regular public board meeting.

Clerk Lovejoy stated that most of the meetings that we have when we do streetlight special assessments are sparsely attended. She said we usually get more emails and phone calls. She said with only 20 parcels in Crystal Pond there are few residents. Clerk Lovejoy Roe stated there were two letters sent out, one for the cameras and one for the special assessment streetlights and both of the letters stated residents could email, call, or attend the zoom meeting. She said this is moving forward now because it is part of the plan development agreement. She said usually they require streetlight in new development. She asked Mr. Rutkowski if there were any streetlights there now.

Mr. Rutkowski stated there were not streetlights and most residents do not have computers.

B. 7:00PM-RESOLUTION 2020-12, CREATION OF NEIGHBORHOOD CAMERA SPECIAL ASSESSMENT DISTRICT #075 CRYSTAL POND (PUBLIC HEARING SET AT THE APRIL 21, 2020 REGULAR MEETING).

A motion was made by Clerk Lovejoy Roe, supported by Trustee Wilson to table Resolutions 2020-11 and 2020-12.

The motion carried unanimously.

PUBLIC COMMENTS

JoAnn McCollum, Township Resident thanked the board members who voted in favor of the no confidence for Karen Lovejoy Roe. She also thanked Brenda Stumbo and Larry Doe for filing a civil suit against Karen Lovejoy Roe. She thanked Monica Ross Williams for trying to make things right and for taking this process serious. She thanked Trustee Stan Eldridge and Trustee Jimmie Wilson for wanting to make things right.

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Paul Schultz stated he's an Attorney for John Sauter and wanted to see how the zoom system worked in case he wanted to prepare for a meeting in the future.

Clerk Lovejoy Roe stated Mrs. Arloa Kaiser called today and wanted to let us know she would not be able to attend the virtual board meeting. Clerk Lovejoy Roe said Mrs. Kaiser wanted to respond to the marijuana ordinance and would like the board to extend the opted out position so there would be more time to do research on the subject.

CONSENT AGENDA

A. MINUTES OF THE MAY 5, 2020 REGULAR MEETING

A motion was made by Clerk Lovejoy Roe, supported by Trustee Jarrell Roe to Approve the Minutes of the May 5, 2020 Regular Meeting.

Trustee Ross-Williams stated she had asked for her seven page motion to be included and it is not there. She said it is long paragraphs, not even a paragraph, it's just a run on sentence. She said there were inaccuracy in some items that was written including a statement that was attributed to Myla Harris about JoAnn McCollum and JoAnn McCollum did not make that statement. She said also it is missing the link to the actual discussion and she said she didn't know why that couldn't be included. She said it is missing some derogatory statements that were made about her.

Trustee Eldridge stated he thought he heard during the meeting someone ask that the board meetings be recorded verbatim. He said as he read through them and he shared with others he didn't see that. He said if they were requested to be verbatim he would want them to and if they were not he said to leave them alone.

Trustee Ross-Williams said she asked for the minutes to be verbatim.

Myla Harris, Vice President of AFSCME Local 3451, Chief Steward of AFSCME local 3451 Ypsilanti Township Chapter, and a 27 year Ypsilanti Township employee. She said after listening to the audio of the May 5, 2020 under the vote of no confidence against Clerk Lovejoy Roe, Clerk Roe denied that the grievance filed by until filed on October 25, 2018 did not include nepotism so in order to not show her true colors of collusion she said Clerk Lovejoy Roe stated the grievance was because of JoAnn McCollum, Angela Rodgers, and Nancy Hare-Dickerson were helping to set up the elections. She said Clerk Lovejoy Roe should tell the truth, since you cannot be honest to the residents of Ypsilanti Township she said she would. Ms. Harris read the grievance for a step three stating Township Clerk Karen Lovejoy Roe had a violation of article 35 temporary employees and work rule nepotism, personal relationship in the work place and to be resolved as follows: Township recognizes

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action taken by Clerk Lovejoy Roe on October 2, 2018 bringing Sarah Roe into the Clerks' Office at approximately 7:30am to assist with ballot preparation was a violation of Article 35 temporary employees. She said AFSCME employees should be offered overtime. She said township management reviewed with Clerk Lovejoy Roe the proper protocol when hiring temporary employees including the proper use of poll workers vs temporary workers as well as reviewed the townships' nepotism, personal relationship in the workplace policy. Ms. Harris stated this was signed by our Human Resources, former Chief Steward, and the Clerk Steward.

Supervisor Stumbo stated she would like item #5 of the meeting to be verbatim.

Trustee Wilson stated he would like agenda item #5 to be verbatim.

Supervisor Stumbo said we can table the minutes and ask for them to be verbatim.

Trustee Ross-Williams stated she would like her entire memo on that issue to be verbatim included, the 7 pages of that motion she thinks is critical and a link to the line item to access the board meeting tape so people could listen.

A motion was made by Trustee Ross-Williams, supported by Trustee Wilson to Table the meeting minutes with the following items asked to be included, the entire 7 page memo she wrote for the motion, the public comments which was said for that motion, the minutes to be verbatim entirely and also link line item #5 inside of the minutes that discussed the item of the no confidence vote.

Clerk Lovejoy Roe stated minutes are a very legal document, they are actually exactly what happened at the meeting. She said the verbatim request she understands, but the hand out request was not what was read in the meeting and it was not submitted before the meeting to be put in the packet. She said her understanding was the request was for the statement by Ross-Williams to be verbatim which is included in the minutes as it was read. She said the verbatim minutes was exactly what was read they are word for word what was read. She said if someone wants to go through them and they find out there was a mistake we would be glad to change it. Clerk Lovejoy Roe said that if you wanted a piece of information included you need to request it to be in the packet. She said you can not add things to the meeting minutes that were not a part of the meeting.

Clerk Lovejoy Roe stated that the section she was asked to do verbatim were done. She said you can go back and listen again but it was not requested in the meeting She said she did them verbatim for the #5 section of Ross-Williams because she was specifically asked to do that section verbatim not at the meeting but via email a few days before the packet was prepared.

Supervisor Stumbo said to Trustee Ross-Williams that she would have to concur with Clerk Lovejoy Roe that you cannot include a statement to be included in the minutes, not after the meeting.

Trustee Ross-Williams said she asked for it to be verbatim in the board meeting.

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Supervisor Stumbo stated the motion will be to table the minutes and asked for them to be verbatim including the public comments.

A motion was made by Trustee Ross-Williams, supported by Trustee Wilson to table the May 5, 2020 and ask for Agenda Item #5 and the Public Comments to be transcribed verbatim.

Lovejoy Roe.....No	Doe.....Yes	Wilson.....Yes
Eldridge.....Yes	Jarrell Roe.....Yes	Ross-Williams.....Yes
Stumbo.....Yes		

The motion carried.

B. STATEMENTS AND CHECKS

- 1. STATEMENTS AND CHECKS FOR MAY 19, 2020 IN THE AMOUNT OF \$312,607.34**
- 2. CHOICE HEALTHCARE DEDUCTIBLE ACH EFT FOR APRIL IN THE AMOUNT OF \$48,533.86**
- 3. CHOICE HEALTHCARE ADMIN FEE FOR APRIL IN THE AMOUNT OF \$1,183.50**

C. APRIL 2020 TREASURER'S REPORT

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to Approve the Statements and Checks, and the Treasurer's Report.

The motion carried unanimously.

ATTORNEY REPORT

1. GENERAL LEGAL UPDATE

Attorney Winters stated that as a point of clarification, in 2000 the original development agreement for Crystal Ponds did contain a very specific requirement for streetlights. He said the current development agreement attaches the original development agreement requiring the streetlights to be installed in a phase by phase basis.

Attorney Winters stated several years ago the board weighed in on a major land use and it was whether or not the Township Michigan Zoning Enabling Act was preempted by the Medical Marijuana Act. He said in 2016 the Township initiated a case against a property owner who was licensed as a care giver and was growing 72 plants of marijuana in a residential district. He said at that time our zoning ordinance did not allow it and still does not allow it today. He said the resident could have done what she was doing in an I-1 zoning district. He said we had a hearing with Judge Kuhnke and she ruled in favor of the property owner saying the

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Township could not enforce its' Zoning Enabling Act in determining the location as to where this activity could occur. Attorney Winters said we appealed to the Michigan Court of Appeals at the same time other townships also appealed this same issue. He said from this it was determined that the township does have a right to determine the location. He said the outcome was that the Michigan Marijuana Act does not nullify municipalities that have authority to regulate land use under the Michigan Zoning Enabling Act. He said the township does not prohibit or penalize the cultivation of medical marijuana and they do not impose regulations that are unreasonable and inconsistent. He said residents do have the right with a medical marijuana license to grow 12 plants for their own use. He said because of the outcome that has taken 4 years we were not in a position to stop the growing of more than 12 plants in a residential area but we are now because of a Supreme Court decision. He said OCS Director Michael Radzik continues to have these issues going on in the township but now he has direction from the Supreme Court on how to proceed.

Supervisor Stumbo asked if we would have to go back to Judge Kuhnke to get her to reverse her order. Attorney Winters stated that we were waiting for the court order. He said sometime they wait for the appeal period but he said we should get a directive soon.

Trustee Ross-Williams said she was glad that zoning was upheld by the court.

NEW BUSINESS

- 1. 1ST READING OF RESOLUTION 2020-10, PROPOSED ORDINANCE 2020-490, AN ORDINANCE PROHIBITING RECREATIONAL MARIJUANA BUSINESSES WITHIN YPSILANTI TOWNSHIP AS PROVIDED BY THE RECREATIONAL MARIJUANA BALLOT INITIATIVE 1 OF 2018**

Supervisor Stumbo stated we would proceed with discussion.

Attorney Angela King stated with the passage of the medical marijuana ballot initiative in 2018 the municipalities were required to decide on whether to opt out of the recreational marijuana businesses but not the personal recreational use aspect. She said it was not an option to opt out of the personal use. She said the business part was whether you wanted it within your community. Attorney King said the township board decided, initially to opt out to give the board more time to gather information regarding the issue of businesses. She said at that time there were no regulatory rules issued by the State of Michigan but now we have emergency rules that are in affect. She said with the emergency rules there are new definitions of the various types of businesses. Attorney King said the township has the right to decide whatever type of the marijuana business they wish to have in their community or none at all. She said if the township does want one or more of these types of businesses they have the right to zone where they should be located. She said if the township decides they want to have these business they can require them to be licensed through the township in addition to the state license.

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Supervisor Stumbo stated this is an extension to the sunset clause that we currently have in place.

Clerk Lovejoy Roe stated we still don't have enough information to make decisions regarding this issue. She said in the past we had thought about putting together a team to take a look and come up with a proposal about what we want to do. She said that all the board members should have the current issue of the MML magazine in their mailboxes. She said the current issue is dedicated to cities dealing with marijuana businesses. She said there are a lot of good articles in this magazine. Clerk Lovejoy Roe stated that if board members did not want to come in to get the magazine she will send it to them.

Richard Carlisle, Wortman Carlisle Associates, stated they have studied the issues around marijuana facilities. He said he wanted to assure the board that they have not been ignoring the issues and have been doing research not only for Ypsilanti Township but all the communities they represent. He said Ypsilanti Township has adopted a new master plan and the second step will be zoning. He said because we will be working on the zoning he felt it would be beneficially for the board to opt out until our new zoning plan is completed. He said a lot of the data regarding these businesses do not, at this time, have enough information to make a confident plan.

Trustee Wilson thanked Attorney King for her complete overview of the subject. He said he agrees, at this time we do need an extension, especially because of the pandemic but he is concerned by extending it another year. He said we have residents who are passionate about this subject and by pushing it out another year it might look like we are not taking it serious enough. Trustee Wilson suggested to shorten the extension to nine months.

Trustee Jarrell Roe thanked Attorney King for her input. She asked Mr. Carlisle for more specific examples he has learned from the research he has done over the past year.

Mr. Carlisle stated he was speaking about the characteristics of the types of facilities that are acceptable under the Michigan law. He said that means the environmental fiscal impact both good and bad. He said also it would be the community impact, those that affect neighboring land uses and those that affect services and utilities. He said that type of research has come from more professional literature and it's been somewhat sketchy. Mr. Carlisle stated that a lot of the information comes from the marijuana industry and he said you have to evaluate that carefully as to whether it is objective. He said some of the more objective information he has found has come from the American Institute of Architects. He said he has also met and spoke with other communities that have opted in to understand the strategies they have development and how it is working for them. He said the communities that have opted in have been very selective to what facilities they have allowed in.

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Trustee Jarrell Roe asked Mr. Carlisle if there was any information he could provide to the board tonight.

Mr. Carlisle said he started out trying to understand what the rules would permit and then he began to research from what a planner would look at with a zoning and land use standpoint. He said there are unique environmental, energy, and chemical hazardous uses because of processing issues. He said the body of knowledge is in its' infancy. He said most of what he could share with the board are not things he feels as confident as he would with things he has known for 40 years. He said he would like the board to make a decision based on the best information possible.

Trustee Jarrell Roe stated that a municipality could still put additional regulatory conditions on top of the states' conditions. She said the emergency rules do give favor to communities who have been inappropriately impacted by marijuana prohibition. She said the state also has ways to lift up communities who have been negatively impacted by the legalities of marijuana use. She said she appreciates what Mr. Carlisle has said but she thinks to hold this out for another year is not reasonable. She said she knows our residents have spoken very passionately on both sides of this issue. She said the only way she would feel comfortable about organizing a committee would be to allow residents to be a part of it and it would include a set time frame of when they would report their findings to the board. She said the ballot language might not have been crystal clear but residents overwhelming voted for it.

Supervisor Stumbo stated she was in agreement with Trustee Wilsons' time frame of nine months.

Trustee Ross-Williams stated she concurred with that and she said she appreciates Attorney King and Mr. Carlisle researching this issue. She said she would like to see research on the possible tax revenue based on equipment and inventory. She said regardless on which businesses we decide to bring into the township there will be increased services as a result. She said, as a Trustee, she would not want to pay more for marijuana businesses than we are getting back in revenue.

Clerk Lovejoy Roe stated the environmental impact from large warehouses. She said from what she has read that the higher paid jobs are in the large grow operations and they are very labor intensive and we could use more employment in our community. She said they also use a lot of water and she said she knows YCUA could use a company that uses their services. Clerk Lovejoy Roe said we have a lot of big warehouses that maybe could be rehabilitated to work for this industry. She would like to see research into whether the grow businesses would be appropriate in the industrial areas of the township. She said she thinks there is enough retail at least for the medical side. She said when she listens to the residents who are really opposed to marijuana its' usually in the retail area. She said she doesn't have a problem with the nine months but would like to have a prioritized schedule in the 2nd reading.

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Trustee Ross-Williams stated she cares about the jobs but would like to know the impact on our services. She said she wants to see from other communities the impact on how it relates to the six businesses. She said she thinks there is enough data from communities that have approved these businesses in their communities to get an opinion on whether we want them in Ypsilanti Township.

Trustee Jarrell Roe said she respects everyone's opinion but she disagrees with Clerk Lovejoy Roe on the retail aspect. She said in her travels she has seen if they are zoned correctly asking them to meet specific specifications you can design them to meet your standards. She said we are losing retail space in both the Ellsworth and Holmes Road areas. She said we do have space for things whether for a research business, or a retail store or manufacturing. She said recreational marijuana has been around since 2012 and she knows there has to be enough data for us to render an educated decision on its' impact. She said a suggestion for the motion, she appreciates Trustee Wilson lowering it to nine months she would like to see it more like six months. She said she would like consideration to have this issue as a standing agenda item on the work session until it is resolved.

Supervisor Stumbo stated that this is the first reading to extend the sunset clause and she said it sounds like it would be lowered to nine months.

A motion was made by Clerk Lovejoy, supported by Trustee Wilson to approve the 1st Reading of Resolution 2020-10, Proposed Ordinance 2020-490, an Ordinance Prohibiting Recreational Marijuana Businesses with Ypsilanti Township as Provided by the Recreational Marijuana Ballot Initiative 1 of 2018 with the changes at the second reading to make it a nine month extension of the opt out clause and with language that gives quarterly updates of information relative for these specific businesses for the Planning Commission and the Township Board (see attached).

Lovejoy Roe.....Yes	Doe.....Yes	Wilson.....Yes
Eldridge.....Yes	Jarrell Roe.....No	Ross-Williams....Yes
Stumbo.....Yes		

The motion carried.

2. REQUEST TO APPROVE REVISIONS TO THE ENGINEERING STANDARDS AND DESIGN SPECIFICATIONS ADOPTED AND USED JOINTLY BY YPSILANTI TOWNSHIP AND YPSILANTI COMMUNITY UTILITY AUTHORITY

A motion was made Clerk Lovejoy Roe, supported by Trustee Eldridge to Approve Revisions to the Engineering Standards and Design Specifications Adopted and used Jointly by Ypsilanti Township and Ypsilanti Community Utility Authority.

Supervisor Stumbo stated there has been a lot of discussion over this. She said this is a very big change and its' been in the process for over two years. She said this

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was an important agenda item and we want to discuss it but we may not take action on it tonight.

Michael Radzik, OCS Director thanked everyone for their attention and their effort in reading all of this. He said the Office of Community Standards and Ypsilanti Community Utility Authority adopt this joint set of standards that are used and it provides uniformed engineering standards for all the capital improvements and future development and re-development as it relates to design, materials, method, and construction.

Scott Westover, YCUA, stated changes they have made to the water and sanitary sewer sections include stronger language requiring looping all water mains whenever possible. He said they try and eliminate dead ends. He said they have significant changes in hydrant locations on new development and redevelopment and referring them to the fire department. He said there is a big change with water main installation requiring tracer wire which can send an electric signal to various points to help in locating the water main more accurately. Mr. Westover stated there were changes to the standard detail that accompany the technical written specifications.

Matt Parks, OHM, said that 2009 was the last time this was before the board. He said at that time very little was done with technical written specifications. He said we did this update because a lot of the time we were having to reference other agencies design specifications. He said Water Resources went through a significant change with their rules so we updated that in ours.

Elliott Smith, OHM, stated they updated the materials and methods as far as engineering details and the design language. He said they took a lot of the recommendations they have been given in the last ten years and made them written standards. Mr. Smith said they updated other standards such as MDOT to the 2012 standards. He said section two of the book was supplied by the Planning Ordinance.

Michael Radzik stated this manual that we provide to developers has nine difference sections. He said that sections 3 through 9 are all the technical aspects that you are being asked to approve. He said it is a lot to digest and understands that this should be tabled tonight and direct all your questions to the subject matter experts so they can be answered prior to the June meeting.

Supervisor Stumbo stated she had asked for a red line version to make it easier to know what was changed. She said she liked having the extra time to ask questions.

Trustee Ross-Williams stated she had questions regarding what happened in Flint as it relates to the sewer pipes. She asked if there was something in the standards to lessen the impact of corrosion getting into the sewer pipes in Ypsilanti Township.

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Scott Westover stated that the corrosion that Trustee Ross-Williams was asking about would be corrosion inside the pipe. He said that primarily comes from lead pipe or lead fittings on extremely old pipe. He said those materials are not allowed in construction anymore in water pipes. Mr. Westover said that would not happen in new construction or redevelopment. He said YCUA purchases all water from the Great Lakes Water Authority it is already treated and we do not treat it with anything else. He said there was a new rule in 2018 that came from the State that we must remove all the lead that remains in our system. He said they are still in the process of identifying where that is. He said that will be completed in the next 10 to 15 years.

Trustee Jarrell Roe stated that she agreed with Supervisor Stumbo that it would be easier if there was a red line copy and wondered if they could provide one.

Michael Radzik stated that all questions that the board has regarding this should be directed to him and he will send it to the appropriate person.

A motion was made by Clerk Lovejoy Roe, supported by Trustee Ross-Williams to Table this until the next Board meeting.

The motion carried unanimously.

3. BUDGET AMENDMENT #6

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to Budget Amendment #5 with line item changes (see Attached).

The motion carried unanimously.

AUTHORIZATIONS AND BIDS

1. REQUEST TO SEEK SEALED BIDS FOR EMERGENCY REPAIR OF A STORM SEWER PIPE AT LOONFEATHER POINT PARK

A motion was made by Treasurer Doe, supported by Trustee Ross-Williams to Approve the Request to Seek Sealed Bids for Emergency Repair of a Storm Sewer Pipe at Loonfeather Point Park.

Michael Hoffmeister, Residential Services Director stated that on the SE corner of Loonfeather Park there is a caved in storm pipe causing a sink hole and he said he believed it will cause more erosion along Ford Lake so we want to get this repaired more swiftly.

The motion carried unanimously.

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BOARD MEMBER UPDATES

Clerk Lovejoy Roe stated that today it was announced the Secretary of State has sent out Absentee Ballot Applications to all voters in Michigan for both August and November that were not already on the absentee voter list. She said it was approximately 7.7 million voters. Clerk Lovejoy Roe stated the Ypsilanti Marriott has agreed at a very reasonable rate to allow us to use their ballroom for our AV Count Board in August. She said we already have 10,000 residents on the permanent absentee voter list and we expect that to double before we get to the August election. She said we hope that we will not have to have all 19 precincts open. Clerk Lovejoy Roe stated we still need more people to work the elections.

Trustee Ross-Williams stated that over the weekend on Sunday from 11-7 there was a covid-19 testing site at Missionary Baptist Church and one earlier in the week at Grace Fellowship on Harris Road. She said she wanted to thank Ricky Johnson and the Washtenaw County Health Department. She said this crisis is not over and these mobile testing sites need to continue.

Supervisor Stumbo stated they sent out a plan for US-12 and Wiard Road updates phase II. She said she and Treasurer Doe went over to meet with 2 members of the safety committee of West Willow. She said Robin Castle-Hine and Matt Parks have been trying to move the 8 million dollar grant project forward and thanked Ronnie Peterson for that. She said that it was on the news that one of our neighborhood Watch meetings on ZOOM had a horrible interruption and she said the Sheriffs' Department is investigating it. She said she has concerns about our board meetings on ZOOM but thanks to Deputy Clerk Lisa Stanfield and our Planning Director Jason Iacoangeli they put a lot of safe guards in to make sure that we are protected. She said on May 23, 2020 they will have a Covid-19 test site at the Civic Center. She said there have been three neighborhood watch meetings through ZOOM thanks to Robin Castle-Hine to engage with our residents.

A motion was made by Clerk Lovejoy Roe, supported by Trustee Wilson to Adjourn.

The meeting was adjourned at approximately 9:14PM.

Respectfully Submitted,

**Brenda L. Stumbo, Supervisor
Charter Township of Ypsilanti**

**Karen Lovejoy Roe, Clerk
Charter Township of Ypsilanti**

Zimbra**Istanfield@ytown.org**

For township public hearing on Tues., May 19. 2020

From : Shekinah Errington
<shekinah3@hotmail.com>

Tue, May 19, 2020 05:36 PM

Subject : For township public
hearing on Tues., May 19.
2020

To : kloveyjoyroe@ytown.org,
Istanfield@ytown.org

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I am submitting this letter to Karen Lovejoy Roe and Lisa Stanfield of Ypsilanti Township, in regards to the agenda item concerning the creation of a neighborhood camera at the entrances of Crystal Pond Condominiums.

This is my public comment.

Dear Board of Trustees:

I write my opinions here as a longtime co-owner and resident of Crystal Pond Condominiums. I am not currently on our CPCA Board.

My late husband & I were the first purchasers & occupants, under the original owner-developer company managed by Bob George.

We weathered George's bankruptcy & criminal hearing. When Sterling Bank initially assumed the subsequent management of CPCA, and hired MJC as contractor to complete more units here, we were pleased that the decision was made to retain our same security guard on the premises.

During each of these management periods, both sets of developers' materials & equipment were capably guarded from theft, and our private community was likewise benefited by having someone here who knew many of our surrounding neighbors-- as well as our residents & our concerns, and

could easily spot strangers, trespassers & trouble-makers. Likewise, our security guard worked well with local law enforcement.

Based on the open communications and positive sense of community cooperation that evolved from the presence of a caring, trained & personable security guard, my strong preference ongoing is to again hire a security guard (or a *friendly* security *service*). We proved that it is not necessary to have a gated community or gatehouse guard, just someone on the premises who was dedicated to watching & safeguarding us from serious violators.

Furthermore, i feel strongly, that as long as any owner-developer still owns unit-lots at CPCA, THEY should be the ones who hire & pay for the services-- or whatever means, including installation & maintenance of cameras requiring street-lights-- of safeguarding their materials & equipment in our midst. It should be an expected expense of their doing business-- to protect their supplies (which, btw, are acting as a magnet to increased unwanted traffic on our shared grounds, in addition to the anticipated influx of traffic due to interested buyers).

I do not feel it is fair or appropriate to divy this added expense OR the burden of increased watch & interventions onto the co-owner/residents ...UNTIL the developer's work is totally completed.

Upon the completion of our 88-90 units, yes, of course, it would then be our self-managed association's full responsibility to invest in ongoing security measures-- or not. As the township may be aware, we few residents have done reasonably well (during times without building on our premises) with our self-neighborhood watchings & reportings to law enforcement, as necessary. So, cameras may aid us then-- or possibly become an ongoing expense to our residents, with questionable payoff, especially if these technical devices prove to be prone to vandalism & repairs. Technology is not always the best security solution.

If Lombardo chooses not to hire a security guard, then I am not opposed to their shouldering the full cost of installation of security cameras at our entrance during Lombardo's tenure here.

I am opposed to levying the shared cost of these expenses on our co-owner/residents-- and especially at this difficult financial time, in the wake of corona virus lock-downs and lost income. Regardless of the method of levy (via taxes or association fees or levies) i feel this is very untimely and inappropriate to ask this now of our CPCA residents.

And if Lombardo were beginning a brand-new condo development without any residents, there would be no question-- they would be the sole payers of the necessary expenses and investments to protect their own properties & building progress.

Rest assured, "that said," that i personally am pleased that Lombardo has invested here at Crystal Pond, and am excited to see their progress and work they have already embarked upon. I believe all of us residents have welcomed them here, are grateful for the promise of a completed development finally, and we appreciate the professionalism & respect with which their team has interacted with our pre-existing residents. And we wish them great success in their endeavors here. I feel confident that they have made design & building decisions which will result in our new units being affordable & quickly sellable even in these unexpectedly uncertain times. And we residents want to work amicably with them, in support of their successfully achieving completion of their business & financial objectives on deadline.

I also look forward to welcoming our new co-owner neighbors-to-be. It has been "a long time coming," and i for one, am very grateful to Team Lombardo for all that they are doing to complete our Crystal Pond community.

Sincerely,
- Ms. Shekinah Errington

Ms. Shekinah Errington Ypsilanti, Michigan, USA

Zimbra**Istanfield@ytown.org**

Resident's comments for Board Meeting 5/19/2020

From : Corey Rippey
<crippey@ytown.org>

Tue, May 19, 2020 02:50 PM

Subject : Resident's comments for
Board Meeting 5/19/2020

To : Karen Lovejoy Roe
<klovejoyroe@ytown.org>,
Lisa Stanfield
<Istanfield@ytown.org>

Cc : Brenda Stumbo
<bstumbo@ytown.org>

Good Afternoon Karen and Lisa,

Arloa (sp??) Kaiser, resident, called to let us know that she would not be able to attend the Zoom meeting tonight, but wanted to put a response in for the Marijuana ordinance issue. Ms. Kaiser stated that she hopes that the township will extend the "opt out" position so that there is more time to do research on the subject. Her message was "She is for extending the opt out position because she would rather see what's going on instead of being stuck in the mud."

Thanks
Corey

Mrs. Corey Rippey
Floater II/Clerk III
Supervisor's Office
Charter Township of Ypsilanti
Office: 734-481-0617
Fax: 734-484-0002

Charter Township of Ypsilanti

**RESOLUTION 2020-10
(In Reference to Ordinance 2020 - 490)**

**Prohibition of Recreational
Marijuana Establishments**

Whereas, the Michigan Legislature adopted the **2018 Michigan Regulation and Taxation of Marijuana Act**; and

Whereas, the **2018 Michigan Regulation and Taxation of Marijuana Act** governs recreational marijuana; and

Whereas, prior to the approval of the **2018 Michigan Regulation and Taxation of Marijuana Act** Michigan voters and the Michigan legislature approved the **Michigan Medical Marijuana Act, Initiated Law 1 of 2008** legalizing medical marijuana and the **Michigan Medical Marijuana Facilities Licensing Act of 2016**; and

Whereas, proposed Township Ordinance 2020-490 entitled **Prohibition of Recreational Marijuana Establishments** applies to recreational marijuana businesses pursuant to the **2018 Michigan Regulation and Taxation of Marijuana Act**; and

Whereas, proposed Township Ordinance 2020-490 does not affect medical marijuana patients' rights or medical marijuana caregivers' rights under the **2008 Medical Marijuana Ballot Initiative**, to use and grow medical marijuana; and

Whereas, proposed Township Ordinance 2020-490 does not affect adult recreational marijuana users rights to consume, smoke or ingest marijuana; and

Whereas, municipalities have the right, under the **2018 Michigan Regulation and Taxation of Marijuana Act**, to decide whether recreational marijuana businesses are permitted within their communities and if they are permitted, the type or types of businesses so allowed, the zoning districts in which said businesses are permitted, as well as the adoption of other local regulations and requirements that are deemed to be in the best interests of the community; and

Whereas, the Ypsilanti Township Board of Trustees needs additional time to consider the important issues of whether commercial recreational marijuana businesses are in the best interests of the Township and, if so, the types of

businesses that may be suited to the Township based upon the zoning district(s) for such businesses and whether other local regulations and requirements should be adopted; and

Now Therefore,

Be it resolved, that Ordinance 2020-490 prohibiting recreational marijuana establishments (businesses) within Ypsilanti Township as set forth in the ***2018 Michigan Regulation and Taxation of Marijuana Act*** is hereby adopted by reference.

Charter Township of Ypsilanti

PROPOSED ORDINANCE NO. 2020-490

An Ordinance Prohibiting Recreational Marijuana Businesses within Ypsilanti Township as Provided by the Recreational Marijuana Ballot Initiative 1 of 2018

The Charter Township of Ypsilanti hereby ordains that pursuant to the authority granted to municipalities in the Recreational Marijuana Ballot Initiative 1 of 2018, otherwise known as the Michigan Regulation and Taxation of Marijuana Act (the Act), as amended, marijuana establishments as defined in the Act, are prohibited within the boundaries of Ypsilanti Township.

Penalty for Violations

Violation of this Ordinance constitutes a municipal civil infraction punishable by a \$500 fine. The violator shall be required to pay all direct and indirect expenses incurred by the Township in connection with the prosecution of the civil infraction. Each day during which a violation continues to exist shall be a separate offense.

The Township may seek injunctive relief against persons alleged to be in violation of this Ordinance and such other relief as may be provided by law.

Severability

Should any section, subdivision, sentence, clause or phrase of this Ordinance be declared by the Courts to be invalid, the same shall not affect the validity of the Ordinance as a whole or any part thereof other than the part as invalidated.

Publication

This Ordinance shall be published in a newspaper of general circulation as required by law.

Effective date

This Ordinance shall become effective upon publication in a newspaper of general circulation as required by law. This ordinance shall cease effect on June 30, 2021.

I, Karen Lovejoy Roe, Clerk of the Charter Township of Ypsilanti, County of Washtenaw, State of Michigan hereby certify approval of the first reading of Proposed Ordinance No. 2020-490 by the Charter Township of Ypsilanti Board of Trustees assembled at a regular meeting held on May 19, 2019. The second reading is scheduled to be heard on June 16, 2020.



Karen Lovejoy Roe, Clerk
Charter Township of Ypsilanti

**CHARTER TOWNSHIP OF YPSILANTI
2020 BUDGET AMENDMENT #6**

MAY 19, 2020

AMOUNTS ROUNDED UP TO THE NEAREST DOLLAR

101 - GENERAL OPERATIONS FUND

Total Increase \$16,923.00

This portion was not approved. It was taken off at the May 19, 2020 Board Meeting.

Request to increase the budget for two streetlight installations at Crystal Pond. This will be funded by developer Lombardo Homes.

Revenues:	Contribution - Streetlights & Cameras	101-000-000-675.002	\$1,932.00
		Net Revenues	<u>\$1,932.00</u>
Expenditures:	Streetlight Construction	101-956-000-926.050	\$1,932.00
		Net Expenditures	<u>\$1,932.00</u>

Request to increase the budget for two cameras and installation at Crystal Pond. This will be funded by the developer Lombardo Homes.

Revenues:	Contribution - Streetlights & Cameras	101-000-000-675.002	\$14,991.00
		Net Revenues	<u>\$14,991.00</u>
Expenditures:	Capital Outlay - Cameras	101-970-000-972.000	\$14,991.00
		Net Expenditures	<u>\$14,991.00</u>

893 - NUISANCE ABATEMENT FUND

\$20,000.00

Request to increase the budget for clean up and mowing of blighted properties. We have experienced above normal clean up costs in the area that may be attributed to the current pandemic. Property owners will be invoiced for the services performed. This will initially be funded by an Appropriation of Prior Year Fund Balance.

Revenues:	Prior Year Fund Balance	893-000-000-699.000	\$20,000.00
		Net Revenues	<u>\$20,000.00</u>
Expenditures:	Blight Enforcement Costs	893-893-000-806.001	\$20,000.00
		Net Expenditures	<u>\$20,000.00</u>

Motion to Amend the 2020 Budget (#6)

Move to increase the General Fund budget by \$16,923 to \$9,632,494 and approve the department line item changes as outlined. **Removed at May 19, 2020 Board Meeting**

Move to increase the Nuisance Abatement Fund budget by \$20,000 to \$95,743 and approve the department line item changes as outlined.

Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
STAN ELDRIDGE
HEATHER ROE
MONICA ROSS-WILLIAMS
JIMMIE WILSON



ACCOUNTING DEPT

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 484-3702
Fax: (734) 484-5154

Charter Township of Ypsilanti

STATEMENTS AND CHECKS

JUNE 2, 2020 BOARD MEETING

ACCOUNTS PAYABLE CHECKS -	\$	932,758.40
HAND CHECKS -	\$	511,711.29
CREDIT CARDS PURCHASES -	\$	0.00
GRAND TOTAL -	\$	1,444,469.69

Check Date	Check	Vendor Name	Amount
Bank AP AP			
05/13/2020	185290	COMCAST CABLE	40.09
05/13/2020	185291	DTE ENERGY**	69,078.59
05/13/2020	185292	GRANITE TELECOMMUNICATIONS	378.25
05/13/2020	185293	ORCHARD, HILTZ & MCCLIMENT INC	4,207.25
05/13/2020	185294	VERIZON WIRELESS	2,766.49
05/13/2020	185295	WASTE MANAGEMENT	48.35
05/13/2020	185296	WASTE MANAGEMENT	142.29
05/13/2020	185297	WASTE MANAGEMENT	4,095.57
05/13/2020	185298	WEX BANK	47.45
05/13/2020	185299	AHMAD SANDHU	14.00
05/13/2020	185300	RHETT REYES	702.00
05/13/2020	185301	RHETT REYES	693.00
05/19/2020	185302	COMCAST CABLE	244.85
05/19/2020	185303	COMCAST CABLE	246.26
05/19/2020	185304	COMCAST CABLE	108.35
05/19/2020	185305	COMCAST CABLE	143.87
05/19/2020	185306	DIANA STERNIAK	39.00
05/19/2020	185307	DTE ENERGY	327.88
05/19/2020	185308	GUARDIAN ALARM	500.46
05/19/2020	185309	LONG'S AUTOMOTIVE INC	829.06
05/19/2020	185310	VERIZON WIRELESS	839.48
05/19/2020	185311	WASTE MANAGEMENT	245.09
05/19/2020	185312	WASTE MANAGEMENT	714.75
05/19/2020	185313	WASTE MANAGEMENT	30,861.12
05/19/2020	185314	WASTE MANAGEMENT	745.23
05/19/2020	185315	WASTE MANAGEMENT	31,465.04
05/19/2020	185316	WASTE MANAGEMENT	105,410.68
05/19/2020	185317	YPSILANTI COMMUNITY	4,089.48
05/21/2020	185318	BLUE CROSS BLUE SHIELD OF MI	196,854.71
05/21/2020	185319	BLUE CROSS BLUE SHIELD OF MI	32,184.80
05/21/2020	185320	DEARBORN NATIONAL LIFE INSURANCE	5,046.52
05/21/2020	185321	DELTA DENTAL PLAN OF MICHIGAN	166.43
05/21/2020	185322	DTE ENERGY	3,236.75
05/21/2020	185323	VERIZON WIRELESS	2,134.48
05/21/2020	185324	VISION SERVICE PLAN	3,287.53
05/26/2020	185325	POSTMASTER	1,124.64
05/26/2020	185326	U.S. POSTAL SERVICE*	3,651.50
05/26/2020	185327	U.S. POSTAL SERVICE*	5,000.00

AP TOTALS:

Total of 38 Checks:	511,711.29
Less 0 Void Checks:	0.00
Total of 38 Disbursements:	511,711.29

Checks #185328 thru #185335

VOIDED...

Printing malfunction

Check Date	Check	Vendor Name	Amount
Bank AP AP			
06/02/2020	185336	AAATA	35.34
06/02/2020	185337	ABDEL NASSER EL-ASSADI	120.00
06/02/2020	185338	ACUSHNET COMPANY	110.00
06/02/2020	185339	AMAZON CAPITAL SERVICES	2,884.77
06/02/2020	185340	AMY RAVENGA	115.00
06/02/2020	185341	ANN ARBOR CLEANING SUPPLY	305.57
06/02/2020	185342	ANN ARBOR WELDING SUPPLY CO	270.90
06/02/2020	185343	ANTHONY ZIELINSKI	42.00
06/02/2020	185344	AUTO VALUE YPSILANTI	531.11
06/02/2020	185345	BANK SUPPLIES	33.45
06/02/2020	185346	BECKY SKIDMORE	80.00
06/02/2020	185347	BRIDGESTONE GOLF INC	42.48
06/02/2020	185348	CARLISLE/WORTMAN ASSOCIATES	4,120.00
06/02/2020	185349	CAROLYN CHRISTOPHER	33.00
06/02/2020	185350	CELIA TREML	160.00
06/02/2020	185351	CHELSEA TIDERINGTON	179.73
06/02/2020	185352	CHERYL WAGNER	65.00
06/02/2020	185353	COMERICA BANK	448.00
06/02/2020	185354	CORRINA ORLANDO	130.00
06/02/2020	185355	CRYSTAL FLASH, INC.	1,409.03
06/02/2020	185356	CYNTHIA SOLOMON	85.00
06/02/2020	185357	DANIELLE HARRISON	65.00
06/02/2020	185358	DAPHANE YOUNG	50.00
06/02/2020	185359	DEBORAH SCOTT	37.00
06/02/2020	185360	EMERGENCY MEDICAL PRODUCTS	125.00
06/02/2020	185361	EMERGENCY VEHICLE SERVICES	9,918.36
06/02/2020	185362	EMERGENT HEALTH PARTNERS	6,447.35
06/02/2020	185363	FAST SIGNS	900.00
06/02/2020	185364	FASTENAL	7.62
06/02/2020	185365	FIELDING FOWLER	115.00
06/02/2020	185366	GEI CONSULTANTS OF MICHIGAN P.C.	659.00
06/02/2020	185367	GOLF COURSE SUPERINTENDENTS	400.00
06/02/2020	185368	GOOSEWORKS, LLC	1,000.00
06/02/2020	185369	GRAINGER	1,331.66
06/02/2020	185370	GRIFFIN PEST SOLUTIONS	93.00
06/02/2020	185371	GYPSY SLAUGHTER	65.00
06/02/2020	185372	HEIDI MERCADO	110.00
06/02/2020	185373	HOME DEPOT	469.99
06/02/2020	185374	HWA ANALYTICS LLC	14,088.00
06/02/2020	185375	JAN SOCKNESS	110.00
06/02/2020	185376	JANICE FARDY	95.00
06/02/2020	185377	JOANNA BIELENIN	195.00
06/02/2020	185378	JOE ANN ALLEN	80.00
06/02/2020	185379	KATHRYN PELZ-DAVIS	80.00
06/02/2020	185380	KATY CZARNECKI	50.00
06/02/2020	185381	KIM KNAUP	130.00
06/02/2020	185382	KIMBERLY CARTER	65.00
06/02/2020	185383	KRISTA PROCTOR-WOON	180.00
06/02/2020	185384	LANSING SANITARY SUPPLY, INC	109.95
06/02/2020	185385	LOOKING GOOD LAWNS	36,869.00
06/02/2020	185386	LOWE'S	68.62
06/02/2020	185387	LUIZ GARCIA-GUZMAN	65.00
06/02/2020	185388	MADISON PERIORD	50.00
06/02/2020	185389	MARTIN TRAUSCH	80.00
06/02/2020	185390	MARTINA BRICIO	65.00
06/02/2020	185391	MARY ORR	80.00
06/02/2020	185392	MARY TYLER	80.00
06/02/2020	185393	MCLAIN AND WINTERS	127,965.35
06/02/2020	185394	MENARDS, INC.	140.90
06/02/2020	185395	MICHELLE SANFORD	130.00
06/02/2020	185396	MICHIGAN ASSOC. OF PLANNING	675.00
06/02/2020	185397	MICHIGAN LINEN SERVICE, INC.	1,312.96
06/02/2020	185398	MICHIGAN MUNICIPAL LEAGUE	106,595.00
06/02/2020	185399	MICHIGAN URGENT CARE ANN ARBOR	395.00
06/02/2020	185400	MIDWEST ENVIRO SOLUTIONS	10,833.00
06/02/2020	185401	MLIVE MEDIA GROUP	405.00
06/02/2020	185402	MUNICIPAL CODE CORPORATION	499.88
06/02/2020	185403	MYRIAM ESTEVEZ	189.00
06/02/2020	185404	NAPA AUTO PARTS*	184.94
06/02/2020	185405	OFFICE EXPRESS	216.02
06/02/2020	185406	ORCHARD, HILTZ & MCCLIMENT INC	15,289.75
06/02/2020	185407	PEPSI BEVERAGES COMPANY	311.54
06/02/2020	185408	PIONEER ATHLETICS	429.42
06/02/2020	185409	PLASTIGAGE CUSTOM FABRICATION	1,134.00
06/02/2020	185410	POP A LOCK ANN ARBOR	648.00
06/02/2020	185411	RHETT REYES	288.00
06/02/2020	185412	RICOH USA, INC.	1,419.04
06/02/2020	185413	RONNIE ROBERTS	105.00

A/P checks

05/27/2020 03:57 PM
User: mharris
DB: Ypsilanti-Twp

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI Page: 2/2
CHECK NUMBERS 185336 - 185450

Check Date	Check	Vendor Name	Amount
06/02/2020	185414	SAM'S CLUB DIRECT	632.92
06/02/2020	185415	SARAH BENNETT	95.00
06/02/2020	185416	SARAH SHELDON	235.00
06/02/2020	185417	SARAH SMITH	150.00
06/02/2020	185418	SARAH THOMAS	65.00
06/02/2020	185419	SHARON SUNADA	80.00
06/02/2020	185420	SHRADER TIRE & OIL	356.00
06/02/2020	185421	SPARTAN DISTRIBUTORS	6,297.45
06/02/2020	185422	STATE OF MICHIGAN	1,492.76
06/02/2020	185423	STEWART BEAL	135.00
06/02/2020	185424	SUPERIOR GROUNDCOVER	5,940.00
06/02/2020	185425	SUSAN GROAT	160.00
06/02/2020	185426	TERMINIX PROCESSING CENTER	60.00
06/02/2020	185427	THOMSON REUTERS - WEST PAYMENT CTR	4,173.00
06/02/2020	185428	TRACTOR SUPPLY COMPANY	159.96
06/02/2020	185429	TRAFFIC SAFTEY STORE	774.25
06/02/2020	185430	TRANSUNION RISK & ALTERNATIVE	123.20
06/02/2020	185431	U.S. POSTAL SERVICE*	240.00
06/02/2020	185432	UNIFIRST CORPORATION	154.38
06/02/2020	185433	UNITED SONZ BUSINESS SOLUTIONS	75.00
06/02/2020	185434	UTILITIES INSTRUMENTATION SERV	29,064.00
06/02/2020	185435	VERIZON CONNECT NWF, INC.	658.00
06/02/2020	185436	VICTORIA BYRNES	50.00
06/02/2020	185437	WASHTENAW COMMUNITY COLLEGE#	175.74
06/02/2020	185438	WASHTENAW COUNTY	2,750.00
06/02/2020	185439	WASHTENAW COUNTY LEGAL NEWS	55.00
06/02/2020	185440	WASHTENAW COUNTY TREASURER	6,932.50
06/02/2020	185441	WASHTENAW COUNTY TREASURER	3,464.42
06/02/2020	185442	WASHTENAW COUNTY TREASURER#	508,725.00
06/02/2020	185443	WASHTENAW INTERMEDIATE	277.46
06/02/2020	185444	WEINGARTZ	667.88
06/02/2020	185445	WOLFGANG SCHAUSS	65.00
06/02/2020	185446	WOLVERINE FREIGHTLINER	67.78
06/02/2020	185447	YPSILANTI COMMUNITY SCHOOLS - WR	427.91
06/02/2020	185448	YPSILANTI COMMUNITY SCHOOLS - YP	423.20
06/02/2020	185449	YPSILANTI DISTRICT LIBRARY	2,402.29
06/02/2020	185450	ZOLL MEDICAL CORPORATION	451.57

AP TOTALS:

Total of 115 Checks:	932,758.40
Less 0 Void Checks:	0.00
Total of 115 Disbursements:	932,758.40

Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
STAN ELDRIDGE
HEATHER ROE
MONICA ROSS-WILLIAMS
JIMMIE WILSON



ACCOUNTING DEPT

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 484-3702
Fax: (734) 484-5154

Charter Township of Ypsilanti

STATEMENTS AND CHECKS

JUNE 16, 2020 BOARD MEETING

ACCOUNTS PAYABLE CHECKS -	\$	869,413.38
HAND CHECKS -	\$	6,651.04
CREDIT CARD PURCHASES-	\$	<u>3,725.77</u>
GRAND TOTAL -	\$	879,790.19

Clarity Health Care Deductible –

ACH EFT -	\$34,435.55 (MAY)
ADMIN FEE -	\$1,183.50 (MAY)

Check Date	Check	Vendor Name	Amount
Bank AP AP			
06/02/2020	185451	AT & T	241.52
06/02/2020	185452	AT & T	38.77
06/02/2020	185453	CLEAR RATE COMMUNICATIONS, INC	845.68
06/02/2020	185454	COMCAST BUSINESS	3,484.31
06/02/2020	185455	COMCAST CABLE	125.65
06/02/2020	185456	COMCAST CABLE	214.90
06/02/2020	185457	COMCAST CABLE	55.23
06/02/2020	185458	SUPERIOR GROUNDCOVER	1,350.00
06/02/2020	185459	VERIZON WIRELESS	294.98

AP TOTALS:

Total of 9 Checks:	6,651.04
Less 0 Void Checks:	0.00
Total of 9 Disbursements:	6,651.04

A/P checks

Check Date	Check	Vendor Name	Amount
Bank AP AP			
06/16/2020	185460	AAA AUTO PARTS & SERVICE	775.99
06/16/2020	185461	ABEL THOMASON	210.00
06/16/2020	185462	ALLIED GUTTER COMPANY	825.00
06/16/2020	185463	AMAZON CAPITAL SERVICES	1,565.47
06/16/2020	185464	AMERICAN PLANNING ASSOCIATION	518.00
06/16/2020	185465	ANN ARBOR CLEANING SUPPLY	517.98
06/16/2020	185466	APPLIED IMAGING	1,764.95
06/16/2020	185467	AUTO VALUE YPSILANTI	472.41
06/16/2020	185468	BARR ENGINEERING COMPANY	1,696.00
06/16/2020	185469	BUDGET TOWING	125.00
06/16/2020	185470	CARLISLE/WORTMAN ASSOCIATES	3,395.00
06/16/2020	185471	CENTRON DATA SERVICES	4,054.00
06/16/2020	185472	CHARTER TOWNSHIP OF SUPERIOR	707.00
06/16/2020	185473	CHELSEA TIDERINGTON	110.60
06/16/2020	185474	CINCINNATI TIME SYSTEMS	310.65
06/16/2020	185475	CLI CONCRETE LEVELING INC.	1,802.00
06/16/2020	185476	COMERICA BANK	152.50
06/16/2020	185477	COURT INNOVATIONS INC	540.00
06/16/2020	185478	CRYSTAL FLASH, INC.	1,410.35
06/16/2020	185479	CUMMINS	23,465.75
06/16/2020	185480	DELUX RENTAL	60.25
06/16/2020	185481	DTE ENERGY COMPANY -	109,454.57
06/16/2020	185482	EMERGENCY VEHICLE SERVICES	10,178.06
06/16/2020	185483	EVELYN GOMEZ-MONTERROSO	380.00
06/16/2020	185484	FEDERAL EXPRESS CORPORATION	152.84
06/16/2020	185485	GENE BUTMAN FORD	506.59
06/16/2020	185486	GRAINGER	967.33
06/16/2020	185487	GREAT LAKES TREE SERVICE	495.00
06/16/2020	185488	HERITAGE-CRYSTAL CLEAN, LLC	153.40
06/16/2020	185489	HOME DEPOT	297.70
06/16/2020	185490	JASON PARSONS	150.00
06/16/2020	185491	JD ELECTRIC	900.00
06/16/2020	185492	JOSH MCCAMAN	115.00
06/16/2020	185493	JW2 FIRE CONSULTANTS	500.00
06/16/2020	185494	KAM 'RYN ALLEN	60.00
06/16/2020	185495	KELLY CORREA	75.00
06/16/2020	185496	KEVIN MCKEON	50.00
06/16/2020	185497	KLONE LAB, LLC NB LICENSEE	927.39
06/16/2020	185498	KRISTEN MCCURRY	125.00
06/16/2020	185499	LAZARUS OKAMMOR	130.00
06/16/2020	185500	LOOKING GOOD LAWN	9,339.00
06/16/2020	185501	LOWE'S	179.92
06/16/2020	185502	LSQ FUNDING GROUP, L.C.	257.92
06/16/2020	185503	LUBRICATION ENGINEERS	394.96
06/16/2020	185504	MCLAIN AND WINTERS	126,617.05
06/16/2020	185505	MCMASTER-CARR	168.89
06/16/2020	185506	MENARDS, INC.	34.96
06/16/2020	185507	MICHIGAN GREENSCAPE SUPPLIES	829.60
06/16/2020	185508	MICHIGAN LINEN SERVICE, INC.	825.06
06/16/2020	185509	MICHIGAN RECREATION & PARK ASSOC.	780.00
06/16/2020	185510	MIDWEST ENVIRO SOLUTIONS	1,500.00
06/16/2020	185511	MOHAMMED ABD ELSAYED	65.00
06/16/2020	185512	NATALIE SAMPSON	60.00
06/16/2020	185513	NICHOLAS DIEM	75.00
06/16/2020	185514	OFFICE EXPRESS	1,084.46
06/16/2020	185515	PARKWAY SERVICES, INC.	135.00
06/16/2020	185516	PLUNKETT COONEY	7,413.59
06/16/2020	185517	PM TECHNOLOGIES, LLC	444.90
06/16/2020	185518	RESIDEX, LLC	2,333.96
06/16/2020	185519	RHETT REYES	180.00
06/16/2020	185520	RICHARD ROE	50.00
06/16/2020	185521	SAF PLAY SERVICES, INC.	3,390.00
06/16/2020	185522	SOUTHERN COMPUTER WAREHOUSE	1,595.57
06/16/2020	185523	SPARTAN DISTRIBUTORS	301.87
06/16/2020	185524	SPICER GROUP	4,205.75
06/16/2020	185525	STANDARD PRINTING	545.00
06/16/2020	185526	STANTEC	4,506.04
06/16/2020	185527	STAPLES* - ACCOUNT #1026071	270.07
06/16/2020	185528	STATE OF MICHIGAN	100.00
06/16/2020	185529	STATE OF MICHIGAN*#	30.00
06/16/2020	185530	STATE OF MICHIGAN*#	30.00
06/16/2020	185531	STERICYCLE INC	232.53
06/16/2020	185532	TODD BARBER	2,175.00
06/16/2020	185533	TODD BARBER	1,475.00
06/16/2020	185534	TRACTOR SUPPLY COMPANY	605.06
06/16/2020	185535	TRANSUNION RISK & ALTERNATIVE	182.00
06/16/2020	185536	UNFOLDING CHAOS LLC	12,746.00
06/16/2020	185537	VICTORY LANE	124.84

06/10/2020 03:45 PM
User: mharris
DB: Ypsilanti-Twp

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI Page: 2/2
CHECK NUMBERS 185460 - 185548

Check Date	Check	Vendor Name	Amount
06/16/2020	185538	W.J. O'NEIL COMPANY	3,269.55
06/16/2020	185539	WASHTENAW COUNTY BAR ASSOC.	170.00
06/16/2020	185540	WASHTENAW COUNTY BAR ASSOC.	170.00
06/16/2020	185541	WASHTENAW COUNTY LEGAL NEWS	110.00
06/16/2020	185542	WASHTENAW COUNTY TREASURER#	508,725.00
06/16/2020	185543	WEINGARTZ	113.98
06/16/2020	185544	WILLIAM ALT	144.00
06/16/2020	185545	YPSILANTI ACE HARDWARE	270.28
06/16/2020	185546	YPSILANTI COMMUNITY	710.30
06/16/2020	185547	YPSILANTI TOWNSHIP PETTY CASH	88.56
06/16/2020	185548	ZEP SALES & SERVICE	260.93

AP TOTALS:

Total of 89 Checks:	869,413.38
Less 0 Void Checks:	0.00
Total of 89 Disbursements:	869,413.38

Check Date	Check	Vendor Name	Description	Amount
Bank CARDS COMERICA COMMERICAL CARD				
06/16/2020	57(E)	COMERICA BANK	FOOD & BEVERAGE ITEMS FOR RE SALE	212.98
			OPERATING SUPPLIES AND FOOD & BEVERAGE F	293.74
			FOOD AND BEVERAGE FOR RESALE IN THE GOLF	228.48
			SLOTTED GALVANIZED STEEL GRATES	195.00
			NOV POSTING SIGN FOR VEGETATION CODE ENF	861.20
			16" PLASTIC STEP STAKES FOR ORDINANCE NO	205.00
			COVID-PLEXIGLASS FOR EMPLOYEES DESKS	448.00
			COVID ARROWS AND FOOTPRINTS STICKERS	110.92
			BEE SUPPLIES - FRAMES	152.50
			OPENCART WEBSITE PLUGINS	178.36
			KIOSK SOFTWARE RENEWAL	534.00
			SUBSCRIPTION TO "PAYROLL LEGAL ALERT" FO	89.00
			DUAL RUN CAPACITOR	17.82
			BUILDING SUPPLIES	79.96
			COVID-19 WINDOW DECALS FOR OCS VEHICLES	118.81
				<u>3,725.77</u>

CARDS TOTALS:

Total of 1 Checks:	3,725.77
Less 0 Void Checks:	0.00
Total of 1 Disbursements:	<u>3,725.77</u>

OFFICE OF THE TREASURER
LARRY J. DOE



MONTHLY TREASURER'S REPORT
MAY 1, 2020 THROUGH MAY 31, 2020

<u>Account Name</u>	<u>Beginning Balance</u>	<u>Cash Receipts</u>	<u>Cash Disbursements</u>	<u>Ending Balance</u>
101 - General Fund	4,375,191.00	3,721,435.20	1,364,270.25	6,732,355.95
101 - Payroll	191,571.01	963,850.02	907,377.88	248,043.15
101 - Willow Run Escrow	145,314.21	12.31	0.00	145,326.52
206 - Fire Department	612,087.96	5,474,113.93	431,715.63	5,654,486.26
208 - Parks Fund	26,549.44	2.30	0.00	26,551.74
212 - Roads/Bike Path/Rec/General Fund	237,635.38	1,307,208.37	32,285.50	1,512,558.25
226 - Environmental Services	415,678.66	2,799,415.38	208,512.10	3,006,581.94
230 - Recreation	198,896.59	2,179.62	51,415.64	149,660.57
236 - 14-B District Court	5,651.33	104,248.61	131,621.28	21,721.34
244 - Economic Development	70,428.14	6.13	0.00	70,434.27
249 - Building Department Fund	1,392,874.51	36,486.36	59,723.95	1,369,636.92
250 - LDFA Tax	27,482.86	121,668.02	0.00	149,150.88
252 - Hydro Station Fund	790,163.46	49,127.07	20,032.75	819,257.78
266 - Law Enforcement Fund	605,570.73	7,782,256.19	124,479.35	8,263,347.57
398 - LDFA 2006 Bonds	11,276.11	0.98	0.00	11,277.09
584 - Green Oaks Golf Course	173,312.35	66,861.64	74,568.83	165,605.16
590 - Compost Site	753,839.39	48,453.89	35,607.86	766,685.42
595 - Motor Pool	242,962.41	37.43	8,873.04	234,126.80
701 - General Tax Collection	50,139.50	7,956.94	0.00	58,096.44
703 - Current Tax Collections	106,607.81	3,409.33	58,424.18	51,592.96
707 - Bonds & Escrow/GreenTop	1,252,718.27	18,965.68	44,564.58	1,227,119.37
708 - Fire Withholding Bonds	64,858.88	31,210.48	0.00	96,069.36
893 - Nuisance Abatement Fund	85,116.10	12,269.48	6,965.00	90,420.58
GRAND TOTAL	30,639,432.56	22,551,175.36	3,560,437.82	30,826,663.63

ATTORNEY REPORT

GENERAL LEGAL UPDATE

OLD BUSINESS

CHARTER TOWNSHIP OF YPSILANTI

OFFICE OF COMMUNITY STANDARDS

Building Safety • Planning & Zoning • Ordinance Enforcement • Police Services

To: Karen Lovejoy Roe, Clerk
From: Michael Radzik, OCS Director
Re: **Request to approve revisions to the Engineering Standards and Design Specifications adopted and used jointly by the Township and the Ypsilanti Community Utilities Authority to facilitate new development and public capital improvement.**
Copy: McLain & Winters, Township Attorneys
Date: May 11, 2020

The Office of Community Standards (OCS) and the Ypsilanti Community Utilities Authority (YCUA) jointly adopt a set of Engineering Standards and Design Specifications that provide uniform engineering standards for capital improvements, future development and redevelopment as it relates to design, materials, and methods of construction.

The current set of standards and specifications were adopted in 2009 and are out of date. In 2017, OHM Advisors was authorized to begin working with OCS and YCUA to update and revise the standards. A formal request to adopt revisions to the Water Supply and Wastewater chapters was received from YCUA on November 26, 2018. Additional revisions were subsequently made over the last year, resulting in a completed final draft now ready for consideration and approval.

Revising the technical engineering standards and design specifications, along with revisions to the administrative chapters describing the township's Plan Review Process, has been a team effort with contributions from YCUA Engineering Manager Scott Westover, OHM Advisors, Carlisle Wortman Associates, as well as OCS staff past and present.

A summary of major technical revisions prepared by Elliot Smith from OHM Advisors is enclosed for reference.

Please place the 2020 revised Engineering Standards and Design Specifications on the agenda for the May 19, 2020 meeting of the Board of Trustees for its consideration. I respectfully request that the Board review and approve the revised manual for immediate adoption.



Dedicated to Providing Top Quality, Cost Effective, and
Environmentally Safe Water and Wastewater Services to Our Customers

YPSILANTI COMMUNITY UTILITIES AUTHORITY

2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
TELEPHONE: 734-484-4600
WEBSITE: www.ycua.org

November 26, 2018

VIA ELECTRONIC MAIL

Mr. Michael Radzik, Director
Office of Community Standards
Charter Township of Ypsilanti
7200 S. Huron River Drive
Ypsilanti, MI 48197

Re: **Engineering Standards and Design Specifications**

Dear Mr. Radzik:

As you are aware, a complete update of both the Water Supply and Wastewater chapters Engineering Standards and Design Specifications has been completed. It is understood that the other technical sections of the document have also been updated. It is further understood that the administrative sections have been or will be removed from the Standards. The Authority requests that the Township Board of Trustees, at their earliest convenience, consider adopting the Engineering Standards and Design Specifications. Should there be any questions please contact this office.

Sincerely,



SCUA Digital Signature

SCOTT D. WESTOVER, P.E., Engineering Manager
Ypsilanti Community Utilities Authority

cc: Mr. Jeff Castro, File, YCUA
Mr. Matt Parks, P.E., OHM Advisors, Inc.

G:\YCUAproj\Engineering Design Specifications\Standards Update Request 2018.docx



memorandum

May 11, 2020

Charter Township of Ypsilanti

7200 S. Huron River Drive

Ypsilanti, Michigan 48197

Attention: Charter Township of Ypsilanti Board of Trustees

Regarding: Charter Township of Ypsilanti
2020 Engineering Standards and Design Specifications

Dear Township Board,

OHM Advisors is pleased to submit the final draft of the Ypsilanti Township 2020 Engineering Standards and Design Specifications (Standards) for adoption. The current version of the standards was adopted and created in 2009 and is out of date. After authorization in 2017, OHM began coordination efforts with the Township Office of Community Standards, YCUA, and other agencies in order to update items that have changed over the past 11 years. Like previous Standard updates, these modifications are written to maintain a document that is developer-friendly and easy to understand, while maintaining a high standard for infrastructure servicing the Township and its residents. Below is a summary of major revisions that were included in the latest 2020 version of the Standards. Please note that only major revisions are noted, and that minor revisions have not been listed due to the extensive revising of the 2009 document.

- All Sections and Appendices were revised to remove reference of the Michigan Department of Environmental Quality (MDEQ) and replace with the Michigan Department of Environment, Great Lakes, and Energy (EGLE).
- References to the latest MDOT Standards (where applicable) were updated.
- Standards were formatted to reference the “most current” agency standards where applicable.
- Stormwater section was updated to conform and reference the new WCWRC Rules.
- Section I was revised to include updated contact information for outside agencies and utility companies.
- Section II was removed and replaced with the Township’s Site Plan Review Process derived from the recently updated Zoning Ordinance Procedures Manual.
- Appendices, Table of Contents and Cover Page was updated

Watermain Design and Details

- Additional tracer wire detail added to watermain design.
- Corrosion control requirement through means of polyethylene encasement added.
- Relocation of water main detail removed



Sanitary Design and Details

- Drop Bowl Mounting Position and Drop Bowl with Hood Detail added. Hood added to Interior Drop bowl connection.
- Stainless steel straps replaced with Adjusting Clamping Brackets in interior drop connection detail.
- Diameter of sanitary manholes changed per pipe influenced. 4'-0" minimum diameter for all manholes with pipe 21" and smaller, 5'-0" minimum for all manholes with pipes larger than 21".
- Height of sanitary manhole channel removed and replaced with: "Height of channel wall to be formed or shaped to the full height of the crown of the outlet sewer."
- Piezometer detailed included with sanitary manhole detail with a new process and called-out as: "Outside of Manhole, Place typical 2" diameter piezometer tube, with a slotted end, installed at direction of engineer for measuring groundwater prior to air testing. To be removed or grouted upon substantial completion and acceptance for the sewer for use."
- Sanitary manhole frame replaced with 1040Z Frame. Frame detail added.
- Wastewater pump station updated to include following revisions:
 - Aluminum hatch with safety grate
 - Vent Pipes
 - Slab elevations and dimensions

We hope this will assist your understanding of the revisions that were made to the document. If there are any questions, please do not hesitate to contact Elliot Smith.

Sincerely,
OHM Advisors

Matthew D. Parks, P.E.

Elliot R. Smith

Charter Township of Ypsilanti Engineering Standards and Design Specifications



Veterans Memorial Drive
Ypsilanti Township, Michigan



Charter Township of Ypsilanti
7200 S. Huron River Drive
Ypsilanti, MI 48197



Ypsilanti Community Utilities Authority
2777 State Road
Ypsilanti, MI 48198



Adoption Date: May 2020

Revision Date: May 2020

PREFACE

The following includes technical engineering standards for both the Charter Township of Ypsilanti and the Ypsilanti Community Utilities Authority (YCUA). The purpose of this document is to provide uniform engineering standards for capital improvements, future development and redevelopment alike as it relates to the design, materials, and methods of construction. This document should be reviewed as well as other local agency standards and local ordinances. For purposes of new development or redevelopment, the Office of Community Standards (OCS) should be contacted to discuss process and procedures. OCS can be contacted at (734) 485-4393 or planning@ytown.org.

These Engineering Standards and Design Specifications were adopted on **May 19, 2020** and may be amended from time to time.

Table of Contents

Charter Township of Ypsilanti Engineering Standards and Design Specifications

- I. Introduction to the Standards and Design Specifications
 - A. Understanding the standards and Engineering Process
 - B. Capital improvement and Public Infrastructure design
 - C. Private Development Process

- II. Plan Review Process
 - A. Introduction
 - B. Preapplication Meeting
 - C. Preliminary Site Plan Review
 - D. Plot Plan Review
 - E. Detailed Engineering and construction Plan Review

Technical Sections

- III. Topographic Survey
- IV. Water Supply System
- V. Wastewater System
- VI. Storm Water Management
- VII. Paving Improvements
- VIII. Grading and Earthwork
- IX. Soil Erosion and Sedimentation Control

Appendices:

Appendix A	<u>Review Checklists</u> <ul style="list-style-type: none">A-1: Site PlansA-2: Plot PlansA-3: Detailed Engineering PlansA-4: SESC PlansA-5: Record DrawingsA-6: Structural Reviews
Appendix B	<ul style="list-style-type: none">B-1: Standard Detail SheetsB-2: Sample CAD Layering File
Appendix C	Detailed Engineering Submittal Form
Appendix D	Pre-Construction Meeting forms
Appendix E	Sample Easements
Appendix F	Grading Certificate
Appendix G	Private Road Ordinance
Appendix H	Development Flow Chart
Appendix I	Stormwater Maintenance Agreement
Digital Appendix	Standard Details

I. INTRODUCTION TO THE STANDARDS AND DESIGN SPECIFICATIONS

A. Understanding the Standards and Engineering Process

The existence and constant improvement of the growing network of public utility, drainage and road system infrastructure within the Charter Township of Ypsilanti (Ypsilanti Township) demands the need to maintain an updated compilation of engineering based standards and design specifications for development and infrastructure improvements.

These standards and design specifications (standards) are intended to guide public capital improvement infrastructure projects that occur within the Township and that are under the jurisdiction of Ypsilanti Township, and the Ypsilanti Community Utilities Authority (YCUA). These standards are also intended to serve those who wish to develop or redevelop a property within Ypsilanti Township and ensure that a high level of quality during the planning, design and construction phase occurs. These specifications have been developed to focus on all engineering aspects associated with site development and infrastructure improvements and include sections specific to: topographic survey, water supply system, wastewater system, storm water management, paving improvements, sidewalk and pathway, grading and earthwork and soil erosion and sedimentation control.

These standards were created to ensure infrastructure is installed at a high level of quality in the interest of promoting economic growth while facilitating maintenance and operations of the utilities.

These standards will help serve as a guide through the engineering and construction stages of a project by providing information so one can effectively and efficiently navigate through the process. Understanding the standards and Township ordinances prior to starting design and communicating with Township and agency staff throughout is strongly encouraged and will help achieve positive results with regards to the proposed improvement.

These standards supplement all other applicable requirements of the Township Ordinances as well as requirements of any other impacted agencies. In the event that any of the standards, ordinances or requirements presents a conflict, the ordinance shall govern. These standards are intended to provide the minimum guidelines for engineering infrastructure plans. Throughout planning, engineering design and construction of an infrastructure improvement, the Ypsilanti Township Office of Community Standards (OCS) can be contacted for information or answers to questions that may arise. The Township OCS can be reached at (734) 485-4393 or planning@ytown.org.

B. Capital Improvement and Public Infrastructure Design

For all public capital improvement and infrastructure design being conducted within Ypsilanti Township the Technical specification sections starting with Section III (Topographic Survey) through Section IX (Soil Erosion and Sedimentation Control) should be followed.

1. Permit Requirements

For all public capital improvement designs, permits and/or waivers may be necessary from Ypsilanti Township, YCUA and other applicable agencies. It is important to contact each agency prior to commencing design to obtain details on what requirements may be necessary to carry out the planning and construction and what potential existing infrastructure may impact the proposed improvement. A listing of facilities and controlling agency and contact information has been provided below. This includes local, regional, state and franchise entities. Please note that the list below is not all inclusive and additional agency may need to be contacted based on the uniqueness of the project area.

Local Facility	Controlling Agency	Permit or Waiver	Contact information
Water Supply System and Wastewater System	Ypsilanti Community Utilities Authority (YCUA)	Letters of Approval	Engineering Department 2777 State Road Ypsilanti, Michigan 48198 (734) 484-4600
Public Roadways	Washtenaw County Road Commission (WCRC)	Letters of Approval & Permits or Waiver Letter Claiming No Jurisdiction	555 N. Zeeb Road Ann Arbor, Michigan 48103 (734) 761-1500
Well / Septic Services	Washtenaw County Department of Planning and Environment	Permit or Waiver Letter	705 N. Zeeb Road PO Box 8645 Ann Arbor, MI 48107-8645 (734) 222-3930
Soil Erosion & Sedimentation Control	Charter Township of Ypsilanti	Permit or Waiver Letter	Office of Community Standards (OCS) 7200 S. Huron River Drive Ypsilanti, Michigan 48198 (734) 485-3943
Bus Stops	Ann Arbor Area Transportation Authority (AAATA)	Letter of Approval where bus stops proposed/affected	2700 S. Industrial Hwy. Ann Arbor, MI 48104 (734) 973-6500
County Water Resources	Washtenaw County Water Resources Commissioner's Office	Letter of Approval, Permit or Waiver Letter Claiming No Jurisdiction	P.O. Box 8645 705 N. Zeeb Road Ann Arbor, Michigan 48103 (734) 994-2525
Regional or State Facility	Controlling Agency	Permit or Waiver	Contact information
State Roadways: Interstate 94, Michigan Avenue, Washtenaw Avenue, and Ecorse Road	Michigan Department of Transportation	Letter of Approval and Permits	Brighton TSC 10321 Grand River Avenue Suite 500 Brighton, MI 48116 (810) 227-4681
Regional or State Facility	Controlling Agency	Permit or Waiver	Contact information

Water Supply System	Detroit Water and Sewerage Department Suburban Design Section and/or	Stamp of Approval or Waiver Via YCUA (Submittal must be via YCUA)	735 Randolph Street, 1st Floor Detroit, Michigan 48226-1718 (313) 267-8000
	Michigan Department of Environment, Great Lakes, & Energy Public Wastewater and Drinking Water Unit Water Bureau	Act 399 Permit (Submittal must be through YCUA or DWSD)	Jackson District Office 301 E. Louis Glick Highway 4th Floor State Office Building Jackson, Michigan 49201 (517) 780-7690
Wastewater System	Michigan Department of Environment, Great Lakes, & Energy Public Wastewater and Drinking Water Unit Water Bureau Southeast Michigan District Office	Part 41 Permit (Submittal must be through YCUA)	27700 Donald Court Warren, MI 48092-2793 (586) 753-3700
Wetlands and Impacts to Waters of the State	Michigan Department of Environment, Great Lakes, & Energy and/or EPA	Permit	525 West Allegan St PO Box 30473 Lansing, MI 48909-7973
Franchise Facility	Controlling Agency	Permit or Waiver	Contact information
Gas	DTE Energy (MichCon)	Letter of Approval (Projects where gas lines are impacted)	Replacement Team Noble Second Floor 3200 Hobson Detroit, Michigan 48201 (313) 577-7350
Electric	DTE Energy	Letter of Approval (Projects where electric lines are impacted)	Case Manager 982 Broadway Ann Arbor, Michigan 48105 (734) 332-3313
Franchise Facility	Controlling Agency	Permit or Waiver	Contact information

Telephone	AT&T	Letter of Approval (Projects where phone/fiber optic lines are impacted)	550 S. Maple Road Ann Arbor, Michigan 48103 (734) 996-5300
Cable Television/Telephone	Comcast Cable Communications, Inc.	Letter of Approval (Projects where cable lines are impacted)	5855 Interface Drive Ann Arbor, Michigan 48103 (734) 369-3776
Private Facility	Controlling Agency	Permit or Waiver	Contact information
Wolverine Pipeline	Wolverine Pipeline	Letter of Approval for crossings	8075 Creekside Drive Portage, MI 49024 (269) 323-2491
BP Pipeline	BP Pipeline	Letter of Approval for crossings	30 South Wacker Drive Chicago, IL 60606 (630) 420-5111
ANR Pipeline	ANR Pipeline	Letter of Approval for crossings	27725 Stansbury Boulevard Farmington Hills, MI 48334 (313) 965-1616
Norfolk Southern Railroad	Norfolk Southern	Letter of Approval for crossings, ROW Occupation	DMJM Harris 260 S. Broad St., Ste. 1500 Philadelphia, PA 19102 Attn: NS Pipe and Wire Administrator

2. Standard Details

For all proposed public infrastructure improvement projects within Ypsilanti Township, the standard detail sheets shall be included in the plan set.

C. Private Development Process

The plan review process in Ypsilanti Township represents a phased approach aimed at first promoting discussion of design concepts, then a site plan review and ultimately a detailed engineering review. Detailed standards and check lists are included within this document to serve as a guide to plan development, engineering design, material selection and construction. These checklists do not necessarily include every requirement needed for approval as individual sites may have unique features that may have to be addressed in ways which are not necessarily outlined. A more comprehensive description of the review process is included in Section II– Plan Review Process. A brief summary of each phase of the plan review process is as follows:

1. Plan Review Process Overview

a. Pre-Application Meeting

Prior to developing plans, applicants and/or their representatives are required to schedule a pre-application meeting with the Township, their consultants and local agencies to discuss the following: design concepts, site compliance with ordinances and standards, and the proposed work is in general, feasible. At a minimum, a sketch plan or concept plan should be submitted by the applicant to the Office to distribute for review not less than two weeks before the meeting date. All applicable fees shall be paid by the applicant and the Township will schedule this meeting to be held at the Township Civic Center (located at 7200 S. Huron River Drive, Ypsilanti MI, 48197). The Township will forward invitations to all applicable local agencies. It is intended that the applicant will receive feedback from the reviewing agencies to facilitate and streamline the plan review process.

b. Site, Sketch or Plot Plan Review

The Township OCS will require that each development that is subject to site plan, sketch plan or plot plan review per the ordinance, create and submit a plan for review. The Township OCS will also determine if the review will need to be approved by the planning commission or be approved administratively. A final site plan may also be required based on the Township Ordinances. The applicant shall submit plans and fees to all applicable agencies. These submittals can be coordinated through the Township OCS Department. With submittals, review fees shall be paid to the Township OCS and in accordance with the adopted Township Fee Schedule to the Township OCS for tracking and distribution. It should be noted that other agencies, including YCUA, WCRC and the WCWRC may also have review fees that are not covered by those collected at the Township. The Township and / or their consultants and other agencies will then review the plans and prepare letters to be sent back to the Township OCS generally within three weeks of distribution. If OCS staff determines the plans to be in good order, then OCS staff will present the submitted plan to the Township Planning Commission for action. The Planning Commission may approve, approve with conditions, table, deny or make a recommendation to the Township Board. More detail regarding preliminary site, sketch and plot plan reviews can be found in Section II.

c. Detailed Engineering Plan Review

Prior to proceeding to construction or obtaining Township Board approval of the final site plan (where required), the applicant shall submit detailed engineering and soil erosion and sedimentation control plans for review. The detailed engineering plan phase represents an in-depth review of the design plans that includes verifying site grading, water supply, wastewater system, storm water designs and paving improvements. The applicant shall submit signed and sealed plans by a licensed State of Michigan Professional Engineer, a detailed engineering submittal form (included in Appendix B), an engineer's opinion of cost and the appropriate review fees to the OCS. The OCS staff will then distribute the plans to their consultants and other agencies to review. Review and approval by all applicable agencies is required prior to commencement of construction activity. More detail regarding the detailed engineering review can be found in Section II.

d. Permit Requirements from Other Agencies

As part of the design phase of the project, the applicant shall explore all requirements of any impacted public infrastructure. Further, as the site improvements are engineered and developed, the applicant shall be aware that proposed improvements may result in having to obtain approvals, permits or waivers from various agencies. Aside from the Township Planner, Engineer and YCUA reviews that are required, the applicant is encouraged to review the list (Section I.B.1.) of various utilities and government entities owning facilities that are typically impacted as part of work in the Township. The applicant is strongly encouraged to contact these agencies early in the design process to discuss potential impacts to the site.

2. Pre-Construction Phase

After receiving plan approvals or waivers from all affected agencies and all applicable Township approvals, the applicant shall compile and submit all relevant items requested by the Township, YCUA or the Township Engineer. Once these items have been properly completed the applicant will be able to proceed with construction activity.

a. Pre-Construction Requirements

Upon approval of detailed engineering plan, a letter outlining required fees, escrows, performance and maintenance guarantees, and insurance will be prepared and forwarded to the applicant. This letter provides a detailed calculation of the required escrow account deposit based on the amount of infrastructure proposed by the applicant and assumed production rate. The applicant acknowledges understanding of the document by submitting all applicable documents and attending the pre-construction meeting. If any of the items listed in this letter are not in place prior to the start of the pre-construction meeting the Township and/or YCUA holds the right to reschedule the pre-construction meeting to a later date when all items have been properly submitted to the satisfaction of the Township, the Township Engineer and YCUA.

b. Performance Guarantees

As part of the site development process, Ypsilanti Township requires that all projects post sureties to ensure the timely and complete construction of approved site infrastructure. The applicant shall furnish security and guarantee in accordance with Section 2307, Security for Completion of Improvements and Section 2308, Guarantee, of Appendix A – Zoning of the Charter Township of Ypsilanti Code of Ordinances.

- i. The Township will require a performance guarantee in an amount not less than 100% of the engineer's opinion of cost for the storm water management system, grading, paving, SESC, landscaping and other site related improvements (excluding the building) as defined in item I.C.1.c. prior to construction. An irrevocable standby letter of credit shall automatically renew on its own term for periods of no less than one year unless written notification to Township from the financial institution is received sixty days prior to its expiration date. This security shall remain on deposit with the Township until recommendation of final acceptance of the infrastructure improvements is

given by the Township Engineer. At the time of final acceptance, the performance guarantee will be returned to the applicant.

Partial releases of the storm water management system, grading, paving, SESC, and landscaping performance guarantee may be granted prior to acceptance upon request of the applicant, provided commensurate construction is satisfactory. In such cases the minimum retained balance of the guarantee shall be 25% of the original amount. Any reduction of these guarantees will only be considered after a written request has been submitted to the Township OCS during construction and after substantial completion.

- ii. In addition to the security and guarantee required by the Township noted above, the applicant shall post with YCUA guarantee for completion of the water supply system and wastewater system improvements as depicted on the approved detailed engineering plans.

The guarantees for YCUA shall be presented in the form of a cashier's check or irrevocable standby letter of credit for 100% of the engineer's opinion of cost for the proposed water supply system and wastewater system improvements, as defined in item I.C.1.c. An irrevocable standby letter of credit shall automatically renew on its own term for periods of no less than one year unless written notification to YCUA from the financial institution is received sixty days prior to its expiration date. This security shall remain on deposit with YCUA until final acceptance of the water supply system and wastewater system improvements as public utilities by the YCUA Board of Commissioners. At the time of final acceptance, the performance guarantee will be returned to the applicant upon receipt of a two-year maintenance and guarantee security.

Partial releases of the water supply and wastewater performance guarantee may be granted prior to acceptance upon request of the applicant, provided commensurate construction is satisfactory. In such cases the minimum retained balance of the guarantee shall be 25% of the original amount. Any reduction of these guarantees will only be considered after a written request has been submitted to YCUA during construction and after substantial completion.

- iii. A record drawing and easement guarantee in the form of a cashier's check is required prior to proceeding with construction. The Township Engineer will determine this amount based on an estimate of what it would take for the Township Engineer to complete this work. This deposit shall be made to either YCUA or the Township at the same time the construction services escrow is established. If AutoCAD drawings are not provided immediately following detailed engineering approval, the cost will also be based on performing a full topographical survey.
- iv. Additional guarantees may be required by other affected agencies.

c. Construction Fees, Escrows and Other Deposits

All past review fees not paid to date to either the Township or YCUA must be paid in full prior to commencement of construction.

All YCUA trunk line and transmission charges, YCUA benefit charges, YCUA tap fees and the construction phase escrow deposit shall be paid to YCUA prior to the start of any construction. Information regarding trunk line and transmission charges, benefit charges, and tap fees are available by contacting the YCUA Engineering Department at 734-484-4600. All fees should be verified with Ypsilanti Township and/or YCUA for annual updates.

- i. The applicant shall establish a construction phase escrow account in accordance with Section 2306, Fees, of Appendix A – Zoning of the Charter Township of Ypsilanti Code of Ordinances and as specified herein to cover costs associated with the inspection of all public improvements. This account shall be maintained by either Ypsilanti Township or YCUA.
- ii. The construction phase escrow deposit amount will be determined based upon one of the following methods:
 - The deposit will be based on the estimated duration of the construction operations based on typical construction production rates.
 - The deposit may be adjusted based on the schedule proposed by the applicant's contractor. Said schedule shall be provided to the Township Engineer no later than one week prior to the pre-construction meeting.
- iii. On deposits made with the Authority, YCUA will add a non-refundable administrative fee amounting to 1% of the total construction cost as outlined on the approved final engineer's opinion of cost. This fee shall be paid at the time the construction phase escrow account is established.
- iv. On deposits made with Ypsilanti Township, the Township will add a refundable administrative fee amounting to 1% of the total construction cost as outlined on the approved final engineer's opinion of cost. This fee shall be paid at the time the construction phase escrow account is established. Any money left over when the project is complete will be released.
- v. The applicant shall deposit the construction phase escrow monies with Ypsilanti Township or YCUA at least 48 hours prior to the pre-construction meeting. For smaller projects, typically those that do not include underground utility construction, the Township may have the construction phase escrow deposit placed with the Township OCS Department. Instructions regarding the construction phase escrow and with whom it is to be placed will be provided in the pre-construction requirements letter from the Township Engineer. The applicant shall provide the Township Engineer with a copy of the receipt verifying that the appropriate deposit has been made with either entity.
- vi. In addition to the observation of the public improvements, the escrow account will be used to reimburse YCUA and/or the Township Engineer for construction phase effort including review of any field design changes or evaluations/interpretations of the plans, review of record drawings and easements, and any other work associated with bringing the site into conformance with the standards.

- vii. Construction phase services will be invoiced monthly against the construction phase escrow account based upon the established hourly rate by YCUA and/or the Township Engineer. The Township engineer will track these escrow accounts and if necessary send notifications to the attention of the Township, YCUA, and the applicant if production rates are less than anticipated, and create the possibility of a deficit or negative balance. The Township engineer will monitor and send notices to the Township, YCUA and the applicant at 50% escrow depletion and 90% escrow depletion if the actual production rate in the field is behind the rate in which escrow is being depleted. If additional deposits are required, then YCUA or the Township will determine an appropriate amount using the same method and adjusting production rates to an appropriate and more realistic level.
- viii. Prior to reaching a negative balance, all construction services will be stopped until the applicant deposits additional escrow monies with YCUA or the Township. In addition, YCUA will add a nonrefundable administrative fee amounting to 5%, and the Township will add a refundable administrative fee amounting to 5%, of the additional escrow deposit to be paid at the time the additional funds are deposited with YCUA. Prompt attention to maintaining the account will prevent construction operations from being stopped and/or occupancy permits withheld.
- ix. Upon formal acceptance of the project, any funds remaining in the construction phase escrow account will be returned to the applicant.

d. Insurance

Prior to the construction the applicant’s contractor will procure and maintain, during the term of the project, public liability and property damage insurance with a responsible insurance company which meets the approval of the Charter Township of Ypsilanti. The amounts must be adequate to protect the public and all parties of interest, and will not be less than the limits set forth as follows:

Type of insurance:

- i. Workmen’s Compensation Insurance and Employer’s Liability. Limits as required by laws of the State of Michigan
- ii. Public Liability and Property Damage:
 - Bodily Injury: Each Occurrence: \$500,000
 - Aggregate: \$1,000,000
 - Property Damage: Each Occurrence \$250,000
Aggregate \$500,000
- iii. Owner’s and Contractor’s Protective Liability and Property Damage:
 - Bodily Injury: Each Occurrence \$1,000,000
 - Property Damage: Each Occurrence \$250,000
Aggregate \$500,000
Or combined single limit of \$1,500,000
- iv. Motor Vehicle, (including Owner, Hired and Non-Owned Vehicles):
 - Bodily Injury: Each Occurrence \$500,000

- Property Damage: Each Occurrence \$200,000
Combined single limit: \$1,000,000

Policies will be made available to the Charter Township of Ypsilanti and YCUA for examination as to their validity. Any undesirable exclusions deemed improper by legal opinion rendered to the Township and/or YCUA will be required to be removed.

Underground construction, where applicable, will be specified in the coverage.

Certificates of coverage signed by the insurance carriers will include a guarantee that 30 days written notice will be given by the insurance carrier to the Township and YCUA prior to cancellation of, or any change in, the respective policies. In the event that the insurance is cancelled, operations will cease prior to the cancellation date and will not resume until evidence is provided that proper insurance is again in effect.

Additional Named Insured under Owners and Contractors Protective Liability and Property Damage Insurance will include the Charter Township of Ypsilanti; the Ypsilanti Township Board of Trustees, jointly and individually; all Ypsilanti Township employees; the City of Ypsilanti; the Ypsilanti City Council, jointly and individually, and all City of Ypsilanti employees; the YCUA Board of Commissioners, jointly and individually; all YCUA employees, agents, and consultants, individually.

e. Construction Drawings

Prior to the pre-construction meeting, the applicant's design engineer shall submit six sets of the approved detailed engineering plans to the Township Engineer for processing and distribution to the appropriate parties. In addition, digital versions of the construction drawings shall be provided that include both AutoCAD and Adobe PDF files. AutoCAD data shall be projected to State Plane Coordinates and shall use NAVD '88 vertical datum.

3. Construction Phase

a. Pre-Construction Meeting

Prior to starting any construction operations, the applicant must obtain all required permits and attend a pre-construction meeting. Unless otherwise specified, all meetings will be held at the Township Civic Center. The applicant shall contact the Township OCS to schedule the meeting. The Township shall notify all required and applicable attendees in writing outside of the local agencies listed in Section I.B.1.

Attendees at the pre-construction meeting (as well as any project progress meetings) shall include representatives from the Township, YCUA, the Township Engineer, the Building Department Director, the Fire Marshal, the applicant, the applicant's design engineer, the applicant's prime contractor and underground contractor. In addition, representatives from any utility companies whose facilities may be affected by the project as well as any state, county or other agencies having jurisdiction over portions of the project shall be invited to attend. It shall be the responsibility of the applicant to contact the Township Engineer a minimum of 10 calendar days prior to the desired start of construction to

schedule the pre-construction meeting. The pre-construction meeting shall be scheduled a minimum of 5 days prior to the start of construction. The pre-construction meeting will not be scheduled until all required approvals and documentation is received by the Township OCS. Pre-construction meeting forms are included in Appendix C.

b. Construction

The Township, YCUA or designated representative(s) of those entities will provide observation of construction of all public utilities and improvements within 10 feet of any proposed or existing building. Observation will be full time on water supply systems, wastewater facilities, storm water management facilities, sidewalk ramps connecting to the street or sidewalk along common areas, and approaches in the public right-of-way. Part time observation will be performed for all on-site paving, grading, and soil erosion and sedimentation control measures. On all part time observation items, the contractor or applicant shall provide third party certifications, density and/or material testing reports if requested by the Township, YCUA or designated representative(s) of those entities.

Any work occurring within 10 foot of any existing or proposed building may require the inspection and permit of the Ypsilanti Township Building Department. Prior to working within this 10 foot envelope, the Ypsilanti Township Building Department must be contacted.

The Washtenaw County Road Commission will provide inspection for work within the existing public right-of-way and on any road improvements that will be dedicated as public facilities.

The Washtenaw County Water Resource Commissioner's office will provide inspection for work associated with county drains or other water courses within their jurisdiction. The Township, or their designated representative(s) may provide assistance observing portions of the project for the other agencies.

The applicant or the applicant's contractor shall notify the Township, YCUA or designated representative(s) of those entities a minimum of 3 working days prior to the start of any construction operations.

All improvements requiring observation shall be field staked in accordance with the approved detailed engineering plans. The applicant shall be responsible for the field staking and provide appropriate cut sheets to the Township, YCUA or designated representative(s).

Deviations from the approved detailed engineering plans that are determined by the Township, YCUA or designated representative(s) to be significant will require review and approval of the Township, YCUA or designated representative(s) prior to staking and construction of the revised work. Deviations that are deemed to be significant will need to be submitted in writing (with revised plans as necessary) to the Township, YCUA or designated representative(s) for review.

The applicant's contractor shall be responsible for ensuring that all construction operations are conducted in conformance with the current MIOSHA safety standards.

c. Substantial Completion

At the completion of the installation and successful testing of all underground utilities and completion of the majority of paving improvements, said facilities will be subject to a preliminary walk-through inspection. This preliminary walk-through may include representatives from YCUA, the Township, the Township Engineer, and other appropriate agencies. At this meeting a preliminary punch list will be generated and distributed by the Township Engineer. Once all punch list items are addressed to the satisfaction of the Township Engineer a substantial completion letter will be issued by the Township Engineer. Only after this point can performance guarantees be reduced. This may be accomplished by submitting a request in writing to the Township OCS and/or YCUA depending on the guarantee that being considered for reduction. The applicant should understand that substantial completion does not in any way represent final acceptance. The substantial completion letter will indicate all remaining items that need to be completed. After substantial completion, the utilities are still under the ownership of the applicant and not that of the respective agency.

During the time between the substantial completion and final acceptance of the underground utilities and paving improvements, said facilities will be subject to periodic inspection by the Township, YCUA or designated representative(s) during the completion of all surface improvements (commercial buildings, residences, etc.).

Upon the completion of all improvements associated with the project, underground utilities and paving improvements will be subject to a final walk-through inspection. No facilities to be designated as public will be accepted until they have passed the final walk-through inspection. The applicant shall be responsible for providing all labor and equipment to accommodate inspection of the system(s) by the governing municipality and/or agencies having jurisdiction over the project. A project cannot receive a final walk-through inspection until all landscaping is complete and all portions of the site are complete. For residential projects, a final walk-through inspection will not be conducted until the site is 90% complete (Certificate of Occupancy issued). All final walk-through inspections shall include one representative each from YCUA, the Township, the Township Engineer and the applicant's representative.

4. Project Completion

a. Record Drawings

To ensure that accurate records exist for all newly installed infrastructure within Ypsilanti Township, a set of record drawing requirements has been created. All projects require that accurate record drawings are produced and approved in advance of final project acceptance.

It is required that the applicant submit a complete digital file of the construction drawings including all details, plan and profile views to both Ypsilanti Township and YCUA at the time of the pre-construction meeting. The digital file should follow the template for digital submittals that is located in the Digital Appendix.

The applicant shall post a guarantee in an amount determined by YCUA and/or the Township Engineer to ensure completion of the record drawings in a timely

manner. The record drawing guarantee shall be presented in the form of a cashier's check, cash deposit, or irrevocable standby letter of credit.

The applicant has 90 calendar days after substantial completion (from date of the issued substantial completion letter) to prepare and submit to the Township Engineer an approvable set of record drawings. These record drawings will be submitted in a digital format (AutoCAD and pdf) and on bond and Mylar. Digital record drawing specifications are included on the Digital Appendix CD.

In the event the applicant fails to submit the required approvable record drawings to the Township Engineer within the 90 day period, the Township/YCUA will utilize the applicant's record drawing guarantee to have the required record plans prepared by the Township Engineer.

If this occurs, the Township and/or YCUA will direct the Township Engineer to prepare the record drawings utilizing the digital plans previously submitted. Once this notification to proceed has been given to the Township Engineer, delivery of the record drawings to the Township/YCUA will be made within 90 days of that date.

A copy of the record drawing requirements checklist is provided in Appendix A.

b. Easements

The applicant shall have easement documents prepared for all public sanitary sewer and water main on site unless located in a public right-of-way. In addition, any public storm sewer not in a public right-of-way or ingress/egress easements shall have easement documents prepared and submitted to the Township Engineer and the appropriate legal counsel for review and approval. Once easements are approved, the easement shall be forwarded by the applicant to the County Register of Deeds and recorded. Copies of recorded easements shall be forwarded to the Township Engineer, YCUA and the Township for their records. Sample easement documents for water supply and wastewater systems can be found in Appendix D of this document.

c. Grading Certificate

The applicant shall submit a grading certificate upon the completion of construction certifying that site grading was completed in accordance with the approved detailed engineering construction plan. The grading certificate shall be signed and sealed by a Professional Engineer or Surveyor licensed to practice in the State of Michigan. A blank grading certificate is provided in Appendix E of this document.

d. Maintenance and Guarantee Surety

Prior to final acceptance by the YCUA the applicant shall post with YCUA a two-year Maintenance and Guarantee security. The guarantee shall be presented in the form of a cashier's check or irrevocable standby letter of credit for 50% of the engineer's opinion of cost of the proposed water supply system and wastewater system improvements, as defined in item I.C.1.c. It should be noted that other agencies having jurisdiction over the project or any portion thereof might also require maintenance guarantees.

e. Final Acceptance

Final acceptance will not be made until all improvements shown on the approved detailed engineering plans are completed. In addition, all other requirements as outlined in the pre-construction requirements letter or, if applicable, a development agreement must be completed. For residential developments, final acceptance of the water supply system and wastewater system improvements will not take place until at least 90% of the residences are built and occupied.

SECTION II – SITE PLAN REVIEW PROCESS

A. Introduction

Site plan review is a process to review new developments or changes to existing developments. The goals of the site plan are to achieve efficient use of the land, protect natural resources, minimize adverse impacts on nearby properties, and encourage cooperation and consultation between the applicant and Township to facilitate accordance with the Township's land use objectives.

Per Section 2115 of the Township Zoning Ordinance, preliminary site plan review and approval are necessary for: a change of use, expansions or additions, development of subdivisions, condominiums, site condominiums, multiple family dwellings, commercial, office or industrial buildings. Please review Section 2115 for specific items that must be included with your plan submittal.

1. Pre-application meeting

The applicant is encouraged to schedule a meeting with the Township Office of Community Standards to discuss the project, submittal requirements and review procedures. The purpose of this meeting is to discuss applicable standards and technical issues, and to determine the appropriate type of review process based on Table 2115.1 of the Township Zoning Ordinance.

Within 7 days of the meeting, Township staff will provide the applicant and all attendees with a sign in sheet including contact information for all attendees and a written report of the comments and/or suggestions provided during the pre-application meeting.

2. Preliminary site plan submission

Applicant shall submit a preliminary site plan with the specific items in Section 2115. Review fees shall be enclosed as part of a complete site plan application.

3. Preliminary
Site Plan
distribution of
application

The Office of Community Standards will process and distribute the provided site plan application to the following review agencies for comment (Township Planner, Township Engineering, Township Fire Department, Township Assessing Department, Ypsilanti Community Utility Authority (YCUA), Ann Arbor Area Transportation Authority (AAATA), and the Washtenaw County Sheriff's Department). A separate fee to YCUA is required. This process may take up to 3 weeks to complete. The applicant is responsible for delivering plans, appropriate applications and fees to the following agencies: Washtenaw County Road Commission (WCRC), Washtenaw County Water Resource Commissioner (WCWRC), and, if applicable, the Michigan Department of Transportation (MDOT).

4. Planner/Staff
review

Once all reviewing agencies have completed the necessary reviews, the Township Planning staff will determine whether the application is complete and can be presented to the Township Planning Commission or if the plans must be revised and then resubmitted for further review. Plans that are found not to be completed per the adopted ordinances will not be presented to the Planning Commission for consideration. Please note that any additional reviews will require that the initial fee be resubmitted for the additional preliminary site plan review(s).

5. Preliminary site
plan Planning
Commission
approval/
recommendation

At the Planning Commission meeting, after a presentation by staff and then the applicant, the Planning Commission may either postpone action or recommend approval or denial to the Township Board (when applicable), approve, approve with conditions, or deny the submitted application.

6. Township Board approval (if necessary)

The Township Board grants preliminary site plan approval for the following developments: subdivisions, condominiums or site condominiums, planned developments, multi-family residential developments, and wireless communication towers. Written correspondence outlining the recommendation or decision of the Township Board will be sent to the applicant within 7 days of said decision.

Effect of preliminary site plan

Any preliminary site plan approval expires after one year from the date of approval. The applicant may request a one year extension from the Planning Commission, provided a written request is received before the expiration date and the site plan complies with current standards.

7. Final site plan submission

The applicant shall submit a final site plan with the specific items found in Section 2115.

8. Final site plan distribution of application

The Office of Community Standards will process and distribute the final site plan application to the following review agencies for comment: Township Planner, Township Engineering, Township Fire Department, Township Assessing Department, Ypsilanti Community Utility Authority (YUCA), Ann Arbor Area Transportation Authority (AAATA), and the Washtenaw County Sheriff's Department. A separate fee to YCUA. This process may take up to 3 weeks to complete. The applicant is responsible to deliver plans, appropriate applications and fees to the following agencies: Washtenaw County Road Commission (WCRC), Washtenaw County Water Resource Commissioner (WCWRC), and if applicable, the Michigan Department of Transportation (MDOT). Once all reviewing agencies have completed the necessary reviews and approved said project, the Township Planning staff will review final site plan.

9. Planner/Staff
review and
Approval

Final site plan approval may be given administratively when all conditions set forth herein for final site plans are complied with except the planning commission may, at the time of preliminary site plan approval, require final site plan approval by the commission as well.

10. Township
Board approval
(if necessary)

The Township Board shall grant final site plan approval for the following developments: subdivisions, condominiums or site condominiums, planned developments, multi-family residential developments, and wireless communication towers. Written correspondence outlining the decision of the Township Board will be sent to the applicant within 7 days of said decision.

Effect of final site
plan approval

The approval of any final site plan, other than subdivisions, expires one year after the date of approval, unless actual construction and development have been commenced in accordance with said site plan. If construction and development begins within the one year period, then the approval shall continue for five years from the construction date. If substantial construction and development does not occur for a year, the approval will expire.

SECTION II – SITE PLAN REVIEW PROCESS CHECKLIST

Information required for pre-application meeting:

- Fees
- 7 – 11 x 17 copies of the proposed plan
- 1 PDF copy of the proposed plan
- Completed pre-application meeting application
- Proof of property ownership

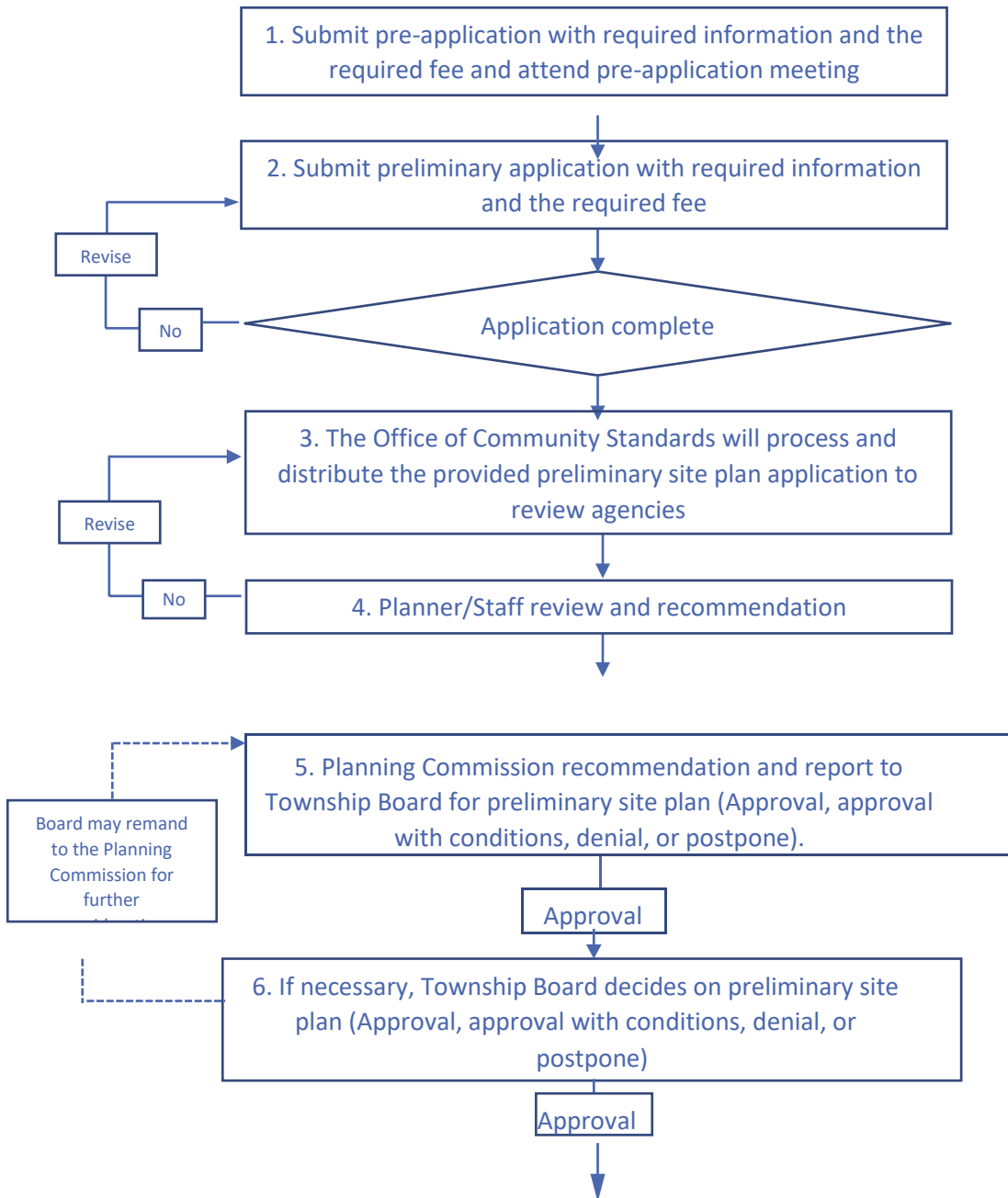
Information required for preliminary site plan submission:

- The applicant shall submit 7 signed and sealed copies (24" x 36"), one reduced copy (11" x 17") and one digital copy (PDF format).
- Two signed and sealed copies (24" x 36") shall be provided to the Washtenaw County Road Commission and Water Resources Commissioner's Office for Review. The applicant is responsible for delivery of the plans, application and applicable review fees to these agencies. The Township will complete distribution to Ypsilanti Community Utility Authority (YUCA), but separate payment is required.
- The site plan review application signed and dated by the applicant and the property owner if not the same.
- Proof of property ownership
- A Woodland Protection application or No Tree Affidavit (if applicable)
- A copy of the Traffic Impact Questionnaire.
- A written description of the project.
- A check in the amount stated within the adopted fee schedule. Please contact Office of Community Standards at 734-485-3943 or by email at planningops@ytown.org for an exact amount and breakdown of the required review fees. Plans will not be accepted without the payment of the noted fee. Please also note, the same site plan review fee will be charged for each subsequent submittal per the adopted fee schedule.

Information required for Planning Commission:

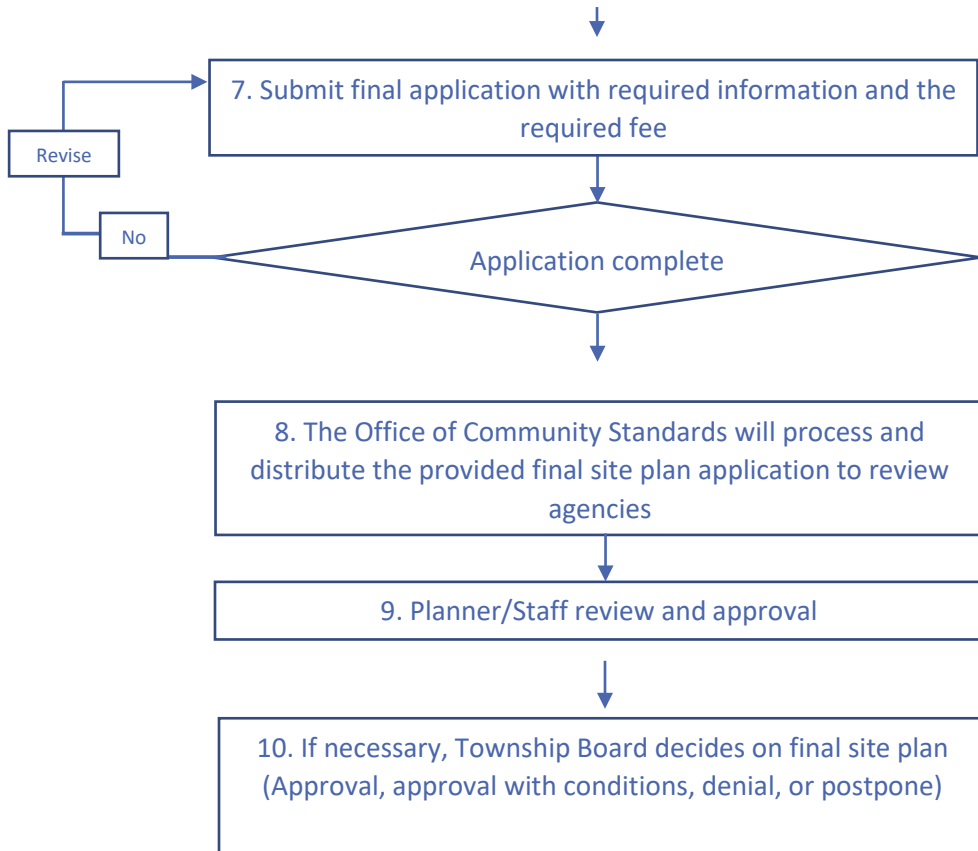
- Three (3) full size sets of site plan (24" x 36")
- One digital copy of site plan (PDF format)
- Color Elevation Drawings (PDF format)

FLOWCHART



Continue flowchart on next page

Continued from previous page



III. TOPOGRAPHIC SURVEY

General Requirements

1. A complete topographical survey is required for all proposed projects. A metes and bounds legal description of the project site shall be provided on the plans. Property lines shall be indicated by bearing and distance in the plan view. All existing easements shall also be shown on the plan view of the existing conditions.
2. A minimum of two benchmarks are required for vertical control. All benchmarks shall be clearly indicated on the plans. All elevations shall be to North American Vertical Datum – 1988 (NAVD-88).
3. Horizontal control shall be established for each site utilizing Michigan State Plane Coordinates, Michigan South Zone Coordinate System NAD 83 (CORS).
4. Existing offsite elevations must be given at a minimum of 50 feet and 100 feet abutting the entire perimeter of the site. Grades will be indicated at all property corners and along all property lines. On-site, intermittent elevations and/or defined contours (minimum contour interval of 2 feet) are required to establish the existing site drainage patterns.
5. Existing features shall be located and shown within 100 feet of the project. Existing features to be shown shall include, but may not necessarily be limited to the following items:
 - a. Ditches.
 - b. Culverts.
 - c. Water supply system, storm water management and/or sanitary sewer facilities, including inverts and casting elevation at all structures.
 - d. Gas, telephone, electric and cable television lines, including manholes and/or utility poles.
 - e. Pedestrian facilities.
 - f. Trees and other landmark vegetation.
 - g. All streams, lakes and/or county drains with names shown.
 - h. Existing buildings and permanent structures.
6. Existing adjacent roads and existing right-of-way or easement lines shall be shown on the plans and shall extend across the entire site with grades shown on both sides of the road for:
 - a. Right-of-way or easement line.
 - b. Ditch centerline.
 - c. Top of bank.
 - d. Edge of shoulder.
 - e. Edge of pavement or top of curb.
 - f. Crown or centerline.

IV. WATER SUPPLY SYSTEM

General

1. Water supply system improvements shall be designed and constructed in accordance with the requirements of the Michigan Safe Drinking Water Act, Act 399 of the Public Acts of 1976, as amended; as well as the latest revisions of the standards and manuals of practice published by the American Water Works Association (AWWA), the Great Lakes Water Authority (GLWA), and as specified herein.
2. All water supply system improvements will require the review and approval of Ypsilanti Community Utilities Authority (YCUA). The majority of water supply system improvements will also require the review and approval of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and in certain instances GLWA. Water supply system components are typically considered public facilities when two or more service connections are made to the same water main. In most instances, multiple unit developments in particular, the water supply system may have to be public even though the project has one owner. The extension of water mains will generally be required across the entire frontage of the site.
3. YCUA approval will be required for connection of private water supply systems (“customer site piping”) to the public water supply system. Installation of and/or improvements to customer site piping will require installation of a master meter and/or suitable backflow prevention devices at any interfaces between the public water supply system and customer site piping.
4. Water supply system improvements identified in the latest revision of the YCUA Water System Master Plan may be required as part of the project. The applicant shall contact YCUA to determine if any improvements identified in the latest revision of the YCUA Water System Master Plan will need to be incorporated as part of the project.
5. Plan and profile views shall be provided for all proposed water supply system improvements including water mains and fire hydrant leads. The plan and profile shall be presented on the same plan sheet and shall be vertically oriented.
 - a. A water main quantity list shall be provided on the cover sheet of the detailed engineering plans. The quantity list shall be delineated by existing or proposed road right-of-way or easement.
 - b. The following information must be shown in the plan view of proposed water supply system improvements:
 - i. Type, class and size of pipe.
 - ii. Length between fittings and/or appurtenances.
 - iii. Water service locations and sizes. In addition to domestic water services, water services for fire suppression and/or irrigation purposes must be shown on the plans.

- iv. Where required, a dedicated water main easement must be shown on the plans. The easement width shall be the greater of the following: Twice the depth of bury plus the pipe diameter plus 2' (rounded to the next largest full foot), or 15'. Where water main is adjacent to and parallel to the right-of-way, a water main easement must be extended across the entire frontage of the property.
 - c. The following information must be shown in the profile view of proposed water supply system improvements:
 - i. Type, class and size of pipe.
 - ii. Length between fittings and/or appurtenances.
 - iii. Top of casting elevation on valve wells and/or boxes as well as the finished grade for fire hydrants.
 - iv. Crossing of all existing and proposed utilities, including leads.
 - v. Granular backfill, trench details, special bedding, bores and/or other special construction methods.
 - vi. Existing and proposed ground elevations.
 - d. Design details of joints and joint restraint, including any necessary design calculations, shall be provided on the plans.
 - e. Plans showing any proposed water supply system improvement, public and/or private, shall be accompanied by the YCUA water supply system standard detail sheets. The standard details are included in the Digital Appendix.
6. Connection of individual residences or buildings to water distribution mains will require the submittal of a utility service plan for review and approval by YCUA. Utility service plans can be submitted on 8½" x 11" paper or PDF document. The following information must be shown on the utility service plan:
- a. The applicant's name, address, telephone number, and electronic mail address (if available).
 - b. The name, address, telephone and fax numbers, and electronic mail address for the applicant's engineer/surveyor.
 - c. The utility service plan shall be prepared to a scale of 1" = 40'. The following items must be shown on the utility service plan:
 - i. A legal description of the parcel, including tax identification number, along with a sketch showing all property lines including the bearing and distance.
 - ii. All sides of the proposed or existing building.
 - iii. Existing and/or proposed driveways and sidewalks, including materials and thicknesses.
 - iv. Existing and/or proposed utilities on the parcel or in the adjacent public right-of-way or easement. Utilities to be shown include but may not necessarily be

limited to: water supply, wastewater, storm sewer, gas, telephone, electric, and cable television.

- v. Existing and/or proposed natural features such as trees, landscaped areas, berms, and ditches/drainage courses.
 - vi. Existing and/or proposed water services, building sewers, and storm sewer laterals (for sump pump discharges, if applicable). Information shall include proposed material and size. Dimension all pipes from the building corners; dimension the curb stop and box from the building corners.
7. Trunk line and transmission charges, benefit charges, as well as tap fees and meter fees associated may apply to water supply system improvements and/or connections to the existing water supply system. The schedules for these fees can be found on the YCUA website.

Design Criteria

1. Water Transmission and Distribution Mains

- a. The minimum size pipe allowed for use in the distribution system is 8" diameter. Other allowable pipe sizes for use in the distribution system are 12" and 16" diameter. The larger diameter distribution mains may be required as minimum for distribution on non-residential sites, major streets, collector streets and elsewhere as directed by YCUA. Water mains larger than 16" diameter are considered transmission mains.
- b. Water supply systems shall be designed to provide service from a double source of supply ("looped main") or, with the written approval of YCUA, to be provided service by a double source of supply in the future when adjacent properties are developed. Approval of a single source of supply will require the applicant to post a guarantee with YCUA to allow for provision of a double source of supply if adjacent properties do not develop within a reasonable time.
- c. Terminal dead end water mains with domestic service connections are not permitted without the written approval of YCUA. Where terminal dead end water mains are permitted, a gate valve and fire hydrant shall be provided at the terminus of the water main – this will be the only fire hydrant allowed on the dead end water main. The following are the maximum allowable lengths for terminal dead end water mains:
 - i. 40' for 6" diameter fire hydrant service pipe.
 - ii. 600' for 8" diameter water distribution mains (residential areas only).
 - iii. 1,000' for 12" diameter and larger water distribution mains.
- d. Wherever possible, water mains and appurtenances shall be located outside the influence of existing or proposed pavement. Within existing or proposed public road rights-of-way, water main alignments and appurtenance locations should be in accordance with the requirements of the agency having jurisdiction. Alignments and locations within private road easements should be in accordance with the requirements of the agency having jurisdiction over the adjacent public

road right-of-way. Water main alignments and appurtenance locations in easements outside of public road rights-of-way or private road easements will be evaluated individually.

- e. A minimum 10' horizontal separation shall be maintained between water main and sanitary sewers and/or storm sewers. A minimum 5' horizontal separation shall be provided between water mains and other underground utilities and/or structures.
- f. Where water main alignments cross alignments of other utilities, the angle between the horizontal alignments at the crossing shall not be less than 45°.
- g. Water main shall be designed and constructed with a minimum 5½' depth of cover over the top of pipe as measured from the proposed final grade. A minimum 18" vertical clearance shall be maintained between water mains and other underground utilities. Where the vertical alignment of the water main must be deflected in order to achieve the required vertical clearance, the length of the deeper main shall be kept to a minimum and standard 45° bends shall be used to achieve the necessary deflection. Depending on groundwater conditions, vertical alignment changes may be allowable utilizing joint deflection only when the elevation change is less than or equal to 18" and the depth of the water main remains above the groundwater elevation. Soil borings obtained from the site shall be provided to YCUA in order to determine if joint deflection will be acceptable.
- h. Where changes in finish grade occur subsequent to installation of water mains or are proposed over an existing water main, all manhole castings, valve boxes, curb stop boxes, hydrants and blow-offs shall be adjusted to the revised grade as part of the project. When such changes in finish grade will result in a depth of cover of less than 5' or more than 7', the existing water main shall be relocated as part of the project in accordance with the requirements of item II. Design Criteria.1.g., Water Supply System, Design Criteria, Water Transmission and Distribution Mains.
- i. Tracer wire shall be provided with all water main.

2. Joint Restraint

- j. Joints shall be restrained per the pipe material manufacturer's recommendations. For ductile iron pipe, joint restraint shall conform to the most current edition of the Ductile Iron Pipe Research Association's (DIPRA) Thrust Restraint Design Procedure for Ductile Iron Pipe or as approved by YCUA.
- k. Concrete thrust blocks will not be permitted except behind hydrant shoes and tapping sleeves. Use of concrete thrust blocks in other locations will not be permitted without the written approval of YCUA. Where allowed, concrete thrust blocks shall bear against undisturbed earth in all instances and shall have sufficient bearing area to develop the full resultant axial thrust of the pipe at test pressure. The concrete thrust block shall not cover fastener nuts and/or threaded connections that would hinder future maintenance or repairs of fittings or valve assemblies.

3. Valves

- a. General

- i. Water supply system improvements shall be designed to include adequate valves to properly isolate sections of water main and control flow and pressure as needed without adversely impacting significant portions of the system.
 - ii. All valves shall be installed in a three-piece, adjustable valve box with the following exceptions: Valves shall be installed in wells, with Type I adaptor by Adaptor, Inc., where the valve will be located within existing or proposed (1:1) influence of the road, or the valve is located on a water main larger than 16" diameter, or the valve is part of a tapping valve connecting to an existing water main requiring tapping valves to be in wells.
 - iii. Valves shall be located such that the valve box cover or valve well cover will not be in street pavements, sidewalks or driveways.
- b. Isolation Valves
- i. Isolation valves on water mains 16" diameter and smaller shall be gate valves and valves on water mains larger than 16" diameter shall be butterfly valves.
 - ii. Valves shall be placed such that no more than three valves are required to isolate any section of water main (four maximum). More than three valves to isolate a section of water main will not be permitted without the written approval of YCUA.
 - iii. No more than 800' of water main may be out of service for 8" diameter water mains: not more than ¼ mile of water main may be out of service for mains 12" diameter and larger.
 - iv. No more than 2 fire hydrants may be out of service.
 - v. No more than 24 single family residences or 30 multiple family residences may be out of service.
- c. Tapping Valves
- i. The connection of proposed water mains to existing water mains shall be accomplished by means of a tapping sleeve and valve unless the connection can be made without interrupting service to existing customers, if the existing water main is 16" diameter or larger, or as otherwise directed by YCUA.
 - ii. Use of a tapping sleeve and valve will also require a separate isolation valve downstream of the connection.
- d. Control Valves
- i. Valves to control flow and/or pressure may be required to ensure proposed water supply improvements will not adversely impact the existing system or that the proposed improvements will operate as intended without being adversely impacted by the existing system.
 - ii. Such control valves, when deemed necessary by YCUA, shall be included in the design of the proposed water supply system improvements.

4. Fire Hydrants

- a. Fire hydrants shall be located per the requirements of the Ypsilanti Township Fire Department (YTFD) and shall reference the current International Fire Code.
- b. Hydrants within residential areas shall be located between the back-of-curb and sidewalk between 2' and 10' of the back of sidewalk of the cross street at intersections. A minimum of 5' is required from a vehicular path. Hydrants not located at the intersections shall be located at the extension of the side property lines between lots.
- c. Spacing of hydrants along water transmission mains and around multiple family residential, commercial or manufacturing establishments shall be considered on an individual basis and shall be determined by consultation with YCUA and the Township Fire Marshal.
- d. The distance of the hydrant from buildings will depend on the height of the building. The hydrant will be located at least a distance equal to the height of the building from the building's exterior walls. At a minimum, fire hydrants shall be located at least 25' from the exterior wall of any masonry building, and at least 50' from any exterior wall of frame or equivalent construction, including brick and stone veneer.
- e. All buildings with sprinkler systems shall have a fire hydrant located within 100' of the fire pumper hose Siamese connection located on the building exterior.
- f. Proper access shall be provided to all hydrants. A minimum 20' wide aisle shall be provided between the travel way and the hydrant. No parking shall be allowed within 15' of each side of a fire hydrant (measured perpendicular from the centerline of the hydrant to the road or travel way).

5. Water Services

g. General

i. Size

- (a) Domestic water services shall be a minimum of $\frac{3}{4}$ " diameter in the Township and 1" diameter in the City. Larger diameter domestic water services will require the review and approval of YCUA.
- (b) Irrigation water services for single-family residences and multiple family residences and non-residential properties with a single water service to the entire building shall be no larger than the domestic water service upstream of the domestic water meter. Sizing of irrigation water services for multiple-family residences and non-residential properties where the irrigation water service will be connected directly to a YCUA distribution main will be evaluated individually.
- (c) Fire suppression water services shall be designed by the applicant and require the review and approval of YCUA.
- (d) Larger diameter water services, when approved by YCUA, shall be at least one standard size smaller than the water distribution main it connects to.

ii. Responsibility for Connections

- (a) Connections to YCUA distribution mains for single-family residential property that does not require a permit from an agency having jurisdiction over work within a public road right-of-way will be completed by YCUA, except in circumstances where YCUA is unable to complete such work due to elevated groundwater table, excessive depth of existing distribution mains, or similar extenuating circumstances.
- (b) Connections to YCUA distribution mains for single-family residential property that requires a permit from an agency having jurisdiction over work within a public road right-of-way shall be the responsibility of the applicant.
- (c) Connections to YCUA distribution mains for multiple-family residential and non-residential properties shall be the responsibility of the applicant.
- (d) Connections to YCUA distribution mains solely for fire suppression or irrigation purposes shall be the responsibility of the applicant.

iii. Location

- (a) Water services shall be connected to distribution mains such that the water service pipe within the public road right-of-way or easement is perpendicular to the centerline of the public road right-of-way or easement.
- (b) The minimum allowable horizontal separations between water services and other facilities are as follows:
 - (1) Other water services – 2' each.
 - (2) Sanitary sewer leads – 3'.
 - (3) All other utilities and structures – 5'.
- (c) The curb stop and box or shut off valve on a water service shall be located at the right-of-way line for water services within public roads and the easement line for water services outside of public road right-of-way.
- (d) Curb stop boxes and/or shut off valves shall be located such that the stop box cover, valve box cover, and/or manhole cover will not be in street pavements, sidewalks or driveways. Where curb stops are allowed to be located in a paved surface by YCUA, they shall be protected with an approved sleeve.

- iv. YCUA will be responsible for maintaining the water service(s) and appurtenances from the YCUA distribution main up to and including the curb stop and box or shut off valve. The property owner will be responsible for maintaining the water service(s) and appurtenances from the curb stop and box or shut off valve, including the outlet coupling, to the building.

h. Domestic

- i. Each individual residence or building connected directly to the YCUA distribution main shall have a separate water service and curb stop and box. Multiple-family residences may be served either through separate water services to each unit or through a single water service to the entire building.

Non-residential buildings, even those with multiple tenants, shall have a single water service as only one YCUA meter will be issued.

- ii. No domestic service connections will be permitted from 6" fire hydrant leads or transmission mains. Combined domestic or irrigation and fire suppression services will not be permitted.
 - i. Irrigation
 - i. Irrigation water services for single family residences shall be connected to the domestic water service immediately upstream of the domestic water meter. Irrigation water services for multi-family residences and non-residential properties may be connected either directly to YCUA distribution mains or to the domestic water service upstream of the domestic meter.
 - ii. All irrigation systems connected to the water supply system shall be equipped with an approved backflow prevention device. Suitable backflow prevention devices include double check valve assemblies, reduced pressure zone assemblies, and pressure vacuum breakers.
 - j. Fire Suppression
 - i. Fire suppression services shall be completely separate from either domestic or irrigation water services.
 - ii. Fire suppression systems directly connected to a YCUA distribution main only, with no physical connections to other supplemental water supplies, will not require backflow prevention provided that no antifreeze or other additives of any kind are used and the sprinkler system drains to the atmosphere.
 - iii. Fire suppression systems directly connected to a YCUA distribution main and also having supplemental supplies of non-potable water, or being located within 500' of a body of water, shall be isolated from the YCUA distribution main by an approved backflow prevention device.
 - iv. Fire suppression systems directly connected to a YCUA distribution main and which incorporate an elevated storage tank for fire protection shall be isolated from the YCUA distribution main by an approved double check valve assembly.
 - v. Fire suppression systems shall be equipped with detector checks to prevent cross connections with the metered potable water system internal to the building.
6. Meters
- a. General
 - i. Each residence or building connected to the YCUA distribution system shall be equipped with a meter on each water service entering the property. Multiple-family residences with a single water service will be provided a single meter. All non-residential properties will only be provided a single meter. The user will be required to pay to YCUA a service charge equal to the cost of the

meter upon making application for service. Ownership of meters will remain with YCUA.

- ii. YCUA reserves the right to review and approve the size of meter requested for each meter installation. For premises to be served by a 1¼" or larger water service the applicant shall provide to YCUA a complete itemized building fixture count for use in the sizing of the meter and service.
 - iii. Irrigation systems connected to the water supply system shall be equipped with a meter. Irrigation meters for properties with a single domestic water service to the entire building shall be no larger than the domestic water service upstream of the domestic water meter. Irrigation meters for irrigation water services connected directly to a YCUA water distribution main will be evaluated individually.
 - iv. Fire suppression services shall be equipped with a ¾" diameter detection meter.
- b. Meter Locations
- i. Water meters shall be located in basements, utility rooms, boiler or mechanical rooms. The meter shall be positioned a maximum of 24" from the service entrance outside wall and located a minimum of 18" to a maximum of 48" above the basement or lowest floor. The meter shall always be located in an easily accessible area which is heated and protected from the weather. The locating of water meters in such areas as crawl spaces and under kitchen sinks, etc., is not considered an easily accessible area. Nothing shall be stored or placed in the area of the meter which would hinder YCUA personnel from accessing the meter for the purpose of reading, inspecting, repairing, or replacing it.
 - ii. Meters on irrigation water services connected directly to YCUA distribution mains where the meter cannot be located within a building shall be installed in an above ground meter enclosure, such as Lok Box as manufactured by Hot Box or approved equal.
 - iii. All meters shall be installed in a horizontal orientation. No vertical installations will be permitted.
- c. Master meters for multiple-family residential and non-residential properties are permitted, subject to the approval of YCUA. Water supply system components downstream of master meters will be considered customer site piping. Operation and maintenance of customer site piping will be the responsibility of the customer. Upon acceptance of the water supply system improvements, ownership and maintenance of the meter and vault will be the responsibility of YCUA. Master meters will be reviewed on an individual basis and shall include such auxiliary equipment as deemed necessary by YCUA, including but not necessarily limited to the following:

- i. Master meters shall be installed in an underground vault with adequate access provided to operate and maintain the meter, isolation valves, and appurtenances.
 - ii. Master meter vaults shall be protected from physical damage during a 100-year flood and remain operable and accessible during a 25-year flood.
 - iii. Master meter vaults and equipment shall be protected from vehicular traffic. Provisions for maintenance vehicles shall be provided, including pavement with sufficient space to park and maneuver as well as a curb cut to allow ingress/egress from the adjacent roadway.
 - iv. A sketch of the typical master meter vault layout, including some of the standard equipment requirements, is provided in Appendix B. The master meter vault must include an external bypass as well as redundant isolation valves both upstream and downstream of the meter. Master meter vaults shall be equipped with a steel bolt-on ladder and a Ladder Up Safety Post as manufactured by the Bilco Company or approved equal.
 - v. Electrical, instrumentation and control devices may be required.
7. Corrosion control in addition to polyethylene encasement may be required for ductile iron water main and appurtenances depending on, but not necessarily limited to, the following items: soil characteristics and/or proximity to petroleum pipelines. The designer shall contact DIPRA for evaluation and determination of the required corrosion control. A copy of DIPRA's evaluation and recommendation shall be provided to YCUA.
8. Design of other water supply infrastructure, including but not necessarily limited to pressure reducing valves, storage facilities, and booster pump stations, will be evaluated and approved by YCUA individually. Design of these types of water supply infrastructure will likely require electrical, instrumentation and control devices, including adequate alarms and backup power.
9. Tracer wire is required for all water system infrastructure. The design of the tracer wires and connection points must be reviewed and approved by YCUA.

Materials

1. Water Transmission and Distribution Mains
- a. Water transmission and distribution main pipe shall be ductile iron manufactured in accordance with AWWA C151 (ANSI A21.51), latest revision thereof.
 - b. Ductile iron pipe shall be thickness class 350 for pipes up to 16" diameter and thickness class 56 for pipes 20" diameter and larger. Ductile iron pipe shall be standard cement double thickness lined in accordance with AWWA C104 (ANSI A21.4), latest revision thereof. Pipe exterior shall be seal coated with an approved asphalt seal coat.
 - c. If other materials are proposed for use, the applicant shall furnish the necessary design data for the proposed depth and operating conditions. Use of materials other than ductile iron will not be allowed unless approved by YCUA.

2. Fittings

- a. Fittings shall be ductile iron, 350 psi working pressure rating, meeting the requirements of AWWA C110 (ANSI A21.10), or AWWA C153 (ANSI A21.53) compact fittings, with cement mortar lining. Cement mortar lining shall meet AWWA C104 (ANSI A21.4) specification for a double thickness lining with an asphalt seal coat or fusion bonded epoxy meeting the requirements of AWWA C116, as approved by YCUA.

3. Joints

- a. Joints shall be push-on type meeting the requirements of AWWA C111 (ANSI A21.11). Mechanical or flanged joints will be allowed for special applications, subject to the approval of YCUA. Sealing gaskets, retainer glands and lubricants for joints shall meet the pipe manufacturer's specifications.
- b. The lubricant shall have no deleterious effect upon the color, taste or odor of potable water and shall not be corrosive to either the pipe or gasket.
- c. Where bell and spigot pipe and fittings may be necessary for connection to existing water mains, shop drawings of such pipe and fittings shall be submitted to YCUA by the applicant for approval.

4. Joint Restraint

- a. Ductile iron joints, where required, shall be restrained by an approved instant push-on restraining device or mechanical retaining gland.
- b. Push-on joints shall be restrained with approved instant joint-restraining devices such as Field Lok Gasket manufactured by U.S. Pipe Company or approved equal.
- c. Mechanical joint-restraining glands shall be the Megalug Series as manufactured by EBAA Iron or approved equal.
- d. Thrust blocks, where allowed, shall be made of 3,000 psi concrete and of adequate size and shape to resist all design working and surge pressures to which the main will be subjected.
- e. Harnessed joints and steel reinforced concrete anchorage may be required on pipes larger than 16" diameter.

5. Valves, Wells and Boxes

- a. Valves shall open counter-clockwise (left) in the Township and clockwise (right) within the City. All valves shall be equipped with an operating nut 2" square at the base tapering to 1 ¹⁵/₁₆" square at the top. The operating nut on clockwise-opening (right) valves shall be painted red.
- b. Gate valves shall be ductile iron body and bonnet, fully bronze mounted, reduced wall, resilient-seated valves with non-rising stems conforming to the applicable requirements of AWWA C500, C509, and C515, latest revisions. Valves shall have a minimum non-shock W.O.G. working pressure of 200 psi. The wedge shall be ductile iron with rubber-encapsulated seating surfaces. Stem shall be bronze of non-rising design with double O-ring packing.

- c. Butterfly valves shall conform to AWWA C504, latest revision, and GLWA Specification S-363, Butterfly Valves for Distribution System.
- d. Tapping Sleeves and Valves
 - i. Tapping sleeves, when specified, shall conform to AWWA C223, latest revision and shall be full length of heavy-duty stainless steel construction designed for use with the type of pipe to be tapped. Tapping sleeve body shall be 18-8 type 304 stainless steel. Flange shall be CF8 cast stainless steel. Bolts shall be 304 stainless steel. Gasket shall be full circumferential SBR compounded for water service. Tapping sleeve shall contain a test plug to assure seal prior to tapping.
 - ii. Tapping valves shall meet the specifications for gate valves except that the valve shall have a flange compatible with the tapping sleeve.
- e. Swing check valves shall have a cast or ductile iron body and bolted cap with a minimum non-shock W.O.G. working pressure of 150 psi. Seats shall be bronze and shall be screwed into the valve body. The disc shall be bronze or cast iron with permanently rolled in bronze faces. The disc hinge pin shall have ANSI 125 pound standard drill flat-faced flanges unless otherwise specified or shown on the Plans. Valves shall have outside weighted arm.
- f. Air release valves when specified shall be designed to operate under a maximum operating pressure of 300 psi and capable of venting 200 CFFAS (cubic feet of free air per second). Valves shall be cast iron with bronze internal parts and Type 304SS float.
- g. Valve Boxes
 - i. Boxes shall be three-piece screw-type, gray iron, with 5¼" shaft, such as East Jordan Iron Works #8560 or approved equal. All valve boxes shall have a ½" diameter hole field drilled 3" below the top to accommodate tracer wire.
 - ii. Valve box lids shall be gray iron, non-locking, drop-in type, with the word "Water" in raised letters, such as East Jordan Iron Works #6800 or approved equal. Valve box lids shall be non-locking type unless otherwise directed by YCUA.
 - iii. Valve boxes installed over gate valves shall be equipped with a steel gate valve adaptor as manufactured by Adaptor, Inc., or approved equal. Valve boxes installed over butterfly valves shall be equipped with a steel butterfly valve adaptor as manufactured by Adaptor, Inc., or approved equal. Valve box bases shall not rest directly upon the valve assembly.
- h. Valve Wells
 - i. Valve wells and covers shall be provided in accordance with the requirements of item III.Materials.3, Wastewater System, Materials, Manholes and Vaults. Valve wells constructed over an existing water main shall have a doghouse mudded to an 8" thick cookie.
 - ii. Covers shall have the words "Water Supply" in raised letters spaced in from the periphery of the cover.

- iii. Valves in wells shall be at least 6" above the floor of the well, supported with either precast or formed concrete.
- iv. Connections of water mains 6" through 24" diameter to valve wells shall be through:
 - (a) A flexible rubber boot which shall be securely clamped into a core-drilled pipe port. Pipe ports shall be core-drilled at the point of valve well manufacture and shall be accurately located within 1/2" of proposed water main centerline (Kor-N-Seal or approved equal).
 - (b) A self-adjusting mechanical pipe to manhole seal which provides a resilient flexible and infiltration-proof joint (Res-seal or approved equal).
 - (c) A flexible rubber wedge firmly rammed into a rubber gasket which is cast into the valve well (Press Wedge II or approved equal).
 - (d) Neoprene rubber for the manhole boot shall meet ASTM Specification C443 and shall have a minimum thickness of 3/8". Pipe clamp bands shall be of corrosion-resistant steel.
 - (e) Connection of water main larger than 24" diameter to valve wells shall be as approved by YCUA.
 - (f) Valve wells shall be water tight. Infiltration wrap shall be used to seal the joints and adjustments. The standards for sanitary manholes, joints, and adjustments applies to water wells.

6. Fire Hydrants

- a. Fire hydrants shall be East Jordan Iron Works Model 5-BR250 or Mueller A-425 Super Centurion, conforming to AWWA C502, breakable flange type, opening counter-clockwise, with 5 1/4" valve seat opening and 6" diameter inlet. All hydrants shall be 6' bury.
- b. Fire hydrants shall be fully bronze mounted, including top of the operating stem where it passes through the double o-ring seal in the bronze packing gland. The forged operating stem in the base and the valve seat shall also be of bronze. The molded valve shall be of composition rubber and the cast iron valve clamps shall be packed with o-ring seals and held tight to the stem by a threaded bronze hex retainer ring and threaded bronze locknut, anchored with set screws.
- c. Hydrants shall have nut type caps with chains. Top operating nut shall be 1 1/2" pentagonal.
- d. Hydrants shall have one 3 1/2" (4.05" O.D.) pumper connections with National Standard 7 1/2 threads per inch. All hydrants shall have City of Ann Arbor specification thread pattern.
- e. All hydrants shall have one 4" Storz adapter. The adapters shall be constructed of a A-356 High Strength Aluminum Alloy, painted orange. The Storz sealing surface shall have a machined metal seat. The threads and metal seat areas shall be Teflon coated. The adapters shall be equipped with a set of Type 302 stainless steel butterfly vanes designed to automatically open, by use of stainless steel torsion spring, with water flow and automatically close when flow is stopped. The adapter shall be installed on the left side of the hydrant when facing the hydrant.

- f. All hydrants shall be constructed with a companion gate valve in a valve box, located 3' from the center of the hydrant.

7. Water Services

- a. Water services $\frac{3}{4}$ " to 2" in diameter shall be Type K copper. Pipe material for water services larger than 2" in diameter shall be in accordance with the Materials portion of this Section (II-11). Water service pipe material shall be homogeneous between the YCUA distribution main and the outlet coupling downstream of the meter.
- b. Couplings for water services $\frac{3}{4}$ " to 2" diameter shall have a three-part union, and both inlet and outlet connections shall be able to receive the flared end of the copper water service pipe. Joints for water service pipe material larger than 2" diameter shall be in accordance with the Materials portion of this Section (II-11).
- c. Water service locations shall be marked at the right-of-way or easement line with a Utility Warning Marker as manufactured by Carsonite International, or approved equal.

8. Corporation Stops

- a. Corporation stops shall have bronze cast bodies and shall conform to the requirements specified in AWWA C800, latest revision. The outlet connection shall be able to receive the flared end of the copper water service pipe. Corporation stops connected to ductile iron, cast iron, steel or PVC water distribution mains for water services $\frac{3}{4}$ " to 2" diameter shall be Mueller Catalog No. B-25000N – Ball valves.
- b. Corporation stops adjacent to valves and other appurtenances shall be 1" diameter.
- c. Service saddles, for corporation stops not threaded directly to the water distribution main, shall be bronze with double stainless steel straps and shall conform to the requirements specified in AWWA C800, latest revision. Service saddles for water services $\frac{3}{4}$ " to 2" diameter shall be Mueller BR2S Series or approved equal.

9. Curb Stops and Boxes

- a. Curb stops shall be fully bronze and both inlet and outlet connections shall be able to receive the flared end of the copper water service pipe. Curb stops for water services $\frac{3}{4}$ " to 2" diameter shall be Ford B22-####NL Series or approved equal.
- b. Curb boxes shall be extension type with arch pattern base with 1" upper section such as Series 5601 for $\frac{3}{4}$ " and 1" diameter curb stops and Series 5603 for 1 1/4" to 2" diameter curb stops as manufactured by A.Y. MacDonald Mfg. Co. or approved equal. Curb box lids shall be cast iron with a one-piece two-hole Erie pattern lid such as 5601L as manufactured by A.Y. MacDonald Mfg. Co. or approved equal. Curb boxes located in paved surfaces shall be equipped with a cast iron curb box sleeve such as Mueller H-10342 or approved equal.

- c. Curb stops and boxes shall be provided with a stainless steel stationary shut-off rod attached to the curb stop with a stainless steel pin. The top of the rod shall be located within 3' of the surface.

10. Meters

- a. Except for master meters, meters will be furnished and installed by YCUA.
- b. Master meters 12" and smaller shall be Class 2 Turbine Meters manufactured by Sensus or approved equal. Compound meters are acceptable, subject to review and approval by YCUA. Meters larger than 12" diameter will be considered on an individual basis. Registers on master meters shall be Intelligent Communications Encoder as manufactured by Sensus or approved equal and shall indicate consumption in cubic feet.
- c. Master meter vaults shall be precast reinforced concrete in accordance with the requirements for manholes and vaults outlined in Chapter V, Wastewater System.
- d. Master meter vaults shall be equipped with steel bolt-on ladders and ladder up safety post as manufactured by Bilco Company or approved equal.

11. Backflow Prevention Devices

- a. Double check valve assemblies shall conform to the requirements specified in AWWA C510, latest revision.
- b. Reduced pressure zone assemblies shall conform to the requirements specified in AWWA C511, latest revision.
- c. Pressure vacuum breakers shall conform to the requirements specified in ANSI 1020, latest revision.

12. Corrosion Control

- a. Polyethylene encasement shall be installed on all ductile iron water main, fittings and appurtenances. Polyethylene encasement shall meet the requirements specified in AWWA C105 (ANSI 21.5), latest revision. Polyethylene encasement shall be a minimum of 8 mil thick Class aC (white) polyethylene. The encasement shall overlap the joint by approximately 12" on either side and be secured to the pipe with polyethylene adhesive tape. All pipe, fittings and appurtenances shall have enhanced polyethylene encasement that addresses, specifically, the potential influence of anaerobic bacteria and inhibits the formation of corrosion cells under the wrap.
- b. Additional corrosion control materials, if necessary, shall be in accordance with the recommendation of DIPRA.

13. Miscellaneous Materials

- a. All nuts and bolts located below grade shall be Core Blu (Trumbull) or R-Blue (Romac bolts) type steel.
- b. Tracer Wire
 - i. Wire to be used for tracer purposes shall be 12 gauge or greater, steel core, copper clad, Copperhead EHS, or Engineer approved equal.
 - ii. Connection shall be made using snake bite mainline or locking connector, or Engineer approved equal.
- c. Post Indicators and Valves
 - i. Post indicators, when specified, shall be American Flow Controls series A240 or Clow series 2954A with aluminum plates indicating OPEN or SHUT. Post indicator shall open left.
 - ii. Post indicator valves shall be American Flow Control Model 2500 or Clow model F-6120. All valves shall open left.
 - iii. Post indicators and their corresponding valves must be made by the same manufacturer.
- d. Bollards shall be 4" diameter galvanized schedule 40 steel posts 36" to 48" tall with a minimum depth of bury of 24". The posts shall be set in and filled with 3000 psi concrete. Bollards shall be painted OSHA "Safety Yellow."
- e. Casing Pipe Construction
 - i. Spacers for placement in the annular space between the carrier pipe and a casing pipe shall be Ranger II as manufactured by PSI or approved equal.
 - ii. End seals shall be Model C rubber seal with stainless steel bands as manufactured by PSI or approved equal.
- f. Materials for other water supply system infrastructure, including but not necessarily limited to pressure reducing valves, storage facilities, and booster pumps stations, will be evaluated individually.

Construction Methods

1. General

a. Excavation

Excavation, bedding, and backfill operations shall be accomplished in accordance with requirements outlined in Chapter VI, Grading and Earthwork, except as modified herein.

b. Water Use

Subject to the approval of YCUA, the proprietor can use the existing water supply system to obtain water needed to complete the water supply system improvements. The proprietor shall provide suitable backflow prevention for any temporary connections to the existing water supply system. As directed by YCUA, any water used from the system may be required to be metered and paid for at the current YCUA water usage rate in effect at the time of the construction of project.

c. Valve Operation

Unless directed otherwise by YCUA, operation of valves on the existing water supply system will be the responsibility of the contractor performing the work. All valve operation performed by a contractor shall be observed by YCUA and/or its designated representative. Advance notice to YCUA and/or its designated representative as well as any YCUA customers whose water supply will be interrupted by the valve operation is required. Such advanced notice shall be the responsibility of the contractor and two business days will be required prior to a scheduled contractor valve operation. Service interruptions shall only be scheduled to occur Monday through Thursday.

2. Submittals

a. Certifications

All pipe, fittings, and appurtenances delivered to the job shall be accompanied by certification papers showing that the materials have been manufactured and tested in accordance with all applicable standards.

b. Shop Drawings

Shop drawings may be required for certain materials including, but not necessarily limited to, corrosion control measures, pressure reducing valves, storage facilities, and booster pump stations, prior to fabrication and manufacture.

3. Delivery, Handling, and Storage

- a. Water supply system materials shall be delivered, handled, and stored in accordance with all applicable AWWA requirements, manufacturer's recommendations, and as specified by YCUA.

- b. Upon delivery to the project site all materials will be inspected by YCUA or its designated representative. Rejected materials shall be immediately removed from the project site by the proprietor.

4. Sequencing

In general, water supply system improvements shall be constructed in accordance with the following sequence:

- a. Install new water main and appurtenances.
- b. Poly pigging.
- c. Preliminary hydrostatic testing (recommended, performed at the proprietor's discretion).
- d. Disinfection.
- e. Flushing.
- f. Bacteriological testing.
- g. Hydrostatic testing.
- h. Connect to existing water supply system.
- i. Full flush at 2 feet/second or greater.
- j. Connect water services to new water main; abandon/remove old water main and/or appurtenances (if necessary).
- k. Abandon and/or remove out-of-service water main and appurtenances, if necessary.

5. Installation

- a. Water Transmission and Distribution Mains and Fittings
 - i. Ductile iron pipe and fittings shall be installed in accordance with the requirements of AWWA C600, latest revision, and as modified herein. Installation via open-cut excavation shall be accomplished in accordance with standard laying conditions.
 - (a) Ductile iron pipes shall be fully enclosed in polyethylene encasement and laid on a compacted sand cushion, 4" thick. Sand shall conform to fine aggregate MDOT Class II.
 - (b) Class II sand bedding material shall be placed around and above the pipe to a height of 12" above the pipe.
 - (c) Sand shall be compacted to 12" above the pipe to not less than 95 percent of the maximum unit density as determined at optimum moisture content.
 - ii. Other pipe materials and fittings approved for use by YCUA shall be installed in accordance with all applicable standards, manufacturer's recommendations, and as directed by YCUA.
 - iii. Water distribution and transmission mains shall be installed via open-cut excavation wherever possible. Other acceptable means of installation are

trenchless technologies such as horizontal directional drilling and pipe-bursting. Installations using other methods including, but not necessarily limited to, casing pipe construction and river crossings shall be completed as directed and/or approved by YCUA.

- iv. Tracer wire shall be placed along the top of the water main and taped in place with duct tape or electrical tape at maximum 6' intervals. All tracer wire shall be successfully tested for continuity. For ductile iron pipe, the tracer wire shall be placed outside the polyethylene encasement.
 - (1) Tracer wire shall be extended up the outside of each valve box, curb stop, hydrant, or other appurtenance of the main line through the use of a main line to service a three-way connector. The main line tracer wire shall remain along the pipe and not be cut or disturbed.
 - (2) Tracer wire on dead end water mains and at connections to existing mains that do not have tracer wire shall be terminated at a ground rod and use a main line service connector to bring up the branch side of the three-way outside the companion valve of the dead end hydrant and terminate by entering the valve box immediately downstream of the fire hydrant at the terminus of the water main.
- b. Joints and Joint Restraint
 - i. All joint materials shall be assembled in accordance with standard practice, the manufacturer's recommendations and as directed by YCUA.
 - ii. Restraints shall be applied to all joints that deflect pipe $1\frac{1}{4}^{\circ}$ or greater, including tees, hydrant shoes, reducers, plugs and caps. For push-on joints, approved restraints are required at the joint and in each direction at an adequate distance to resist the axial thrust of the test pressure. Where mechanical joints are approved by YCUA, proper restraints shall also be installed in each direction at an adequate distance in combination with approved mechanical restraints at the joint in conformance with the DIPRA schedule or the manufacturers recommended restraint distances.
 - iii. No concrete thrust blocks shall be installed in combination with approved restraints unless approved by YCUA. Thrust blocks, where allowed, shall be formed of 3,000 psi concrete and shall be installed against undisturbed earth.
- c. Valves, Wells and Boxes
 - i. Prior to installation, valves shall be inspected for direction of opening, number of turns to open, freedom of operation, tightness of pressure containing bolting and test plugs, cleanliness of valve ports and seating surfaces. All bolts and nuts, except for adjusting bolts or screws in butterfly valves, shall be checked for proper tightness. Seat adjusting bolts in butterfly valves shall be adjusted only as recommended by the manufacturer.
 - ii. Water main shall be placed level through all valve wells unless specified otherwise by YCUA.
 - iii. All flexible pipe to valve well connections shall be installed per manufacturers' specifications.
- d. Fire Hydrants

- i. Fire hydrants shall be installed in accordance with AWWA Manual M17. Each hydrant will be set plumb and braced firmly in this position. Connection of the hydrant to the branch will be made by means of mechanical joints, as herein specified under jointing. All joints between the hydrant and the main will be restrained by the same means as used for water main as specified in Item II.Construction Methods.5.b.
 - ii. If hydrants are furnished with drain outlets, the outlets must be permanently capped or plugged.
 - iii. After the hydrant has been set, an additional 1' depth of gravel shall be spread and tamped around the hydrant. When this has been done, the remaining backfill will be placed and compacted, taking care at all times to avoid jarring the hydrant.
 - iv. After hydrants have been installed and tested, the portion above ground shall be painted with 2 coats of Rustoleum OSHA "Safety Yellow."
- e. Cleaning and Testing

i. Cleaning

Prior to disinfection and hydrostatic testing, newly constructed water mains less than 24" in diameter shall be thoroughly flushed to remove all accumulated debris that may have entered the line during construction. Flushing shall include the use of a "polly pig" or approved equal, to remove accumulated deposits. The frequency of running the "polly pig" through the water mains shall be determined by the debris discharging from the effluent. Several passes with the "polly pig" through the newly constructed system may be required before the main is acceptable. Procedures for use of the "polly pig", or approved equal equipment, may be per the manufacturer's specifications. Mains 24" in diameter and larger shall be manually cleaned and inspected during installation.

ii. Testing

(a) Bacteriological

After flushing, the water mains shall be disinfected in accordance with AWWA C651, latest revision.

The proprietor shall furnish chlorine and all necessary labor and equipment for its application. The proprietor shall make suitable arrangements with YCUA for bacteriological analysis. The proprietor shall dispose of high residual chlorine water by a method approved by YCUA.

Water mains 24" in diameter and larger shall be chlorinated in sections between main line valves. Chlorine solution shall be renewed and transferred to the next adjacent section of pipe minimizing the volume of water needed to sterilize the main.

(b) Hydrostatic

Within a reasonable length of time following installation and backfilling, the proprietor shall complete all work necessary to perform hydrostatic testing.

The hydrostatic testing shall be conducted in accordance with AWWA C600, latest revision.

The proprietor shall perform all necessary preliminary hydrostatic tests and shall make all necessary repairs, including the repair of all visible leaks and cracks, and re-tests with his own forces to ready the water mains for final hydrostatic inspection and testing. Immediately after the water mains have passed such preliminary tests, the proprietor shall perform a final hydrostatic inspection and test.

The hydrostatic test shall be conducted before the new water main is connected to the existing water system, except as specified below. The proprietor shall furnish all necessary personnel, temporary blow-offs, plugs, bracing, test pumps and all other necessary apparatus for conducting the test. Testing shall be conducted under the observation of the YCUA or its designated representative.

At the option of YCUA, testing may be performed against closed, locked valves, providing that the new main has passed bacteria tests, to be tested and the testing apparatus shall have first been flushed and chlorinated in accordance with accepted procedure. After chlorination and subsequent flushing, a sample of water must show safe bacteriological results through a test by a recognized laboratory. In the event of an unsatisfactory hydrostatic test, the proprietor will cut the new main, install caps or plugs, pressure test and re-chlorinate.

Each hydrant assembly shall be tested. The test shall consist of flushing the hydrant for a minimum of 10 minutes. During the test period, the flanges of the hydrant will be hydrostatically tested at the system's pressure and the 6" gate valve shall be closed and opened. The proprietor shall provide all necessary equipment and labor for making the tests, including hoses for disposal of water. A testing schedule and method of disposing of flushing water shall be submitted to YCUA for approval. The testing schedule shall be coordinated with YCUA or its designated representative.

- f. Water Services
 - i. Water services $\frac{3}{4}$ " to 2" diameter shall be installed in accordance with manufacturers' recommendations. Water services larger than 2" diameter shall be installed in accordance with the requirements for water distribution mains.
 - ii. Water services from one side of a public roadway to the opposite side shall be installed in accordance with the requirements of the agency having jurisdiction over the right-of-way and as approved by YCUA.
- g. Corporation stops and saddle sleeves, where required, shall be installed in accordance with manufacturers' recommendations and as directed by YCUA. Corporation stops will be tested for proper operation by YCUA or its designated representative prior to backfilling.

- h. Curb stops and boxes shall be installed in accordance with manufacturers' recommendations and as directed by YCUA. Curb stops will be checked for accessibility and proper operation by YCUA or its designated representative prior to installation of a meter. Unless otherwise authorized, only YCUA staff shall operate curb stops.
- i. Meters
 - i. Unless otherwise authorized by YCUA, domestic and fire suppression meters up to 1½" diameter will be installed by YCUA personnel.
 - ii. Meters larger than 1½" diameter shall be installed by the proprietor and inspected and approved by YCUA or its designated representative. Master meters will not be provided by YCUA. Master meters shall be tested and calibrated in accordance with applicable AWWA standards and manufacturers' recommendations.
- j. Backflow prevention devices shall be installed in accordance with applicable AWWA standards and manufacturers' recommendations. Backflow prevention devices shall be tested by a state certified tester and a written copy of the certification generated during the test shall be submitted to YCUA.
- k. Corrosion Control
 - i. Polyethylene encasement shall be installed as specified in AWWA C105 (ANSI 21.5), latest revision. V-Bio Additive is a new standard recommended by DIPRA.
 - ii. Additional corrosion control measures, if necessary, shall be installed in accordance with the recommendation of DIPRA and/or the manufacturer.
- l. Other water supply system infrastructure including, but not necessarily limited to, pressure reducing valves, storage facilities, and booster pumps stations, shall be installed in accordance with all applicable AWWA standards, manufacturers' recommendations, and as directed by YCUA.

V. WASTEWATER SYSTEM

General

1. Wastewater system improvements shall be designed and constructed in accordance with the requirements of Part 41 of Act 451 of the Public Acts of 1994, as amended, the most recent revision of the Recommended Standards for Sewage Works by the Great Lakes-Upper Mississippi River Board of State Sanitary Engineers (commonly known as the "Ten States Standards") and as prescribed herein.
2. All wastewater system improvements will require the review and approval of the Ypsilanti Community Utilities Authority (YCUA). Proposed public wastewater system improvements will require the review and approval of YCUA and the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Wastewater facilities are typically considered public facilities when two or more service connections are made to the same sanitary sewer. In most instances, including multiple unit developments, the sanitary sewer may have to be public even though the project has one owner. YCUA approval will be required for private sanitary sewers serving more than one residence or building. The extension of sanitary sewers will generally be required across the entire frontage of the site.
3. Wastewater system improvements specified in the latest revision of the YCUA Sanitary Sewer Master Plan may be required as part of the project. The applicant shall contact YCUA to determine if any improvements identified in the latest revision of the YCUA Sanitary Sewer Master Plan will need to be incorporated as part of the project.
4. Plan and profile views shall be provided for all proposed wastewater system improvements including force mains. The plan and profile shall be presented on the same plan sheet and shall be vertically oriented.
 - a. Wastewater design calculations, the wastewater district map and a wastewater system quantity list shall be provided on the cover sheet of the detailed engineering plans. The design calculations and wastewater district map shall include both current and future service areas and populations. The wastewater system quantity list shall be delineated by existing or proposed road right-of-way or easement.
 - b. The following information must be shown in the plan view of proposed wastewater system improvements:
 - i. Size, material and type of pipe.
 - ii. Length between structures (and/or appurtenances for pressure sanitary sewers).
 - iii. Slope of pipe between structures (and/or appurtenances for pressure sanitary sewers).
 - iv. Where required, a dedicated sanitary sewer easement must be shown on the plans. The sanitary sewer easement width shall be either twice the depth of

- the pipe plus the diameter of the pipe plus 2' (rounded up to the nearest whole foot), or 25', whichever is greater.
- v. Top of casting and all pipe invert elevations with direction identified at each structure (and/or appurtenances for pressure sanitary sewers).
 - vi. Progressive numbering system for structures and appurtenances.
- c. The following information must be shown in the profile view of proposed wastewater system improvements:
- i. Existing and proposed ground elevations.
 - ii. Length, type, class, size and slope of pipe between structures (and/or appurtenances for pressure sanitary sewers).
 - iii. Top of casting and all pipe inverts with direction identified at all structures;
 - iv. All utility crossings.
 - v. Special backfill areas, i.e. sand.
 - vi. Provisions for infiltration testing.
 - vii. Progressive numbering system on structures.
 - viii. Adjacent existing or proposed utilities plotted where parallel.
- d. Plans showing any proposed wastewater system improvements, public and/or private, shall be accompanied by the YCUA standard wastewater detail sheets. The standard details are included in the Digital Appendix.
5. Connection of individual residences or buildings to the wastewater collection system will require the submittal of a utility service plan for review and approval by YCUA. Utility services plans can be submitted on 8½" x 11" white paper with blue or black lines. The following information must be shown on the utility service plan:
- a. The applicant's name, address, telephone number, and electronic mail address (if available).
 - b. The name, address, telephone and fax numbers, and electronic mail address for the applicant's engineer/surveyor.
 - c. The utility service plan shall be prepared to a scale of 1" = 40'. The following items must be shown on the utility service plan:
 - i. A legal description of the parcel, including tax identification number, along with a sketch showing all property lines including the bearing and distance.
 - ii. All sides of the proposed or existing building.
 - iii. Existing and/or proposed driveways and sidewalks, including materials and thicknesses.
 - iv. Existing and/or proposed utilities on the parcel or in the adjacent public right-of-way or easement. Utilities to be shown include, but may not necessarily be

limited to: water supply, wastewater, storm sewer, gas, telephone, electric, and cable television.

- v. Existing and/or proposed building sewers, water services, and storm sewer laterals (for sump pump discharges, if applicable). Information shall include proposed material and size. Dimension all pipes and any cleanouts from the building corners.
6. Trunk line and transmission charges, benefit charges, as well as tap fees and meter fees associated may apply to water supply system improvements and/or connections to the existing water supply system. The schedules for these fees can be found on the YCUA website.
 7. Projects involving non-residential discharges to the YCUA wastewater collection system may be required to be designed, constructed and operated in accordance with the Industrial Pretreatment Program as identified in the YCUA Sewer Use Ordinances, latest revision.

Design Criteria

1. Capacity Design

- a. For design purposes, population in the tributary area shall be based on a minimum of 3½ persons per single family residence, also referred to as an equivalent residential unit (ERU). The basis of design calculations shall include a tabulation of the proposed usage types and the conversion of the various uses into ERUs. The adopted unit factors as included in the YCUA Trunkline and Transmission Line Service Charge ordinance shall be used to convert different usage types to ERUs.
- b. Wastewater collection systems shall be designed on the basis of an average daily flow of 100 gallons per capita per day. The required capacity shall be determined by the peak design flow using the peaking factor as prescribed by the Ten States Standards.
- c. All gravity sanitary sewers shall be designed to provide average velocities, when flowing full, of not less than 2 feet per second, based on Manning's formula using an "n" value of 0.013. The maximum design velocity for gravity sanitary sewers shall be 10 feet per second with the pipe flowing full.
- d. The minimum size for gravity sanitary sewers shall be as follows:
 - i. For proposed systems discharging to existing gravity sanitary sewers 10" diameter or larger, the minimum size pipe shall be 10" diameter, with the terminal section of 10" diameter gravity sanitary sewer at a uniform slope of not less than 1.0% between structures. The minimum slope for all other sections of 10" diameter gravity sanitary sewer shall be 0.3% between structures.
 - ii. For proposed systems discharging to existing 8" diameter gravity sanitary sewers, the proposed pipe shall be 8" diameter, with the terminal section of 8"

diameter gravity sanitary sewer installed at a uniform grade of not less than 1.0% between structures. The minimum slope for all other sections of 8" diameter gravity sanitary sewer shall be 0.4% between structures.

- iii. No proposed discharges, including connection of building sewers, to existing sanitary sewers smaller than 8" diameter will be allowed.
- iv. Gravity sanitary sewer pipes smaller than 8" diameter are considered building sewers and no more than one service connection will be allowed through pipes smaller than 8" diameter.
- e. Non-residential discharges to the YCUA wastewater system may need to incorporate such measures including, but not necessarily limited to, grease separators and/or oil separators. The need for such measures and design thereof shall be subject to the review and approval of YCUA.

2. Sanitary Sewer Location

- a. Sanitary sewers shall be located to provide unrestricted access for inspection and maintenance operations. Wherever possible, sanitary sewers and appurtenances shall be located outside the influence of existing or proposed pavement. Within existing or proposed public road rights-of-way, sanitary sewer alignments and appurtenance locations should be in accordance with the requirements of the agency having jurisdiction. Alignments and locations within private road easements should be in accordance with the requirements of the agency having jurisdiction over the adjacent public road right-of-way. Sanitary sewer alignments and appurtenance locations in easements outside of public road rights-of-way will be evaluated individually.
- b. A minimum horizontal separation of 10' shall be provided between sanitary sewers and water mains. Adequate horizontal separation shall be provided between sanitary sewers and all other underground utilities to allow a 1:1 trench slope from the bottom of the deeper utility such that the shallower utility will not be undermined. If it is impossible to obtain proper horizontal and vertical separation as described above, both the water main and sanitary sewer must be constructed of push-on or mechanical joint pipe complying with the requirements outlined in Chapter II, Water Supply System. A variance will be required from both YCUA and EGLE for any proposed sanitary sewer improvements that will not satisfy the minimum horizontal separation requirements.
- c. Where sanitary sewer alignments cross alignments of other utilities, the angle between horizontal alignments at the crossing shall not be less than 45°.

3. Depth of Sewers

- a. The minimum depth of cover over the top of gravity sanitary sewer pipe shall be 4' as measured from the proposed ground elevation.
- b. Gravity sanitary sewers shall be a minimum of 10' deep when fronting residential parcels to be directly connected to the sewer. Deep setbacks or unusual topographic conditions may require more depth.

- c. A minimum vertical separation of 18" shall be provided between sanitary sewers and water mains. In addition, a minimum vertical separation of 12" shall be provided between sanitary sewers and other underground utilities unless otherwise approved by YCUA and/or the agency having jurisdiction over the other utility.
- d. The maximum depth to invert of any sanitary sewer shall not exceed the depth recommended by the pipe manufacturer for each size and class of pipe. The applicant's design engineer shall provide the manufacturer's installation instructions/recommendations with the plan submittal for review by YCUA.

4. Manholes

- a. Manholes shall be installed at intervals not to exceed 300', or at the following locations:
 - i. The upstream terminus of a gravity sanitary sewer run, including transition between a gravity building sewer and a low-pressure sanitary sewer pipe. Wherever possible, dead-end gravity sanitary sewer alignments shall be avoided. Gravity sanitary sewer alignments shall be extended to common terminus locations and high-point manholes shall be installed at the common terminus locations.
 - ii. All changes in pipe grade.
 - iii. All changes in pipe size.
 - iv. All changes in horizontal alignment.
 - v. All gravity sanitary sewer junctions.
 - vi. Monitoring locations as identified in the YCUA Sewer Use Ordinance, latest revision.
- b. Manholes shall be located such that the casting will not be in street or parking lot pavements, sidewalks or driveways.
- c. Manholes for sanitary sewers 21" diameter and smaller shall have a minimum inside diameter of 48". Manholes for sanitary sewers larger than 21" diameter shall have a minimum inside diameter of 60". Larger diameter manholes may be required depending on such factors as the number of sanitary sewers at a junction or significant changes in horizontal alignment. Manholes for transitions between gravity building sewers and low-pressure sanitary sewer pipe shall have a minimum inside diameter of 24".
- d. Internal drop connections will be required where the invert of the outlet gravity sanitary sewer is 18" or more below the inlet pipe invert.
- e. The 0.8 depth flow line of gravity sanitary sewers shall be matched at structures when changing sizes of gravity sanitary sewers.

- f. An allowance of 0.1' in grade shall be made for loss of head through a manhole where gravity sanitary sewer horizontal alignment is deflected 30° or more.

5. Building Sewers

a. General

- i. Except as permitted by the YCUA Sewer Use Ordinances, each individual residence or building connected to the YCUA wastewater collection system shall have an independent building sewer.
 - ii. For each parcel along the route of a proposed gravity sanitary sewer, a building sewer shall be constructed from the gravity sanitary sewer to the public right-of-way or easement line. In particular, this applies to any parcels in the sanitary sewer service design area that are zoned for no more than one single-family residence or parcels that have an existing residence or building when the gravity sanitary sewer is installed. Installation of building sewers may not be required to larger vacant parcels that may be developed in the future.
- b. Building sewers shall be aligned such that the building sewer pipe is perpendicular to the centerline of the public road right-of-way or easement.
 - c. Building sewers may be connected directly to an existing manhole when the manhole is located in the right-of-way or easement between the extension of the side property lines of the parcel. Internal drop connections, as specified elsewhere, may be required.
 - d. The minimum grade for building sewers shall be 1% for 6" diameter pipe and 2% for 4" diameter pipe.
 - e. Connections other than sanitary building sewers will not be permitted. Downspouts, weep tile, footing drains, sump pump discharges or any other conduit that collects storm or ground water shall not be discharged into the building sewer.
 - f. Private building sewers of excessive length, although not a public sewer, may require inspection and testing. Each site will be considered individually by YCUA.
 - g. Cleanouts shall be provided within 5' of foundation walls, at all bends and at intervals not greater than 90', and at the location where the building sewer enters the public road right-of-way or the sanitary sewer easement.
 - h. Threaded cap cleanouts shall be installed in a minimum of 8" tall monument box with a minimum 8" internal diameter and sewer marked on the lid (EJ 1566 or an Engineer approved equal). Clean out monument boxes shall be set on a minimum of 6" compacted, well-graded stone.
 - i. The minimum allowable horizontal separations between building sewers and other facilities are as follows:
 - i. Water services – 3'.

- ii. All other utilities and structures – 10’.

6. Inverted Siphons

- a. In general, sanitary sewer siphons will only be accepted where no other feasible alternative exists and where there will be sufficient flow in the sewer so that maintenance will be held to a minimum.
- b. The minimum pipe size for inverted siphons shall be 6” diameter.
- c. A minimum of two pipes shall be provided for each inverted siphon. Inverted siphons shall be designed to have a minimum velocity of three feet per second. Design calculations including plan and profile drawings shall be submitted for review and approval by YCUA.

7. Pump/Lift Stations

- a. Pump stations and pressure sanitary sewers will only be allowed when no practical gravity sanitary sewer alternative exists.
- b. A minimum of two pumps shall be provided. Pump stations shall be designed to pump the anticipated peak hour flow with the largest pump out of service.
- c. Pump stations shall be protected from physical damage during a 100-year flood and remain operable and accessible during a 25-year flood.
- d. Pump station structures and equipment shall be protected from vehicular traffic. Provisions for maintenance vehicles shall be provided, including pavement with sufficient space to park and maneuver as well as a curb cut to allow ingress/egress from the adjacent roadway.
- e. Sketches of the typical pump station layout and sections, including some of the standard equipment requirements, are provided in the Digital Appendix. Pump stations must include valves and risers to accommodate bypass of the station under various conditions and drainage from the valve vault to the wet well.
- f. Electrical, instrumentation and control devices, including adequate alarms and backup power, will be required.
- g. Wastewater pumps shall meet the following requirements:
 - i. Pumps must be capable of passing 3” or larger spheres.
 - ii. Pump suction and discharge opening must be at least 4” diameter.
 - iii. Pumps shall operate under a positive suction head.
 - iv. Pump “off” level shall be above the pump impeller.
 - v. Pumps must be equipped with individual intakes.
 - vi. Pump motors shall be three-phase electric.
 - vii. Shut off valves shall be provided on the discharge line of each pump.

viii. Check valves shall be provided between the pump discharge and the shut off valve on the discharge line.

8. Pressure Sanitary Sewers

- a. Pressure sanitary sewer pipe shall have a minimum diameter of 4". Low pressure sanitary sewer pipe may require a smaller pipe to prevent solids and H₂S build-up and damage to the system.
- b. Pressure sanitary sewers shall be designed to maintain a minimum velocity of 2 feet per second.
- c. Valves and appurtenances shall be provided in the following locations:
 - i. Isolation valves shall be provided per the spacing requirements as specified in the Water Supply System chapter of these standards.
 - ii. Air/vacuum relief valves shall be provided at all high points.
 - iii. Clean outs shall be provided at all low points.
- d. Pressure sanitary sewers shall be designed to discharge to gravity sanitary sewers at manholes. The pressure sanitary sewer shall enter the receiving manhole at a point no less than 6" above the invert of the outlet gravity sanitary sewer invert and no more than 2' above the flow line in the gravity sanitary sewer.
- e. Pressure sanitary sewer pipe shall be designed to withstand both internal pressures and external trench as well as live loads. Design computations shall be submitted by the applicant's design engineer for review and approval by YCUA.
- f. Low pressure sanitary sewer systems which utilize individual grinder pump stations at each separate user will not be accepted as part of the YCUA wastewater collection system. Such systems, if deemed appropriate by YCUA, will be private with operation and maintenance of both the grinder pump station and low-pressure sanitary sewer pipe remaining the responsibility of the applicant or property owner.

9. On-site sewage disposal will be allowed in locations where public gravity sanitary sewer is not available. A copy of a valid on-site sewage disposal system permit from the Washtenaw County Environmental Health Division must be submitted prior to plan approval.

Materials

1. Sanitary Sewer Pipe

- a. Gravity sanitary sewer pipe shall be one of the following:
 - i. For pipes 4" diameter to 15" diameter, solid wall polyvinyl chloride (PVC) conforming to the requirements of ASTM D3034, latest revision. Solid wall PVC pipe shall have a sidewall dimension ratio (SDR) no greater than 26.
 - ii. Extra strength clay pipe conforming to the requirements of ASTM C700, latest revision.
 - iii. Reinforced concrete pipe and inverted siphons conforming to the requirements of ASTM C76, latest revision.
- b. Pressure sanitary sewer pipe shall be one of the following:
 - i. Ductile iron conforming to the material requirements prescribed in item II.Materials.1., Water Supply System, Materials, Water Transmission and Distribution Mains.
 - ii. Solid wall PVC conforming to the requirements of ASTM D3034, latest revision, with an SDR no greater than 21.
- c. If other materials are proposed for use, the applicant shall furnish the necessary design data for the proposed depth and operating conditions. Use of materials other than those specified herein will not be allowed unless approved by YCUA.

2. Pipe Joints

- a. Pipe joints for gravity sanitary sewer shall conform to the following requirements depending on the type of pipe used:
 - i. Joints for solid wall PVC pipe shall be push-on type unless solvent weld joints are approved by YCUA. Push-on type joints shall conform to ASTM D3212, latest revision. Solvent weld joints, where approved by YCUA, shall conform to ASTM D2855, latest revision.
 - ii. Bell and spigot joints on extra strength clay pipe shall be in accordance with requirements of ASTM C425.
 - iii. Modified grooved tongue joints for reinforced concrete pipe shall have a rubber gasket snapped into a groove cast in to the tongue. Rubber gasket joints for reinforced concrete pipe shall be in accordance with ASTM C443, latest revision.
- b. Joints and fittings for pressure sanitary sewer pipe shall be equal to the YCUA requirements for pressure pipe as specified in Chapter II, Water Supply System.

3. Manholes and Vaults

- a. Manholes and vaults shall be constructed of precast reinforced concrete sections, unless otherwise approved by YCUA.
- b. Precast reinforced concrete manhole sections shall conform to requirements of ASTM C478, latest revision.
- c. Precast manhole joints shall be modified grooved tongue with rubber gasket joints as described in item III. Materials.2., Wastewater System, Materials, Joints.
- d. Manhole steps, where required by YCUA, shall be reinforced polypropylene plastic, PS2-PFS, manufactured by M.A. Industries, Inc., or approved equal.
- e. Cover and frame for new manholes shall be East Jordan Iron Works #1040Z with Type "AGS" cover or approved equal. Covers shall be cast with the words "SANITARY SEWER" in raised letters spaced in from the periphery of the cover. New cover and frame for existing manholes (gasketed, no bolts, recessed pick holes) shall match the existing cover and frame.
- f. All new sanitary manholes shall have an infiltration fabric placed from the top of the frame casting base over the adjustment rings and over at least half of the transition cone section of the manhole chimney. The material shall be Infra-Shield, Canusa Wrap, WrapidSeal, or approved equal. Existing sanitary manholes located within the limits of a project that have the cone section excavated shall have the infiltration fabric installed. Existing manholes that are not excavated shall have the chimney coated internally with a product approved by YCUA.
- g. Rings for grade adjustment of covers and frames shall be injection molded high density polyethylene adjustment rings as manufactured by Ladtech, Inc., or approved equal. Use of other materials, such as precast concrete rings or concrete brick and mortar, will not be allowed unless otherwise approved by YCUA.
- h. All adjustment for matching road grade shall be made utilizing a molded indexed slope ring.
- i. Each adjustment ring shall be sealed with a 3/16" to 1/4" bead of butyl rubber sealant per the manufacturer's instructions. Sealant shall meet ASTM C-990, latest revision.
- j. All castings and adjustment rings shall be securely fastened to the cone of the structure with four 3/8" threaded rods. The rods shall be galvanized or stainless steel anchored to the structure with Redhead concrete anchors or equal. Stainless steel or galvanized nuts and washers shall be used to attach the casting.
- k. Manhole Drops

- i. Manhole drop connections shall be interior drops using the drop bowl as produced by Reliner-Duran Inc. or approved equal.
- ii. Drop bowl model "A-4" shall be used for all lines up through full 6" inlets. Drop bowl model "A-6" shall be used for all 8" inlets. Drop bowl model "B-8" shall be used for all 10" inlets. Lines larger than 10" shall be as directed by YCUA.
- iii. The force line hood shall be attached on models "A-4" and "A-6" when the incoming line is from a force main or the slope of the incoming gravity sanitary sewer is 3% or greater.
- iv. The drop pipe shall be secured to the manhole wall with Reliner-Duran, Inc. stainless steel adjustable clamping brackets or approved equal.
- v. The drop will face the flow downstream and have a custom built concrete bench that directs the flow into the channel.

4. Building Sewers

- a. Building sewers shall be constructed of solid wall PVC pipe conforming to ASTM D2751, latest revision, minimum schedule 40 or solid wall PVC conforming to the requirements of ASTM D3034, latest revision, with an SDR no greater than 26.
- b. Building sewers larger than 6" diameter shall be constructed of materials permitted for gravity sanitary sewers under the same conditions of depth.
- c. Joints in building sewers, including fittings, shall be solvent welded conforming to the requirements of item III. Materials.2.a.i., Wastewater System, Materials, Pipe Joints.
- d. Cleanouts, including bends, wye fittings, and caps shall be the same material as the building sewer. Caps shall be secured to the riser section of the cleanout via a threaded connection.
- e. Connection of new building sewers to existing gravity sanitary sewers shall be accomplished using a service saddle. Service saddles shall be a flexible tap saddle in tee configuration as manufactured by Fernco, Inc. or approved equal.

5. Pump Stations and Pressure Sanitary Sewers

- a. Unless otherwise approved by YCUA, pumps shall be submersible type. Pumps shall be manufactured by ITT Flygt or approved equal.
- b. Isolation valves on pressure sanitary sewers shall be plug valves.
 - i. Plug valves shall be non-lubricated, eccentric type with nitrile butadiene (hycar) or Buna-N resilient faced plugs. End connections shall generally be flanged or grooved for inside valves and mechanical joint for exterior ground-buried valves. Port area shall be equal to at least 80% of the nominal size pipe area. Valve bodies shall be suitably marked to indicate whether the valve is open or closed.
 - ii. The seating surface of the valve body shall be welded in stainless steel or nickel. Bearings at the top and bottom supporting the rotating element shall

be self-lubricating, corrosion-resistant type, suitable for sewage plant service. The valve shall be of the bolted bonnet design. Packing shall be adjustable and replaceable without disassembling of the valve. The valve body shall be cast or ductile iron marked to show seat side of valve. A grit seal shall be provided for the bottom of the valve shaft.

- iii. Plug valves shall be of adequate design to operate with a pressure of 50 psi on both sides or on either side of the valve without leakage.
6. On-site sewage disposal systems shall be constructed using materials approved by the Washtenaw County Environmental Health Division.

Construction Methods

1. General

a. Excavation

- i. Excavation, bedding, and backfill operations shall be accomplished in accordance with requirements outlined in Chapter VI, Grading and Earthwork, except as modified herein.
- ii. Pipes shall be laid on a compacted granular material placed on the bottom of the trench to a depth of not less than 3" for 24" diameter and smaller pipe and not less than 4" for pipe larger than 24" diameter. Concrete encasement or concrete cradle shall be used as directed by YCUA.
- iii. PVC pipe shall be laid on a compacted granular material placed on the bottom of the trench to a depth of not less than 4" conforming to Class B bedding as shown on the plans. Where shown on the plans, or where the pipe passes under a road with less than 4' of cover, the pipes shall be encased.
- iv. For all pipes, compacted granular material shall be placed at the sides of the pipe and cover not less than 12" above the crown of the pipe.
- v. "Granular Material" shall be Class II sand, pea gravel, or crushed stone conforming to ASTM C33 Size No. 67. Class II sand must be placed in no more than 6" layers and compacted to not less than 95% standard density for PVC and 90% standard density for reinforced concrete. Open graded stone is 100% upon placement and shucking into the haunch zone of the pipe.
- vi. Pea gravel or crushed stone used for bedding shall be separated from the sand backfill with a non-woven geotextile fabric. The fabric shall be Amoco 4551, or approved equal.

b. Existing Wastewater System

- i. Wastewater system improvements shall be constructed without interruption of service in the existing system. Temporary provisions to maintain service, such as bypass pumping, shall be the responsibility of the proprietor unless otherwise approved by YCUA.

- ii. The condition of the existing wastewater system will be observed by YCUA prior to the commencement of any improvements to the existing system or adjacent to the existing system. Any damage or adverse impact to the existing wastewater system resulting from the operations or actions of the proprietor or their designated representative shall be remedied by the proprietor. Damage or adverse impacts include, but are not necessarily limited to, introduction of debris to the system and improper adjustment of manhole castings.

2. Submittals

a. Certifications

All pipe, fittings, and appurtenances delivered to the job shall be accompanied by certification papers showing that the materials have been manufactured and tested in accordance with all applicable standards.

b. Shop Drawings

Shop drawings may be required for certain materials including, but not necessarily limited to, pump stations and appurtenances prior to fabrication and manufacture.

3. Delivery, Handling and Storage

- a. Wastewater system materials shall be delivered, handled, and stored in accordance with the manufacturer's recommendations and as specified by YCUA.

- b. Upon delivery to the project site all materials will be inspected by YCUA or its designated representative. Rejected materials shall be immediately removed from the project site by the proprietor.

4. Construction Sequence

Unless otherwise authorized by YCUA, construction of wastewater system improvements shall begin at the downstream end of the system and proceed upstream.

5. Installation

a. Sanitary Sewer Pipe

i. General

- (1) All pipe shall be laid true to the required lines and grades. All trenches when pipe laying is in progress shall be kept dry; and all pipes and fittings shall be uniformly supported on a properly trimmed bedding with holes at each joint to receive bells. All pipe shall be laid with bells uphill.
- (2) The grade as shown on the profiles is that of the pipe invert and that to which the work must conform. The grade shall be kept by levels, laser or other tools which shall be furnished by the proprietor. Each pipe shall be

laid accurately to the line and grade as shown on the Plans and in such manner as to form a close concentric joint with the adjoining pipe and prevent sudden offsets of the invert. The interior of sanitary sewer pipe shall, as the work progresses, be cleaned of all dirt, cement, debris and other superfluous materials. Bulkheads shall be used to keep foreign materials out of the open end of the sanitary sewer pipe when work is not in progress.

- (3) All pipe and fittings shall be carefully lowered and moved into position in the trench or vault in a controlled manner such as will prevent damage to the pipe and any coatings or lining. An excessive amount of scratching on the surface of the PVC pipe will be considered cause for rejection.
 - (4) The trench shall be backfilled closely behind the pipe laying. Unless otherwise directed or permitted by YCUA, the backfilling shall follow and be completed to the top of the trench within two pipe lengths behind pipe laying.
 - (5) All cutting of the pipe shall be done in a neat workmanlike manner with the least amount of waste and without damage to existing or new lines. A fine tooth saw, tubing cutter or similar tool may be used to cut PVC pipe. Cuts must be square. Ragged edges shall be removed with a cutting tool or file.
 - (6) After cutting bell and spigot or socket pipe, a stop mark shall be made with a pencil or crayon using dimensions as shown by the manufacturer's instructions or by using another pipe in the field as a guide.
 - (7) Breaks in pipe or joints shall be repaired by the proprietor to the satisfaction of YCUA.
- ii. Gravity Sanitary Sewer
- (1) Solid wall PVC pipe, shall be installed in accordance with the requirements of ASTM D2321, latest revision.
 - (2) Extra strength clay pipe shall be installed in accordance with the requirements of ASTM C12, latest revision.
 - (3) Reinforced concrete pipe shall be installed in accordance with the requirements of ASTM C76, latest revision.
- iii. Pressure Sanitary Sewer
- (1) Ductile iron pipe and appurtenances shall be installed as prescribed in item II. Construction Methods.5.a., Water Supply System, Construction Methods, Water Transmission and Distribution Mains. Ductile iron pipe shall have SewerSafe, ProtectO, or other coating as approved by the Engineer.
 - (2) Plastic pressure sanitary sewer pipe shall be installed in accordance with the requirements of ASTM D2274, latest revision.

All joints shall be made-up in accordance with the manufacturer's instructions using materials and equipment especially prepared for the type of joint to be used.

- b. Manholes and Vaults
 - i. Precast base section shall be placed on a well-graded granular bedding course conforming to requirements for sewer bedding, but not less than 6" in thickness and extending to the limits of the excavation. The bedding course shall be firmly tamped and made smooth and level to ensure uniform contact and support of the precast element.
 - ii. Manhole and Vault Sections
 - (1) All lift holes and all joints between precast elements in manholes shall be thoroughly wetted and then completely filled with mortar and smoothed to ensure watertightness. The outside of manhole joints shall be sealed with infiltration wrap.
 - (2) Precast sections shall be placed and aligned to provide vertical sides and vertical alignment of the manhole steps if required by YCUA. The complete manhole shall be rigid, true to dimensions, and watertight.
 - (3) Epoxy joints of polymer concrete manholes shall be inspected for damage and cleaned of all debris. Apply compatible epoxy material for bonding in accordance with manufacturer's instructions.
 - iii. Placing of Castings, Grade Rings, and Top Sections
 - (1) Castings placed on concrete surface shall be set in full mortar beds. The mortar shall be mixed in proportion of 1 part Portland cement to 2 parts sand, by volume, based on dry materials. Castings shall be set accurately to the finished elevation so that no subsequent adjustment will be necessary unless otherwise specified by YCUA.
 - (2) Where castings are located in paved surfaces or areas which have been brought to grade, not more than 15" shall be provided between the top of the cone or slab and the underside of the casting for adjustment of the casting to street grade. A minimum of 6" of adjustment shall be provided at each manhole.
 - (3) Where castings are located in unpaved traffic bearing areas, provide not more than 12" of adjusting rings between the top of the cone or slab and the underside of the casting for adjustment of the casting to finished grade. Set the top of the casting 5" below finished grade, unless otherwise directed by YCUA.
 - (4) Where castings are located in cultivated agricultural areas, the top of the manhole casting shall be set at least 6" higher than the finished grade, and in noncultivated areas, set the casting flush with the finished grade, unless otherwise directed by YCUA.
 - (5) Point up and make watertight adjusting rings used to set the casting to grade. Infiltration wrap shall cover the adjustment from 6" down on the cone to at least 4" from the lip of the frame.
 - (6) All channels shall be constructed to the full flow depth of the pipe.

c. Pumps and Appurtenances

Pumps and appurtenances, as well as other wastewater system infrastructure, shall be installed in accordance with all applicable ASTM standards, manufacturers recommendations, and as directed by YCUA.

d. Pressure Sanitary Sewer

Pressure sanitary sewer shall be tested in accordance with the requirement for hydrostatic testing as prescribed for water supply system improvement in Chapter IV.

6. Testing

a. General

All sanitary sewers shall be subjected to infiltration, exfiltration or low pressure air tests, or a combination thereof prior to final acceptance by YCUA. In addition, all PVC and ABS plastic sewers shall be subjected to deflection testing by means of a nine-point deflection test mandrel.

YCUA or its designated representative shall be present for all testing operations. If testing is to be done by the proprietor, only properly trained personnel shall be allowed to perform the testing work. If testing is to be done by municipal agency work forces, then the proprietor shall be responsible for coordinating with the inspector in order to schedule the testing.

In the event that the sanitary sewer pipe fails any of the required tests, the proprietor shall be responsible for repairing the pipe and repeating the test until acceptable results are achieved.

The method of testing and measurement shall be approved by YCUA. The proprietor shall provide all necessary equipment and labor for making the tests.

b. Infiltration Test

All sanitary sewers that are over 24" diameter shall be subjected to an infiltration test. Also, all sanitary sewers that are 24" diameter and smaller and where the ground water level is more than 7' above the top of the sewer shall be subjected to an infiltration test.

The infiltration rate for all sanitary sewers shall not exceed a maximum of 200 gal./in. diameter per mile of sewer per 24 hours.

c. Low Pressure Air Test

All sanitary sewers that are 24" diameter or smaller and where the ground water level is 7' or less above the top of the sewer shall be subjected to a low pressure air test.

Sight tubes are not permitted in the YCUA sanitary sewer system. Groundwater in the sanitary trench, for purposes of air testing, shall be measured by a piezometer tube located outside and adjacent to each manhole. The piezometer tube shall have a screened or slotted end, be backfilled with one cubic foot of

open graded aggregate at the end, and open at atmosphere between two (2) and three (3) feet above grade. The open graded aggregate around the end of the Piezometer shall be hydraulically connected to the sewer trench's open aggregate bedding and backfill. Upon substantial completion and acceptance of the sewer for use, the piezometer tube shall be removed or grouted, and abandoned at least three feet below grade.

The procedure for air testing of sanitary sewers shall be as follows:

The sanitary sewer line shall be tested in increments between manholes. The line shall be cleaned and plugged at each manhole. Such plugs shall be designed to hold against the test pressure and shall provide an airtight seal. One of the plugs shall have an orifice through which air can be introduced into the sewer. An air supply line shall be connected to the orifice. The supply line shall be fitted with suitable control valves and a pressure gauge for continually measuring the air pressure in the sewer. The pressure gauge shall have a minimum diameter of 3½" and a range of 0 – 10 psig. The gauge shall have minimum divisions of 0-10 psig and accuracy of plus or minus (+/-) 0.04 psig.

The sanitary sewer shall be pressurized to 4 psig greater than the greatest back pressure caused by ground water over the top of the sanitary sewer pipe. At least 2 minutes shall be allowed for the air pressure to stabilize between 3½ and 4 psig. If necessary, air shall be added to the sewer to maintain a pressure of 3½ psig or greater.

After the stabilization period, the air supply control valve shall be closed so that no more air will enter the sanitary sewer. The sanitary sewer air pressure shall be noted and timing for the test begun. The test shall not begin if the air pressure is less than 3½ psig, or such other pressure as is necessary to compensate for ground water level.

The time required for the air pressure to decrease 1.0 psig during the test shall not be less than the time shown in the following Air Test Tables. The proprietor shall use the appropriate test table based upon the sanitary sewer pipe material.

Table SA-1
Air Test Table for Vitrified Clay and Concrete Pipe

Specification Time (min:sec) Required for Pressure Drop from 3-1/2 to 2-1/2 PSIG When Testing One Pipe Diameter Only Pipe Diameter, Inches																
		4	6	8	10	12	15	18	21	24	27	30	33	36	39	42
Length of Line, Feet	25	0:04	0:10	0:18	0:22	0:27	0:32	0:36	0:45	0:54	1:03	1:12	1:21	1:30	1:39	1:50
	50	0:09	0:21	0:36	0:45	0:54	1:03	1:12	1:30	1:48	2:06	2:24	2:42	3:00	3:18	3:39
	75	0:14	0:32	0:54	1:08	1:21	1:34	1:48	2:15	2:42	3:09	3:36	4:03	4:30	4:57	5:29
	100	0:18	0:42	1:12	1:30	1:48	2:06	2:24	3:00	3:36	4:12	4:48	5:24	6:00	6:36	7:18
	125	0:22	0:52	1:30	1:52	2:15	2:38	3:00	3:45	4:30	5:15	6:00	6:45	7:30	8:15	9:08
	150	0:27	1:03	1:48	2:15	2:42	3:09	3:36	4:30	5:24	6:18	7:12	8:06	9:00	9:54	10:57
	175	0:32	1:14	2:06	2:38	3:09	3:40	4:12	5:15	6:18	7:21	8:24	9:27	10:30	11:33	12:47
	200	0:36	1:24	2:24	3:00	3:36	4:12	4:48	6:00	7:12	8:24	9:36	10:48	12:00	13:12	14:36
	225	0:40	1:34	2:42	3:22	4:03	4:44	5:24	6:45	8:06	9:27	10:48	12:09	13:30	14:51	16:26
	250	0:45	1:45	3:00	3:45	4:30	5:15	6:00	7:30	9:00	10:30	12:00	13:30	15:00	16:30	18:16
	275	0:50	1:56	3:18	4:08	4:57	5:46	6:36	8:15	9:54	11:33	13:12	14:51	16:30	18:09	20:06
	300	0:54	2:06	3:36	4:30	5:24	6:18	7:12	9:00	10:48	12:36	14:24	16:12	18:00	19:48	21:54
	350	1:03	2:27	4:12	5:15	6:18	7:21	8:24	10:30	12:36	14:42	16:48	18:54	21:00	23:06	25:33
	400	1:12	2:48	4:48	6:00	7:12	8:24	9:36	12:00	14:24	16:48	19:12	21:36	24:00	26:24	29:12
	450	1:21	3:09	5:24	6:45	8:06	9:27	10:48	13:30	16:12	18:54	21:36	24:18	27:00	29:42	32:51
	500	1:30	3:30	6:00	7:30	9:00	10:30	12:00	15:00	18:00	21:00	24:00	27:00	30:00	33:00	36:30

Note: Table SA-1 is taken from the National Clay Pipe Institute (NCPI) tables which are based upon ASTM C828 "Test Method for Low Pressure Air Test for Vitrified Clay Pipe Lines" and ASTM C924 "Standard Practice for Testing Concrete Pipe Sewer Lines by Low Pressure Air Test Method."

Table SA-2
Air Test Table for PVC and ABS Pipe
Minimum Specified Time Required for a 1.0 PSIG Pressure Drop
For Size and Length of Pipe Indicated for Q=0.0015 *

Pipe Dia. (in)	Minimum Time, (min:sec)	Length for Minimum Time, ft.	Time for Longer Length, seconds	Specified Time for Length (L) Shown, (min:sec)								
				100 feet	150 feet	200 feet	250 feet	300 feet	350 feet	400 feet	450 feet	
4	3:46	597	0.380 L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	0.854 L	5:40	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520 L	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24	
10	9:26	239	2.374 L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48	
12	11:20	199	3.418 L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38	
15	14:10	159	5.342 L	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04	
18	17:00	133	7.692 L	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41	
21	19:50	114	10.470 L	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31	
24	22:40	99	13.674 L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33	
27	25:30	88	17.306 L	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48	
30	28:20	80	21.366 L	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15	
33	31:10	72	25.852 L	43:05	64:38	86:10	107:43	129:16	150:43	172:43	193:53	
36	34:00	66	30.768 L	51:17	76:55	102:34	128:12	153:50	179:29	205:07	203:46	

Note: Table SA-2 is taken from ASTM F1417 “Standard Test Method for Installation and Acceptance of Plastic Gravity Sewer Lines Using Low Pressure Air Test”. ASTM F1417 conforms to Uni-Bell “Recommended Practice for Low Pressure Air Testing of Installed Sewer Pipe” (UNI-B-6-98).

Q is the allowable leakage rate in cubic feet/minute/square foot of inside surface area of pipe.

d. Exfiltration Test

Exfiltration or leakage from the sanitary sewer line can be measured by recording the water level drop over a given period of time in a standpipe placed and connected in the upstream manhole. The measured drop in the time period can be converted by calculations to the leakage rate in terms of gallons per inch of pipe diameter per mile per day.

Exfiltration tests may be substituted for low pressure air tests where approved by YCUA. Exfiltration tests will not be allowed where the external water pressure exceeds 4’.

For the purpose of exfiltration testing, the internal water level shall be equal to the external water level plus 4’ as measured from the top of the highest pipe in the system being tested. This could be either a house lead or a lateral. However, the maximum total height of water above the invert of the pipe at the lower end shall not exceed 16’. A prospective test that would exceed this 16’ limit should

not be taken. The line under construction can be broken down into smaller sections such that the maximum head of 16' will not be exceeded.

The maximum exfiltration rate shall be the same as that permitted for the infiltration test. The exfiltration test procedure is summarized as follows:

- i. All service laterals, stubs and fittings into the sewer line(s) being tested shall be properly capped or plugged, and carefully braced to resist the thrust actions developed by the internal water pressure. In preparing the blocking of plugs or end caps, it is extremely important to recognize that the 5' to 10' of head in the standpipe will exert considerable thrust against the plugs or caps.
- ii. A plug is inserted and tightened in the inlet pipe of the downstream manhole to which the water supply connection is made for filling the pipe.
- iii. The upper manhole is plugged and securely tightened for connection to the standpipe. The standpipe is then placed in this manhole and connected to the tapped plug. The standpipe must be capable of handling from 5' to 10' of water head to determine the tightness and soundness of the sewer line, as specified and directed by YCUA.
- iv. Water is introduced into the line at the downstream manhole until the standpipe in the upstream manhole has been completely filled. By filling the line from the lowest level, the air in the line is easily pushed ahead and, finally expelled through the standpipe at the upper end of the test section. Care should be taken to minimize entrapped air that will give distorted test results. The rate of drop in the standpipe may be quite rapid until the air has been expelled.
- v. After filling with water, the line must be allowed to stand for at least 4 hours before beginning the test. During this time some water absorption into the manhole structures and sewer pipe will take place. After the water absorption has stabilized, the water level in the standpipe is checked and water added if necessary.
- vi. The test is now ready to begin. The drop in the standpipe is measured and recorded over a 15-minute period. To verify the first results, a second 15-minute test is suggested. This will also verify whether a stable condition exists in the line.
- vii. The measured drops in the standpipe are converted to leakage in terms of gallons per inch diameter per mile per day.
- viii. Another commonly used method of conducting water exfiltration testing is to utilize the manhole in lieu of a standpipe. The test procedure is exactly as outlined for using the standpipe. However, since the manhole is larger in diameter than the standpipe, this method normally requires a minimum 2 hour test period in order to be able to record a measurable water level drop. Manhole leakage must also be considered in the leakage rate and test results.

Caution should be taken when conducting exfiltration tests on sanitary sewer lines laid on steep grades. Consideration must be given to the downstream portion of the system to prevent excessive pressures in these lower lines. For these installations and where the upstream manholes are very deep, it is not advisable to fill the standpipe or manhole to the top when performing the test.

e. Deflection Test for Plastic Pipe

The allowable maximum deflection shall be 5% of internal pipe diameter. A deflection test gauge (Go, No-Go Gauge) as manufactured by Hurco Industries, Cherne Industries, or approved equal shall be used to verify that the maximum allowable deflection standard is met. The test gauge must have a minimum of 9 points. Proving rings must be provided to verify gauge diameter. The gauge shall be pulled through manually; force will not be allowed. Pipe with deflections greater than 5% will be considered unacceptable and shall be re-laid by the proprietor.

f. Closed-Circuit Television Inspection

As a means of insuring that pipe laying was properly done and that all joints are in a "home" position, the applicant shall be responsible for closed-circuit television inspection of all pipe installed that is 36" diameter and smaller. This shall be done no sooner than 30 days after sewer installation is complete. A minimum of 24 hours' notice shall be provided to YCUA prior to closed-circuit television inspection so that a representative may be present. The closed-circuit television inspection shall be recorded on acceptable digital file formats (DVD, thumb drive, downloadable file, etc.), a copy of which shall be provided to YCUA for review. A satisfactory review of the closed-circuit television inspection by YCUA shall be a condition for final acceptance by YCUA. Typical items to be reviewed on the digital file format will include pipe deflection, pipe settlement, lead connections, joints and pipe cleanliness. If the digital file format review reveals unsatisfactory conditions, the deficiencies shall be corrected and the affected pipe sections shall be re-inspected by the proprietor for review by YCUA.

VI. STORMWATER MANAGEMENT

General

1. Stormwater management systems shall be designed in accordance with the Washtenaw County Water Resources Commissioner's Office (WCWRC) Rules and Guidelines – Procedures and Design Criteria for Stormwater Management Systems, latest revision. The Township Planning Department and Engineer may modify these requirements on a case by case basis for sites that are not under WCWRC jurisdiction and not adding more than 1,500 square-foot of impervious surface to a site.

EGLE is required to review projects due to thermal/environmental sensitivity in the following watersheds: Chicking Ditch and Paint Creek watersheds.

2. A long-term stormwater management maintenance agreement may be required as prescribed by the Township. In the event an agreement is required, the agreement shall be submitted as part of final acceptance and project closeout.
3. Where possible, the applicant is strongly encouraged to propose low-impact stormwater management designs that limit the amount of runoff generated on site.
4. Restricted discharge rates and/or improvements to downstream drainage courses may be required as prescribed by the Charter Township of Ypsilanti Stormwater Master Plan of 1994. The applicant shall contact the Township Engineer and/or the WCWRC to determine what design criteria specified in the Stormwater Master Plan apply to the proposed project.
5. Where an approved point of discharge is not available on the site, the applicant shall make such offsite drainage improvements as are necessary to provide positive drainage to an approved outlet, as determined by the Township Engineer and/or the WCWRC. Such improvements shall be located in an easement secured by the applicant. The easement form and width of the easement shall be subject to Township approval.
6. Soil borings in the location of any proposed stormwater storage facility are required. Soil borings shall include groundwater surface elevation information. Where infiltration is proposed, infiltration rates shall be calculated. For facilities proposing basements, soil borings must be performed in a grid pattern within the buildable areas to show the ground water characteristics of the site.
7. Plan and profile views shall be provided for all proposed stormwater management system improvements. The plan and profile shall be presented on the same plan sheet and shall be vertically oriented.
 - a. Design calculations for all components of stormwater management systems, including but not necessarily limited to storm sewers, channels and detention facilities, shall be provided on the plans.

- b. A drainage area map shall be included on the plans. The map shall define the areas tributary to catch basins and inlets (including upstream and offsite areas). The design calculations shall include the determination of the weighted runoff coefficients for the areas tributary to each specific inlet or outlet. The design calculations shall also include justification for the initial time of concentration used for the storm sewer design calculations.
- c. The following information must be shown in the plan view of the proposed storm sewer system improvements:
 - i. Size, material and type of pipe.
 - ii. Length between structures.
 - iii. Slope of sewer between structures.
 - iv. Where required, a dedicated stormwater easement must be shown on the plans. The easement width shall be in accordance with the following:
 - (1) 12' for open drainage along rear and side property lines.
 - (2) A minimum of 20' for enclosed storm drains.
 - (3) A minimum of 30' for open swales (cross lot drainage).
 - (4) Top of casting and all invert elevations at each structure.
 - (5) Progressive numbering system on structures.
- d. The following information must be shown in the profile view of the proposed storm sewer system improvements:
 - i. Existing and proposed ground elevations.
 - ii. Size, material and type of pipe.
 - iii. Length between structures.
 - iv. Slope of sewer between structures.
 - v. Hydraulic gradient between structures.
 - vi. Top of casting and all invert elevations at each structure.
 - vii. All utility crossings.
 - viii. Special backfill areas, i.e. sand.
 - ix. Progressive numbering system.
 - x. Adjacent existing or proposed utilities plotted where parallel.
- e. Where storm sewer construction is proposed, the Charter Township of Ypsilanti standard storm sewer detail sheets must accompany the plans. The standard details are included in the Digital Appendix.
- f. A stormwater management long-term maintenance agreement and plan shall be provided. An example is provided in Appendix C.

Design Criteria

Components of stormwater management systems shall be designed in accordance with the requirements of the WCWRC, as noted previously. The WCWRC design criteria shall apply to all stormwater management system components, regardless of whether the facilities will be publicly dedicated or privately maintained at the completion of the project.

1. Stormwater discharge rates shall be determined as prescribed in item 1 of Part A of this section.

2. Surface runoff shall be determined as outlined by the WCWRC.
3. Stormwater conveyance systems shall be designed per the requirements prescribed by the WCWRC. The following are acceptable forms of stormwater conveyance:
 - a. Natural streams and channels.
 - b. Vegetated swales and open ditches.
 - c. Storm sewers. Enclosed storm sewer systems are generally comprised of the following elements:
 - i. Pipe
 - ii. Manholes
 - iii. Catch Basins
 - iv. Inlets
 - v. Sump pump leads shall be connected into an enclosed system and shall be tapped directly into storm sewer structures or cleanouts at or above the hydraulic grade line of the 10-year storm. Sump pump leads shall not be discharged directly to open surfaces.
 - d. Culverts.
4. Detention/Retention facilities shall be designed per WCWRC guidelines.
5. Underground detention/retention facilities shall include all required bedding, cleanouts and monitoring manholes and can only count up to 30% of void volume for storage or as determined to be acceptable by the WCWRC.
6. Access easements or areas to be specifically preserved for entry to perform maintenance shall be provided on all retention, detention, or infiltration facilities.
7. Low impact design (LID) and/or Best Management Practices (BMPs) for stormwater management is encouraged within Ypsilanti Township however must be in conformance with the Low Impact Design Manual of Michigan and also in compliance with the requirements of the WCWRC. Examples of low impact design include:
 - a. Bioretention (rain garden)
 - b. Detention basin
 - c. Infiltration basin/trench
 - d. Bioswale

Materials

1. Vegetative cover for natural streams and channels, open ditches and swales, as well as detention/retention facilities shall be in accordance with the requirements of the WCWRC.

2. Sewer Pipe

- a. Storm sewer pipe shall conform to the current American Society for Testing Materials “Specifications for Reinforced Concrete Culvert, Storm Drain and Sewer Pipe”, ASTM C-76 for circular pipe, or ASTM C-507 for horizontal elliptical pipe, latest revision.
- b. If other materials are proposed for use, the applicant shall furnish the load carrying design analysis for the pipe for the proposed depth conditions.

3. Pipe Joints

- a. Pipe joints shall conform to the following requirements:
 - i. Modified Grooved Tongue (M.G.T.) pipe shall have a rubber gasket snapped into a groove cast into the tongue.
 - ii. The modified groove or bell end of the pipe shall be made smooth and shall have not over a 3.5% slope for sizes 10” – 24”, or a 2% slope for sizes 27” – 108”, tapered to fit the rubber gasket to tolerances as determined by the gasket manufacturer.
 - iii. Rubber gasket joints shall be in accordance with the Specification for “Joints for Concrete Pipe and Manholes, using Rubber Gaskets,” ASTM Designation: C-443, latest revision.
 - iv. Rubber gasket joints shall be lubricated and coupled in accordance with the pipe manufacturer’s printed instructions.

4. Manholes

- a. Manholes shall be precast reinforced concrete sections in accordance with the Ypsilanti Township Standard Details as seen in the Digital Appendix.
- b. Precast reinforced concrete manhole sections shall conform to the requirements of the American Society for Testing and Materials, “Specifications for Precast Reinforced Concrete Manhole Sections, ASTM Designation C-478, latest revision.
- c. Wall thickness shall depend on depth and shall be subject to the approval of the Township’s Engineer.
- d. Pre-cast or HDPE grade adjustment rings are encouraged under paved areas.
- e. Brick for casting adjustment or concrete block for manhole, inlet, and catch basin construction shall conform to the requirements of the current Michigan Department of Transportation “Standard Specifications for Construction,” latest revision. Wall thicknesses shall depend on depth and shall be subject to the approval of the Township’s Engineer.

- f. Pre-cast manhole joints shall be as described in Section IV. Materials.3.a.iii, Stormwater Management, Materials, Pipe Joints.
- g. A minimum of three to a maximum of six adjustment courses shall be placed above the top of the cone section on all precast or block manholes.
- h. Manhole covers and frames shall be East Jordan Iron Works #1040 with Type "B" cover, or approved equal. All storm structures receiving runoff shall include raised lettering reading "Dump no waste, Drains to Waterways" and a fish logo.
- i. The entire outside surface of all concrete block and brick masonry portion of drainage structures shall be plaster coated with ½" thick mortar.
- j. All manholes on storm sewers 18" in diameter and smaller shall have 2' deep sumps unless otherwise called for on the plans.

5. Catch Basins

- a. Catch basins shall be constructed of brick, precast manhole blocks, or precast reinforced concrete manhole sections, as described in Part 4 of this section, in accordance with the Ypsilanti Township Standard Details.
- b. Pavement catch basin and inlet frames and grates shall be in accordance with the requirements of the Washtenaw County Road Commission.
- c. Lawn catch basin and inlet frames and grates shall be East Jordan #1000, with Type "N" grate, or approved equal. All storm structures receiving runoff shall include raised lettering reading "Dump no waste, Drains to Waterways" and a fish logo.
- d. Ditch catch basin frames and grates shall be East Jordan #1000, with Type 01 Beehive grate, or approved equal.
- e. Parking lot catch basin frames and grates shall be selected at the discretion of the applicant's engineer, but shall be capable of carrying the anticipated traffic loads, and shall have sufficient opening area to receive the design stormwater runoff. Where possible, catch basins shall be placed out of the expected wheel paths of vehicles. When catch basins are placed within areas of travel, a concrete apron shall be provided.

Construction Methods

1. Construction Progress

Unless otherwise permitted by the Township Engineer and/or the WCWRC, construction of storm sewers shall begin at the outlet end of the sewer and proceed upgrade.

2. Certification and Inspection

All pipe and fittings delivered to the job shall be accompanied by certification papers showing that pipe and fittings have been tested in accordance with the applicable specifications and that pipe and fittings meet the specifications for this project. All pipe and fittings will be inspected upon delivery to the job site. No cracked, broken or damaged pipe or fitting will be allowed in this work. Rejected pipe and fittings will be immediately removed from the job site.

No pipe or fittings known to be defective shall be laid in the work. Any piece found to be defective after it has been laid shall be removed and replaced with a sound piece. If the major part of a defective pipe is sound, the good end may be cut off and used. Every such cut shall be square and ground smooth. Cut surfaces of ductile iron pipe shall be painted with two coats of approved asphaltum metal protective paint where required by the Township.

Full time inspection is required by the Township Engineer for all underground storm sewer infrastructure.

3. Excavation

Excavation, bedding, and backfill for open cut pipe installations and structures shall be accomplished in accordance with requirements in the Grading and Earthwork Section.

4. Laying Pipe

a. Handling Pipe and Fittings

All pipes and castings shall be unloaded and distributed along the line of work in such manner and with such care as will effectually avoid damage to any pipe or fitting. Dropping pipe or fittings directly from the truck will not be permitted. Care must also be taken to prevent abrasion of the pipe coating. Wherever the coating may have been rubbed off, the part shall be recoated as may be required by the nature of the pipe coating.

b. Placement of Pipe

Each pipe shall be inspected for defects prior to being lowered into the trench. The inside of the pipe and the outside of the spigot shall be cleaned of any dirt or foreign matter.

Construction shall begin at the outlet end and proceed upgrade with spigot ends pointing in the direction of flow. Pipes shall be laid on a minimum 4" MDOT class II natural sand cushion. A 6" MDOT class II natural sand cushion shall be provided if called for on the plan details. All plastic pipe bedding shall be clean course aggregate 6A, 6AA, or peastone. If the subgrade has been disturbed so that refilling is necessary to bring the pipe to grade, such refilling shall be done with MDOT 6A coarse aggregate thoroughly tamped in place. Bell holes shall be excavated so that the full length of the pipe barrel will bear uniformly on the sand cushion.

Pipes shall be centered in bells or grooves and pushed tight together to form a smooth and continuous invert. After laying pipe, care shall be taken so as not to disturb its line and grade. Any pipe found off grade or out of line shall be re-laid properly.

c. Line and Grade

Pipe shall be carefully laid to line and grade and shall have bearing over its entire length except at joints where the joint hole shall be of such size as to give adequate room for working. Pipe shall be laid with a minimum cover (2.5') as shown on the standard details. When a pipe laser is not used, elevations will be taken and recorded at each pipe bell, and a transit, plumb bob, or other line of sight device will be used to maintain line.

d. Excavation Below Bottom of Pipe

As a result of construction procedures or where excavation has not uncovered a stable foundation subgrade at a depth of 6" below the bottom of the proposed pipe, excavation shall continue downward below the bottom of the proposed pipe to reach stable foundation soil. The space resulting from such excavation and the pipe bedding shall be filled and constructed with MDOT 6A coarse aggregate and bedding as specified in the Grading and Earthwork section.

e. Laying and Bedding of Pipe

Pipe installation shall be made in accordance with the published installation guide of the pipe manufacturer except as otherwise specified herein. Whenever instructions given by the manufacturer are at variance with the provisions specified herein, the laying standards provided herein shall govern.

Proper tools, including pipe pullers, special cutters, spacing yokes, machining tools, test caps, ring feeler gauges, etc. shall be provided at the site of the work for installation of the pipe.

Immediately before laying each section of pipe or fitting, it shall be thoroughly cleaned of all debris, dirt or other accumulated foreign material. It shall be inspected for damage to the coating or pipe material and repairs shall be made where required. If deemed irreparable by the Township Engineer, then it shall be removed from the job site. Care shall be taken to keep the interior of previously laid pipe clean and free from dirt and other foreign material. Bulkheads or other means shall be used at the open end of the previously laid pipe for this purpose.

After a length of pipe is placed in the trench, the spigot shall be centered in the bell of the adjacent pipe, the pipe shoved into proper position in the collar or bell and brought into true alignment. The pipe shall then be secured with MDOT class II natural sand, or clean coarse aggregate 6A, 6AA, or peastone for plastic pipe that is carefully tamped under and on each side of the pipe.

f. Concrete Cradle for Pipe

Where required, pipe shall be installed with a cradle of MDOT Grade S3 concrete.

Each pipe shall rest on a 6" minimum thickness bed of dry mix concrete that is shaped to fit the bottom of the pipe. The dry mix concrete shall be MDOT Grade S3.

After setting the pipe, the space between the outside of the pipe and the undisturbed trench bank shall be filled to a level equal to a point 1 foot above the top of the pipe with MDOT Grade S3. The concrete shall have a 5" slump and be mechanically vibrated to insure complete filling of the annular space between the excavated face of the original ground and the outside face of the pipe.

g. Pipe Placed in Casings

Pipes will be placed in casing pipe in the locations shown on the drawings. Under this work the contractor will place the carrier pipe, fill the annular space between the casing and carrier pipe, place bulkheads, and complete all backfilling.

For road crossings, all void spaces between the casing pipe and the carrier pipe will be filled with sand meeting the requirements of MDOT 2NS natural sand. Sand will be placed by flushing or other methods approved by the Township Engineer. The contractor will furnish the Township Engineer with information on the quantity of sand placed.

The annular space at the ends of the casing pipe will be bulkheaded with a minimum of 12" thick solid masonry with a 1/2" fiberboard cushion between the masonry and carrier pipe.

All necessary skidding materials required to protect the carrier pipe will be furnished by the contractor.

h. Jointing

Where pipe is laid in wet trenches, trenches with running sand, or in trench conditions where manual means will not allow pushing the pipe home, mechanical means shall be utilized for pulling the pipe home and holding the pipe joints tight until completion of the line. Mechanical means shall consist of a cable placed inside the pipe with a suitable winch, jack, or come-along for pulling the pipe home and holding the pipe in position.

All joints on elliptical concrete pipe (42" equivalent diameter and larger) shall be cement mortar pointed on the inside.

i. Gravity Pipe

Where pipe is laid in wet trenches, trenches with running sand, or in trench conditions where manual means will not allow pushing the pipe home, the applicant shall provide and use mechanical means for pulling the pipe home and holding the pipe joints tight until completion of the line. Mechanical means shall consist of a cable placed inside the pipe with a suitable winch, jack, or come-along for pulling the pipe home and holding the pipe in position.

j. Pressure Pipe

Refer to the Water Supply System Section for acceptable construction methods and approved materials for joints and joint restraint for ductile iron pressure pipe.

k. Backfill

Backfill shall be placed in accordance with the Grading and Earthwork section.

5. Structures and Appurtenances

- a. Construction methods for drainage structures shall conform to section 403.03 of the current Michigan Department of Transportation Standard Specifications for Construction except as herein provided.
- b. All precast sections shall bear the stamp of an approved laboratory as having been tested and delivered from tested stock of the manufacturer.
- c. Precast sections shall be constructed so that no more than 50% of the circumference, measured on the inside face, is deleted on any horizontal plane for sewer pipe openings. There shall be no less than 12" of residual concrete measured on any horizontal plane between pipe openings.
- d. Excavation shall be carried to the depth required to permit the construction of the base in accordance with the requirements of the Ypsilanti Township Standard Details. The excavation shall be sufficiently wide to allow for shoring, bracing, or formwork, should any or all be necessary. Also, the excavation shall allow for accessibility in plastering the exterior of all brick masonry. The bottom of the excavation shall be trimmed to a uniform horizontal bed to receive the concrete base. The excavated section shall be completely dewatered before any concrete is placed therein. The standard details are included in the Digital Appendix.
- e. With the exception of drainage structures having sumps, the bottom of the structures shall be channeled to provide for smooth flow through the manhole. Channels shall be formed using MDOT Grade S3 concrete.
- f. Connections to manholes shall be properly supported and braced.

6. Stubs, Connections, and Bulkheads

- a. Existing sewers shall be connected in where called for on the plans. Bulkheads shall be placed or removed where called for on plans.
- b. Unless otherwise noted on the plans, stubs shall consist of one length of sewer pipe with watertight stopper bulkhead or, where approved by the Township Engineer, a brick and mortar bulkhead. Pipe stubs shall be of the same material as the sewer to which they connect unless specified otherwise.

7. Cleaning

- a. All sewers shall be thoroughly cleaned before final acceptance.

8. Testing

a. General

The applicant shall be responsible for providing all necessary equipment and labor for making the tests.

b. Deflection Test for Plastic Pipe

The allowable maximum deflection shall be 5% of internal pipe diameter. A Deflection Test Gauge (Go, No-Go) as manufactured by Hurco Technologies, Cherne Industries, or approved equal shall be used to verify that the maximum allowable deflection standard is met. Pipe with deflections greater than 5% will be considered unacceptable and shall be replaced.

c. Digital Recording (Public Storm Sewers)

As a means of insuring that pipe laying was properly done and that all joints are in a "home" position, the applicant shall provide for digital recording of 10% of the pipe footage laid (pipe 36" diameter and smaller), with no less than one manhole run being televised on each project. The Township Engineer shall review and approve which pipe runs are to be recorded. The recording shall be done no sooner than thirty (30) days after sewer installation is complete. The applicant shall provide 24 hours notice to the Township Engineer prior to recording so that a representative may be present. A small amount of water must be poured in the pipe before recording to ensure identification of low spots. A satisfactory review of the DVD by the Township Engineer shall be a condition for sewer acceptance by Ypsilanti Township. Typical items to be reviewed on the DVD will include pipe deflection, pipe settlement, connections, joints and pipe cleanliness. If the DVD review reveals unsatisfactory conditions, all deficiencies shall be corrected and the affected pipe sections re-televised for review by the Township Engineer.

VII. PAVING IMPROVEMENTS

General

1. All roads proposed for construction in Ypsilanti Township shall be public roads under the jurisdiction of Washtenaw County Road Commission (WCRC) unless otherwise permitted by Township ordinance. Plans for such roads and/or accompanying sidewalks/pathways shall be prepared in accordance with the current WCRC "Procedures and Guidelines for Developing Public Roads," and the AASHTO Guide for the Development of Bicycle Facilities. In addition to any submittals required for WCRC approval, plans shall also be submitted to the Charter Township of Ypsilanti for review of the proposed road improvements in relation to other existing and proposed facilities. The applicant shall submit three sets of WCRC approved paving plans to the Township upon County approval.
2. Private roads, when permitted, shall conform to the requirements of the Township Municipal Code, Chapter 47, Article II, Sections 47-26 thru 47-36.
3. Paving improvements for parking lots, internal roads and pedestrian facilities on private sites shall be designed in accordance with the requirements prescribed herein.
4. Concrete curb and gutter will be required for all private roadway construction and parking lot construction with the following exceptions:
 - a. Large lots of one acre or more for residential detached housing.
 - b. Industrial storage yards not used for regular road vehicle parking.
 - c. Where directly adjacent to a stormwater BMP where the applicant is proposing to sheet flow water and infiltrate.
 - d. Bituminous curb is not permitted.
5. Underground storm sewers, including edge drains for parking lots and roads, shall be designed and installed with all paving improvements which require concrete curb and gutter or asphalt curb. Where pavements are to be constructed over clay soils or other poorly drained soils and a granular sub-base is used, an approved sub-drainage system shall be installed.
6. Plan and profile views shall be provided for all proposed paving improvements. The plan and profile shall be presented on the same plan sheet and shall be vertically aligned. If possible, storm water management improvements shall be shown on the same plan sheet as the paving improvements.
 - a. The plans shall include typical cross section(s) showing dimensions, materials, type and thickness of the proposed paving improvements.
 - b. The following information shall be shown in the plan view of the proposed paving improvements:

- i. Existing right-of-way or road easement as well as the proposed right-of-way or road easement. A minimum 12-foot-wide easement for private franchise utilities shall be provided adjacent to each side of the proposed right-of-way or road easement.
 - ii. Centerline alignment, including curve data, stationing, edge of pavement and/or curb. Centerline and stationing are not required for parking lots.
 - iii. Location of existing and proposed topographic features, including utilities.
 - iv. Location of existing and proposed traffic control devices.
 - v. Location of existing and proposed street-light poles.
 - vi. Location of all proposed pedestrian facilities. Pathways may be required by the Township in lieu of sidewalks.
- c. The following information shall be shown in the profile view of the proposed paving improvements. Profiles are not required for proposed parking lots.
- i. Existing and proposed ground at the centerline (for rural roads) or top of curb (for urban roads).
 - ii. Percent of grade and vertical curve data.

Design Criteria

1. Cross Sections

- a. Dimensional widths and thickness of materials and associated road features shall be designed in accordance with the typical road cross sections prescribed by the WCRC. For public roads, the cross section requirements will be based on the functional class of the road as designated by the WCRC.
- b. For parking lots and internal roads at nonresidential sites, the cross section requirements will be based on the functional class of the public road serving the property. The minimum width for an internal drive shall be 26' measured from the back-of-curb to back-of-curb or edge of pavement to edge of pavement for non-curbed internal roads.
- c. Driveways will be defined as the paved area adjacent to a public or internal road serving no more than one residence, commercial or industrial establishment.
 - i. Single family residential driveways shall be designed according to the following criteria:
 - (1) Concrete driveways shall be a minimum of 6" thick between the back of curb or edge of pavement and the right-of-way or easement line. Concrete driveways outside the right-of-way or

easement shall be a minimum of 4" thick. All sidewalks within four feet of the back of curb shall be 6 inches thick.

- (2) Bituminous pavement driveways shall be a minimum of 3" thick over an aggregate base course having a minimum thickness of 6".
 - (3) Aggregate surface course driveways will only be permitted where the adjacent public or internal road does not have a paved surface. The aggregate surface course shall be a minimum of 6" thick within the right-of-way or easement and a minimum of 4" thick outside the right-of-way or easement.
- ii. Driveways to serve multi-family residences, commercial or industrial establishments shall be designed with the same cross section as the corresponding parking lot or internal road.
 - iii. Driveways within subdivisions must be paved if it is a platted subdivision or a site condominium. If it is a non platted subdivision the paving of the driveways will be determined by the township Planning Department on a case by case basis.
- d. Pedestrian facilities including the inclusion of an accessible route as required by the American's with Disabilities Act (ADA) shall be designed in accordance with the requirements prescribed by the ADA, WCRC, and MDOT.

2. Horizontal Alignment

- a. Horizontal alignment of pavement and associated road features shall be designed in accordance with the requirements prescribed by the WCRC.
- b. Internal roads shall be designed to accommodate the typical vehicles anticipated to use the site, including but not necessarily being limited to, delivery vans and trucks, fire department traffic, trash collection vehicles and school buses.
- c. Parking lots and off street loading and unloading areas shall be designed in accordance with the requirements prescribed by sections 2105 and 2106 of Appendix A of the Zoning of the Charter Township of Ypsilanti Code of Ordinances. If the proposed parking abuts a proposed sidewalk that will be 7 feet wide adjacent to a building, the parking space length may be reduced by 18 inches to allow for 2 foot of overhang by a parked vehicle.
- d. Driveways
 - i. Single family residential driveways shall be a minimum of 9' wide.
 - ii. Driveways to serve multi-family residences, commercial or industrial establishments shall be a minimum of 31' wide.
 - iii. Offset parking areas adjacent to driveways shall be configured with a 25' radius as shown in the standard details.

- e. Pedestrian facilities shall generally be located inside the right-of-way. Facilities located outside public right-of-way shall be located within a dedicated easement. Pedestrian facilities will be located within the right-of-way with the permission of the WCRC. The horizontal alignment of pedestrian facilities shall be as close to parallel as practical to the right-of-way or easement.
 - i. Concrete sidewalk shall be a minimum of 5' wide.
 - ii. Bituminous pavement bike paths shall be a minimum of 10' wide.

3. Vertical Alignment

- a. The vertical alignment of all public roads, internal roads and parking lots shall be designed in accordance with the requirements prescribed by the WCRC.
- b. Vertical alignment of driveways shall be designed in accordance with the requirements prescribed by the WCRC.
- c. Pedestrian facilities shall be designed to meet the requirements of the American with Disabilities Act, as amended.

4. Materials

a. Subgrade

- i. Subgrade material shall consist of loam, clay, sand, gravel or other similar material.
- ii. The finished subgrade surface shall be free of all topsoil, stones, stumps, organic matter, muck, peat and frost heave material.

b. Underdrainage

- i. Underdrain pipe shall be smooth plastic pipe or corrugated plastic tubing meeting Michigan Department of Transportation (MDOT) requirements.
- ii. Underdrain outlets shall be constructed of polyvinyl chloride (PVC) plastic pipe or corrugated steel pipe conforming to MDOT requirements.
- iii. Subbase materials shall conform to the requirements of MDOT Class II granular material compacted in place.

c. Aggregate Base Course

- i. Dense graded aggregate conforming to the requirements for MDOT Specifications 21A, 21AA or 22A, compacted in place.
- ii. The use of slag material will not be permitted.

- iii. The use of stabilized base course will be permitted. The type, thickness and mix must conform to MDOT requirements and must be approved by the Township Engineer.
 - iv. Bituminous pavement materials shall be in accordance with MDOT requirements as specified on the typical cross sections prescribed by the WCRC.
 - v. Concrete pavement materials shall be in accordance with MDOT requirements as specified on the typical cross sections prescribed by the WCRC.
- d. Pavement
- i. Driveway material shall be equal to or better than the road service the driveway is connecting to.

Construction Methods

1. Construction methods shall be in accordance with the plan details and the 2003 MDOT Standard Specifications for Construction.
2. Pavement Cuts
 - a. Where a trench must be cut through pavement, driveway, or sidewalk, particular care shall be taken to avoid unnecessary damage to adjoining areas of the pavement, driveway or sidewalk.
 - b. All cuts through existing surfaces shall be made full-depth with a concrete saw. Cuts in concrete pavement shall be made parallel with longitudinal and transverse construction or contraction joints.
 - c. Saw cuts in concrete pavement shall not be nearer than 5' to a transverse joint, to the centerline of pavement, or to the edge of pavement or curb. No existing or replacement pavement shall be less than 5' to a joint or centerline of pavement, or to edge of pavement, surfacing or curb; removal and replacement shall be extended to said joint, centerline, edge of pavement, surfacing, or curb. These same requirements shall apply to the saw cutting and replacement of concrete driveways.
 - d. If a square or block of sidewalk is cut, broken, or cracked, the entire square or block shall be removed and replaced.
3. Pavement Replacement, Temporary
 - a. All pavements removed in crossing and/or paralleling paved streets, alleys, drives and parking areas shall be temporarily replaced immediately following completion of backfilling operations. Temporary pavements for streets and alleys shall conform to the WCRC specifications for underground construction. Temporary pavement for driveways, including approaches and parking areas, shall consist of a minimum of 3" of compacted cold patch asphalt over a

minimum of 7” of compacted MDOT 22A aggregate base. All temporary pavements, including those constructed for streets, alleys, drives and parking areas, shall be maintained in good condition until the final pavement replacement is made.

4. Testing

- a. Density reports on private developments are required to be provided to the Township Engineer for sub base, base and paving course construction. Testing reports will also be required for all paving in the right-of-way for all applicable agencies.

5. Inspection

- a. The Township Engineer shall be contacted prior to the preparation and placement of any of the following materials for roadways and pedestrian facilities:
 - i. Subbase and underdrain
 - ii. Aggregate base course
 - iii. Paving course

VIII. GRADING AND EARTHWORK

General

1. All proposed developments should be graded such that storm water runoff will be intercepted within the boundaries of the site and conducted through a storm sewer system to an approved point of discharge.
2. Easements for surface drainage shall be dedicated and recorded.
3. For perimeter lots, the drainage easement width shall be 20' minimum, and for abutting lots with a common rear yard lot line, the easement width shall be at least 10' on each lot.
4. The following information must be shown in the plan view of the proposed grading:
 - a. Grading plans shall be drawn to a scale of 1" = 50' or larger.
 - b. The grading plans shall show the existing elevation topography either by contour method or grade point grid method.
 - c. High and low street grade points, slope direction (by arrow) and the location of all catch basins, inlets and drainage ditches shall be shown on the grading plan.
 - d. For subdivisions, a detail of the typical lot drainage pattern shall be shown on the grading plan with all grade control points identified. All grade point elevations shall be shown for each lot per Detail A or B illustrated in the standard details included in the Digital Appendix. This will include the finish floor (F.F.), or the foundation grade (F.G.) elevations, high point (grade break), drainage arrows and additional spot elevations to clarify site grading.
5. Plot plans shall be provided in accordance with the requirements prescribed in Appendix A.
6. A preconstruction meeting must be held and all applicable requirements fulfilled prior to any grading, earthwork, clearing or grubbing occurring on-site unless specific approval is granted from the Township Engineer and/or OCS Department. A SESC permit waiver may be permitted for earth changes of less than 225 square-feet.

Design Criteria

1. General
 - a. Grading plans shall take into account the desirable natural features and the character of the land, which must be preserved where possible.
 - b. No filling will be allowed in any areas of land which lie either wholly or in part within the flood plain of a river, stream, creek, or lake. Only a variance in the form of a permit from the Michigan Department of Environment, Great Lakes, and Energy may override this restriction.
 - c. Filling and grading shall not create a barrier causing entrapment of water on the adjacent lands of others.

- d. Retaining walls are discouraged. Any wall separating a grade differential exceeding 18-inches will require a special detail on the plan and require the review of a structural engineer.

2. Drainage Pattern

- a. Generally, all single-family lots shall be graded for front to rear drainage per Standard Detail A.
- b. Standard Detail B (rear to front drainage) will be allowed by the Township Engineer only where, due to existing topography, rear to front drainage would be very difficult to achieve or not feasible.
- c. Drainage patterns other than those shown in Details A and B may be used. All non-conforming lots with drainage patterns other than those in Standard Details A or B shall be noted on the grading plan. Each will be reviewed on a case-by-case basis.
- d. Large acreage parcels, outside of approved subdivisions/site condominiums, will be reviewed on an individual basis.

3. Slopes

- a. All areas within 10' of buildings shall slope away from the building at a minimum slope of 5%. The minimum slope for any other part of the site shall be 1%.
- b. A maximum slope of 4' horizontal to 1' vertical shall not be exceeded for terracing. The toe of slope shall be located outside of the rear and/or side lot line drainage easements.
- c. Swales
 - i. Each single-family lot shall be graded to drain away from the house to swales constructed along the lot lines.
 - ii. Swales shall discharge to a catch basin, roadway gutter, or other approved drainage course.
 - iii. The longitudinal slope along a rear or side yard drainage swale shall be not less than 1.5% or more than 6.0%.
 - iv. Plans may not include any structures, landscaping or other permanent objects within swales.
 - v. Bio-swales or Vegetated Swales proposed to promote groundwater infiltration are acceptable but must be designed in accordance with the current Low Impact Development Manual for Michigan (LID Manual for Michigan) and in conformance with the Washtenaw County Water Resources Commissioner's Office.
- d. Maximum distance from a high point to a drain outlet shall not exceed 250' or two lots, whichever is the lesser.
- e. In general, for streets with ditches and no curbs, the elevation of the front lot line shall be at least 6" above the centerline of the road.
- f. Driveway slope gradients shall not exceed 8%.
- g. Longitudinal sidewalk slopes shall not exceed 5%. All pedestrian facilities shall meet the requirements of ADA.

Materials

1. Materials used in earth excavations and/or embankment construction shall be in accordance with the plans and the 2003 Michigan Department of Transportation (MDOT) Standard Specifications for Construction.
2. Material placed in future building sites, roadways or other areas that may support structures shall be free of trees, stumps, topsoil or any other surplus or unsuitable materials.

Construction Methods

1. Methods of Excavation in Earth

All excavation shall be by open cut from the surface, except in special cases where boring/jacking under pavement or structures may be required, or where boring/jacking under the root system will be required for tree root protection. All excavation shall be made in such a manner and dimensions as will give ample room for:

- a. Building the structures.
- b. Bracing, sheeting and supporting the sides of the excavation.
- c. Pumping and drainage of ground water and sewage which may be encountered.
- d. Removal of all materials excavated. Special care shall be taken so that the soil below the bottom of structures to be built shall be left undisturbed so that a firm bed will be provided for construction. Any voids shall be backfilled with suitable granular material and shall be properly compacted.

2. Trench Excavation

a. General

Excavation shall be of sufficient width and depth to provide adequate room for construction and installation of the work to the lines, grades and dimensions called for on the plans. Unless otherwise called for on the Township's standard details, the width of a trench from the invert to a height 12" above the top of the pipe barrel shall be indicated as follows:

<u>Pipe Size</u>	<u>Maximum Trench Width</u>
4" through 12"	30"
Larger than 12"	O.D. +24"

If the maximum trench width as specified above is exceeded, unless otherwise shown on the drawings such concrete cradling or other bedding as is approved by the Township Engineer shall be installed to support the added load of the backfill.

Where trench excavation is in granular material, the last 6" of trench depth shall be carefully excavated and trimmed by hand to the exact elevation and contour of pipe. Where trench excavation is in rock or clay soil, the trench bottom shall be

undercut a minimum of 4" below the final bedding material elevation of pipe. The bedding material as hereinafter specified shall be placed and compacted to the underside of the pipe.

Excavation for structures shall be made to the outside lines and surfaces of such structures wherever it is practicable to build directly against the sides and bottoms of excavations. In such cases, care shall be taken not to disturb the original foundation or backing. Final trimming shall be done by hand just before construction of the structure. If excess excavation is made, or the material becomes disturbed so as to require removal beyond the prescribed limits, the resulting space shall be refilled with bedding, as specified hereinafter, and solidly machine tamped into place to 95% of maximum unit weight before the construction work proceeds.

Excavation for structures shall be extended sufficiently beyond the limits of the structure to provide ample room for form construction and other construction methods to be followed, wherever necessary.

b. Bedding

Where the subgrade below the bottom of the pipe is disturbed during the construction, the space shall be refilled with sand or pea gravel bedding material solidly tamped to form a firm foundation for the pipe. Sand or pea gravel bedding material shall be extended to 1' above the pipe, except that the bedding shall be exclusively pea gravel to the springline for pipe 36" and greater in diameter.

c. Amount of Trench Opening

Not more than 50' of trench shall be open at one time in advance of the pipe unless permitted by the Township Engineer. The length of street that may be occupied by the construction work at any one time shall be subject to the direction of the Township Engineer and will be based on requirements of the use of the street by the public. No more than 600' of street length shall be occupied at one time, and vehicle traffic through the street shall not be entirely stopped without permission of the WCRC and the Township Engineer.

After placement of the utility line, the trench shall be promptly backfilled in order to minimize the length of open trench and avoid any unsafe conditions.

3. Stone Refill

In locations where soil at the bottom of trench is unstable the trench shall be excavated (undercut) below the trench bottom and refilled with MDOT 6A crushed aggregate.

4. Excavation & Trench Dewatering

Any excavation or trench shall be maintained free of water during construction of any structures and/or pipelines.

Adequate precautions shall be taken to control the discharge of dewatering pumps so as to prevent soil erosion or sedimentation of drainage ditches, structures, storm sewers, culverts, natural drainage courses, ponds, lakes or wetlands. If ground water is discharged to a County Drain then a permit may be required by the Washtenaw County Water Resources Office.

Discharge from any dewatering operations shall have a suitable outlet and cause no damage to adjacent dwellings or property. Water and discharge hoses shall be

placed and/or controlled so as to prevent a hazard to pedestrians or motor vehicles passing in the vicinity of the construction site.

Electric pumps shall have suitable power supply appurtenances meeting NEC requirements and shall be properly fused and grounded to prevent electrical shock hazards to on-site personnel.

Internal combustion engine driven pumps, if operated 24 hours per day, shall have adequate exhaust silencers in good repair to muffle engine noise to an acceptable level for the area where located.

5. Diverting Existing Sewers

Where existing sewers or drains are encountered during construction operations, adequate provision shall be made for diverting flow in the existing sewers so that the excavation will be kept dry during the progress of the construction work. Upon completion of the construction work, the existing sewers shall be restored or otherwise provided with an adequate outlet as approved or directed by the Township Engineer.

6. Sheeting, Bracing & Shoring

Sheeting, bracing and shoring shall be provided where required to properly support the surfaces of excavations and protect the construction work, adjacent work, and workers. In removing the sheeting and bracing after the construction has been completed, special care shall be taken to prevent any caving of the sides of the excavation and injury to the completed work or to the adjacent property.

7. Crossing Existing Structures/Pipes

During construction, it may be necessary to cross under certain sewers, drains, culverts, water lines, gas lines, electric conduits and other underground structures. Every effort shall be made to prevent damage to such structures. Wherever such structures are disturbed or broken, they shall be restored to good condition. Specified granular backfill shall be placed as described in item 9, Backfilling. MDOT Grade 30S concrete can be utilized where approved by the Township Engineer. Either granular backfill or concrete shall be brought to the spring line of the higher utility.

8. Tunneling Trees

Trees 8" in diameter or less will require a minimum tunnel length of 8'. Trees over 8" in diameter, measured 4' above the ground surface, will require a minimum tunnel length equal to one foot for each inch of tree diameter.

Trees shall be tunneled whenever any portion of an excavation approaches within a distance equal to one-half the required tunnel length except as otherwise noted on the plans.

Tunneling under trees may be accomplished by one of the following methods:

- a. Boring and jacking casing pipe along with placement of a carrier pipe.
- b. Boring and jacking sewer pipe or water main without a casing pipe.
- c. Jacking sewer pipe or water main without boring and without a casing pipe.

9. Backfilling

- a. General

Backfilling shall include all work required as hereinafter specified. The placement of various pipe, including bedding and building of structures, shall be completed prior to backfilling.

Trenches and/or other excavations shall be backfilled with suitable excavated material (not including gray or blue clay) replaced into the trench or excavation and compacted to not less than 95% of maximum unit weight as determined at existing moisture content during backfilling. Compaction shall be provided by means of suitable mechanical compaction equipment.

If the moisture content of cohesive backfill material exceeds the optimum moisture content for maximum density by more than 3%, the material shall be dried to meet the foregoing moisture content limitation or MDOT Class II Granular Material shall be provided. No sloppy or wet backfill will be allowed.

Maximum unit weight will be determined by current methods of Test for Compaction and Density of Soil, AASHTO Designation T-180 or by the Cone Density Method developed by MDOT, as the material may require.

Compaction tests shall be conducted at all locations requiring granular backfill. Such tests shall be the responsibility of the applicant.

Any depression resulting from settlement of any backfill shall be brought to the proper grade and surface and made to match the adjacent surface.

b. Compaction

Backfill material shall be placed in layers not to exceed 12" in thickness unless approved by the Township Engineer.

Specified compaction shall be obtained with the use of a bulldozer, sheepfoot roller, mechanical tamper or other similar and effective equipment. Specified compaction means not less than 95% (not average 95%) of maximum unit weight when tested in accordance with current MDOT Specifications.

If excavated material is not suitable to obtain 95% minimum compaction, unsuitable materials shall be removed or granular materials shall be added, or both, to obtain 95% minimum compaction as specified.

c. Backfilling Trenches

i. Bedding

The type of bedding required is shown on the detail drawings.

Bedding shall be worked under the haunches of the pipe to provide firm continuous support.

Bedding placed on the sides of and above the pipe shall be compacted by machine tamping to not less than 95% of maximum unit weight in layers not exceeding 12" in depth.

ii. Trench or Excavated Area

All trenches in paved streets, shoulders, traveled roadways, parking areas and driveways shall be backfilled with suitable excavated backfill or granular backfill, as shown on the drawings from 1' above top of pipe up to the required subgrade elevation which will allow for placement of the required gravel base and/or pavement surface. The approved excavated backfill or granular backfill shall be placed and thoroughly and uniformly compacted by

machine tamping to the specified compaction. With the approval of the Township Engineer, water jetting may be accepted in lieu of tamping for granular backfill only.

Specified compaction shall be required of the entire trench when the edge of trench is within 3' of edge of pavement. On road crossings, specified compaction shall extend 10' beyond the edge of pavement for paved roadways with gravel shoulders or shall extend 3' beyond the back of curb for roadways with curb.

Trenches under concrete sidewalks and bike paths shall be backfilled from one foot above top of pipe to a level 4" below finished grade of the sidewalk with approved suitable excavated backfill or granular backfill and compacted to 95% maximum density.

Trenches not in paved streets, shoulders, traveled roadways, parking areas, driveways or under sidewalks, shall be backfilled from 1' above the top of the pipe up to the ground surface with suitable excavated backfill and shall require compaction equal to adjacent undisturbed earth.

Wherever gas mains, water mains, sewers, or other utilities are located in the trench area, granular backfill shall be used for backfill from bottom of the trench up to the springline of the pipes. Granular backfill shall be placed across the full trench width and extend far enough either side of the existing pipe to allow specified compaction so as to thoroughly support the pipe within the trench area.

d. Backfilling Around Structures

As soon as practicable after concrete structures have set, forms and debris shall be removed and the surface of the concrete pointed. After the structure has been inspected and approved, the excavated area around the structure shall be backfilled up to specified subgrade with granular material or suitable excavated material as called for on the drawings for the adjacent trench. The fill shall be thoroughly compacted by machine tamping. No large boulders or masonry shall be placed in backfill. No backfill will be placed against manhole walls within 48 hours after the plaster coat has been applied to the outside of the walls nor shall backfill be placed about concrete structures until concrete has attained at least 75% of its design strength and approval of the Township has been obtained.

10. Disposal of Excavated Material

After all suitable excavated material has been used on site, all excess material shall be removed and disposed of properly.

All other excavated materials that are unsuitable for use as fill or backfill shall be disposed of properly. Unsuitable materials may include, but are not limited to, broken concrete, asphalt, rock, stone, and other related debris. The applicant shall be required to obtain proper disposal areas and permits.

Any agreements that the applicant makes with local residents concerning the placement of fill on private property shall be the sole responsibility of the applicant. Copies of such agreements shall be provided to the Township.

Placement of fill on private property may require that the property owner and/or the applicant obtain a grading permit or fill permit from the Township.

11. Contractor Safety Requirements

All construction operations shall be performed in accordance with OSHA and MiOSHA requirements.

The excavation and trenching operations shall be conducted in a manner that will provide safe working conditions for all persons on the site who may be affected by the construction operations. All construction operations shall be conducted in a manner that will protect adjacent property from damage.

Trench sides shall be either cut back to the slope as required by soil and ground water conditions which will provide stable sides, or supporting systems shall be installed that are capable of restraining the earth sides from movement. Design and installation of trench supporting systems shall be the responsibility of the applicant.

A qualified person who will be responsible for the safety of both the work and workmen, and who will make all the decisions relevant to the stability of trenches, the adequacy of any and all protective devices, proper operation of equipment, and all other matters related to safety, shall be employed at all times at the site of the work.

Excavated material, heavy equipment, backfill materials, sewer pipe, or other construction materials shall not be stored along or adjacent to the trench where they may impose too great a load on the earth and cause displacement or caving of the earth. A safe means of emergency exit shall be provided at all times from all trench excavations.

IX. SOIL EROSION AND SEDIMENTATION CONTROL

General

1. Soil erosion and sedimentation control measures shall be incorporated into the design and construction of all projects as specified by Ypsilanti Township Office of Community Standards (OCS) and/or the Michigan Department of Environment, Great Lakes, and Energy (EGLE). All projects shall be designed and constructed so as to minimize soil erosion and sedimentation impacts to the environment.
2. A permit must be obtained from either the Ypsilanti Township OCS and/or EGLE.
3. All proposed temporary and permanent soil erosion and sedimentation control measures shall be shown on the plans. All soil erosion control measures shall be identified in accordance with the Michigan Unified Keying System.
4. Cleaning and maintenance schedule listing annual budget and frequency of maintenance operations shall be indicated on the plans.

Design Criteria

1. Temporary and permanent soil erosion and sedimentation control measures shall be designed in accordance with the requirements of the WCSSED and/or EGLE. At a minimum, the following shall be provided for all project:
 - a. Silt fence;
 - b. Inlet filters;
 - c. Gravel tracking mats at any point of ingress or egress to a construction site to a length not less than 50 feet and where possible to a length of 100 feet.

Materials

1. Temporary soil erosion and sedimentation control measures shall be fabricated of the materials specified in the latest edition of the Best Management Practices (BMP) guidelines published by the EGLE and/or the Washtenaw County requirements.
2. Permanent soil erosion and sedimentation control measures shall be in accordance with the material requirements specified in other sections of above-mentioned standards.
3. The use of straw bales may only be permitted with written approval from the Township and otherwise will not be permitted in Ypsilanti Township.

Construction Methods

1. Soil erosion and sedimentation control measures shall be the first activity on site.
2. Temporary soil erosion and sedimentation control measures shall be installed and maintained as outlined in the latest edition of the BMP guidelines published by the EGLE.
3. Permanent soil erosion and sedimentation control measures shall be constructed and maintained in accordance with the cleaning and maintenance schedule shown on the approved soil erosion and sedimentation control plan and as described in the required permit.
4. All lots within approved residential subdivision/site condominiums shall have the disturbed ground stabilized with sod, seed, or other acceptable permanent soil erosion control measures prior to the issuance of the final certificate of occupancy. Inclement weather exceptions will be made from November 15th through June 15th as determined by the Ypsilanti Township CED.
5. A soil erosion and sedimentation control inspection escrow deposit must be made in an amount to be determined by the Township Planning Director, building Director or an authorized agent of the township. This deposit is required to conduct necessary inspections during the construction phase. If the escrow is depleted prior to the issuance of the final certificate of occupancy, then the escrow account must be replenished to a level determined by the Township.
6. Standard SESC details have been included in the Digital Appendix and should be included with plan sets. If special SESC provisions are being proposed or required, then special details and/or notes may be needed in addition to the standard details.

Appendix A

A-1: Site Plans

A-2: Plot Plans

A-3: Detailed Engineering Plans

A-4: SESC Plans

A-5: Record Drawings

A-6: Structural Reviews

Check List for Preliminary Site Plans

The following checklist is intended to serve as a guide for designers to review prior to submitting plans to the Township for review. While the checklist covers all major areas that will be reviewed by the Township's Engineer, the list is not all-inclusive, and the Township Engineer may comment on items not listed herein.

Topography

- A complete topographical survey is required for all proposed projects. A mete and bounds legal description of the project site shall be provided on the plans. Property lines shall be indicated by bearing and distance in the plan view. All existing easements shall also be shown on the plan view of the existing conditions.
- A minimum of two benchmarks are required. All benchmarks shall be clearly indicated on the plans. All elevations shall be to North American Vertical Datum 1988 (NAVD-88) and shall be in state plane coordinates.
- Existing offsite elevations must be given at a minimum of 50 feet and 100 feet abutting the entire perimeter of the site. Grades will be indicated at all property corners and along all property lines. On-site, intermittent elevations and/or defined contours (minimum contour interval of 2 feet) are required to establish the existing site drainage.
- Existing features shall be located and shown within 100' of the project. Existing features to be shown shall include, but may not necessarily be limited to the following items:
 - Ditches.
 - Culverts.
 - Water supply system, storm water management and/or sanitary sewer facilities, including inverts and casting elevations at all structures.
 - Gas, telephone, electric and cable television lines, including manholes and/or utility poles.
 - Pedestrian facilities.
 - Trees and other landmark vegetation.
 - All streams, lakes and/or county drains with names shown.
 - Existing buildings and permanent structures.
- Existing adjacent roads and existing right-of-way or easement lines shall be shown on the plans and shall extend across the entire site with grades shown on both sides of the road for:
 - Right-of-way or easement line.
 - Ditch centerline.
 - Top of bank.
 - Edge of shoulder.
 - Edge of pavement or top of curb.

- Crown or centerline.

Water Supply System

- Water infrastructure improvements specified in the Ypsilanti Community Utilities Authority (YCUA) Water System Master Plan may be required as part of the project. The applicant shall contact the Township Engineer to determine if any improvements called for in the YCUA Water Master Plan will be necessary.
- The minimum size water main allowed for use in the distribution system shall be 8" diameter. Water mains shall be looped. Where dead ends are unavoidable, the following must be met: all mains must end with a gate valve followed by a hydrant. Maximum allowable dead-end main lengths are:
 - 40' for 6" fire hydrant lead.
 - 600' for 8" main.
 - 1,000' for 12" main.
- Show water service and size; no private services allowed from 6" hydrant lead or water mains larger than 16" diameter.
- Where required, a minimum 15' wide easement must be shown on the plans. Where water main is adjacent to and parallel to the right-of-way, a water main easement must be extended across the entire frontage of the property.
- A 10' horizontal separation must be maintained between the water main and sanitary or storm sewers.
- Valve spacing:
 - Three valves to isolate any section of water main, four maximum;
 - No more than 800' of main out of service for 8" water mains, not more than ¼ mile of water main out of service for mains 12" and larger;
 - No more than 2 hydrants out of service;
 - No more than 24 single family units or 30 multiple units out of service;
- For major commercial and industrial developments, building service must be maintained from a looped system with valves located on either side of the building service.
- Fire hydrants shall be located to provide 250-foot radial coverage of all existing and proposed permanent structures.
- No parking within 10' of any hydrants.

Sanitary Sewer

- Sanitary sewer infrastructure improvements specified in the Ypsilanti Community Utilities Authority (YCUA) Sanitary Sewer Master Plan may be required as part of the project. The applicant shall contact the Township Engineer to determine if any improvements called for in the YCUA Sanitary Sewer Master Plan will be necessary.
- Preliminary design calculations shall be provided on the plans.
- Where required, a minimum 25' wide easement must be shown on the plans. For sanitary

sewers proposed to be more than 10' deep the minimum easement width shall be two times the proposed depth.

- Show building lead size and location as well as other proposed sewers.

Storm Water Management Systems

- Preliminary design calculations prepared in accordance with the Rules of the Washtenaw County Drain Commissioner (WCDC) Procedures and Design Criteria for Storm Water Management Systems, latest revision, shall be provided on the plans.
- Restricted discharge rates and/or improvements to downstream drainage courses may be required as prescribed by the Charter Township of Ypsilanti Storm Water Master Plan of 1994. The applicant shall contact the Township Engineer to determine what design criteria specified in the Storm Water Master Plan apply to the proposed project.
- Proposed collection points, system layout, sizes and outlets must be shown on the site plan. Also show preliminary invert elevations and top of casting elevations.
- Where required, a minimum 12' wide easement must be shown on the plans. For storm sewers proposed to be more than 6' deep the minimum easement width shall be two times the proposed depth.
- Alternative means of providing detention are discouraged, but will be considered on a "case by case" basis:
 - Oversized storm pipes.
 - Parking lot storage. When approved, the maximum depth of water stored in parking areas shall be 4".

Paving Improvements

- All roads must conform to the requirements prescribed in the Washtenaw County Road Commission (WCRC) Procedures and Guidelines for Developing Public Roads, latest revision.
- On-site Paving Requirements:
 - Pavement cross-section must be shown in accordance with Township requirements.
 - Bituminous pavements shall have a minimum slope of 1.0% and a maximum slope of 6.0%.
 - Concrete pavements shall have a minimum slope of 0.5% and a maximum slope of 6.0%.
- Minimum drive widths and parking lot dimensions per standard details.
- Sidewalks required along the frontage of all existing and proposed roads.
 - Located 1' inside the ultimate right-of-way line.
 - Barrier free ramps noted.
 - All structures, hydrants, poles, etc. noted and moved or adjusted as necessary.
 - Bike paths may be required in lieu of sidewalks along frontage of major roads.
- Applicable tuning templates shall be provided for the largest delivery vehicle.

Site Grading and Earthwork

- Sufficient proposed grades indicated to ensure that:
 - Drainage is adequately discharged offsite with proper detention.
 - No upstream drainage is restricted.
 - The site in general drains without standing water.
 - Elevation representing the finished grade and the first-floor grade must be indicated. Each elevation shall be clearly labeled as either finished grade or first floor grade.
- Proposed grading shall meet abutting property line elevations. A maximum slope of 1 vertical to 4 horizontal may be employed to meet existing grades at property lines. Grading along existing or proposed property lines shall be in accordance with the Rules of the Washtenaw County Drain Commissioner Procedures and Design Criteria for Storm Water Management Systems, latest revision.
- Easement from adjacent property owner will be required for any grading necessary on offsite property. All offsite easements required to complete the work shall be obtained prior to the start of construction.

Plot Plan Requirements

1. Preliminary Plot Plan

- a. A plot plan drawing shall be filed in accordance with an accurate boundary line survey showing to scale the size and location of all the new construction and all existing structures on the site and distances from lot lines. In addition, all existing significant natural features, including but not necessarily limited to trees and wetlands, as well as existing utilities and other surface features shall be shown on the preliminary plot plan.
- b. The preliminary plot plan shall also show the established street grades, proposed structures, existing structures, sidewalk and easement final grades and elevations at each lot corner and at all other grade change points.
- c. The proposed finish earth grades of the house and the finish earth grades of houses on adjacent lots must be shown.
- d. The ground water surface elevation shall be provided at a location within the proposed building envelope.
- e. All grades are to be in accordance with any subdivision or site condominium plans that have been previously approved for the property. If none are available, the preliminary plot plan will be reviewed using the existing and proposed elevations provided on the plot plan.
- f. Rear yard and side yard drainage swales shall be clearly indicated with grades shown at sufficient locations to provide for positive drainage away from the building and other structures. Channelization of drainage to an approved outlet shall also be shown. Direction arrows shall be provided showing proposed and existing drainage directions.
- g. The Chief Building Official and the Township Engineer are responsible for the review and approval of the preliminary plot plan grades before any building permit may be issued.

2. Building Grade Requirements

Subsequent to the issuance of a building permit and prior to the commencement of construction, the permit holder (or his authorized agent) shall set survey stakes in conformance with the approved plot plan.

3. Final Plot Plan/As-Builts

- a. Upon completion of the site, a final plot plan must be submitted for the site containing the following information:
 - i. The owner's name, address and telephone number
 - ii. The name, address, telephone and fax numbers for the engineer/surveyor.
 - iii. The engineer/surveyor's signature and seal.
- b. The following dimensions must be shown on the plot plan:
 - i. Property lines (all sides) including the bearing.
 - ii. All sides of the building foot-print (including decks).
 - iii. Driveways and sidewalks (label the material used for construction, i.e. – concrete, asphalt, gravel).

- iv. Water, sanitary and storm service leads. Dimension the leads from the building corners; dimension the water shut-off valve from the building corners.
 - v. Any utility facilities on site (utility poles, catch basins, manholes, etc) dimensioned to property lines.
- c. The following as-built elevations, referenced to the benchmarks provided on the approved detailed engineering plan, must be provided on the plot plans:
- i. First floor (basement elevation where a walk out basement is shown); garage floor, porch and/or deck.
 - ii. Lot corners.
 - iii. Ground elevation at the building corners.
 - iv. Centerline of the driveways at no more than 50 feet intervals; culvert crossings; edge of road.
 - v. Centerlines of swales and drainage ditches (at no more than 50' intervals) with high points noted.
 - vi. Inverts of drainage culvert ends; sanitary sewer lead at the property line.
 - vii. Rims of manholes, catch basins, and gate wells/boxes, hydrants and other utility structures.
 - viii. Show and label undisturbed wooded areas, wetlands, flood plains, etc.
 - ix. Note any variances obtained for site with respect to standard setbacks, etc.
4. Grading Certificate
- a. Upon completion of all proposed work shown on the approved plot plan, the permit holder (or his authorized agent) shall submit to the Chief Building Official a grading certificate indicating that all grading has been done and accomplished in accordance with the approved plot plan and the requirements contained herein.
 - b. The certification shall be on a form containing at least the following information when filed:
 - i. Building permit number
 - ii. Date permit was issued
 - iii. Plot plan number
 - iv. Date plot plan was approved by Chief Building Official
 - v. Description of property
 - vi. Date of survey
 - vii. Signature and seal of land surveyor or engineer registered and licensed in the State of Michigan.
 - viii. The grading certificate shall have attached to it a copy of the approved final plot plan with "as-built" elevations shown at grade points.
 - c. Final "as-built" grades shall be in substantial compliance with the approved plot plan with allowable tolerance of plus or minus 0.25 feet.
 - d. No final Certificate of Occupancy will be issued, and no building will be approved for occupancy until:

- i. The property has been graded in strict compliance with the approved plot plan.
 - ii. The grading certificate has been received, field verified and approved by the Chief Building Official.
 - iii. The site has been permanently stabilized in accordance with the Soil Erosion Control section.
- e. A temporary Certificate of Occupancy may be issued by the Chief Building Official upon the posting by the permit holder, or his authorized agent, of a cash bond or an irrevocable letter of credit in the sum of one thousand dollars (\$1,000). The bond will be released upon satisfactory completion of grading and the approval of a grading certificate.

Check List for Detailed Engineering Plans

The following checklist is intended to serve as a guide for designers to review prior to submitting plans to the Township for review. While the checklist covers all major areas that will be reviewed by the Township's Engineer, the list is not all-inclusive, and the Township Engineer may comment on items not listed herein.

General Requirements

- Submittal on 24" x 36" white paper having blue or black lines with a minimum horizontal scale of 1" = 50' and vertical of 1" = 5'. Other acceptable scales are 1" = 20'; 1" = 30' and 1" = 40'.
- General plan at 1" = 100' or 1" = 200' when size of site prohibits a single plan sheet. Show street names, units, utilities, pavement, site dimensions, phase lines, lot lines and lot numbers.
- A location map showing section number(s) and major thoroughfares in the project area shall be provided on the cover sheet of the plans.
- Lot number, parcel dimensions and adjoining rights-of-way shall be shown.
- Township standard notes and details must be attached to the plans. The Standard Notes and Details are included in the Digital Appendix.
- Plans must be signed and sealed by a professional engineer registered in the State of Michigan. All correspondence concerning the design of the site will be directed to the engineer whose seal appears on the plan.
- Name, address and phone number of the applicant and the design engineer must be shown on the plans.
- Legal description of property must be provided on the plans.
- Both existing and proposed utilities must be a minimum of 10' from existing or proposed buildings.
- North arrow, scale, and MISS DIG notice must be shown on the plans.
- The storm sewer, sanitary sewer and water main shall be shown on the same plan view. The landscaping plan shall be overlaid in light scale in for reference; plantings must not interfere with utilities.
- When more than 3 plan sheets are in a set, a cover sheet with an index shall be provided and each plan sheet shall include a title block providing a summary of the information presented on that sheet.
- Adequate space must be provided to allow for turning movements of vehicles including trucks and fire engines per AASHTO guidelines.
- Provide a minimum of 2 benchmarks. The benchmarks must be referenced to the North American Vertical Datum of 1988 (NAVD '88). All benchmark locations shall be clearly indicated on the plans.

Topography

- A complete topographical survey is required for all proposed projects. A metes and bounds legal description of the project site shall be provided on the plans. Property lines shall be indicated by bearing and distance in the plan view. All existing easements shall also be shown on the plan view of the existing conditions.
- A minimum of two benchmarks are required. All benchmarks shall be clearly indicated on the plans. All elevations shall be to North American Vertical Datum 1988 (NAVD-88).
- Existing offsite elevations must be given at a minimum of 50 feet and 100 feet abutting the

entire perimeter of the site. Grades will be indicated at all property corners and along all property lines. On-site, intermittent elevations and/or defined contours (minimum contour interval of 2 feet) are required to establish the existing site drainage.

- Existing features shall be located and shown within 100' of the project. Existing features to be shown shall include, but may not necessarily be limited to the following items:
 - Ditches.
 - Culverts.
 - Water supply system, storm water management and/or sanitary sewer facilities, including inverts and casting elevations at all structures.
 - Gas, telephone, electric and cable television lines, including manholes and/or utility poles.
 - Pedestrian facilities.
 - Trees and other landmark vegetation.
 - All streams, lakes and/or county drains with names shown.
 - Existing buildings and permanent structures.
- Existing adjacent roads and existing right-of-way or easement lines shall be shown on the plans and shall extend across the entire site with grades shown on both sides of the road for:
 - Right-of-way or easement line.
 - Ditch centerline.
 - Top of bank.
 - Edge of shoulder.
 - Edge of pavement or top of curb.
 - Crown or centerline.

Water Supply System

- Water distribution system improvements shall be designed in accordance with the requirements of the Michigan Safe Drinking Water Act, Act 399 of the Public Acts of 1976, as amended; as well as the latest revisions of the standards prescribed by the American Water Works Association (AWWA), the Detroit Water and Sewerage Department (DWSD), and as specified herein.
- Water infrastructure improvements specified in the Ypsilanti Community Utilities Authority (YCUA) Water Master Plan may be required as part of the project. The applicant shall contact the YCUA Engineer to determine if any improvements called for in the YCUA Water System Master Plan will be necessary.
- Plan and profile views shall be provided for all proposed water main including fire hydrant leads. The plan and profile shall be presented on the same plan sheet and shall be vertically oriented.
 - A water main quantity list shall be provided on the cover sheet of the detailed engineering plans. The quantity list shall be delineated by existing or proposed road right-of-way or easement.
 - The following information must be shown in the plan view of the proposed water supply

system improvements:

- Type, class and size of pipe.
- Length between fittings and/or appurtenances.
- Water service locations and sizes.
- Where required, a dedicated water main easement must be shown on the plans. The easement width shall be the greater of the following: Twice the depth of bury plus the pipe diameter plus 2' (rounded to the next largest full foot), or 15'. Where water main is adjacent to and parallel to the right-of-way, a water main easement must be extended across the entire frontage of the property.
- The following information must be shown in the profile view of the proposed water supply system improvements:
 - Type, class and size of pipe.
 - Length between fittings and/or appurtenances.
 - Top of casting elevation on valve wells and/or boxes as well as the finished grade for fire hydrants.
 - Crossing of all existing and proposed utilities, including leads.
 - Granular backfill, trench details, special bedding, bores and/or other special construction methods.
 - Existing and proposed ground elevations.
- Where public water main construction is proposed, the YCUA standard water main detail sheets must accompany the plans. The standard details are included in the Digital Appendix.
- Water Main
 - The minimum size water main allowed for use in the distribution system shall be 8" diameter. Other allowable sizes for use in the distribution system are 12" and 16". A 12" water main may be considered as minimum for internal transmission on industrial sites, major streets, collector streets and elsewhere as design dictates. Water mains larger than 16" in diameter are considered transmission mains.
 - Water supply systems shall be designed to provide service from a double source of supply ("looped main"), or to be provided service by a double source of supply in the future when adjacent properties are developed with the approval of the Township Engineer.
 - Terminal dead end water mains with domestic service connections are discouraged and will not be permitted without the written approval of the Township Engineer. Where terminal dead-end water mains are permitted, a gate valve and fire hydrant shall be provided at the terminus of the main. The following are the maximum allowable lengths for terminal dead-end water mains:
 - 40' for 6" fire hydrant lead.
 - 600' for 8" water distribution mains (residential areas only).
 - 1,000' for 12" and larger water distribution mains.
 - Water main shall be designed and constructed with a minimum 5½' depth of cover over the top of pipe as measured from the proposed final grade. A minimum 18" vertical

clearance shall be maintained between water mains and other underground utilities. Where the vertical alignment of the water main must be deflected in order to achieve the required vertical clearance, the length of the deeper main shall be kept to a minimum and standard 45° bends shall be used to affect the necessary deflection.

- A minimum 10' horizontal separation shall be maintained between water main and sanitary sewers and/or storm sewers. A minimum 5' horizontal separation shall be provided between water mains and other underground utilities and/or structures.

Valves

- Water supply system improvements shall be designed to include adequate valves to properly isolate sections of water main without adversely impacting significant portions of the system. Valves on water mains 16" and smaller shall be gate valves and valves on water mains larger than 16" shall be butterfly valves.

- The connection of proposed water mains to existing water mains shall be accomplished by means of a tapping sleeve and valve unless the connection can be made without interrupting service on the existing water main or if the existing water main is 16" diameter or larger.

- Valves shall be located so that:

- Three valves to isolate any section of water main, four maximum.
- No more than 800' of water main out of service for 8" water mains; not more than ¼ mile of water main out of service for mains 12" and larger.
- No more than 2 fire hydrants out of service.
- No more than 24 single family units or 30 multiple family units out of service.

- Valves shall generally be located such that they will not be in street pavements, sidewalks or driveways.

- All valves shall be installed in a three-piece, adjustable valve box with the following exception. Valves will be installed in gate wells where the valve will be located within existing or proposed pavement, or the valve is located on a water main larger than 16" in diameter, or the valve is part of a tapping valve connecting to a concrete water main requiring the use of a saddle sleeve.

Fire Hydrants

- Generally, fire hydrants shall be spaced such that not more than 250' of fire hose would be required to reach the farthest corner of any proposed building. Spacing of hydrants around multiple, commercial or manufacturing establishments shall be considered on an individual basis and shall be determined by consultation with the Township Engineer and the Township's Fire Marshal.

Domestic Service Connections

- No service connections shall be permitted from 6" fire hydrant leads or transmission mains.

Sanitary Sewer

- Sanitary sewer infrastructure improvements specified in the Ypsilanti Community Utilities Authority (YCUA) Sanitary sewer system improvements shall be designed in accordance with the requirements of Part 41 of Act 451 of the Public Acts of 1994, as amended, the most recent revision of the Recommended Standards for Sewage Works by the Great

Lakes-Upper Mississippi River Board of State Sanitary Engineers (commonly known as the “Ten States Standards”) and as prescribed herein.

- Public sanitary sewers shall be provided where multiple lots or parcels will be served either presently or in the future. Public sanitary sewer system extensions will require the review and approval of the Township Engineer, YCUA and EGLE. Public sanitary sewers are required when two or more connections are made to the same sewer. In most instances, including multiple unit developments, the sewer may have to be public even though the project has one owner. YCUA approval will be required for private services serving more than one building. The extension of the sanitary sewers will generally be required across the entire frontage of the site.
- Sanitary sewer improvements specified in the Ypsilanti Community Utilities Authority (YCUA) Sanitary Sewer Master Plan may be required as part of the project. The applicant shall contact the Township Engineer to determine if any improvements called for in the YCUA Sanitary Sewer Master Plan will be necessary.
- Plan and profile views shall be provided for all proposed sanitary sewer system improvements including force mains. The plan and profile shall be presented on the same plan sheet and shall be vertically oriented.
- Sanitary sewer design flow computations, the sanitary sewer district map and a sanitary sewer quantity list shall be provided on the cover sheet of the detailed engineering plans. The design flow computations and sanitary sewer district map shall include both current and future service populations and areas. The quantity list shall be delineated by existing or proposed road right-of-way or easement.
- The following information must be shown in the plan view of the proposed sanitary sewer system improvements:
 - Size, material and type of pipe.
 - Length between structures.
 - Slope of sewer between structures.
 - Where required, a dedicated sanitary sewer easement must be shown on the plans. The sanitary sewer easement width shall be either twice the depth of the pipe plus the diameter of the pipe plus 2' (rounded up to the nearest whole foot), or 25', whichever is greater.
 - Top of casting and invert elevations at each structure.
 - Progressive numbering system on structures.
- The following information must be shown in the profile view of the proposed sanitary sewer system improvements:
 - Existing and proposed ground elevations.
 - Length, type, class, size and slope of pipe between structures.
 - Top of casting and all sewer inverts at all structures.
 - All utility crossings.
 - Special backfill areas, i.e. sand.
 - Provisions for infiltration testing.
 - Progressive numbering system on structures.

- Adjacent existing or proposed utilities plotted where parallel.
- Where public sewer construction is proposed, the YCUA standard sanitary sewer detail sheets must accompany the plans. The standard details are included in the Digital Appendix.
- Capacity Design
 - Sewer design flow computations shall be submitted to the Township Engineer for approval with a map delineating the area to be serviced. Major roads and natural features (rivers, lakes, streams) shall be included on the map. Present and future development phases with acreages and contributing offsite areas shall be shown with the number of lots included.
 - For design purposes, population in the tributary area shall be based on a minimum of 3½ persons per single family residence, also referred to as an equivalent residential unit (ERU). The basis of design calculations shall include a tabulation of the usage types and the conversion of the various uses into ERUs. The adopted unit factors as included in the YCUA Trunkline and Transmission Line Service Charge ordinance shall be used to convert different usage types to ERUs.
 - Sanitary sewers shall be designed on the basis of an average daily flow of 100 gallons per capita per day. The sanitary sewer capacity shall be designed on a peak design flow using the peaking factor as prescribed by the Ten States Standards.
 - All sanitary sewers shall be designed to provide mean velocities, when flowing full, of not less than 2.0 feet per second, based on Manning's formula using an "n" value of 0.013. The maximum design velocity for sanitary sewers shall be 10.0 feet per second with the pipe flowing full.
 - The minimum size for sanitary sewers shall be 10" diameter, with the terminal run of 10" sewer at a uniform grade of not less than 1.0% between structures. On all other 10" sanitary sewer runs, the minimum grade shall be 0.30% between structures.
- Sanitary Sewer Location
 - Sanitary sewers shall be located to provide unrestricted access for inspection and maintenance operations.
 - A minimum horizontal separation of 10' shall be provided between sanitary sewers and water mains. If it is impossible to obtain proper horizontal and vertical separation as described above, both the water main and sewer must be constructed of slip-on or mechanical joint pipe complying with public water supply design standards of the agency. It must also be pressure tested to 150 psi to assure water-tightness before backfilling. In addition, adequate horizontal separation shall be provided between sanitary sewers and all other underground utilities to allow a 1:1 trench slope from the bottom of the deeper utility, which will not undermine any shallower utility.
- Depth of Sewers
 - The minimum depth of cover over the top of the sanitary sewer pipe shall be 4' as measured from the proposed ground elevation.
 - Sanitary sewers shall be a minimum of 10' deep when fronting residential parcels to be directly connected to the sewer. Deep setbacks or unusual topographic conditions may require more depth.
 - A minimum vertical separation of 18" shall be provided between sanitary sewers and

water mains. In addition, a minimum vertical separation of 12" shall be provided between sanitary sewers and other underground utilities unless otherwise specified by the agency having jurisdiction over the other utility.

Manholes

Manholes shall be installed at intervals not to exceed 300', or at the following locations:

- The upstream terminus of a sanitary sewer run.
- All changes in pipe grade.
- All changes in pipe size.
- All changes in horizontal alignment.
- All sewer junctions.

Manholes for sewers 21" and smaller shall have a minimum diameter of 48". Manholes for sewers larger than 21" shall have a minimum diameter of 60". Larger diameter manholes may be required depending on such factors as the number of sewers at a junction or significant changes in horizontal alignment.

External drop connections will be required where the invert of the outlet sanitary sewer is 18" or more below the inlet pipe invert. Internal drop connections will not be allowed.

The 0.8 depth flow line of sewers shall be matched at structures when changing sizes of sewers.

An allowance of 0.10' in grade shall be made for loss of head through a manhole where sewer alignment is deflected 30° or more.

Building Sewers

Building sewers included with sewer construction.

- For each parcel along the route of a sanitary sewer, a building lead shall be constructed from the sanitary sewer to a minimum of 10' beyond the property line. This applies to any parcels in the sanitary sewer service design area.

The minimum grade for building sewers shall be 1% for 6" sewers and 2% for 4" sewers.

Storm Water Management Systems

Storm water management systems shall be designed in accordance with the Rules of the Washtenaw County Water Resources Commissioner (WCWRC) Procedures and Design Criteria for Storm Water Management Systems, latest revision. Projects in the following watersheds will require the review of EGLE due to thermal/environmental sensitivity: Chicking Ditch and Paint Creek watersheds.

Restricted discharge rates and/or improvements to downstream drainage courses may be required as prescribed by the Charter Township of Ypsilanti Storm Water Master Plan of 1994. The applicant shall contact the Township Engineer to determine what design criteria specified in the Storm Water Master Plan apply to the proposed project.

Where an approved point of discharge is not available on the site, the applicant shall make such offsite drainage improvements as are necessary to provide positive drainage to an approved outlet, as determined by the Township Engineer and/or the WCWRC. Such improvements shall be located in an easement secured by the applicant. The easement form and width of the easement shall be subject to Township approval.

Plan and profile views shall be provided for all proposed storm water management system

improvements. The plan and profile shall be presented on the same plan sheet and shall be vertically oriented.

- Design calculations for all components of storm water management systems, including but not necessarily limited to storm sewers, channels and detention facilities, shall be provided on the plans.
- A drainage area map shall be included on the plans. The map shall define the areas tributary to catch basins and inlets (including upstream and offsite areas). The design calculations shall include the determination of the weighted runoff coefficients for the areas tributary to each specific inlet or outlet. The design calculations shall also include justification for the initial time of concentration used for the storm sewer design calculations.
- The following information must be shown in the plan view of the proposed storm sewer system improvements:
 - Size, material and type of pipe.
 - Length between structures.
 - Slope of sewer between structures.
 - Where required, a dedicated storm water easement must be shown on the plans. The easement width shall be in accordance with the following:
 - 12' for open drainage along rear and side property lines.
 - A minimum of 20' for enclosed storm drains.
 - A minimum of 30' for open swales (cross lot drainage).
 - Top of casting and all invert elevations at each structure.
 - Progressive numbering system on structures.
- The following information must be shown in the profile view of the proposed storm sewer system improvements:
 - Existing and proposed ground elevations.
 - Size, material and type of pipe.
 - Length between structures.
 - Slope of sewer between structures.
 - Hydraulic gradient between structures.
 - Top of casting and all invert elevations at each structure.
 - All utility crossings.
 - Special backfill areas, i.e. sand.
 - Progressive numbering system.
 - Adjacent existing or proposed utilities plotted where parallel.
- Where public sewer construction is proposed, the Charter Township of Ypsilanti standard storm sewer detail sheets must accompany the plans. The standard details

are included in the Digital Appendix.

- Components of storm water management systems shall be designed in accordance with the requirements of the WCWRC, as noted previously. The WCWRC design criteria shall apply to all storm water management system components, regardless of whether the facilities will be publicly dedicated or privately maintained at the completion of the project.

Paving Improvements

- All roads proposed for construction in Ypsilanti Township shall be public roads under the jurisdiction of the Washtenaw County Road Commission (WCRC) unless otherwise permitted by Township ordinance. Plans for such roads and/or accompanying sidewalks / bike paths shall be prepared in accordance with WCRC "Procedures and Guidelines For Developing Public Roads", latest revision. In addition to any submittals required for WCRC approval, plans shall also be submitted to the Charter Township of Ypsilanti for review of the proposed road improvements in relation to other existing and proposed facilities. The applicant shall submit three sets of WCRC approved paving plans to the Township upon County approval.
- Paving improvements for parking lots, internal roads and pedestrian facilities on private sites shall be designed in accordance with the requirements prescribed herein.
- Concrete curb and gutter will be required for all private roadway construction and parking lot construction with the following exceptions:
 - Large lots of one acre or more for residential detached housing.
 - Industrial storage yards not used for regular road vehicle parking.
 - Bituminous curb may be substituted for concrete curb and gutter in commercial parking lot construction.
- Underground storm sewers, including edge drains for parking lots and roads, shall be designed and installed with all paving improvements which require concrete curb and gutter or asphalt curb. Where pavements are to be constructed over clay soils or other poorly drained soils and a granular subbase is used, an approved sub-drainage system shall be installed.
- Plan and profile views shall be provided for all proposed paving improvements. The plan and profile shall be presented on the same plan sheet and shall be vertically aligned. If possible, storm water management improvements shall be shown on the same plan sheet as the paving improvements.
 - The plans shall include typical cross section(s) showing dimensions, materials, type and thickness of the proposed paving improvements.
 - The following information shall be shown in the plan view of the proposed paving improvements.
 - Existing right-of-way or road easement as well as the proposed right-of-way or road easement. A minimum 12 foot wide easement for private utilities shall be provided adjacent to each side of the proposed right-of-way or road easement.
 - Centerline alignment, including curve data, stationing, edge of pavement and/or curb. Centerline and stationing are not required for parking lots.
 - Location of existing and proposed topographic features, including utilities.
 - Location of existing and proposed traffic control devices.
 - Location of existing and proposed street-light poles.

- Location of all proposed pedestrian facilities. Bike paths may be required by the Township in lieu of sidewalks.
- The following information shall be shown in the profile view of the proposed paving improvements. Profiles are not required for proposed parking lots.
 - Existing and proposed ground at the centerline (for rural roads) or top of curb (for urban roads).
 - Percent of grade and vertical curve data.
- Cross Sections
 - Dimensional widths and thickness of materials and associated road features shall be designed in accordance with the typical road cross sections prescribed by the WCRC. For public roads, the cross-section requirements will be based on the functional class of the road as designated by the WCRC.
 - For parking lots and internal roads at nonresidential sites, the cross-section requirements will be based on the functional class of the public road serving the property. The minimum width for an internal drive shall be 26' measured from the back-of-curb to back-of-curb or edge of pavement to edge of pavement for non-curbed internal roads.
 - Pedestrian facilities shall be designed in accordance with the requirements prescribed by the WCRC.
- Horizontal Alignment
 - Horizontal alignment of pavement and associated road features shall be designed in accordance with the requirements prescribed by the WCRC.
 - Pedestrian facilities shall generally be located outside the right-of-way in a dedicated easement. Pedestrian facilities will be located within the right-of-way with the permission of the WCRC. The horizontal alignment of pedestrian facilities shall be as close to parallel as practical to the right-of-way or easement.
- Vertical Alignment
 - The vertical alignment of all public roads, internal roads and parking lots shall be designed in accordance with the requirements prescribed by the WCRC.

Site Grading and Earthwork

- All proposed developments should be graded such that storm water runoff will be intercepted within the boundaries of the site and conducted through a storm sewer system to an approved point of discharge.
- Easements for surface drainage shall be dedicated and recorded.
- For perimeter lots, the drainage easement width shall be 20' minimum, and for abutting lots with a common rear yard lot line, the easement width shall be at least 10' on each lot.
- The following information must be shown in the plan view of the proposed grading:
 - Grading plans shall be drawn to a scale of 1" = 50' or larger.
 - The grading plans shall show the existing elevation topography either by contour method or grade point grid method.
 - High and low street grade points, slope direction (by arrow) and the location of all catch

basins, inlets and drainage ditches shall be shown on the grading plan.

- A detail of the typical lot drainage pattern shall be shown on the grading plan with all grade control points identified. All grade point elevations shall be shown for each lot which includes the first floor (F.F.), or the foundation grade (F.G.) elevations, high point (grade break), drainage arrows and additional spot elevations to clarify site grading.

Soil Erosion & Sedimentation Control

- Soil erosion and sedimentation control measures shall be incorporated into the design and construction of all projects as specified by Chapter 24, Article VI – “Erosion Control”, of the Charter Township of Ypsilanti Code of Ordinances, as amended. All projects shall be designed and constructed to minimize soil erosion and sedimentation impacts to the environment.
- All proposed temporary and permanent soil erosion and sedimentation control measures shall be shown on the plans. All soil erosion control measures shall be identified in accordance with the Michigan Unified Keying System.

Check List for Soil Erosion and Sedimentation Control Plans

The following checklist is intended to serve as a guide for designers to review prior to submitting plans to the Township for review. While the checklist covers all major areas that will be reviewed by the Township's Engineer, the list is not all-inclusive, and the Township Engineer or Township Reviewer may comment on items not listed herein.

- The principles and practices of proper soil erosion and sediment control are effectively utilized with the proposed plan.
- The soil erosion and sediment control plan is an independent plan sheet that clearly shows all soil erosion and sediment control measures.
- Contact information for the landowner, developer, and petitioner is provided.
- Legal description and boundary line survey of the site on which the work is to be performed.
- Vicinity map showing the adjacent properties within 500' of the site.
- Plans are drawn at a scale that is standard for engineering drawings.
- Topography map with existing contours, shown at maximum one-foot intervals, that accurately shows existing natural drainage patterns.
- A description of soils located on-site as defined by the Hydrological Soil Groups for Washtenaw County. A more detailed soil investigation report may be required by the Community and Economic Development Department.
- The location of any structure located on-site or within 50' of the site boundary line.
- Location of all existing and proposed on-site drainage facilities, including ditches, catch basins, and detention/retention facilities.
- An outline of all existing natural woodland features located on-site, with an indication of whether these natural features are to be protected or removed during the construction process.
- All lakes, streams, wetlands, and county regulated drains within 500' of any earth changes clearly shown and identified on the plans.
- Drainage arrows and proposed contours showing the drainage patterns for the proposed earth disturbance.
- Identification of the ultimate drainage outlet.
- A map showing the total drainage area and calculations providing the estimated runoff to be generated by the site.
- The location and limits of all proposed earth disturbances and soil stock piles.
- Location and type of all proposed erosion and sediment control measures shown graphically on the plans.
- Location of all existing and proposed on-site drainage facilities, including ditches, catch basins, and detention/retention facilities.
- Construction and installation details of all erosion and sediment control items.
- The scheduling and sequencing of all construction activities and soil erosion control measures for the project.
- A maintenance agreement, which includes maintenance tasks, budget, and schedules, for all permanent erosion and sediment control items. The person(s) or organization responsible for the maintenance program shall be included.



JOB NAME: _____ REVIEWED BY: _____

JOB NUMBER: _____ DATE REVIEWED: _____

YPSILANTI TOWNSHIP RECORD PLAN REQUIREMENT CHECKLIST

Print Date: _____

This checklist should be completed, signed & sealed and submitted along with the Record Drawings.

*Note: Tie down measurements and top of casting elevations to all utility structures or building corners will also be the responsibility of the engineer providing the record drawings.
The use of coordinates alone to locate structures is not acceptable.*

The Orchard, Hiltz & McCliment, Inc project number must be printed in the lower right hand corner of all plan sheets.

SANITARY SEWER

I. PLAN VIEW

	[NEED]	[O.K.]	
A.	[]	[]	Lengths between manholes
B.	[]	[]	Size of pipe
C.	[]	[]	Length & Location of casing pipe
D.	[]	[]	Ties to manholes
E.	[]	[]	Type & class of pipe & joint ("O" ring, slip, solvent weld, etc.)
F.	[]	[]	T/casting grades
G.	[]	[]	Ties to wye locations
H.	[]	[]	Permit numbers (County & EGLE)
I.	[]	[]	Manhole numbering (sequential)
J.	[]	[]	Show all sanitary sewer easements on plans
K.	[]	[]	Provide copies of all sanitary sewer easements

II. PROFILE VIEW (REQUIRED FOR ALL PIPES)

	[NEED]	[O.K.]	
A.	[]	[]	Lengths between manholes
B.	[]	[]	Size of pipe
C.	[]	[]	Lengths of casing pipe
D.	[]	[]	Depth of wye & riser
E.	[]	[]	Invert grades
F.	[]	[]	Type & class of pipe & joint ("O" ring, slip, solvent weld, etc.)
G.	[]	[]	T/casting grades
H.	[]	[]	Wye locations (tied to permanent structures, property corners)
I.	[]	[]	Percent slope between manholes
J.	[]	[]	Manhole numbering (sequential)

STORM SEWER

I. PLAN VIEW

	[NEED]	[O.K.]	
A.	[]	[]	Lengths between manholes/catch basins/inlets
B.	[]	[]	Size of pipe
C.	[]	[]	Ties to manholes/catch basins/inlets
D.	[]	[]	Type & class of pipe & joint
E.	[]	[]	T/casting grades
F.	[]	[]	Structure numbering (sequential)
G.	[]	[]	Special structures (low head, 5' dia., 6' dia., 2' sump, etc.)
H.	[]	[]	Show all easements for storm sewer on plans
I.	[]	[]	Provide copies of all storm sewer easements

II. PROFILE VIEW (REQUIRED FOR PIPE 12" & LARGER)

	[NEED]	[O.K.]	
A.	[]	[]	Lengths between manholes
B.	[]	[]	Size of pipe
C.	[]	[]	Type & class of pipe & joint
D.	[]	[]	Invert grades
E.	[]	[]	T/casting grades
F.	[]	[]	Structure numbering (sequential)
G.	[]	[]	Percent slope between manholes

WATER MAIN

I. PLAN VIEW

	[NEED]	[O.K.]	
A.	[]	[]	Lengths between gate valve & wells, hydrants and fittings
B.	[]	[]	Size of pipe
C.	[]	[]	Ties to gate valve & wells, hydrants and fittings
D.	[]	[]	Ties to hydrants
E.	[]	[]	Ties to stop boxes
F.	[]	[]	Ties to building or offsets to pipe
G.	[]	[]	Offset of pipe from building/property line (if parallel).
H.	[]	[]	Type and class of pipe
I.	[]	[]	Finish grade of hydrants
J.	[]	[]	T/Casting grades
K.	[]	[]	Horizontal bend locations
L.	[]	[]	Location of thrust blocks & types of restraints
M.	[]	[]	Sequentially numbered G.V.W. & Valve Boxes
N.	[]	[]	Permit numbers (County & EGLE)
O.	[]	[]	Manufacturer of hydrant
P.	[]	[]	Show all water main easements on plan
Q.	[]	[]	Provide copies of all water main easements

WATER MAIN (continued)

II. PROFILE VIEW

	[NEED]	[O.K.]	
A.	[]	[]	Size of pipe
B.	[]	[]	Type and class of pipe
C.	[]	[]	G.V & Valve Box location
D.	[]	[]	Hydrant location (identify special structures such as blow off)
E.	[]	[]	Air relief valves/blow off valve locations
F.	[]	[]	Vertical bend locations

PAVEMENT

I. Width and station of pavement (measured from centerline)

	[NEED]	[O.K.]	
A.	[]	[]	At end of radius at intersection
B.	[]	[]	At beginning of taper
C.	[]	[]	At end of taper
D.	[]	[]	Any changes in alignment
E.	[]	[]	Radius @ intersection
F.	[]	[]	Right-of-way survey data

II. Drives

	[NEED]	[O.K.]	
A.	[]	[]	location
B.	[]	[]	Width
C.	[]	[]	Radius

III. Sidewalk

	[NEED]	[O.K.]	
A.	[]	[]	Location
B.	[]	[]	Width/Material
C.	[]	[]	Changes in alignment
D.	[]	[]	Ramps per ADA requirements
E.	[]	[]	Provide original recorded copies of all easements for bike path and/or sidewalk

GRADING

	[NEED]	[O.K.]	
A.	[]	[]	Slopes of swales/ditches field verified (50' centerline spot elevations)
B.	[]	[]	Detention basin sized/located according to approved plan (field verified)
C.	[]	[]	Side slopes of pond/berms field verified
D.	[]	[]	Provide original recorded copies of all easements for grading & drainage

DIGITAL VERIFICATION

	[NEED]	[O.K.]	
A.	[]	[]	PDF's of all applicable Plan Sheets
B.	[]	[]	AutoCAD version of Construction Drawings with xref files
C.	[]	[]	DWG Base File in State Plane Coordinates

Revisions Needed

No Revisions Needed

A Guide for Structure Reviews

In an effort to develop consistent and uniform criteria for structural reviews for private developments and site plans for municipal clients, we have developed the following submittal guidelines. Generally, the review will be based on the following information, however additional data, calculations, and information may be requested to provide for a more extensive review. Any missing items may be grounds for a request for re-submittal.

Contract construction drawings (24" x 36") bearing the seal and signature of an engineer licensed in the state of Michigan shall be submitted to the Municipality/City/Village, etc. The name of the person/company responsible for the project and the estimate of cost for the structure should accompany the plan. The construction documents, as a minimum, shall have the following data noted or referenced on the drawings:

Concrete Walls/Structures

- Clearly identified location of structure in site (plan view) with a location map (200 scale or equivalent)
- Top and bottom of wall elevation (plan view)
- Finished grades adjacent to the structure
- Grading plan corresponds to proposed structure
- Minimum and maximum wall height (cross section)
- Notes identifying or referencing material types and specifications
- Design loads including vehicular impact and surcharge loadings where applicable
- Structural dimensions and footing depth
- Wall and footing thickness
- Steel (reinforcing) grade, cover and spacing
- Bearing pressures (noted or referenced) and soil bearing capacities

- Openings in walls
- Protective guard requirements (required within two feet of pedestrians)
- Drainage requirements
- Filter wrapped drain tile and outlets specified
- Utility conflicts – noted with owner contact information
- Soil boring information & Geotechnical analysis

Block & Timber Retaining Walls

- All of the above except steel reinforcing data
- Segmental wall dimensions and soil reinforcing (if applicable)
- Manufacturer specifications (Block only) – compare to plans
- Geo-grid length noted, dimensioned and labeled on plans
- Embedment depth
- Boulder wall not exceeding four feet in height

In all cases, a signed and sealed letter from the engineer of record certifying that structures have been designed in accordance with applicable structural design codes with the codes identified; that all applicable safety factors, standards and codes (identify safety factors) have been met or exceeded; and that the soil conditions have been reviewed by a qualified geotechnical engineer.

Appendix B

B-1: Standard Detail Sheets

B-2: Sample CAD Layering File

**Ypsilanti Community Utilities Authority
Standards
For submitting
Digital Record Drawings**



Prepared by Orchard, Hiltz & McCliment, Inc.

The following digital submission specifications are being provided as minimum requirements and guidelines for consultants and developers reference. Should you have any questions or comments please contact your community representative.

A. Digital format of CAD files

The acceptable digital format for record drawing files shall be in AutoCAD format according to the following specifications:

- AutoCAD version 2015 or later
- Layer naming (shown in Table A) is to remain unaltered
- All polygons must be closed
- Lines shall not be unnecessarily segmented
- Intersecting lines segments must have common end points

B. Layering scheme

Key mapping features shall be stored on unique CAD layers. Related text shall be included with each layer (i.e., storm pipes on a single layer and storm pipe annotation on a separate single layer). See “Table A” for layer names and descriptions. Submitted drawings will go through a quality check and the layers will be verified. Drawings found not to comply will be modified by the Township, YCUA or the Township’s engineer to bring them in compliance with the layering standards. Any submittals requiring modification will result in an additional fee to the applicant. Submittals needing substantial modifications will result in the rejection of the digital file.

C. Coordinate System

All drawings shall contain adequate geodetic reference to Michigan South State Plane NAD 83. Units must be described as being international feet.

Drawings will conform to having one of the following references:

- (a) A drawing will reference a section corner/quarter-corner with distance and bearing data relating this point to the site plan.
- (b) A minimum of two (2) drawing locations will be identified with NAD83 coordinates established by field survey techniques (i.e., GPS or total station). Geographic coordinates shall appear in the drawing as text of a readable size and shall be in either Michigan South State Plane NAD83 or Geographic coordinates of sufficient resolution to derive state-plane coordinates within 1/10 of a foot.

D. Media for delivery

File transfer media shall be one of the following options:

- CDROM, CD-R or DVD
- Electronic (Internet) file transfer, FTP or email

CADD/GIS Standard Naming Convention

Description	Layer name
Annotations	
all chart lines and text*	a_chart
day stamp	a_daystamp
all legend lines*	a_legend
all location map lines and text*	a_locmap
match line	a_matchline
match line text	a_matchline_txt
north arrow	a_north
drawing notes in layout	a_note
graphic scale	a_scale
street name (major)	a_street_maj
street name (minor)	a_street_min
all titleblock lines*	a_tblk
*The colors and linetypes for these layers are set by property	

Description	Layer name
Utilities	
cable lines	e_cable
cable point	e_cable_pt
cable symbol	e_cable_sym
cable text	e_cable_txt
electric utility lines	e_elec
point layer for electric symbols	e_elec_pt
electric utility symbols	e_elec_sym
electric utility text	e_elec_txt
existing force main lines	e_fm
existing force main point	e_fm_pt
existing force main symbol	e_fm_sym
existing force main text	e_fm_txt
gas utility lines	e_gas
point layer for gas symbols	e_gas_pt
gas utility symbols	e_gas_sym
gas utility text	e_gas_txt
sanitary utility lines	e_san
point layer for sanitary symbols	e_san_pt
sanitary symbols	e_san_sym
sanitary utility text	e_san_txt
storm utility lines	e_stm

point layer for storm symbols	e_stm_pt
storm symbols	e_stm_sym
storm utility text	e_stm_txt
telephone lines	e_tel
point layer for telephone symbols	e_tel_pt
telephone symbols	e_tel_sym
telephone utility text	e_tel_txt
misc. utility lines	e_util
point layer for misc. utility symbols	e_util_pt
misc. utility symbols	e_util_sym
misc. utility text	e_util_txt
water main utility lines	e_wm
point layer for water main structure symbols	e_wm_pt
water main structure symbols	e_wm_sym
water main text	e_wm_txt
proposed cable lines	p_cable
proposed cable symbol	p_cable_sym
proposed cable text	p_cable_txt
proposed electric lines	p_elec
proposed electric symbol	p_elec_sym
proposed electric text	p_elec_txt
proposed force main	p_fm
proposed force main text	p_fm_txt
proposed gas lines	p_gas
proposed gas symbol	p_gas_sym
proposed gas text	p_gas_txt
proposed jack & bore	p_jbore
proposed jack & bore text	p_jbore_txt
proposed sanitary	p_san
proposed sanitary symbol	p_san_sym
proposed sanitary text	p_san_txt
proposed storm	p_stm
proposed storm text	p_stm_txt
proposed storm symbol	p_stm_sym
proposed structure text	p_*str_txt
proposed telephone lines	p_tel
proposed telephone symbol	p_tel_sym
proposed telephone text	p_tel_txt
proposed underdrain	p_udrain
proposed underdrain text	p_udrain_txt
proposed water main	p_wm
proposed water main symbol	p_wm_sym
proposed water main text	p_wm_txt
*insert the utility name here (stm, san, wm etc)	

Miscellaneous

existing dimensions	e_dim
layers to be frozen	freeze
hatch boundaries	hatch_bound
proposed building dimension	p_bldg_dim
proposed building	p_bldg
proposed building hatch	p_bldg_hatch
proposed building text	p_bldg_txt
proposed major contours	p_conmaj
proposed minor contours	p_conmin
proposed contour text	p_cont_txt
proposed dimensions	p_dim
point layer for proposed grades	p_grade_pt
proposed elevations	p_grade_txt
proposed grading limit line	p_gradlmt
proposed grading limit dimension	p_gradlmt_dim
proposed grading limit text	p_gradlmt_txt
proposed guardrail	p_grail
proposed parking lot text	p_park_txt
proposed signs	p_sign_sym
proposed tree symbol	p_tree_sym
proposed wall	p_wall
soil boring symbol	sb_sym
soil boring text	sb_txt
viewports	vp

Description**Layer name****Drainage**

drainage arrows	p_drain_sym
proposed ditch	p_ditch
proposed ditch text	p_ditch_txt
proposed drainage area text	p_drainage_txt
erosion control structures (inlet filter)	p_eroctrl_sym
erosion control text	p_eroctrl_txt
proposed silt fence	p_silt
drainage area boundaries	p_drainage

Description**Layer name****Profiles**

existing centerline of structures	e_prf_cl
-----------------------------------	----------

existing ground center	e_prf_grndc
existing ground center elevations	e_prf_grndc_txt
existing ground left	e_prf_grndl
existing ground left elevations	e_prf_grndl_txt
existing ground right	e_prf_grndr
existing ground right elevations	e_prf_grndr_txt
existing sanitary	e_prf_san
existing sanitary structure	e_prf_san_sym
existing sanitary text	e_prf_san_txt
existing storm	e_prf_stm
existing storm structure	e_prf_stm_sym
existing storm text	e_prf_stm_txt
existing text	e_prf_txt
existing water main	e_prf_wm
existing water main structures	e_prf_wm_sym
existing water main text	e_prf_wm_txt
proposed centerline of structures	p_prf_cl
proposed ditch text	p_prf_ditch_txt
proposed ditch, left	p_prf_ditchl
proposed ditch, right	p_prf_ditchr
proposed ground center	p_prf_grndc
proposed ground center text	p_prf_grndc_txt
proposed ground left	p_prf_grndl
proposed ground left text	p_prf_grndl_txt
proposed ground right	p_prf_grndr
proposed ground right text	p_prf_grndr_txt
proposed sanitary	p_prf_san
proposed sanitary structure	p_prf_san_sym
proposed sanitary text	p_prf_san_txt
proposed storm	p_prf_stm
proposed storm structure	p_prf_stm_sym
proposed storm text	p_prf_stm_txt
proposed structure labels	p_prf_str_txt
proposed text	p_prf_txt
proposed water main	p_prf_wm
proposed water main structure	p_prf_wm_sym
proposed water main text	p_prf_wm_txt
grid base	prf_base
grid elevations	prf_elev
profile grid lines	prf_grid
grid stations	prf_sta

Description

Layer name

Existing topography

building lines

e_bld

building hatch	e_bld_hatch
existing building point	e_bld_pt
building text	e_bld_txt
existing building dimension	e_bld_dim
road centerline	e_cl
existing centerline point	e_cl_pt
existing contours (major)	e_conmaj
existing contours (minor)	e_conmin
point layer for cultural symbols	e_cult_pt
cultural symbols (e.g. mailboxes)	e_cult_sym
auto offset text	e_cult_txt
existing culvert	e_culv
existing culvert point	e_culv_pt
existing culvert symbol	e_culv_sym
curb	e_curb
existing curb point	e_curb_pt
ditch centerline	e_ditch
existing ditch point	e_ditch_pt
driveways	e_dw
existing driveway point	e_dw_pt
edge of asphalt	e_eoa
existing asphalt hatch	e_eoa_hatch
existing edge of asphalt point	e_eoa_pt
existing edge of brick	e_eobr
existing edge of brick point	e_eobr_pt
existing brick hatch	e_eobr_hatch
edge of concrete	e_eoc
existing concrete hatch	e_eoc_hatch
existing edge of concrete point	e_eoc_pt
edge of gravel	e_eog
existing gravel hatch	e_eog_hatch
existing edge of gravel point	e_eog_pt
existing edge of other	e_eoo
existing edge of other hatch	e_eoo_hatch
existing edge of other point	e_eoo_pt
fence lines	e_fence
existing fence point	e_fence_pt
fence symbols	e_fence_sym
existing face of curb	e_foc
guardrail lines	e_grail
existing guardrail point	e_grail_pt
guardrail symbol	e_grail_sym
existing pavement marking	e_pm
point layer for rock symbols	e_rock_pt
rock symbol	e_rock_sym
existing railroad line	e_rr
existing railroad point	e_rr_pt
existing railroad symbol	e_rr_sym

road shoulder	e_shldr
road shoulder point	e_shldr_pt
shrub line	e_shrub
point layer for shrub symbols	e_shrub_pt
shrub symbols	e_shrub_sym
point layer for sign symbols	e_sign_pt
sign symbols	e_sign_sym
top and bottom of banks or slopes	e_topo
point layer for e_topo	e_topo_pt
annotations (e.g. conc., edge/asph. Etc.)	e_topo_txt
tree lines	e_tree
point layer for tree symbols	e_tree_pt
tree symbols	e_tree_sym
existing landscaping or planted areas	e_veg
existing vegetation point	e_veg_pt
sidewalk	e_walk
existing sidewalk hatch	e_walk_hatch
existing sidewalk point	e_walk_pt
wall	e_wall
existing wall text	e_wall_pt
existing wetland	e_wtlnd
existing wetland hatch	e_wtlnd_hatch
existing wetland point	e_wtlnd_pt
edge of water	e_wtr
existing water hatch	e_wtr_hatch
existing edge of water point	e_wtr_pt

Description

Layer name

Proposed design

proposed asphalt	p_eoa
proposed back of curb	p_boc
proposed road centerline	p_cl
proposed concrete	p_eoc
proposed face of curb	p_foc
proposed shoulder	p_eos
proposed walk	p_walk

Description

Layer name

Staging

proposed stage lines	p_stage
proposed staging dimensions	p_stage_dim
proposed staging hatch	p_stage_hatch

stage symbols (signs, arrows, barrels etc.)
proposed staging text
Note: for multiple stages add 1, 1a, 2, 2a etc
I.e. p_stage1a p_stage2 etc.

p_stage_sym
p_stage_txt

Description

Layer name

PMS

proposed pavement markings
proposed pavement marking dimensions
proposed pavement marking symbols
proposed pavement marking text
proposed sign symbol
proposed sign text

p_pm
p_pm_dim
p_pm_sym
p_pm_txt
p_sign_sym
p_sign_txt

Description

Layer name

Removal

proposed removal lines
proposed removal hatch
proposed removal symbols
proposed removal text

p_rem
p_rem_hatch
p_rem_sym
p_rem_txt

Description

Layer name

Details

existing or lightweight object lines
interior medium weight object lines
heavy object lines
detail center lines
existing detail dimensions
existing detail text
hidden object lines
detail notes
proposed detail dimensions
proposed detail text
detail subtitle
detail title
detail hatch
detail section lines

d_det_1
d_det_3
d_det_5
d_det_cen
d_det_edim
d_det_ext
d_det_hid
d_det_notes
d_det_pdim
d_det_ptxt
d_det_sub
d_det_title
d_det_hatch
d_det_sec

Description**Survey**

Description	Layer name
aerial control points	e_actrl
aerial control text	e_ctrl_txt
point layer for benchmarks	e_bm_pt
benchmark symbols	e_bm_sym
benchmark text	e_bm_txt
existing boundary line	e_bndy
existing boundary dimension	e_bndy_dim
existing boundary point	e_bndy_pt
existing boundary symbol	e_bndy_sym
existing boundary text	e_bndy_txt
existing bridge line	e_brg
existing bridge hatch	e_brg_hatch
existing bridge point	e_brg_pt
control:traverse & benchmark lines	e_ctrl
control:traverse & benchmark points	e_ctrl_pt
control:traverse & benchmarks symbols	e_ctrl_sym
control:traverse & benchmarks text	e_ctrl_txt
existing easement	e_esmt
existing easement dimensions	e_esmt_dim
existing easement text	e_esmt_txt
existing road easement	e_esmtrd
existing road easement dimension	e_esmtrd_dim
existing road easement text	e_esmtrd_txt
existing sanitary easement	e_esmts
existing sanitary easement dimension	e_esmts_dim
existing sanitary easement text	e_esmts_txt
existing storm easement	e_esmtstm
existing storm easement dimension	e_esmtstm_dim
existing storm easement text	e_esmtstm_txt
existing water easement	e_esmtwm
existing water easement dimension	e_esmtwm_dim
existing water easement text	e_esmtwm_txt
existing lots	e_lot
existing lot dimension	e_lot_dim
existing lot text	e_lot_txt
point layer for monument symbols	e_mon_pt
monument symbols	e_mon_sym
monument text	e_mon_txt
existing property iron symbol	e_prir_sym
existing property iron text	e_prir_txt
section lines	e_secline
existing row dimension	e_row_dim
existing row text	e_row_txt
section line text	e_secline_txt

existing row	e_row
existing setback line	e_setbk
	e_setbk_dim
existing setback dimension	
existing setbk text	e_setbk_txt
proposed boundary line	p_bndy
proposed boundary dimension	p_bndy_dim
proposed boundary text	p_bndy_txt
proposed easement	p_esmt
proposed easement text	p_esmt_txt
proposed grading easement	p_esmtgrad
proposed grading easement dimension	p_esmtgrad_dim
proposed grading easement text	p_esmtgrad_txt
proposed road easement	p_esmtrd
proposed road easement text	p_esmtrd_txt
proposed sanitary easement	p_esmtsan
proposed sanitary easement text	p_esmtsan_txt
proposed storm easement	p_esmtstm
proposed storm easement text	p_esmtstm_txt
proposed temporary grading easement	p_esmttemgrad
proposed temp grading easement dimension	p_esmttemgrad_dim
proposed temp grading easement text	p_esmttemgrad_txt
proposed water easement	p_esmtwm
proposed water easement text	p_esmtwm_txt
proposed lot line	p_lot
proposed lot dimension	p_lot_dim
proposed lot text	p_lot_txt
proposed property iron	p_prir_sym
proposed property iron text	p_prir_txt
proposed row	p_row
proposed row dimension	p_row_dim
proposed row text	p_row_txt
proposed setback	p_setbk
proposed setback dimension	p_setbk_dim
proposed setback text	p_setbk_txt

Appendix C

Detailed Engineering Submittal Form

Charter Township of Ypsilanti
Detailed Engineering Review Application

Site Name:	OHM Job Number: (for OHM use)		
Zoning:	Parcel ID:		
Date Approved by Planning Commission:			
Applicant:	Phone: ()	Fax: ()	
Address:	City:	State:	Zip:
Design Engineer:	Phone: ()	Fax: ()	
Address:	City:	State:	Zip:

Proposed Site Improvements:

Water Main No Yes If yes, _____ feet of _____ inch water main and a total of _____ water services.

Sanitary Sewer No Yes If yes, _____ feet of _____ inch sanitary sewer and a total of _____ leads.

Storm Sewer No Yes If yes, _____ feet of storm pipe with detention facilities designed to detain _____ cubic feet of runoff.

Other Items:

Storm Water Discharge Location: _____

Total area of disturbance: _____ acres

Project Estimate: The applicant shall submit a complete preliminary engineer’s estimate including quantity, unit cost and total costs for each individual item (e.g. 8-inch ductile iron water main, 4-foot diameter manhole, etc.). The unit costs shall include the cost of labor and materials for each item. A sample of this estimate can be found attached to this document. A summary of the division costs calculated by the design engineer shall be completed on this form. These prices will be used in development of bonding requirements that will be delivered to the applicant upon receiving engineering plan approval.

The Detailed Engineering Review Application and a detailed engineering estimate must be approved by Orchard Hiltz & McCliment prior to submitting plans and their associated fees to the Township Community & Economic Development Department. Estimates and this application can be e-mailed to matt.parks@ohm-advisors.com or jessica.howard@ohm-advisors.com.

Division	Total Cost
Site Grading	\$
Sidewalks & Bike Paths	\$
Storm Sewer	\$
Water Main	\$
Sanitary Sewer	\$
Landscaping	\$
Soil Erosion and Sedimentation Control	\$

TOTAL PRELIMINARY PROJECT COST	\$
---------------------------------------	-----------

Estimate Prepared by: _____ P.E.

<i>Seal of Professional Engineer Registered to practice in the Station Of Michigan</i>

Sample Project Estimate*

Site Grading/Sidewalks & Bike paths

Item	Quantity	Unit	Unit Cost	Total Cost
Mass Grading	1	sum	\$75,000.00	\$75,000.00
4" Concrete Sidewalk	2500	sft	\$3.50	\$8,750.00
3" HMA Bike Path	2500	sy	\$8.00	\$20,000.00
Total Division Cost				\$103,750.00

Water Main

Item	Quantity	Unit	Unit Cost	Total Cost
8-inch CL54 Ductile Iron Water Main	1555	lft	\$45.00	\$69,975.00
Polyethylene Wrap	1555	lft	\$0.50	\$777.50
8" x 8" Tapping Sleeve Valve & Well	2	ea	\$2,750.00	\$5,500.00
1-inch Type K Copper Water Service	1	ea	\$775.00	\$775.00
Total Division Cost				\$77,027.50

Sanitary Sewer

Item	Quantity	Unit	Unit Cost	Total Cost
10" ABS Truss Pipe	1800	lft	\$65.00	\$117,000.00
6" PVC SDR 26 Sewer Leads	300	lft	\$50.00	\$15,000.00
4' Diameter Manhole	20	ea	\$2,250.00	\$45,000.00
Total Division Cost				\$177,000.00

Storm Sewer

Item	Quantity	Unit	Unit Cost	Total Cost
12" C-76 CL IV Storm Sewer	351	lft	\$28.00	\$9,828.00
18" C-76 CL IV Storm Sewer	322	lft	\$35.00	\$11,270.00
2' Inlet	4	ea	\$1,500.00	\$6,000.00
4' Manhole	3	ea	\$1,750.00	\$5,250.00
36" CMP Standpipe	1	ea	\$3,000.00	\$3,000.00
18" Concrete End Section	3	ea	\$700.00	\$2,100.00
Total Division Cost				\$37,448.00

Soil Erosion & Sedimentation Control

Item	Quantity	Unit	Unit Cost	Total Cost
Silt Fence	2805	lft	\$3.00	\$8,415.00
Inlet Filters	7	ea	\$250.00	\$1,750.00
Total Division Cost				\$10,165.00

*The applicant shall note that the above document is a sample of an acceptable engineer's estimate. The estimate must include all items of work and appropriate quantities to complete work as described on the plan. Costs shall be based off current material and labor costs.

Appendix D

Pre-Construction Meeting Forums

CONSTRUCTION CONTACT INFORMATION



Project Name: _____
Location (include section #): _____ **Project Supervisor:** _____
OHM Project No.: _____ **Municipality Project No.:** _____

Developer/Owner	Phone:
Street Address	Fax:
City, State & Zip	Email:
Contact Person:	Emergency:

(If a different professional engineer/professional surveyor is going to complete the record drawings, please list them here)

Design Engineer	Phone:
Street Address	Fax:
City, State & Zip	Email:
Contact Person:	Emergency:

Prime Contractor	Phone:
Street Address	Fax:
City, State & Zip	Email:
Contact Person:	Emergency:
Safety Officer:	

CONSTRUCTION CONTACT INFORMATION continued

Mass grading/soil	
Street Address	
City, State & Zip	
Contact Person:	

Phone:	
Fax:	
Email:	
Emergency:	

Underground	
Street Address	
City, State & Zip	
Contact Person:	

Phone:	
Fax:	
Email:	
Emergency:	

Paving	
Street Address	
City, State & Zip	
Contact Person:	

Phone:	
Fax:	
Email:	
Emergency:	

Landscape	
Street Address	
City, State & Zip	
Contact Person:	

Phone:	
Fax:	
Email:	
Emergency:	

Other: Concrete	
Street Address	
City, State & Zip	
Contact Person:	

Phone:	
Fax:	
Email:	
Emergency:	

After the pre-construction meeting, please fax this completed sheet to the OHM Construction Department at 734-522-6427.

CERTIFICATE OF INSURANCE

PRODUCER <p style="text-align: center; font-weight: bold; font-size: 1.2em;">YOUR INSURANCE COMPANY</p>	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
INSURED	COMPANIES AFFORDING COVERAGE
	COMPANY A:
	COMPANY B:
	COMPANY C:
	COMPANY D:

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS																				
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/>				<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>GENERAL AGGREGATE</td><td style="text-align: right;">\$1,000,000</td></tr> <tr><td>PRODUCTS-COMP/OP AGG</td><td style="text-align: right;">\$500,000</td></tr> <tr><td>PERSONAL & ADV INJURY</td><td style="text-align: right;">\$500,000</td></tr> <tr><td>EACH OCCURRENCE</td><td style="text-align: right;">\$500,000</td></tr> <tr><td>FIRE DAMAGE (Any one fire)</td><td></td></tr> <tr><td>MED EXP (Any one person)</td><td></td></tr> <tr><td>COMBINED SINGLE LIMIT</td><td style="text-align: right;">\$1,000,000</td></tr> <tr><td>BODILY INJURY (Per person)</td><td style="text-align: right;">\$500,000</td></tr> <tr><td>BODILY INJURY (Per accident)</td><td style="text-align: right;">\$500,000</td></tr> <tr><td>PROPERTY DAMAGE</td><td style="text-align: right;">\$200,000</td></tr> </table>	GENERAL AGGREGATE	\$1,000,000	PRODUCTS-COMP/OP AGG	\$500,000	PERSONAL & ADV INJURY	\$500,000	EACH OCCURRENCE	\$500,000	FIRE DAMAGE (Any one fire)		MED EXP (Any one person)		COMBINED SINGLE LIMIT	\$1,000,000	BODILY INJURY (Per person)	\$500,000	BODILY INJURY (Per accident)	\$500,000	PROPERTY DAMAGE	\$200,000
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A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS STORAGE LIABILITY <input type="checkbox"/> ANY AUTO				<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>AUTO ONLY-EA ACCIDENT</td><td></td></tr> <tr><td>OTHER THAN AUTO ONLY:</td><td></td></tr> <tr><td> EACH ACCIDENT</td><td></td></tr> <tr><td> AGGREGATE</td><td></td></tr> <tr><td>EACH OCCURRENCE</td><td></td></tr> <tr><td>AGGREGATE</td><td></td></tr> </table>	AUTO ONLY-EA ACCIDENT		OTHER THAN AUTO ONLY:		EACH ACCIDENT		AGGREGATE		EACH OCCURRENCE		AGGREGATE									
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B	EXCESS LIABILITY <input checked="" type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> OTHER THAN UMBRELLA FORM				<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>STATUTORY LIMITS</td><td></td></tr> <tr><td>EACH ACCIDENT</td><td></td></tr> <tr><td>DISEASE-POLICY LIMIT</td><td></td></tr> <tr><td>DISEASE-EACH EMPLOYEE</td><td></td></tr> </table>	STATUTORY LIMITS		EACH ACCIDENT		DISEASE-POLICY LIMIT		DISEASE-EACH EMPLOYEE													
STATUTORY LIMITS																									
EACH ACCIDENT																									
DISEASE-POLICY LIMIT																									
DISEASE-EACH EMPLOYEE																									
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY THE PROPRIETOR/PARTNERS/ EXECUTIVE OFFICERS ARE: <input type="checkbox"/> INCL <input type="checkbox"/> EXCL																								
	OTHER																								

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

Project Name, Additionally Insured: Orchard, Hiltz & McCliment, Inc., Charter Township of Ypsilanti, the Township Board and individual members thereof, the City of Ypsilanti, the City Board and individual members thereof, the Township and City Engineer and members of his staff, Township and City employees and agents for the Township and City of Ypsilanti Community Utilities Authority, its Board of Commissioners, and the individual members thereof, the YCUA staff and employees, the YCUA Consulting Engineer and his employees, and any and all other agents of YCUA.

CERTIFICATE HOLDER <p style="font-size: 1.2em; font-weight: bold;">OWNER/DEVELOPER</p>	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NEMED TO THE LEFT.
	AUTHORIZED REPRESENTATIVE

MAINTENANCE AND GUARANTEE BOND

(for private site development)

Obligee Review or Project No. _____ Bond No. _____
(if applicable)

KNOW ALL MEN BY THESE PRESENTS:

That we, the developer, _____ (hereinafter called Principal), and _____ (hereinafter called Surety), a corporation organized under the laws of the State of _____ and authorized to do a surety business in the State of Michigan, are held and firmly bound unto the municipal/public agency known as _____ (hereinafter called Obligee) in the full and just sum of _____ Dollars and _____ Cents (\$ _____), lawful money of the United States of America, for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has constructed or caused to have constructed the following described public improvements in a public easement and/or right-of-way:

- | | | |
|--|------------------------------|--|
| _____ Storm Sewer System
_____ Sanitary Sewer System
_____ Water Main System | (Check all applicable items) | _____ Roadway
_____ Sidewalk or Pathway
_____ Other: _____ |
|--|------------------------------|--|

which have been or are about to be accepted by the Obligee for the project known as _____ and located in Section _____, T _____, and R _____; more specifically at _____.

AND WHEREAS, it is required that the Principal should guarantee the project from defects caused by faulty materials or workmanship for a period of two year(s) from and after the date of acceptance of same by the Obligee.

The Obligee shall notify the Principal in writing of any defect for which the Principal is responsible and shall specify in said notice a reasonable period of time within which the Principal shall have to correct said defect. If the Principal fails to correct such defect within the time specified in said notice, then the Surety shall have sixty (60) days thereafter within which to take such action as it deems necessary to insure performance of the Principal's obligation. If such defect is not corrected after the expiration of such sixty-day period, then the Obligee shall have the right to correct such defect and the Principal and Surety, jointly and severally, shall pay all costs and expenses incurred by Obligee in correcting such defect; including but not limited to, the engineering, legal, administration and other costs, together with any damages either direct or consequential, which the Obligee may sustain on account of the Principal's failure to correct such defect. In addition, the Obligee shall have the right to contract for the correction of such defect and, upon acceptance of the lowest responsible bid, the Principal and Surety shall become immediately liable for the amount of the said bid.

If any repair is necessary to be made at once to protect life and property, then and in that case, the Obligee may take immediate steps to repair or barricade such defects without notice to the Principal or Surety. In such accounting, the Obligee shall not be held to obtain the lowest figures for the doing of the work, or any part thereof, but all sums actually paid therefore shall be charged to the Principal or Surety. In this instance, the judgment of the Obligee is final and conclusive.

The Principal shall fully indemnify, defend and save harmless the Obligee, and its agents, consultants, employees and officers from all suits and actions for damages of every name and description brought or claimed against them for, or on account of, any injury or damage to person or property received or sustained by any party or parties, by or from any of the acts or omissions or through the negligence of said Principal, and its servants, agents or employees, in the prosecution of the work, and from any and all claims arising under the Workman's Compensation Act, so-called, of the State of Michigan.

NOW, THEREFORE, if the said Principal shall for a period of ____ year(s) from and after the date of acceptance of the completed project by the Obligee replace any and all defects arising in said work whether resulting from defective materials or defective workmanship, then the above obligation shall be null and void; otherwise to remain in full force and effect for ____ year(s) from the date of acceptance by the Obligee.

IN WITNESS WHEREOF, the parties have caused this instrument to be signed and sealed by their respective authorized officers this _____ day of _____, 20__.

WITNESS

Name: _____

PRINCIPAL

(seal)
By: _____
Name: _____
Title: _____
Address: _____

Phone: _____
Fax: _____

SURETY

Name: _____

(seal)
By: _____
Name: _____
Title: _____
Address: _____

Phone: _____
Fax: _____

Appendix E

Sample Easements

PUBLIC UTILITY EASEMENT

_____, (marital status must be filled in)
“grantor,” whose address is _____,
Ypsilanti, Michigan, in consideration of the sum of One (\$1.00) Dollar, receipt of which is hereby acknowledged and determined to be fair and just compensation by grantor, does, by these presents, covenant and warrant that grantor is the fee simple owner of the property described in **Exhibit A**, attached hereto, and does grant and convey to the Ypsilanti Community Utilities Authority, a Michigan municipal corporation, referred to in this agreement as “grantee,” whose address is 2777 State Road, Ypsilanti, Michigan 48198, a permanent and perpetual easement and right-of-way upon, over, under and across that portion of said property described in **Exhibit B**, attached hereto, for the purpose of construction, installation, inspection, maintenance, repair, operation, alteration, removal (and similar and related activity) of municipally owned utilities, including, without limitation, water lines and/or pipes, storm sewer lines and/or pipes and sanitary sewer lines and/or pipes and any and all connections thereto.

The grantor agrees not to build or to convey to others permission to build any permanent structures on the described easement (**Exhibit B**).

The grantee, by its employees, agents or independent contractors shall have full right, upon, over, under and across said property for the purpose of constructing, installing, inspecting, maintaining, repairing, operating, altering or removing (and similar and related activity) said municipally owned utilities and, further, for the purpose of storing or moving machinery, materials or other incidentals in connection with and during such activity. Further, grantee, by its employees, agents, or independent contractors shall have a permanent easement consisting of the full right of ingress and egress over and upon other lands of the grantor necessary to and for the sole purpose of gaining access to said property and municipally owned utilities.

Upon completion of such construction, installation, inspection, maintenance, repair, operation, alteration or removal (or similar and related activities) of said municipally owned utilities including ingress and egress thereto, any and all of grantor’s property used for said purposes shall be left as nearly and as reasonably possible in the same condition as before such work began and all machinery, materials and equipment shall be removed.

The granting of the permanent easement as stated, including a permanent easement for use of grantor’s property for ingress and egress shall vest in the grantee the authority to use said property solely for the purposes designated in this agreement. This grant of easements shall run with the land and shall be binding upon the heirs, successors and assigns of the grantor and grantee. It is understood and agreed that any and all improvements or appurtenances of the municipally owned utilities in or upon the said property shall become and remain at all times the property of the grantee, its successors and assigns and shall be subject to the grantee’s fees, rules, regulations and local ordinances.

IN WITNESS WHEREOF, grantor has executed this instrument on _____, 20__ .

IN THE PRESENCE OF:

(Witnesses and grantor must print or type name below signature in black ink.)

WITNESSES:

GRANTOR

Subscribed and sworn to before me this _____ day of _____, 20__.

Notary Public
_____ County, Michigan
My Commission Expires: _____

**This instrument drafted by and when
recorded, return to:**

Thomas E. Daniels (P29565)
Pear Sperling Eggan & Muskovitz, P.C.
1349 S. Huron Street, Suite 1
Ypsilanti, MI 48197

Tax Identification No.: _____

EXHIBIT A

Insert a stamped and sealed survey of the subject property.

EXHIBIT B

Insert a stamped and sealed sketch of the easement

Appendix F

Grading Certificate

GRADING CERTIFICATION

Submit a sealed grading certificate attesting that finish elevations are in compliance with approved grading plan along with the as-built grading plan(s) showing any changes that were made in the field.

These documents were prepared by:

Print Name

Signed

Seal



Appendix G

Private Road Ordinance

ARTICLE II. PRIVATE ROADS

Sec. 47-26. Intent.

The intent of this article is to allow the use of private roads for access to residential areas. Unobstructed, safe, and continuous access to lots is necessary to promote and protect the health, safety, and welfare of the public. Such access is not only necessary for the convenience and safety of residents, but it is crucial to insure that emergency vehicles have safe and efficient access to private property. Therefore, when the use of private roads is permitted, it is essential that they meet minimum standards and specifications. The procedures, standards and specifications hereinafter set forth are provided to assure the even and fair application of requirements to meet the intent of this article.

(Ord. No. 97-174, § 10, 12-16-97)

Sec. 47-27. Definitions.

The following definitions shall apply in the interpretation and enforcement of this article:

Building: An enclosed structure used or intended for use for the housing, enclosure or shelter of people, animals or chattel.

County drain commission: The Drain Commission of Washtenaw County, Michigan.

County road commission: The Road Commission of Washtenaw County, Michigan.

Lot: A parcel of land; real estate.

Permit: A right-of-way permit issued pursuant to this article.

Private driveways: A paved or gravel area directly behind the street curb providing vehicular access to a single-family residence. A private driveway that is shared by two single-family residences that have the appropriate lot width, pursuant to the current requirements of the zoning ordinance, on a public road or approved private road, are not considered private roads and are not regulated by this article.

Private road: A route which provides vehicular access to a lot or lots and which has not been dedicated to public use. For the purposes of this article, the term private road shall include everything within a private road right-of-way.

Road right-of-way: A strip of land reserved for the use of streets, walks, utilities, landscaping and other infrastructure.

Street: The surface within a road right-of-way that is used primarily for the movement of motorized vehicles.

Township board: The Board of the Charter Township of Ypsilanti.

Township clerk: The Clerk of the Charter Township of Ypsilanti.

Township attorney: A person or firm authorized by the township board to perform the duties of township attorney as set forth in this article.

Township engineer: A person or firm authorized by the township board to perform the duties of township engineer as set forth in this article.

Township planner: A person or firm authorized by the township board to perform the duties of township planner as set forth in this article.

(Ord. No. 97-174, § 20, 12-16-97; Ord. No. 2003-311, 3-4-03)

Sec. 47-28. General provisions.

- (a) Every lot in the Charter Township of Ypsilanti that is improved with a building shall have access for ingress and egress for all vehicular traffic including fire, police, and ambulance services and vehicles.
- (b) Frontage on a private road which meets the requirements of this article may be used to satisfy the road frontage and lot width requirements of the zoning ordinance.
- (c) No lot served by a private road shall be improved with a building subsequent to the date of adoption of this article, unless a permit in accordance with this article has been issued.
- (d) No person shall construct, alter, or extend a private road without compliance with this article and obtaining a permit as hereinafter provided. This provision shall not be construed to prohibit normal maintenance of a non-conforming private road.

(Ord. No. 97-174, § 30, 12-16-97)

Sec. 47-28.1. Private driveway design standards.

- (a) Only one house can be constructed using the private driveway standards; more than one house shall require an approved private road.
- (b) A 12-foot wide driveway shall be constructed within a 66-foot wide private right-of-way/easement.
- (c) The private right-of-way/easement shall provide for ingress, egress, stormwater drainage, installation and maintenance of public and private utilities.
- (d) The parcel being served by the private driveway must meet the zoning ordinance requirements for lot width at the front yard setback line as measured from the end of the private driveway right-of-way/easement.
- (e) The design and engineering of a private driveway shall be similar to that of a private road to insure that proper grading and stormwater management is achieved.

(Ord. No. 2003-311, 3-4-03)

Sec. 47-29. Private road design standards.

- (a) All road construction shall be centered on the road right-of-way.
- (b) All paved dead-end roads shall be provided with a cul-de-sac constructed to the following standards:
 - (1) A minimum external right-of-way diameter of 120 feet.
 - (2) Cul-de-sac roads shall terminate in circular pavement areas with a minimum diameter of 90 feet.
 - (3) Curbed, landscaped islands are required within any cul-de-sac circle. Such islands shall have a minimum radius of 20 feet.
- (c) Right-of-way intersections shall have a radius of 15 feet.
- (d) A boulevard cross section will be permitted at the main entrance to a development subject

to the following standards:

- (1) A minimum right-of-way width of 100 feet shall be provided for the entire length of the boulevard.
 - (2) A boulevard median shall not exceed 300 feet in length nor shall it be less than 100 feet in length.
 - (3) Sufficient taper of the right-of-way width, in accordance with design speed, must be provided adjacent to a boulevard section.
 - (4) Boulevard islands shall be curbed and shall be no less than ten feet and no greater than 20 feet in width.
 - (5) Boulevard islands shall not extend beyond the edge of the intersecting road, or its auxiliary lane.
 - (6) Sufficient taper of the roadway width must be provided, as per MDOT requirements, adjacent to the interior end of a boulevard.
- (e) Horizontal curves in proposed streets which appear to be continuous shall be not less than 230 foot centerline radius.
- (f) The radius of corners at all intersections shall be at least 35 feet to the edge of pavement.
- (g) The intersecting angle of proposed center lines of roads shall be 90 degrees.
- (h) The horizontal alignment of road intersections shall include at least a 100 foot long tangent in all directions. An exception will be allowed for a T-intersection on the outside of a curve, provided that adequate sight distance is assured.
- (i) Intersections within a subdivision shall be spaced at least 125 feet apart from centerline to centerline.
- (j) When possible, approaches of side roads from opposite sides of a through road should be in direct alignment.
- (k) The road layout shall connect to existing outlots in adjacent developments, and shall provide outlots or other provisions for future connections to adjacent land that is presently undeveloped.
- (l) The layout of roads in the proposed plan shall provide at least two points of access to an existing public road and shall provide a continuous circuit for travel. An exception will be considered when, in the opinion of the board, the lands to be subdivided are limited in area or are subject to a natural barrier. Private roads shall not exceed 600 feet in length unless connected to another road system providing a second means of access to the development. Connections to existing public road systems shall be subject to the review and approval of the county road commission.
- (m) A minimum right-of-way width of 66 feet shall be provided.
- (n) Unless more stringent standards are required by this or other Ypsilanti Township ordinances, the connection between the right-of-way and the public road shall conform to the standards and specifications of the county road commission.
- (o) The right-of-way shall provide for ingress, egress, drainage and installation and maintenance of public and private utilities.
- (p) All private roads serving five or more lots shall provide the following:
- (1) Private roads providing ingress and egress to all two-lane, paved major or secondary thoroughfares shall be provided with paved acceleration and deceleration lanes and passing lanes.

(2) Private roads providing ingress and egress to all three-lane, paved major or secondary thoroughfares shall be provided with paved acceleration and deceleration lanes.

(3) Private roads providing ingress and egress to roads of four or more lanes shall be provided with paved tapers or turning lanes.

(4) Required lanes or tapers shall be indicated schematically on a site plan and shall be constructed in accordance with the standards for such facilities as established by the township engineer and/or the county road commission.

(q) All private roads shall meet the minimum design standards as set forth in Table 1 below.

Table 1
Requirements and Specifications for Private Roads

TABLE INSET:

Improvement	4 Lots or Less	5 Lots or More	
	Any Size	Lots 1 Acre or More	Lots Less Than 1 Acre
Minimum Right-of-Way Width	66 Feet	66 Feet	66 Feet
Minimum Street Width	18 Feet	24 Feet From Edge to Edge	29 Feet From Back of Curb
Street Surface Type	Gravel	Paved Bituminous	Paved Bituminous
Drainage Management	Ditch, No Curb	Ditch	Full Gurb and Gutter
Sidewalks	No	No	Yes

(r) The number of lots served by a private road cannot be increased to more than four unless said road meets the standards in Table 1 above.

(s) Lots that are one acre or greater in area and served by a private road cannot be divided to a size less than one acre unless said road meets the standards in Table 1 above.

(t) Private roads shall have a grade no greater than six percent. The grades within a street intersection shall not exceed three percent for a distance of 100 feet from the point of intersection.

(u) All private roads shall be built to meet or exceed Ypsilanti Township standards for private road construction.

(Ord. No. 97-174, § 40, 12-16-97)

Sec. 47-30. Submittal of application.

Applications for approval of a plan for private road construction shall be delivered to the township clerk and shall include the following:

(1) A legal description of each lot to be served by the private road, a legal description of the right-of-way, the names and addresses of all persons or parties owning an interest in

the title to the lots and right-of-way area.

(2) All plans shall be drawn on 24 inches by 36 inches sheets at a scale not smaller than one inch equals 40 feet horizontal, one inch equals four feet vertical.

(3) All elevations shall be related to the North American Datum, NAD, of 1988.

(4) All drawings shall be prepared by a civil engineer, registered in the State of Michigan.

(5) Drawings, shall be provided showing the following general information.

a. A map of existing conditions shall be provided showing at least the following information:

1. Adjoining subdivisions.
2. Adjoining roads.
3. Existing county or private drains, sewers and crossroad culverts on existing roads.
4. Railroads.
5. Adjoining parks and schools.
6. Easements for public access for construction and maintenance of drains, public utilities, etc., and their dimensions, in, over, and across private property within the development.
7. All trees with a diameter of eight inches or greater within 60 feet of centerline.
8. Existing buildings within 50 feet of the proposed right-of-way.
9. Existing topographic contours, at two-foot intervals.
10. Wetlands and water bodies inside of and within ten feet of the proposed right-of-way.
11. North arrow.

b. A location map not smaller than one inch equals 2000 feet with a north arrow.

c. The address, telephone number, seal and signature of the person who prepared the drawing.

d. Existing or proposed lot lines.

e. A map showing dimensions and bearings of the entire parcel

f. Proposed contours at two-foot intervals.

g. Two benchmarks in NAD that will not be affected by the construction of the private road.

(6) Plans for the private road including the following:

a. Plan view of each road showing the centerline, stations, edge of pavement and curb line if appropriate.

b. Location of proposed culverts, storm sewers and utilities.

c. Location of proposed traffic control and road-name signs.

d. Location of proposed street-light poles.

e. Intersection details (radius, auxiliary lanes, sight distance, curb tapers etc.).

- f. All pertinent survey information (a minimum of two benchmarks, curve data, section corners, north arrow, etc.).
 - g. Soil boring logs at sufficient intervals to determine the sub-grade condition. Soil borings shall be at a minimum of seven feet below proposed centerline elevations.
 - h. Location of all proposed sidewalks and bike paths, and any proposed curb drops to accommodate sidewalks.
 - i. Proposed topographic contours, at two-foot intervals, of the right-of-way area and all adjacent land.
 - j. Names of existing and proposed roads.
- (7) Drainage plan requirements for private roads with underground drainage systems.
- a. The location, size and invert elevations of all underground structures used for road drainage including:
 - 1. Location and type of inlets and clean-out points for underground drainage systems, including sumps in all catch basins.
 - 2. Standard detail for all catch basins, inlets, manholes, etc.
 - 3. Schedule of structure diameters, casting types, rim and invert elevations and sump notation where applicable.
 - 4. Detention design per township standards.
 - b. Profile of centerline.
 - c. Profile of top-of-curb with corresponding profile of right-of-way line.
 - d. Percent of grade and vertical curve data.
 - e. Profile of centerline, ditch and proposed ditch of county road(s) intersecting with the proposed private road.
 - f. Curb elevations a minimum of every 25 feet and centerline elevations at a minimum of every 50 feet.
 - g. Show locations and profile of all drains outside of the roadway area that are going to be used for roadside drainage and contours to show how flow will be directed there.
 - h. Invert elevations at all structures.
 - i. Legend of profile lines shall be shown on each road according to illustrations.
 - j. Notations shall be included to require continuous under-drain behind all curbs.
- (8) Drainage plan requirements for private roads with open ditch drainage systems.
- a. The location, size and depth of all underground structures used for road drainage including the following:
 - 1. Culvert size and lengths providing access to all lots in the development.
 - 2. Sizes, lengths, classes or gauges, and locations of all crossroad culverts.
 - 3. Detention/retention design information.
 - b. Each profile must be shown separately for the following:

1. Existing and proposed centerline.
 2. Right ditch and right-of-way.
 3. Left ditch and right-of-way.
 4. Centerline, ditch and proposed ditch of county road(s) adjacent to proposed subdivision with proper outlet thereto.
- c. Percent of grade of proposed centerline and independent ditches.
 - d. Numerical elevations of the existing and proposed centerline at each station (100 ft. or change in grade).
 - e. Vertical curve information.
 - f. Erosion control information (ditch bottom, slopes, sod, rip-rap, etc.).
 - g. Invert elevations of crossroad culverts.
 - h. Front slope and back slope information.
 - i. All drainage easements, including those in areas where the drainage outlet is not within control of a public agency.
- (9) A complete statement of all terms, conditions and agreements related to the proposed private road.
- (10) An agreement regarding the interconnection, access rights, maintenance and improvements of the right-of-way and roadway shall be submitted to the township for review. Such agreement shall include at least the following:
- a. Said maintenance agreement shall be in a form that will allow it to be recorded with the Washtenaw County Register of Deeds.
 - b. The agreement shall run with the land and specifically address the liability and responsibility of the parties to said agreement to maintain the private road pursuant to the specifications of this article. This shall include but is not limited to provisions for annual maintenance, snow removal, and the eventual repair or reconstruction of the road.
 - c. The agreement shall include rules regarding voting rights and responsibilities of parties to the agreement in relation to road maintenance and improvements.
 - d. The agreement shall include detailed legal descriptions of the private road and all properties allowed to use the road.
 - e. The agreement shall state that "the private road system may be connected to future public or private road systems when stub streets are shown on the approved plan for private roads."
- (11) A fee, as established by resolution of the township board, to defray the costs of inspection, plan review, administration and enforcement of this article, shall be collected with each application.
- (12) The application shall be signed by the applicant or agent thereof, in which case, it shall be accompanied by a duly executed and notarized power of attorney and shall represent that the applicant is making the application on behalf of all persons having an interest in the right-of-way or the abutting lots and shall be made under penalties of perjury.

(Ord. No. 97-174, § 50, 12-16-97)

Sec. 47-31. Plan approval and permit procedure.

(a) Upon receipt of an application, the township clerk shall bring the application before the township board at its next regular meeting. The township board shall refer the application materials to the appropriate bodies for review including but not limited to:

(1) The township engineer who will review the plans to assure that the proposal is in keeping with construction standards of this and other township ordinances.

(2) The township planner who will review the plans to assure that the proposal is in keeping with the township master plan and appropriate provisions of this article.

(3) The township attorney who will review all agreements.

(4) The township traffic consultant, if requested by the township, who will make recommendations regarding the number and location of curb cuts to public roads, potentials for connections, the need for signage, and other issues generally related to traffic management.

(5) The township fire department who will review street names, hydrant locations, turn-arounds and other applicable provisions. The board may, at its discretion, refer the application to the township planning commission or other appropriate bodies for review and comment.

(b) The township board shall consider the application, the reports of all reviewing agencies and all other relevant information in determining whether to approve the plan. The township board may impose such conditions as it deems necessary to achieve the intent and objectives of this article, which may include, but need not be limited to, conditions suggested by the review agencies. The breach of any such condition proposed by the township board shall automatically invalidate the plan.

(c) Approval of a plan for a private road shall be valid for a period of one year, or such longer period as determined by the township board, from the date of approval. If an application has not been filed for a permit for private road construction within the allotted time frame, then the approval shall be null and void and of no force and effect.

(d) Upon receiving plan approval, the applicant may file for a permit for the private road's construction. At such time, the following must be submitted to the township clerk:

(1) The applicant shall deposit with the township treasurer a sum of money, bank letter of credit or certified check in the amount sufficient to guarantee that the applicant shall perform the terms and conditions of the permit, including the payment of required fees. Upon issuance of certificate of completion any unused portion of the deposit shall be refunded to the applicant.

(2) A fee to cover township costs including the cost for township inspections. If the applicant does not directly pay the costs of inspection, the same shall be paid from the deposit noted in subsection (1) above.

(3) Proof that the county road commission has reviewed the plan. Proof can be in the form of a letter or permit.

(4) Proof that the county drain commission has reviewed the plan.

(5) Proof that an agreement regarding the interconnection, access rights, maintenance and improvements of the right-of-way, has been recorded with the Washtenaw County Register of Deeds.

Upon receipt of the required funds and information, the township clerk shall issue the permit

pursuant to the terms established by the township board resolution approving the application.

(e) Only the township shall have the authority to approve or deny applications for permits for private road construction. Permits issued by other governmental entities shall not serve as a substitute.

(f) A permit for private road construction shall be valid for a period of one year, or such longer period as determined by the township board, from the date of issuance of the required improvements. If the improvements have not been completed within the allotted time frame, then the permit shall be null and void and of no force and effect and all deposits shall be forfeited to Ypsilanti Township.

(Ord. No. 97-174, § 60, 12-16-97)

Sec. 47-32. Administration and enforcement.

(a) All required improvements shall be inspected by the township engineer at various stages of construction.

(b) The applicant's engineer shall certify to the township engineer, before the final inspection and report thereon are made, that the required improvements were made in accordance with this article and all approved plans.

(c) Upon completion of construction of the leveling course the township engineer shall make a final inspection and shall report the results of the final inspection to the township clerk in writing. Upon favorable recommendation from the township engineer, the township clerk shall issue a tentative certificate of completion.

(d) No building permit shall be issued for any lot fronting on a private road unless a tentative certificate of completion has been issued by the township.

(e) Upon completion of construction of the wearing course the township engineer shall make a final inspection and shall report the results of the final inspection to the township clerk in writing. Upon favorable recommendation from the township engineer, the township clerk shall issue a final certificate of completion.

(Ord. No. 97-174, § 70, 12-16-97)

Sec. 47-33. Variances.

When there are practical difficulties or unnecessary hardships in the way of carrying out the strict letter of this article, such as topographical and other physical characteristics of a parcel, the township board shall have the power to vary or modify the application of the provisions of this article so that the intent and purpose of this article shall be observed, public safety secured and substantial justice done.

(1) Any applicant may apply for a variance from any provision of this article by filing an application for variance with the township clerk.

(2) The township board shall hold a public hearing upon such application within 45 days of its filing.

(3) The township clerk shall give notice of the hearing to the owners of all property abutting and/or having access for ingress and egress of traffic by means of the private road described in the variance application, as well as law enforcement officials, fire officials and ambulance companies known by the clerk to serve such property. The notice shall be mailed to each such party and published in a newspaper of general circulation in the township no later than seven days prior to the hearing. Any party may

appear and comment at the hearing in person or by agent or by attorney.

(4) The township board shall keep a record of said hearing and shall render a decision not later than the next regular township board meeting held after the hearing date.

(5) The township board may attach reasonable conditions in granting any variance from any provision of this article, and the breach of any conditions or the failure of any applicant to comply with the conditions shall void the variance.

(6) If construction of the road has not commenced within two years from the date that a variance was granted, then the variance shall be null and void. The township board may grant a longer time frame and may grant an extension when so requested by the applicant.

(Ord. No. 97-174, § 80, 12-16-97)

Sec. 47-34. Nonconforming situations.

Private roads, legally constructed prior to the adoption of this article may continue in use subject to the following:

(1) No such road shall be enlarged or extended unless the entire road is brought into compliance with the standards of this article.

(2) No additional lots or home sites shall be created which are accessed by a nonconforming private road unless the entire road is brought into compliance with the standards of this article.

(3) Lots lawfully created prior to the adoption of this article, which are accessed by a nonconforming private road may be used in accordance with the requirements of the zoning ordinance.

(Ord. No. 97-174, § 90, 12-16-97)

Sec. 47-35. Violation and penalties.

Any person who violates any of the provisions of this article shall be deemed guilty of a misdemeanor and shall be punished by a fine of not more than \$500.00 or by imprisonment in the county jail for a period not to exceed 90 days or by both such fine and imprisonment. Any access which is used in violation of the terms of this article may be abated, restrained, enjoined and prohibited upon the commencement of an appropriate action in the circuit court.

(Ord. No. 97-174, § 100, 12-16-97)

Sec. 47-36. General exceptions.

Parcels or projects that are over 70 dwelling units or over 700 feet from a major or secondary thoroughfare subject to site plan, planned development, condominium or site condominium review by the planning commission shall be prohibited from utilizing private roads as defined in this article.

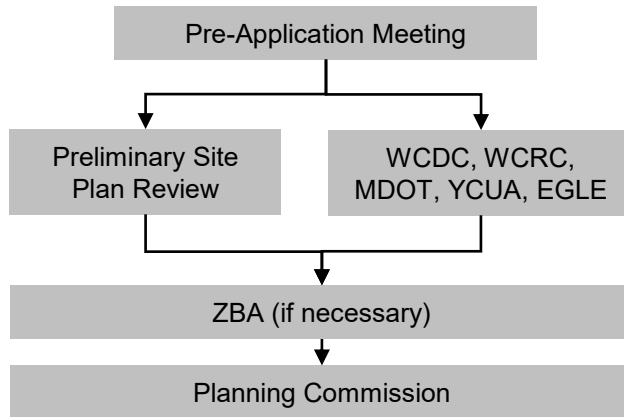
(Ord. No. 2001-268, 5-15-01; Ord. No. 2003-310, 2-4-03)

Appendix H

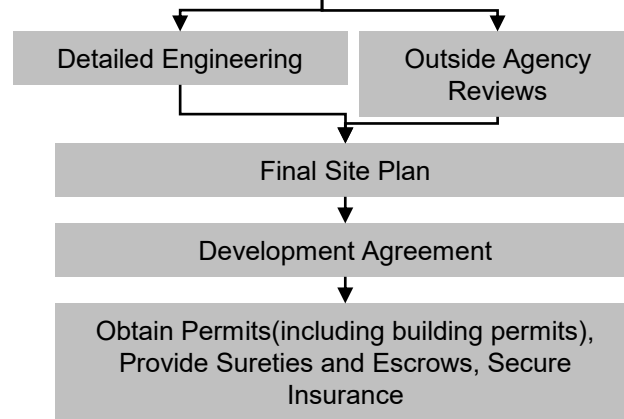
Development Flow Chart

Ypsilanti Township Development Process Flow Chart

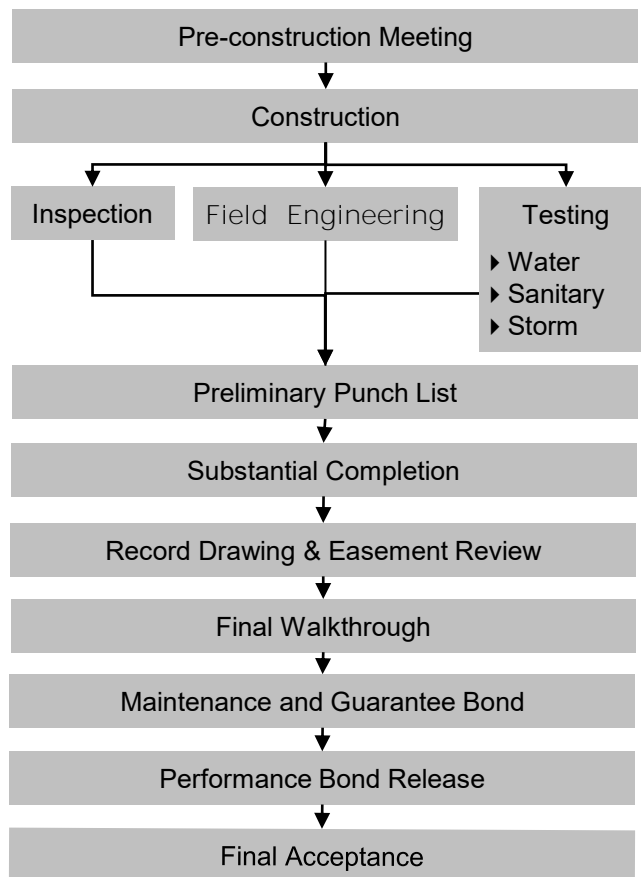
Site Plan Review Phase



Detailed Engineering Review Phase



Construction Phase



Appendix I

Stormwater Maintenance Agreement

**STORMWATER MANAGEMENT
LONG-TERM MAINTENANCE AGREEMENT AND PLAN**

THIS AGREEMENT is made this _____ day of _____, 20____, by and between the Charter Township of Ypsilanti, a municipal corporation, with principal offices located at 7200 S. Huron Dr. Ypsilanti, MI 48197, hereinafter "Township" and a _____ Michigan _____, with principal offices located _____, hereinafter "Proprietor".

RECITALS

1. Proprietor is developing certain property located in the Charter Township of Ypsilanti, Washtenaw County, Michigan as _____ ("Development") and as more particularly described in Exhibit "C" attached hereto.

2. The Proprietor must construct a stormwater management system to provide adequate drainage in the proposed Development as more particularly described in Exhibit "A" attached hereto.

3. The Township and the Proprietor desire that the stormwater management system to be constructed in the Development be maintained in perpetuity to ensure that it functions properly as designed and in conformity with applicable laws and regulations.

NOW, THEREFORE, for and in consideration of the mutual covenants and benefits to be derived hereunder, the receipt, adequacy, and sufficiency of which is hereby acknowledged, and fully incorporating the above-stated recitals into the agreement, the Township and the Proprietor agree as follows:

AGREEMENT

1. The Proprietor shall fully, completely, and unconditionally assume the obligations of maintaining the stormwater management system in the Development as follows:

A. The Proprietor agrees that it will inspect, repair, and maintain, at its own expense, the storm drainage system which is located within the Development in conformity with all applicable laws and regulations and in conformity with this Agreement. If the Proprietor fails to do so, then, upon reasonable notice to the Proprietor, the Township may enter upon said premises for the purposes of inspecting, repairing, and maintaining said storm drainage system, in which event the Proprietor agrees to pay the Township all reasonable charges and expenses incurred thereon.

2. The Proprietor, its agents, representatives, successors, and assigns shall defend, indemnify, and hold the Township harmless from and against any claims, demands, actions, damages, injuries, costs, or expenses of any kind or nature whatsoever, hereinafter "Claims", fixed or contingent, known or unknown, arising out of or in any way connected with the design, construction, use, inspection, maintenance, repair, or operation (or omissions in such regard) of the storm drainage system which is the subject of this Agreement. This indemnity

and hold harmless shall include reasonable costs, expenses, and attorney fees incurred by the Township in connection with such Claims or the enforcement of this Agreement.

3. This agreement shall bind the Proprietor, its successors and assigns, and any person or entity claiming any right or ownership in the Development and shall run with the land.

4. This Agreement shall be recorded at the Proprietor's expense with the Washtenaw County Register of Deeds.

5. Despite the indication of the drafter indicated below, which is included for recording purposes only, this Agreement shall not be construed in favor or against either Proprietor or Township, as it is a result of their mutual efforts.

IN WITNESS WHEREOF, the Proprietor and Township have executed this Agreement on the day and year first above written.

Name of Entity

WITNESSES:

By:

Its:

STATE OF MICHIGAN)
)ss:
COUNTY OF _____)

The foregoing instrument was acknowledge before me on this ____ day of ____, 20__ by _____, who stated under oath that s/he is the _____ of the _____ and that this easement was signed on behalf of the _____, by authority of its _____, and s/he acknowledged the granting of this easement to be the free act and deed of the _____.

Notary Public
_____ County, Michigan
Acting in Washtenaw County
My commission expires: _____

INSTRUMENT DRAFTED BY:
Charter Township of Ypsilanti

WHEN RECORDED RETURN TO:
Charter Township of Ypsilanti
Attn: Ms. Karen Lovejoy-Roe, Clerk
7200 S. Huron Drive
Ypsilanti, Michigan 48197

EXHIBIT A

Map Depicting Physical Limits of Stormwater Management System

EXHIBIT B

Detention Pond/Forebay

REQUIRED MAINTENANCE:

- Check the outlet regularly for clogging and clean when necessary (annually).
- If necessary, based on surroundings, mow grass side slopes (two times per year).
- Inspect entire system annually, including inlet/outlet pipes, restricted outlet structure(s), animal grates, and filters.
- Check banks and bottom for erosion and correct as necessary (annually).
- Remove sediment when accumulation reaches six (6) inches or if resuspension is observed.
- Re-seed banks near inlet/outlet and stabilize eroded banks as necessary.
- Add grasses such as sedges and rushes.
- Remove dead vegetation (early spring) that obstructs flow.
- Maintain a record of all maintenance performed on the system for Township inspection upon request.

If the outlet is pumped, then only a licensed electrician or company that provided the pump system should conduct any maintenance. Chemicals should not be applied to the detention basins, side slopes, or butter strip.

Manufactured/Underground Detention Systems

REQUIRED MAINTENANCE:

- Check the outlet regularly for clogging and clean when necessary (annually).
- Inspect the entire system, including inlet/outlet pipes, restricted outlet structure(s), and water quality structures (two times per year).
- Clean detention system, if its volume has been reduced by more than ten (10) percent due to accumulation of silt and sediment.
- Maintain a record of all maintenance performed on the system for Township inspection upon request.

Storm Sewer Collection Systems

REQUIRED MAINTENANCE:

- Check the outlet regularly for clogging and clean when necessary (annually).
- Inspect entire storm sewer distribution system (two times per year).
- Clean storm sewer structures when accumulation of silt and sediment reaches six (6) inches or greater.
- Clean grates on inlets, outlets, and other storm sewer structures regularly.
- Water channels should be cleaned regularly.
- Maintain a record of all maintenance performed on the system for Township inspection upon request.

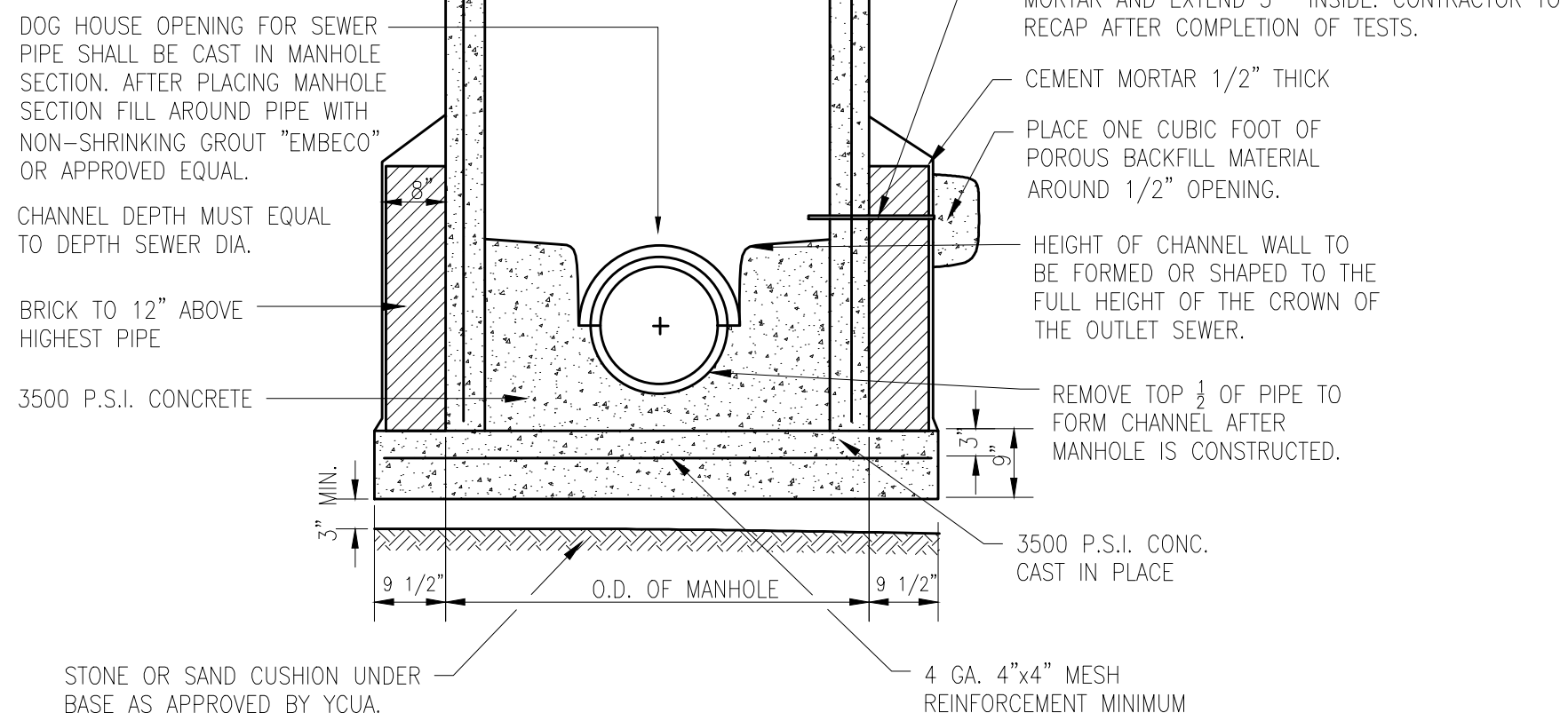
Upon completion of the annual routine inspections, documentation shall be provided to the Charter Township of Ypsilanti.

Mail to: Charter Township of Ypsilanti
7200 S. Huron Drive
Ypsilanti, MI 48197
Attn: Planning and Zoning Department

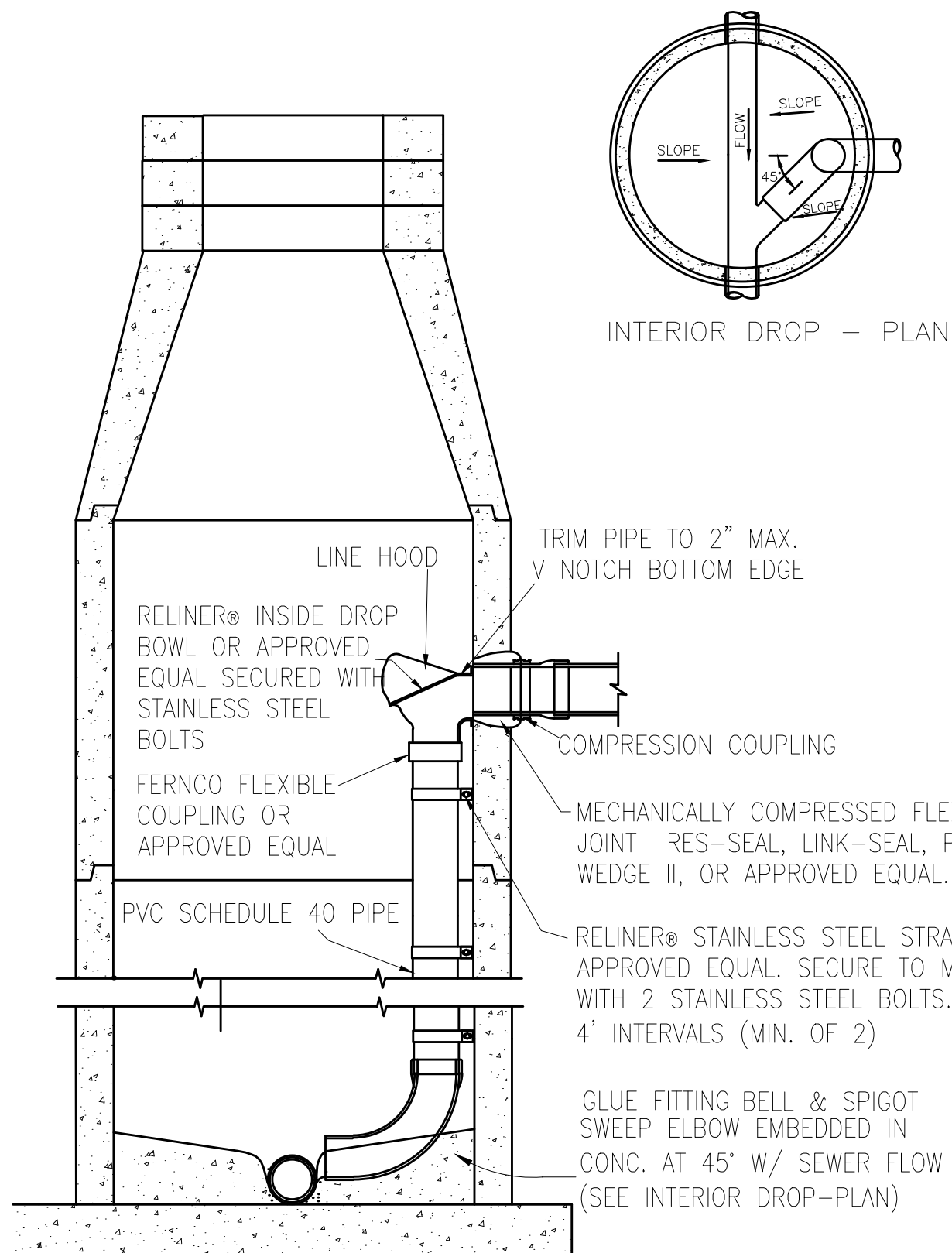
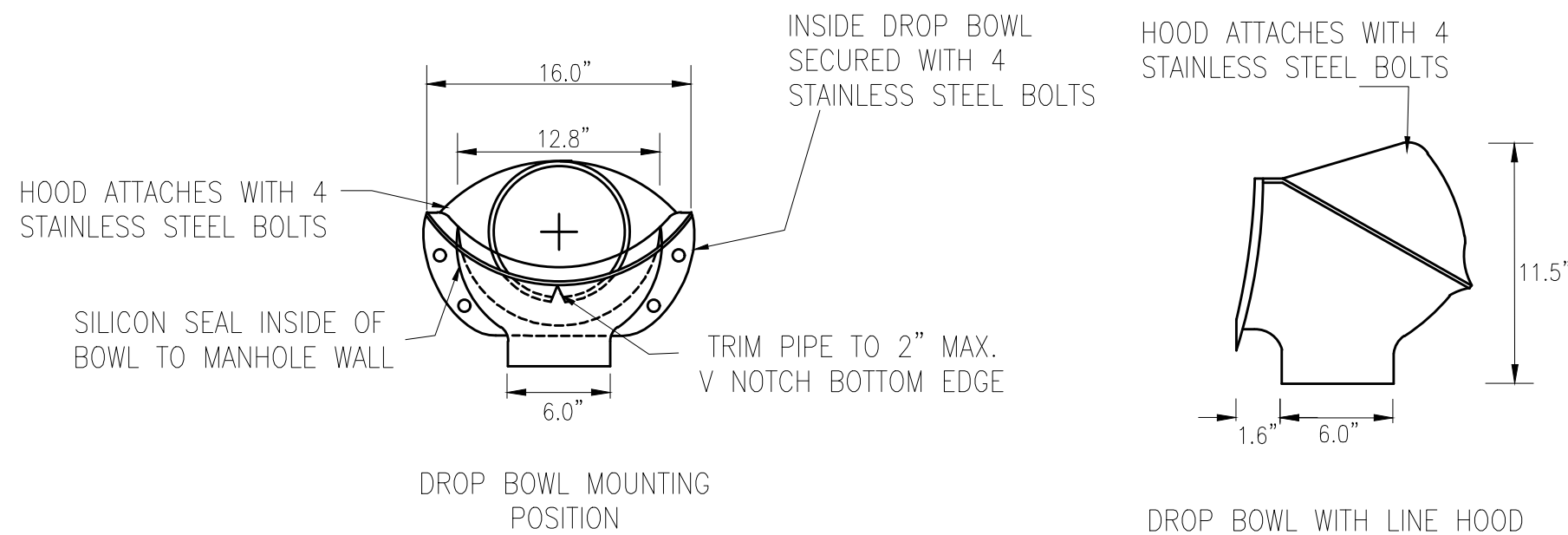
EXHIBIT C

Legal Description of Property

SEWER SIZE	MAX. CUT OUT SIZE
8" THRU 10"	17 1/2"
12" THRU 15"	20"

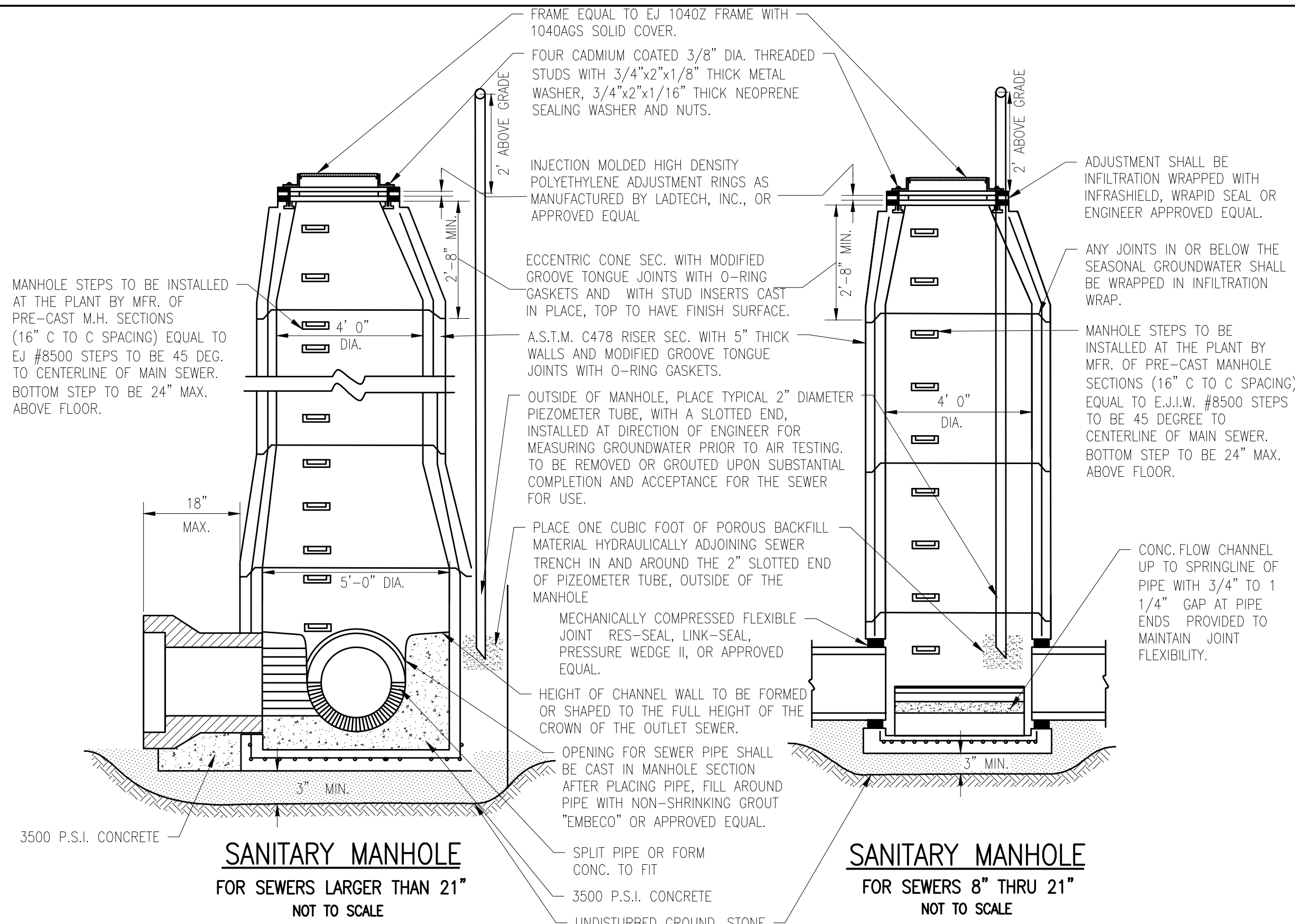


SANITARY MANHOLE ON EXISTING SEWERS 8" THRU 42"
NOT TO SCALE



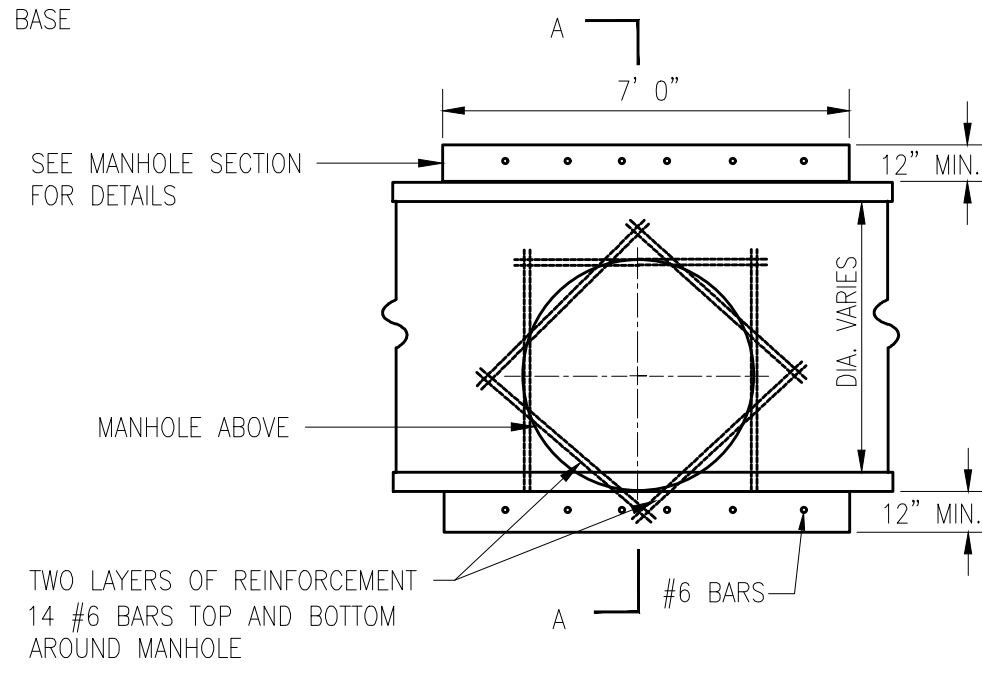
INTERIOR DROP CONNECTION
NOT TO SCALE

DIA. OF SEWER	DIA. OF DROP CONNECTION
4"	4"
6"	4"
8"	6"
10"	8"

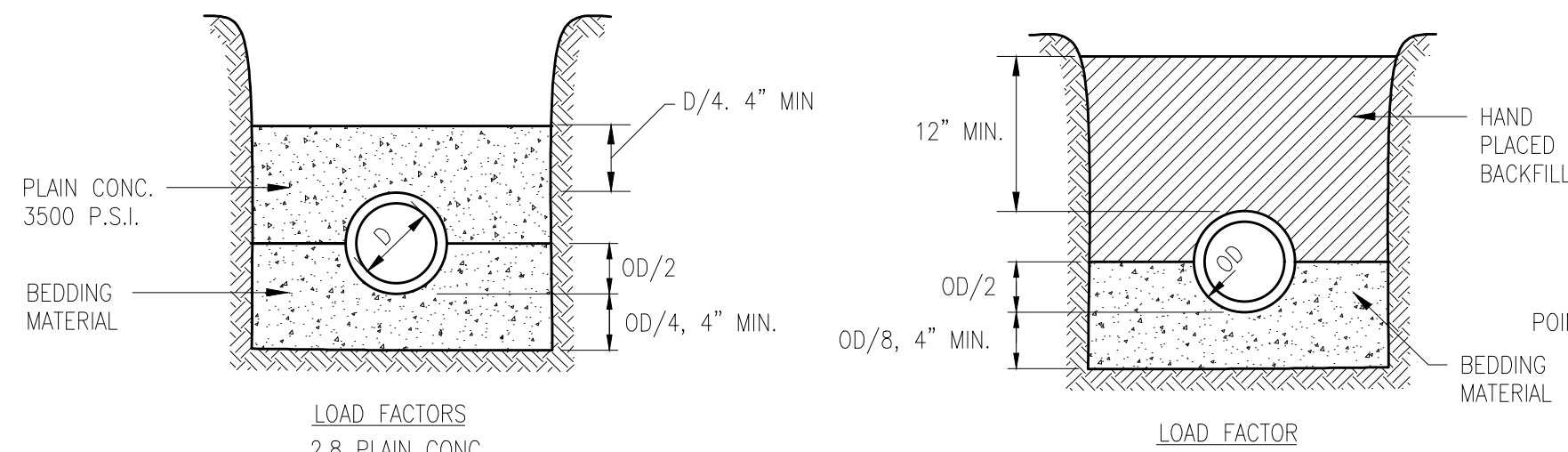


SANITARY MANHOLE FOR SEWERS LARGER THAN 21"
NOT TO SCALE

SANITARY MANHOLE FOR SEWERS 8" THRU 21"
NOT TO SCALE



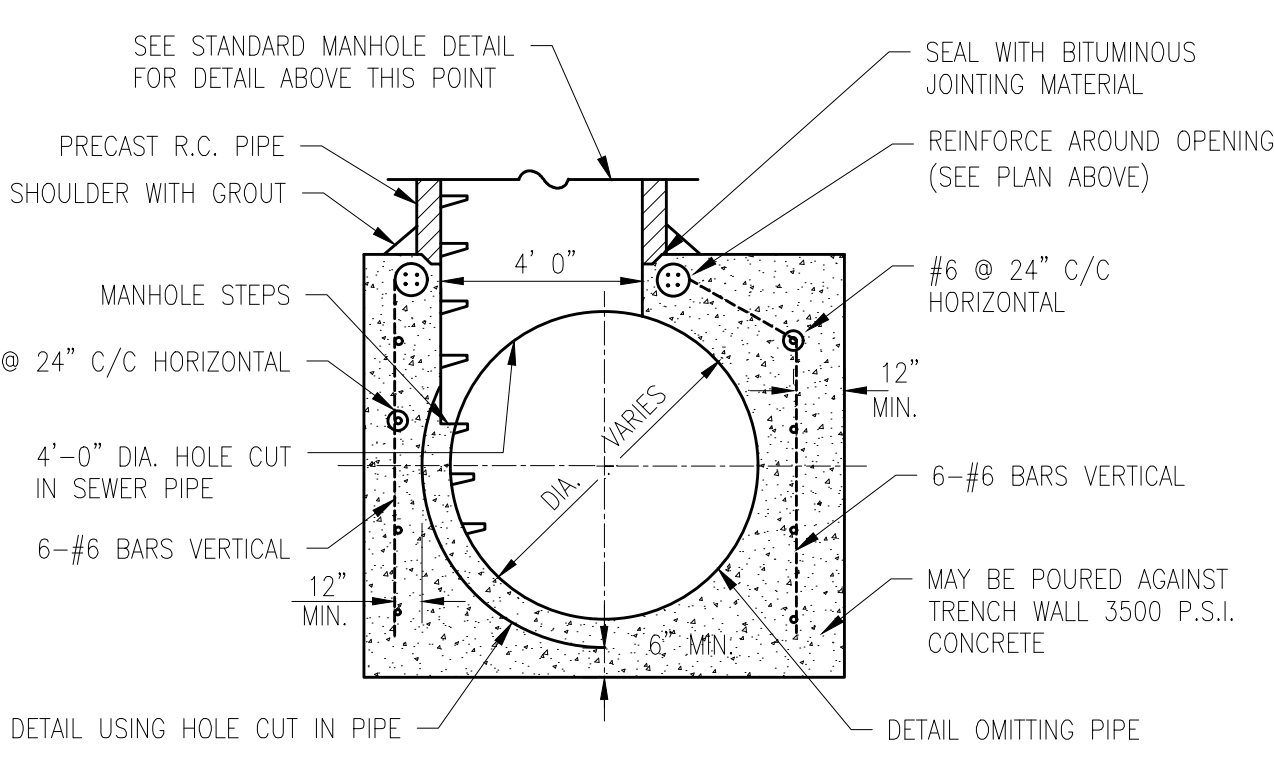
MANHOLE PLAN 48" & LARGER SEWERS
NOT TO SCALE



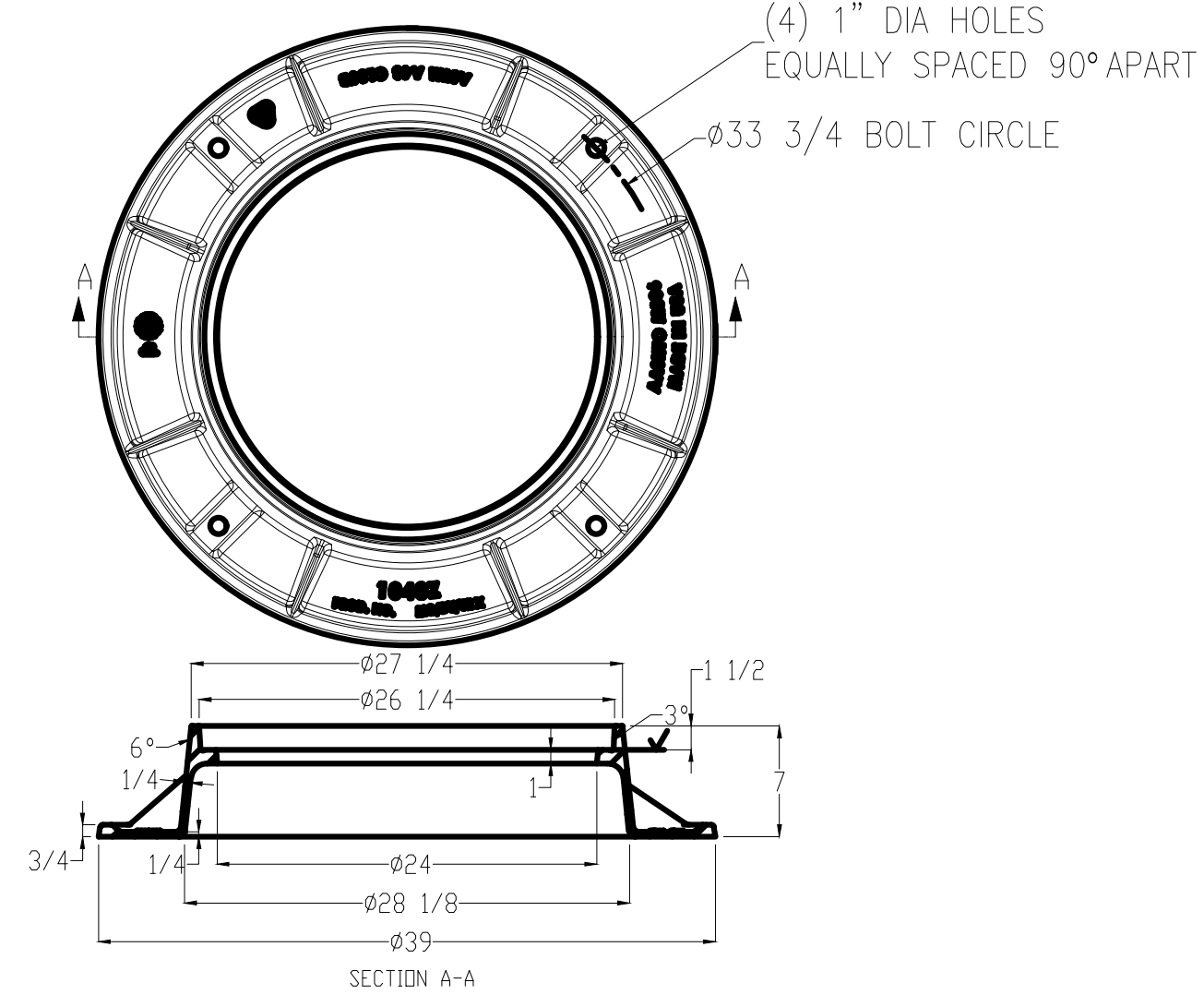
MAX. WIDTH OF TRENCH 12" ABOVE TOP OF PIPE
6" THRU 12" PIPE 30" WIDE
15" THRU 36" PIPE - OD+16"
42" THRU 60" PIPE - OD+20"
OVER 60" PIPE OUTSIDE DIA. OF PIPE+24"

MIN. WIDTH OF TRENCH 12" ABOVE THE TOP OF THE PIPE SHALL BE 6" ON EACH SIDE OF PIPE.

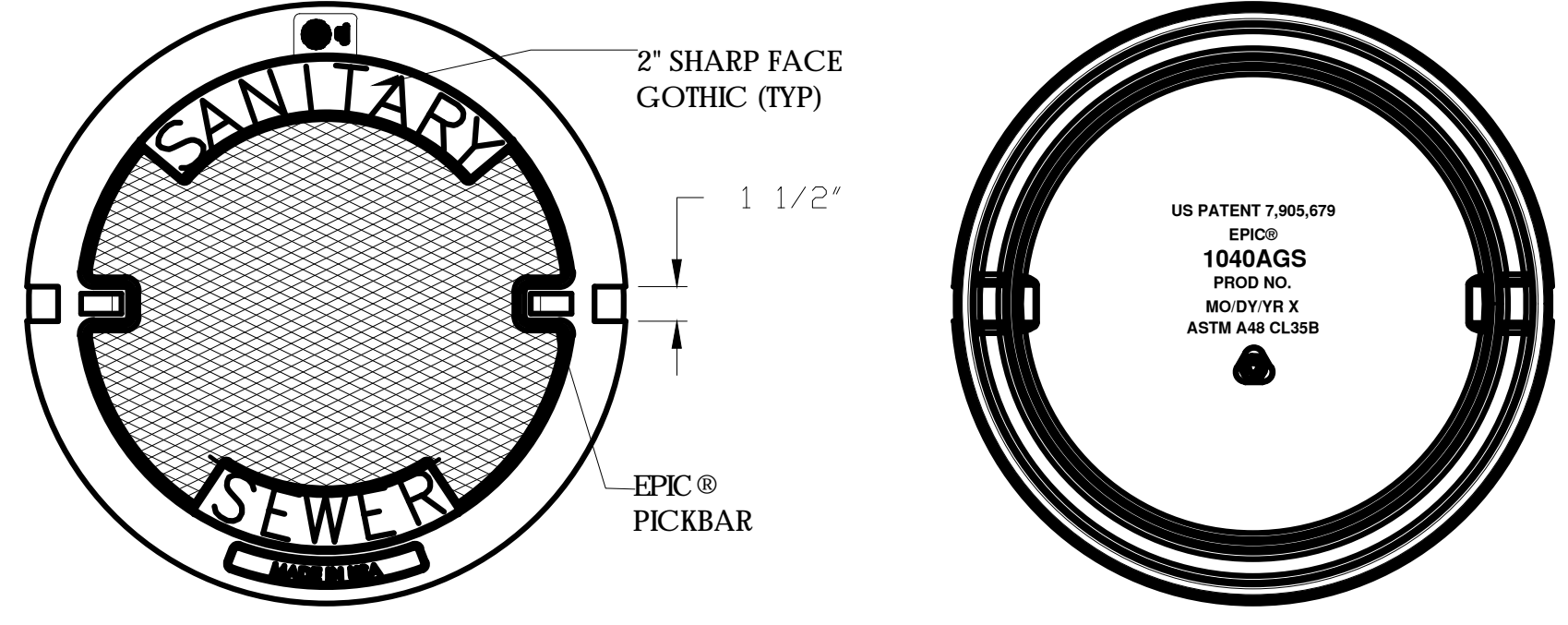
PIPE BEDDING DETAILS



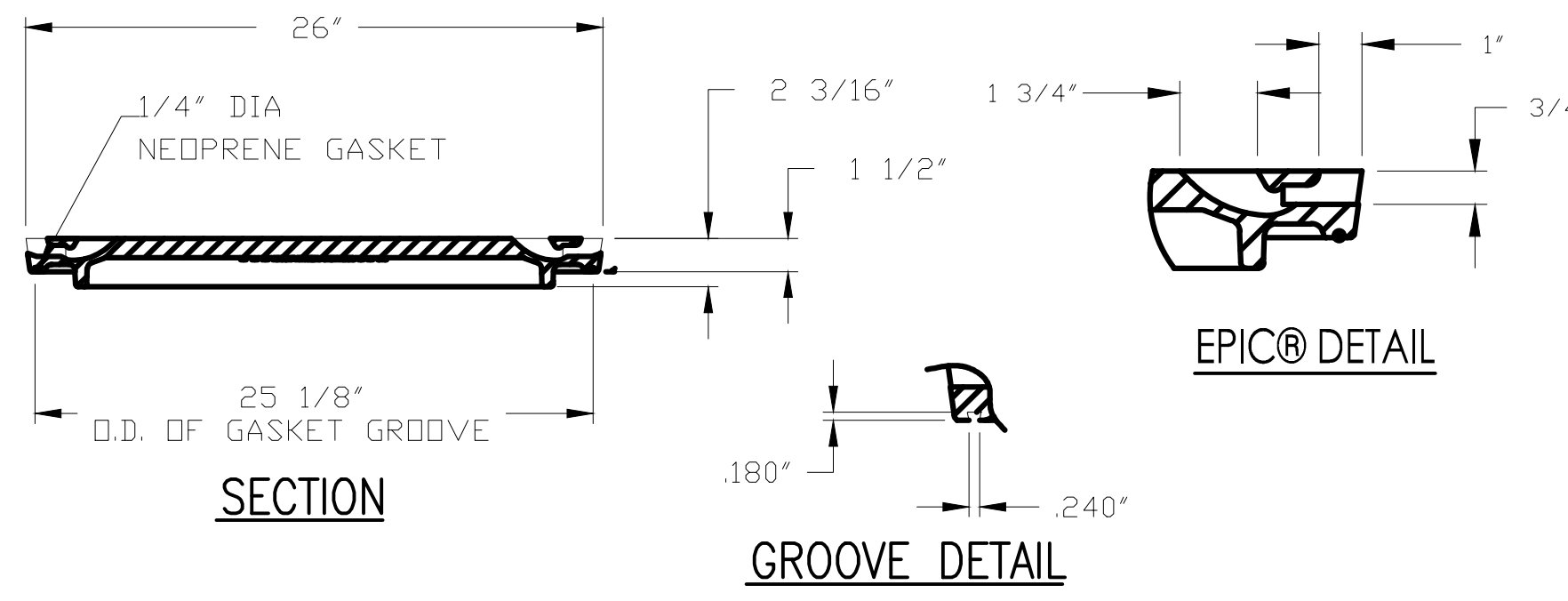
MANHOLE SECTION 48" & LARGER SEWERS
NOT TO SCALE



1040Z FRAME



BOTTOM VIEW



SECTION

GROOVE DETAIL

1040 AGS COVER



Know what's below.
Call before you dig.



REVISIONS

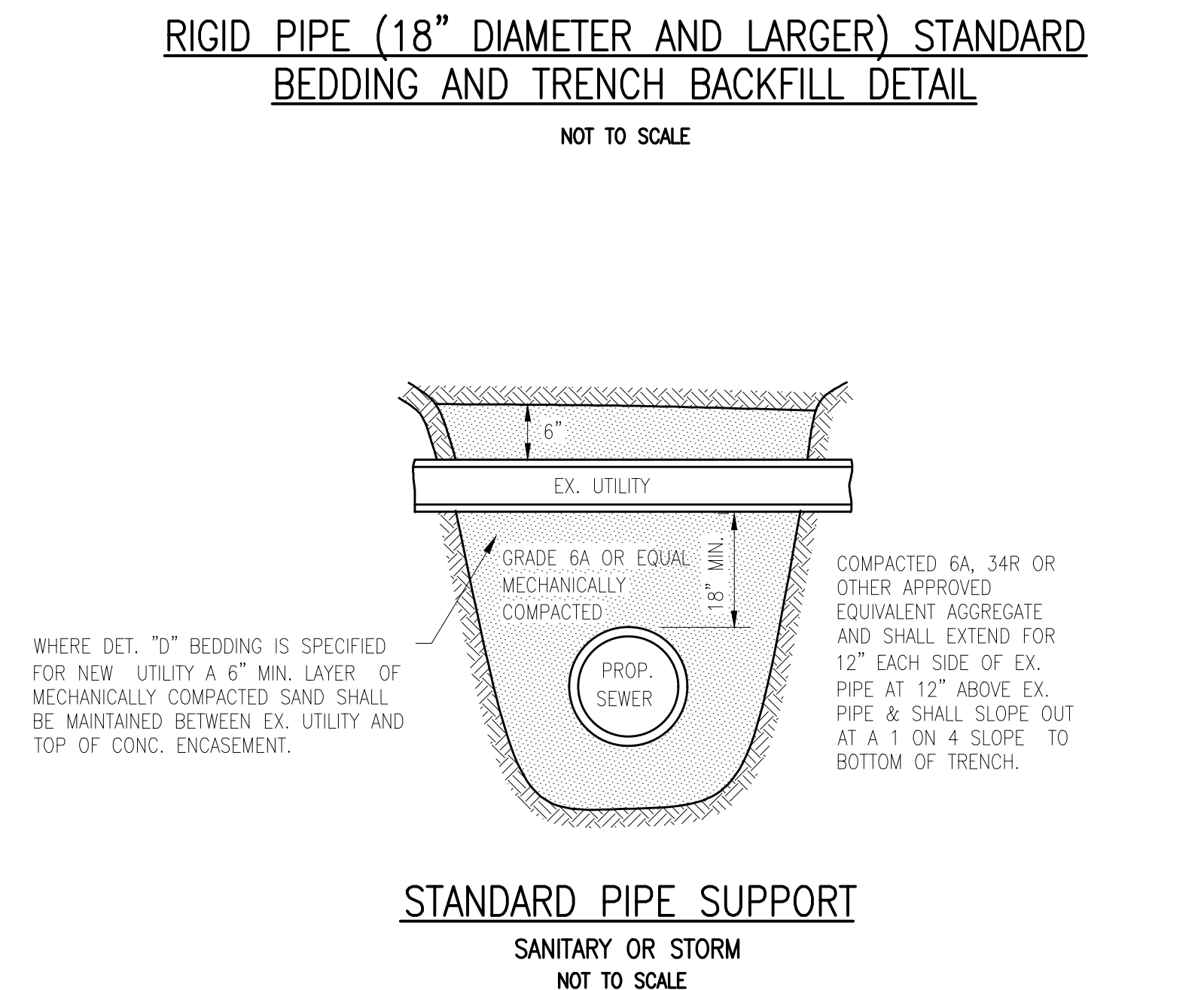
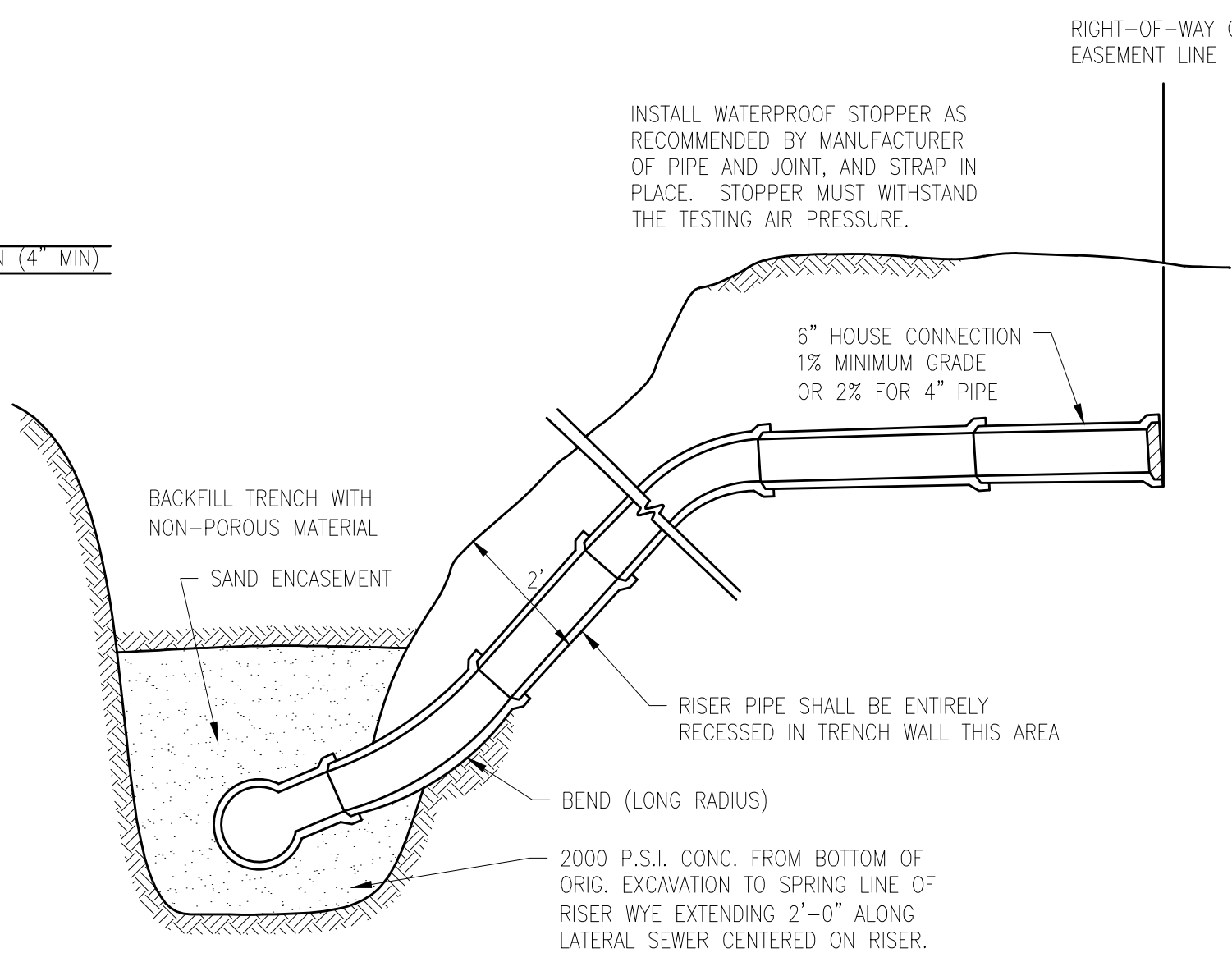
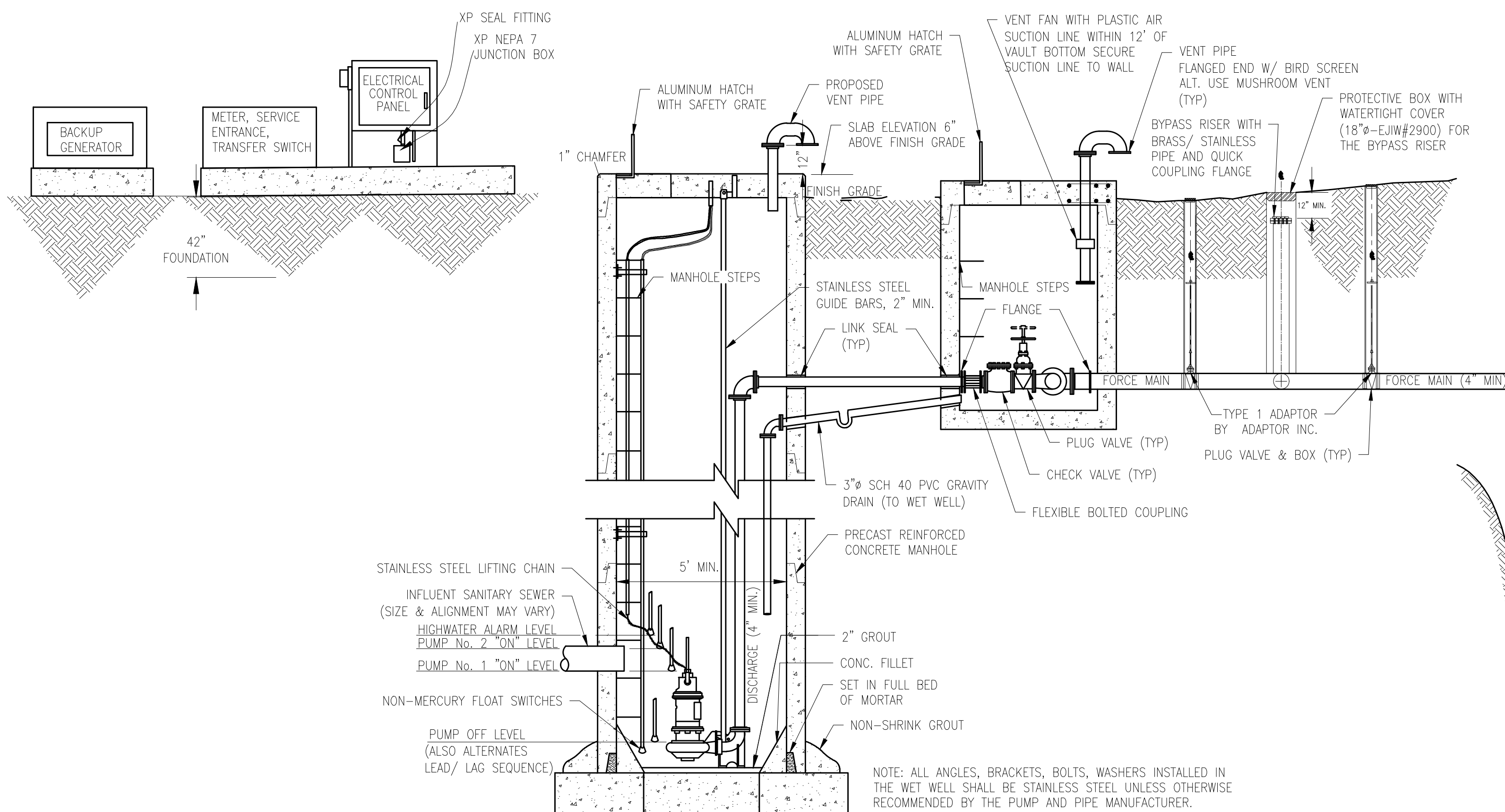
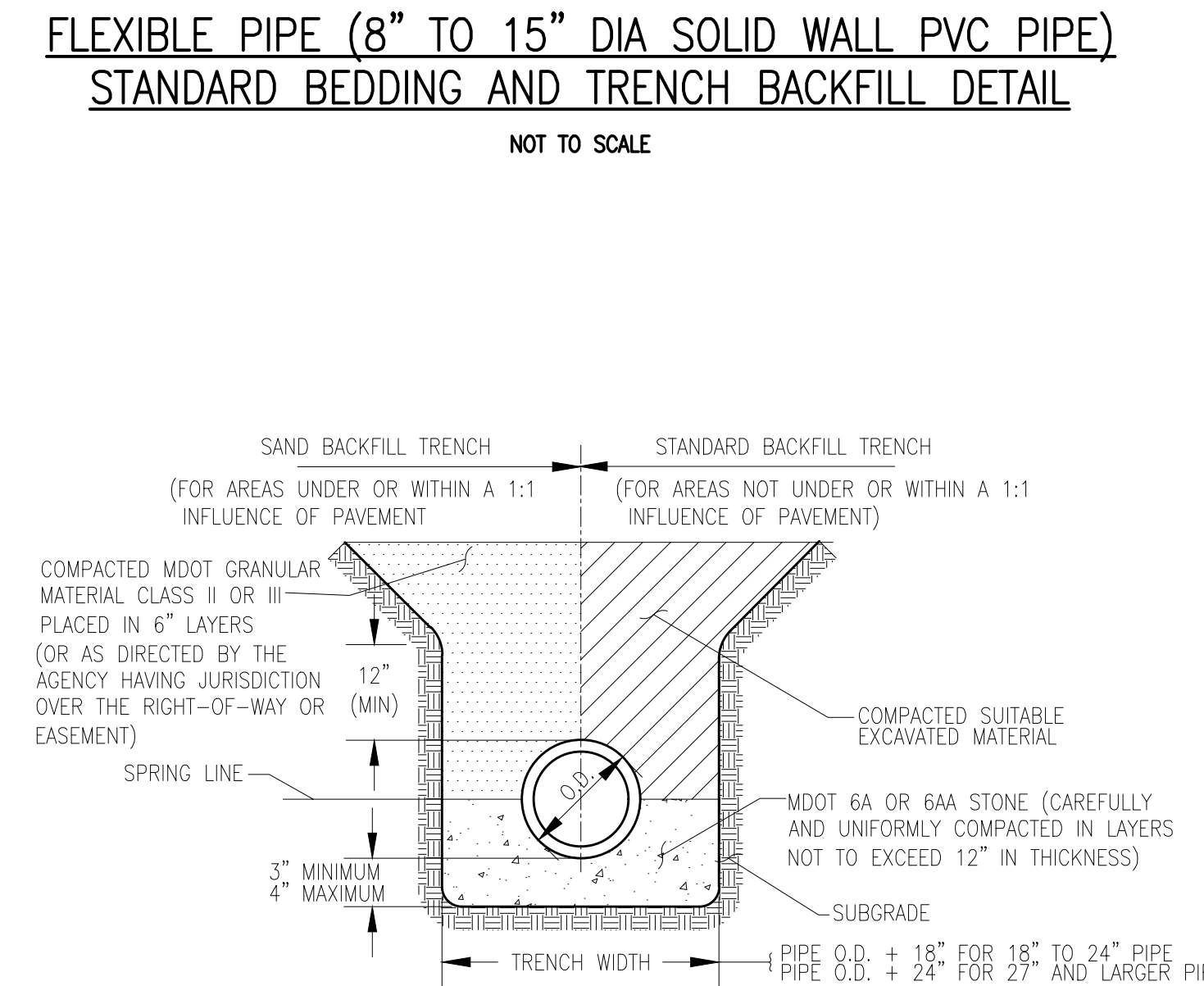
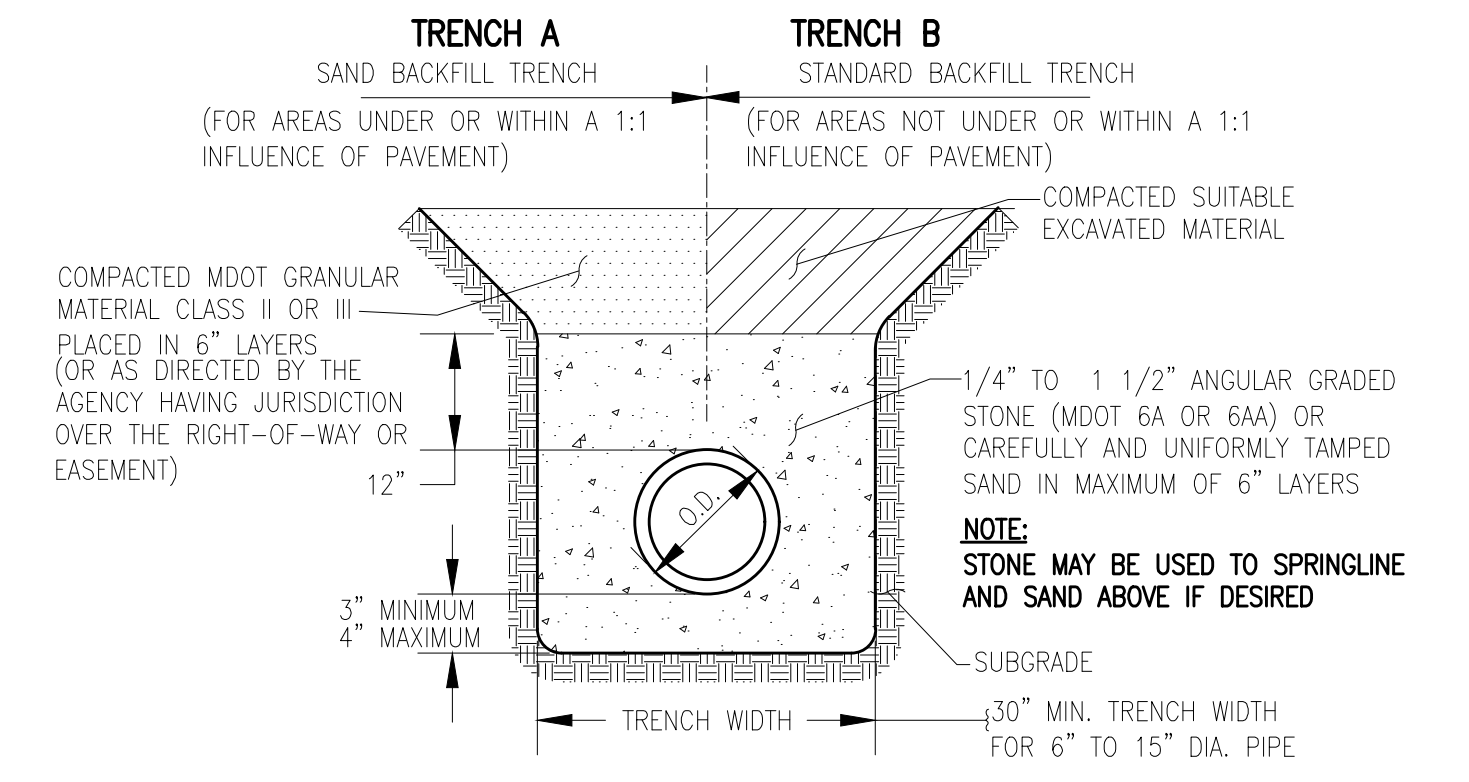
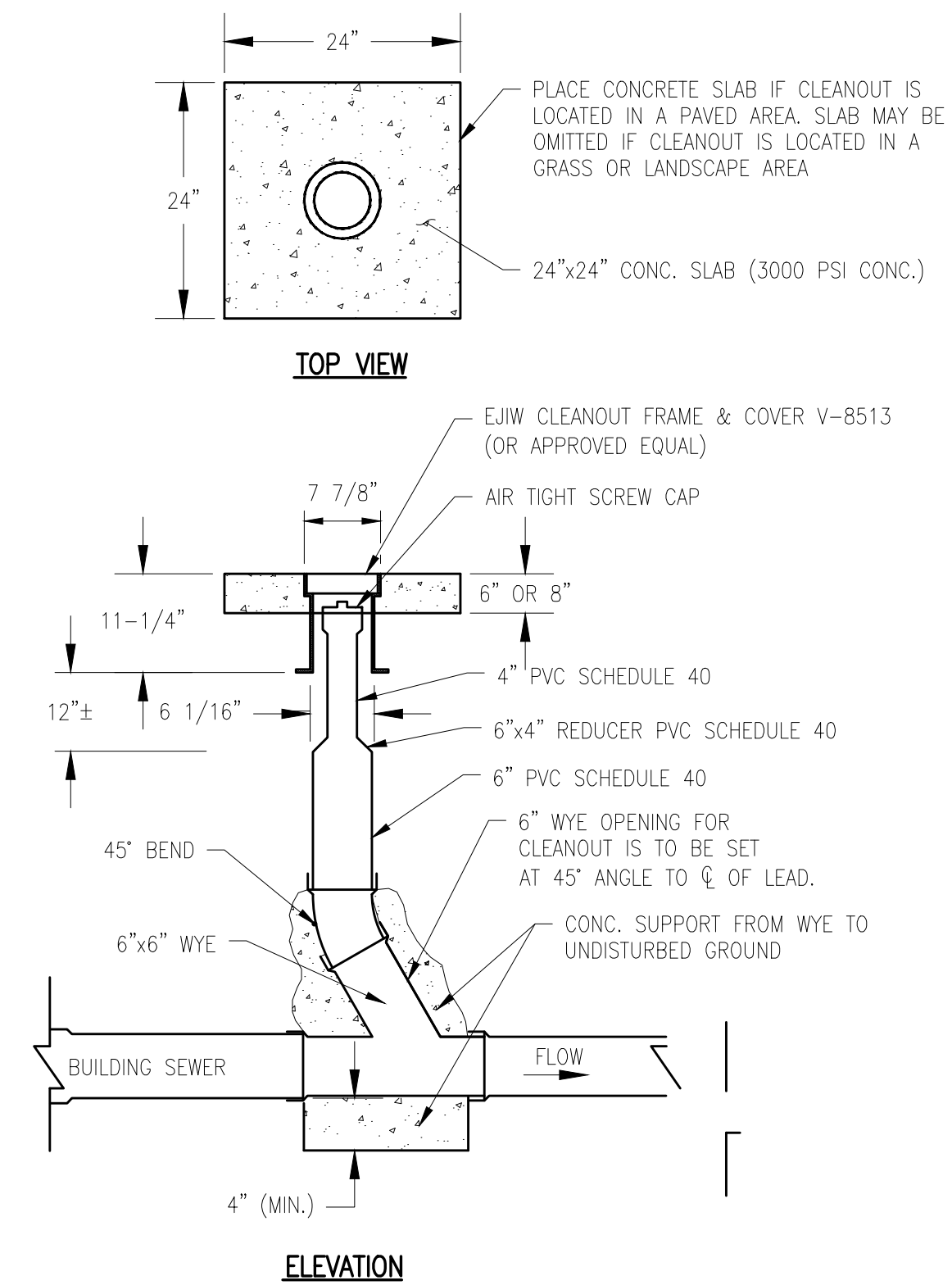
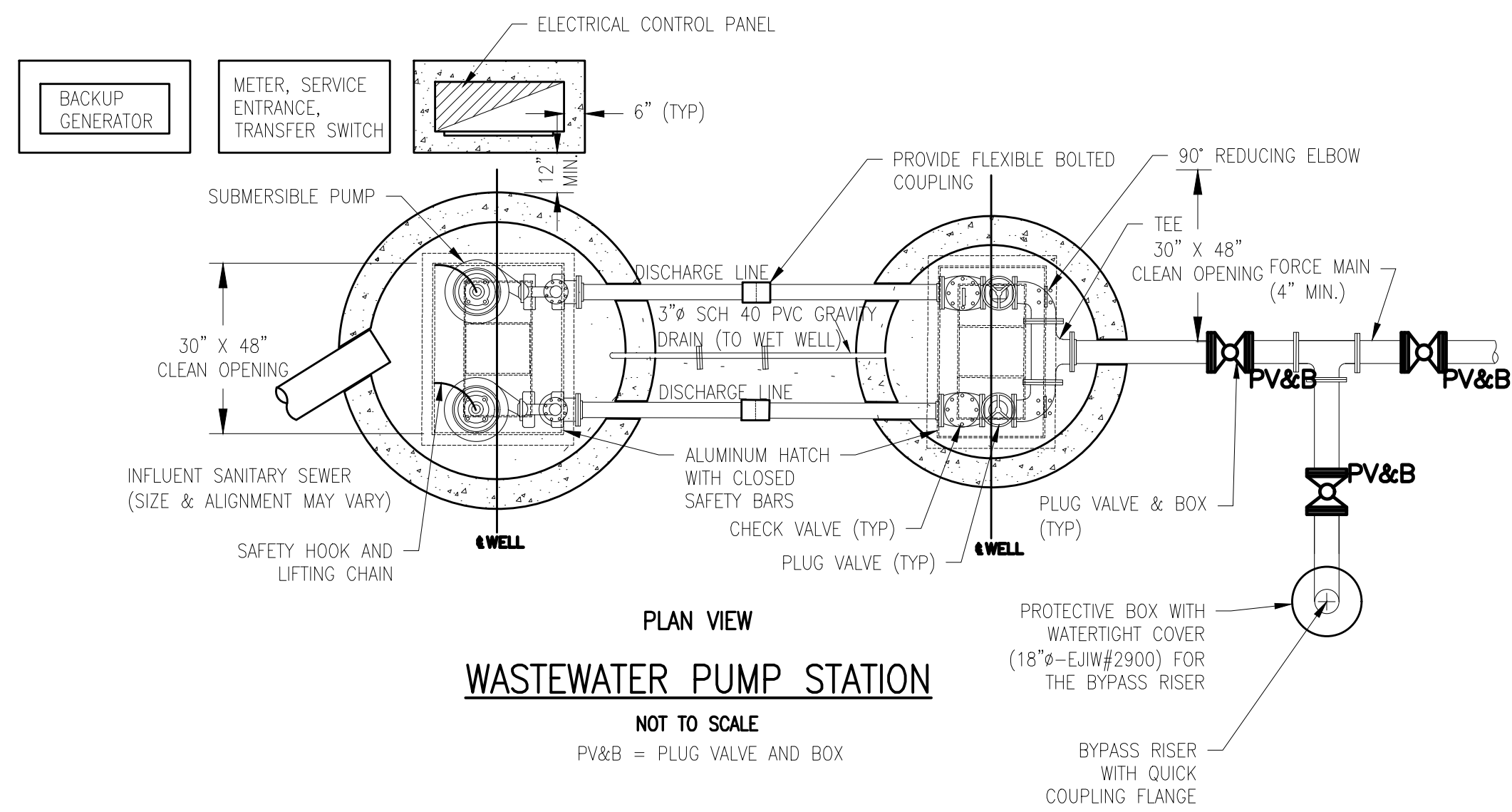
STANDARD SANITARY SEWER DETAILS

YPSILANTI COMMUNITY UTILITIES AUTHORITY
2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
(734) 484-4800
FAX: (734) 544-7221
WWW.YCUA.ORG

YCUA
ENVIRONMENTAL LEADERS

DATE: 10/25/19
SCALE: NO SCALE
SHEET:

ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF YCUA AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF YCUA.



DETAILS ARE FOR LAYOUT AND GENERALITIES ONLY. THE SPECIFIC COMPONENTS AND EXACT DETAILS MUST BE IDENTIFIED OR CREATED ON A CASE BY CASE BASIS THROUGH A DETAILED SUBMITTAL REVIEW PROCESS.



REVISIONS

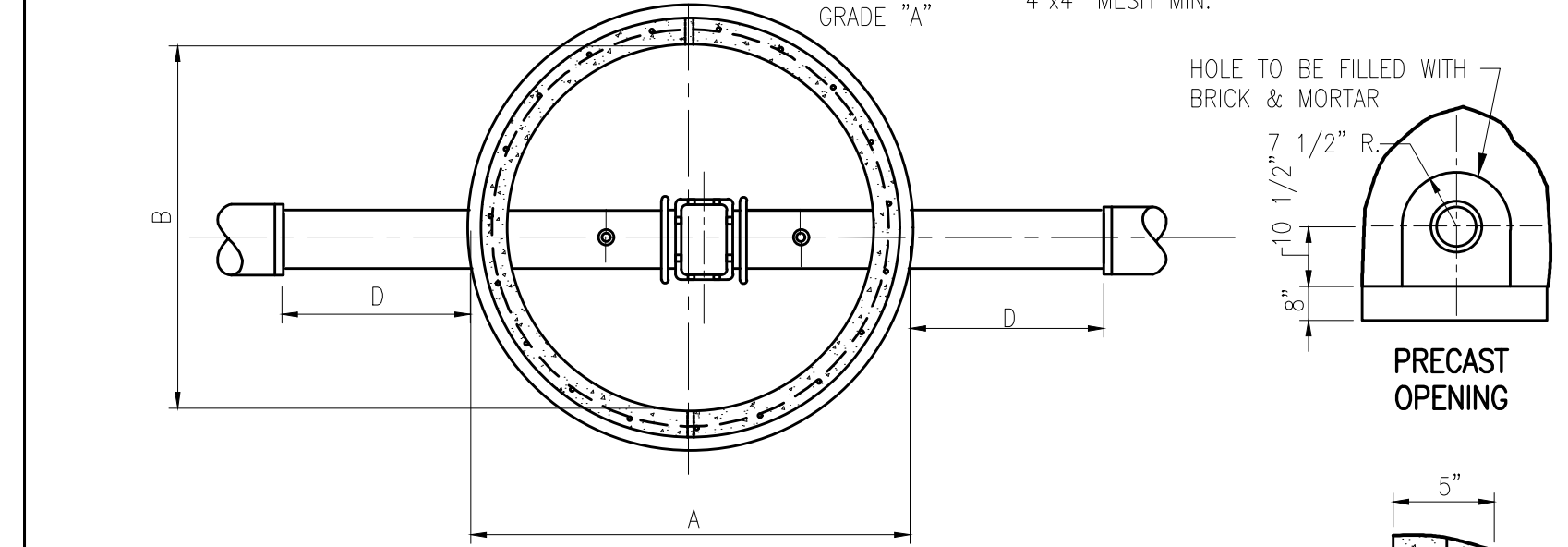
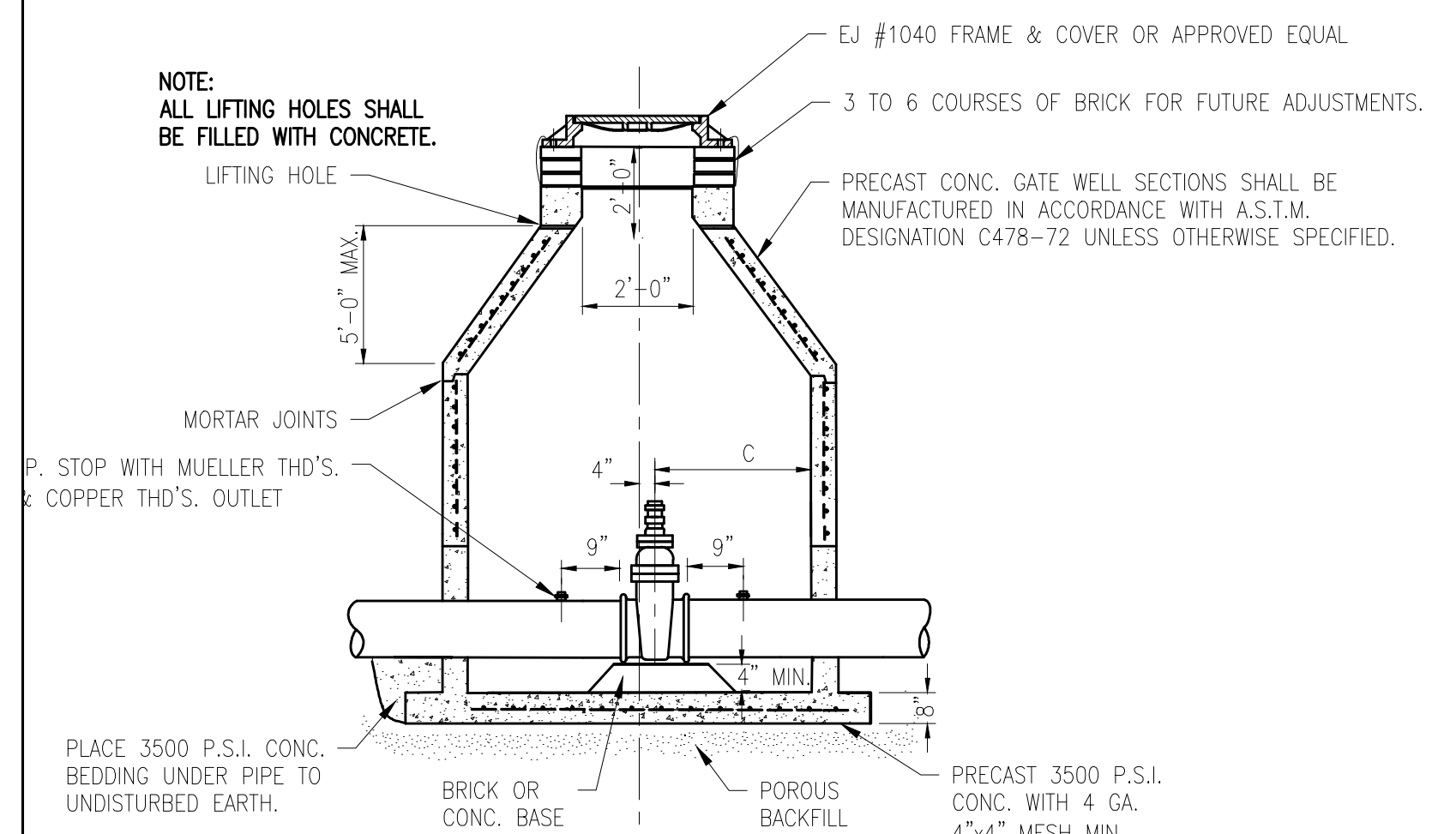
ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF YCA AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF YCA.

STANDARD SANITARY SEWER DETAILS		
DATE	SCALE	SHEET
10/25/19	NO SCALE	

YPSILANTI COMMUNITY UTILITIES AUTHORITY
2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
(734) 484-4800
FAX: (734) 544-7221
WWW.YCA.ORG

YCA
ENVIRONMENTAL LEADERS

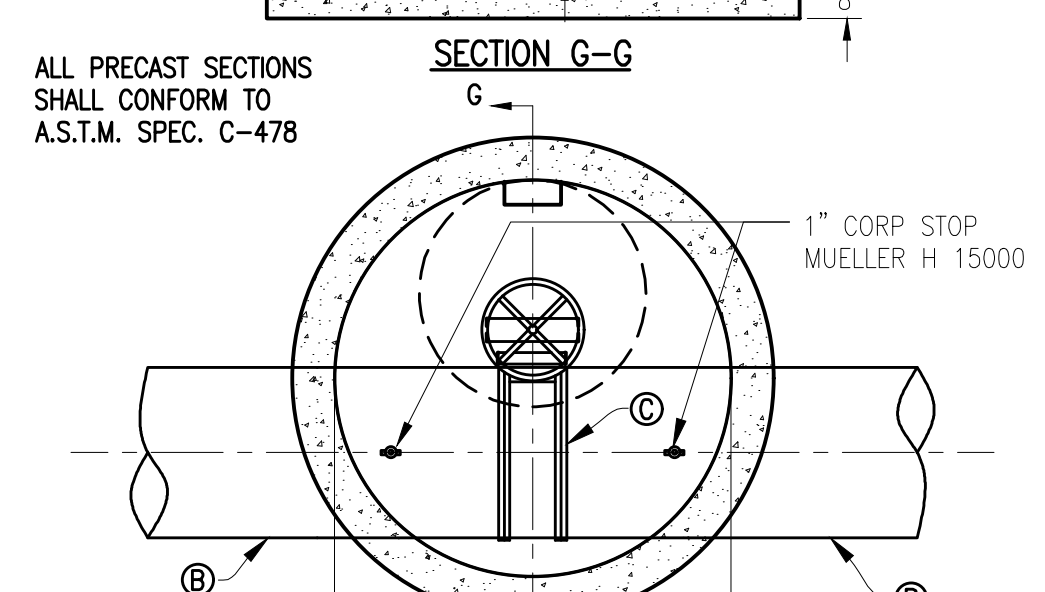
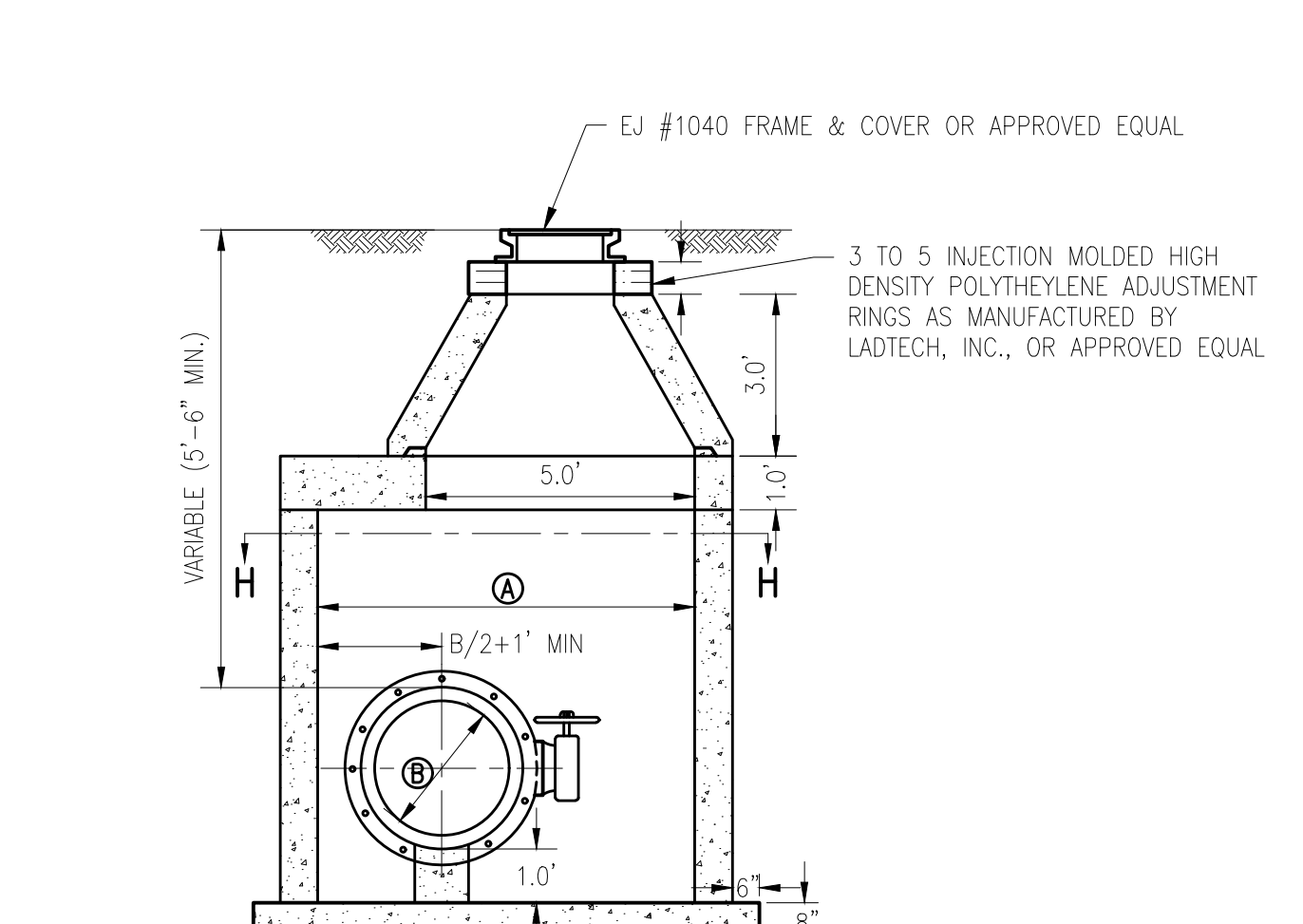
DATE	SCALE	SHEET
10/25/19	NO SCALE	



SIZE	A	B	C	D
8"	5'-0"	4'-0"	2'-2"	—
12"	5'-6"	4'-6"	2'-5"	—
16"	6'-0"	5'-6"	2'-8"	3'-0" MIN. * 13'-0" MAX.

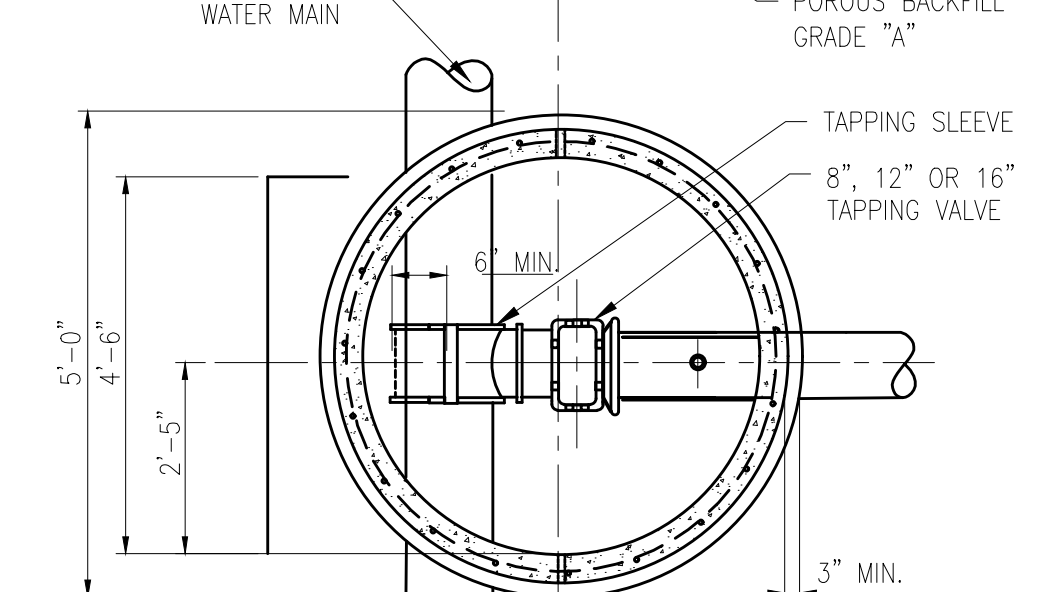
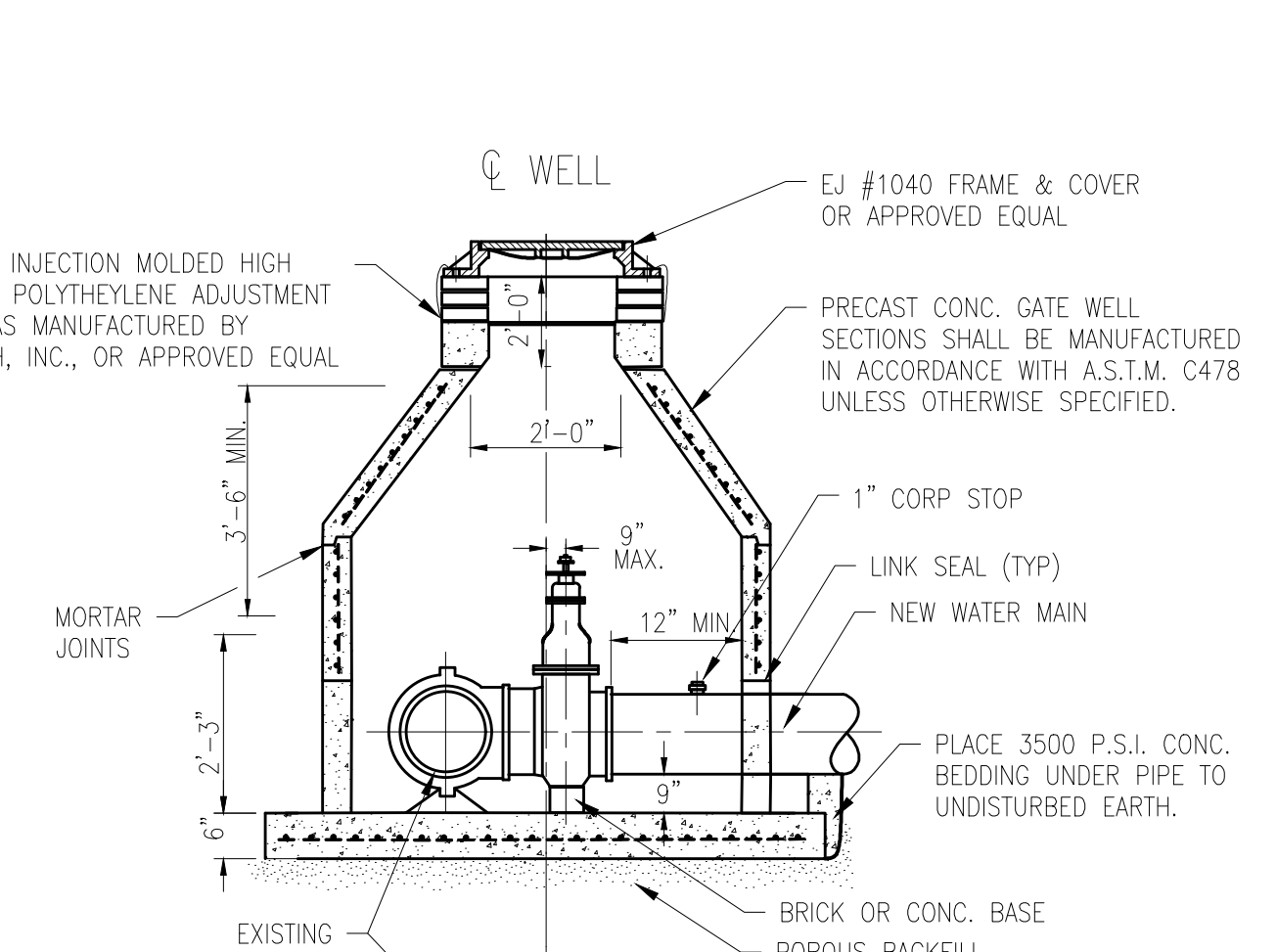
STANDARD PRECAST GATE VALVE & WELL (CONCENTRIC)

* DUCTILE IRON PIPE

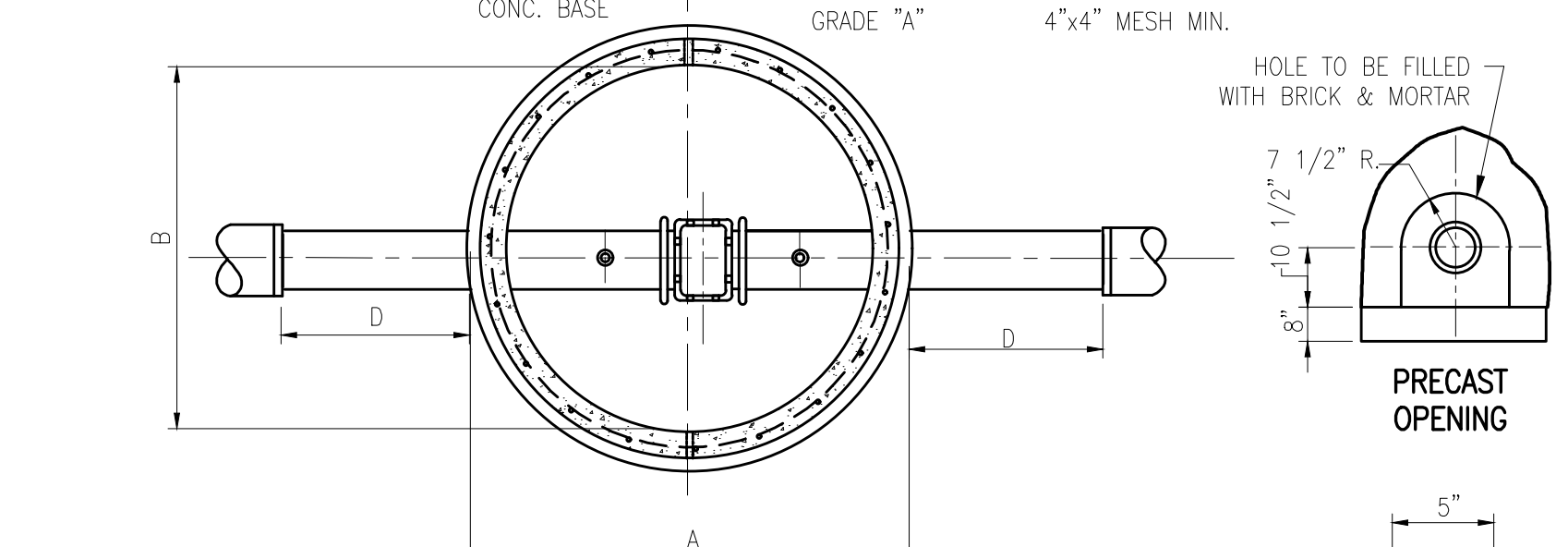
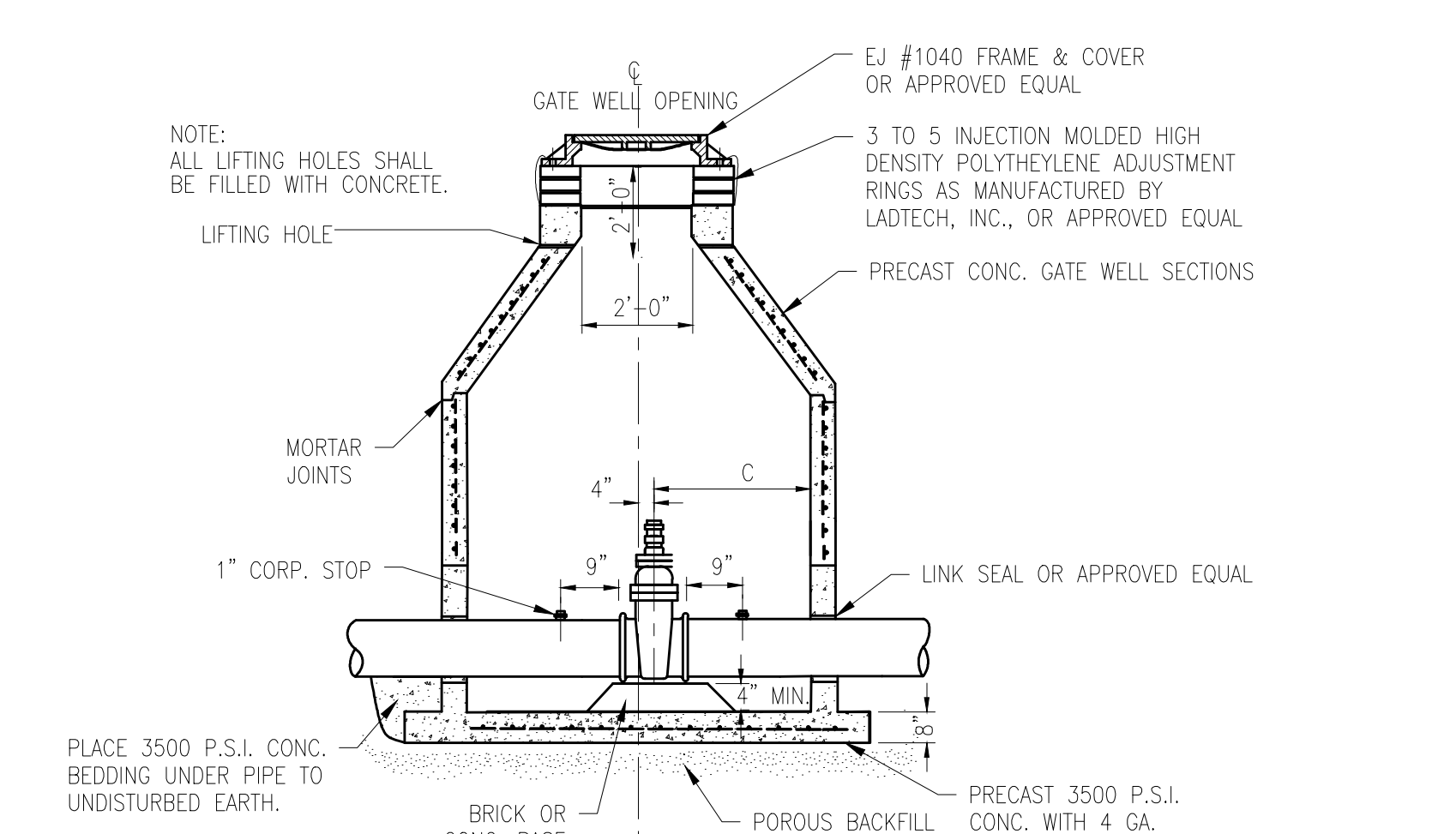


BUTTERFLY VALVE AND WELL (CONCENTRIC)

A	B
DIA WELL	DIA MAIN
7'-0"	20"
7'-0"	24"
8'-0"	30"
8'-0"	36"



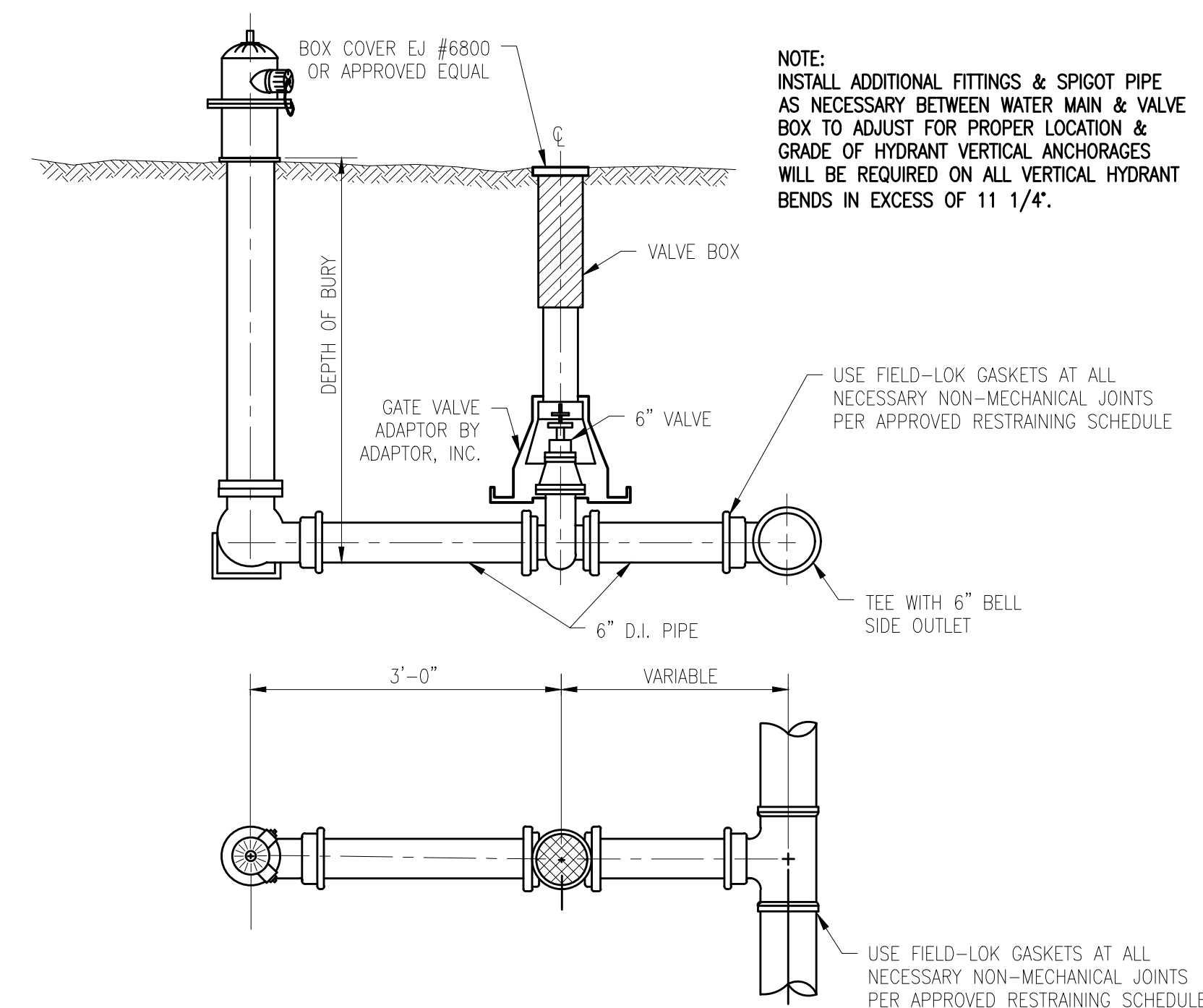
TAPPING SLEEVE, VALVE & WELL (CONCENTRIC)



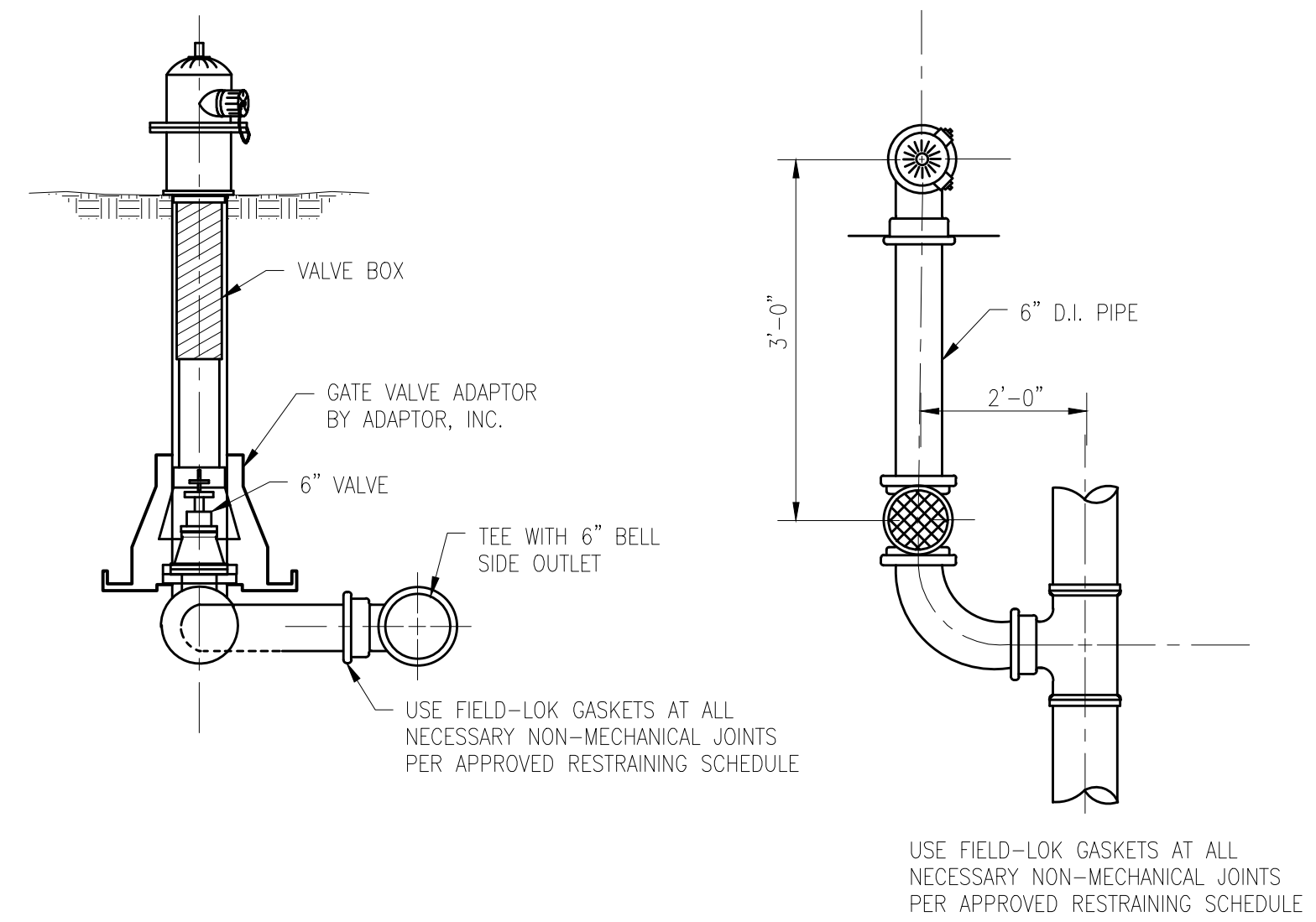
WM	A	B	C	D
8"	5'-0"	4'-0"	2'-2"	—
12"	5'-6"	4'-6"	2'-5"	—
16"	6'-0"	5'-6"	2'-8"	3'-0" MIN. * 13'-0" MAX.

GATE VALVE & WELL (CONCENTRIC)

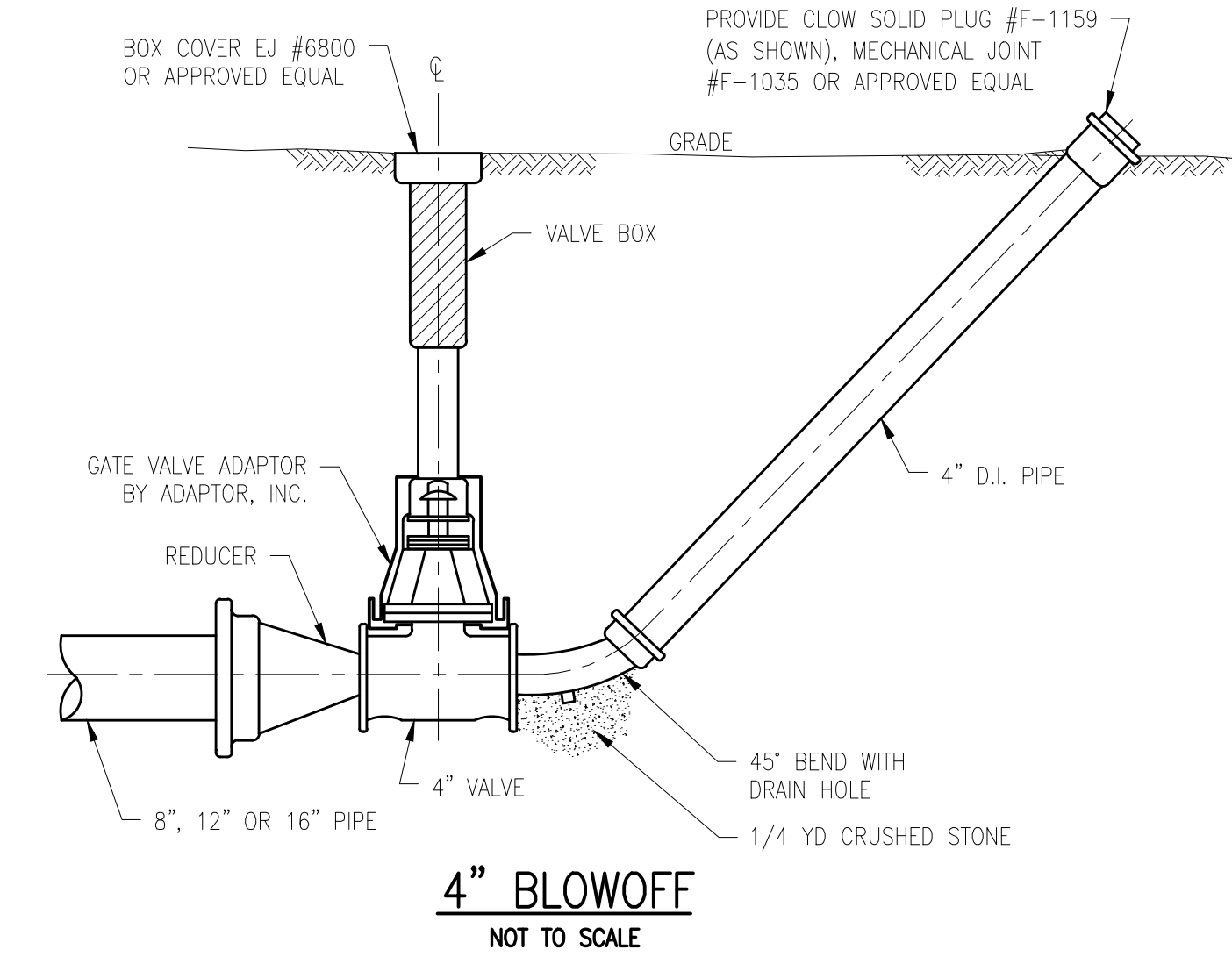
* DUCTILE IRON PIPE



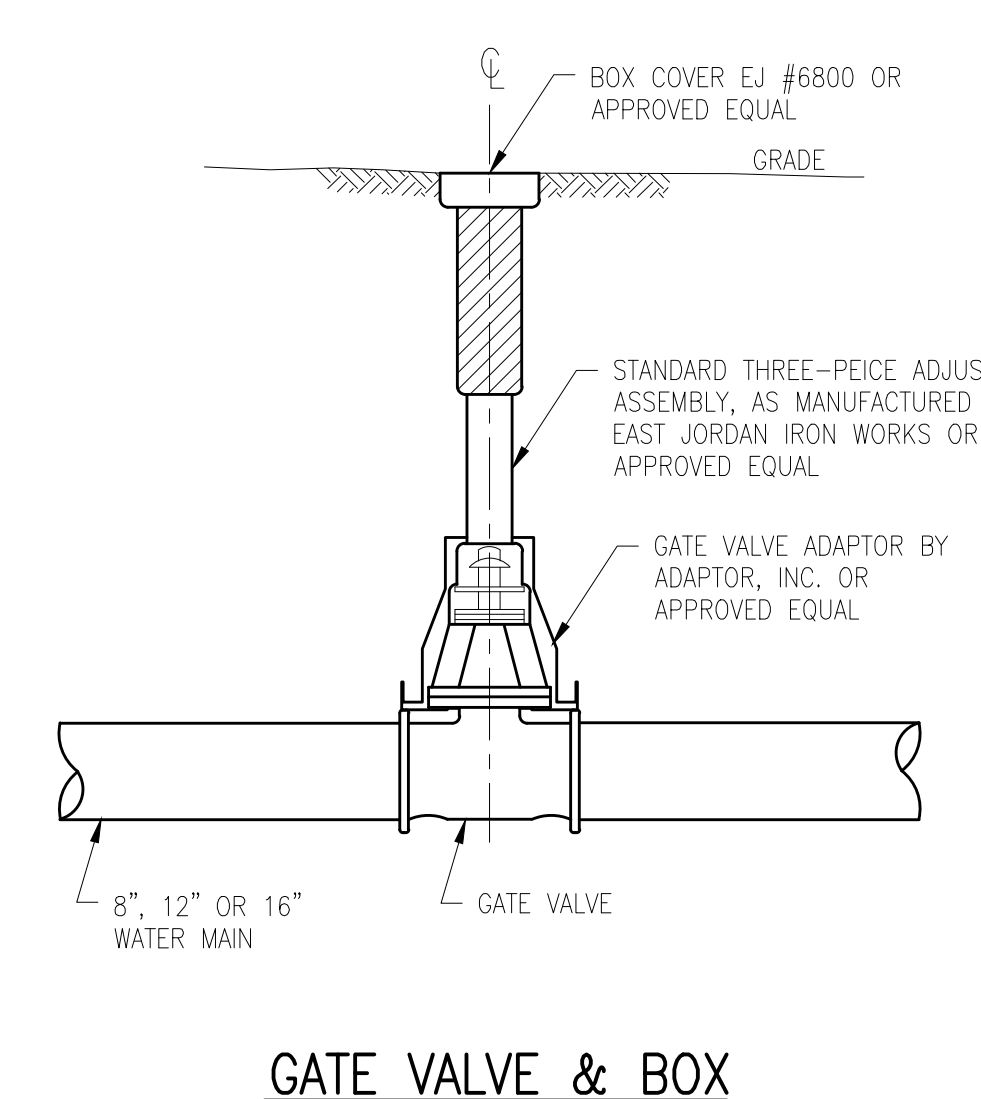
STANDARD HYDRANT SETTING



CLOSE COUPLE HYDRANT SETTING



4" BLOWOFF



GATE VALVE & BOX



Know what's below. Call before you dig.



REVISIONS

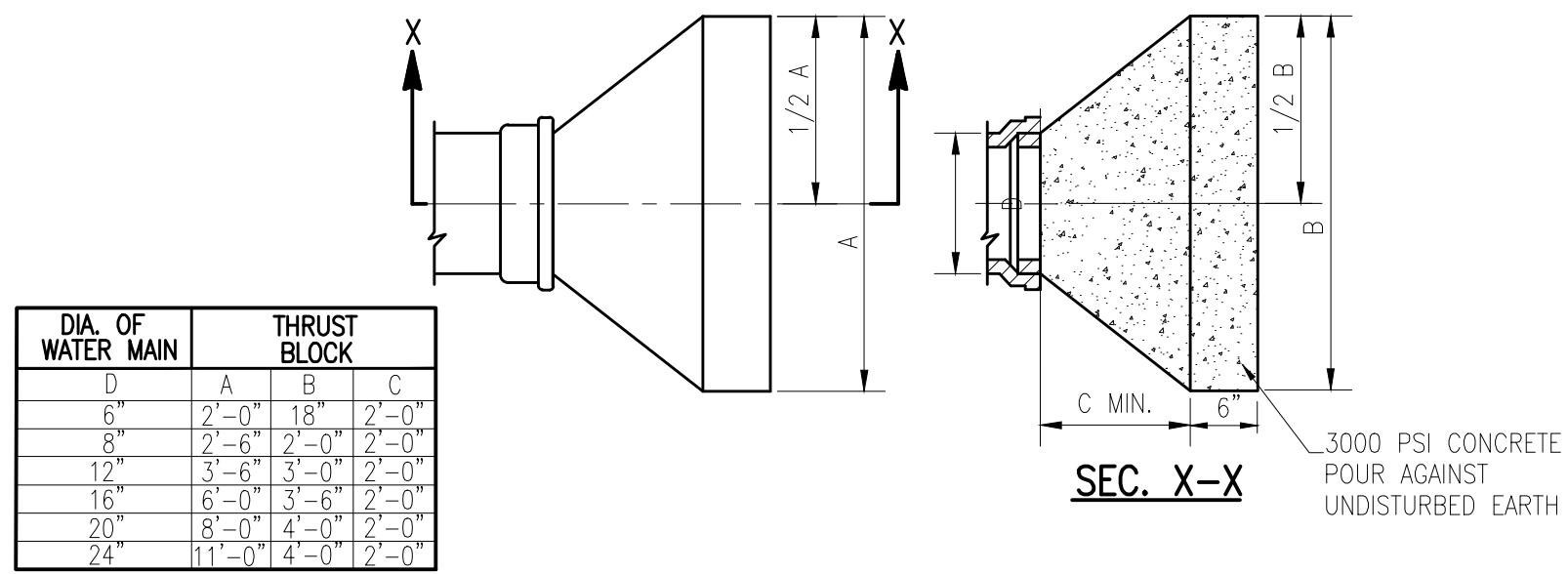
STANDARD WATER MAIN DETAILS

YPSILANTI COMMUNITY UTILITIES AUTHORITY
 2777 STATE ROAD
 YPSILANTI, MICHIGAN 48198-9112
 (734) 484-4800
 FAX: (734) 544-7221
 WWW.YCAU.ORG

YCAU
 ENVIRONMENTAL LEADERS

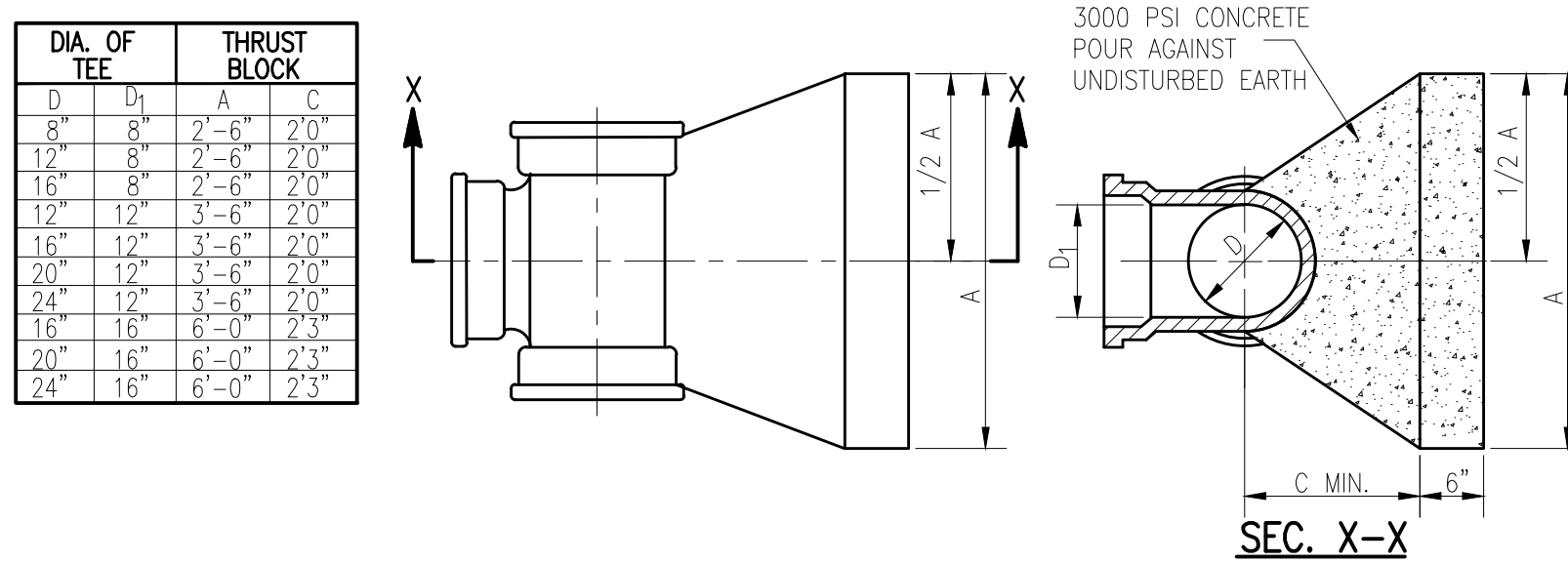
DATE	SCALE	SHEET
09/25/19	NO SCALE	

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DIA. OF WATER MAIN		THRUST BLOCK	
D	A	B	C
8"	2'-0"	18"	2'-0"
12"	2'-6"	2'-0"	2'-0"
16"	3'-0"	3'-0"	2'-0"
20"	3'-6"	3'-6"	2'-0"
24"	4'-0"	4'-0"	2'-0"

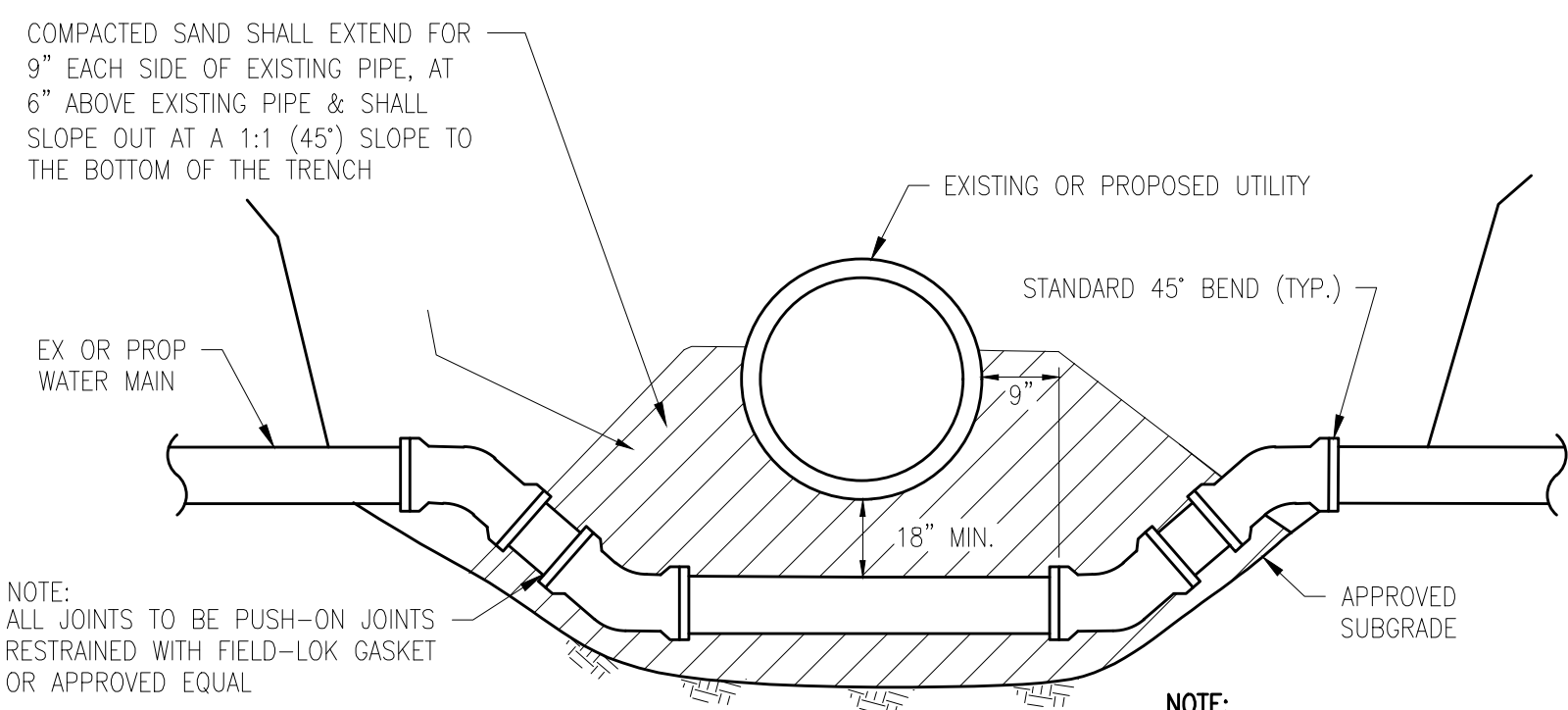
THRUST BLOCK AT PLUG OR HYDRANT SHOE
NOT TO SCALE



DIA. OF TEE		THRUST BLOCK	
D	A	B	C
8"	2'-6"	2'-0"	2'-0"
12"	3'-0"	2'-6"	2'-0"
16"	3'-6"	3'-0"	2'-0"
20"	4'-0"	3'-6"	2'-0"
24"	4'-6"	4'-0"	2'-0"

THRUST BLOCK AT TAPPING SLEEVE TEE
NOT TO SCALE

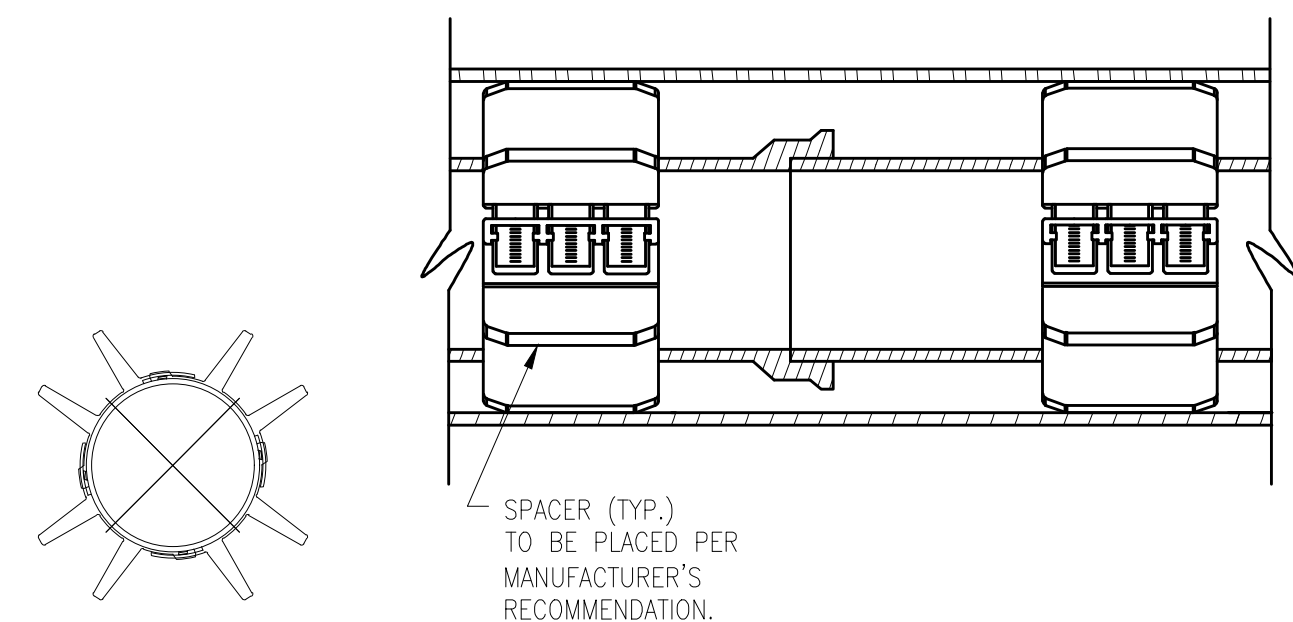
NOTE: CONCRETE THRUST BLOCKS WILL NOT BE PERMITTED EXCEPT BEHIND HYDRANT SHOES AND TAPPING SLEEVES. USE OF CONCRETE THRUST BLOCKS IN OTHER LOCATIONS WILL NOT BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF YCUA. ALL OTHER VERTICAL AND HORIZONTAL BENDS SHALL BE RESTRAINED WITH FIELD-LOK GASKETS OR APPROVED MECHANICAL JOINTS.



NOTE: ALL JOINTS TO BE PUSH-ON JOINTS RESTRAINED WITH FIELD-LOK GASKET OR APPROVED EQUAL

NOTE: FOR BEDDING OF WATER MAIN SEE STANDARD PIPE SUPPORT DETAIL

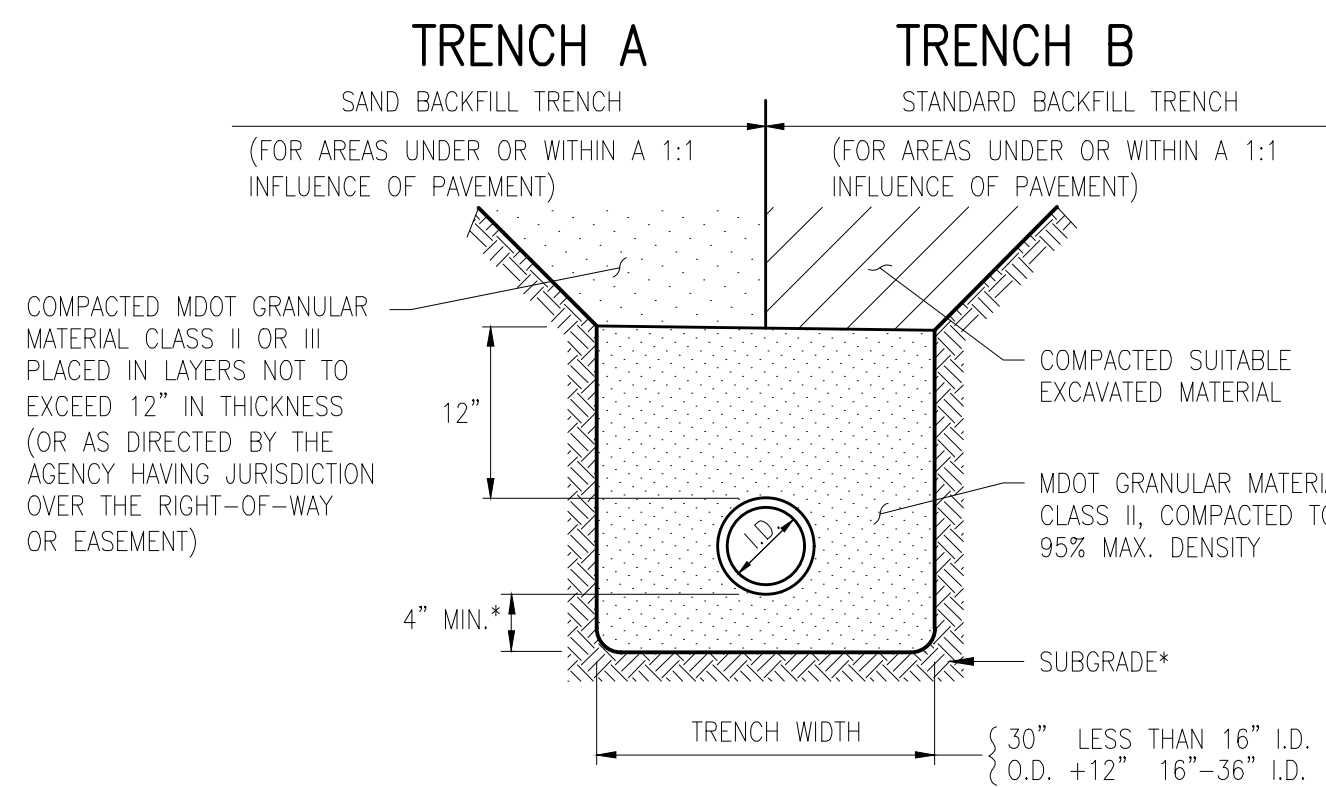
WATER MAIN LOWERING
NOT TO SCALE



SPACER END VIEW
NOT TO SCALE

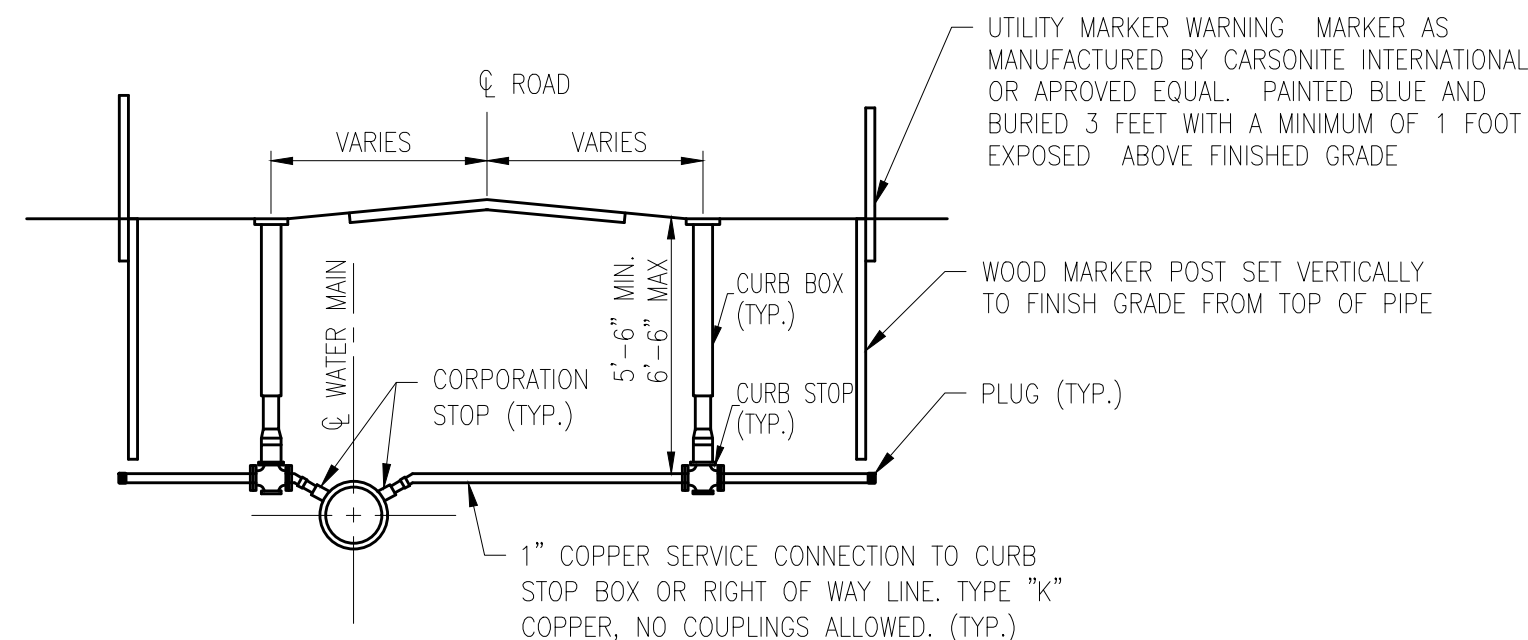
STANDARD CASING SECTION
NOT TO SCALE

- NOTES:
- SPACERS FOR PLACEMENT IN THE ANNULAR SPACE BETWEEN THE CARRIER PIPE AND A CASING PIPE SHALL BE RANGER II AS MANUFACTURED BY PSI OR APPROVED EQUAL.
 - END SEALS SHALL BE MODEL C RUBBER SEAL WITH STAINLESS STEEL BANDS AS MANUFACTURED BY PSI OR APPROVED EQUAL.

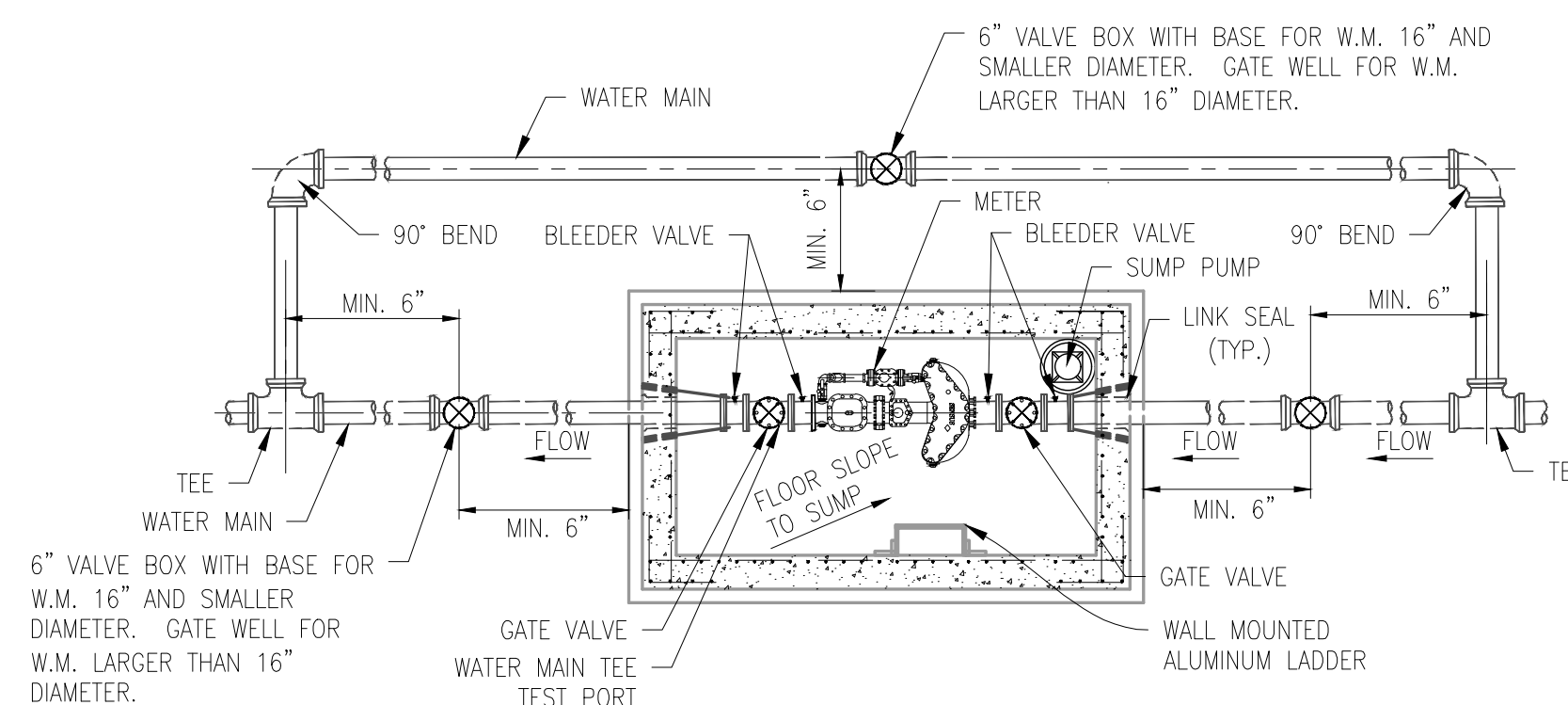


BEDDING AND TRENCH BACKFILL DETAIL FOR WATER MAIN
NOT TO SCALE

*NOTE: IF THE EXISTING SUBGRADE MATERIAL MEETS THE REQUIREMENTS FOR MDOT GRANULAR MATERIAL CLASS II (MINIMUM 4" THICK), THEN THE WATER MAIN MAY BE LAID DIRECTLY ON THE COMPACTED EXISTING SUBGRADE MATERIAL.

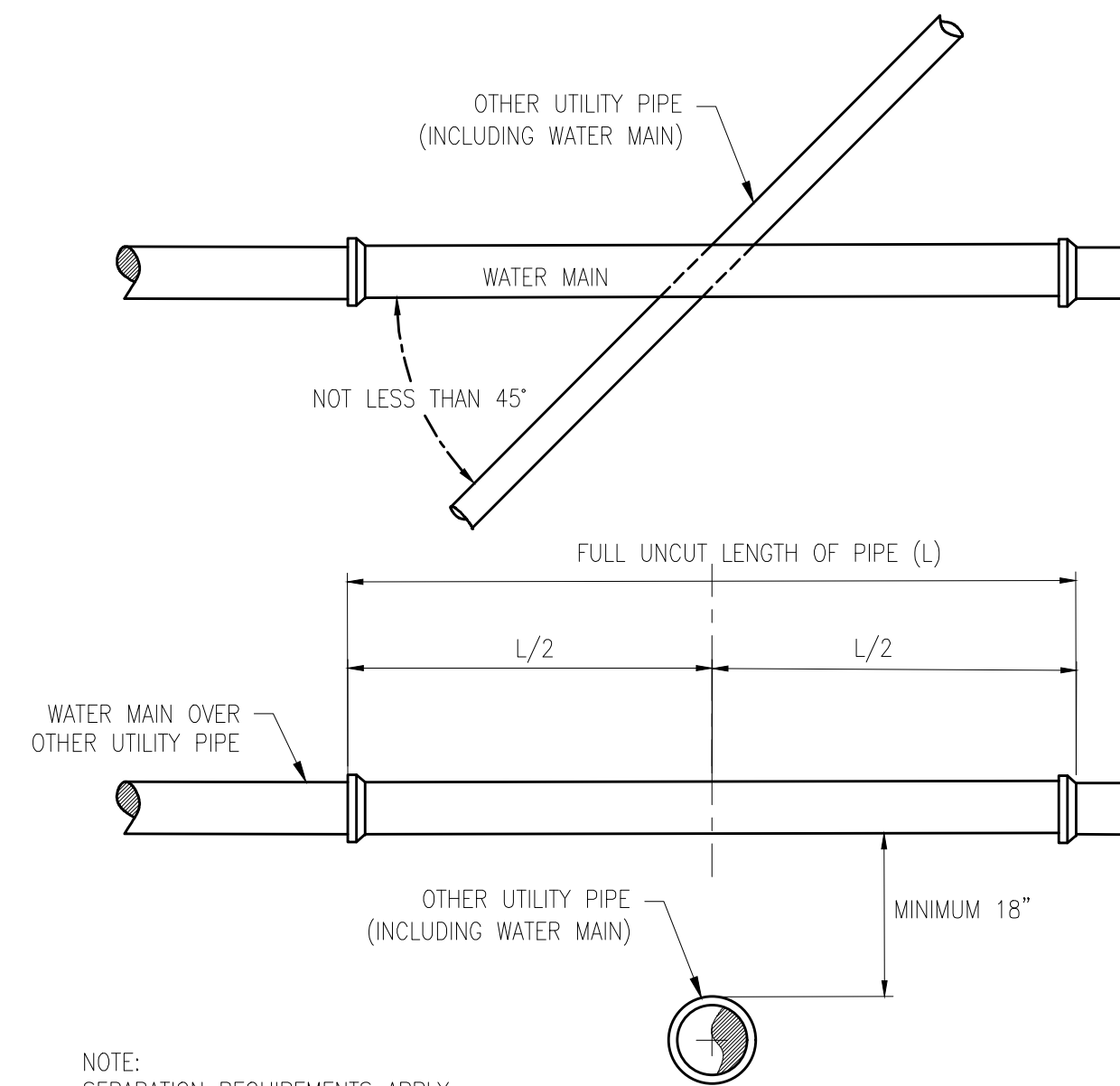


TYPICAL WATER SERVICE
NOT TO SCALE



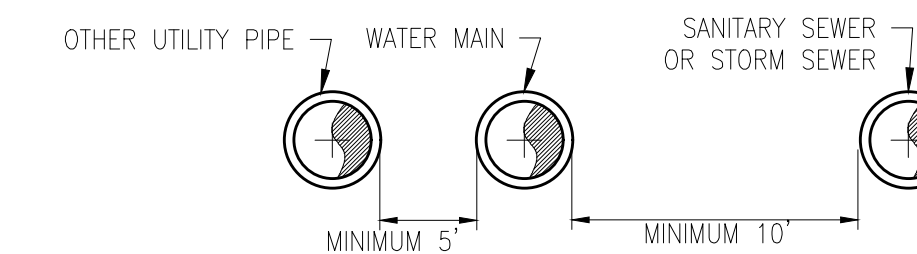
MASTER METER VAULT CONFIGURATION (WITHOUT COVER)
NOT TO SCALE

- NOTES:
- WHERE POSSIBLE THE METER VAULT SHALL BE LOCATED AWAY FROM TRAFFIC AREAS, ROADS, PARKING LOTS, ETC.
 - THE ACCESS HATCH SHALL BE SIZED LARGE ENOUGH TO ACCOMMODATE REMOVAL OF THE LARGEST METER OR THE LARGEST APPURTENANCE FOR MAINTENANCE PURPOSES. THE HATCH SHALL BE MANUFACTURED BY THE BILCO COMPANY. METER VAULT HATCH SHALL BE WATER TIGHT.
 - THE METER VAULT FLOOR SHALL BE SLOPED TO THE SUMP.
 - ELECTRICAL SERVICE SHALL BE SUPPLIED TO THE VAULT.



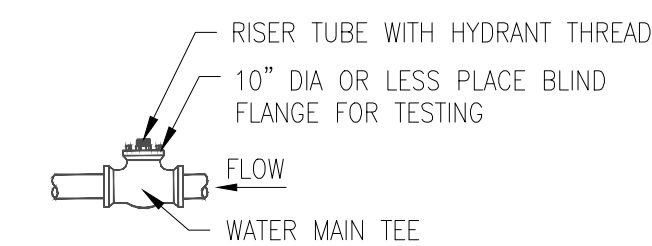
NOTE: SEPARATION REQUIREMENTS APPLY REGARDLESS OF VERTICAL ALIGNMENTS OF UTILITIES

VERTICAL SEPARATION



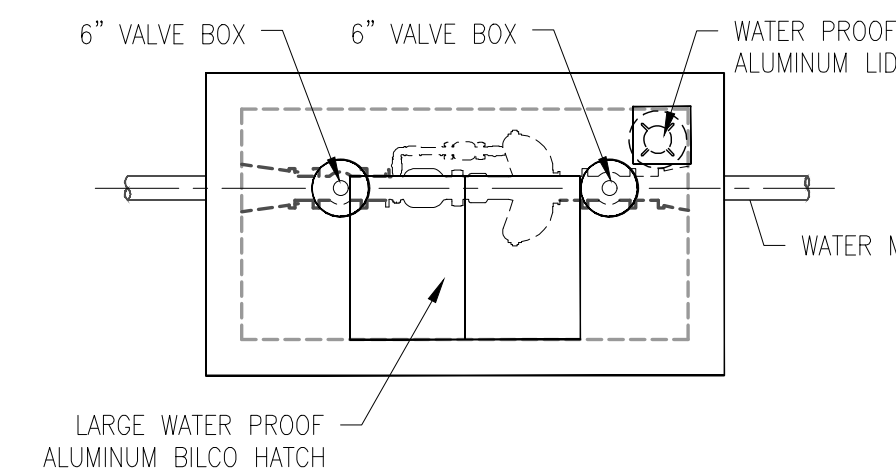
HORIZONTAL SEPARATION

WATER MAIN CROSSING OTHER UTILITIES
NOT TO SCALE



TEST PORT

PIPE DIA	TEST PORT SIZE
6"	6"
8"	8"
10"	10"
12"	10"
16"	10"



MASTER METER VAULT CONFIGURATION WITH COVER
NOT TO SCALE



Know what's below.
Call before you dig.



REVISIONS

STANDARD WATER MAIN DETAILS

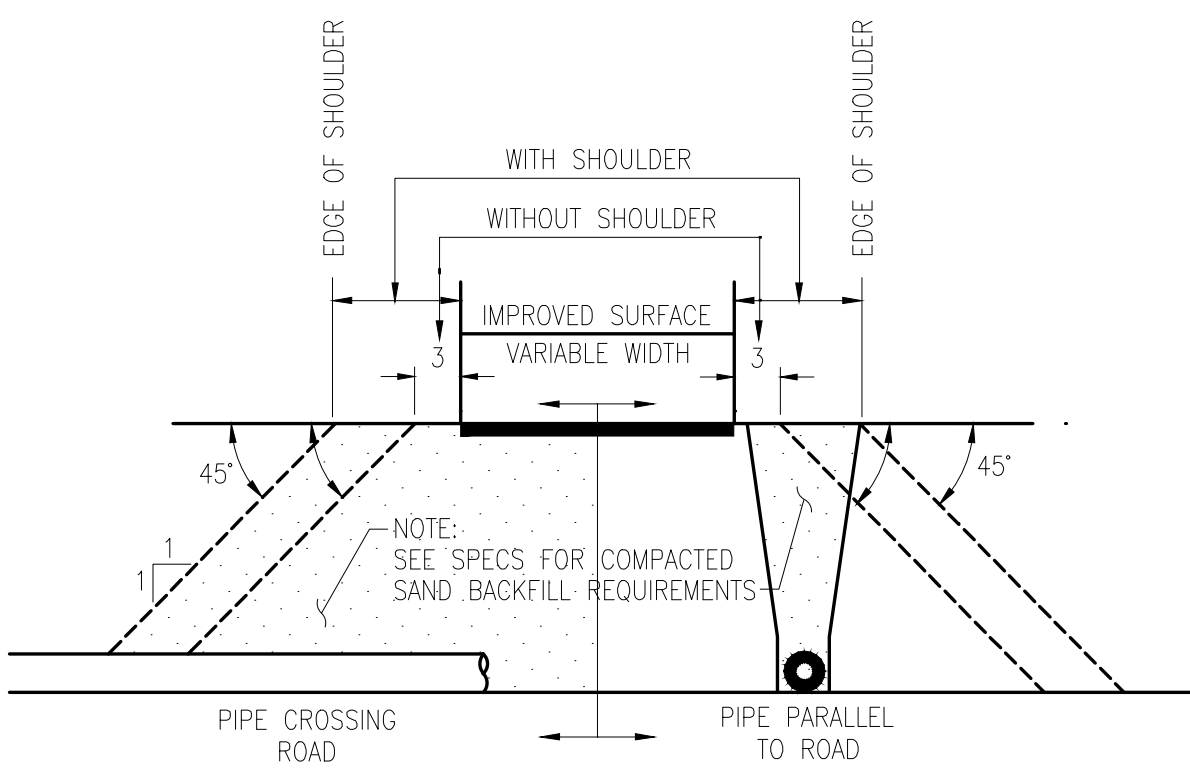
YPSILANTI COMMUNITY UTILITIES AUTHORITY
2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
(734) 484-4800
FAX: (734) 544-7221
WWW.YCUA.ORG

YCUA
ENVIRONMENTAL LEADERS

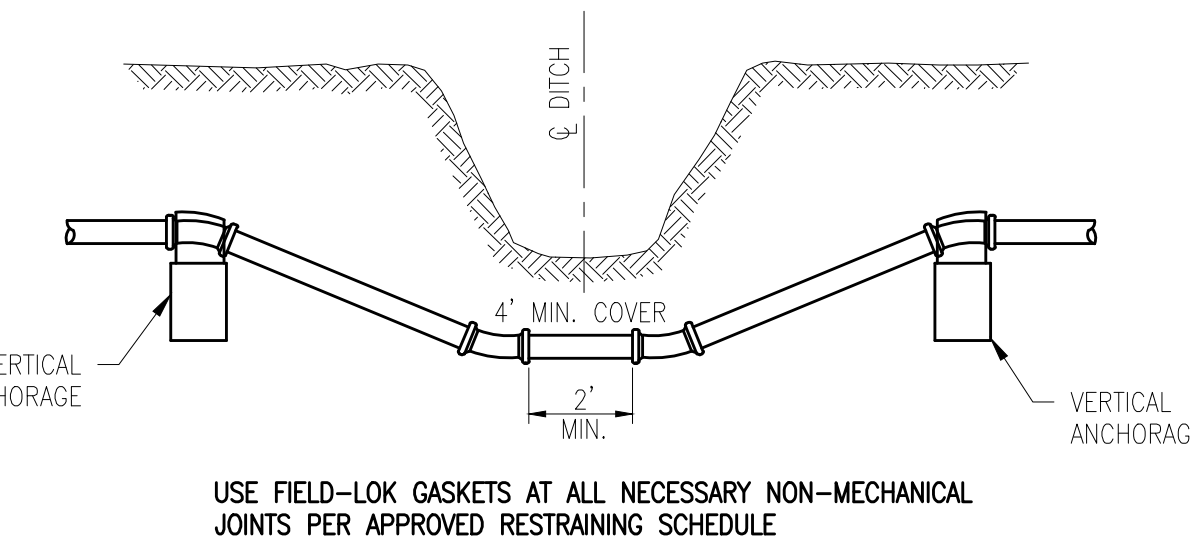
DATE	SCALE	SHEET
09/25/19	NO SCALE	

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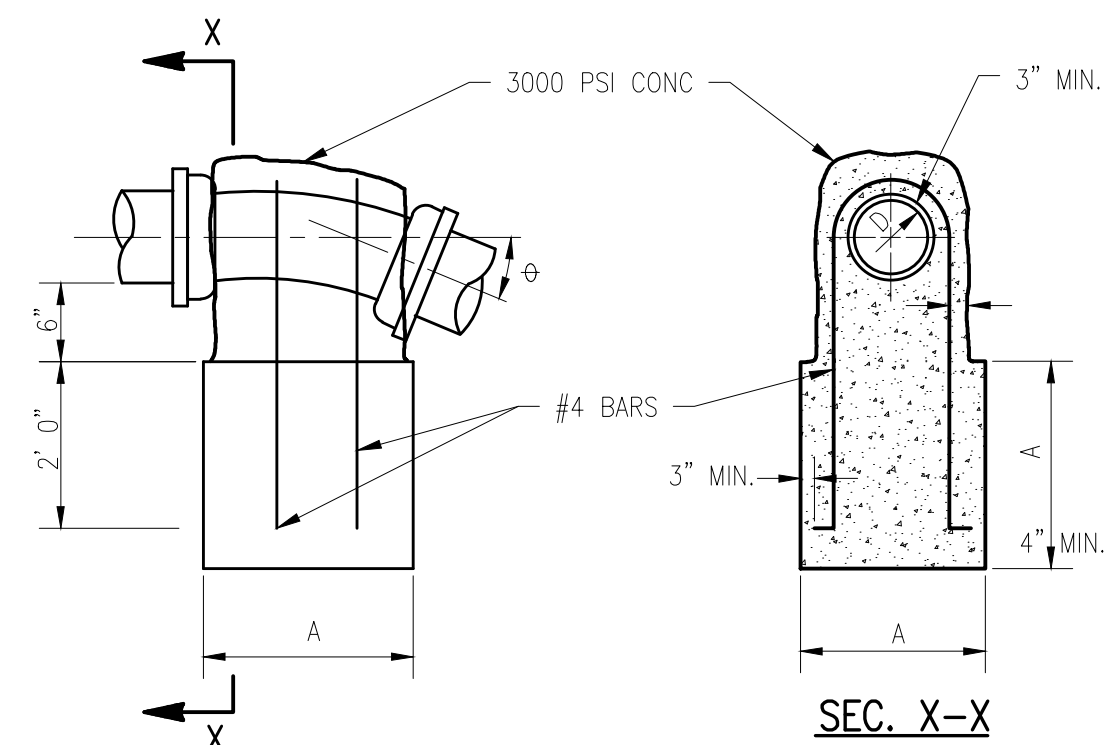
TRACER WIRE DETAILS



**BACKFILL IN THE AREA OF STREETS, ALLEYS
SIDEWALKS, DRIVES & PARKING LOTS**
NOT TO SCALE



STANDARD DITCH CROSSING
NOT TO SCALE



DETAIL OF VERTICAL ANCHORAGE
NOT TO SCALE

DIA. OF WATER MAIN	BEND	A	NUMBER OF BARS
6"	22 1/2°	2'-0"	2
6"	45°	3'-3"	2
8"	22 1/2°	3'-3"	2
8"	45°	4'-0"	3
12"	11 1/4°	3'-3"	2
12"	22 1/2°	4'-0"	3
16"	11 1/4°	3'-3"	2
16"	22 1/2°	4'-0"	3
20"	11 1/4°	4'-0"	2
20"	22 1/2°	5'-0"	3
24"	11 1/4°	4'-0"	2
24"	22 1/2°	5'-0"	3

PIPE RESTRAINT SCHEDULE

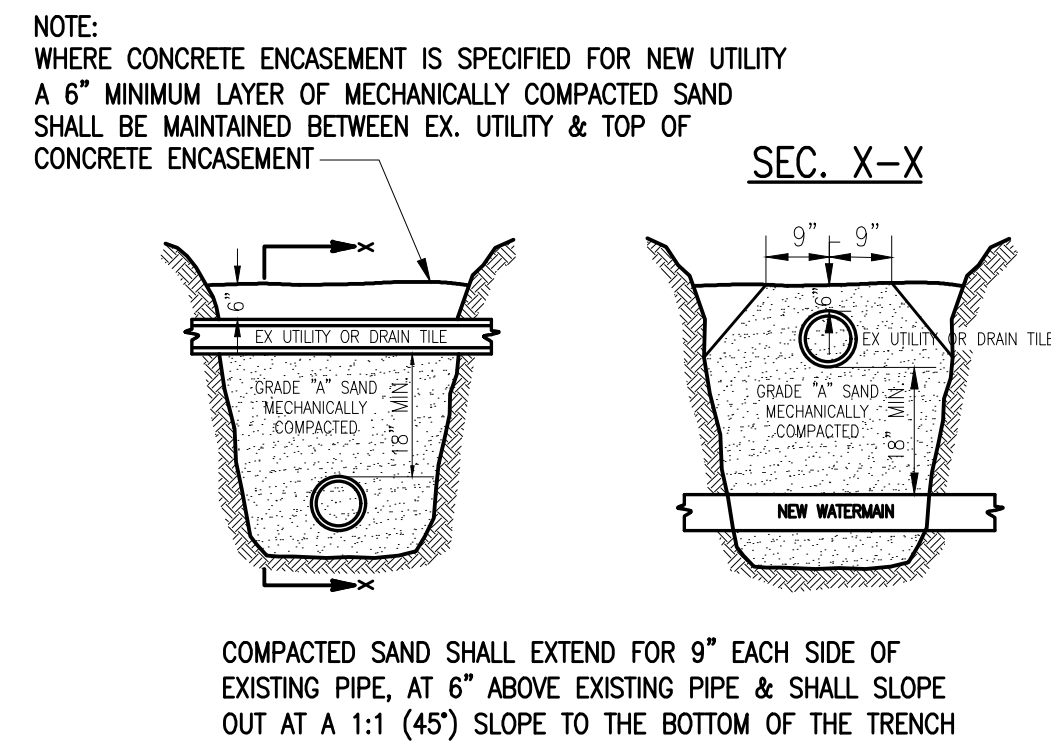
THE FOLLOWING TABLE IS A JOINT RESTRAINT SCHEDULE (DIPRA) FOR GROUND-BURIED DUCTILE IRON OR PVC PIPE. LENGTHS OF PIPE RESTRAINT ARE GIVEN IN FEET.

PIPE DIAMETER	TEES, 90° PLUGS	45° BENDS	22 1/2° BENDS	REDUCERS
6"	40	25	25	30
8"	55	25	25	30
12"	80	35	25	55
16"	100	40	25	60
24"	135	56	25	65

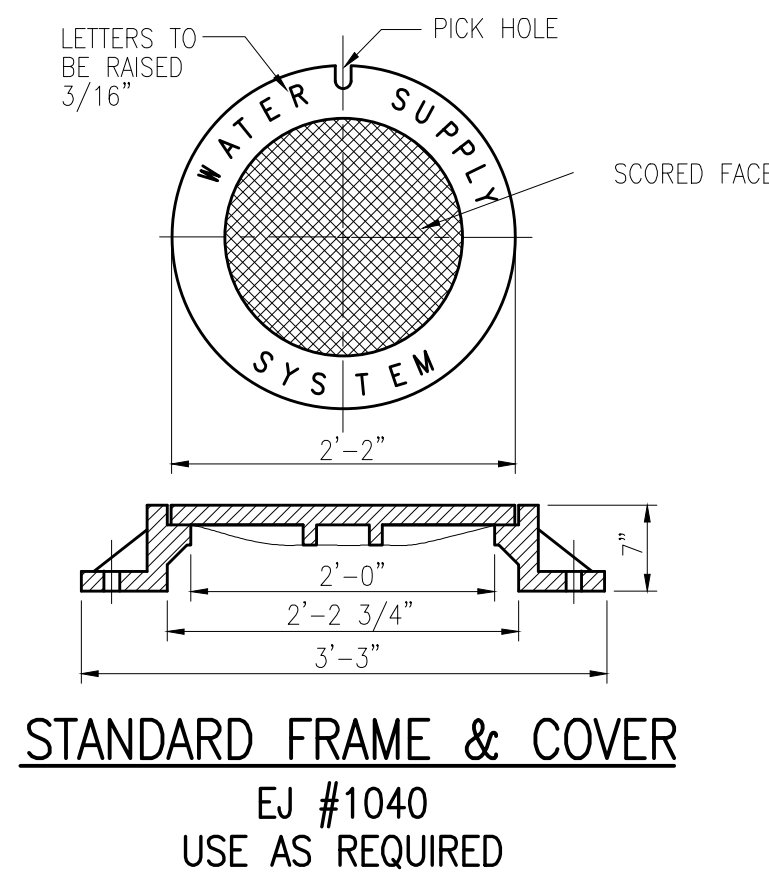
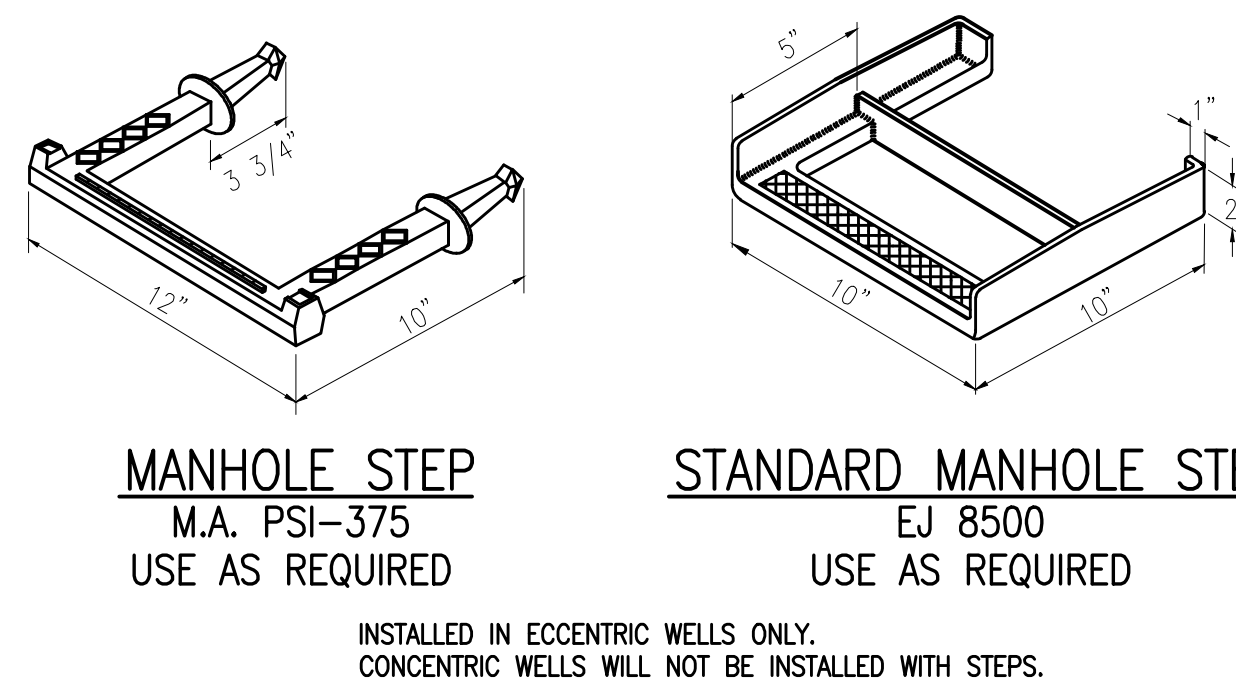
BASED UPON

INTERNAL PRESSURE: 180
PIPE DEPTH: 5
BEDDING CLASS: TYPE 4
SOIL TYPE: GOOD SAND
SAFETY FACTOR: 2

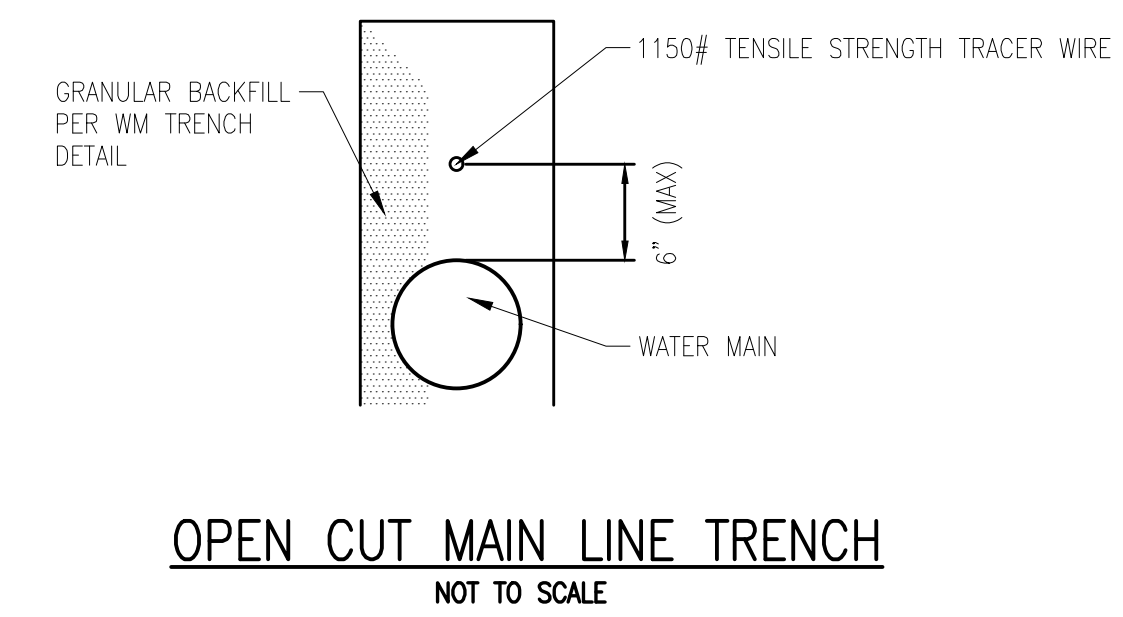
- IF PIPE DIAMETER IS NOT LISTED IN THIS TABLE, THE NEXT LARGEST PIPE SHALL BE USED. THIS TABLE IS BASED ON A TEST PRESSURE OF 180 PSI (OPERATING PRESSURE PLUS WATER HAMMER).
- FOR OTHER TEST PRESSURES, ALL VALUES TO BE INCREASED OR DECREASED PROPORTIONALLY. THE VALUES PROVIDED OF RESTRAINT LENGTH ARE 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.
- MANUFACTURER'S RESTRAINT SCHEDULE AND SPECIFIC SITE CONDITIONS MAY MODIFY THE ABOVE SCHEDULE. ANY ALTERNATIVE SCHEDULE SHALL BE SUBMITTED TO YCUA FOR APPROVAL.



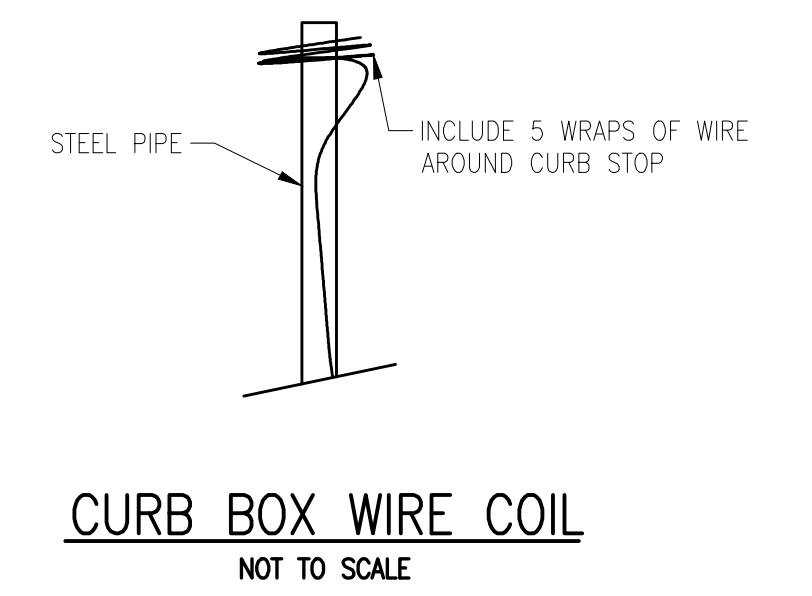
STANDARD PIPE SUPPORT
NOT TO SCALE



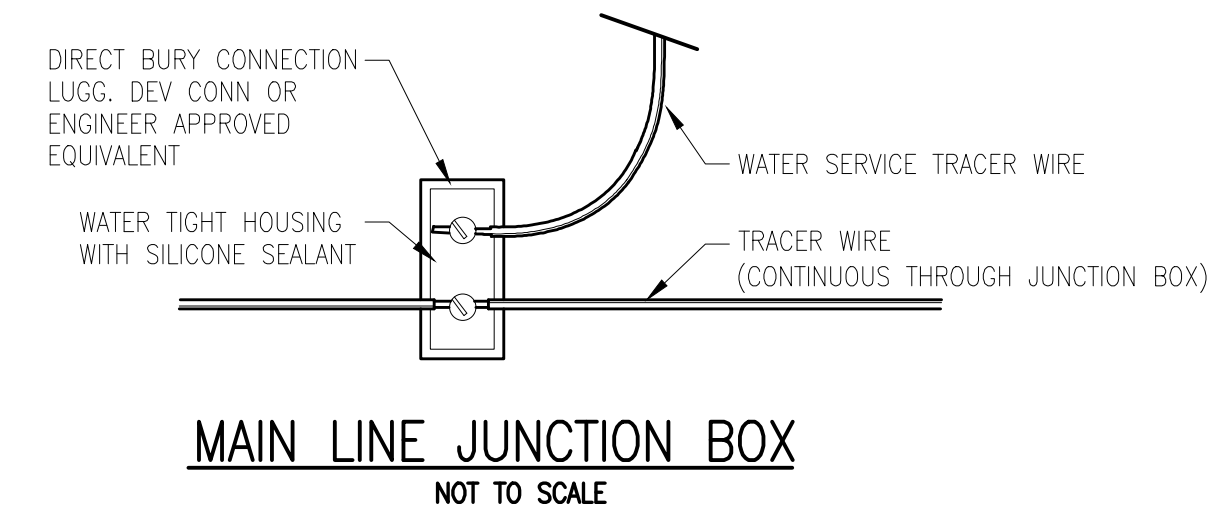
STANDARD FRAME & COVER
EJ #1040
USE AS REQUIRED



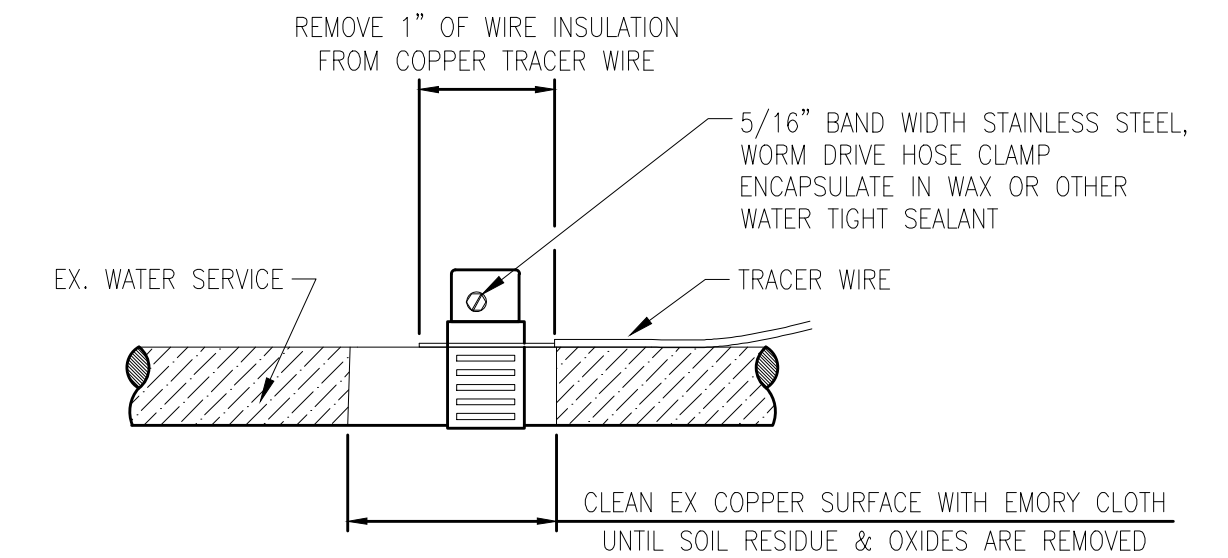
OPEN CUT MAIN LINE TRENCH
NOT TO SCALE



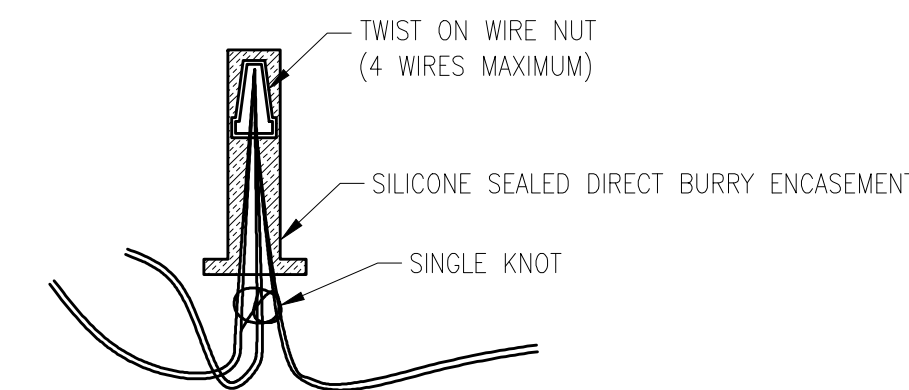
CURB BOX WIRE COIL
NOT TO SCALE



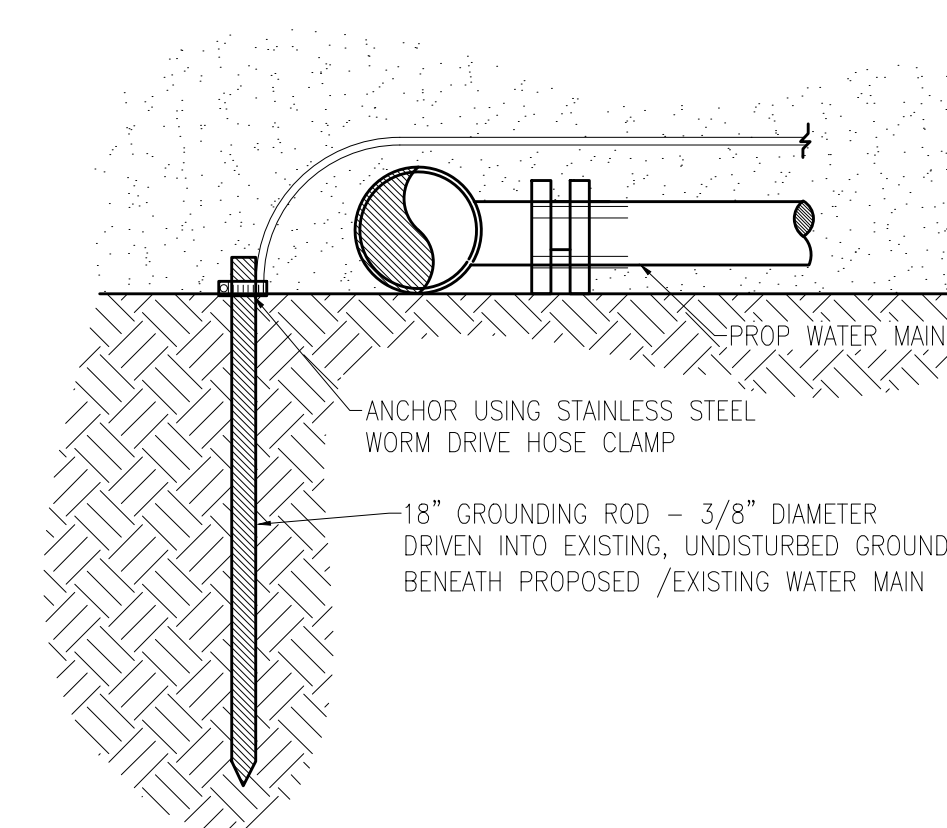
MAIN LINE JUNCTION BOX
NOT TO SCALE



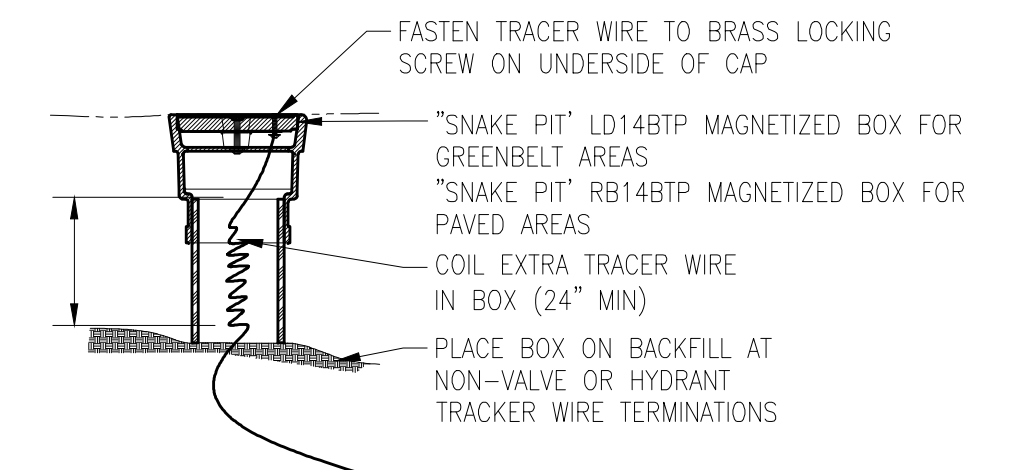
WATER SERVICE TERMINATION
NOT TO SCALE



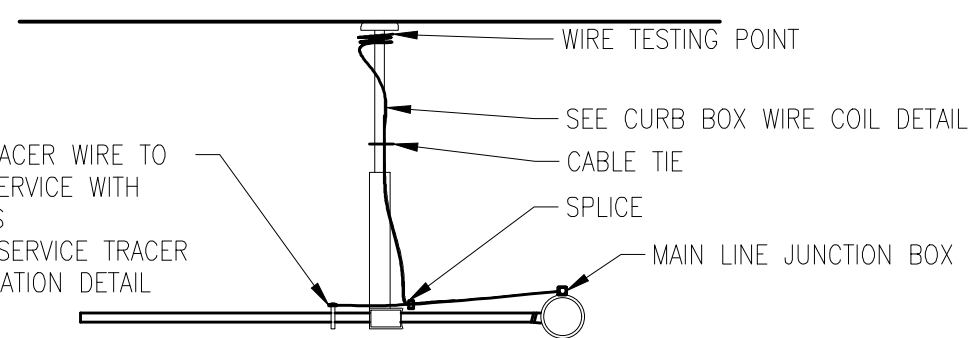
SPLICE CONNECTOR
NOT TO SCALE



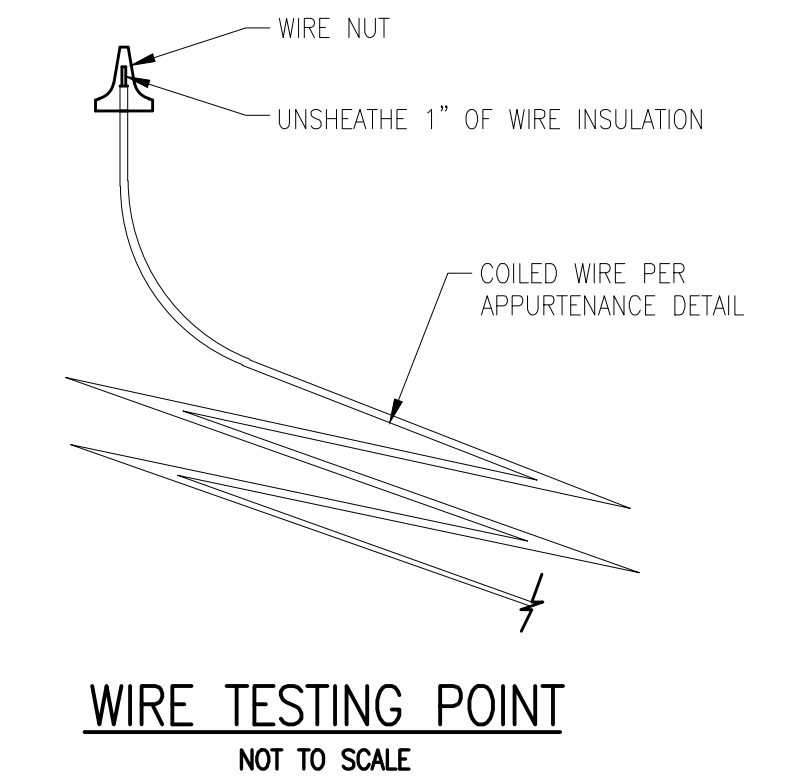
GROUNDING ROD TERMINATION
NOT TO SCALE



TRACER WIRE TEST POINT
NOT TO SCALE



CURB STOP CONNECTION
NOT TO SCALE



WIRE TESTING POINT
NOT TO SCALE



Know what's below.
Call before you dig.



REVISIONS

STANDARD WATER MAIN DETAILS

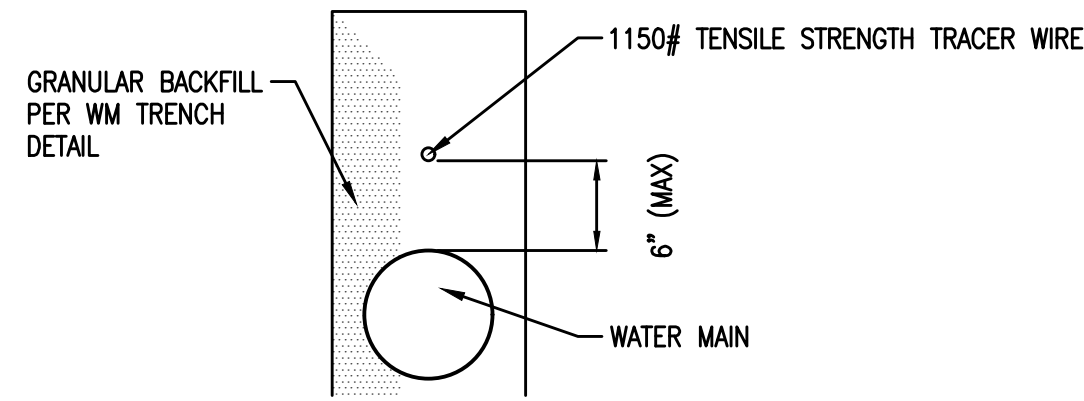
YPSILANTI COMMUNITY UTILITIES AUTHORITY
2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
(734) 484-4800
FAX: (734) 544-7221
WWW.YCUA.ORG

YCUA
ENVIRONMENTAL LEADERS

DATE	SCALE	SHEET
09/25/19	NO SCALE	

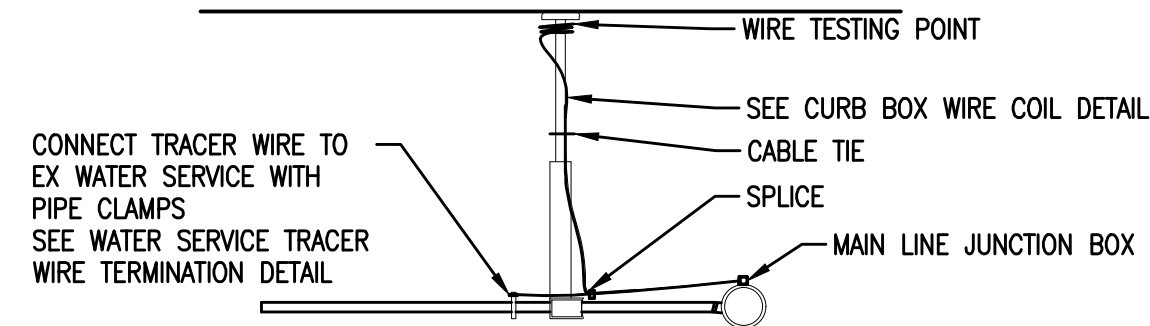
ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF YCUA AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF YCUA.

TRACER WIRE SHALL BE INCLUDED WITH ALL PVC WATER MAIN INSTALLATIONS



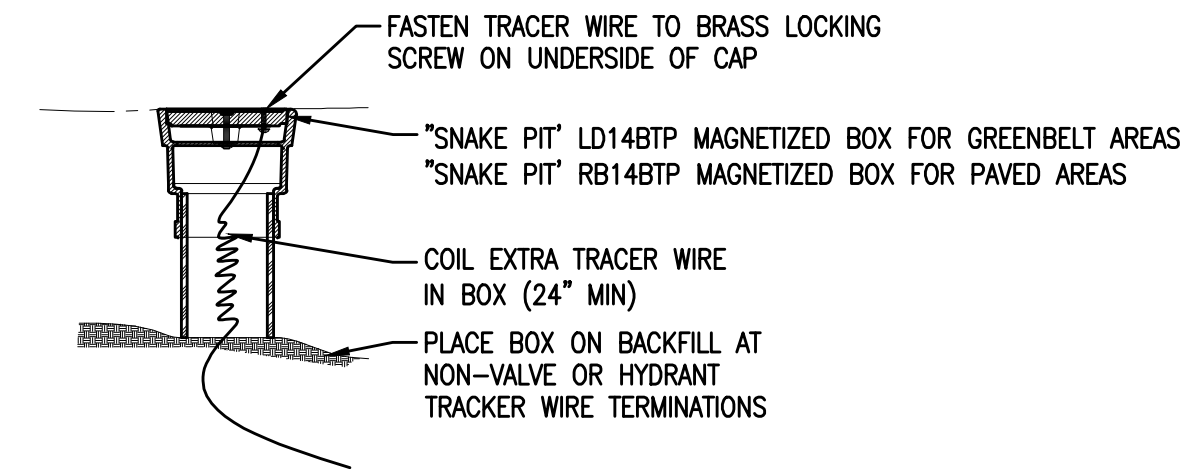
OPEN CUT MAIN LINE TRENCH

N.T.S.



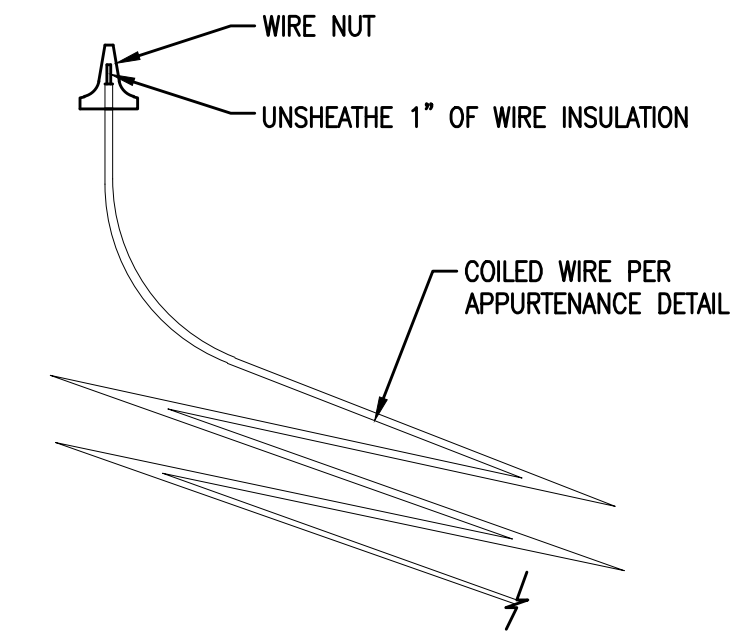
CURB STOP CONNECTION

N.T.S.



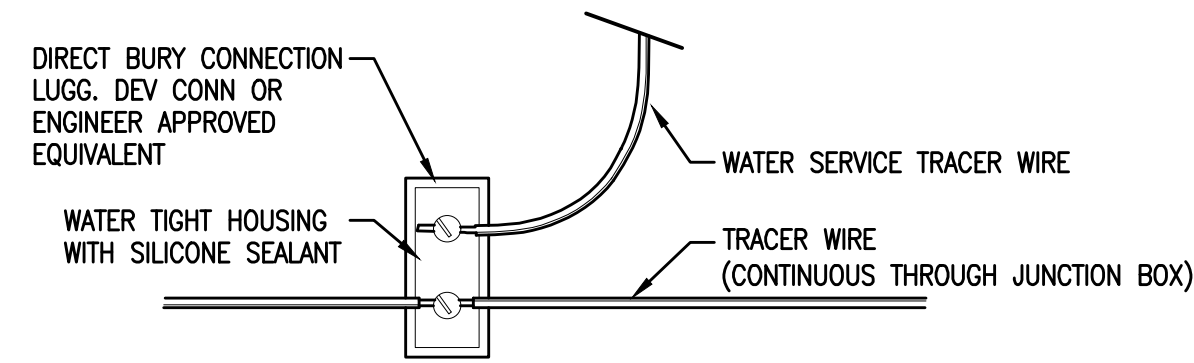
TRACER WIRE TEST POINT

N.T.S.



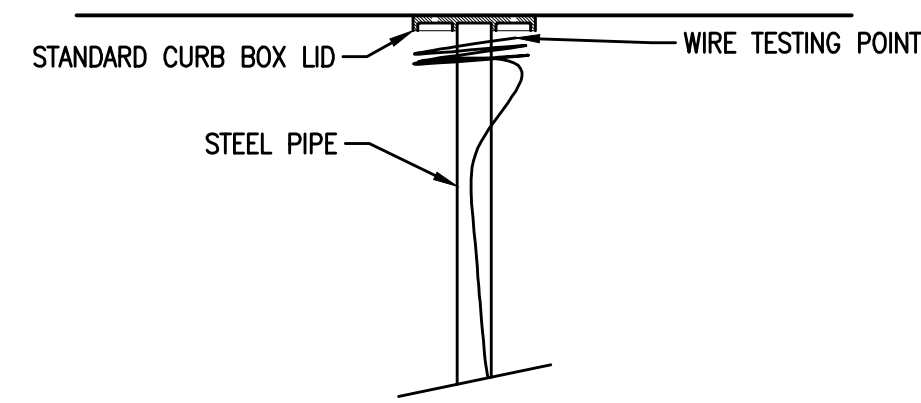
WIRE TESTING POINT

N.T.S.



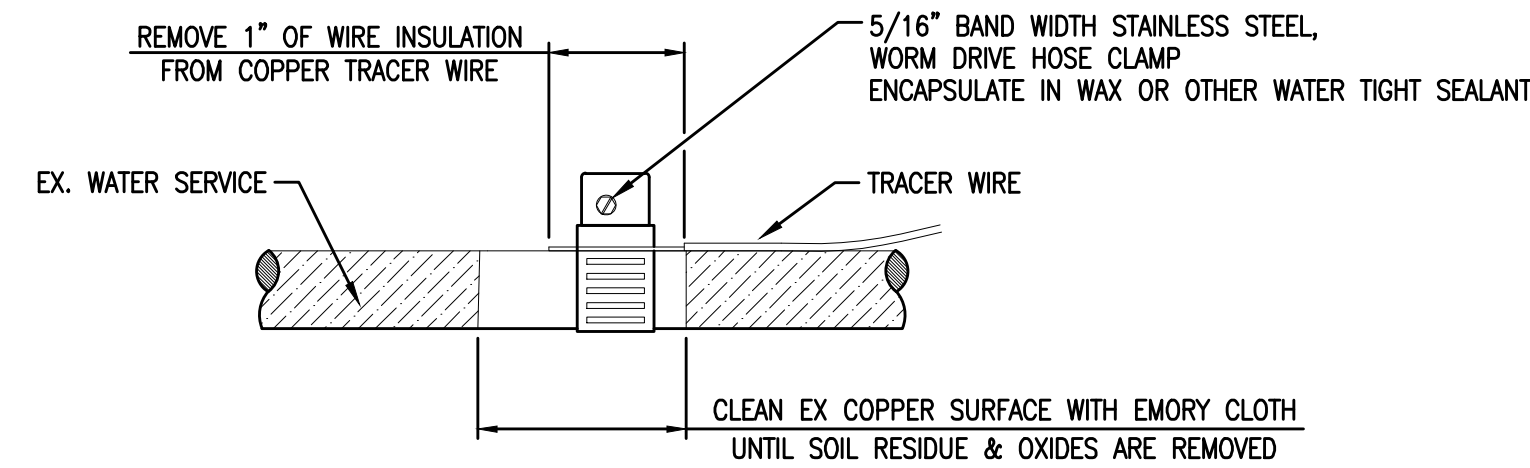
MAIN LINE JUNCTION BOX

N.T.S.



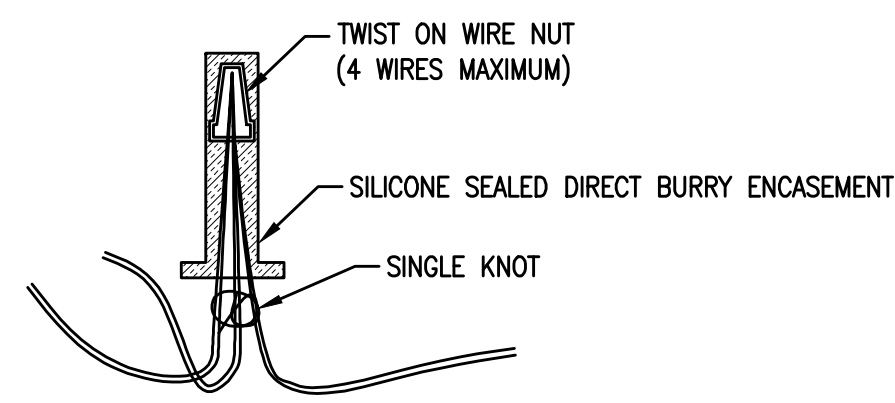
CURB BOX WIRE COIL

N.T.S.



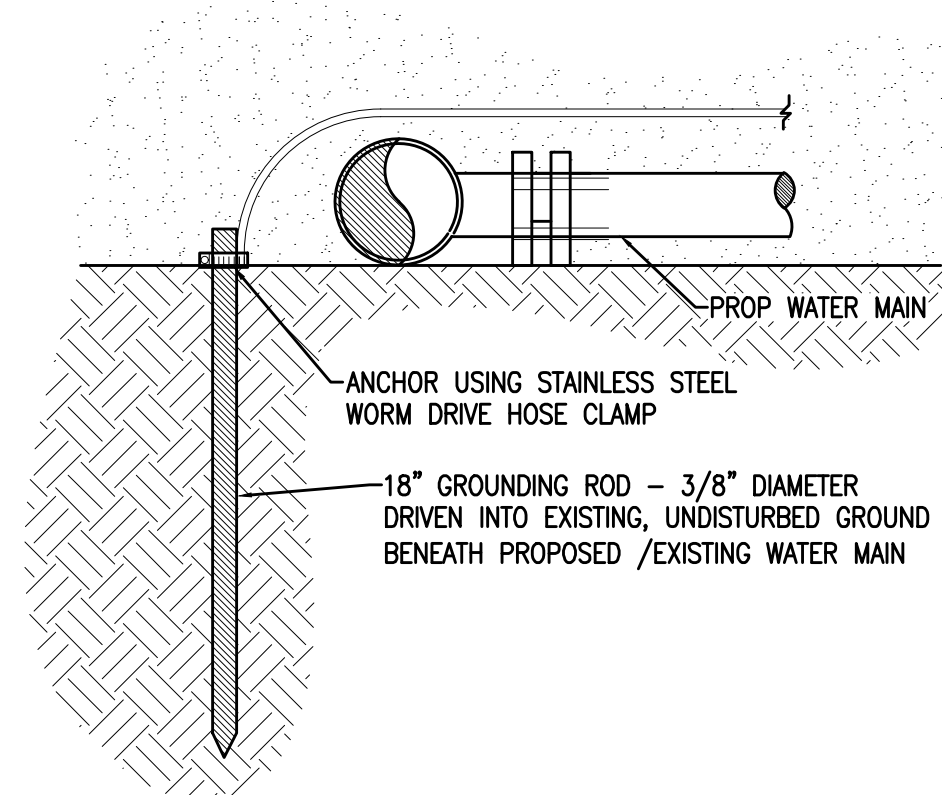
WATER SERVICE TERMINATION

N.T.S.



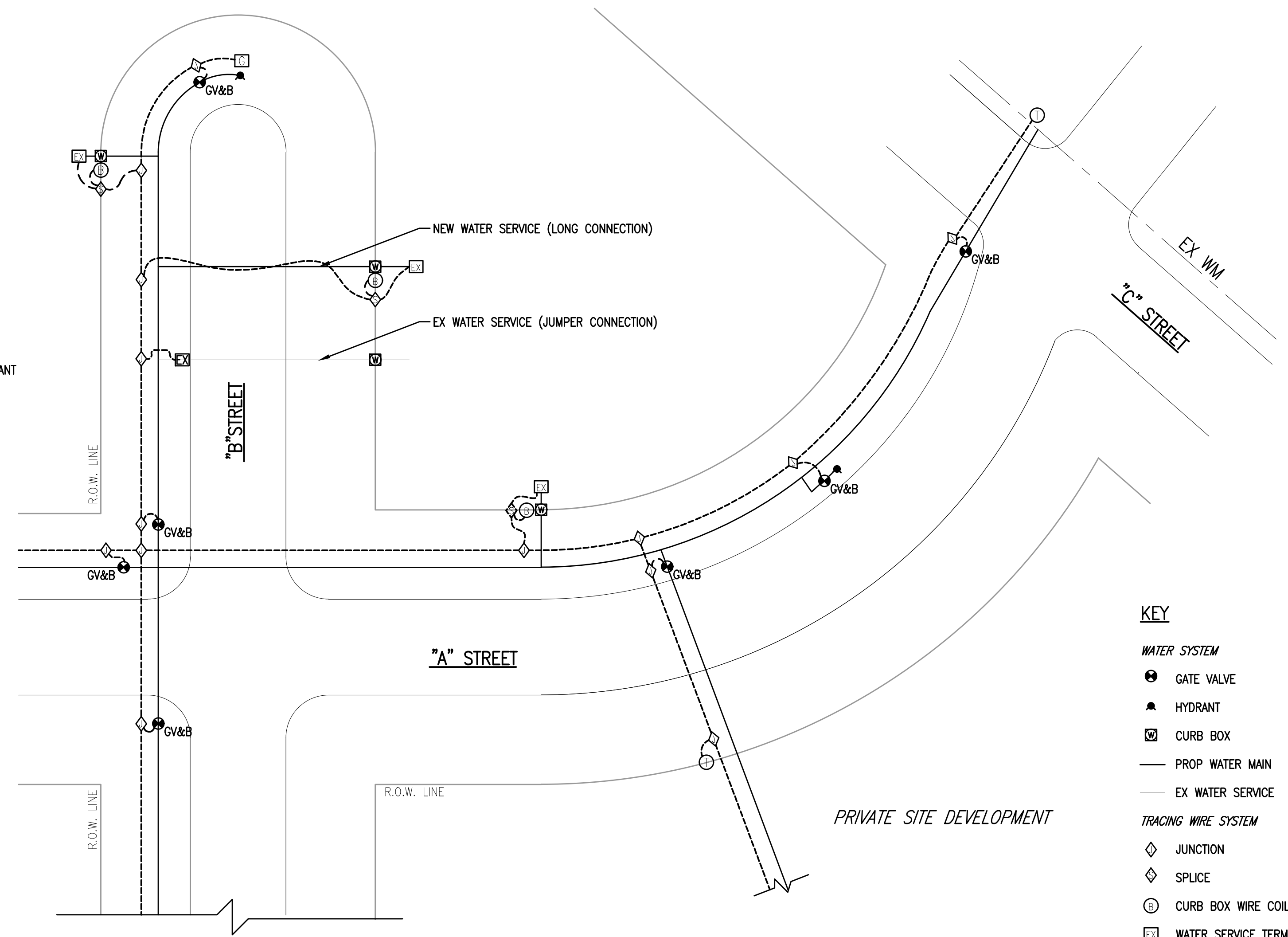
SPLICE CONNECTOR

N.T.S.



GROUNDING ROD TERMINATION

N.T.S.



KEY

- WATER SYSTEM
- GATE VALVE
 - ▲ HYDRANT
 - ☐ CURB BOX
 - PROP WATER MAIN
 - EX WATER SERVICE
- TRACING WIRE SYSTEM
- ◇ JUNCTION
 - ◇ SPLICE
 - ⊙ CURB BOX WIRE COIL
 - ☒ WATER SERVICE TERMINATION
 - TEST POINT
 - ⊠ GROUNDING ROD TERMINATION
 - TRACING WIRE



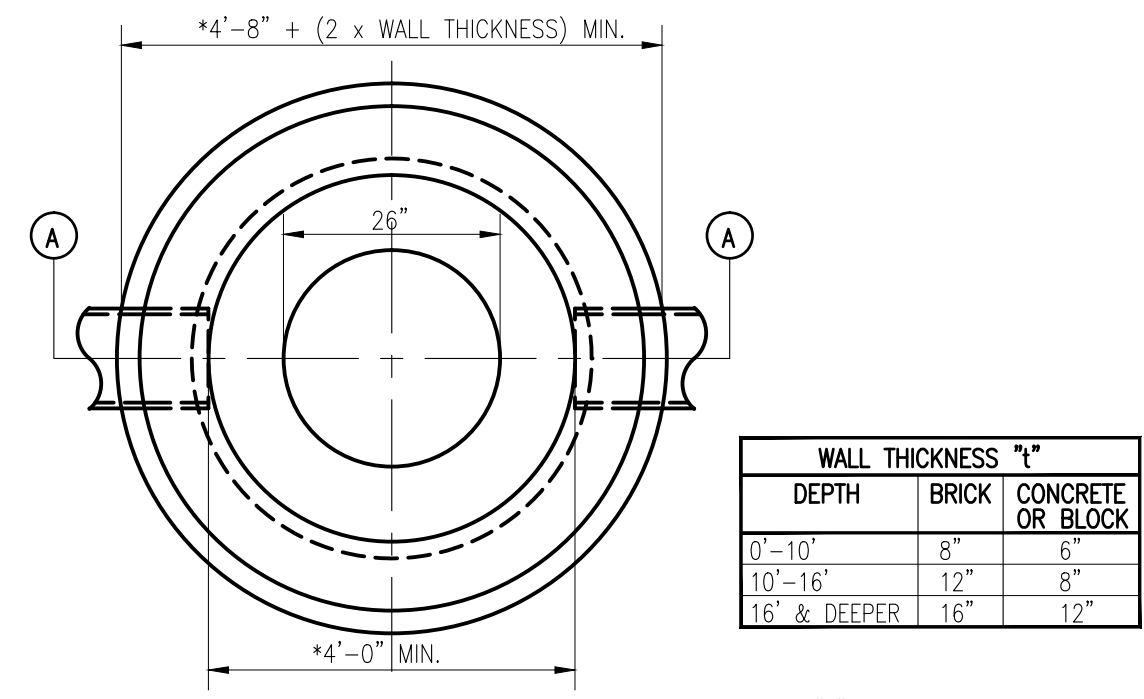
Know what's below.
Call before you dig.

TRACER WIRE SYSTEM SCHEMATIC

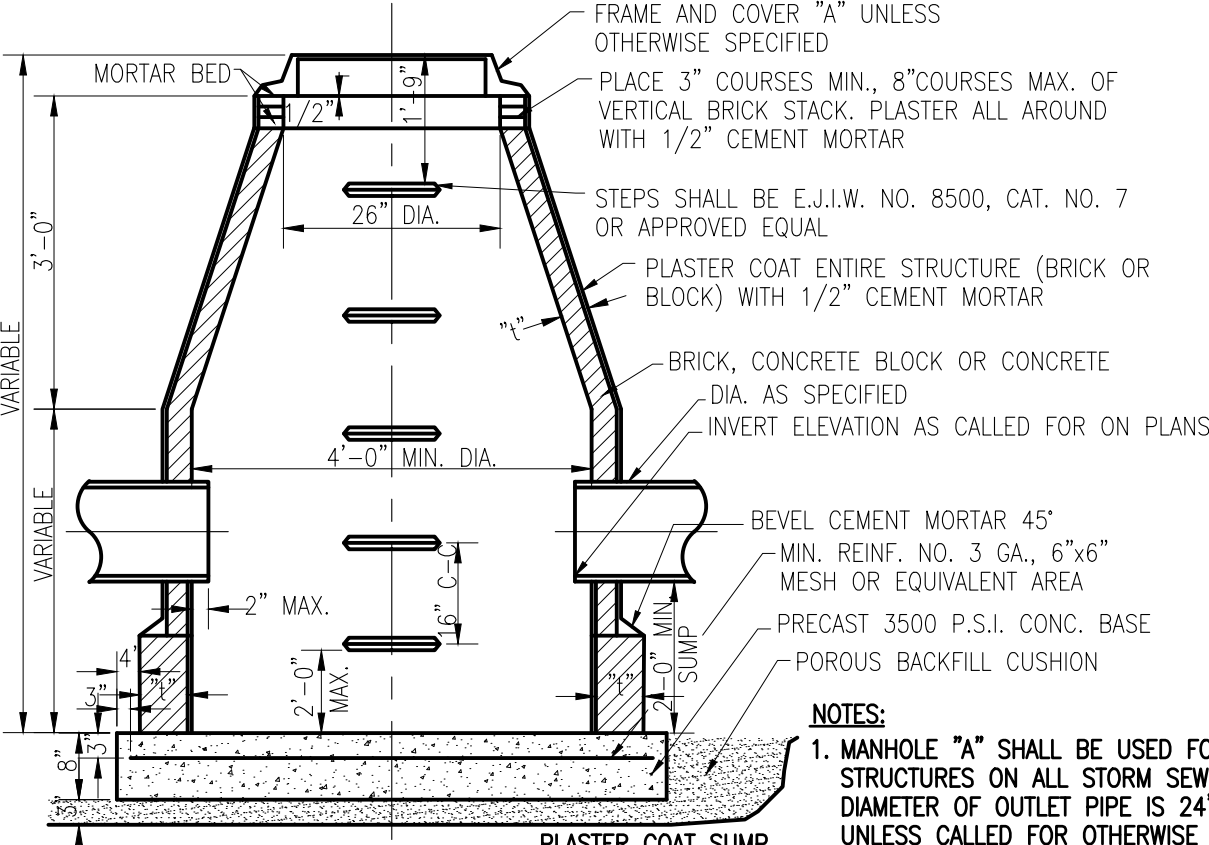
REVISIONS	STANDARD WATER MAIN DETAILS	YPSILANTI COMMUNITY UTILITIES AUTHORITY		
		2777 STATE ROAD YPSILANTI, MICHIGAN 48198-9112 (734) 484-4800 FAX: (734) 544-7221 WWW.YCQA.ORG		
		DATE	SCALE	SHEET
		07/24/18	NO SCALE	

ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF YCQA AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF YCQA.

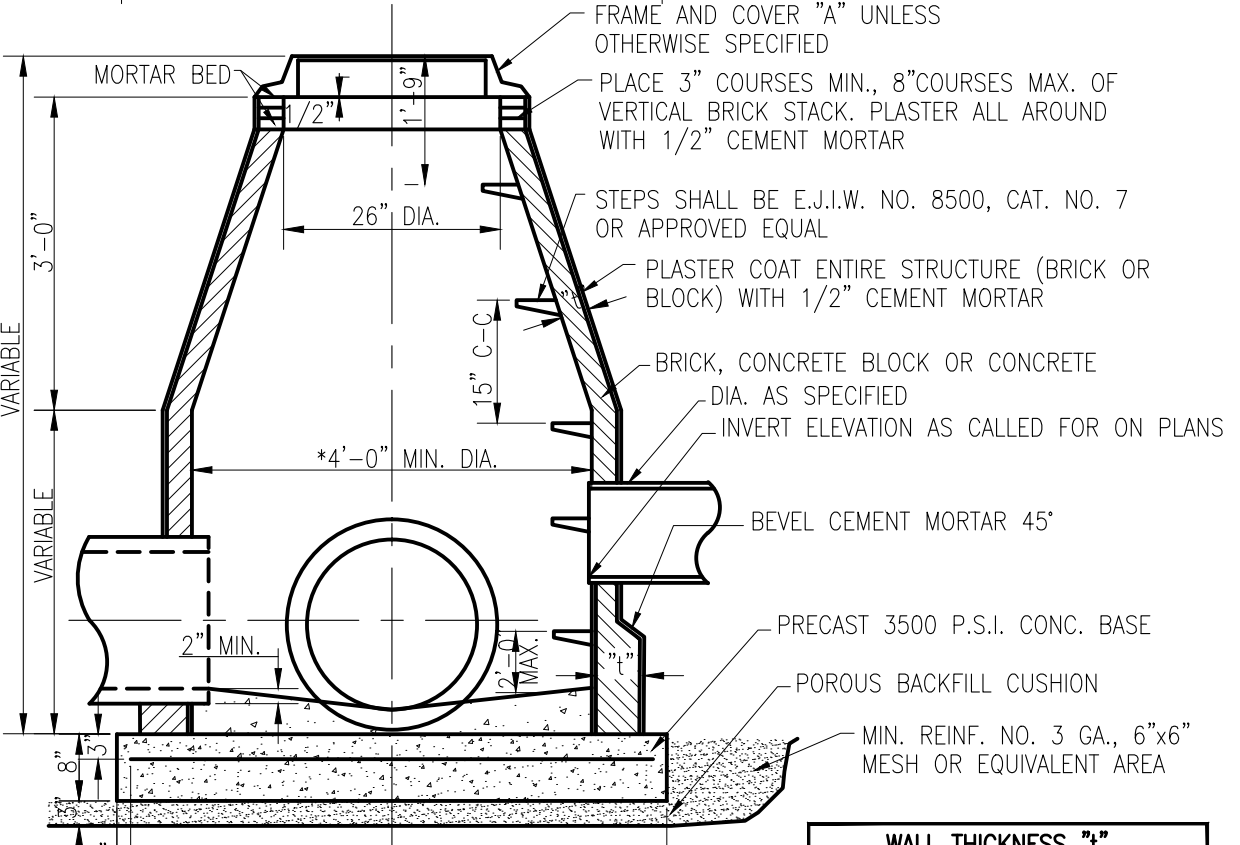
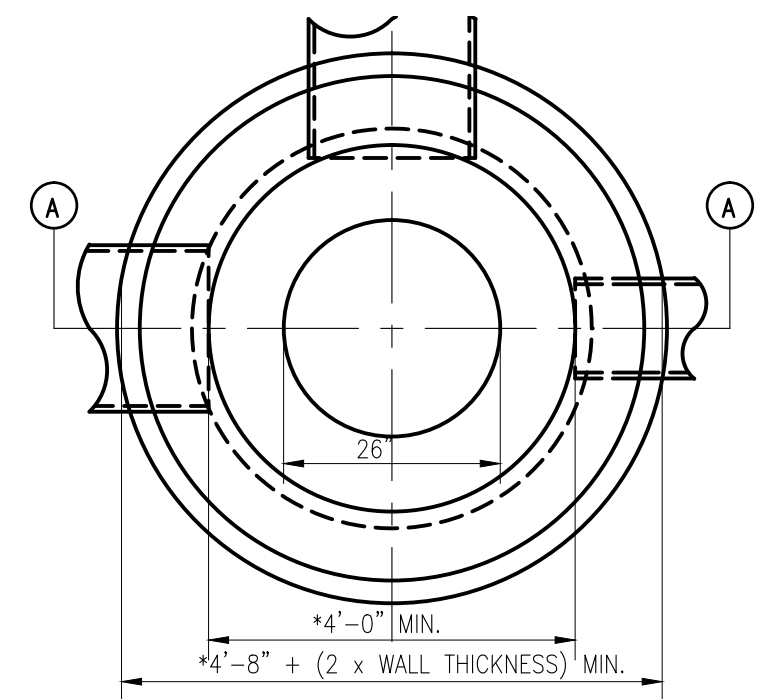
DATE	CADD	ENG./ARCH	PROJ. MGR.	SECTION	TOWN	RANGE	COUNTY	CITY/TOWNSHIP	SCALE	VERT. DATUM	JOB #



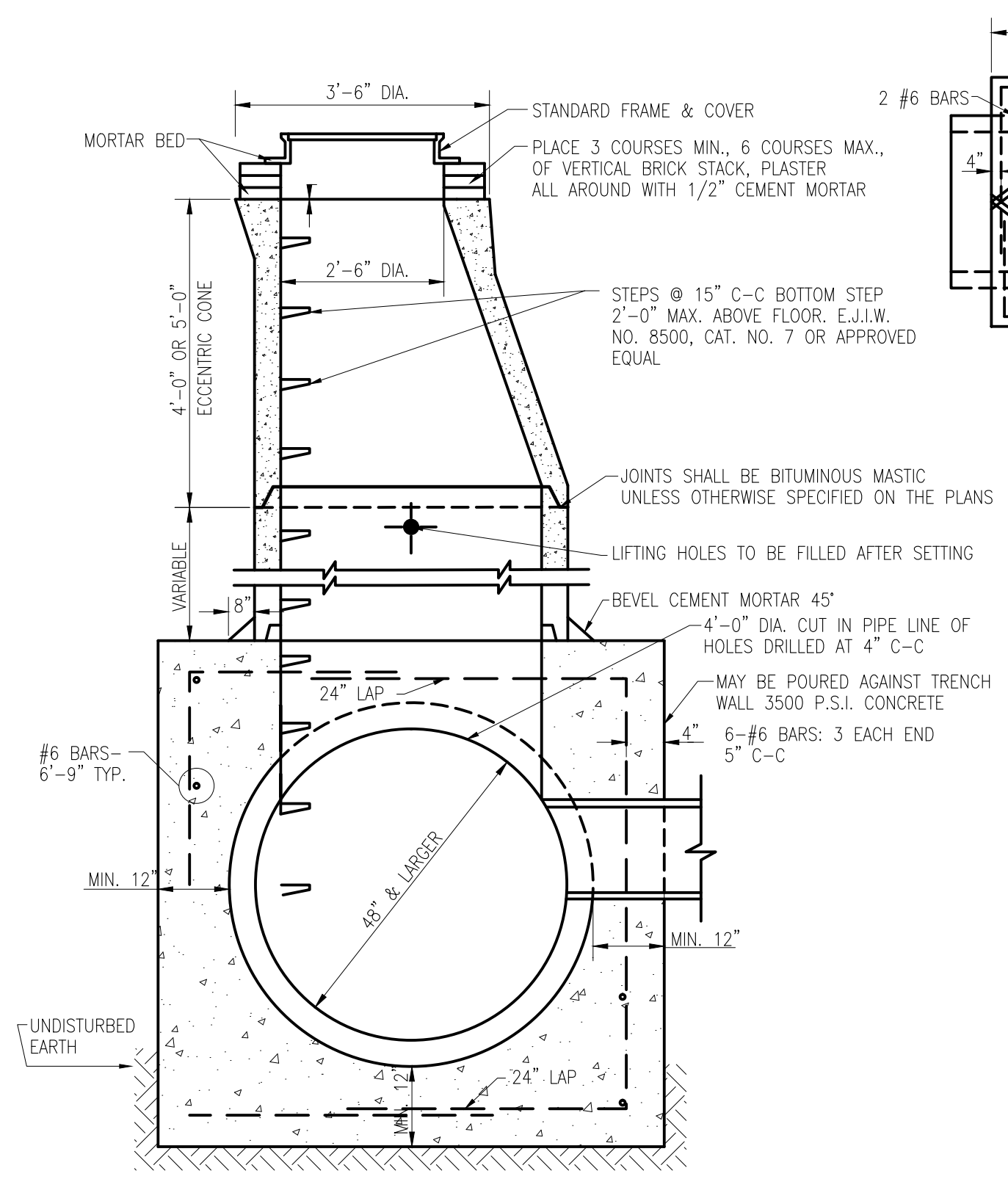
DEPTH	BRICK	CONCRETE OR BLOCK
0'-10"	8"	6"
10'-16"	12"	8"
16' & DEEPER	16"	12"



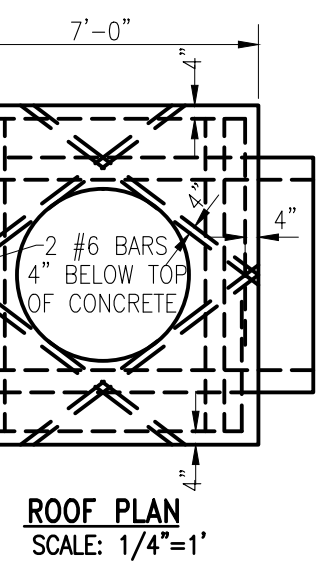
- NOTES:**
- MANHOLE "A" SHALL BE USED FOR MANHOLE STRUCTURES ON ALL STORM SEWERS WHERE THE DIAMETER OF OUTLET PIPE IS 24" OR SMALLER, UNLESS CALLED FOR OTHERWISE ON THE PLANS.
 - DIA. OF M.H. SHALL BE INCREASED AS SHOWN ON THE PLANS OR IN THE PROPOSAL DEPENDING ON THE DIAMETERS AND ANGLES OF THE SEWERS.



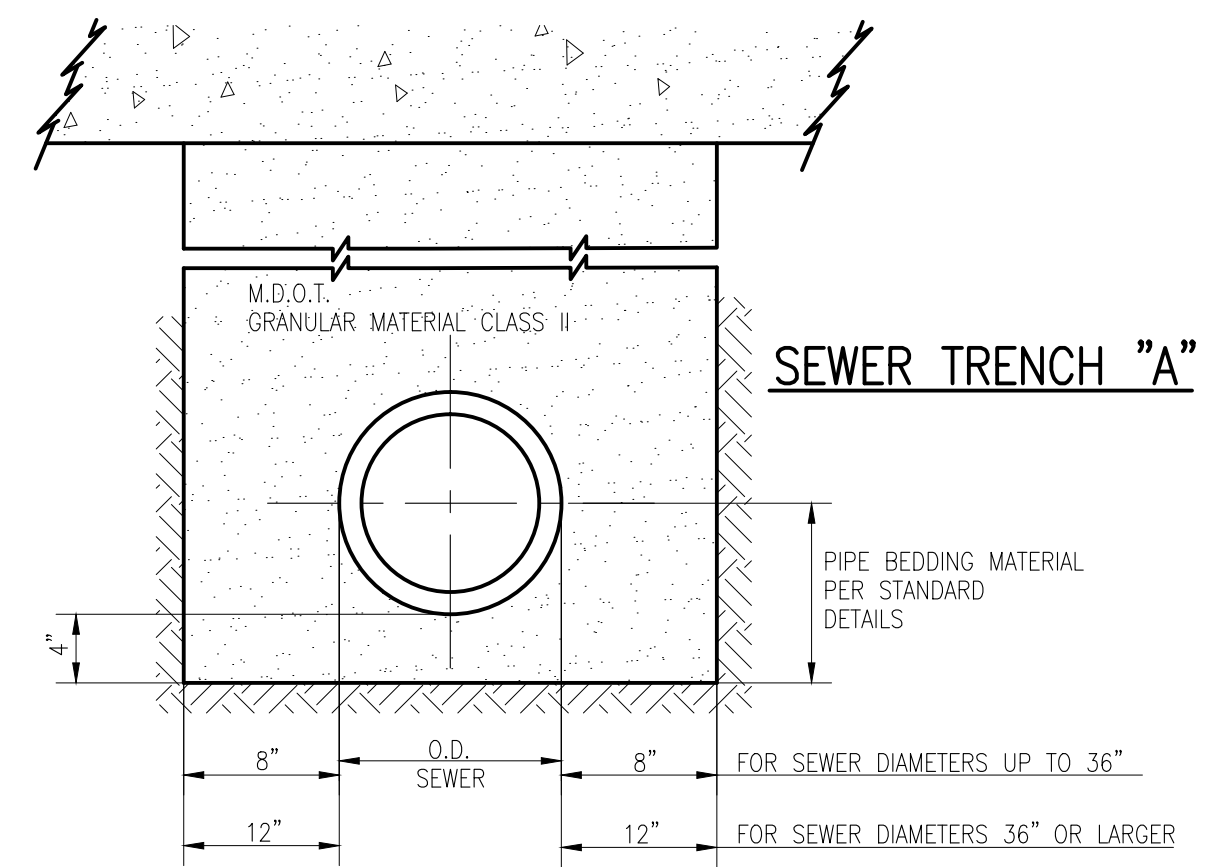
- NOTES:**
- MANHOLE "B" SHALL BE USED FOR MANHOLE STRUCTURES ON ALL STORM SEWERS WHERE THE DIAMETER OF OUTLET PIPE IS 24" OR SMALLER, UNLESS CALLED FOR OTHERWISE ON THE PLANS.
 - DIA. OF M.H. SHALL BE INCREASED AS SHOWN ON THE PLANS OR IN THE PROPOSAL DEPENDING ON THE DIAMETERS AND ANGLES OF THE SEWERS.



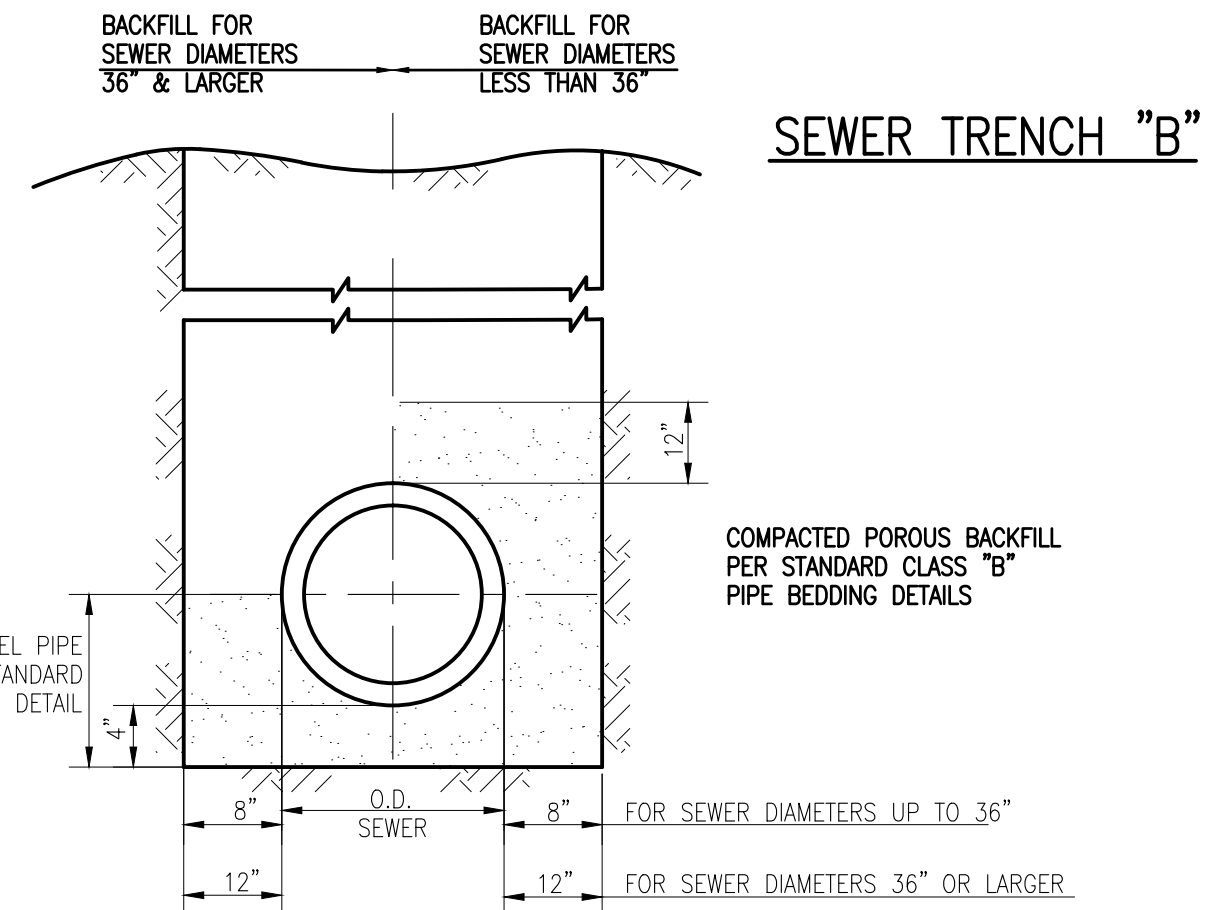
- NOTES:**
- MANHOLE "C" SHALL BE USED FOR MANHOLE STRUCTURES ON ALL STORM SEWERS WHERE 48" OR LARGER DIA. PIPES INTERSECT.
 - PRECAST UNITS SHALL MEET THE REQUIREMENTS SPECIFIED BY A.S.T.M. C-478-68.



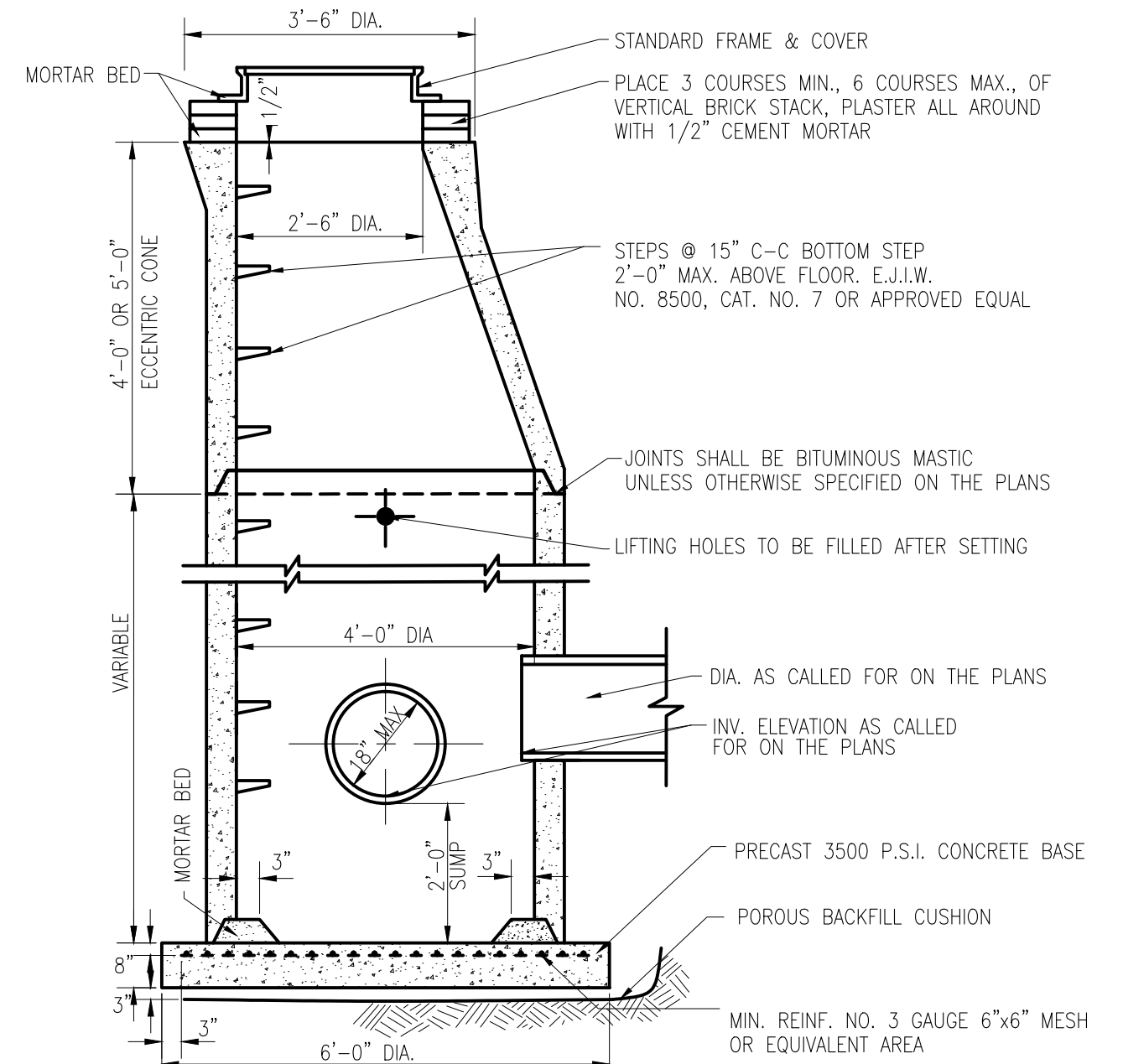
- GENERAL NOTES FOR STORM SEWER MANHOLES**
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP OF YPSILANTI AND YCUA.
 - CONTRACTOR SHALL CONSTRUCT MANHOLES WITH PRECAST REINFORCED CONCRETE UNITS ("E", "F", AND "I") IN LIEU OF CONCRETE, BRICK AND BLOCK MANHOLES ("A" AND "B") IN ACCORDANCE WITH THE FOLLOWING CONDITIONS:
 - MAXIMUM DIAMETER OF SEWER OUTLET IN ANY PRECAST UNIT SHALL BE 18" (MANHOLE "E" ONLY).
 - NO OPENINGS SHALL BE MADE IN PRECAST UNITS WHICH WOULD LEAVE LESS THAN 24" OF UNDISTURBED PRECAST PIPE OR WOULD REMOVE MORE THAN 30% OF THE CIRCUMFERENCE ALONG ANY HORIZONTAL PLANE.
 - STRUCTURES FOR SEWERS LARGER THAN 18", OR THOSE NOT MEETING THE OPENING REQUIREMENTS, SHALL BE BUILT OF BLOCK OR BRICK UP TO A MINIMUM OF 8" ABOVE THE TOP OF SEWER, WITH PRECAST UNITS BEING USED ABOVE THIS POINT. WHERE PRECAST UNITS REST ON THE BLOCK OR BRICK, THE GROOVE IN THE PRECAST UNIT SHALL BE FILLED WITH MORTAR.
 - OPENINGS FOR THE OUTLET SEWER SHALL BE PRECAST WITH A DIAMETER OF 3 INCHES LARGER THAN THE OUTSIDE DIAMETER OF THE OUTLET PIPE. ALL OTHER OPENINGS SHALL BE MADE IN THE FIELD AFTER MANHOLE HAS BEEN CONSTRUCTED.
 - ALL VERTICAL OPENINGS IN CONCRETE BLOCK STRUCTURE WALLS SHALL BE COMPLETELY FILLED WITH MORTAR. ALL VERTICAL WALL JOINTS SHALL BE CEMENT POINTED.
 - A "POURED 3500 P.S.I. CONCRETE BASE" WITHOUT STEEL REINFORCEMENT MAY BE SUBSTITUTED FOR PRECAST BASE WHEN APPROVED BY THE TOWNSHIP ENGINEER. A POROUS BACKFILL CUSHION WILL NOT BE REQUIRED UNDER THE POURED BASE UNLESS CONTRACTOR HAS EXCAVATED BELOW THE REQUIRED ELEVATION, AT WHICH TIME THE ENGINEER WILL DECIDE AS TO THE MERITS OF INCREASING THE THICKNESS OF THE CONCRETE BASE OR THE USE OF A POROUS BACKFILL CUSHION.
 - WHERE UNSTABLE GROUND CONDITIONS ARE ENCOUNTERED, SLAG OR STONE BEDDING SHALL BE USED AS DIRECTED BY THE ENGINEER IN ORDER TO PROVIDE A STABLE FOUNDATION FOR PIPE AND MANHOLES.
 - ALL PIPES ENTERING OR LEAVING A MANHOLE SHALL BE ADEQUATELY SUPPORTED BY POURING 2500 P.S.I. CONCRETE FILL FROM UNDISTURBED EARTH TO SPRINGLINE.
 - WHEREVER EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES AT 4" CENTER TO CENTER AROUND PERIPHERY OR OPENING TO CREATE A PLANE OF WEAKNESS BEFORE BREAKING SECTION OUT.



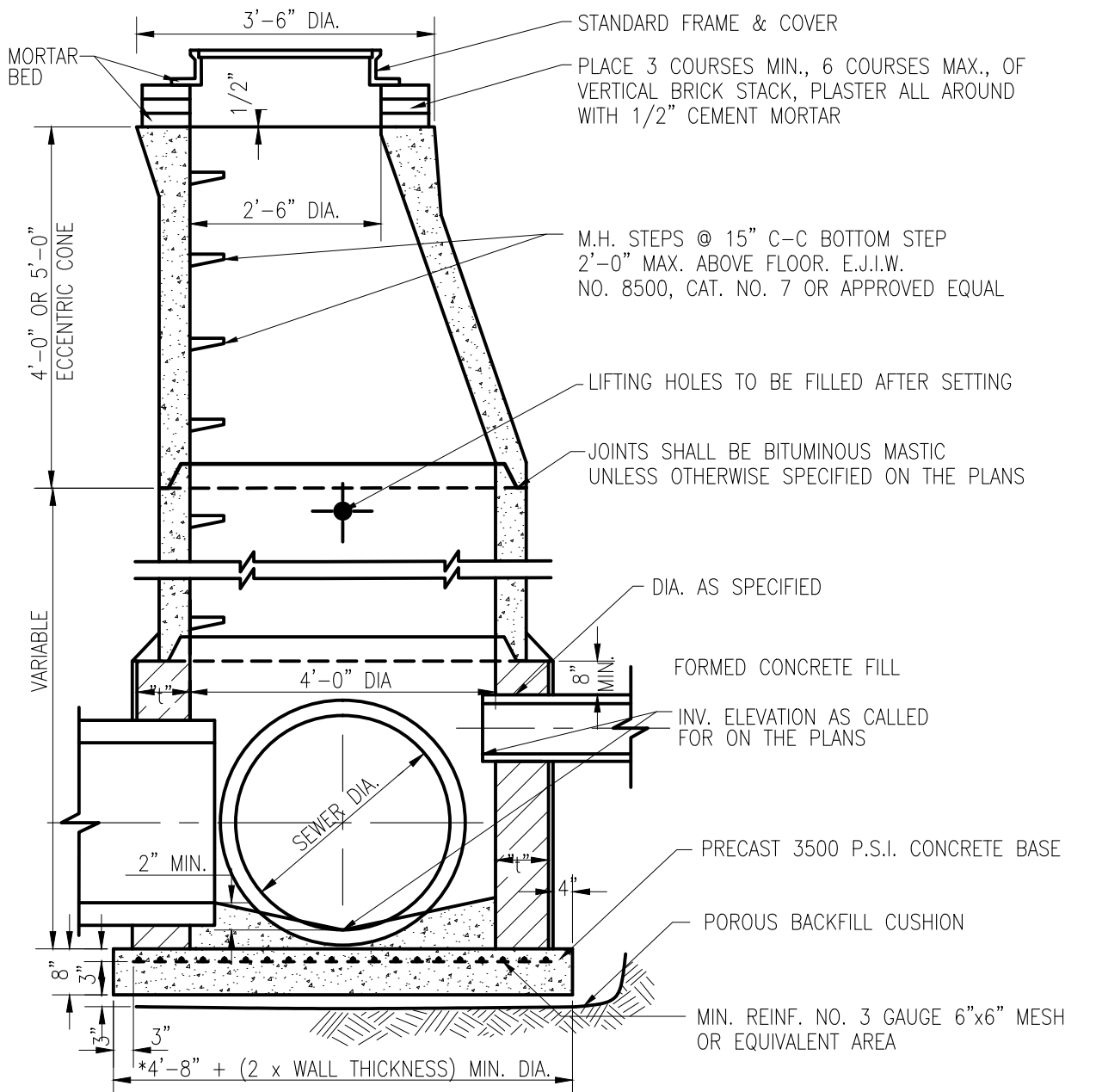
- NOTES:**
- TRENCH "A" SHALL BE USED UNDER ROAD SURFACES, PAVEMENT, SIDEWALK, CURB, AGGREGATE & PAVED DRIVES AND WHERE THE EDGE OF TRENCH IS WITHIN 3 FEET OF THE PAVEMENT.
 - GRANULAR MATERIAL SHALL BE PLACED BY THE "CONTROLLED DENSITY METHOD" OR OTHER MEANS HAVING APPROVAL OF THE ENGINEER AND IS TO BE COMPACTED TO 95% OF MAXIMUM UNIT WEIGHT.



- NOTES:**
- SUITABLE EXCAVATED BACKFILL MATERIAL SHALL BE PLACED IN ONE FOOT LAYERS AND COMPACTED BY MECHANICAL TAMPING OR OTHER EFFECTIVE MEANS HAVING APPROVAL OF THE ENGINEER, TO A DENSITY EQUIVALENT TO THE UNDISTURBED ADJACENT SOIL.
 - TRENCH "B" SHALL BE USED UNDER CONDITIONS OTHER THAN SPECIFIED FOR TRENCH "A"

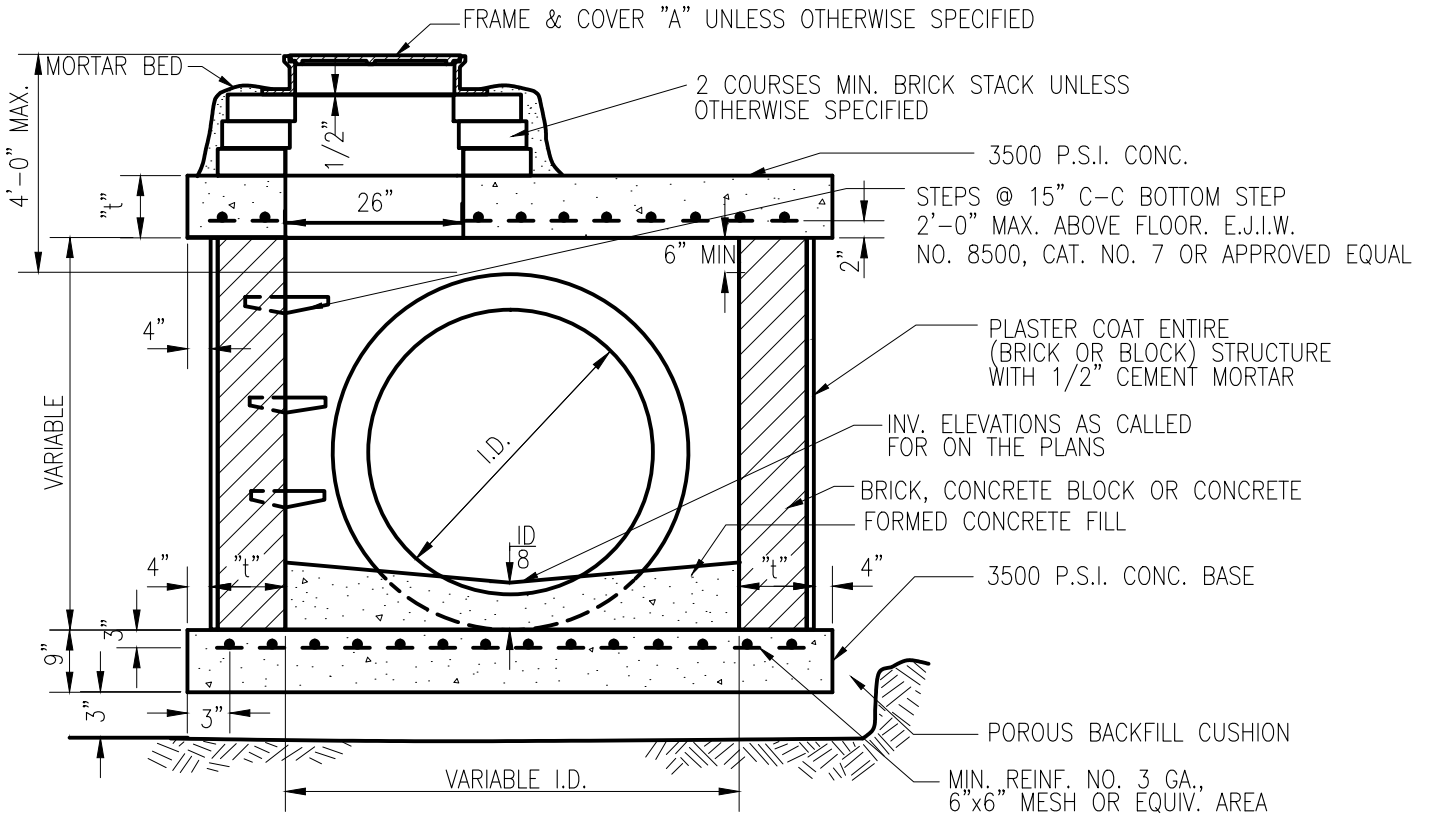
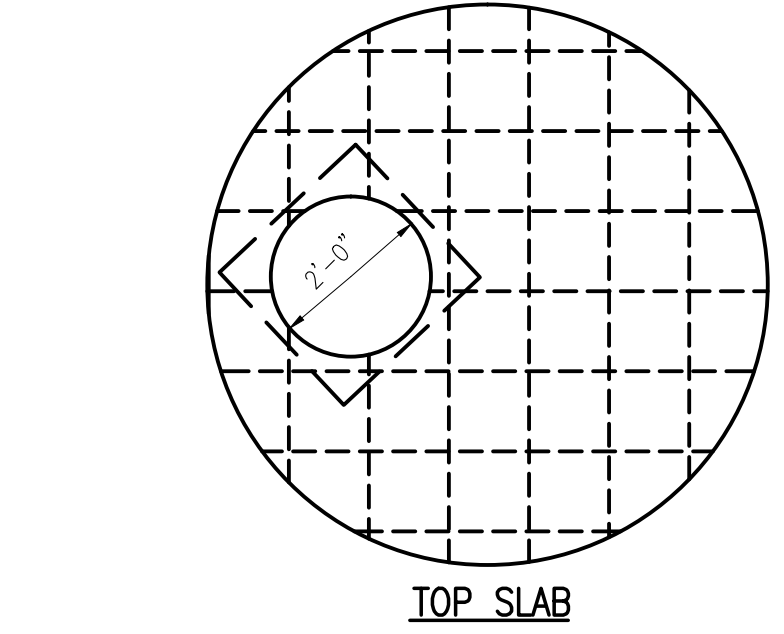


- NOTES:**
- THIS MANHOLE SHALL BE USED ONLY WHEN MEETING CONDITIONS STATED IN THE "GENERAL MANHOLE NOTES", ITEM NO. 2A
 - PRECAST UNITS SHALL MEET THE REQUIREMENTS SPECIFIED BY A.S.T.M. C-478-68.



- NOTES:**
- THIS MANHOLE SHALL BE USED ONLY WHEN MEETING CONDITIONS STATED IN THE "GENERAL MANHOLE NOTES", ITEM NO. 2A
 - PRECAST UNITS SHALL MEET THE REQUIREMENTS SPECIFIED BY A.S.T.M. C-478-68.
 - DIAMETER OF MANHOLE SHALL BE INCREASED AS SHOWN ON PLANS OR IN THE PROPOSAL, DEPENDING ON THE DIAMETERS AND ANGLES OF THE SEWERS.

DEPTH	BRICK	CONCRETE OR BLOCK
0'-10"	8"	6"
10'-16"	12"	8"
16' & DEEPER	16"	12"



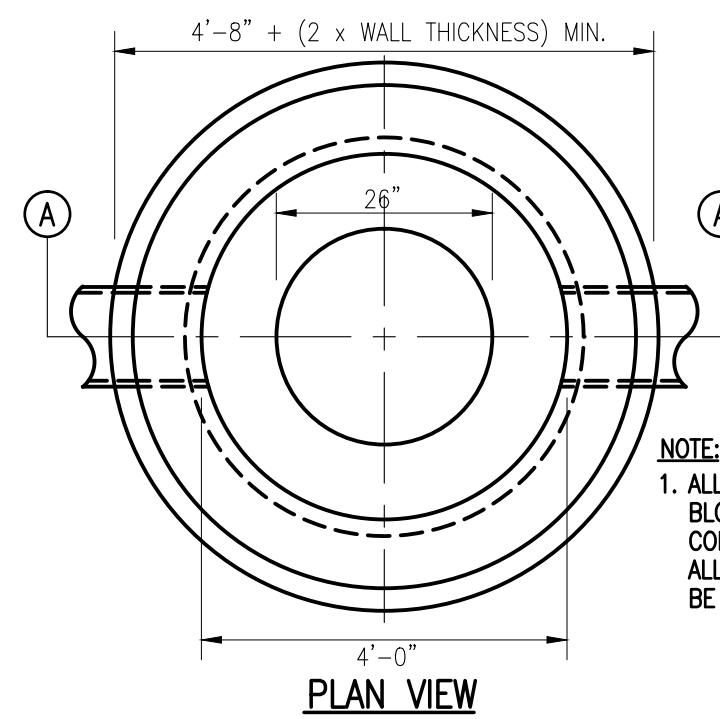
OUTLET I.D.	M.H. D	TOP SLAB "T"	WALLS "t"	REINFORCING STEEL (SLAB)
24" OR LESS	4'-0"	9"	8"	3/4" @ 9" EACH WAY
30"	4'-0"	9"	8"	3/4" @ 9" EACH WAY
36"	4'-0"	9"	12"	3/4" @ 9" EACH WAY
42"	4'-0"	10"	12"	3/4" @ 9" EACH WAY
48"	4'-0"	11"	12"	7/8" @ 9" EACH WAY
54"	4'-0"	11"	12"	7/8" @ 9" EACH WAY

M.H. D	TOP SLAB "T"	WALLS "t"	REINFORCING STEEL (SLAB)
7'-0"	12"	12"	7/8" @ 9" EACH WAY
8'-0"	12"	12"	1" @ 9" EACH WAY

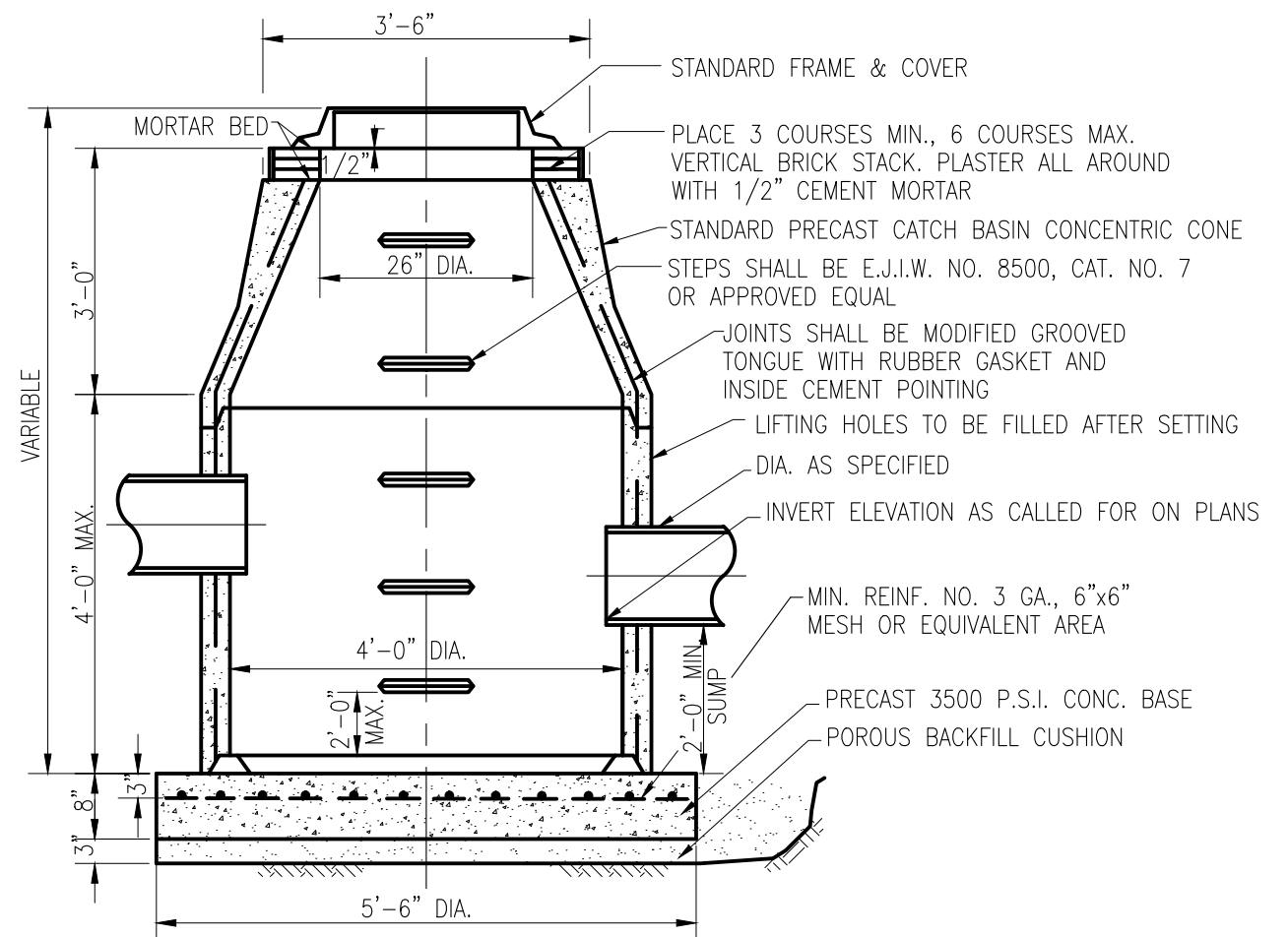
- NOTES:**
- DIA. SHALL BE INCREASED AS SHOWN ON PLANS OR IN THE PROPOSAL DEPENDING ON THE ANGLE OF THE SEWERS.
 - M.H. "D" SHALL BE USED WHERE THE DEPTH OF COVER FROM THE TOP OF CASTING TO THE TOP OF SEWER IS LESS THAN 4'-0". M.H. "D" SHALL BE CONSTRUCTED WITH A 2' SUMP WHERE DIAMETER OF OUTLET SEWER IS 24" OR LESS.

TYPICAL SECTION MANHOLE "D"

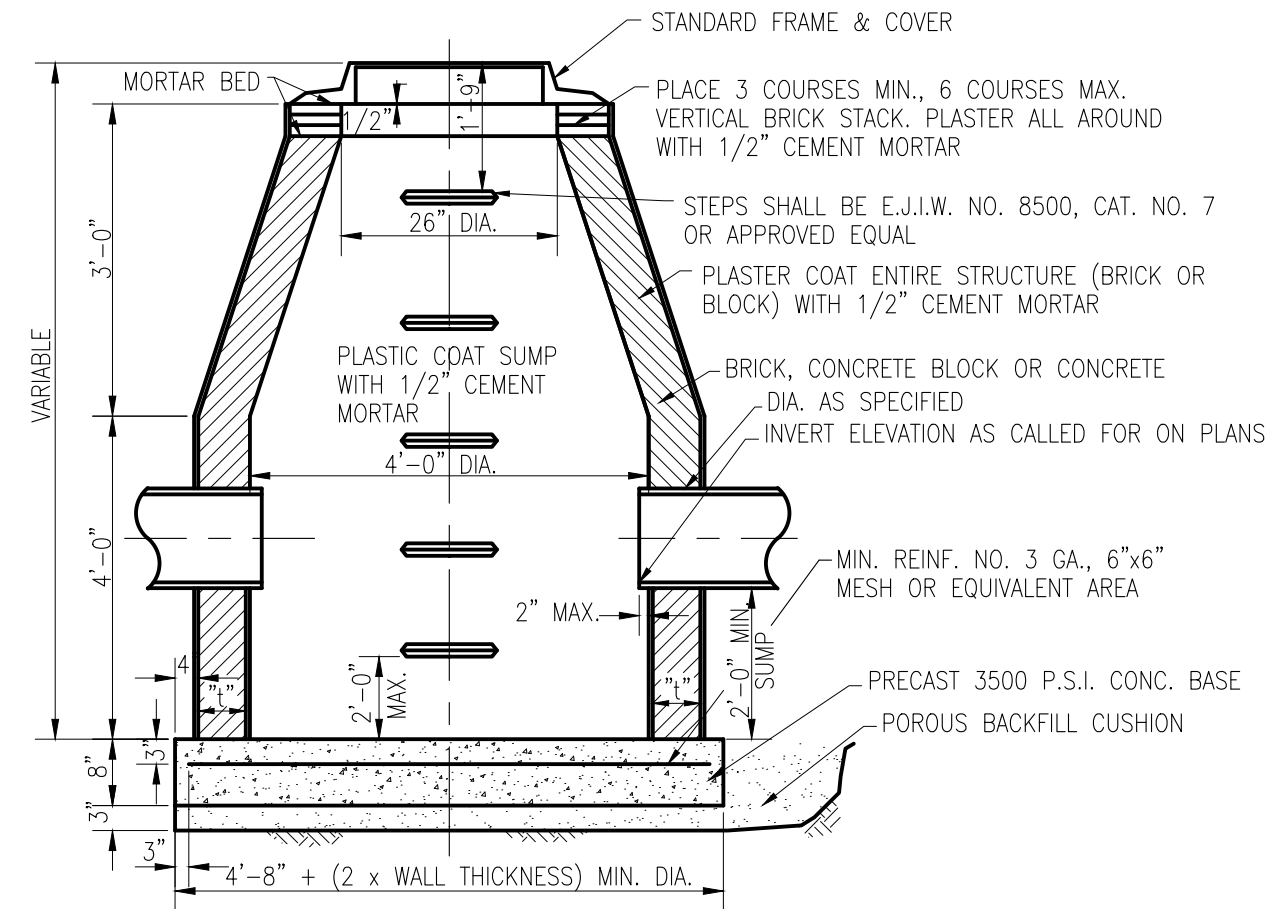
DATE	CADD	ENG. ARCH	PROJ. MGR	SECTION	TOWN	RANGE	COUNTY	CITY/TOWNSHIP	SCALE	VERT. DATUM



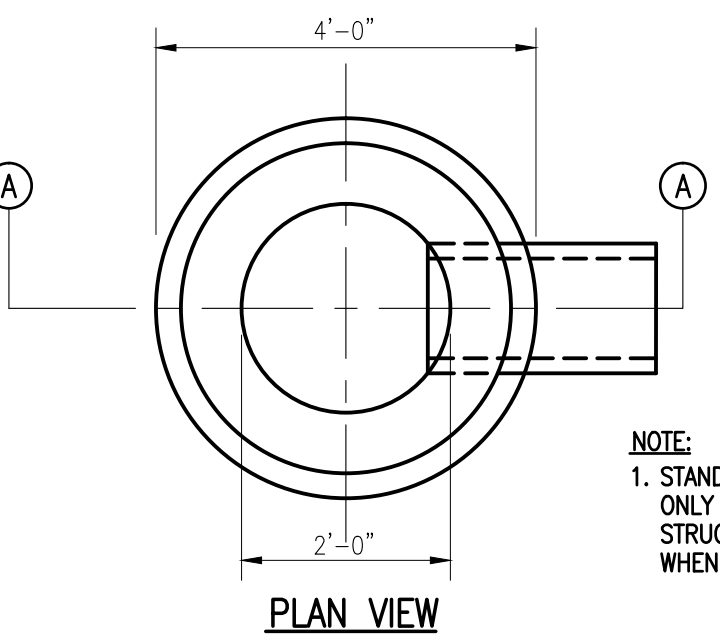
NOTE:
1. ALL VERTICAL HOLES IN CONCRETE BLOCK STRUCTURE WALL SHALL BE COMPLETELY FILLED WITH MORTAR. ALL VERTICAL WALL JOINTS SHALL BE CEMENT POINTED.



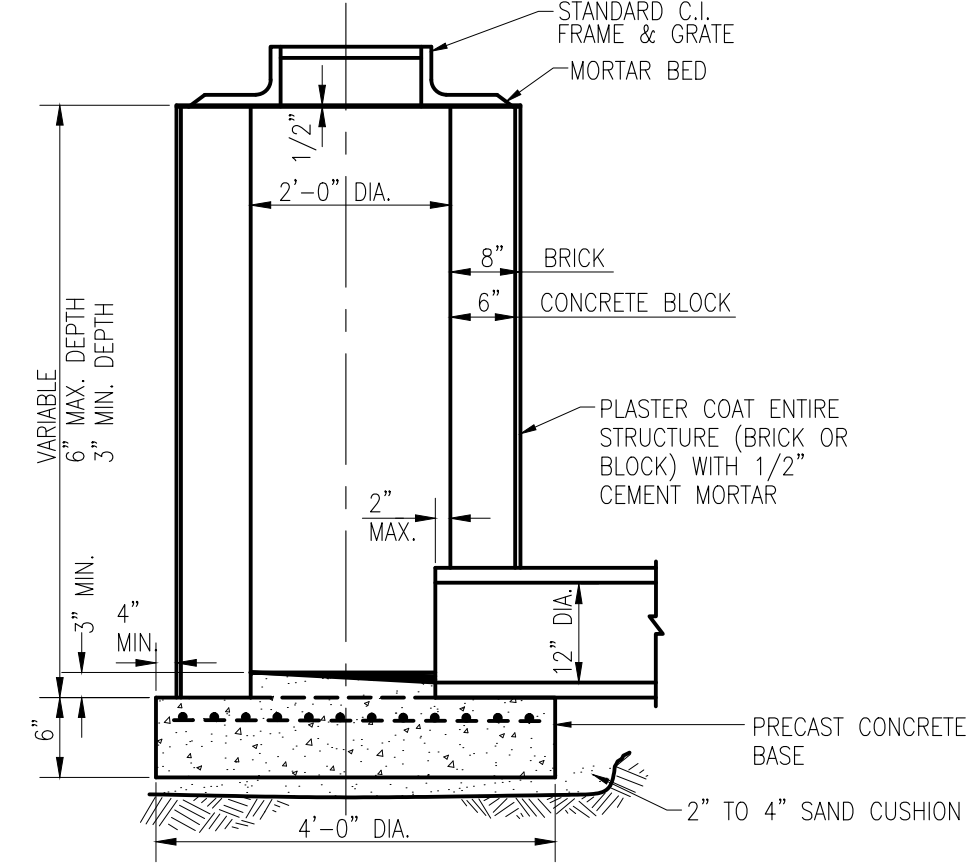
CROSS-SECTION CATCH BASIN "B"



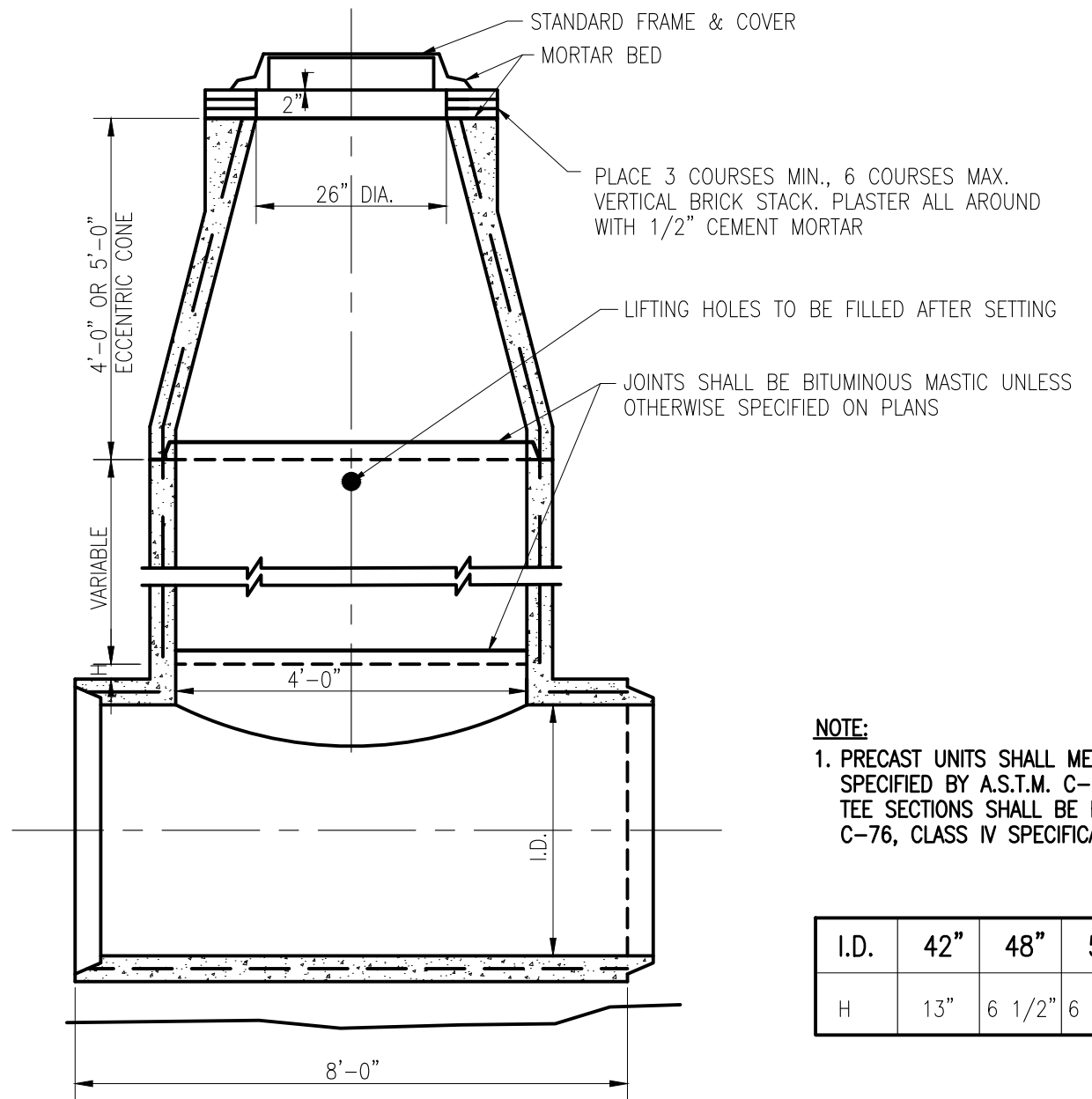
SECTION A-A CATCH BASIN "A"



NOTE:
1. STANDARD INLET WILL BE USED ONLY WHEN OUTLETTING TO A STRUCTURE HAVING A SUMP OR WHEN OUTLETTING TO A DITCH

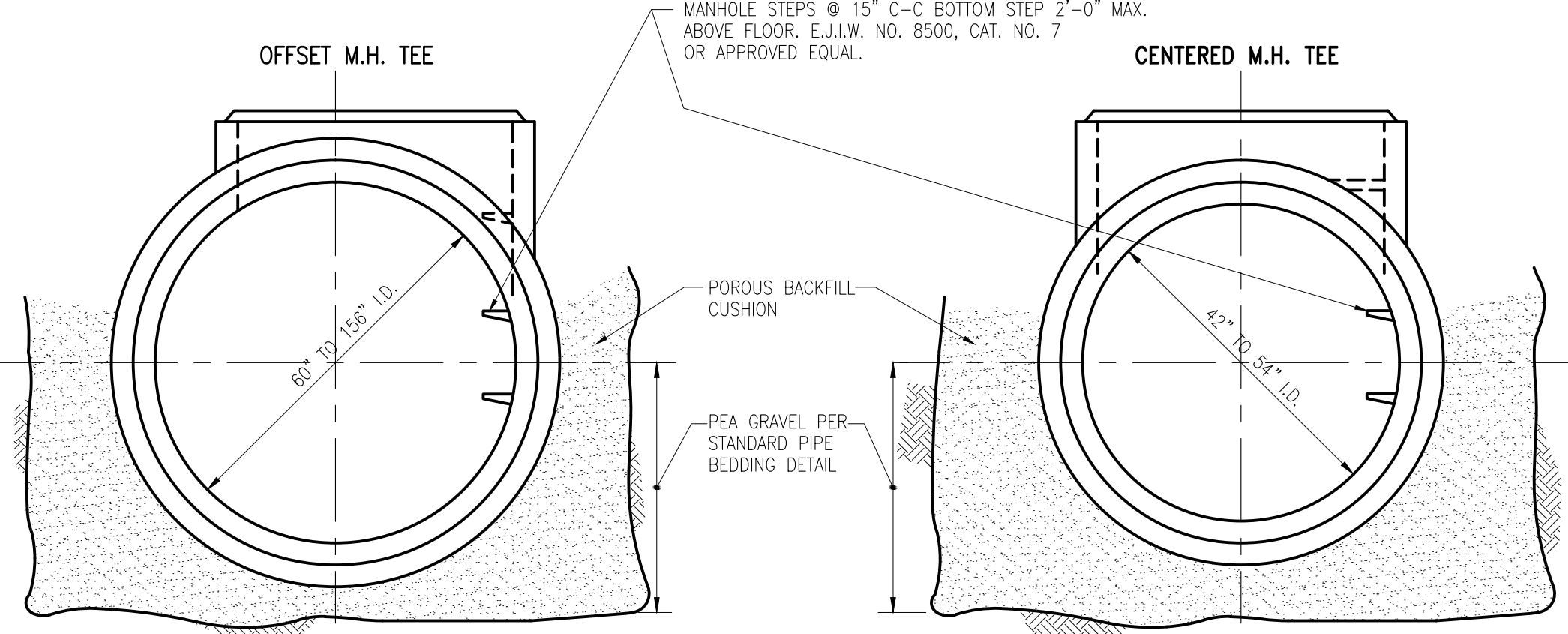


SECTION A-A STANDARD INLET

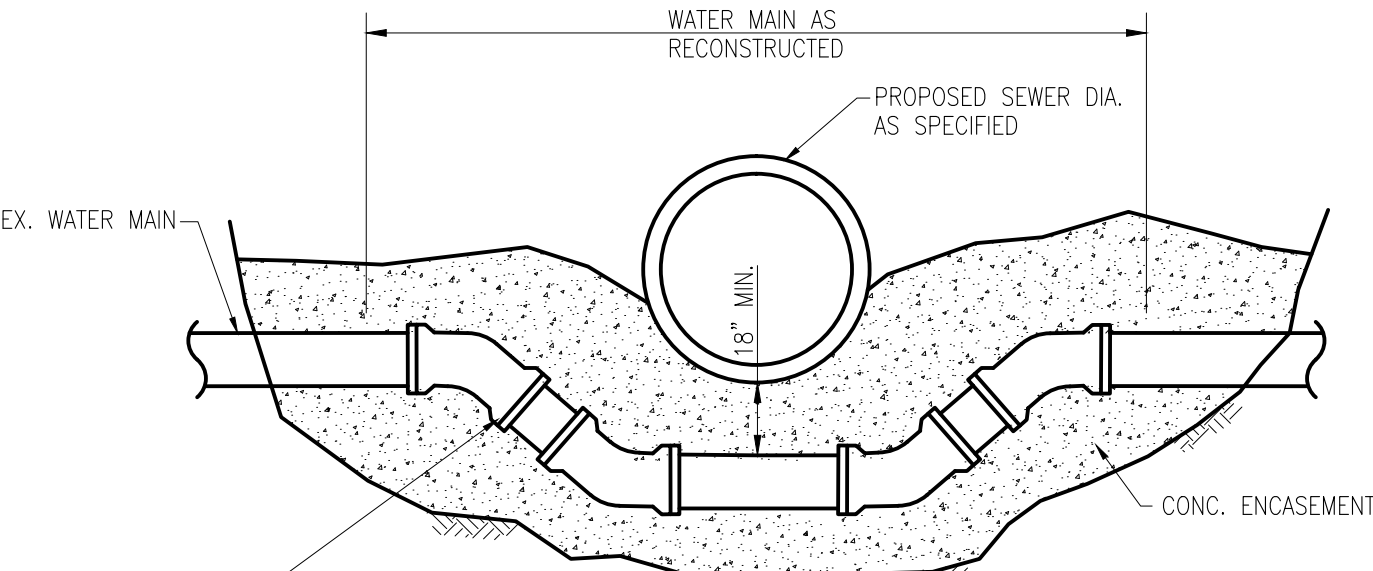


NOTE:
1. PRECAST UNITS SHALL MEET THE REQUIREMENTS SPECIFIED BY A.S.T.M. C-478-68. ALL MANHOLE TEE SECTIONS SHALL BE REINFORCED TO A.S.T.M. C-76, CLASS IV SPECIFICATIONS

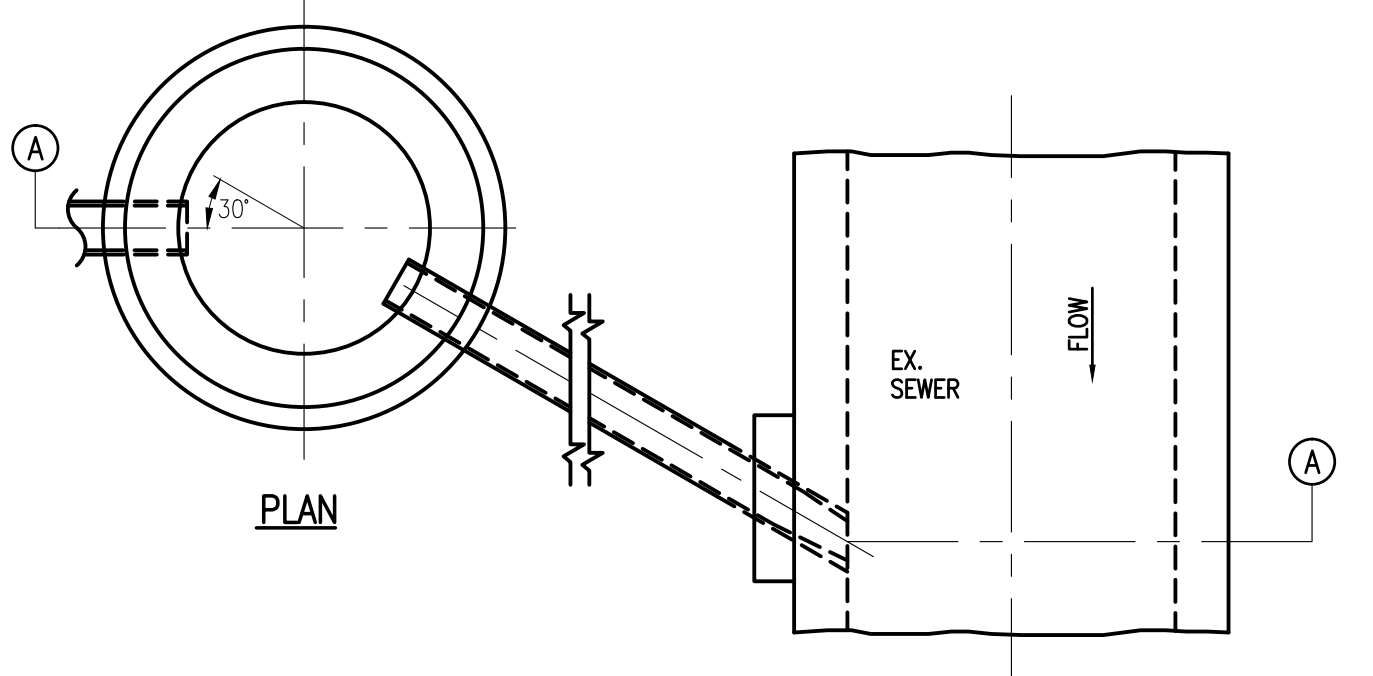
H DIMENSION	
I.D.	42" 48" 54" 60" 66" 72" 78" 84" OVER 84"
H	13" 6 1/2" 6 1/2" 1" 1 3/4" 2 1/2" 4" 6" 7"



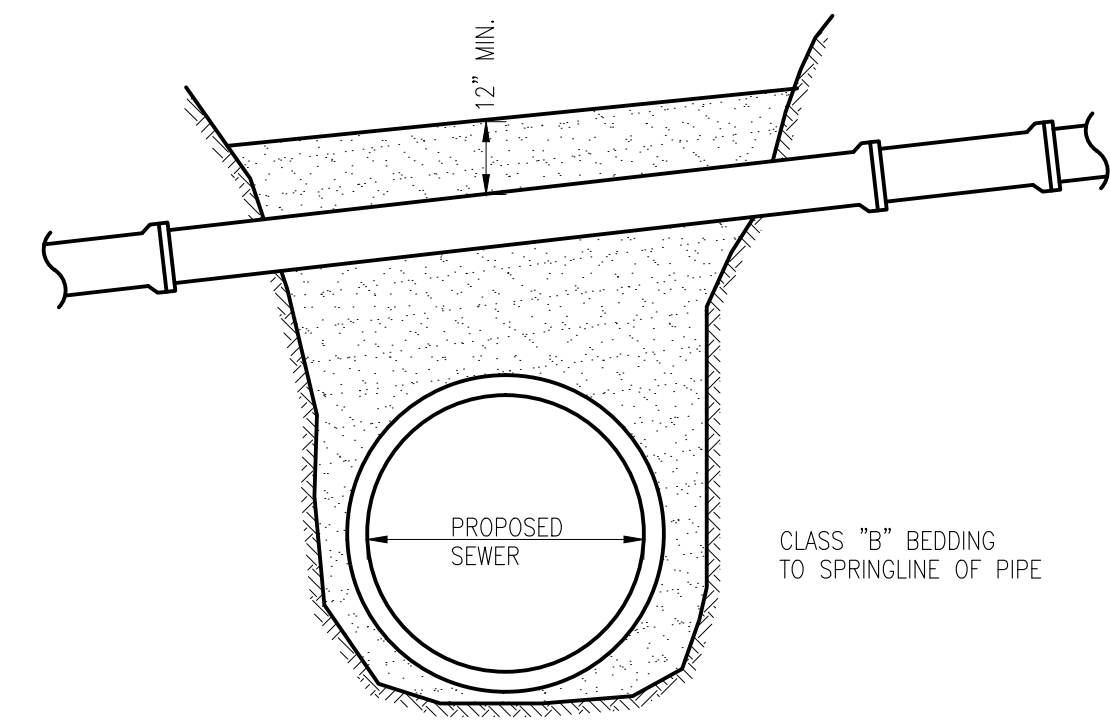
PRECAST MANHOLE "T"



WATER MAIN CROSSING

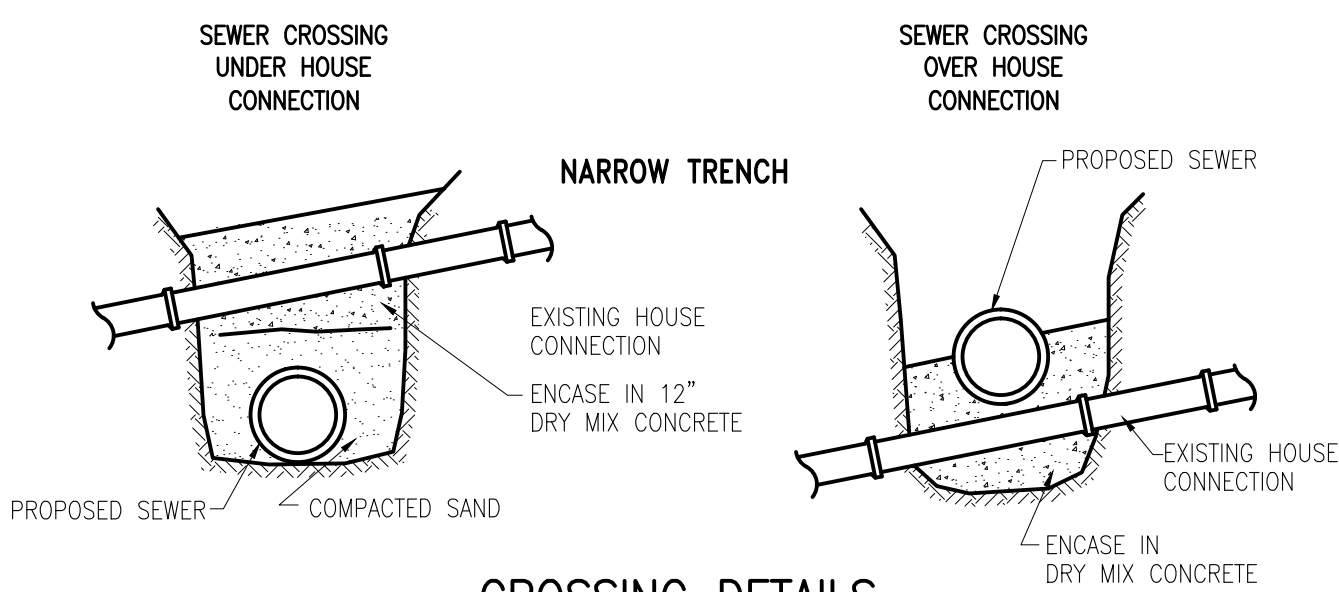


SECTION A-A TYPICAL CONNECTIONS TO EXISTING SEWERS



HOUSE CONNECTION CROSSING

NOTE:
1. M.D.O.T. GRANULAR MATERIAL CLASS II PLACED IN 6" LAYERS AND COMPACTED TO A MINIMUM OF 95% OF ITS MAXIMUM UNIT WEIGHT TO A HEIGHT OF 12" ABOVE THE TOP OF THE SEWER LEAD.



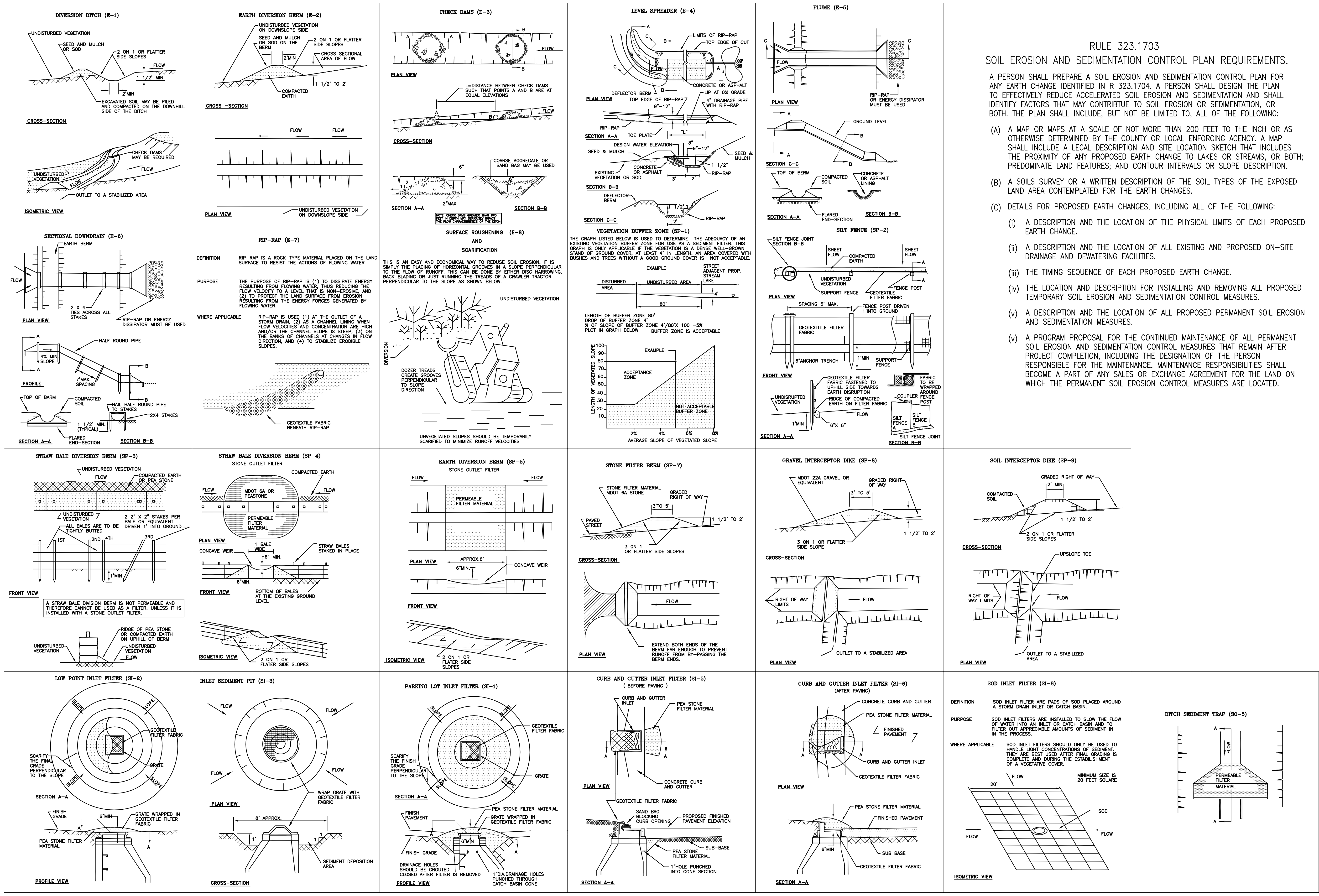
CROSSING DETAILS

NOTE:
1. WHEN UNSTABLE GROUND CONDITIONS ARE ENCOUNTERED STONE, SLAG OR DRY MIX CONCRETE SHALL BE USED TO BACKFILL THE TRENCH TO A HEIGHT 12" ABOVE THE TOP OF THE SEWER LEAD.

RULE 323.1703
SOIL EROSION AND SEDIMENTATION CONTROL PLAN REQUIREMENTS.

A PERSON SHALL PREPARE A SOIL EROSION AND SEDIMENTATION CONTROL PLAN FOR ANY EARTH CHANGE IDENTIFIED IN R 323.1704. A PERSON SHALL DESIGN THE PLAN TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND SEDIMENTATION AND SHALL IDENTIFY FACTORS THAT MAY CONTRIBUTE TO SOIL EROSION OR SEDIMENTATION, OR BOTH. THE PLAN SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL OF THE FOLLOWING:

- (A) A MAP OR MAPS AT A SCALE OF NOT MORE THAN 200 FEET TO THE INCH OR AS OTHERWISE DETERMINED BY THE COUNTY OR LOCAL ENFORCING AGENCY. A MAP SHALL INCLUDE A LEGAL DESCRIPTION AND SITE LOCATION SKETCH THAT INCLUDES THE PROXIMITY OF ANY PROPOSED EARTH CHANGE TO LAKES OR STREAMS, OR BOTH; PREDOMINANT LAND FEATURES; AND CONTOUR INTERVALS OR SLOPE DESCRIPTION.
- (B) A SOILS SURVEY OR A WRITTEN DESCRIPTION OF THE SOIL TYPES OF THE EXPOSED LAND AREA CONTEMPLATED FOR THE EARTH CHANGES.
- (C) DETAILS FOR PROPOSED EARTH CHANGES, INCLUDING ALL OF THE FOLLOWING:
 - (i) A DESCRIPTION AND THE LOCATION OF THE PHYSICAL LIMITS OF EACH PROPOSED EARTH CHANGE.
 - (ii) A DESCRIPTION AND THE LOCATION OF ALL EXISTING AND PROPOSED ON-SITE DRAINAGE AND DEWATERING FACILITIES.
 - (iii) THE TIMING SEQUENCE OF EACH PROPOSED EARTH CHANGE.
 - (iv) THE LOCATION AND DESCRIPTION FOR INSTALLING AND REMOVING ALL PROPOSED TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
 - (v) A DESCRIPTION AND THE LOCATION OF ALL PROPOSED PERMANENT SOIL EROSION AND SEDIMENTATION MEASURES.
 - (vi) A PROGRAM PROPOSAL FOR THE CONTINUED MAINTENANCE OF ALL PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES THAT REMAIN AFTER PROJECT COMPLETION, INCLUDING THE DESIGNATION OF THE PERSON RESPONSIBLE FOR THE MAINTENANCE. MAINTENANCE RESPONSIBILITIES SHALL BECOME A PART OF ANY SALES OR EXCHANGE AGREEMENT FOR THE LAND ON WHICH THE PERMANENT SOIL EROSION CONTROL MEASURES ARE LOCATED.



REVISIONS:	ISSUE NO.	BID DATE
	B.G. DRN.	DATE
	TOPO DRN.	DESIGN
	PROFILE DRN.	ENG. DRN.
	APPROVED	SCALE
	V:	
	H: NTS	

YPSILANTI TOWNSHIP
TOWNSHIP STANDARD
SOIL EROSION CONTROL DETAILS

CLIENT: YPSILANTI TOWNSHIP

ORCHARD, HILTZ & McCLIMENT, INC.

3400 Plymouth Road
Livonia, MI 48150
(734) 522-6711
(734) 522-6427 FAX

TITLE: CAD
DRAWING: SESS.dwg
LAYOUT: SESS

SHEET: _____
JOB NO.: _____

CLIENT: YPSILANTI TOWNSHIP
DRAWING NAME: SESS.dwg
JOB #

V. WASTEWATER SYSTEM

A. General

1. Wastewater system improvements shall be designed and constructed in accordance with the requirements of Part 41 of Act 451 of the Public Acts of 1994, as amended, the most recent revision of the Recommended Standards for Sewage Works by the Great Lakes-Upper Mississippi River Board of State Sanitary Engineers (commonly known as the "Ten States Standards") and as prescribed herein.
2. All wastewater system improvements will require the review and approval of the Ypsilanti Community Utilities Authority (YCUA).—Proposed public wastewater system improvements will require the review and approval of YCUA and the Michigan Department of Environmental Quality (MDEQ).—Wastewater facilities are typically considered public facilities when two or more service connections are made to the same sanitary sewer.—In most instances, including multiple unit developments, the wastewater system may have to be public even though the project has one owner. YCUA approval will be required for private—wastewater system serving more than one residence or building.—The extension of sanitary sewers will generally be required across the entire frontage of the site.
3. Wastewater system improvements specified in the latest revision of the YCUA Sanitary Sewer Master Plan may be required as part of the project.—The applicant shall contact ~~the YCUA Engineering Department~~ to determine if any improvements identified in the latest revision of the YCUA Sanitary Sewer Master Plan will need to be incorporated as part of the project.
4. Plan and profile views shall be provided for all proposed wastewater system improvements including force mains.—The plan and profile shall be presented on the same plan sheet and shall be vertically oriented.
 - a. Wastewater design calculations, the wastewater district map and a wastewater system quantity list shall be provided on the cover sheet of the detailed engineering plans.—The design calculations and wastewater district map shall include both current and future service areas and populations.—The wastewater system quantity list shall be delineated by existing or proposed road right-of-way or easement.
 - b. The following information must be shown in the plan view of proposed wastewater system improvements:
 - i. Size, material and type of pipe.
 - ii. Length between structures (and/or appurtenances for pressure sanitary sewers).
 - iii. Slope of pipe between structures (and/or appurtenances for pressure sanitary sewers).
 - iv. Where required, a dedicated sanitary sewer easement must be shown on the plans.—The sanitary sewer easement width shall be either twice the depth of

the pipe plus the diameter of the pipe plus 2' (rounded up to the nearest whole foot), or 25', whichever is greater.

- v. Top of casting and all pipe invert elevations with direction identified at each structure (and/or appurtenances for pressure sanitary sewers).
 - vi. Progressive numbering system for structures and appurtenances.
- c. The following information must be shown in the profile view of proposed wastewater system improvements:
- i. Existing and proposed ground elevations.
 - ii. Length, type, class, size and slope of pipe between structures (and/or appurtenances for pressure sanitary sewers).
 - iii. Top of casting and all pipe inverts with direction identified at all structures;
 - iv. All utility crossings.
 - v. Special backfill areas, i.e. sand.
 - vi. Provisions for infiltration testing.
 - vii. Progressive numbering system on structures.
 - viii. Adjacent existing or proposed utilities plotted where parallel.
- d. Plans showing any proposed wastewater system improvements, public and/or private, shall be accompanied by the YCUA standard wastewater detail sheets. The standard details are included in Appendix A.
5. Connection of individual residences or buildings to the wastewater collection system will require the submittal of a utility service plan for review and approval by YCUA. Utility services plans can be submitted on 8½" x 11" white paper with blue or black lines. The following information must be shown on the utility service plan:
- a. The applicant's name, address, telephone number, and electronic mail address (if available).
 - b. The name, address, telephone and fax numbers, and electronic mail address for the applicant's engineer/surveyor.
 - c. The utility service plan shall be prepared to a scale of 1" = 40'. The following items must be shown on the utility service plan:
 - i. A legal description of the parcel, including tax identification number, along with a sketch showing all property lines including the bearing and distance.
 - ii. All sides of the proposed or existing building.
 - iii. Existing and/or proposed driveways and sidewalks, including materials and thicknesses.
 - iv. Existing and/or proposed utilities on the parcel or in the adjacent public right-of-way or easement. Utilities to be shown include, but may not necessarily

be limited to: water supply, wastewater, storm sewer, gas, telephone, electric, and cable television.

- v. Existing and/or proposed building sewers, water services, and storm sewer laterals (for sump pump discharges, if applicable).—Information shall include proposed material and size.—Dimension all pipes and any cleanouts from the building corners.
6. Trunk line and transmission charges, benefit charges, as well as tap fees and meter fees associated may apply to water supply system improvements and/or connections to the existing water supply system.—The schedules for these fees is available by contacting ~~the YCUA Engineering Department~~.
 7. Projects involving non-residential discharges to the YCUA wastewater collection system may be required to be designed, constructed and operated in accordance with the Industrial Pretreatment Program as identified in the YCUA Sewer Use Ordinance, latest revision.

B. Design Criteria

1. Capacity Design

- a. For design purposes, population in the tributary area shall be based on a minimum of 3½ persons per single family residence, also referred to as an equivalent residential unit (ERU).—The basis of design calculations shall include a tabulation of the proposed usage types and the conversion of the various uses into ERUs.—The adopted unit factors as included in the YCUA Trunkline and Transmission Line Service Charge ordinance shall be used to convert different usage types to ERUs.—These factors may be obtained by contacting ~~the YCUA Engineering Department~~.
- b. Wastewater collection systems shall be designed on the basis of an average daily flow of 100 gallons per capita per day.—The required capacity shall be determined by the peak design flow using the peaking factor as prescribed by the Ten States Standards.
- c. All gravity sanitary sewers shall be designed to provide average velocities, when flowing full, of not less than 2 feet per second, based on Manning's formula using an "n" value of 0.013.—The maximum design velocity for gravity sanitary sewers shall be 10 feet per second with the pipe flowing full.
- d. The minimum size for gravity sanitary sewers shall be as follows:
 - i. For proposed systems discharging to existing gravity sanitary sewers 10" diameter or larger, the minimum size pipe shall be 10" diameter, with the terminal section of 10" diameter gravity sanitary sewer at a uniform slope of not less than 1.0% between structures.—The minimum slope for all other sections of 10" diameter gravity sanitary sewer shall be 0.3% between structures.

- ii. For proposed systems discharging to existing 8" diameter gravity sanitary sewers, the proposed pipe shall be 8" diameter, with the terminal section of 8" diameter gravity sanitary sewer installed at a uniform grade of not less than 1.0% between structures.—The minimum slope for all other sections of 8" diameter gravity sanitary sewer shall be 0.4% between structures.
 - iii. No proposed discharges, including connection of building sewers, to existing sanitary sewers smaller than 8" diameter will be allowed.
 - iii.iv. Gravity sanitary sewer pipes smaller than 8" diameter are considered building sewers and no more than one service connection will be allowed through pipes smaller than 8" diameter.
- e. Non-residential discharges to the YCUA wastewater system may need to incorporate such measures including, but not necessarily limited to, grease separators and/or oil separators.—The need for such measures and design thereof shall be subject to the review and approval of YCUA.

2. Sanitary Sewer Location

- a. Sanitary sewers shall be located to provide unrestricted access for inspection and maintenance operations.—Wherever possible, sanitary sewers and appurtenances shall be located outside the influence of existing or proposed pavement.—Within existing or proposed public road rights-of-way, sanitary sewer alignments and appurtenance locations should be in accordance with the requirements of the agency having jurisdiction.—Alignments and locations within private road easements should be in accordance with the requirements of the agency having jurisdiction over the adjacent public road right-of-way.—Sanitary sewer alignments and appurtenance locations in easements outside of public road rights-of-way will be evaluated individually.
- b. A minimum horizontal separation of 10' shall be provided between sanitary sewers and water mains. Adequate horizontal separation shall be provided between sanitary sewers and all other underground utilities to allow a 1:1 trench slope from the bottom of the deeper utility such that the shallower utility will not be undermined.—If it is not feasible to obtain proper horizontal and vertical separation as described above, both the water main and sanitary sewer must be constructed of push-on or mechanical joint pipe complying with the requirements outlined in Chapter IV, Water Supply System.—A variance will be required from both YCUA and MDEQ for any proposed wastewater system improvements that will not satisfy the minimum horizontal separation requirements.
- c. Where sanitary sewer alignments cross alignments of other utilities, the angle between horizontal alignments at the crossing shall not be less than 45°.

3. Depth of Sewers

- a. The minimum depth of cover over the top of gravity sanitary sewer pipe shall be 4' as measured from the proposed ground elevation.

- b. Gravity sanitary sewers shall be a minimum of 10' deep when fronting residential parcels to be directly connected to the sewer.—Deep setbacks or unusual topographic conditions may require more depth.
- c. A minimum vertical separation of 18" shall be provided between sanitary sewers and water mains.—In addition, a minimum vertical separation of 12" shall be provided between sanitary sewers and other underground utilities unless otherwise approved by YCUA and/or the agency having jurisdiction over the other utility.
- d. The maximum depth to invert of any sanitary sewer shall not exceed the depth recommended by the pipe manufacturer for each size and class of pipe.—The applicant's design engineer shall provide the manufacturer's installation instructions/recommendations with the plan submittal for review by YCUA.

4. Manholes

- a. Manholes shall be installed at intervals not to exceed 300', or at the following locations:
 - i. The upstream terminus of a gravity sanitary sewer run, including transition between a gravity building sewer and a low-pressure sanitary sewer pipe. Wherever possible, dead-end gravity sanitary sewer alignments shall be avoided.—Gravity sanitary sewer alignments shall be extended to common terminus locations and high-point manholes shall be installed at the common terminus locations.
 - ii. All changes in pipe grade.
 - iii. All changes in pipe size.
 - iv. All changes in horizontal alignment.
 - v. All gravity sanitary sewer junctions.
 - vi. Monitoring locations as identified in the YCUA Sewer Use Ordinance, latest revision.
- b. Manholes shall be located such that the casting will not be in street or parking lot pavements, sidewalks or driveways.
- c. Manholes for sanitary sewers 21" and smaller shall have a minimum inside diameter of 48".—Manholes for sanitary sewers larger than 21" shall have a minimum inside diameter of 60".—Larger diameter manholes may be required depending on such factors as the number of sanitary sewers at a junction or significant changes in horizontal alignment.—Manholes for transitions between gravity building sewers and low-pressure sanitary sewer pipe shall have a minimum inside diameter of 24".
- d. Internal drop connections will be required where the invert of the outlet gravity sanitary sewer is 18" or more below the inlet pipe invert.

- e. The 0.8 depth flow line of gravity sanitary sewers shall be matched at structures when changing sizes of gravity sanitary sewers.
- f. An allowance of 0.1' in grade shall be made for loss of head through a manhole where gravity sanitary sewer horizontal alignment is deflected 30° or more.

5. Building Sewers

a. General

- i. Except as permitted by the YCUA Sewer Use Ordinances, each individual residence or building connected to the YCUA wastewater collection system shall have an independent building sewer.
 - ii. For each parcel along the route of a proposed gravity sanitary sewer, a building sewer shall be constructed from the gravity sanitary sewer to the public right-of-way or easement line. In particular, this applies to any parcels in the sanitary sewer service design area that are zoned for no more than one single-family residence or parcels that have an existing residence or building when the gravity sanitary sewer is installed. Installation of building sewers may not be required to larger vacant parcels that may be developed in the future.
- b. Building sewers shall be aligned such that the building sewer pipe is perpendicular to the centerline of the public road right-of-way or easement within the public road right-of-way or easement.
 - c. Building sewers may be connected directly to an existing manhole when the manhole is located in the right-of-way or easement between the extension of the side property lines of the parcel. Internal drop connections, as specified elsewhere, may be required.
 - d. The minimum grade for building sewers shall be 1% for 6" diameter pipe and 2% for 4" diameter pipe.
 - e. Connections other than sanitary building sewers will not be permitted. Downspouts, weep tile, footing drains, sump pump discharges or any other conduit that collects storm or ground water shall not be discharged into the building sewer.
 - f. Private building sewers of excessive length, although not a public sanitary sewer, may require inspection and testing. Each site will be considered individually by YCUA.
 - g. Cleanouts shall be provided within 5' of foundation walls, at all bends and at intervals not greater than 90', and at the location where the building sewer enters the public road right-of-way or the sanitary sewer easement.
 - h. The minimum allowable horizontal separations between building sewers and other facilities are as follows:
 - i. Water services – 3'.

- ii. All other utilities and structures – 10’.

6. Inverted Siphons

- a. In general, sanitary sewer siphons will only be accepted where no other feasible alternative exists and where there will be sufficient flow in the sewer so that maintenance will be held to a minimum.
- b. The minimum pipe size for inverted siphons shall be 6” in diameter.
- c. A minimum of two pipes shall be provided for each inverted siphon. – Inverted siphons shall be designed to have a minimum velocity of three feet per second. Design calculations shall be submitted for review and approval by YCUA.

7. Pump/Lift Stations

- a. Pump stations and pressure sanitary sewers will only be allowed when no practical gravity sanitary sewer alternative exists.
- b. A minimum of two pumps shall be provided. – Pump stations shall be designed to pump the anticipated peak hour flow with the largest pump out of service.
- c. Pump stations shall be protected from physical damage during a 100-year flood and remain operable and accessible during a 25-year flood.
- d. Pump station structures and equipment shall be protected from vehicular traffic. Provisions for maintenance vehicles shall be provided, including pavement with sufficient space to park and maneuver as well as a curb cut to allow ingress/egress from the adjacent roadway.
- e. Sketches of the typical pump station layout and sections, including some of the standard equipment requirements, are provided in **Appendix A**. – Pump stations must include valves and risers to accommodate bypass of the station under various conditions and drainage from the valve vault to the wet well.
- f. Electrical, instrumentation and control devices, including adequate alarms and backup power, will be required.
- g. Wastewater pumps shall meet the following requirements:
 - i. Pumps must be capable of passing 3” or larger spheres.
 - ii. Pump suction and discharge opening must be at least 4” in diameter.
 - iii. Pumps shall operate under a positive suction head.
 - iv. Pump “off” level shall be above the pump impeller.
 - v. Pumps must be equipped with individual intakes.
 - vi. Pump motors shall be three-phase electric.

- vii. Shut off valves shall be provided on the discharge line of each pump.
- viii. Check valves shall be provided between the pump discharge and the shut off valve on the discharge line.

8. Pressure Sanitary Sewers

- a. Pressure sanitary sewer pipe shall have a minimum diameter of 4”.
- b. Pressure sanitary sewers shall be designed to maintain a minimum velocity of 2 feet per second.
- c. Valves and appurtenances shall be provided in the following locations:
 - i. Isolation valves shall be provided per the spacing requirements as specified in the Water Supply System chapter of these standards.
 - ii. Air/vacuum relief valves shall be provided at all high points.
 - iii. Clean outs shall be provided at all low points.
- d. Pressure sanitary sewers shall be designed to discharge to gravity sanitary sewers at manholes.—The pressure sanitary sewer shall enter the receiving manhole at a point no less than 6” above the invert of the outlet gravity sanitary sewer invert and no more than 2’ above the flow line in the gravity sanitary sewer.
- e. Pressure sanitary sewer pipe shall be designed to withstand both internal pressures and external trench as well as live loads.—Design computations shall be submitted by the applicant’s design engineer for review and approval by YCUA.
- f. Low pressure sanitary sewer systems which utilize individual grinder pump stations at each separate user will not be accepted as part of the YCUA wastewater collection system.—Such systems, if deemed appropriate by YCUA, will be private with operation and maintenance of both the grinder pump station and low-pressure sanitary sewer pipe remaining the responsibility of the applicant or property owner.

- 9. On-site sewage disposal will be allowed in locations where public gravity sanitary sewer is not available.—A copy of a valid on-site sewage disposal system permit from the Washtenaw County Environmental Health Division must be submitted prior to plan approval.

C. Materials

1. Sanitary Sewer Pipe

- a. Gravity sanitary sewer pipe shall be one of the following:

- i. For pipes 4" diameter to 15" diameter, solid wall polyvinyl chloride (PVC) conforming to the requirements of ASTM D3034, latest revision. ~~—~~ Solid wall PVC pipe shall have a sidewall dimension ratio (SDR) no greater than 26.
 - ii. Extra strength clay pipe conforming to the requirements of ASTM C700, latest revision.
 - iii. Reinforced concrete pipe and inverted siphons conforming to the requirements of ASTM C76, latest revision.
- b. Pressure sanitary sewer pipe shall be one of the following:
- i. Ductile iron conforming to the material requirements prescribed in item IV.C.1, Water Supply System, Materials, Water Transmission and Distribution Mains.
 - ii. Solid wall PVC conforming to the requirements of ASTM D3034, latest revision, with an SDR no greater than 21.
- c. If other materials are proposed for use, the applicant shall furnish the necessary design data for the proposed depth and operating conditions. ~~—~~ Use of materials other than those specified herein will not be allowed unless approved by YCUA.

2. Pipe Joints

- a. Pipe joints for gravity sanitary sewer shall conform to the following requirements depending on the type of pipe used:
- i. Joints for solid wall PVC pipe shall be push-on type unless solvent weld joints are approved by YCUA. ~~—~~ Push-on type joints shall conform to ASTM D3212, latest revision. ~~—~~ Solvent weld joints, where approved by YCUA, shall conform to ASTM D2855, latest revision.
 - ii. Bell and spigot joints on extra strength clay pipe shall be in accordance with requirements of ASTM C425.
 - iii. Modified grooved tongue joints for reinforced concrete pipe shall have a rubber gasket snapped into a groove cast in to the tongue. ~~—~~ Rubber gasket joints for reinforced concrete pipe shall be in accordance with ASTM C443, latest revision.
- b. Joints and fittings for pressure sanitary sewer pipe shall be equal to the YCUA requirements for pressure pipe as specified in Chapter IV, Water Supply System.

3. Manholes and Vaults

- a. Manholes and vaults shall be constructed of precast reinforced concrete sections, unless otherwise approved by YCUA.
- b. Precast reinforced concrete manhole sections shall conform to requirements of ASTM C478, latest revision.

- c. Precast manhole joints shall be modified grooved tongue with rubber gasket joints as described in item IV.C.5.h.
- d. Manhole steps, where required by YCUA, shall be reinforced polypropylene plastic, PS2-PFS, manufactured by M.A. Industries, Inc., or approved equal.
- e. Cover and frame for new manholes shall be East Jordan Iron Works #1040 with Type "A" cover or approved equal.—Covers shall be cast with the words "SANITARY SEWER" in raised letters spaced in from the periphery of the cover. New cover and frame for existing manholes shall match the existing cover and frame.
- f. All new sanitary manholes shall have an infiltration fabric placed from the top of the frame casting base over the adjustment rings and over at least half of the transition cone section of the manhole chimney.—The material shall be Infra-Shield or approved equal.—Existing sanitary manholes located within the limits of a project that have the cone section excavated shall have the infiltration fabric installed.—Existing manholes that are not excavated shall have the chimney coated internally with a product approved by YCUA.
- g. Rings for grade adjustment of covers and frames shall be injection molded high density polyethylene adjustment rings as manufactured by Ladtech, Inc., or approved equal.—Use of other materials, such as precast concrete rings or brick and mortar, will not be allowed unless otherwise approved by YCUA.
- h. All adjustment for matching road grade shall be made utilizing a molded indexed slope ring.
- i. Each adjustment ring shall be sealed with a 3/16" to 1/4" bead of butyl rubber sealant per the manufacturer's instructions.—Sealant shall meet ASTM C-990, latest revision.
- j. All castings and adjustment rings shall be securely fastened to the cone of the structure with four 3/8" threaded rods.—The rods shall be galvanized or stainless steel anchored to the structure with Redhead concrete anchors or equal. Stainless steel or galvanized nuts and washers shall be used to attach the casting.
- k. Manhole Drops
 - i. Manhole drop connections shall be interior drops using the drop bowl as produced by Reliner-Duran Inc. or approved equal.
 - ii. Drop bowl model "A-4" shall be used for all lines up through full 6" inlets. Drop bowl model "A-6" shall be used for all 8" inlets.—Drop bowl model "B-8" shall be used for all 10" inlets.—Lines larger than 10" shall be as directed by YCUA.
 - iii. The force line hood shall be attached on models "A-4" and "A-6" when the incoming line is from a force main or the slope of the incoming gravity sanitary sewer is 3% or greater.

- iv. The drop pipe shall be secured to the manhole wall with Reliner-Duran, Inc. stainless steel adjustable clamping brackets or approved equal.

4. Building Sewers

- a. Building sewers shall be constructed of solid wall PVC pipe conforming to ASTM D2751, latest revision, minimum schedule 40 or solid wall PVC conforming to the requirements of ASTM D3034, latest revision, with an SDR no greater than 26.
- b. Building sewers larger than 6" in diameter shall be constructed of materials permitted for gravity sanitary sewers under the same conditions of depth.
- c. Joints in building sewers, including fittings, shall be solvent welded conforming to the requirements of item V.C.2.a.i.
- d. Cleanouts, including bends, wye fittings, and caps shall be the same material as the building sewer.—Caps shall be secured to the riser section of the cleanout via a threaded connection.
- e. Connection of new building sewers to existing gravity sanitary sewers shall be accomplished using a service saddle.—Service saddles shall be a flexible tap saddle in tee configuration as manufactured by Fernco, Inc. or approved equal.

5. Pump Stations and Pressure Sanitary Sewers

- a. Unless otherwise approved by YCUA, pumps shall be submersible type.—Pumps shall be manufactured by ITT Flygt or approved equal.
- b. Isolation valves on pressure sanitary sewers shall be plug valves.
 - i. Plug valves shall be non-lubricated, eccentric type with nitrile butadiene (hycar) or Buna-N resilient faced plugs.—End connections shall generally be flanged or grooved for inside valves and mechanical joint for exterior ground-buried valves.—Port area shall be equal to at least 80% of the nominal size pipe area.—Valve bodies shall be suitably marked to indicate whether the valve is open or closed.
 - ii. The seating surface of the valve body shall be welded in stainless steel or nickel.—Bearings at the top and bottom supporting the rotating element shall be self-lubricating, corrosion-resistant type, suitable for sewage plant service. The valve shall be of the bolted bonnet design.—Packing shall be adjustable and replaceable without disassembling of the valve.—The valve body shall be cast or ductile iron marked to show seat side of valve.—A grit seal shall be provided for the bottom of the valve shaft.
 - iii. Plug valves shall be of adequate design to operate with a pressure of 50 psi on both sides or on either side of the valve without leakage.

6. On-site sewage disposal systems shall be constructed using materials approved by the Washtenaw County Environmental Health Division.

D. Construction Methods

1. General

a. Excavation

- i. Excavation, bedding, and backfill operations shall be accomplished in accordance with requirements outlined in Chapter VIII, Grading and Earthwork, except as modified herein.
- ii. Pipes shall be laid on a compacted granular material placed on the bottom of the trench to a depth of not less than 3" for 24" and smaller pipe and not less than 4" for pipe larger than 24".—Concrete encasement or concrete cradle shall be used as directed by YCUA.
- iii. PVC pipe shall be laid on a compacted granular material placed on the bottom of the trench to a depth of not less than 4" conforming to Class B bedding as shown on the plans.—Where shown on the plans, or where the pipe passes under a road with less than 4' of cover, the pipes shall be encased.
- iv. For all pipes, compacted granular material shall be placed at the sides of the pipe and cover not less than 12" above the crown of the pipe.
- v. "Granular Material" shall be class 2NS sand, pea gravel or crushed stone conforming to ASTM C33 Size No. 67 placed in not more than 6" layers and compacted to not less than 95% standard density for PVC and 90% standard density for reinforced concrete.
- vi. Pea gravel or crushed stone used for bedding shall be separated from the sand backfill with a non-woven geotextile fabric.—The fabric shall be Amoco 4551, or approved equal.

b. Existing Wastewater System

- i. Wastewater system improvements shall be constructed without interruption of service in the existing system.—Temporary provisions to maintain service, such as bypass pumping, shall be the responsibility of the proprietor unless otherwise approved by YCUA.
- ii. The condition of the existing wastewater system will be observed by YCUA prior to the commencement of any improvements to the existing system or adjacent to the existing system.—Any damage or adverse impact to the existing wastewater system resulting from the operations or actions of the proprietor or their designated representative shall be remedied by the proprietor.—Damage or adverse impacts include, but are not necessarily limited to, introduction of debris to the system and improper adjustment of manhole castings.

2. Submittals

a. Certifications

All pipe, fittings, and appurtenances delivered to the job shall be accompanied by certification papers showing that the materials have been manufactured and tested in accordance with all applicable standards.

b. Shop Drawings

Shop drawings may be required for certain materials including, but not necessarily limited to, pump stations and appurtenances prior to fabrication and manufacture.

3. Delivery, Handling and Storage

a. Wastewater system materials shall be delivered, handled, and stored in accordance with the manufacturer's recommendations and as specified by YCUA.

b. Upon delivery to the project site all materials will be inspected by YCUA or its designated representative. Rejected materials shall be immediately removed from the project site by the proprietor.

4. Construction Sequence

Unless otherwise authorized by YCUA, construction of wastewater system improvements shall begin at the downstream end of the system and proceed upstream.

5. Installation

a. Sanitary Sewer Pipe

i. General

(1) All pipe shall be laid true to the required lines and grades. All trenches when pipe laying is in progress shall be kept dry; and all pipes and fittings shall be uniformly supported on a properly trimmed bedding with holes at each joint to receive bells. All pipe shall be laid with bells uphill.

(2) The grade as shown on the profiles is that of the pipe invert and that to which the work must conform. The grade shall be kept by levels, laser or other tools which shall be furnished by the proprietor. Each pipe shall be laid accurately to the line and grade as shown on the Plans and in such manner as to form a close concentric joint with the adjoining pipe and prevent sudden offsets of the invert. The interior of sanitary sewer pipe

shall, as the work progresses, be cleaned of all dirt, cement, debris and other superfluous materials. Bulkheads shall be used to keep foreign materials out of the open end of the sanitary sewer pipe when work is not in progress.

- (3) All pipe and fittings shall be carefully lowered and moved into position in the trench or vault in a controlled manner such as will prevent damage to the pipe and any coatings or lining. An excessive amount of scratching on the surface of the PVC pipe will be considered cause for rejection.
- (4) The trench shall be backfilled closely behind the pipe laying. Unless otherwise directed or permitted by YCUA, the backfilling shall follow and be completed to the top of the trench within two pipe lengths behind pipe laying.
- (5) All cutting of the pipe shall be done in a neat workmanlike manner with the least amount of waste and without damage to existing or new lines. A fine tooth saw, tubing cutter or similar tool may be used to cut PVC pipe. Cuts must be square. Ragged edges shall be removed with a cutting tool or file.
- (6) After cutting bell and spigot or socket pipe, a stop mark shall be made with a pencil or crayon using dimensions as shown by the manufacturer's instructions or by using another pipe in the field as a guide.
- (7) Breaks in pipe or joints shall be repaired by the proprietor to the satisfaction of YCUA.

ii. Gravity Sanitary Sewer

- (1) Solid wall PVC pipe, shall be installed in accordance with the requirements of ASTM D2321, latest revision.
- (2) Extra strength clay pipe shall be installed in accordance with the requirements of ASTM C12, latest revision.
- (3) Reinforced concrete pipe shall be installed in accordance with the requirements of ASTM C76, latest revision.

iii. Pressure Sanitary Sewer

- (1) Ductile iron pipe and appurtenances shall be installed as prescribed in item **IV.C.1**, Water Supply System, Construction Methods, Water Transmission and Distribution Mains.
- (2) Plastic pressure sanitary sewer pipe shall be installed in accordance with the requirements of ASTM D2274, latest revision.

b. All joints shall be made-up in accordance with the manufacturer's instructions using materials and equipment especially prepared for the type of joint to be used.

c. Manholes and Vaults

- i. Precast base section shall be placed on a well-graded granular bedding course conforming to requirements for sewer bedding, but not less than 6" in

thickness and extending to the limits of the excavation.—The bedding course shall be firmly tamped and made smooth and level to ensure uniform contact and support of the precast element.

ii. Manhole and Vault Sections

- (1) All lift holes and all joints between precast elements in manholes shall be thoroughly wetted and then completely filled with mortar and smoothed to ensure watertightness.
- (2) Precast sections shall be placed and aligned to provide vertical sides and vertical alignment of the manhole steps if required by YCUA.—The complete manhole shall be rigid, true to dimensions, and watertight.
- (3) Epoxy joints of polymer concrete manholes shall be inspected for damage and cleaned of all debris.—Apply compatible epoxy material for bonding in accordance with manufacturer's instructions.

iii. Placing of Castings, Grade Rings, and Top Sections

- (1) Castings placed on concrete surface shall be set in full mortar beds.—The mortar shall be mixed in proportion of 1 part Portland cement to 2 parts sand, by volume, based on dry materials.—Castings shall be set accurately to the finished elevation so that no subsequent adjustment will be necessary unless otherwise specified by YCUA.
- (2) Where castings are located in paved surfaces or areas which have been brought to grade, not more than 15" shall be provided between the top of the cone or slab and the underside of the casting for adjustment of the casting to street grade.
- (3) Where castings are located in unpaved traffic bearing areas, provide not more than 12" of adjusting rings between the top of the cone or slab and the underside of the casting for adjustment of the casting to finished grade.—Set the top of the casting 5" below finished grade, unless otherwise directed by YCUA.
- (4) Where castings are located in cultivated agricultural areas, the top of the manhole casting shall be set at least 6" higher than the finished grade, and in noncultivated areas, set the casting flush with the finished grade, unless otherwise directed by YCUA.
- (5) Point up and make watertight adjusting rings used to set the casting to grade.
- (6) All channels shall be constructed to the full flow depth of the pipe.

d. Pumps and Appurtenances

Pumps and appurtenances, as well as other wastewater system infrastructure, shall be installed in accordance with all applicable ASTM standards, manufacturers recommendations, and as directed by YCUA.

e. Pressure Sanitary Sewer

Pressure sanitary sewer shall be tested in accordance with the requirement for hydrostatic testing as prescribed for water supply system improvement in Chapter IV.

6. Testing

a. General

All sanitary sewers shall be subjected to infiltration, exfiltration or low pressure air tests, or a combination thereof prior to final acceptance by YCUA. In addition, all PVC and ABS plastic sewers shall be subjected to deflection testing by means of a nine-point deflection test mandrel.

YCUA or it's designated representative shall be present for all testing operations. If testing is to be done by the proprietor, only properly trained personnel shall be allowed to perform the testing work. — If testing is to be done by municipal agency work forces, then the proprietor shall be responsible for coordinating with the inspector in order to schedule the testing.

In the event that the sanitary sewer pipe fails any of the required tests, the proprietor shall be responsible for repairing the pipe and repeating the test until acceptable results are achieved.

The method of testing and measurement shall be approved by YCUA. — The proprietor shall provide all necessary equipment and labor for making the tests.

b. Infiltration Test

All sanitary sewers that are over 24" in diameter shall be subjected to an infiltration test. Also, all sanitary sewers that are 24" in diameter and smaller and where the ground water level is more than 7' above the top of the sewer shall be subjected to an infiltration test.

The infiltration rate for all sanitary sewers shall not exceed a maximum of 200 gal./in. diameter per mile of sewer per 24 hours.

c. Low Pressure Air Test

All sanitary sewers that are 24" in diameter or smaller and where the ground water level is 7' or less above the top of the sewer shall be subjected to a low pressure air test.

The procedure for air testing of sanitary sewers shall be as follows:

The sanitary sewer line shall be tested in increments between manholes. The line shall be cleaned and plugged at each manhole. Such plugs shall be designed to hold against the test pressure and shall provide an airtight seal. One of the plugs shall have an orifice through which air can be introduced into the sewer. An air supply line shall be connected to the orifice. The supply line shall be fitted with suitable control valves and a pressure gauge for continually measuring the air pressure in the sewer. The pressure gauge shall have a minimum diameter of 3½" and a range of 0 – 10 psig. The gauge shall have minimum divisions of 0-10 psig and accuracy of plus or minus (+/-) 0.04 psig.

The sanitary sewer shall be pressurized to 4 psig greater than the greatest back pressure caused by ground water over the top of the sanitary sewer pipe. At least 2 minutes shall be allowed for the air pressure to stabilize between 3½ and 4 psig. If necessary, air shall be added to the sewer to maintain a pressure of 3½ psig or greater.

After the stabilization period, the air supply control valve shall be closed so that no more air will enter the sanitary sewer. The sanitary sewer air pressure shall be noted and timing for the test begun. The test shall not begin if the air pressure is less than 3½ psig, or such other pressure as is necessary to compensate for ground water level.

The time required for the air pressure to decrease 1.0 psig during the test shall not be less than the time shown in the following Air Test Tables. The proprietor shall use the appropriate test table based upon the sanitary sewer pipe material.

Table SA-1
Air Test Table for Vitrified Clay and Concrete Pipe

Specification Time (min:sec) Required for Pressure Drop from 3-1/2 to 2-1/2 PSIG When Testing One Pipe Diameter Only Pipe Diameter, Inches																
		4	6	8	10	12	15	18	21	24	27	30	33	36	39	42
Length of Line, Feet	25	0:04	0:10	0:18	0:22	0:27	0:32	0:36	0:45	0:54	1:03	1:12	1:21	1:30	1:39	1:50
	50	0:09	0:21	0:36	0:45	0:54	1:03	1:12	1:30	1:48	2:06	2:24	2:42	3:00	3:18	3:39
	75	0:14	0:32	0:54	1:08	1:21	1:34	1:48	2:15	2:42	3:09	3:36	4:03	4:30	4:57	5:29
	100	0:18	0:42	1:12	1:30	1:48	2:06	2:24	3:00	3:36	4:12	4:48	5:24	6:00	6:36	7:18
	125	0:22	0:52	1:30	1:52	2:15	2:38	3:00	3:45	4:30	5:15	6:00	6:45	7:30	8:15	9:08
	150	0:27	1:03	1:48	2:15	2:42	3:09	3:36	4:30	5:24	6:18	7:12	8:06	9:00	9:54	10:57
	175	0:32	1:14	2:06	2:38	3:09	3:40	4:12	5:15	6:18	7:21	8:24	9:27	10:30	11:33	12:47
	200	0:36	1:24	2:24	3:00	3:36	4:12	4:48	6:00	7:12	8:24	9:36	10:48	12:00	13:12	14:36
	225	0:40	1:34	2:42	3:22	4:03	4:44	5:24	6:45	8:06	9:27	10:48	12:09	13:30	14:51	16:26
	250	0:45	1:45	3:00	3:45	4:30	5:15	6:00	7:30	9:00	10:30	12:00	13:30	15:00	16:30	18:16
	275	0:50	1:56	3:18	4:08	4:57	5:46	6:36	8:15	9:54	11:33	13:12	14:51	16:30	18:09	20:06
	300	0:54	2:06	3:36	4:30	5:24	6:18	7:12	9:00	10:48	12:36	14:24	16:12	18:00	19:48	21:54
	350	1:03	2:27	4:12	5:15	6:18	7:21	8:24	10:30	12:36	14:42	16:48	18:54	21:00	23:06	25:33
	400	1:12	2:48	4:48	6:00	7:12	8:24	9:36	12:00	14:24	16:48	19:12	21:36	24:00	26:24	29:12
	450	1:21	3:09	5:24	6:45	8:06	9:27	10:48	13:30	16:12	18:54	21:36	24:18	27:00	29:42	32:51
	500	1:30	3:30	6:00	7:30	9:00	10:30	12:00	15:00	18:00	21:00	24:00	27:00	30:00	33:00	36:30

Note:—Table SA-1 is taken from the National Clay Pipe Institute (NCPI) tables which are based upon ASTM C828 “Test Method for Low Pressure Air Test for Vitrified Clay Pipe Lines” and ASTM C924 “Standard Practice for Testing Concrete Pipe Sewer Lines by Low Pressure Air Test Method.”

Table SA-2
Air Test Table For PVC and ABS Pipe
Minimum Specified Time Required for a 1.0 PSIG Pressure Drop
For Size and Length of Pipe Indicated for Q=0.0015 *

Pipe Dia. (in)	Minimum Time, (min:sec)	Length for Minimum Time, ft.	Time for Longer Length, seconds	Specified Time for Length (L) Shown, (min:sec)								
				100 feet	150 feet	200 feet	250 feet	300 feet	350 feet	400 feet	450 feet	
4	3:46	597	0.380 L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	0.854 L	5:40	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520 L	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24	
10	9:26	239	2.374 L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48	
12	11:20	199	3.418 L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38	
15	14:10	159	5.342 L	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04	
18	17:00	133	7.692 L	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41	
21	19:50	114	10.470 L	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31	
24	22:40	99	13.674 L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33	
27	25:30	88	17.306 L	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48	
30	28:20	80	21.366 L	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15	
33	31:10	72	25.852 L	43:05	64:38	86:10	107:43	129:16	150:43	172:43	193:53	
36	34:00	66	30.768 L	51:17	76:55	102:34	128:12	153:50	179:29	205:07	203:46	

Note:—Table SA-2 is taken from ASTM F1417 “Standard Test Method for Installation and Acceptance of Plastic Gravity Sewer Lines Using Low Pressure Air Test”.—ASTM F1417 conforms to Uni-Bell “Recommended Practice for Low Pressure Air Testing of Installed Sewer Pipe” (UNI-B-6-98).

Q is the allowable leakage rate in cubic feet/minute/square foot of inside surface area of pipe.

d. Exfiltration Test

Exfiltration or leakage from the sanitary sewer line can be measured by recording the water level drop over a given period of time in a standpipe placed and connected in the upstream manhole.—The measured drop in the time period can be converted by calculations to the leakage rate in terms of gallons per inch of pipe diameter per mile per day.

Exfiltration tests may be substituted for low pressure air tests where approved by YCUA.—Exfiltration tests will not be allowed where the external water pressure exceeds 4’.

For the purpose of exfiltration testing, the internal water level shall be equal to the external water level plus 4' as measured from the top of the highest pipe in the system being tested. This could be either a house lead or a lateral. However, the maximum total height of water above the invert of the pipe at the lower end shall not exceed 16'. A prospective test that would exceed this 16' limit should not be taken. The line under construction can be broken down into smaller sections such that the maximum head of 16' will not be exceeded.

The maximum exfiltration rate shall be the same as that permitted for the infiltration test. The exfiltration test procedure is summarized as follows:

- i. All service laterals, stubs and fittings into the sewer line(s) being tested shall be properly capped or plugged, and carefully braced to resist the thrust actions developed by the internal water pressure. In preparing the blocking of plugs or end caps, it is extremely important to recognize that the 5' to 10' of head in the standpipe will exert considerable thrust against the plugs or caps.
- ii. A plug is inserted and tightened in the inlet pipe of the downstream manhole to which the water supply connection is made for filling the pipe.
- iii. The upper manhole is plugged and securely tightened for connection to the standpipe. The standpipe is then placed in this manhole and connected to the tapped plug. The standpipe must be capable of handling from 5' to 10' of water head to determine the tightness and soundness of the sewer line, as specified and directed by YCUA.
- iv. Water is introduced into the line at the downstream manhole until the standpipe in the upstream manhole has been completely filled. By filling the line from the lowest level, the air in the line is easily pushed ahead and, finally expelled through the standpipe at the upper end of the test section. Care should be taken to minimize entrapped air that will give distorted test results. The rate of drop in the standpipe may be quite rapid until the air has been expelled.
- v. After filling with water, the line must be allowed to stand for at least 4 hours before beginning the test. During this time some water absorption into the manhole structures and sewer pipe will take place. After the water absorption has stabilized, the water level in the standpipe is checked and water added if necessary.
- vi. The test is now ready to begin. The drop in the standpipe is measured and recorded over a 15-minute period. To verify the first results, a second 15-minute test is suggested. This will also verify whether a stable condition exists in the line.
- vii. The measured drops in the standpipe are converted to leakage in terms of gallons per inch diameter per mile per day.
- viii. Another commonly used method of conducting water exfiltration testing is to utilize the manhole in lieu of a standpipe. The test procedure is exactly as outlined for using the standpipe. However, since the manhole is larger in diameter than the standpipe, this method normally requires a minimum 2 hour test period in order to be able to record a measurable water level drop. Manhole leakage must also be considered in the leakage rate and test results.

Caution should be taken when conducting exfiltration tests on sanitary sewer lines laid on steep grades. Consideration must be given to the downstream portion of the system to prevent excessive pressures in these lower lines. For these installations and where the upstream manholes are very deep, it is not advisable to fill the standpipe or manhole to the top when performing the test.

e. Deflection Test for Plastic Pipe

The allowable maximum deflection shall be 5% of internal pipe diameter. A deflection test gauge (Go, No-Go Gauge) as manufactured by Hurco Industries, Cherne Industries, or approved equal shall be used to verify that the maximum allowable deflection standard is met. ~~–~~ The test gauge must have a minimum of 9 points. ~~–~~ Proving rings must be provided to verify gauge diameter. ~~–~~ The gauge shall be pulled through manually; force will not be allowed. ~~–~~ Pipe with deflections greater than 5% will be considered unacceptable and shall be re-laid by the proprietor.

f. ~~Videotaping~~ Closed-Circuit Television Inspection

As a means of insuring that pipe was properly installed and that all joints are in a “home” position, the proprietor shall be responsible for closed-circuit television inspection of all pipe installed that is 36” in diameter and smaller. This shall be done no sooner than 30 days after sewer installation is complete. A minimum of 24 hours notice shall be provided to YCUA prior to so that a representative may be present. The closed-circuit ~~televising~~ television inspection shall be recorded on Digital Video Disc (DVD), a copy of which shall be provided to YCUA for review. ~~–~~ A satisfactory review of the ~~recorded televising~~ closed-circuit television inspection by YCUA shall be a condition for final acceptance by YCUA. Typical items to be reviewed on the DVD will include pipe deflection, pipe settlement, lead connections, joints and pipe cleanliness. If the ~~–~~ DVD review reveals unsatisfactory conditions, the deficiencies shall be corrected and the affected pipe sections shall be ~~re-retelevised~~ reinspected by the proprietor for review by YCUA.

IV. WATER SUPPLY SYSTEM

A. General

1. Water supply system improvements shall be designed and constructed in accordance with the requirements of the Michigan Safe Drinking Water Act, Act 399 of the Public Acts of 1976, as amended; as well as the latest revisions of the standards and manuals of practice published by the American Water Works Association (AWWA), the Detroit Water and Sewerage Department (DWSD), and as specified herein.
2. All water supply system improvements will require the review and approval of Ypsilanti Community Utilities Authority (YCUA). ~~The majority of water supply system improvements will also require the review and approval of both DWSD and the Michigan Department of Environmental Quality (MDEQ) and in certain instances DWSD.~~ Water supply system components are typically considered public facilities when two or more service connections are made to the same water main. ~~In most instances, including and in particular~~ multiple unit developments, the water supply system may have to be public even though the project has one owner. ~~The extension of water mains will generally be required across the entire frontage of the site.~~
3. YCUA approval will be required for connection of private water supply systems (“customer site piping”) to the public water supply system. ~~Installation of and/or improvements to customer site piping will require installation of a master meter and/or suitable backflow prevention devices at any interfaces between the public water supply system and customer site piping.~~
4. Water supply system improvements identified in the latest revision of the YCUA Water System Master Plan may be required as part of the project. ~~The applicant shall contact the YCUA Engineering Department to determine if any improvements identified in the latest revision of the YCUA Water System Master Plan will need to be incorporated as part of the project.~~
5. Plan and profile views shall be provided for all proposed water supply system improvements including water mains and fire hydrant leads. ~~The plan and profile shall be presented on the same plan sheet and shall be vertically oriented.~~
 - a. A water main quantity list shall be provided on the cover sheet of the detailed engineering plans. ~~The quantity list shall be delineated by existing or proposed road right-of-way or easement.~~
 - b. The following information must be shown in the plan view of proposed water supply system improvements:
 - i. Type, class and size of pipe.
 - ii. Length between fittings and/or appurtenances.

- iii. Water service locations and sizes.—In addition to domestic water services, water services for fire suppression and/or irrigation purposes must be shown on the plans.
 - iv. Where required, a dedicated water main easement must be shown on the plans.—The easement width shall be the greater of the following:—Twice the depth of bury plus the pipe diameter plus 2' (rounded to the next largest full foot), or 15'.—Where water main is adjacent to and parallel to the right-of-way, a water main easement must be extended across the entire frontage of the property.
- c. The following information must be shown in the profile view of proposed water supply system improvements:
- i. Type, class and size of pipe.
 - ii. Length between fittings and/or appurtenances.
 - iii. Top of casting elevation on valve wells and/or boxes as well as the finished grade for fire hydrants.
 - iv. Crossing of all existing and proposed utilities, including leads.
 - v. Granular backfill, trench details, special bedding, bores and/or other special construction methods.
 - vi. Existing and proposed ground elevations.
- d. Design details of joints and joint restraint, including any necessary design calculations, shall be provided on the plans.
- e. Plans showing any proposed water supply system improvement, public and/or private, shall be accompanied by the YCUA water supply system standard detail sheets.—The standard details are included in [Appendix B Digital Appendix](#).
6. Connection of individual residences or buildings to water distribution mains will require the submittal of a utility service plan for review and approval by YCUA. Utility service plans can be submitted on 8½" x 11" white paper with blue or black lines.—The following information must be shown on the utility service plan:
- a. The applicant's name, address, telephone number, and electronic mail address (if available).
 - b. The name, address, telephone and fax numbers, and electronic mail address for the applicant's engineer/surveyor.
 - c. The utility service plan shall be prepared to a scale of 1" = 40'.—The following items must be shown on the utility service plan:
 - i. A legal description of the parcel, including tax identification number, along with a sketch showing all property lines including the bearing and distance.
 - ii. All sides of the proposed or existing building.

- iii. Existing and/or proposed driveways and sidewalks, including materials and thicknesses.
 - iv. Existing and/or proposed utilities on the parcel or in the adjacent public right-of-way or easement. Utilities to be shown include, but may not necessarily be limited to: water supply, wastewater, storm sewer, gas, telephone, electric, and cable television.
 - v. Existing and/or proposed water services, building sewers, and storm sewer laterals (for sump pump discharges, if applicable). Information shall include proposed material and size. Dimension all pipes from the building corners; dimension the curb stop and box from the building corners.
7. Trunk line and transmission charges, benefit charges, as well as tap fees and meter fees associated may apply to water supply system improvements and/or connections to the existing water supply system. The schedules for these fees is available by contacting ~~the YCUA Engineering Department~~.

B. Design Criteria

1. Water Transmission and Distribution Mains
- a. The minimum size pipe allowed for use in the distribution system is 8" diameter. Other allowable pipe sizes for use in the distribution system are 12" and 16" diameter. Larger diameter distribution mains will be required as minimum for distribution on non-residential sites, major streets such as section-line roads, collector streets such as half-section line roads, and elsewhere as directed by YCUA. Water mains larger than 16" diameter are considered transmission mains.
 - b. Water supply systems shall be designed to provide service from a double source of supply ("looped main") or, with the written approval of YCUA, to be provided service by a double source of supply in the future when adjacent properties are developed. Approval of a single source of supply will require the applicant to post a guarantee with YCUA to allow for provision of a double source of supply if adjacent properties do not develop within a reasonable time.
 - c. Terminal dead end water mains with domestic service connections are discouraged, and will not be permitted without the written approval of YCUA. Where terminal dead end water mains are permitted, a gate valve and fire hydrant shall be provided at the terminus of the water main – this will be the only fire hydrant allowed on the dead end water main. The following are the maximum allowable lengths for terminal dead end water mains:
 - i. 40' for 6" diameter fire hydrant service pipe.
 - ii. 600' for 8" diameter water distribution mains (residential areas only).
 - iii. 1,000' for 12" diameter and larger water distribution mains.
 - d. Wherever possible, water mains and appurtenances shall be located outside the influence of existing or proposed pavement. Within existing or proposed public road rights-of-way, water main alignments and appurtenance locations should be

in accordance with the requirements of the agency having jurisdiction. Alignments and locations within private road easements should be in accordance with the requirements of the agency having jurisdiction over the adjacent public road right-of-way. Water main alignments and appurtenance locations in easements outside of public road rights-of-way or a private road easement will be evaluated individually.

- e. A minimum 10' horizontal separation shall be maintained between water main and sanitary sewers and/or storm sewers. A minimum 5' horizontal separation shall be provided between water mains and other underground utilities and/or structures. If it is not feasible to obtain proper horizontal and vertical separation as described above, both the water main and sanitary sewer must be constructed of push-on or mechanical joint pipe complying with the requirements outlined in IV.C. A variance will be required from both YCUA and MDEQ for any proposed water supply system improvements that will not satisfy the minimum horizontal separation requirements.
- e. Where water main alignments cross alignments of other utilities, the angle between the horizontal alignments at the crossing shall not be less than 45°.
- f. Water main shall be designed and constructed with a minimum 5½' depth of cover over the top of pipe as measured from the proposed final grade. A minimum 18" vertical clearance shall be maintained between water mains and other underground utilities. Where the vertical alignment of the water main must be deflected in order to achieve the required vertical clearance, the length of the deeper main shall be kept to a minimum and standard 45° bends shall be used to achieve the necessary deflection. Depending on groundwater conditions, vertical alignment changes may be allowable utilizing joint deflection only when the elevation change is less than or equal to 18" and the depth of the water main remains above the groundwater elevation. Soil borings ~~that have been~~ obtained from the site shall be provided to YCUA in order to determine if joint deflection will be acceptable.
- g. Where changes in finish grade occur subsequent to installation of water mains or are proposed over an existing water main, all manhole castings, valve boxes, curb stop boxes, hydrants and blow-offs shall be adjusted to the revised grade as part of the project. When such changes in finish grade will result in a depth of cover of less than 5' or more than 7', the existing water main shall be relocated as part of the project in accordance with the requirements of item III.B.1. ~~fg-~~

2. Joint Restraint

- a. Joints shall be restrained per the pipe material manufacturer's recommendations. For ductile iron pipe, joint restraint shall conform to the most current edition of the Ductile Iron Pipe Research Association's (DIPRA) Thrust Restraint Design Procedure for Ductile Iron Pipe or as approved by YCUA.
- b. Concrete thrust blocks will not be permitted except behind hydrant shoes and tapping sleeves. Use of concrete thrust blocks in other locations will not be permitted without the written approval of YCUA. Where allowed, concrete thrust blocks shall bear against undisturbed earth in all instances and shall have sufficient bearing area to develop the full resultant axial thrust of the pipe at test pressure. The concrete thrust block shall not cover fastener nuts and/or threaded connections that would hinder future maintenance or repairs of fittings

or valve assemblies.

a. General

- i. Water supply system improvements shall be designed to include adequate valves to properly isolate sections of water main and control flow and pressure as needed without adversely impacting significant portions of the system.
- ii. All valves shall be installed in a three-piece, adjustable valve box with the following exceptions:—Valves shall be installed in wells where the valve will be located within existing or proposed (1:1) influence of the road, or the valve is located on a water main larger than 16" diameter, or the valve is part of a tapping valve connecting to an existing water main requiring the use of a saddle sleeve.
- iii. Valves shall be located such that the valve box cover or valve well cover will not be in street pavements, sidewalks or driveways.

b. Isolation Valves

- i. Isolation valves on water mains 16" diameter and smaller shall be gate valves and valves on water mains larger than 16" diameter shall be butterfly valves.
- ii. Valves shall be located such that:
 - (a) No more than three valves are required to isolate any section of water main.—~~Four~~ More than three valves to isolate a section of water main may be approved will not be permitted without the written approval by of YCUA.
 - (b) Valves shall be located at intervals of not more than 500' in non-residential areas and at not more than one block or 800', whichever is less, in residential areas.—In areas where customers are widely scattered and future development is not anticipated, larger intervals between valves may be approved by YCUA.
 - (c) No more than 2 fire hydrants are out of service.
 - (d) No more than 24 single family residences or 30 multiple family residences are out of service.

c. Tapping Valves

- i. The connection of proposed water mains to existing water mains shall be accomplished by means of a tapping sleeve and valve unless the connection can be made without interrupting service to existing customers, ~~or~~ if the existing water main is 16" diameter or larger, or as otherwise directed by YCUA.
- ii. Use of a tapping sleeve and valve will also require a separate isolation valve downstream of the connection.

d. Control Valves

- i. Valves to control flow and/or pressure may be required to ensure proposed water supply improvements will not adversely impact the existing system or that the proposed improvements will operate as intended without being adversely impacted by the existing system.
- ii. Such control valves, when deemed necessary by YCUA, shall be included in the design of the proposed water supply system improvements.

~~5.4.~~ Fire Hydrants

- a. Fire hydrants shall be located such that not more than 250' of fire hose would be required to reach the farthest corner of any proposed or existing building.
 - i. Hydrants within residential areas shall be located between the back-of-curb and sidewalk within 10' of the back of sidewalk of the cross street at intersections. Hydrants not located at the intersections shall be located at the extension of the side property lines between lots.
 - ii. Spacing of hydrants along water transmission mains and around multiple family residential, commercial or manufacturing establishments shall be considered on an individual basis and shall be determined by consultation with YCUA and the Township Fire Marshal.
 - iii. The distance of the hydrant from buildings will depend on the height of the building. The hydrant will be located at least a distance equal to the height of the building from the building's exterior walls. At a minimum, fire hydrants shall be located at least 25' from the exterior wall of any masonry building, and at least 50' from any exterior wall of frame or equivalent construction, including brick and stone veneer.
 - iv. All buildings with sprinkler systems shall have a fire hydrant located within 100' of the fire pumper hose Siamese connection located on the building exterior.
- b. Proper access shall be provided to all hydrants. A minimum 20' wide aisle shall be provided between the travel way and the hydrant. No parking shall be allowed within 15' of each side of a fire hydrant (measured perpendicular from the centerline of the hydrant to the road or travel way).

~~6.5.~~ Water Services

a. General

i. Size

- (a) Domestic water services shall be a minimum of ¾" diameter in the Township and 1" diameter in the City. Larger diameter domestic water services will require the review and approval of YCUA.
- (b) Irrigation water services for single-family residences and multiple family residences and non-residential properties with a single water service to the entire building shall be no larger than the domestic water service upstream of the domestic water meter. Sizing of irrigation water services for multiple-family residences and non-residential properties where the

- irrigation water service will be connected directly to a YCUA distribution main will be evaluated individually.
- (c) Fire suppression water services shall be designed by the applicant and require the review and approval of YCUA.
 - (d) Larger diameter water services, when approved by YCUA, shall be at least one standard size smaller than the water distribution main it connects to.
- ii. Responsibility for Connections
- (a) Connections to YCUA distribution mains for single-family residential property that does not require a permit from an agency having jurisdiction over work within a public road right-of-way will be completed by YCUA, except in circumstances where YCUA is unable to complete such work due to elevated groundwater table, excessive depth of existing distribution mains, or similar extenuating circumstances.
 - (b) Connections to YCUA distribution mains for single-family residential property that requires a permit from an agency having jurisdiction over work within a public road right-of-way shall be the responsibility of the applicant.
 - (c) Connections to YCUA distribution mains for multiple-family residential and non-residential properties shall be the responsibility of the applicant.
 - (d) Connections to YCUA distribution mains solely for fire suppression or irrigation purposes shall be the responsibility of the applicant.
- iii. Location
- (a) Water services shall be connected to distribution mains such that the water service pipe within the public road right-of-way or easement is perpendicular to the centerline of the public road right-of-way or easement.
 - (b) The minimum allowable horizontal separations between water services and other facilities are as follows:
 - (1) Other water services – 2' each.
 - (2) Sanitary sewer leads – 3'.
 - (3) All other utilities and structures – 5'.
 - (c) The curb stop and box or shut off valve on a water service shall be located at the right-of-way line for water services within public roads and the easement line for water services outside public road right-of-way.
 - (d) Curb stop boxes and/or shut off valves shall be located such that the stop box cover, valve box cover, and/or manhole cover will not be in street pavements, sidewalks or driveways. Where curb stops are allowed to be located in a paved surface by YCUA, they shall be protected with an approved sleeve.
- iv. YCUA will be responsible for maintaining the water service(s) and appurtenances from the YCUA distribution main up to and including the curb

stop and box or shut off valve. The property owner will be responsible for maintaining the water service(s) and appurtenances from the curb stop and box or shut off valve, including the outlet coupling, to the building.

c. Domestic

- i. Each individual residence or building connected directly to the YCUA distribution main shall have a separate water service and curb stop and box. Multiple-family residences may be served either through separate water services to each unit or through a single water service to the entire building. Non-residential buildings, even those with multiple tenants, shall have a single water service as only one YCUA meter will be issued.
- ii. No domestic service connections will be permitted from 6" fire hydrant leads or transmission mains. Combined domestic or irrigation and fire suppression services will not be permitted.

d. Irrigation

- i. Irrigation water services for single family residences shall be connected to the domestic water service immediately upstream of the domestic water meter. Irrigation water services for multi-family residences and non-residential properties may be connected either directly to YCUA distribution mains or to the domestic water service upstream of the domestic meter. ~~Irrigation water services connected directly to YCUA distribution mains require a meter.~~
- ii. All irrigation systems connected to the water supply system shall be equipped with an approved backflow prevention device. Suitable backflow prevention devices include double check valve assemblies, reduced pressure zone assemblies, and pressure vacuum breakers.

e. Fire Suppression

- i. Fire suppression services shall be completely separate from either domestic or irrigation water services.
- ii. Fire suppression systems directly connected to a YCUA distribution main only, with no physical connections to other supplemental water supplies, will not require backflow prevention provided that no antifreeze or other additives of any kind are used and the sprinkler system drains to the atmosphere.
- iii. Fire suppression systems directly connected to a YCUA distribution main and also having supplemental supplies of non-potable water, or being located within 500' of a body of water, shall be isolated from the YCUA distribution main by an approved backflow prevention device.
- iv. Fire suppression systems directly connected to a YCUA distribution main and which incorporate an elevated storage tank for fire protection shall be isolated from the YCUA distribution main by an approved double check valve assembly.

- v. Fire suppression systems shall be equipped with detector checks to prevent cross connections with the metered potable water system internal to the building.

7.6. Meters

a. General

- i. Each residence or building connected to the YCUA distribution system shall be equipped with a meter on each water service entering the property. Multiple-family residences with a single water service will be provided a single meter. All non-residential properties will only be provided a single meter. The user will be required to pay to YCUA a service charge equal to the cost of the meter upon making application for service. Ownership of meters will remain with YCUA.
- ii. YCUA reserves the right to review and approve the size of meter requested for each meter installation. For premises to be served by a 1¼" or larger water service the applicant shall provide to YCUA a complete itemized building fixture count for use in the sizing of the meter and service.
- iii. Irrigation systems connected to the water supply system shall be equipped with a meter. ~~Meters issued for irrigation system use at single family residences shall be no larger than the diameter of the domestic water service.~~ Irrigation meters for properties with a single domestic water service to the entire building shall be no larger than the domestic water service upstream of the domestic water meter. Irrigation meters for ~~multiple-family and non-residential properties~~ irrigation water services connected directly to a YCUA water distribution main will be evaluated individually.
- iv. Fire suppression services shall be equipped with a ¾" diameter detection meter.

b. Meter Locations

- i. Water meters shall be located in basements, utility rooms, boiler or mechanical rooms. The meter shall be positioned a maximum of 24" from the service entrance outside wall and located a minimum of 18" to a maximum of 48" above the basement or lowest floor. The meter shall always be located in an easily accessible area which is heated and protected from the weather. The locating of water meters in such areas as crawl spaces and under kitchen sinks, etc., is not considered an easily accessible area. Nothing shall be stored or placed in the area of the meter which would hinder YCUA personnel from accessing the meter for the purpose of reading, inspecting, repairing, or replacing it.
- ii. Meters on irrigation water services connected directly to YCUA distribution mains where the meter cannot be located within a building shall be installed in an above ground meter enclosure, such as Lok Box as manufactured by Hot Box or approved equal.
- iii. All meters shall be installed in a horizontal orientation. No vertical installations will be permitted.

- c. Master meters for multiple-family residential and non-residential properties are permitted, subject to the approval of YCUA. Water supply system components downstream of master meters will be considered customer site piping. Operation and maintenance of customer site piping will be the responsibility of the customer. Upon acceptance of the water supply system improvements, ownership and maintenance of the meter and vault will be the responsibility of YCUA. Master meters will be reviewed on an individual basis and shall include such auxiliary equipment as deemed necessary by YCUA, including but not necessarily limited to the following:
 - i. Master meters shall be installed in an underground vault with adequate access provided to operate and maintain the meter, isolation valves, and appurtenances.
 - ii. Master meter vaults shall be protected from physical damage during a 100-year flood and remain operable and accessible during a 25-year flood.
 - iii. Master meter vaults and equipment shall be protected from vehicular traffic. Provisions for maintenance vehicles shall be provided, including pavement with sufficient space to park and maneuver as well as a curb cut to allow ingress/egress from the adjacent roadway.
 - iv. A sketch of the typical master meter vault layout, including some of the standard equipment requirements, is provided in Appendix B. The master meter vault must include an external bypass as well as redundant isolation valves both upstream and downstream of the meter. Master meter vaults shall be equipped with a steel bolt-on ladder and a Ladder Up Safety Post as manufactured by ~~The~~ the Bilco Company or approved equal.
 - v. Electrical, instrumentation and control devices may be required.

8-7. Corrosion control in addition to polyethylene encasement may be required for ductile iron water main and appurtenances depending on, but not necessarily limited to, the following items: soil characteristics and/or proximity to petroleum pipelines. The designer shall contact DIPRA for evaluation and determination of the required corrosion control. A copy of DIPRA's evaluation and recommendation shall be provided to YCUA.

C. Materials

- 1. Water Transmission and Distribution Mains
 - a. Water transmission and distribution main pipe shall be pressure class 350 ductile iron manufactured in accordance with AWWA C151 (ANSI A21.51), latest revision thereof. Ductile iron pipe shall be standard cement double thickness lined in accordance with AWWA C104 (ANSI A21.4), latest revision thereof. Pipe exterior shall be seal coated with an approved asphalt seal coat.
 - b. If other materials are proposed for use, the applicant shall furnish the necessary design data for the proposed depth and operating conditions. Use of materials other than ductile iron will not be allowed unless approved by YCUA.

c. Tracer wire shall be provided with all water mains.

2. Fittings

- a. Fittings shall be ductile iron, 350 psi working pressure rating, meeting the requirements of AWWA C110 (ANSI A21.10), or AWWA C153 (ANSI A21.53) compact fittings, with cement mortar lining. Cement mortar lining shall meet AWWA C104 (ANSI A21.4) specification for a double thickness lining with an asphalt seal coat or fusion bonded epoxy meeting the requirements of AWWA C116, as approved by YCUA.

3. Joints

- a. Joints shall be push-on type meeting the requirements of AWWA C111 (ANSI A21.11). Mechanical or flanged joints will be allowed for special applications, subject to the approval of YCUA. Sealing gaskets, retainer glands and lubricants for joints shall meet the pipe manufacturer's specifications.
- b. The lubricant shall have no deleterious effect upon the color, taste or odor of potable water and shall not be corrosive to either the pipe or gasket.
- c. Where bell and spigot pipe and fittings may be necessary for connection to existing water mains, shop drawings of such pipe and fittings shall be submitted to YCUA by the applicant for approval.

4. Joint Restraint

- a. Ductile iron joints, where required, shall be restrained by an approved instant push-on restraining device or mechanical retaining gland.
- b. Push-on joints shall be restrained with approved instant joint-restraining devices such as Field Lok Gasket manufactured by U.S. Pipe Company or approved equal.
- c. Mechanical joint-restraining glands shall be the Megalug Series as manufactured by EBAA Iron or approved equal.
- d. Thrust blocks, where allowed, shall be made of 3,000 psi concrete and of adequate size and shape to resist all design working and surge pressures to which the main will be subjected.
- e. Harnessed joints and steel reinforced concrete anchorage may be required on pipes larger than 16" diameter.

5. Valves, Wells and Boxes

- a. Valves shall open counter-clockwise (left) in the Township and clockwise (right) within the City. All valves shall be equipped with an operating nut 2" square at the base tapering to 1¹⁵/₁₆" square at the top. The operating nut on clockwise-opening (right) valves shall be painted red.
- b. Gate valves shall be ductile iron body and bonnet, fully bronze mounted, reduced wall, resilient-seated valves with non-rising stems conforming to the applicable requirements of AWWA C500, C509, and C515, latest revisions. Valves shall have a minimum non-shock W.O.G. working pressure of 200 psi. The wedge

shall be ductile iron with rubber-encapsulated seating surfaces.—Stem shall be bronze of non-rising design with double O-ring packing.

- c. Butterfly valves shall conform to AWWA C504, latest revision, and DWSD Specification S-363, Butterfly Valves for Distribution System.
- d. Tapping Sleeves and Valves
 - i. Tapping sleeves, when specified, shall conform to AWWA C223, latest revision and shall be full length of heavy-duty stainless steel construction designed for use with the type of pipe to be tapped.—Tapping sleeve body shall be 18-8 type 304 stainless steel.—Flange shall be CF8 cast stainless steel.—Bolts shall be 304 stainless steel.—Gasket shall be full circumferential SBR compounded for water service.—Tapping sleeve shall contain a test plug to assure seal prior to tapping.
 - ii. Tapping valves shall meet the specifications for gate valves except that the valve shall have a flange compatible with the tapping sleeve.
- e. Swing check valves shall have a cast or ductile iron body and bolted cap with a minimum non-shock W.O.G. working pressure of 150 psi.—Seats shall be bronze and shall be screwed into the valve body.—The disc shall be bronze or cast iron with permanently rolled in bronze faces.—The disc hinge pin shall have ANSI 125 pound standard drill flat-faced flanges unless otherwise specified or shown on the Plans.—Valves shall have outside weighted arm.
- f. Air release valves when specified shall be designed to operate under a maximum operating pressure of 300 psi and capable of venting 200 CFFAS (cubic feet of free air per second).—Valves shall be cast iron with bronze internal parts and Type 304SS float.
- g. Valve Boxes
 - i. Boxes shall be three-piece screw-type, gray iron, with 5¼" shaft, such as East Jordan Iron Works #8560 or approved equal. All valve boxes shall have a ½" diameter hole field drilled 3" below the top to accommodate tracer wire.
 - ii. Valve box lids shall be gray iron, non-locking, drop-in type, with the word "Water" in raised letters, such as East Jordan Iron Works #6800 or approved equal.—Valve box lids shall be non-locking type unless otherwise directed by YCUA.
 - iii. Valve boxes installed over gate valves shall be equipped with a steel gate valve box adaptor as manufactured by Adaptor, Inc., or approved equal. Valve boxes installed over butterfly valves shall be equipped with a steel butterfly valve adaptor as manufactured by Adaptor, Inc., or approved equal. ~~The~~ valve box bases shall not rest directly upon the valve assembly.
- h. Valve Wells
 - i. Valve wells and covers shall be provided in accordance with the requirements of item V.C.3, Wastewater System, Materials, Manholes and Vaults.—Valve wells constructed over an existing water main shall have a doghouse mudded to an 8" thick cookie.

- ii. Covers shall have the words "Water Supply" in raised letters spaced in from the periphery of the cover.
- iii. Valves in wells shall be at least 6" above the floor of the well, supported with either precast or formed concrete.
- iv. Connections of water mains 6" through 24" diameter to valve wells shall be through:
 - (a) A flexible rubber boot which shall be securely clamped into a core-drilled pipe port. Pipe ports shall be core-drilled at the point of valve well manufacture and shall be accurately located within 1/2" of proposed water main centerline (Kor-N-Seal or approved equal).
 - (b) A self-adjusting mechanical pipe to manhole seal which provides a resilient flexible and infiltration-proof joint (Res-seal or approved equal).
 - (c) A flexible rubber wedge firmly rammed into a rubber gasket which is cast into the valve well (Press Wedge II or approved equal).
 - (d) Neoprene rubber for the manhole boot shall meet ASTM Specification C443 and shall have a minimum thickness of 3/8". Pipe clamp bands shall be of corrosion-resistant steel.
 - (e) Connection of water main larger than 24" diameter to valve wells shall be as approved by YCUA.

6. Fire Hydrants

- a. Fire hydrants shall be East Jordan Iron Works Model 5-BR250 or Mueller A-425 Super Centurion, conforming to AWWA C502, breakable flange type, opening counter-clockwise, with 5 1/4" valve seat opening and 6" diameter inlet. All hydrants shall be 6' bury.
- b. Fire hydrants shall be fully bronze mounted, including top of the operating stem where it passes through the double o-ring seal in the bronze packing gland. The forged operating stem in the base and the valve seat shall also be of bronze. The molded valve shall be of composition rubber and the cast iron valve clamps shall be packed with o-ring seals and held tight to the stem by a threaded bronze hex retainer ring and threaded bronze locknut, anchored with set screws.
- c. Hydrants shall have nut type caps with chains. Top operating nut shall be 1 1/2" pentagonal.
- d. Hydrants shall have two 3 1/2" (4.05" O.D.) pumper connections with National Standard 7 1/2 threads per inch. All hydrants shall have City of Ann Arbor standard thread pattern.
- e. All hydrants shall have a 4" Storz adapter. The adapters shall be constructed of a A-356 High Strength Aluminum Alloy, painted orange. The Storz sealing surface shall have a machined metal seat. The threads and metal seat areas shall be Teflon coated. The adapters shall be equipped with a set of Type 302 stainless steel butterfly vanes designed to automatically open, by use of stainless steel torsion spring, with water flow and automatically close when flow is stopped. The adapter shall be installed on the left side of the hydrant when facing the hydrant from the road.

f. All hydrants shall be constructed with a companion gate valve in a valve box.

7. Water Services

- a. Water services $\frac{3}{4}$ " to 2" in diameter shall be Type K copper. Pipe material for water services larger than 2" in diameter shall be in accordance with item IV.C.1.b. Water service pipe material shall be homogeneous between the YCUA distribution main and the outlet coupling downstream of the meter.
- b. Couplings for water services $\frac{3}{4}$ " to 2" diameter shall have a three-part union, and both inlet and outlet connections shall be able to receive the flared end of the copper water service pipe. Joints for water service pipe material larger than 2" diameter shall be in accordance with item **IV.C.3**.
- c. Water service locations shall be marked at the right-of-way or easement line with a Utility Warning Marker as manufactured by Carsonite International, or approved equal.

8. Corporation Stops

- a. Corporation stops shall have bronze cast bodies, keys, stems, washers and nuts. Inlet threads shall conform to the requirements specified in AWWA C800, latest revision. The outlet connection shall be able to receive the flared end of the copper water service pipe. Corporation stops connected to ductile iron, cast iron, steel or PVC water distribution mains for water services $\frac{3}{4}$ " to 2" diameter shall be Mueller Catalog No. H-15000 or approved equal.
- b. Corporation stops adjacent to valves and other appurtenances shall be 1" diameter.
- c. Service saddles, for corporation stops not threaded directly to the water distribution main, shall be bronze with double stainless steel straps and shall conform to the requirements specified in AWWA C800, latest revision. Service saddles for water services $\frac{3}{4}$ " to 2" diameter shall be Mueller BR2S Series or approved equal.

9. Curb Stops and Boxes

- a. Curb stops shall be fully bronze, have an inverted key stop, and both inlet and outlet connections shall be able to receive the flared end of the copper water service pipe. Curb stops for water services $\frac{3}{4}$ " to 2" diameter shall be Ford B22-###W Series or approved equal.
- b. Curb boxes shall be extension type with arch pattern base with 1" upper section such as Series 5601 for $\frac{3}{4}$ " and 1" diameter curb stops and Series 5603 for $1\frac{1}{2}$ " to 2" diameter curb stops as manufactured by A.Y. MacDonald Mfg. Co. or approved equal. Curb box lids shall be cast iron with a one-piece two-hole Erie pattern lid such as 5601L as manufactured by A.Y. MacDonald Mfg. Co. or approved equal. Curb boxes located in paved surfaces shall be equipped with a cast iron curb box sleeve such as Mueller H-10342 or approved equal.
- c. Curb stops and boxes shall be provided with a stainless steel stationary shut-off rod attached to the curb stop with a stainless steel pin.

10. Meters

- a. Except for master meters, meters will be furnished and installed by YCUA.
- b. Master meters 12" and smaller shall be Class 2 Turbine Meters manufactured by Sensus or approved equal. Compound meters are acceptable, subject to review and approval by YCUA. Meters larger than 12" diameter will be considered on an individual basis. Registers on master meters shall be Intelligent Communications Encoder as manufactured by Sensus or approved equal and shall indicate consumption in cubic feet.
- c. Master meter vaults shall be precast reinforced concrete in accordance with the requirements for manholes and vaults outlined in Chapter V, Wastewater System.
- d. Master meter vaults shall be equipped with steel bolt-on ladders and ladder up safety post as manufactured by Bilco Company or approved equal.

11. Backflow Prevention Devices

- a. Double check valve assemblies shall conform to the requirements specified in AWWA C510, latest revision.
- b. Reduced pressure zone assemblies shall conform to the requirements specified in AWWA C511, latest revision.
- c. Pressure vacuum breakers shall conform to the requirements specified in ANSI 1020, latest revision.

12. Corrosion Control

- a. Polyethylene encasement shall be installed on all ductile iron water main, fittings and appurtenances. Polyethylene encasement shall meet the requirements specified in AWWA C105 (ANSI 21.5), latest revision. Polyethylene encasement shall be a minimum of 8 mil thick Class aC (black) polyethylene. The encasement shall overlap the joint by approximately 12" on either side and be secured to the pipe with polyethylene adhesive tape. All pipe, fittings and appurtenances shall be encased and taped.
- b. Additional corrosion control materials, if necessary, shall be in accordance with the recommendation of DIPRA.

13. Miscellaneous Materials

- a. All nuts and bolts located below grade shall be ~~type 304 stainless~~ high strength, low alloy type steel.
- b. Tracer Wire
 - i. Wire to be used for tracer purposes shall be #12 THNN solid single strand copper with blue insulation.
 - ii. Connection shall be made using 3M DBR-09964 wire connectors, or equal.
- c. Post Indicators and Valves

- i. Post indicators, when specified, shall be American Flow Controls series A240 or Clow series 2954A with aluminum plates indicating OPEN or SHUT. ~~Post indicator shall open left.~~
- ii. Post indicator valves shall be American Flow Control Model 2500 or Clow model F-6120. ~~All valves shall open left.~~
- iii. Post indicators and their corresponding valves must be made by the same manufacturer.
- d. Bollards shall be 4" diameter galvanized schedule 40 steel posts 36" to 48" tall with a minimum depth of bury of 24". ~~The posts shall be set in and filled with 3000 psi concrete. Bollards shall be painted OSHA "Safety Yellow."~~
- e. Casing Pipe Construction
 - i. Spacers for placement in the annular space between the carrier pipe and a casing pipe shall be RangerII as manufactured by PSI or approved equal.
 - ii. End seals shall be Model C rubber seal with stainless steel bands as manufactured by PSI or approved equal.
- f. Materials for other water supply system infrastructure, including but not necessarily limited to pressure reducing valves, storage facilities, and booster pumps stations, will be evaluated individually.

D. Construction Methods

1. General

a. Excavation

Excavation, bedding, and backfill operations shall be accomplished in accordance with requirements outlined in Chapter VIII, Grading and Earthwork, except as modified herein.

b. Water Use

Subject to the approval of YCUA, the proprietor can use the existing water supply system to obtain water needed to complete the water supply system improvements. ~~The proprietor shall provide suitable backflow prevention for any temporary connections to the existing water supply system. The proprietor shall provide YCUA certification for any backflow prevention devices proposed for use and shall coordinate acceptable connection locations with YCUA. As directed by YCUA, any water used from the system may be required to be metered and paid for at the current YCUA water usage rate in effect at the time of the construction of project.~~

c. Valve Operation

Unless directed otherwise by YCUA, operation of valves on the existing water supply system will be the responsibility of the contractor performing the work. ~~All valve operation performed by a contractor shall ~~only~~ be observed by YCUA and/or its designated representative. Advanced notice to YCUA and/or its designated representative as well as any YCUA customers whose water supply will be interrupted by the valve operation is required. Such advanced notice shall~~

be the responsibility of the contractor and shall be provided at least two business days will be required prior to a scheduled contractor valve operation. ~~Service interruptions shall only be scheduled to occur Monday through Thursday.~~

2. Submittals

a. Certifications

All pipe, fittings, and appurtenances delivered to the job shall be accompanied by certification papers showing that the materials have been manufactured and tested in accordance with all applicable standards.

b. Shop Drawings

Shop drawings may be required for certain materials including, but not necessarily limited to, corrosion control measures, pressure reducing valves, storage facilities, and booster pump stations, prior to fabrication and manufacture.

3. Delivery, Handling, and Storage

a. Water supply system materials shall be delivered, handled, and stored in accordance with all applicable AWWA requirements, manufacturer's recommendations, and as specified by YCUA.

b. Upon delivery to the project site all materials will be inspected by YCUA or its designated representative. ~~Rejected materials shall be immediately removed from the project site by the proprietor.~~

4. Sequencing

In general, water supply system improvements shall be constructed in accordance with the following sequence:

- a. Install new water main and appurtenances.
- b. Flushing.
- c. Preliminary hydrostatic testing (recommended, performed at the proprietor's discretion).
- d. Disinfection.
- e. Flushing.
- f. Bacteriological testing.
- g. Hydrostatic testing.
- h. Connect to existing water supply system.
- i. Connect water services to new water main; abandon/remove old water main and/or appurtenances (if necessary).
- j. Abandon and/or remove out-of-service water main and appurtenances, if necessary.

5. Installation

a. Water Transmission and Distribution Mains and Fittings

- i. Ductile iron pipe and fittings shall be installed in accordance with the requirements of AWWA C600, latest revision, and as modified herein. Installation via open-cut excavation shall be accomplished in accordance with standard laying conditions.
 - (a) Ductile iron pipes shall be fully enclosed in polyethylene encasement and laid on a compacted sand cushion, 4" thick. Sand shall conform to fine aggregate MDOT 2NS.
 - (b) NS sand bedding material shall be placed around and above the pipe to a height of 12" above the pipe.
 - (c) Sand shall be compacted to 12" above the pipe to not less than 95 percent of the maximum unit density as determined at optimum moisture content.
- ii. Other pipe materials and fittings approved for use by YCUA shall be installed in accordance with all applicable standards, manufacturer's recommendations, and as directed by YCUA.
- iii. Water distribution and transmission mains shall be installed via open-cut excavation wherever possible. Other acceptable means of installation are trenchless technologies such as horizontal directional drilling and pipe-bursting. Installations using other methods including, but not necessarily limited to, casing pipe construction and river crossings shall be completed as directed and/or approved by YCUA.
- iv. Tracer wire shall be placed along the top of the water main and taped in place with duct tape or electrical tape at maximum 6' intervals. All tracer wire shall be successfully tested for continuity. For ductile iron pipe, the tracer wire shall be placed outside the polyethylene encasement.
 - (1) Tracer wire shall be brought up the outside of each valve box from each direction with both wires threaded into the inside of the valve box through the 1/2" diameter field drilled hole near the top of the valve box. After successfully testing for continuity, the wires shall be spliced inside the valve box.
 - iii.(2) Tracer wire on dead end water mains shall be terminated inside the valve box immediately downstream of the fire hydrant at the terminus of the water main.

b. Joints and Joint Restraint

- i. All joint materials shall be assembled in accordance with standard practice, the manufacturer's recommendations and as directed by YCUA.
- ii. Restraints shall be applied to all joints that deflect pipe $1\frac{1}{4}^\circ$ or greater, including tees, hydrant shoes, reducers, plugs and caps. For push-on joints, approved restraints are required at the joint and in each direction at an adequate distance to resist the axial thrust of the test pressure. Where mechanical joints are approved by YCUA, proper restraints shall also be installed in each direction at an adequate distance in combination with approved mechanical restraints at the joint.

- iii. No concrete thrust blocks shall be installed in combination with approved restraints unless approved by YCUA. Thrust blocks, where allowed, shall be formed of 3,000 psi concrete and shall be installed against undisturbed earth.
- c. Valves, Wells and Boxes
- i. Prior to installation, valves shall be inspected for direction of opening, number of turns to open, freedom of operation, tightness of pressure containing bolting and test plugs, cleanliness of valve ports and seating surfaces. All bolts and nuts, except for adjusting bolts or screws in butterfly valves, shall be checked for proper tightness. Seat adjusting bolts in butterfly valves shall be adjusted only as recommended by the manufacturer.
 - ii. Water main shall be placed level through all valve wells unless specified otherwise by YCUA.
 - iii. All flexible pipe to valve well connections shall be installed per manufacturers' specifications.
- d. Fire Hydrants
- i. Fire hydrants shall be installed in accordance with AWWA Manual M17. Each hydrant will be set plumb and braced firmly in this position. Connection of the hydrant to the branch will be made by means of mechanical joints, as herein specified under jointing. All joints between the hydrant and the main will be restrained by the same means as used for water main as specified in Item IV.D.5.b.
 - ii. If hydrants are furnished with drain outlets, the outlets must be permanently capped or plugged.
 - iii. After the hydrant has been set, an additional 1' depth of gravel shall be spread and tamped around the hydrant. When this has been done, the remaining backfill will be placed and compacted, taking care at all times to avoid jarring the hydrant.
 - iv. After hydrants have been installed and tested, the portion above ground shall be painted with 2 coats of Rustoleum OSHA "Safety Yellow."
- e. Cleaning and Testing
- i. Cleaning

Prior to disinfection and hydrostatic testing, newly constructed water mains less than 24" in diameter shall be thoroughly flushed to remove all accumulated debris that may have entered the line during construction. Flushing shall include the use of a "polly pig" or approved equal, to remove accumulated deposits. The frequency of running the "polly pig" through the water mains shall be determined by the debris discharging from the effluent. Several passes with the "polly pig" through the newly constructed system may be required before the main is acceptable. Procedures for use of the "polly pig", or approved equal equipment, may be per the manufacturer's specifications. Mains 24" in diameter and larger shall be manually cleaned and inspected during installation.
 - ii. Testing
 - (a) Bacteriological

After flushing, the water mains shall be disinfected in accordance with AWWA C651, latest revision.

The proprietor shall furnish chlorine and all necessary labor and equipment for its application. The proprietor shall make suitable arrangements with YCUA for bacteriological analysis. The proprietor shall dispose of high residual chlorine water by a method approved by YCUA.

Water mains 24" in diameter and larger shall be chlorinated in sections between main line valves. Chlorine solution shall be renewed and transferred to the next adjacent section of pipe minimizing the volume of water needed to sterilize the main.

(b) Hydrostatic

Within a reasonable length of time following installation and backfilling, the proprietor shall complete all work necessary to perform hydrostatic testing.

The hydrostatic testing shall be conducted in accordance with AWWA C600, latest revision.

The proprietor shall perform all necessary preliminary hydrostatic tests and shall make all necessary repairs, including the repair of all visible leaks and cracks, and re-tests with his own forces to ready the water mains for final hydrostatic inspection and testing. Immediately after the water mains have passed such preliminary tests, the proprietor shall perform a final hydrostatic inspection and test.

The hydrostatic test shall be conducted before the new water main is connected to the existing water system, except as specified below. The proprietor shall furnish all necessary personnel, temporary blow-offs, plugs, bracing, test pumps and all other necessary apparatus for conducting the test. Testing shall be conducted under the observation of the YCUA or its designated representative.

At the option of YCUA, testing may be performed against closed valves providing that the new main to be tested and the testing apparatus shall have first been flushed and chlorinated in accordance with accepted procedure. After chlorination and subsequent flushing, a sample of water must show safe bacteriological results through a test by a recognized laboratory. In the event of an unsatisfactory hydrostatic test, the proprietor will cut the new main, install caps or plugs, pressure test and re-chlorinate.

Each hydrant assembly shall be tested. The test shall consist of flushing the hydrant for a minimum of 10 minutes. During the test period, the 6" gate valve shall be closed and opened. The proprietor shall provide all necessary equipment and labor for making the tests, including hoses for disposal of water. A testing schedule and method of disposing of flushing water shall be submitted to YCUA for approval. The testing schedule shall be coordinated with YCUA or its designated representative.

f. Water Services

- i. Water services $\frac{3}{4}$ " to 2" diameter shall be installed in accordance with manufacturers' recommendations. ~~Water services larger than 2" diameter shall be installed in accordance with the requirements for water distribution mains.~~
- ii. Water services from one side of a public roadway to the opposite side shall be installed in accordance with the requirements of the agency having jurisdiction over the right-of-way and as approved by YCUA.
- g. Corporation stops and saddle sleeves, where required, shall be installed in accordance with manufacturers' recommendations and as directed by YCUA. Corporation stops will be tested for proper operation by YCUA or its designated representative prior to backfilling.
- h. Curb stops and boxes shall be installed in accordance with manufacturers' recommendations and as directed by YCUA. ~~Curb stops will be checked for accessibility and proper operation by YCUA or its designated representative prior to installation of a meter.~~ ~~Unless otherwise authorized, only YCUA staff shall operate curb stops.~~
- i. Meters
 - i. Unless otherwise authorized by YCUA, domestic and fire suppression meters up to $1\frac{1}{2}$ " diameter will be installed by YCUA personnel.
 - ii. Meters larger than $1\frac{1}{2}$ " diameter shall be installed by the proprietor and inspected and approved by YCUA or its designated representative. ~~Master meters will not be provided by YCUA.~~ ~~Master meters shall be tested and calibrated in accordance with applicable AWWA standards and manufacturers' recommendations.~~
- j. Backflow prevention devices shall be installed in accordance with applicable AWWA standards and manufacturers' recommendations. ~~Backflow prevention devices shall be tested by a state certified tester and a written copy of the certification generated during the test shall be submitted to YCUA.~~
- k. Corrosion Control
 - i. Polyethylene encasement shall be installed as specified in AWWA C105 (ANSI 21.5), latest revision.
 - ii. Additional corrosion control measures, if necessary, shall be installed in accordance with the recommendation of DIPRA and/or the manufacturer.
- l. Other water supply system infrastructure including, but not necessarily limited to, pressure reducing valves, storage facilities, and booster pumps stations, shall be installed in accordance with all applicable AWWA standards, manufacturers' recommendations, and as directed by YCUA.

~~INTRODUCTION TO THE STANDARDS AND DESIGN SPECIFICATIONS~~

~~Understanding the Standards and Engineering Process~~

~~INTRODUCTION TO THE STANDARDS AND DESIGN SPECIFICATIONS~~

~~A. Understanding the Standards and Engineering Process~~

The existence and constant improvement of the growing network of public utility, drainage and road system infrastructure within the Charter Township of Ypsilanti (Ypsilanti Township) demands the need to maintain an updated compilation of engineering based standards and design specifications for development and infrastructure improvements.

The standards and design specifications (standards) are intended to guide public capital improvement infrastructure projects that occur within the Township and that are under the jurisdiction of Ypsilanti Township and the Ypsilanti Community Utilities Authority (YCUA). These standards are also intended to serve those who wish to develop or redevelop a property within Ypsilanti Township and ensure that a high level of quality during the planning, design and construction phase occurs. These specifications have been developed to focus on all engineering aspects associated with site development and infrastructure improvements and include sections specific to: topographic survey, water supply system, wastewater system, storm water management, paving improvements, sidewalk and pathway grading and earthwork and soil erosion and sedimentation control.

These standards were created to ensure infrastructure is installed at a high level of quality in the interest of promoting economic growth while facilitating maintenance and operations of the utilities.

~~Serving as an informational guide of the engineering and construction process, the standards provide requirements and~~ These standards will help serve as a guide through the engineering and construction stages of a project by providing information so one can effectively and efficiently navigate through the Township and YCUA process.

Understanding the standards and Township Ordinances prior to starting design as well as communicating with Township and agency staff throughout is strongly encouraged and will help achieve positive results with regards to the proposed improvement.

The standards supplement all other applicable requirements of the Township Ordinances as well as requirements of any other impacted agencies. In the event that any of the standards, ordinances or requirements presents a conflict, the conflicting ordinance shall govern. These standards are intended to provide the minimum guidelines to engineering infrastructure plans. Throughout planning, engineering design and construction of an infrastructure improvement, the Ypsilanti Township Office of Community Standards (OCS) can be contacted for information or answers to questions that may arise. The Township OCS can be reached at (734) 485-3943.

~~Capital Improvement and Public Infrastructure Design~~

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B. Capital Improvement and Public Infrastructure Design

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For all public capital improvement and infrastructure design being conducted within Ypsilanti Township the Technical specification sections starting with Section III (Topographic Survey) through Section IX (Soil Erosion and Sedimentation Control) should be followed.

1. Permit Requirements

For all public capital improvement designs, permits and/or waivers may be necessary from the Ypsilanti Township, YCUA and other applicable agencies. It is important to contact each agency prior to commencing design to obtain details on what requirements may be necessary to carry out the design and construction and what potential existing infrastructure may impact the proposed improvement. A listing of facilities and controlling agency and contact information has been provided below. This includes local, regional, state and franchise entities. Please note that the list below is not all inclusive and additional agency may need to be contacted based on the uniqueness of the project area.

<u>Local Facility</u>	<u>Controlling Agency</u>	<u>Permit or Waiver</u>	<u>Contact information</u>
Water Supply System and Wastewater System	Ypsilanti Community Utilities Authority (YCUA)	Letters of Approval	Engineering Department 2777 State Road Ypsilanti, Michigan 48198 (734) 484-4600
Public Roadways	Washtenaw County Road Commission (WCRC)	Letters of Approval & Permits or Waiver Letter Claiming No Jurisdiction	555 N. Zeeb Road Ann Arbor, Michigan 48103 (734) 761-1500
Wells & Septic Fields	Washtenaw County Health Department <u>Washtenaw County Department of Planning and Environment</u>	Permit or Waiver Letter	705 N. Zeeb Road PO Box 8645 Ann Arbor, MI 48107-8645 (734) 222-3930
Soil Erosion & Sedimentation Control	Charter Township of Ypsilanti	Permit or Waiver Letter	Office of Community Standards (OCS) 7200 S. Huron River Drive Ypsilanti, Michigan 48198
Bus Stops	Ann Arbor Transportation	Letter of Approval where bus stops	2700 S. Industrial Hwy. Ann Arbor, MI 48104

County Water Resources	Authority (AATA) Washtenaw County Water Resources Commissioner	proposed/affected Letter of Approval, Permit or Waiver Letter Claiming No Jurisdiction	(734) 973-6500 P.O. Box 8645 705 N. Zeeb Road Ann Arbor, Michigan 48103 (734) 994-2525
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Regional or State Facility	Controlling Agency	Permit or Waiver	Contact information
State Roadways: Interstate 94, Michigan Avenue, Washtenaw Avenue, and Ecorse	Michigan Department of Transportation	Letter of Approval and Permits	Brighton TSC 10321 Grand River Avenue Suite 500 Brighton, MI 48116 (810) 227-4681
Water Supply System	Detroit Water and Sewerage Department Suburban Design Section	Stamp of Approval or Waiver Via YCUA (Submittal must be via YCUA)	735 Randolph Street, 1st Floor Detroit, Michigan 48226- 1718 (313) 267-8000 1420 Washington Boulevard, 6th Floor Detroit, Michigan 48226- 1718 (313) 964-9505

Regional or State Facility	Controlling Agency	Permit or Waiver	Contact information
Water Supply System	Michigan Department of Environmental, Great Lakes, & Energy Quality Public Wastewater and Drinking Water Unit Water Bureau	Act 399 Permit (Submittal must be via YCUA or DWSD)	Jackson District Office 301 E. Louis Glick Highway 4th Floor State Office Building Jackson, Michigan 49201 (517) 780- 7690 7900
Wastewater System	Michigan Department of Environmental, Great Lakes, & Energy Quality Public Wastewater and Drinking Water	Part 41 Permit (Submittal must be through YCUA)	27700 Donald Court Warren, MI 48092-2793 (586) 753-3700

Unit
Water Bureau
Southeast Michigan
District Office

Wetlands and Impacts to Waters of the State	Michigan Department of Environment, Great Lakes, & Energy Environmental Quality and/or EPA	Permit	525 West Allegan St PO Box 30473 Lansing, MI 48909-7973 LWMD-PCU PO Box 30204 Lansing, MI 48909-7704
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Franchise Facility	Controlling Agency	Permit or Waiver	Contact information
Gas	DTE Energy Main	Letter of Approval (Projects where gas lines are impacted)	Replacement Team Noble Second Floor 3200 Hobson Detroit, Michigan 48201 (313) 577-7350
Electric	DTE Energy	Letter of Approval (Projects where electric lines are impacted)	Case Manager 982 Broadway Ann Arbor, Michigan 48105 (734) 332-3313
Telephone	AT&T	Letter of Approval (Projects where phone/fiber optic lines are impacted)	550 S. Maple Road Ann Arbor, Michigan 48103 (734) 996-5300
Cable Television/Telephone	Comcast Cable Communications, Inc.	Letter of Approval (Projects where cable lines are impacted)	5855 Interface Drive Ann Arbor, Michigan 48103 (734) 369-3776
Private Facility	Controlling Agency	Permit or Waiver	Contact information
Wolverine Pipeline	Wolverine Pipeline	Letter of Approval for crossings	8075 Creekside Drive Portage, MI 49024 (269) 323-2491
BP Pipeline	BP Pipeline	Letter of Approval for crossings	30 South Wacker Drive Chicago, IL 60606 (630) 420-5111 Industrial Park Dr Belleville, MI 48111

(734) 699-5514

ANR Pipeline	ANR Pipeline	Letter of Approval for crossings	27725 Stansbury Boulevard Farmington Hills, MI 48334 (313) 965-1616
Norfolk Southern Railroad	Norfolk Southern	Letter of Approval for crossings, ROW Occupation	DMJM Harris 260 S. Broad St., Ste. 1500 Philadelphia, PA 19102 Attn: NS Pipe and Wire Administrator

Standard Details

~~Standard details for water supply system, wastewater system and stormwater management are included in the electronic appendix compact disk (CD) included within these standards. For all proposed public capital infrastructure improvement projects within Ypsilanti Township where these utilities are being impacted or work is occurring within close proximity, these standard detail sheets shall be included in the plan set.~~

2. Standard Details

~~For all proposed public infrastructure improvement projects within Ypsilanti Township, the standard detail sheets shall be included in the plan set.~~

Private Development Process

C. Private Development Process

The plan review process in Ypsilanti Township represents a phased approach aimed at first promoting discussion of design concepts, then a site plan review and ultimately a detailed engineering review. Detailed standards and check lists are included within to serve as a guide to plan development, engineering design, material selection and construction techniques. These checklists do not necessarily include every requirement needed for approval as each site may have unique features that may have to be addressed in ways which are not necessarily outlined. A more comprehensive ~~description is given specific~~ to the review process the standards under Section II– Plan Review Process. A brief summary of each phase of the plan review process is as follows:

1. Plan Review Process Overview

a. Pre-Application Meeting

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Plan Review Process Overview

Pre-Application Meeting

Prior to developing plans, applicants and / or their representatives are ~~required~~^{strongly encouraged} to schedule a pre-application meeting with the Township, their consultants and local agencies to discuss the following: design concepts, site compliance with ordinances and standards, and the proposed work is in general, feasible design concepts and to verify that the site complies with ordinances and standards, and is generally feasible. At a minimum, a sketch plan or concept plan should be delivered to the ~~Township Office of Community Standards (OCS)~~ to distribute for review not less than two weeks before the meeting date. All applicable fees shall be paid and the Township will schedule this meeting to be held at the Township Civic Center (located at 7200 S. Huron River Drive, Ypsilanti MI, 48197). The Township will forward invitations to all applicable local agencies. It is intended that the applicant will receive feedback from the reviewing agencies to facilitate and streamline the plan review process.

b. Site, Sketch or Plot Plan Review

The Township OCS will require that each development that is subject to site plan, ~~or~~ sketch plan or plot plan review per the ordinance, create and submit a plan for review. ~~Depending on the scale of the project the Township OCS will determine if the initial phase will require the submission of a preliminary site plan, a sketch plan or a plot plan review.~~ The Township OCS will also determine if the review will need to ~~be approved by the go before the~~ planning commission or be ~~considered approved~~ administratively. A final site plan may also be required based on the Township Ordinances. The applicant shall submit plans and fees to all applicable agencies in accordance with the adopted Township Fee Schedule to the Township OCS for tracking and distribution. These submittals can be coordinated through the Township OCS Department. With submittals, review fees shall be paid to the Township OCS and in accordance with the adopted Township Fee Schedule to the Township OCS for tracking and distribution. It should be noted that other agencies, including YCUA, WCRC and the WCWRC may also have review fees that are not covered by those collected at the Township. ~~It should be noted that other agencies may also have review fees that are not covered by those collected at the Township.~~ The Township and / or their consultants and other agencies will then review the plans and prepare letters to be sent back to the Township OCS generally within three weeks of distribution. If OCS staff determines the plans to be in good order, then OCS staff will present the submitted plan to the Township Planning Commission for action. The Planning Commission may approve, approve with conditions, table, deny or make a recommendation to the Township Board. More detail regarding preliminary site, sketch and plot plan reviews can be found in Section II.

c. Detailed Engineering Construction Plan Review

~~Prior to~~^{Upon} proceeding to construction or obtaining Township Board approval of the final site plan (where required), the applicant shall submit detailed engineering construction and soil erosion and sedimentation control plans for review. The detailed

engineering ~~construction~~ plan phase represents an in-depth, ~~detailed administrative~~ review of the ~~engineering design~~ plans that includes verifying site grading, water supply, wastewater system, storm water designs and paving improvements. The applicant shall submit signed and sealed plans by a licensed State of Michigan Professional Engineer, a detailed engineering submittal form (included in Appendix ~~C-1B~~), an engineer's opinion of cost and the appropriate review fees to the OCS. The OCS staff will then distribute the plans to their consultants and other agencies to review. Review and approval by all applicable agencies is required prior to commencement of construction activity. More ~~detail regarding the~~ detailed engineering ~~construction~~ review can be found in Section II.

d. Permit Requirements from Other Agencies

As part of the design phase of the project, the applicant shall explore all requirements of any impacted public infrastructure. Further, as the site improvements are engineered and developed, the applicant shall be aware that proposed improvements may result in having to obtain approvals, permits or waivers from various agencies. Aside from the Township Planner, Engineer and YCUA reviews that are required, the applicant will want to review the list (Section I.B.1.) of various utilities and government entities owning facilities that are typically impacted as part of work in the Township. The applicant is strongly encouraged to contact these agencies ~~at their earliest convenience~~ in the design process to discuss potential impacts to the site.

~~Pre-Construction Phase~~

2. Pre-Construction Phase

After receiving plan approvals or waivers from all affected agencies and all applicable Township approvals, the applicant shall compile and submit all relevant items requested by the Township, YCUA or the Township Engineer and submit as requested or as outlined below. Once these items have been properly completed the applicant will be able to proceed with construction activity.

a. Pre-Construction Requirements

~~Upon approval of detailed engineering plans, Prior to scheduling a pre-construction meeting,~~ a letter outlining required fees, escrows, performance and maintenance guarantees, and insurance will be prepared and forwarded to the applicant. This letter provides a detailed calculation of the required escrow account deposit based on the amount of infrastructure proposed by the applicant and assumed production rate. The applicant acknowledges understanding of the document by submitting all applicable documents and attending the pre-construction meeting. If any of the items listed in this letter are not in place prior to the start of the pre-construction meeting the Township and/or YCUA holds the right to reschedule the pre-construction meeting to a later date when all items have been properly submitted to the satisfaction of the Township, the Township Engineer and YCUA.

b. Performance Guarantees

As part of the site development process, Ypsilanti Township requires that all projects post ~~various~~ sureties to ensure the timely and complete construction of approved site infrastructure.

The applicant shall furnish security and guarantee in accordance with Section 2307, Security for Completion of Improvements and Section 2308, Guarantee, of Appendix A – Zoning of the Charter Township of Ypsilanti Code of Ordinances.

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~~Prior to construction a performance guarantee for all water supply and wastewater system improvements in an amount not less than 100% of the installation cost as determined in the provided opinion of cost shall be provided to YCUA.~~

~~i. The Township similarly will require a performance guarantee in an amount not less than 100% of the engineer's opinion of cost for installation cost of the storm water management system, grading, paving, SESC, landscaping and other site related improvements (excluding the building)~~

~~as defined in item I.C.1.c. prior to construction. An irrevocable standby letter of credit shall automatically renew on its own term for periods of no less than one year unless written notification to Township from the financial institution is received sixty days prior to its expiration date. This security shall remain on deposit with the Township until recommendation of final acceptance of the infrastructure improvements is given by the Township Engineer. At the time of final acceptance, the performance guarantee will be returned to the applicant.~~

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~~prior to construction.~~

~~Performance guarantees must be provided to the Township in the form of an irrevocable letter of credit, cash or other approvable form as determined by the Township.~~

~~This guarantee may be reduced incrementally to an amount not less than 25% of the original amount. Reductions of these guarantees will only be considered after a written request has been submitted to the Township OCS during construction and after substantial completion.~~

~~Partial releases of the storm water management system, grading, paving, SESC, and landscaping performance guarantee may be granted prior to acceptance upon request of the applicant, provided commensurate construction is satisfactory. In such cases the minimum retained balance of the guarantee shall be 25% of the original amount. Any reduction of these guarantees will only be considered after a written request has been submitted to the Township OCS during construction and after substantial completion.~~

~~Additional guarantees may be required by the Township and other affected agencies.~~

~~Full release of performance guarantees will only be granted after final acceptance is recommended by the Township Engineer or as determined by YCUA and the Township OCS.~~

- ~~iii. A record drawing and easement guarantee in the form of a cashier's check is required prior to proceeding with construction. The Township Engineer will determine this amount based on an estimate of what it would take for the Township Engineer to complete this work. This deposit shall be made to either YCUA or the Township at the same time the construction services escrow is established. If AutoCAD drawings are not provided immediately following detailed engineering approval, the cost will also be based on performing a full topographical survey.~~
- ~~iv. Additional guarantees may be required by other affected agencies.~~

c. Construction Fees, Escrows and Other Deposits

All past review fees not paid to date to either the Township or YCUA must be paid in full prior to commencement of construction.

All YCUA trunk line and transmission charges, YCUA benefit charges, YCUA tap fees and the construction phase escrow deposit shall be paid prior to the start of any construction to YCUA. Information regarding trunk line and transmission charges, benefit charges, and tap fees are available by contacting the YCUA Engineering Department at 734-484-4600. All fees should be verified with Ypsilanti Township and/or YCUA for fee updates.

i. The applicant shall establish a construction phase escrow account in accordance with Section 2306, Fees, of Appendix A – Zoning of the Charter Township of Ypsilanti Code of Ordinances and as specified herein to cover costs associated with the inspection of all public improvements. This account shall be maintained by either Ypsilanti Township or YCUA.

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ii. The construction phase escrow deposit amount will be determined based upon one of the following methods:

- The deposit will be based on the estimated duration of the construction operations based on typical construction production rates.
- The deposit may be adjusted based on the schedule proposed by the applicant's contractor. Said schedule shall be provided to the Township Engineer no later than one week prior to the pre-construction meeting.

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iii. On deposits made with the Authority, YCUA will add a non-refundable administrative fee amounting to 1% of the total construction cost as outlined on the approved and-final engineer's opinion of cost. This fee shall be paid at the time the construction phase escrow account is established.

iv. On deposits made with Ypsilanti Township, the Township will add a refundable administrative fee amounting to 1% of the total construction cost as outlined on the approved final engineer's opinion of cost. This fee shall be paid at the time the

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construction phase escrow account is established. Any money left over when the project is complete will be released.

v. The applicant shall deposit the construction phase escrow monies (~~including the non-refundable administrative fee~~) with Ypsilanti Township or YCUA at least 48 hours prior to the pre-construction meeting. For smaller projects, typically those that do not include underground utility construction, the Township may have the construction phase escrow deposit placed with the Township OCS Department. Instructions regarding the construction phase escrow and with whom it is to be placed will be provided in the pre-construction requirements letter from the Township Engineer. The applicant shall provide the Township Engineer with a copy of the receipt verifying that the appropriate deposit has been made with either entity.

vi. In addition to the observation of the public improvements, the escrow account will be used to reimburse YCUA and/or the Township Engineer for construction phase engineering effort including review of any field design changes or evaluations/interpretations of the plans, review of record drawings and easements, and any other work associated ~~with the final acceptance of the project with bringing the site into conformance with the standards.~~

vii. Construction phase services will be invoiced monthly against the construction phase escrow account based upon the established hourly rate by YCUA and/or the Township Engineer. The Township engineer will track these escrow accounts and if necessary send notifications to the attention of the Township, YCUA, and the applicant if production rates are less than anticipated, and create the possibility of a deficit or negative balance. The Township engineer will monitor and send notices to the Township, YCUA and the ~~developer-applicant~~ at 50% escrow depletion and 90% escrow depletion if the actual production rate in the field is behind the rate in which escrow is being depleted. If additional deposits are required, then YCUA or the Township will determine an appropriate amount using the same method and adjusting production rates to an appropriate and more realistic level.

viii. Prior to reaching a negative balance, all construction services will be stopped until the applicant deposits additional escrow monies with YCUA or the Township. In addition, YCUA will add a nonrefundable administrative fee amounting to 5%. ~~and the Township will add a refundable administrative fee amounting to 5%.~~ of the additional escrow deposit to be paid at the time the additional funds are deposited with YCUA. Prompt attention to maintain the account will prevent the project construction from being stopped and/or occupancy permits withheld.

ix. Upon formal acceptance of the project, any funds remaining in the construction phase escrow account will be returned to the applicant.

~~A record drawing and easement guarantee is required prior to proceeding with construction. The Township Engineer will determine this amount based on an estimate of what it would take for the Township Engineer to complete this work. This deposit shall~~

~~be made to either YCUA or the Township in cash at the same time the construction services escrow is established. If AutoCAD drawings are not provided immediately following detailed engineering approval, the cost will be based on a full topographical survey.~~

d. Insurance

Prior to the construction of subdivision and/or project improvements, the applicant's contractor will procure and maintain, during the term of the project, public liability and property damage insurance with a responsible insurance company which meets the approval of the Charter Township of Ypsilanti, ~~in such amounts as will be~~ The amounts must be adequate to protect the public and all parties of interest, and will not be less than the limits set forth herein.

Type of insurance:

i. Workmen's Compensation Insurance and Employer's Liability. Limits as required by laws of the State of Michigan

ii. Public Liability and Property Damage:

- Bodily Injury: Each Occurrence: \$500,000
- Aggregate: \$1,000,000
- Property Damage: Each Occurrence \$250,000
- Aggregate \$500,000

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iii. Owner's and Contractor's Protective Liability and Property Damage:

- Bodily Injury: Each Occurrence \$1,000,000
 - Property Damage: Each Occurrence \$250,000
- Aggregate \$500,000
Or combined single limit of \$1,500,000

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iv. Motor Vehicle, (including Owner, Hired and Non-Owned Vehicles):

- Bodily Injury: Each Occurrence \$500,000
 - Property Damage: Each Occurrence \$200,000
- Combined single limit: \$1,000,000

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Policies will be made available to the Charter Township of Ypsilanti and YCUA for examination as to their validity, ~~and any~~ Any undesirable exclusions deemed improper by legal opinion rendered to the Township and/or YCUA

will be required to be removed.

~~regarding same.~~

Underground construction, where applicable, will be specified in the coverage.

Certificates of coverage signed by the insurance carriers will include a guarantee that 30 days written notice will be given by the insurance carrier to the Township and YCUA prior to cancellation of, or any change in, the respective policies. In the event that the

insurance is cancelled, operations will cease prior to the cancellation date and will not resume until evidence is provided that proper insurance is again in effect.

Additional Named Insured under Owners and Contractors Protective Public Liability and Property Damage Insurance will include the Charter Township of Ypsilanti; the Ypsilanti Township Board of Trustees, jointly and individually; all Ypsilanti Township employees; the City of Ypsilanti; the Ypsilanti City Council, jointly and individually, and all City of Ypsilanti employees; the YCUA Board of Commissioners, jointly and individually; all YCUA employees, agents, and consultants, individually.

e. Construction Drawings

Prior to the pre-construction meeting, the applicant's design engineer shall submit six sets of the latest version of approved detailed engineering plans to the Township Engineer for processing and distribution the appropriate parties. In addition, digital versions of the construction drawings shall be provided that include both AutoCAD and Adobe PDF files. AutoCAD data shall be projected to State Plane Coordinates and shall use NAVD '88 Vertical datum.

3. Construction Phase

a. Pre-Construction Meeting

~~Construction Phase~~

~~Pre-Construction Meeting~~

Prior to starting any construction operations, the applicant must obtain all required permits and attend a pre-construction meeting. Unless otherwise specified, all meetings will be held at the Township Civic Center. The applicant shall contact the Township OCS to arrange for the meeting. The applicant shall notify all required and applicable attendees in writing outside of the local agencies listed in Section I.B.1.

Attendees at the pre-construction meeting (as well as any project progress meetings) shall include representatives from the Township, YCUA, Township Engineer, the Building Department Director, the Fire Marshal, the applicant, the applicant's design engineer, the applicant's prime contractor and underground contractor. In addition, representatives from any utility companies whose facilities may be affected by the project as well as any state, county or other agencies having jurisdiction over portions of the project shall be invited to attend. It shall be the responsibility of the applicant to contact the Township Engineer a minimum of 10 calendar days prior to the desired start of construction to schedule the pre-construction meeting. The pre-construction meeting shall be scheduled a minimum of 5 days prior to the start of construction. The pre-construction meeting will not be scheduled until all required approvals and documentation is received by the Township OCS. Pre-construction meeting forms are included in Appendix EC.

b. Construction

The Township, YCUA or designated representative(s) of those entities will provide observation of construction of all public utilities and improvements within 10 feet of any proposed or existing building. Observation will be full time on water supply systems, wastewater facilities, storm water management facilities, sidewalk ramps connecting to the street or sidewalk along common areas, and approaches in the public right-of-way. Part time observation will be performed for all on-site paving, grading, and soil erosion and sedimentation control measures. On all part time observation items the contractor or developer shall provide third party certifications or density and/or material testing reports if requested by the Township, YCUA or designated representative(s) of those entities ~~(e.g. density reports, material certifications, etc.)~~.

Any work occurring within 10 feet of any existing or proposed building may require the inspection and permit of the Ypsilanti Township Building Department. Prior to working within this 10 foot envelope, the Ypsilanti Township Building Department must be contacted.

The Washtenaw County Road Commission will provide inspection for work within the existing public right-of-way and on any road improvements that will be dedicated as public facilities.

The Washtenaw County Water Resource Commissioner's office will provide inspection for work associated with county drains ~~or other water courses within their jurisdiction~~. The Township, or their designated representative(s), may provide assistance observing portions of the project for the other agencies.

The applicant or the applicant's contractor shall notify the Township, YCUA or designated representative(s) of those entities a minimum of 3 working days prior to the start of any construction operations.

All improvements requiring observation shall be field staked in accordance with the approved detailed engineering plans. The applicant shall be responsible for the field staking and ~~if requested~~, provide appropriate cut sheets to the Township, YCUA or designated representative(s) ~~of those entities~~.

Deviations from the approved construction plans that are determined by the Township, YCUA or designated representative(s) ~~for those entities~~ to be significant will require review and approval of the Township, YCUA or designated representative(s) of those entities prior to staking and construction of the revised work. Deviations that are deemed to be significant will need to be submitted in writing (with revised plans as necessary) to the Township, YCUA or designated representative(s) ~~of those entities~~ for review.

The applicant shall be responsible for ensuring that all construction operations are conducted in conformance with the current MIOSHA safety standards.

c. Substantial Completion

At the completion of the installation ~~and successful testing~~ of all underground utilities and ~~passing of all related testing and~~ completion of the majority of paving improvements, said facilities will be subject to a preliminary walk-through ~~or substantial completion~~ inspection. This preliminary walk-through may include representatives from YCUA, the Township, the Township Engineer, and other appropriate agencies. At this meeting a preliminary punch list will be generated ~~and distributed by the Township Engineer~~. Once all punch list items are addressed to the satisfaction of the Township Engineer a substantial completion letter will be issued ~~by the Township Engineer~~. Only after this point can performance guarantees be reduced. This may be accomplished by submitting a request in writing to the Township OCS ~~and/or YCUA for consideration depending on the guarantee that is being considered for reduction~~. The applicant should understand that substantial completion does not in any way represent final acceptance. The substantial completion letter will indicate all remaining items that remain to be completed. After substantial completion the utilities are still under the ownership of the ~~developer-applicant~~ and not that of the respective agency.

During the time between the substantial completion and final acceptance of the underground utilities and paving improvements, said facilities will be subject to periodic inspection by the Township, YCUA or designated representative(s) ~~of those entities~~ during the completion of all surface improvements (commercial buildings, residences, etc.).

Upon the completion of all improvements associated with the project, ~~all~~ underground utilities and paving improvements will be subject to a final inspection or final walk-through ~~inspection~~. No facilities to be designated as public will be accepted until they have passed the final ~~walk-through~~ inspection. The applicant shall be responsible for providing all labor and equipment to accommodate inspection of the system(s) by the governing municipality and/or agencies having jurisdiction over the project. A ~~site project~~ cannot receive a final inspection until all landscaping is complete and all portions of the facility are complete. For residential ~~subdivisions-projects~~, a final walk-through ~~inspection~~ cannot occur until the site is 90% complete (Certificate of Occupancy issued). All final walk-through inspections shall include one representative each from YCUA, the Township, the Township Engineer and the applicant's representative.

4. Project completion

a. Record Drawings

To ensure that ~~quality-accurate~~ records exist for all ~~newly installed~~ infrastructure ~~development~~ within Ypsilanti Township, ~~the Township and YCUA have developed~~ a set of record drawings ~~has been created requirements~~. All projects require that accurate record drawings are produced ~~and approved~~ in advance of final project acceptance.

It is required that the applicant ~~deposit-submit~~ a complete digital file of ~~the approved detailed engineering plans including construction drawings including~~ all details, plan and

profile views to both Ypsilanti Township and YCUA at the time of the pre-construction meeting. ~~The digital file should follow the template for digital submittals that is located in the Digital Appendix.~~

The applicant shall post a guarantee in an amount determined by YCUA and/or the Township Engineer to ensure completion of the record plans in a timely manner. The record plan guarantee shall be presented in the form of a cashier's check, cash deposit, or letter of credit.

The applicant has 90 calendar days after substantial completion (from date of the issued substantial completion letter is achieved) to prepare and submit to the Township engineer an approvable set of record ~~plans~~drawings. These record drawings will be submitted in a digital format (AutoCAD and pdf) and on bond and Mylar. Digital record drawing specifications are included on the digital appendix CD.

In the event the applicant fails to submit the required approvable record drawings to the Township Engineer within the 90 day period, the Township/YCUA will utilize the applicant's record plan guarantee to have the required record plans prepared by the Township Engineer.

~~If it is determined that the applicant has failed to submit the required record plans within the allotted time, this occurs~~ the Township/YCUA will direct the Township Engineer to prepare the plans utilizing the digital or Mylar plans previously submitted. Once this notification to proceed has been given to the Township Engineer, delivery of the record plans to the Township/YCUA will be made within 90 days of that date.

A copy of the record drawing requirements checklist is provided in Appendix A.

b.Easements

The applicant shall have easement documents prepared for all public sanitary sewer and water main on site unless located in a public right-of-way. ~~-~~ In addition, any public storm sewer not in a public right-of-way or ingress/egress easements shall have easement documents prepared and submitted to the Township Engineer for review and approval. Once easements are approved, the easement shall be forwarded to the County Register of Deeds and recorded. Copies of recorded easements shall be forwarded to the Township Engineer, YCUA and the Township for their records. Sample easement documents for water supply and wastewater systems can be found in Appendix ~~I-D~~ of this document.

c.Grading Certificate

The applicant shall ~~be required to~~ submit a grading certificate upon the completion of construction certifying that site grading was completed by the contractor in accordance with the approved detailed engineering construction plan. The grading certificate shall be signed and sealed by a Professional Engineer or Surveyor licensed to practice in the State of Michigan. A blank grading certificate is provided in Appendix ~~G-E~~ of this document.

d. Maintenance and Guarantee Surety

Prior to final acceptance by ~~the YCUA Board of Commissioners~~ the applicant shall post with YCUA a two-year Maintenance and Guarantee security. The guarantee shall be presented in the form of a cashier's check or irrevocable standby letter of credit for ~~50~~100% of the ~~construction cost of the proposed~~ engineer's opinion of cost for the proposed water supply system and wastewater system improvements, as defined in item I.C.1.c. It should be noted that other agencies having jurisdiction over the project or any portion thereof might also require maintenance & guarantee sureties.

e. Final Acceptance

Final acceptance will not be made until all improvements shown on the approved detailed engineering plans are completed. In addition, and all other requirements as outlined in the pre-construction requirements letter or, if applicable, a development agreement must be have been completed. For residential developments, final acceptance of the water supply system and wastewater system improvements will not take place until at least 90% of the residences are built and occupied.

II. Plan Review Process

A. Introduction

The site plan review process will follow the procedures and standards prescribed by Section 2115, Site Plan Review, of Appendix A – Zoning of the Charter Township of Ypsilanti Code of Ordinances. These engineering standards are not intended to repeal, ~~abrogate~~, annul, or in any manner interfere with the existing regulations or laws of the Charter Township of Ypsilanti or the Ypsilanti Community Utilities Authority, nor to conflict with any statutes of the State of Michigan or Washtenaw County. ~~The only exception being, except that~~ these standards will prevail in cases where ~~they~~ these standards impose a greater restriction than is provided by the existing statutes, laws or regulations.

B. Preapplication Meeting

The applicant seeking site plan approval from Ypsilanti Township is ~~strongly recommended~~ required to set up a pre-application meeting with Township staff, their consultants and other appropriate agencies prior to plan preparation. The purpose of this meeting is to discuss concept, land use, location of utilities, ~~and~~ access to the site and to share information that will help the applicant in preparing a preliminary site plan. At a minimum, a preliminary sketch plan showing location, proposed layout, preliminary utility layout and a narrative explaining intent and nature of the use should be prepared and submitted to the Township two (2) weeks in advance of scheduling this meeting.

C. Preliminary Site Plan Review

Following the pre-application meeting, the applicant will gather feedback and prepare to submit a preliminary site plan. The applicant shall contact the Township Office of Community Standards (OCS) to determine review fees and the number of plans to be submitted. When the completed plan and associated fees have been received by the Township OCS, it will be distributed to the staff and consultants for review and comments. The plans are reviewed to determine the practicality of the project and impact on services and surrounding properties. Compliance with Township Standards and Ordinances will also be reviewed. Special engineering design considerations may also be addressed.

It is important that the plan reflect the requirements needed to assure passage through the Township reviews and approvals. It is recommended that the applicant review their prepared site plan in comparison with the site plan checklist found in Appendix A-1 of this document. While this checklist may not include everything necessary to receive approval because of certain site characteristics, it is intended to help guide ~~the developer~~ and assist ~~the applicant~~ them in submitting a complete application.

Once the Township OCS has received all reviews from the various agencies and completed their own review, the Township will administratively determine if the package

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is ready to be forwarded to the Township Planning Commission for their consideration. All documents and fees required for Planning Commission approval must be received by the Township according to the Planning Commission calendar. The Township OCS Staff will assemble all comments and provide them to the Planning Commission for their review.

If the plan is approved by Planning commission, or when applicable, the Township Board, the applicant may ~~begin preparing submit d~~Detailed ~~e~~Engineering and ~~s~~Soil ~~e~~Erosion ~~c~~Construction plans. No construction work can begin with only preliminary site plan approval.

If the plan is not approved or is tabled by the Planning Commission, the applicant will have to address applicable comments and resubmit if desired. The plan will be returned to the ~~applicant Design Engineer~~as often as is necessary to meet Township requirements.

All documents and fees required for Planning Commission approval must be received by the Township no later than 14 working days prior to the next regularly scheduled meeting. A schedule of regular meeting dates is posted for public display at the Township Civic Center Building and online at: <http://www.ytown.org>.

D. Plot Plan Review

Any use not covered in section 2115 in Appendix A – Zoning of the Charter Township of Ypsilanti Code of Ordinances shall be subject to a plot plan review. The plot plan review process will follow the procedures and standards prescribed by Section 2302, Plot Plan Review, of Appendix A – Zoning of the Charter Township of Ypsilanti Code of Ordinances. These engineering standards are not intended to repeal, ~~abrogate~~, annul or in any manner interfere with the existing regulations or laws of the Charter Township of Ypsilanti or the Ypsilanti Community Utilities Authority, nor to conflict with any statutes of the State of Michigan or Washtenaw County. ~~The only exception being, except that~~ these standards will prevail in cases where ~~they these standards~~ impose a greater restriction than is provided by the existing statutes, laws or regulations.

The plot plan submittal should provide information on the lot, the proposed building and information on the proposed use. Also, the plot plan must indicate that the basement elevation is above the high ground water mark or make necessary arrangements with the Township Building department if this cannot be accomplished. A checklist for Plot Plan requirements is supplied in Appendix A-2 of this document.

E. -Detailed Engineering and Construction Plan Review

The final site plan process will follow the procedures and standards prescribed by Sections 2115.3.h through 2115.3.j of Appendix A – Zoning of the Charter Township of Ypsilanti Code of Ordinances and the requirements specified herein.

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The applicant shall contact the Township OCS to determine the number of complete final site plans that will be needed for review. The plans, a completed application form, a completed construction cost opinion form and required fees shall be submitted to the OCS. A sample estimate and engineering submittal form has been included in Appendix ~~B~~C of this document.

Three copies of a detailed itemized construction cost opinion for all water supply system, wastewater system, storm sewer, retention/detention basins, grading and paving, and clearing and restoration shall be submitted to the Township OCS at the time of the initial final site plan submittal. The cost opinion must be signed and sealed by the applicant's design engineer.

The Township OCS will then forward the application and final site plans to the necessary staff, consultants and other reviewing agencies as appropriate. All reviews will be submitted back to the Township OCS.

A checklist for ~~d~~Detailed ~~c~~Construction and ~~e~~Engineering ~~p~~Plans is provided in Appendix A of this document. While this checklist may not include everything necessary to receive approval because of certain site characteristics, it is intended to help guide the developer and assist them in submitting a complete application. The applicant is also strongly encouraged to review the technical sections provided in these standards. These sections provide an in-depth baseline for minimum design, material, and construction standards to be used in the Township.

The detailed engineering construction plan phase represents an in-depth, ~~detailed~~ administrative review of the engineering plans that includes reviewing site grading, water supply, waster water system and storm water designs.

If plan revisions are required following the review, the applicant shall prepare revised plans accompanied by a complete list of all changes, certified as such by the applicant's design engineer. Full sets of plans must be resubmitted to the Township OCS. Submittals will not be reviewed unless they are received from the Township OCS. After two reviews without approval, the applicant, the applicant's engineer, the Township Engineer and a representative from the township OCS, as well as any other applicable parties shall meet to discuss the review comments. This meeting is mandatory prior to proceeding to a third review.

If the Township Engineer recommends approval but significant changes occur after the fact due to another agencies review, the plans must be resubmitted to the Township for a final review. All applicable fees must be paid for this review. Approval from all applicable agencies is required prior to proceeding with construction activity.

F. Soil Erosion & Sedimentation Control Plan Review

The soil erosion and sediment control (SESC) permit and plan review process will follow the procedures and standards prescribed by Chapter 24 Article VI Sections 156-207 of

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the Charter Township of Ypsilanti Code of Ordinances and the requirements specified herein. These engineering standards are not intended to repeal, ~~abrogate~~, annul or in any manner interfere with the existing regulations or laws of the Charter Township of Ypsilanti, nor to conflict with any statutes of the State of Michigan or Washtenaw County. The only exception being, except that these standards will prevail in cases where ~~these standards they~~ impose a greater restriction than is provided by the existing statutes, laws or regulations.

The Township OCS is designated as the Soil Erosion and Sedimentation Control Municipal Enforcement Agency for the Charter Township of Ypsilanti. All applications, plan reviews, and permitting requirements will be addressed by the Township OCS. When work within the public road right-of-way of either the Washtenaw County Road Commission or MDOT the SESC falls under the jurisdiction of those respective entities as they are an Authorized Public Agent (APA). This SESC work is subject to EGLE MDEQ inspections and audits.

A Township SESC permit is required for any activity that facilitates an earth change which disturbs one or more acres of land or which is within 500 feet of a defined lake, stream, or county drain. No work, including site clearing or earth disturbance, can commence on any project that requires a SESC permit until that permit has been obtained from the Township OCS.

The SESC plan review and permit process begins by completing the Township Detailed Engineering / Soil Erosion Control Application. The plans, a completed application form and required review fees shall be submitted to the OCS. This application should be submitted completed at least thirty (30) days prior to the anticipated date of the start of earth disruption.

A checklist for the SESC plan requirements can be found in Appendix A-4 of this document. This checklist may not include all necessary items to receive approval, as it is only intended to assist the applicant in providing a complete submittal. The applicant is also strongly encouraged to review the sSoil eErosion and sSedimentation cControl technical sSection (Section IX) and also the Washtenaw County Soil Erosion and Sedimentation Control Program Guide.

III. TOPOGRAPHIC SURVEY

A. General Requirements

1. A complete topographical survey is required for all proposed projects. A metes and bounds legal description of the project site shall be provided on the plans. Property lines shall be indicated by bearing and distance in the plan view. All existing easements shall also be shown on the plan view of the existing conditions.
2. A minimum of two benchmarks are required for vertical control. All benchmarks shall be clearly indicated on the plans. All elevations shall be to North American Vertical Datum – 1988 (NAVD-88).
3. Horizontal control shall be established for each site utilizing Michigan State Plane Coordinates, Michigan South Zone coordinate System NAD 83 (CORS).
4. Existing offsite elevations must be given at a minimum of 50 feet and 100 feet abutting the entire perimeter of the site. Grades will be indicated at all property corners and along all property lines. On-site, intermittent elevations and/or defined contours (minimum contour interval of 2 feet) are required to establish the existing site drainage patterns.
5. Existing features shall be located and shown within 100 feet of the project. Existing features to be shown shall include, but may not necessarily be limited to the following items:
 - a. Ditches.
 - b. Culverts.
 - c. Water supply system, storm water management and/or sanitary sewer facilities, including inverts and casting elevation at all structures.
 - d. Gas, telephone, electric and cable television lines, including manholes and/or utility poles.
 - e. Pedestrian facilities.
 - f. Trees and other landmark vegetation.
 - g. All streams, lakes and/or county drains with names shown.
 - h. Existing buildings and permanent structures.
6. Existing adjacent roads and existing right-of-way or easement lines shall be shown on the plans and shall extend across the entire site with grades shown on both sides of the road for:
 - a. Right-of-way or easement line.
 - b. Ditch centerline.
 - c. Top of bank.
 - d. Edge of shoulder.
 - e. Edge of pavement or top of curb.
 - f. Crown or centerline.

IX. Soil Erosion and Sedimentation Control

A. General

1. Soil erosion and sedimentation control measures shall be incorporated into the design and construction of all projects as specified by Ypsilanti Township Office of Community Standards (OCS) and/or Michigan Department of Environment, [Great Lakes, and Energy at Quality \(EGLEMDAQ\)](#). All projects shall be designed and constructed so as to minimize soil erosion and sedimentation impacts to the environment.
2. A permit must be obtained from either the Ypsilanti Township OCS and/or [EGLEMDAQ](#).
3. All proposed temporary and permanent soil erosion and sedimentation control measures shall be shown on the plans. All soil erosion control measures shall be identified in accordance with the Michigan Unified Keying System.
4. Cleaning and maintenance schedule listing annual budget and frequency of maintenance operations shall be indicated on the plans.

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B. Design Criteria

1. Temporary and permanent soil erosion and sedimentation control measures shall be designed in accordance with the requirements of the WCSSED and/or [EGLEMDAQ](#). At a minimum, the following shall be provided for all project:
 - a. Silt fence;
 - b. Inlet filters;
 - c. Gravel tracking mats at any point of ingress or egress to a construction site to a length not less than 50 feet and where possible to a length of 100 feet.

C. Materials

1. Temporary soil erosion and sedimentation control measures shall be fabricated of the materials specified in the latest edition of the Best Management Practices (BMP) guidelines published by the [EGLEMDAQ](#) and/or the Washtenaw County requirements.
2. Permanent soil erosion and sedimentation control measures shall be in accordance with the material requirements specified in other sections of above-mentioned standards.
3. The use of straw bales may only be permitted with written approval from the Township and otherwise will not be permitted in Ypsilanti Township.

D. Construction Methods

1. Soil erosion and sedimentation control measures shall be the first activity on site.

2. Temporary soil erosion and sedimentation control measures shall be installed and maintained as outlined in the latest edition of the BMP guidelines published by the [EGLE/MD/DEQ](#).
3. Permanent soil erosion and sedimentation control measures shall be constructed and maintained in accordance with the cleaning and maintenance schedule shown on the approved soil erosion and sedimentation control plan and as described in the required permit.
4. All lots within approved residential subdivision/site condominiums shall have the disturbed ground stabilized with sod, seed, or other acceptable permanent soil erosion control measures prior to the issuance of the final certificate of occupancy. Inclement weather exceptions will be made from November 15th through June 15th as determined by the Ypsilanti Township CED.
5. A soil erosion and sedimentation control inspection escrow deposit must be made in an amount to be determined by the Township Planning Director, building Director or an authorized agent of the township. This deposit is required to conduct necessary inspections during the construction phase. If the escrow is depleted prior to the issuance of the final certificate of occupancy then the escrow account must be replenished to a level determined by the Township.
6. Standard SESC details have been included in the Digital Appendix and should be included with plan sets. If special SESC provisions are being proposed or required, then special details and/or notes may be needed in addition to the standard details.

VII. PAVING IMPROVEMENTS

A. General

1. All roads proposed for construction in Ypsilanti Township shall be public roads under the jurisdiction of Washtenaw County Road Commission (WCRC) unless otherwise permitted by Township ordinance. Plans for such roads and/or accompanying sidewalks/bike paths shall be prepared in accordance with [the current WCRC "Procedures and Guidelines For Developing Public Roads,"](#) ~~and the AASHTO Guide for the Development of Bicycle Facilities~~ [latest revision](#). In addition to any submittals required for WCRC approval, plans shall also be submitted to the Charter Township of Ypsilanti for review of the proposed road improvements in relation to other existing and proposed facilities. The applicant shall submit three sets of WCRC approved paving plans to the Township upon County approval.
2. Private roads, when permitted, shall conform to the requirements of the Township [Municipal Code, Chapter 47, Article II, Sections 47-26 thru 47-36](#). ~~Private Road Ordinance, Ordinance No. 97-174.~~
3. Paving improvements for parking lots, internal roads and pedestrian facilities on private sites shall be designed in accordance with the requirements prescribed herein.
4. Concrete curb and gutter will be required for all private roadway construction and parking lot construction with the following exceptions:
 - a. Large lots of one acre or more for residential detached housing.
 - b. Industrial storage yards not used for regular road vehicle parking
 - ~~b.c. Where directly adjacent to a stormwater BMP where the applicant is proposing to sheet flow water and infiltrate.~~
 - ~~e.d. Bituminous curb is not permitted may be substituted for concrete curb and gutter only under certain circumstances where allowed by the Ypsilanti Township Office of Community Standards.~~
5. Underground storm sewers, including edge drains for parking lots and roads, shall be designed and installed with all paving improvements which require concrete curb and gutter or asphalt curb. Where pavements are to be constructed over clay soils or other poorly drained soils and a granular sub-base is used, an approved sub-drainage system shall be installed.
6. Plan and profile views shall be provided for all proposed paving improvements. The plan and profile shall be presented on the same plan sheet and shall be vertically aligned. If possible, storm water management improvements shall be shown on the same plan sheet as the paving improvements.
 - a. The plans shall include typical cross section(s) showing dimensions, materials, type and thickness of the proposed paving improvements.

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b. The following information shall be shown in the plan view of the proposed paving improvements.

i. Existing right-of-way or road easement as well as the proposed right-of-way or road easement. A minimum 12 foot wide easement for private franchise utilities shall be provided adjacent to each side of the proposed right-of-way or road easement.

ii. Centerline alignment, including curve data, stationing, edge of pavement and/or curb. Centerline and stationing are not required for parking lots.

iii. Location of existing and proposed topographic features, including utilities.

iv. Location of existing and proposed traffic control devices.

v. Location of existing and proposed street-light poles.

vi. Location of all proposed pedestrian facilities. ~~Pathways~~~~Bike paths~~ may be required by the Township in lieu of sidewalks.

c. The following information shall be shown in the profile view of the proposed paving improvements. Profiles are not required for proposed parking lots.

i. Existing and proposed ground at the centerline (for rural roads) or top of curb (for urban roads).

ii. Percent of grade and vertical curve data.

B. Design Criteria

1. Cross Sections

a. Dimensional widths and thickness of materials and associated road features shall be designed in accordance with the typical road cross sections prescribed by the WCRC. For public roads, the cross section requirements will be based on the functional class of the road as designated by the WCRC.

b. For parking lots and internal roads at nonresidential sites, the cross section requirements will be based on the functional class of the public road serving the property. The minimum width for an internal drive shall be 26' measured from the back-of-curb to back-of-curb or edge of pavement to edge of pavement for non-curbed internal roads.

c. Driveways will be defined as the paved area adjacent to a public or internal road serving no more than one residence, commercial or industrial establishment.

i. Single family residential driveways shall be designed according to the following criteria:

(1) Concrete driveways shall be a minimum of 6" thick between the back of curb or edge of pavement and the right-of-way or easement line. Concrete

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driveways outside the right-of-way or easement shall be a minimum of 4" thick. All sidewalks within four feet of the back of curb shall be 6 inches thick.

- (1)
 - (2) Bituminous pavement driveways shall be a minimum of 3" thick over an aggregate base course having a minimum thickness of 6".
 - (2)
 - (3) Aggregate surface course driveways will only be permitted where the adjacent public or internal road does not have a paved surface. The aggregate surface course shall be a minimum of 6" thick within the right-of-way or easement and a minimum of 4" thick outside the right-of-way or easement.
- ii. Driveways to serve multi-family residences, commercial or industrial establishments shall be designed with the same cross section as the corresponding parking lot or internal road.
 - iii. Driveways within subdivisions must be paved if it is a platted subdivision or a site condominium. If it is a non platted subdivision the paving of the driveways will be determined by the township Planning Department on a case by case basis.
- d. Pedestrian facilities including the inclusion of an accessible route as required by the American's with Disabilities Act (ADA) shall be designed in accordance with the requirements prescribed by the ADA, ~~and~~ WCRC, ~~and~~ MDOT.

2. Horizontal Alignment

- a. Horizontal alignment of pavement and associated road features shall be designed in accordance with the requirements prescribed by the WCRC.
- b. Internal roads shall be designed to accommodate the typical vehicles anticipated to use the site, including but not necessarily being limited to, delivery vans and trucks, fire department traffic, trash collection vehicles and school buses.
- c. Parking lots and off street loading and unloading areas shall be designed in accordance with the requirements prescribed by sections 2105 and 2106 of Appendix A ~~of the~~ Zoning of the Charter Township of Ypsilanti Code of Ordinances. If the proposed parking abuts a proposed sidewalk that will be 7 feet wide adjacent to a building, the parking space length may be reduced by 18 inches to allow for 2 foot of overhang by a parked vehicle.
- d. Driveways
 - i. Single family residential driveways shall be a minimum of 9' wide.
 - ii. Driveways to serve multi-family residences, commercial or industrial establishments shall be a minimum of 31' wide.
 - iii. Offset parking areas adjacent to driveways shall be configured with a 25' radius as shown in the standard details.

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e. Pedestrian facilities shall generally be located inside the right-of-way. Facilities located outside public right-of-way shall be located within a dedicated easement. Pedestrian facilities will be located within the right-of-way with the permission of the WCRC. The horizontal alignment of pedestrian facilities shall be as close to parallel as practical to the right-of-way or easement.

i. Concrete sidewalk shall be a minimum of 5' wide.

ii. Bituminous pavement bike paths shall be a minimum of 10' wide.

3. Vertical Alignment

a. The vertical alignment of all public roads, internal roads and parking lots shall be designed in accordance with the requirements prescribed by the WCRC.

b. Vertical alignment of driveways shall be designed in accordance with the requirements prescribed by the WCRC.

c. Pedestrian facilities shall be designed to meet the requirements of the American with Disabilities Act, as amended.

4. Materials

a. Subgrade

i. Subgrade material shall consist of loam, clay, sand, gravel or other similar material.

ii. The finished subgrade surface shall be free of all topsoil, stones, stumps, organic matter, muck, peat and frost heave material.

b. Underdrainage

i. Underdrain pipe shall be smooth plastic pipe or corrugated plastic tubing meeting Michigan Department of Transportation (MDOT) requirements.

ii. Underdrain outlets shall be constructed of polyvinyl chloride (PVC) plastic pipe or corrugated steel pipe conforming to MDOT requirements.

iii. Subbase materials shall conform to the requirements of MDOT Class II granular material compacted in place.

c. Aggregate Base Course

i. Dense graded aggregate conforming to the requirements for MDOT Specifications 21A, 21AA or 22A, compacted in place.

ii. The use of slag material will not be permitted.

iii. The use of stabilized base course will be permitted. The type, thickness and mix must conform to MDOT requirements and must be approved by the Township Engineer.

iv. Bituminous pavement materials shall be in accordance with MDOT requirements as specified on the typical cross sections prescribed by the WCRC.

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v. Concrete pavement materials shall be in accordance with MDOT requirements as specified on the typical cross sections prescribed by the WCRC.

d. Pavement

v.i. Driveway materials shall be equal to or better than the road service the driveway is connecting to.

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D. Construction Methods

1. Construction methods shall be in accordance with the plan details and the 2003 MDOT Standard Specifications for Construction.
2. Pavement Cuts
 - a. Where a trench must be cut through pavement, driveway, or sidewalk, particular care shall be taken to avoid unnecessary damage to adjoining areas of the pavement, driveway or sidewalk.
 - b. All cuts through existing surfaces shall be made full-depth with a concrete saw. Cuts in concrete pavement shall be made parallel with longitudinal and transverse construction or contraction joints.
 - c. Saw cuts in concrete pavement shall not be nearer than 5' to a transverse joint, to the centerline of pavement, or to the edge of pavement or curb. No existing or replacement pavement shall be less than 5' to a joint or centerline of pavement, or to edge of pavement, surfacing or curb; removal and replacement shall be extended to said joint, centerline, edge of pavement, surfacing, or curb. These same requirements shall apply to the saw cutting and replacement of concrete driveways.
 - d. If a square or block of sidewalk is cut, broken, or cracked, the entire square or block shall be removed and replaced.
3. Pavement Replacement, Temporary
 - a. All pavements removed in crossing and/or paralleling paved streets, alleys, drives and parking areas shall be temporarily replaced immediately following completion of backfilling operations. Temporary pavements for streets and alleys shall conform to the WCRC specifications for underground construction. Temporary pavement for driveways, including approaches and parking areas, shall consist of a minimum of 3" of compacted cold patch asphalt over a minimum of 7" of compacted MDOT 22A aggregate base. All temporary pavements, including those constructed for streets, alleys, drives and parking areas, shall be maintained in good condition until the final pavement replacement is made.
4. Testing
 - a. Density reports on private developments are required to be provided to the Township Engineer for sub base, base and paving course construction. Testing reports will also be required for all paving in the right-of-way for all applicable agencies.

5. Inspection

a. The Township Engineer shall be contacted prior to the preparation and placement of any of the following materials for roadways and pedestrian facilities:

i. Subbase and underdrain

ii. Aggregate base course

iii. Paving course

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VII. GRADING AND EARTHWORK

A. General

1. All proposed developments should be graded such that storm water runoff will be intercepted within the boundaries of the site and conducted through a storm sewer system to an approved point of discharge.
2. Easements for surface drainage shall be dedicated and recorded.
3. For perimeter lots, the drainage easement width shall be 20' minimum, and for abutting lots with a common rear yard lot line, the easement width shall be at least 10' on each lot.
4. The following information must be shown in the plan view of the proposed grading:
 - a. Grading plans shall be drawn to a scale of 1" = 50' or larger.
 - b. The grading plans shall show the existing elevation topography either by contour method or grade point grid method.
 - c. High and low street grade points, slope direction (by arrow) and the location of all catch basins, inlets and drainage ditches shall be shown on the grading plan.
 - d. For subdivisions, a detail of the typical lot drainage pattern shall be shown on the grading plan with all grade control points identified. All grade point elevations shall be shown for each lot per Detail A or B illustrated in the standard details included in [the Digital Appendix-A](#). This will include the finish floor (F.F.), or the foundation grade (F.G.) elevations, high point (grade break), drainage arrows and additional spot elevations to clarify site grading.
5. Plot plans shall be provided in accordance with the requirements prescribed in Appendix [AD](#).
6. A preconstruction meeting must be held and all applicable requirements fulfilled prior to any grading, earthwork, clearing or grubbing occurring on-site unless specific approval is granted from the Township Engineer [and/or OCS Department](#). [A SESC permit waiver may be permitted for earth changes of less than 225 square-feet. Earth change in excess of 0.5 Acres requires a soil erosion & sedimentation control permit.](#)

B. Design Criteria

1. General
 - a. Grading plans shall take into account the desirable natural features and the character of the land, which must be preserved where possible.
 - b. No filling will be allowed in any areas of land which lie either wholly or in part within the flood plain of a river, stream, creek, or lake. Only a variance in the form of a permit from the Michigan Department of Environmental [Quality, Great Lakes, and Energy](#) may override this restriction.
 - c. Filling and grading shall not create a barrier causing entrapment of water on the adjacent lands of others.

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- d. Retaining walls are discouraged. Any wall separating a grade differential exceeding 18-inches will require a special detail on the plan and ~~the~~ require the review of a structural engineer.

7.2. Drainage Pattern

- a. Generally, all single-family lots shall be graded for front to rear drainage per Standard Detail A.
- b. Standard Detail B (rear to front drainage) will be allowed by the Township Engineer only where, due to existing topography, rear to front drainage would be very difficult to achieve or not feasible.
- c. Drainage patterns other than those shown in Details A and B may be used. All non-conforming lots with drainage patterns other than those in Standard Details A or B shall be noted on the grading plan. Each will be reviewed on a case-by-case basis.
- d. Large acreage parcels, outside of approved subdivisions/site condominiums, will be reviewed on an individual basis.

8.3. Slopes

- a. All areas within 10' of buildings shall slope away from the building at a minimum slope of 5%. The minimum slope for any other part of the site shall be 1%.
- b. A maximum slope of 4' horizontal to 1' vertical shall not be exceeded for terracing. The toe of slope shall be located outside of the rear and/or side lot line drainage easements.
- c. Swales
 - i. Each single-family lot shall be graded to drain away from the house to swales constructed along the lot lines.
 - ii. Swales shall discharge to a catch basin, roadway gutter, or other approved drainage course.
 - iii. The longitudinal slope along a rear or side yard drainage swale shall be not less than 1.5% or more than 6.0%.
 - iv. Plans may not include any structures, landscaping or other permanent objects within swales.
 - v. Bio-swales or Vegetated Swales proposed to promote groundwater infiltration are acceptable but must be designed in accordance with the current Low Impact Development Manual for Michigan (LID Manual for Michigan) and in conformance with the Washtenaw County Water Resources Commissioner's Office.
- d. Maximum distance from a high point to a drain outlet shall not exceed 250' or two lots, whichever is the lesser.
- e. In general, for streets with ditches and no curbs, the elevation of the front lot line shall be at least 6" above the centerline of the road.
- f. Driveway slope gradients shall not exceed 8%.
- g. Longitudinal sidewalk slopes shall not exceed 5%. All pedestrian facilities shall meet the requirements of ADA.

C. Materials

1. Materials used in earth excavations and/or embankment construction shall be in accordance with the plans and the 2003 Michigan Department of Transportation (MDOT) Standard Specifications for Construction.
2. Material placed in future building sites, roadways or other areas that may support structures shall be free of trees, stumps, topsoil or any other surplus or unsuitable materials.

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C. Construction Methods

1. Methods of Excavation in Earth

All excavation shall be by open cut from the surface, except in special cases where boring/jacking under pavement or structures may be required, or where boring/jacking under the root system will be required for tree root protection. All excavation shall be made in such a manner and dimensions as will give ample room for:

h.a. Building the structures.

h.b. Bracing, sheeting and supporting the sides of the excavation.

h.c. Pumping and drainage of ground water and sewage which may be encountered.

h.d. Removal of all materials excavated. Special care shall be taken so that the soil below the bottom of structures to be built shall be left undisturbed so that a firm bed will be provided for construction. Any voids shall be backfilled with suitable granular material and shall be properly compacted.

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2. Trench Excavation

h.a. General

Excavation shall be of sufficient width and depth to provide adequate room for construction and installation of the work to the lines, grades and dimensions called for on the plans. Unless otherwise called for on the Township's standard details, the width of a trench from the invert to a height 12" above the top of the pipe barrel shall be indicated as follows:

<u>Pipe Size</u>	<u>Maximum Trench Width</u>
4" through 12"	30"
Larger than 12"	O.D. +24"

If the maximum trench width as specified above is exceeded, unless otherwise shown on the drawings such concrete cradling or other bedding as is approved by the Township Engineer shall be installed to support the added load of the backfill.

Where trench excavation is in granular material, the last 6" of trench depth shall be carefully excavated and trimmed by hand to the exact elevation and contour of pipe. Where trench excavation is in rock or clay soil, the trench bottom shall be

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undercut a minimum of 4" below the final bedding material elevation of pipe. The bedding material as hereinafter specified shall be placed and compacted to the underside of the pipe.

Excavation for structures shall be made to the outside lines and surfaces of such structures wherever it is practicable to build directly against the sides and bottoms of excavations. In such cases, care shall be taken not to disturb the original foundation or backing. Final trimming shall be done by hand just before construction of the structure. If excess excavation is made, or the material becomes disturbed so as to require removal beyond the prescribed limits, the resulting space shall be refilled with bedding, as specified hereinafter, and solidly machine tamped into place to 95% of maximum unit weight before the construction work proceeds.

Excavation for structures shall be extended sufficiently beyond the limits of the structure to provide ample room for form construction and other construction methods to be followed, wherever necessary.

m.b. Bedding

Where the subgrade below the bottom of the pipe is disturbed during the construction, the space shall be refilled with sand or pea gravel bedding material solidly tamped to form a firm foundation for the pipe. Sand or pea gravel bedding material shall be extended to 1' above the pipe, except that the bedding shall be exclusively pea gravel to the springline for pipe 36" and greater in diameter.

n.c. Amount of Trench Opening

Not more than 50' of trench shall be open at one time in advance of the pipe unless permitted by the Township Engineer. The length of street that may be occupied by the construction work at any one time shall be subject to the direction of the Township Engineer and will be based on requirements of the use of the street by the public. No more than 600' of street length shall be occupied at one time, and vehicle traffic through the street shall not be entirely stopped without permission of the WCRC and the Township Engineer.

After placement of the utility line, the trench shall be promptly backfilled in order to minimize the length of open trench and avoid any unsafe conditions.

9-3. Stone Refill

In locations where soil at the bottom of trench is unstable the trench shall be excavated (undercut) below the trench bottom and refilled with MDOT 6A crushed aggregate.

10-4. Excavation & Trench Dewatering

Any excavation or trench shall be maintained free of water during construction of any structures and/or pipelines.

Adequate precautions shall be taken to control the discharge of dewatering pumps so as to prevent soil erosion or sedimentation of drainage ditches, structures, storm sewers, culverts, natural drainage courses, ponds, lakes or wetlands. If ground water is discharged to a County Drain then a permit may be required by the Washtenaw County Water Resources Office.

Discharge from any dewatering operations shall have a suitable outlet and cause no damage to adjacent dwellings or property. Water and discharge hoses shall be

placed and/or controlled so as to prevent a hazard to pedestrians or motor vehicles passing in the vicinity of the construction site.

Electric pumps shall have suitable power supply appurtenances meeting NEC requirements and shall be properly fused and grounded to prevent electrical shock hazards to on-site personnel.

Internal combustion engine driven pumps, if operated 24 hours per day, shall have adequate exhaust silencers in good repair to muffle engine noise to an acceptable level for the area where located.

44.5. Diverting Existing Sewers

Where existing sewers or drains are encountered during construction operations, adequate provision shall be made for diverting flow in the existing sewers so that the excavation will be kept dry during the progress of the construction work. Upon completion of the construction work, the existing sewers shall be restored or otherwise provided with an adequate outlet as approved or directed by the Township Engineer.

42.6. Sheeting, Bracing & Shoring

Sheeting, bracing and shoring shall be provided where required to properly support the surfaces of excavations and protect the construction work, adjacent work, and workers. In removing the sheeting and bracing after the construction has been completed, special care shall be taken to prevent any caving of the sides of the excavation and injury to the completed work or to the adjacent property.

43.7. Crossing Existing Structures/Pipes

During construction, it may be necessary to cross under certain sewers, drains, culverts, water lines, gas lines, electric conduits and other underground structures. Every effort shall be made to prevent damage to such structures. Wherever such structures are disturbed or broken, they shall be restored to good condition. Specified granular backfill shall be placed as described in item 9, Backfilling. MDOT Grade 30S concrete can be utilized where approved by the Township Engineer. Either granular backfill or concrete shall be brought to the spring line of the higher utility.

44.8. Tunneling Trees

Trees 8" in diameter or less will require a minimum tunnel length of 8'. Trees over 8" in diameter, measured 4' above the ground surface, will require a minimum tunnel length equal to one foot for each inch of tree diameter.

Trees shall be tunneled whenever any portion of an excavation approaches within a distance equal to one-half the required tunnel length except as otherwise noted on the plans.

Tunneling under trees may be accomplished by one of the following methods:

- a. Boring and jacking casing pipe along with placement of a carrier pipe.
- b. Boring and jacking sewer pipe or water main without a casing pipe.
- c. Jacking sewer pipe or water main without boring and without a casing pipe.

45.9. Backfilling

- a. General

Backfilling shall include all work required as hereinafter specified. The placement of various pipe, including bedding and building of structures, shall be completed prior to backfilling.

Trenches and/or other excavations shall be backfilled with suitable excavated material (not including gray or blue clay) replaced into the trench or excavation and compacted to not less than 95% of maximum unit weight as determined at existing moisture content during backfilling. Compaction shall be provided by means of suitable mechanical compaction equipment.

If the moisture content of cohesive backfill material exceeds the optimum moisture content for maximum density by more than 3%, the material shall be dried to meet the foregoing moisture content limitation or MDOT Class II Granular Material shall be provided. No sloppy or wet backfill will be allowed.

Maximum unit weight will be determined by current methods of Test for Compaction and Density of Soil, AASHTO Designation T-180 or by the Cone Density Method developed by MDOT, as the material may require.

Compaction tests shall be conducted at all locations requiring granular backfill. Such tests shall be the responsibility of the applicant.

Any depression resulting from settlement of any backfill shall be brought to the proper grade and surface and made to match the adjacent surface.

b. Compaction

Backfill material shall be placed in layers not to exceed 12" in thickness unless approved by the Township Engineer.

Specified compaction shall be obtained with the use of a bulldozer, sheepsfoot roller, mechanical tamper or other similar and effective equipment. Specified compaction means not less than 95% (not average 95%) of maximum unit weight when tested in accordance with current MDOT Specifications.

If excavated material is not suitable to obtain 95% minimum compaction, unsuitable materials shall be removed or granular materials shall be added, or both, to obtain 95% minimum compaction as specified.

c. Backfilling Trenches

i. Bedding

The type of bedding required is shown on the detail drawings.

Bedding shall be worked under the haunches of the pipe to provide firm continuous support.

Bedding placed on the sides of and above the pipe shall be compacted by machine tamping to not less than 95% of maximum unit weight in layers not exceeding 12" in depth.

ii. Trench or Excavated Area

All trenches in paved streets, shoulders, traveled roadways, parking areas and driveways shall be backfilled with suitable excavated backfill or granular backfill, as shown on the drawings from 1' above top of pipe up to the required subgrade elevation which will allow for placement of the required gravel base and/or pavement surface. The approved excavated backfill or granular backfill shall be placed and thoroughly and uniformly compacted by

machine tamping to the specified compaction. With the approval of the Township Engineer, water jetting may be accepted in lieu of tamping for granular backfill only.

Specified compaction shall be required of the entire trench when the edge of trench is within 3' of edge of pavement. On road crossings, specified compaction shall extend 10' beyond the edge of pavement for paved roadways with gravel shoulders or shall extend 3' beyond the back of curb for roadways with curb.

Trenches under concrete sidewalks and bike paths shall be backfilled from one foot above top of pipe to a level 4" below finished grade of the sidewalk with approved suitable excavated backfill or granular backfill and compacted to 95% maximum density.

Trenches not in paved streets, shoulders, traveled roadways, parking areas, driveways or under sidewalks, shall be backfilled from 1' above the top of the pipe up to the ground surface with suitable excavated backfill and shall require compaction equal to adjacent undisturbed earth.

Wherever gas mains, water mains, sewers, or other utilities are located in the trench area, granular backfill shall be used for backfill from bottom of the trench up to the springline of the pipes. Granular backfill shall be placed across the full trench width and extend far enough either side of the existing pipe to allow specified compaction so as to thoroughly support the pipe within the trench area.

d. Backfilling Around Structures

As soon as practicable after concrete structures have set, forms and debris shall be removed and the surface of the concrete pointed. After the structure has been inspected and approved, the excavated area around the structure shall be backfilled up to specified subgrade with granular material or suitable excavated material as called for on the drawings for the adjacent trench. The fill shall be thoroughly compacted by machine tamping. No large boulders or masonry shall be placed in backfill. No backfill will be placed against manhole walls within 48 hours after the plaster coat has been applied to the outside of the walls nor shall backfill be placed about concrete structures until concrete has attained at least 75% of its design strength and approval of the Township has been obtained.

~~46-10.~~ Disposal of Excavated Material

After all suitable excavated material has been used on site, all excess material shall be removed and disposed of properly.

All other excavated materials that are unsuitable for use as fill or backfill shall be disposed of properly. Unsuitable materials may include, but are not limited to, broken concrete, asphalt, rock, stone, and other related debris. The applicant shall be required to obtain proper disposal areas and permits.

Any agreements that the applicant makes with local residents concerning the placement of fill on private property shall be the sole responsibility of the applicant. Copies of such agreements shall be provided to the Township.

Placement of fill on private property may require that the property owner and/or the applicant obtain a grading permit or fill permit from the Township.

47.11. Contractor Safety Requirements

All construction operations shall be performed in accordance with OSHA and MiOSHA requirements.

The excavation and trenching operations shall be conducted in a manner that will provide safe working conditions for all persons on the site who may be affected by the construction operations. All construction operations shall be conducted in a manner that will protect adjacent property from damage.

Trench sides shall be either cut back to the slope as required by soil and ground water conditions which will provide stable sides, or supporting systems shall be installed that are capable of restraining the earth sides from movement. Design and installation of trench supporting systems shall be the responsibility of the applicant.

A qualified person who will be responsible for the safety of both the work and workmen, and who will make all the decisions relevant to the stability of trenches, the adequacy of any and all protective devices, proper operation of equipment, and all other matters related to safety, shall be employed at all times at the site of the work.

Excavated material, heavy equipment, backfill materials, sewer pipe, or other construction materials shall not be stored along or adjacent to the trench where they may impose too great a load on the earth and cause displacement or caving of the earth. A safe means of emergency exit shall be provided at all times from all trench excavations.

VI. STORM-WATER MANAGEMENT

A. General

1. Storm water management systems shall be designed in accordance with the Washtenaw County Water Resources Commissioner's Office (WCWRC) Rules and Guidelines of the Washtenaw County Water Resources Commissioner's Office (WCWRC) - Procedures and Design Criteria for Stormw-Water Management Systems, latest revision. The Township Planning Department and Engineer may modify these requirements on a case by case basis for sites that are not under WCWRC jurisdiction and not adding more than 1,500 square-foot of impervious surface to a site.

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EGLE is required to review projects. Projects in the following watersheds will require the review of the MDEQ due to thermal/environmental sensitivity in the following watersheds: Chicking Ditch and Paint Creek watersheds.

2. A long-term stormwater management maintenance agreement may be required as prescribed by the Township. In the event an agreement is required, the agreement shall be submitted as part of final acceptance and project closeout.

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- ~~3~~-3. Where possible, the applicant is strongly encouraged to propose low-impact storm water management designs that limit the amount of runoff generated on site.

- ~~3~~-4. Restricted discharge rates and/or improvements to downstream drainage courses may be required as prescribed by the Charter Township of Ypsilanti Stormw-Water Master Plan of 1994. The applicant shall contact the Township Engineer and/or the WCWRC to determine what design criteria specified in the Stormw-Water Master Plan apply to the proposed project.

- ~~4~~-5. Where an approved point of discharge is not available on the site, the applicant shall make such offsite drainage improvements as are necessary to provide positive drainage to an approved outlet, as determined by the Township Engineer and/or the WCWRC. Such improvements shall be located in an easement secured by the applicant. The easement form and width of the easement shall be subject to Township approval.

- ~~5~~-6. Soil borings in the location of any proposed storm-water storage facility are required. Soil borings shall include groundwater surface elevation information. Where infiltration is proposed, infiltration rates shall be calculated. For facilities proposing basements, soil borings must be performed in a grid pattern within the buildable areas to show the ground water characteristics of the site.

- ~~6~~-7. Plan and profile views shall be provided for all proposed storm-water management system improvements. The plan and profile shall be presented on the same plan sheet and shall be vertically oriented.

- a. Design calculations for all components of storm water management systems, including but not necessarily limited to storm sewers, channels and detention facilities, shall be provided on the plans.

- b. A drainage area map shall be included on the plans. The map shall define the areas tributary to catch basins and inlets (including upstream and offsite areas). The design calculations shall include the determination of the weighted runoff coefficients for the areas tributary to each specific inlet or outlet. The design calculations shall also include justification for the initial time of concentration used for the storm sewer design calculations.
- c. The following information must be shown in the plan view of the proposed storm sewer system improvements:
 - i. Size, material and type of pipe.
 - ii. Length between structures.
 - iii. Slope of sewer between structures.
 - iv. Where required, a dedicated storm-water easement must be shown on the plans. The easement width shall be in accordance with the following:
 - (1) 12' for open drainage along rear and side property lines.
 - (2) A minimum of 20' for enclosed storm drains.
 - (3) A minimum of 30' for open swales (cross lot drainage).
 - (4) Top of casting and all invert elevations at each structure.
 - (5) Progressive numbering system on structures.
- d. The following information must be shown in the profile view of the proposed storm sewer system improvements:
 - i. Existing and proposed ground elevations.
 - ii. Size, material and type of pipe.
 - iii. Length between structures.
 - iv. Slope of sewer between structures.
 - v. Hydraulic gradient between structures.
 - vi. Top of casting and all invert elevations at each structure.
 - vii. All utility crossings.
 - viii. Special backfill areas, i.e. sand.
 - ix. Progressive numbering system.
 - x. Adjacent existing or proposed utilities plotted where parallel.
- e. Where ~~public~~ storm sewer construction is proposed, the Charter Township of Ypsilanti standard storm sewer detail sheets must accompany the plans. The standard details are included in [the Digital Appendix-B](#).
- e.f. [A stormwater management long-term maintenance agreement and plan shall be provided. An example is provided in Appendix C.](#)

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B. Design Criteria

Components of storm-water management systems shall be designed in accordance with the requirements of the WCWRC, as noted previously. The WCWRC design criteria shall apply to all storm-water management system components, regardless of whether the facilities will be publicly dedicated or privately maintained at the completion of the project.

1. Storm-water discharge rates shall be determined as prescribed in item 1 of Part A of this section.
2. Surface runoff shall be determined as outlined by the WCWRC.
3. Storm-water conveyance systems shall be designed per the requirements prescribed by the WCWRC. The following are acceptable forms of storm-water conveyance:
 - a. Natural streams and channels.
 - b. Vegetated swales and open ditches.
 - c. Storm sewers. Enclosed storm sewer systems are generally comprised of the following elements:
 - i. Pipe
 - ii. Manholes
 - iii. Catch Basins
 - iv. Inlets
 - v. Sump pump leads shall be connected into an enclosed system and shall be tapped directly into storm sewer structures or cleanouts at or above the hydraulic grade line of the 10-year storm. Sump pump leads shall not be discharged directly to open surfaces.
 - d. Culverts.
4. Detention/Retention facilities shall be designed per WCWRC guidelines.
5. Underground detention/retention facilities shall include all required bedding, cleanouts and monitoring manholes and can only count up to 30% of void volume for storage or as determined to be acceptable by the WCWRC.
- 5-6. Access easements or areas to be specifically preserved for entry to perform maintenance shall be provided on all retention, detention, or infiltration facilities.
7. Low impact design (LID) and/or Best Management Practices (BMPs) for storm-water management is encouraged within Ypsilanti Township however must be in conformance with the Low Impact Design Manual of Michigan and also in compliance with the requirements of ~~the -WCWRC~~the Washtenaw County Water Resources Office. Examples of low impact design include:
 - a. Bioretention (rain garden)
 - b. Detention basin
 - c. Infiltration basin/trench
 - 6-d. Bioswale

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C. Materials

1. Vegetative cover for natural streams and channels, open ditches and swales, as well as detention/retention facilities shall be in accordance with the requirements of the WCWRC.
2. Sewer Pipe

- a. Storm sewer pipe shall conform to the current American Society for Testing Materials “Specifications for Reinforced Concrete Culvert, Storm Drain and Sewer Pipe”, ASTM C-76 for circular pipe, or ASTM C-507 for horizontal elliptical pipe, latest revision.
- b. If other materials are proposed for use, the applicant shall furnish the load carrying design analysis for the pipe for the proposed depth conditions.

3. Pipe Joints

- a. Pipe joints shall conform to the following requirements:

~~b~~.i. Modified Grooved Tongue (M.G.T.) pipe shall have a rubber gasket snapped into a groove cast into the tongue.

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~~e~~.ii. The modified groove or bell end of the pipe shall be made smooth and shall have not over a 3 ½% slope for sizes 10” – 24”, or a 2% slope for sizes 27” – 108”, tapered to fit the rubber gasket to tolerances as determined by the gasket manufacturer.

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~~d~~.iii. Rubber gasket joints shall be in accordance with the Specification for “Joints for Concrete Pipe and Manholes, using Rubber Gaskets,” ASTM Designation: C-443, latest revision.

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~~e~~.iv. Rubber gasket joints shall be lubricated and coupled in accordance with the pipe manufacturer’s printed instructions.

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4. Manholes

- a. Manholes shall be precast reinforced concrete sections in accordance with the Ypsilanti Township Standard Details as seen in [the Digital Appendix-B](#).
- b. Precast reinforced concrete manhole sections shall conform to the requirements of the American Society for Testing and Materials, “Specifications for Precast Reinforced Concrete Manhole Sections, ASTM Designation C-478, latest revision.
- c. Wall thickness shall depend on depth and shall be subject to the approval of the Township’s Engineer.
- d. Pre-cast or HDPE grade adjustment rings are encouraged under paved areas.
- e. Brick for casting adjustment or concrete block for manhole, inlet, and catch basin construction shall conform to the requirements of the Michigan Department of Transportation “Standard Specifications for Construction,” latest revision. Wall thicknesses shall depend on depth and shall be subject to the approval of the Township’s Engineer.
- f. Pre-cast manhole joints shall be as described in Section [VI.Materials.3.a.iii-C-3-d-, Stormwater Management, Materials, Pipe Joints.](#)

- g. A minimum of three to a maximum of six adjustment courses shall be placed above the top of the cone section on all precast or block manholes.
- h. Manhole covers and frames shall be East Jordan Iron Works #1040 with Type "B" cover, or approved equal. All storm structures receiving runoff shall include raised lettering reading "Dump no waste, Drains to Waterways" and a fish logo.
- i. The entire outside surface of all concrete block and brick masonry portion of drainage structures shall be plaster coated with ½" thick mortar.
- j. All manholes on storm sewers 18" in diameter and smaller shall have 2' deep sumps unless otherwise called for on the plans.

5. Catch Basins

- a. Catch basins shall be constructed of brick, precast manhole blocks, or precast reinforced concrete manhole sections, as described in Part 4 of this section, in accordance with the Ypsilanti Township Standard Details.
- b. Pavement catch basin and inlet frames and grates shall be in accordance with the requirements of the Washtenaw County Road Commission.
- c. Lawn catch basin and inlet frames and grates shall be East Jordan ~~Iron Works~~ #1000, with Type "N" grate, or approved equal. All storm structures receiving runoff shall include raised lettering reading "Dump no waste, Drains to Waterways" and a fish logo.
- d. Ditch catch basin frames and grates shall be East Jordan ~~Iron Works~~ #1000, with Type 01 Beehive grate, or approved equal.
- e. Parking lot catch basin frames and grates shall be selected at the discretion of the applicant's engineer, but shall be capable of carrying the anticipated traffic loads, and shall have sufficient opening area to receive the design storm-water runoff. Where possible, catch basins shall be placed out of the expected wheel paths of vehicles. When catch basins are placed within areas of travel, a concrete apron shall be provided.

D. Construction Methods

1. Construction Progress

Unless otherwise permitted by the Township Engineer and/or the WCWRC, construction of storm sewers shall begin at the outlet end of the sewer and proceed upgrade.

2. Certification and Inspection

All pipe and fittings delivered to the job shall be accompanied by certification papers showing that pipe and fittings have been tested in accordance with the applicable

specifications and that pipe and fittings meet the specifications for this project. All pipe and fittings will be inspected upon delivery to the job site. No cracked, broken or damaged pipe or fitting will be allowed in this work. Rejected pipe and fittings will be immediately removed from the job site.

No pipe or fittings known to be defective shall be laid in the work. Any piece found to be defective after it has been laid shall be removed and replaced with a sound piece. If the major part of a defective pipe is sound, the good end may be cut off and used. Every such cut shall be square and ground smooth. Cut surfaces of ductile iron pipe shall be painted with two coats of approved asphaltum metal protective paint where required by the Township.

Full time inspection is required by the Township Engineer for all underground storm sewer infrastructure.

3. Excavation

Excavation, bedding, and backfill for open cut pipe installations and structures shall be accomplished in accordance with requirements in the Grading and Earthwork Section.

4. Laying Pipe

a. Handling Pipe and Fittings

All pipes and castings shall be unloaded and distributed along the line of work in such manner and with such care as will effectually avoid damage to any pipe or fitting. Dropping pipe or fittings directly from the truck will not be permitted. Care must also be taken to prevent abrasion of the pipe coating. Wherever the coating may have been rubbed off, the part shall be recoated as may be required by the nature of the pipe coating.

b. Placement of Pipe

Each pipe shall be inspected for defects prior to being lowered into the trench. The inside of the pipe and the outside of the spigot shall be cleaned of any dirt or foreign matter.

Construction shall begin at the outlet end and proceed upgrade with spigot ends pointing in the direction of flow. Pipes shall be laid on a minimum 4" MDOT class II natural sand cushion. A 6" MDOT class II natural sand cushion shall be provided if called for on the plan details. All plastic pipe bedding shall be clean course aggregate 6A, 6AA, or peastone. If the subgrade has been disturbed so that refilling is necessary to bring the pipe to grade, such refilling shall be done with MDOT 6A coarse aggregate thoroughly tamped in place. Bell holes shall be excavated so that the full length of the pipe barrel will bear uniformly on the sand cushion.

Pipes shall be centered in bells or grooves and pushed tight together to form a smooth and continuous invert. After laying pipe, care shall be taken so as not to

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disturb its line and grade. Any pipe found off grade or out of line shall be re-laid properly.

c. Line and Grade

Pipe shall be carefully laid to line and grade and shall have bearing over its entire length except at joints where the joint hole shall be of such size as to give adequate room for working. Pipe shall be laid with a minimum cover (2.5') as shown on the standard details. When a pipe laser is not used, elevations will be taken and recorded at each pipe bell, and a transit, plumb bob, or other line of sight device will be used to maintain line.

d. Excavation Below Bottom of Pipe

As a result of construction procedures or where excavation has not uncovered a stable foundation subgrade at a depth of 6" below the bottom of the proposed pipe, excavation shall continue downward below the bottom of the proposed pipe to reach stable foundation soil. The space resulting from such excavation and the pipe bedding shall be filled and constructed with MDOT 6A coarse aggregate and bedding as specified in the Grading and Earthwork section.

e. Laying and Bedding of Pipe

Pipe installation shall be made in accordance with the published installation guide of the pipe manufacturer except as otherwise specified herein. Whenever instructions given by the manufacturer are at variance with the provisions specified herein, the laying standards provided herein shall govern.

Proper tools, including pipe pullers, special cutters, spacing yokes, machining tools, test caps, ring feeler gauges, etc. shall be provided at the site of the work for installation of the pipe.

Immediately before laying each section of pipe or fitting, it shall be thoroughly cleaned of all debris, dirt or other accumulated foreign material. It shall be inspected for damage to the coating or pipe material and repairs shall be made where required. If deemed irreparable by the Township Engineer, then it shall be removed from the job site. Care shall be taken to keep the interior of previously laid pipe clean and free from dirt and other foreign material. Bulkheads or other means shall be used at the open end of the previously laid pipe for this purpose.

After a length of pipe is placed in the trench, the spigot shall be centered in the bell of the adjacent pipe, the pipe shoved into proper position in the collar or bell and brought into true alignment. The pipe shall then be secured with MDOT class II natural sand, or clean coarse aggregate 6A, 6AA, or peastone for plastic pipe that is carefully tamped under and on each side of the pipe.

f. Concrete Cradle for Pipe

Where required, pipe shall be installed with a cradle of MDOT Grade S3 concrete.

Each pipe shall rest on a 6" minimum thickness bed of dry mix concrete that is shaped to fit the bottom of the pipe. The dry mix concrete shall be MDOT Grade S3.

After setting the pipe, the space between the outside of the pipe and the undisturbed trench bank shall be filled to a level equal to a point 1 foot above the top of the pipe with MDOT Grade S3. The concrete shall have a 5" slump and be mechanically vibrated to insure complete filling of the annular space between the excavated face of the original ground and the outside face of the pipe.

g. Pipe Placed in Casings

Pipes will be placed in casing pipe in the locations shown on the drawings. Under this work the contractor will place the carrier pipe, fill the annular space between the casing and carrier pipe, place bulkheads, and complete all backfilling.

For road crossings, all void spaces between the casing pipe and the carrier pipe will be filled with sand meeting the requirements of MDOT 2NS natural sand. Sand will be placed by flushing or other methods approved by the Township Engineer. The contractor will furnish the Township Engineer with information on the quantity of sand placed.

The annular space at the ends of the casing pipe will be bulkheaded with a minimum of 12" thick solid masonry with a 1/2" fiberboard cushion between the masonry and carrier pipe.

All necessary skidding materials required to protect the carrier pipe will be furnished by the contractor.

h. Jointing

Where pipe is laid in wet trenches, trenches with running sand, or in trench conditions where manual means will not allow pushing the pipe home, mechanical means shall be utilized for pulling the pipe home and holding the pipe joints tight until completion of the line. Mechanical means shall consist of a cable placed inside the pipe with a suitable winch, jack, or come-along for pulling the pipe home and holding the pipe in position.

All joints on elliptical concrete pipe (42" equivalent diameter and larger) shall be cement mortar pointed on the inside.

i. Gravity Pipe

Where pipe is laid in wet trenches, trenches with running sand, or in trench conditions where manual means will not allow pushing the pipe home, the applicant shall provide and use mechanical means for pulling the pipe home and holding the pipe joints tight until completion of the line. Mechanical means shall consist of a cable placed inside the pipe with a suitable winch, jack, or come-along for pulling the pipe home and holding the pipe in position.

j. Pressure Pipe

Refer to the Water Supply System Section for acceptable construction methods and approved materials for joints and joint restraint for ductile iron pressure pipe.

k. Backfill

Backfill shall be placed in accordance with the Grading and Earthwork section.

5. Structures and Appurtenances

a. Construction methods for drainage structures shall conform to section 403.03 of the 2003 Michigan Department of Transportation Standard Specifications for Construction except as herein provided.

b. All precast sections shall bear the stamp of an approved laboratory as having been tested and delivered from tested stock of the manufacturer.

c. Precast sections shall be constructed so that no more than 50% of the circumference, measured on the inside face, is deleted on any horizontal plane for sewer pipe openings. There shall be no less than 12" of residual concrete measured on any horizontal plane between pipe openings.

d. Excavation shall be carried to the depth required to permit the construction of the base in accordance with the requirements of the Ypsilanti Township Standard Details. The excavation shall be sufficiently wide to allow for shoring, bracing, or formwork, should any or all be necessary. Also, the excavation shall allow for accessibility in plastering the exterior of all brick masonry. The bottom of the excavation shall be trimmed to a uniform horizontal bed to receive the concrete base. The excavated section shall be completely dewatered before any concrete is placed therein. The standard details are included in [the Digital Appendix-B](#).

e. With the exception of drainage structures having sumps, the bottom of the structures shall be channeled to provide for smooth flow through the manhole. Channels shall be formed using MDOT Grade S3 concrete.

f. Connections to manholes shall be properly supported and braced.

6. Stubs, Connections, and Bulkheads

a. Existing sewers shall be connected in where called for on the plans. Bulkheads shall be placed or removed where called for on plans.

b. Unless otherwise noted on the plans, stubs shall consist of one length of sewer pipe with watertight stopper bulkhead or, where approved by the Township Engineer, a brick and mortar bulkhead. Pipe stubs shall be of the same material as the sewer to which they connect unless specified otherwise.

7. Cleaning

a. All sewers shall be thoroughly cleaned before final acceptance.

8. Testing

a. General

The applicant shall be responsible for providing all necessary equipment and labor for making the tests.

b. Deflection Test for Plastic Pipe

The allowable maximum deflection shall be 5% of internal pipe diameter. A Deflection Test Gauge (Go, No-Go) as manufactured by Hurco Technologies, Cherne Industries, or approved equal shall be used to verify that the maximum allowable deflection standard is met. Pipe with deflections greater than 5% will be considered unacceptable and shall be replaced.

c. Digital Recording (Public Storm Sewers)

As a means of insuring that pipe laying was properly done and that all joints are in a "home" position, the applicant shall provide for digital recording of 10% of the pipe footage laid (pipe 36" diameter and smaller), with no less than one manhole run being televised on each project. The Township Engineer shall review and approve which pipe runs are to be recorded. The recording shall be done no sooner than thirty (30) days after sewer installation is complete. The applicant shall provide 24 hours notice to the Township Engineer prior to recording so that a representative may be present. A small amount of water must be poured in the pipe before recording to ensure identification of low spots. A satisfactory review of the DVD by the Township Engineer shall be a condition for sewer acceptance by Ypsilanti Township. Typical items to be reviewed on the DVD will include pipe deflection, pipe settlement, connections, joints and pipe cleanliness. If the DVD review reveals unsatisfactory conditions, all deficiencies shall be corrected and the affected pipe sections re-televised for review by the Township Engineer.

CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MAY 5, 2020 REGULAR BOARD MEETING

Supervisor Stumbo called the meeting to order at approximately 7:00 p.m. on a Zoom Virtual Board meeting. Supervisor Stumbo stated because this meeting is on Zoom we would not be able to do The Pledge of Allegiance or a moment of silent prayer.

Members Present: Supervisor Stumbo, Clerk Lovejoy Roe, Treasurer Doe
Trustees: Stan Eldridge, Heather Jarrell Roe
Monica Ross-Williams, and Jimmie Wilson

Members Absent: none

Legal Counsel: Wm. Douglas Winters

PUBLIC COMMENTS

JoAnn McCollum, Township Resident, stated she was disappointed in Clerk Lovejoy Roe and Trustee Jarrell Roe for only allowing one person to run for Township Clerk. She said she quit being an election worker because of it. She said she was happy to hear that three African Americans were running for County Commissioner for District 5 and then learned that Karen Lovejoy Roe was running for that same seat. Ms. McCollum stated we have worked so hard to be seen as a fair community and she said the Township does not need this.

Jessie Molberg said she was a former Ypsilanti Township resident and the oldest daughter of Karen Lovejoy Roe. She said because of the public persecution her mother has endured through the years she said she would never run for a public office. She said but in 2018 she was elected to the City Council in Kentucky. She said the decision to run for public office was because of her mother. Ms. Molberg stated she wanted to serve her community as she has seen her mother do her entire life as a public servant to Ypsilanti Township for almost 32 years and she has always put her residents first. She said dishonesty and deceitfulness has never been characteristic of Karen Lovejoy Roe and it isn't now. Ms. Molberg said it is her hope that the truth comes to light. She said her mothers' success has come from always being a person of integrity, which she taught all her children, despite this current political scheme slandering our family name. Ms. Molberg said as Michelle Obama has said, "When they go low, We go high".

Supervisor Stumbo read two letters from residents into the record one from Donald Hazzard and one from Arloa Kaiser (see attached).

JoAnn McCollum, Township Resident stated three candidates had their affidavits incorrectly done. She said the two candidates dropped out, it should be all three. She said a legal document was not handled correctly and Karen Lovejoy Roe should not be in that position. She stated that Heather Jarrell Roe should drop out because her affidavit was incorrect.

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MINUTES OF THE MAY 5, 2020 REGULAR BOARD MEETING
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Michael Richardson, Township Resident stated he was running for Trustee of the Township and just wanted to introduce himself to the board and residents.

CONSENT AGENDA

A. MINUTES OF THE APRIL 21, 2020 REGULAR MEETING

B. STATEMENTS AND CHECKS

1. STATEMENTS AND CHECKS FOR MAY 5, 2020 IN THE AMOUNT OF \$662,743.50

A motion was made by Trustee Eldridge, supported by Treasurer Doe to Approve the Consent Agenda.

Eldridge.....Yes Doe.....Yes Wilson.....Yes
Lovejoy Roe.....Yes Jarrell Roe..... Yes Stumbo.....Yes
Ross-Williams.....Yes

The motion carried unanimously.

ATTORNEY REPORT

1. GENERAL LEGAL UPDATE - none

NEW BUSINESS

1. REQUEST TO APPROVE THE FOURTH ADDENDUM WITH WASTE MANAGEMENT TO EXTEND SERVICES THROUGH SEPTEMBER 30, 2020 CONTINGENT UPON APPROVAL OF THE INSURANCE AND PERFORMANCE BOND BY THE TOWNSHIP ATTORNEY

A motion was made by Clerk Lovejoy Roe, supported by Trustee Eldridge to approve the Fourth Addendum with Waste Management to Extend Services through September 30, 2020 Contingent upon Approval of the Insurance and Performance Bond by the Township Attorney (see attached).

Doe.....Yes Wilson.....Yes Stumbo.....Yes
Lovejoy Roe.....Yes Ross Williams..... Yes Eldridge.....Yes
Jarrell Roe.....Yes

The motion carried unanimously.

2. REQUEST AUTHORIZATION TO APPROVE THE CONTRACT WITH BEST ASPHALT TO COMPLETE PHASE II OF THE GROVE RD PATHWAY IN THE AMOUNT OF \$225,869.50 BUDGETED IN LINE ITEM #212-970-000-997-007

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MINUTES OF THE MAY 5, 2020 REGULAR BOARD MEETING
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A motion was made by Trustee Eldridge, supported by Clerk Lovejoy Roe to Approve the Contract with Best Asphalt to Complete Phase II of the Grove Rd Pathway in the Amount of \$225,869.50 Budgeted in Line Item #212-970-000-997-007(see attached).

Michael Hoffmeister, Residential Services Director stated that this was Phase II and was part of the border to border trail. He said Phase I was completed last year and that Washtenaw County Parks pays for this project.

**Doe.....Yes Wilson.....Yes Stumbo.....Yes
Lovejoy Roe.....Yes Ross-Williams.....Yes Eldridge.....Yes
Jarrell Roe.....Yes**

The motion carried unanimously.

3. REQUEST TO APPROVE THE SECOND AGREEMENT WITH THE WASHTENAW COUNTY ROAD COMMISSION FOR LOCAL ROAD IMPROVEMENTS IN THE AMOUNT OF \$76,375.00 BUDGETED IN LINE ITEM #101-446-000-818-022

A motion was made by Clerk Lovejoy Roe, supported by Trustee Wilson to Approve the Second Agreement with the Washtenaw County Road Commission for Local Road Improvements in the Amount of \$76,375.00 Budgeted in Line Item #101-446-000-818-022 (see attached).

Supervisor Stumbo stated that Washtenaw County matches us dollar for dollar. She said this was seal coating of the roads in the Township.

**Doe.....Yes Wilson.....Yes Stumbo.....Yes
Lovejoy Roe.....Yes Ross-Williams.....Yes Eldridge.....Yes
Jarrell Roe.....Yes**

The motion carried unanimously.

4. REQUEST TO SUSPEND YPSILANTI TOWNSHIP CHIPPING OPERATIONS EFFECTIVE MAY 29, 2020

A motion was made by Treasurer Doe, supported by Trustee Jarrell Roe to Approve the Request to Suspend Ypsilanti Township chipping Operations Effective May 29, 2020.

Supervisor Stumbo said because of the pandemic they have not been able to hire seasonal help or full time chipper staff. She said the financial cost from Waste Management on the extended contract the board had approved, would cost \$300,000.00 for 90 days. She said we usually extend the contract from our current waste hauler because the increase has only been about 2-3% higher with each extended contact. Supervisor Stumbo stated that was not the case this time, it

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would be a substantial increase and that is why we are requesting competitive bids. She said Javonna Neel, Director of Accounting, stated the Environmental Services fund will exceed the millage funds by \$940,000.00. She said we need to have in depth discussions regarding cutting services or go out for a millage increase based on the forecast. She said increasing property taxes was not a bridge she wanted to cross. She said we do have branch pick up from Waste Management but there are specifications listed in our helpful handbook as to how they will be picked up and how residents must prepare the branches. Supervisor Stumbo stated residents can also go to the Compost Site and drop off their branches at no cost. She also said that in case of a storm the township would restore the chipping service to help with the clean up. Supervisor Stumbo also said that we are anticipating a \$1.2 million cut in our State Shared Revenue which comes from sales tax paid in the state. She said plans were underway to prepare for such a cut in revenue.

**Doe.....Yes Wilson.....Yes Stumbo.....Yes
Lovejoy Roe.....Yes Ross-William.....Yes Eldridge.....Yes
Jarrell Roe.....Yes**

The motion carried unanimously.

5. REQUEST FOR VOTE OF NO CONFIDENCE FOR CLERK KAREN LOVEJOY ROE

A motion was made by Trustee Ross-Williams, supported by Treasurer Doe to Approve Request for Vote of No Confidence for Clerk Karen Lovejoy Roe.

Trustee Ross-Williams said I would like to read this statement and I will make sure it is sent over to the Clerk for the record. It would give or take about 5 or 7 minutes. Unlikely to what is widely believed and way too overly accepted, being an Elected Official should focus on excel of the common good, welfare and quality of life for residents. What it should never be is about ego, self-gratification, nepotism, or what can be done for me versus we, the collective as a whole. This is not where in three years, 5 months, 15 days since taken oath of office I believed this board would be, at an impasse in the middle of a pandemic called corona virus, ever growing numbers of our citizens being impacted, local businesses closed, in lines and need for food, comfort, or financial assistance. Yet this is where we are, turning the clock backwards to the beginning. The job is to get to work, coming off the heels of a financial crisis from 2008 to 2013 that some feel and have voiced contempt of irritation when mentioned before this board when that not too distance past is reflected upon, repair what was broken, our residential housing stopped with financial crisis as stability for family and individuals by the addition of new businesses while supporting others that stayed and survived, promote strong neighborhoods in the rising activism within them to be their best. This meant to this Trustee, work together, not in silos as a board for our constituents, moving as a collective to meet in the middle, for the good of voters and those who did not vote for us. Today I am sorried, it is not for just having to sit here is this zoom conference, due to a global, nationwide, state, and local pandemic versus our Ypsilanti Township Board conference room then instead it is for having to ask for a

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vote of no confidence against Karen Lovejoy Roe. I take no joy in this what so ever, however, our duty calls, our constituents deserve it, we are public servants to operate for the citizens only, nothing more, nothing less, this board cannot allow for these actions to continue. On April 21st, 2020 at 8:00 the collective changed. That's when nepotism showed its' colors on this board, by an action some have called political gainsmanship, others are still in shock, bewilderment and outright upheaval, the term I would use is a switcharoo, was designed in nature by two individuals over the heads of 57,000 residents, some of which were discouraged to seek office themselves as to not rock the boat. It takes courage to enter a ring against a strong opponent and an incumbent, name ID sometimes take years to build, for others to know often a drop of a hat, less known, collecting the proper signatures, and funds necessary in these days and times, for literature and other marketing materials for voters to know their name. Prior to April 20th, 2020 to the average voter it appeared incumbents were re-running with their associated name ID for their current position, they held the power of the collective, power is always with the people and their leaders are their servants, today's a measure of the people taking their power back. The facts are the following, this motion to vote of no confidence against Karen Lovejoy Roe was due to Number 1, our community is in the middle of a pandemic called corona virus 2019. As of today there are 553 individuals that have been diagnosed with Covid-19 in the 48197 and 48198 area codes. Some of which have perished although our numbers are declining overall with mitigation, which is a blessing, we remain in a state of emergency in our state and our county since mid-March 2020. Our offices in Ypsilanti Township are closed, and the public and businesses are impacted, the public accessibility to their governmental clutches have been impacted, this is a fact and all public officials must be mindful of this. We are a public service that operates for the citizens only, again nothing more, nothing less, but some seem to have forgotten that fact. On April 21, 2020 two members of this board Trustee Heather Jarrell Roe and Clerk Karen Lovejoy Roe who are related colluded in an effort to pull a switcharoo, originally filing in their current positions in February 2020 then changed in those places on April 21, 2020. Although it was not illegal to do so the appearance of using nepotism to collude voters of choices in candidates should not be a practice in elections in Ypsilanti Township. There is no right to choose a successor in Ypsilanti Township, this was a statement that was allegedly said, and if you believe that Clerk Lovejoy Roe a rightful correction is solely needed and necessary as the voters in Ypsilanti Township have that right. This is Number 3, repeated errors in affidavit identity and receipt filings which are duty bound to be reviewed by the filing official in these cases the filing official in each incident was the office of Clerk Karen Lovejoy Roe, and candidates had errors in the signatory date and the notary public date. One candidate did not sign the statements and attestations. These are legal documents, as per election law, act 116 of 1954 section 168.558 which reads as follows, as varies parts therefore.

Clerk Lovejoy Roe asked Supervisor Stumbo for a point of special privilege. She said she had concerns because of the legal action that was in process, according to Trustee Monica Ross-Williams, regarding the affidavits she was going to take court action against the Clerk of Ypsilanti Township, the County Clerks' Office and the Bureau of Elections. She said in the past we have been advised that those are

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improper subjects to make comments about, and were instructed not to discuss. She said we were told that only the attorney would handle once a lawsuit was threatened. She said that historically, the attorney had advised not to have a discussion on a case, once a lawsuit was threatened.

Supervisor Stumbo stated for clarification the only action that can happen when someone is challenging a local clerks' authority in putting names on the ballot is to go to court, that was what County Clerk Kestenbaum advised as well, that's just the process.

Clerk Lovejoy Roe stated her point was that as elected officials we should not talk about a matter that would be a part of legal action, that Trustee Ross-Williams has declared she was taking publicly several times, that it was not appropriate, as our attorney had advised in the past. She said whenever a resident or developer has threatened legal action we have always been told to cease communication and tell them they can talk with the attorney.

Supervisor Stumbo told Trustee Ross-Williams she could continue.

Clerk Lovejoy Roe asked if the Attorney thought it was appropriate for the board to discuss a subject that would be filed against the Township by a Trustee.

Trustee Ross-Williams asked for a point of clarification.

Supervisor Stumbo said Trustee Ross-Williams since Clerk Roe has asked for the Attorneys opinion then she doesn't like my opinion, I will give her the Attorneys' opinion.

Clerk Lovejoy Roe stated she didn't have an objection to Supervisor Stumbos' opinion. She said it was clearly going to court from what Monica had said and she didn't know if it was appropriate for the board to discuss it.

Trustee Monica Ross-Williams said it was a legal opinion that was asked so I will wait.

Attorney Winters stated he was not aware of any legal action against anybody, the board or individual members. He said a lot of what was being discussed was a matter of public record so all board members are free to discuss as you see, as there isn't any legal action that he was aware of against anybody. He said he represents the board so he couldn't represent board members anyway.

Trustee Ross-Williams said any clarification I would have is that basically I am not doing any action against the Township as a whole. Can I continue to read my statement?

Supervisor Stumbo said yes.

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Trustee Monica Ross-Williams said, Number 1, going back to Michigan election law 116 of 1954, section 168.558 which reads as follows in parts therefore in various sections. Number 1 when filing a nominating petition, qualifying petition, filing fee or affidavit for candidacy for a federal, county, state, township, village metropolitan district or local district office in any election a candidate may file with the officer with whom a petition fee or an affidavit is filed with two copies of affidavit identity. Number 2 the affidavit identity must contain candidates' name, residential address, statement and the candidate is a citizen of the United States entitled of office sought, and a statement that the candidate meets constitutional, statutory qualifications for the office sought, other information that may be required to satisfy the officer as the identity of the candidate in which a manner the candidate wishes to have his or her name appear on the ballot. Number 4, which is in the election law, an affidavit of identity must include a statement that as of the date of the affidavit all statements, reports, late filing fees and fines required of the candidate or any candidate committee organize and support a candidates election under Michigan Campaign Finance Act 1 1976 PA 388 MCL 169.2012. 169.202 have been filed and paid and a statement that the candidate acknowledges that making a false statement in the affidavit is perjury punishable by a fine up to \$1,000.00 or imprisonment for up to 5 years or both. If the candidate files the affidavit of identity with an officer other than with the County Clerk or Secretary of State, the officer shall immediately forward to the county one copy of the affidavit of identity by first class mail, the County Clerk immediately shall forward one copy of the affidavit of identity for state and federal candidates to the Secretary of State by first class mail. An officer shall not certify to the Board of Elections Commissioners the name of the candidate who fails to comply with this section or the name of the candidate who excludes the affidavit of identity that contains false statements with regard to any information or statement required in this section or if the information including the date therefore are wrong by not being signed or/and somehow affirms by the notary public, in front of the notary public or on different dates than the notary public, the affidavit of identity are not in compliance with state law. Ignorance of the law is no excuse, what could have been done in the past and not caught are found equally of no excuse, we must do better now. Knowing better as duly elected public officials Karen. Number 4, one candidate was only disqualified after Washtenaw County Clerks' Office rightfully questioned their voter registration status specifically the candidates' home address on the qualified voter file was not in Ypsilanti Township, Michigan. Isn't your office required to check if a voter is registered in the township prior to ever appearing on any unofficial candidates list? It is within the elected duties according to state law under the office of Township Clerk in our 1,240 townships in Michigan including our own. Michigan election law again 116 1954 168.342 township office eligibility, eligibility for membership on Board of Review, Section 342 a person is not eligible to a township office unless the person is registered in a qualified election of the township for which the election is sought by the filing deadline. Section 363 oath of office, for township officers, all township officers shall before entering upon the duties of their office take and subscribe the oath provided in section 1 article 11 of the State Constitution before the Township Clerk or any other officer authorized to administer the oath and file the same with the Township Clerk who shall report the name and such oath should be administered

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without reward and certified by the officer of whom it was taken with the date taken the same. In chapter 41 the township revised statute of 1946 41.1B definitions, section 1B for this act an officer is described as the Supervisor, Treasurer, Clerk or Trustee, in section 65 it defines the Township Clerk as the 41.65 custody of the records, books, paper preservation, delivery to the successor in office accounts, accounting records, journals, and ledgers. Again section 55 of the same act the Township Clerk at each Township shall have custody of all papers of the township when another provision is made in law the Township Clerk should file and keep all certificates of oath and other papers required under the law to be filed in his or her office and shall keep all items required by law to be recorded, end quote. Number 5, the affidavit of identity in the filing have taken an oath to the following statement with each candidate filing for office in Ypsilanti Township takes an oath for, quote, I am a citizen of the United States and I meet the statutory constitutional requirements for the office sought, I swear and affirm that the facts I have provided are true, I acknowledge that making a false statement on this affidavit is perjury a felony punishable by a fine of \$1,000.00 or imprisonment of up to 5 years or both and may result in disqualification from the ballot. This is a legal statement that is signed by the candidates, affirmed by the candidates, witnessed as fact by the notary public and reviewed on the form by your office the Township Clerk, Clerk Karen Lovejoy Roe as the local filing official some of which were signed as they were reviewed by your Deputy Clerk. Not sure if some of these candidates paperwork was actually reviewed as there's errors in these documents were not caught before some of the candidates ever appeared on unofficial or official candidate lists, at the Washtenaw County Clerks' office, or how some of these candidates weren't afforded the opportunity to correct the error paperwork. Number 6, the failure to review the four affidavits of identity in receipt of filing was unknown by two of the candidates filing for office in Ypsilanti Township until well after the filing deadline of April 21st at 4:00pm or the withdraw deadline of April 24th at 5. These two candidates made a combination of public notices to withdraw their candidacy and/or emailed the office of clerk of Ypsilanti Township after learning of these errors between April 25th and April 27th. These candidates still were added onto the official list of candidates with Washtenaw County Clerks' Office by you Ypsilanti Township Clerk as the filing official. It is unsure if the other candidates know or if they knew or cared about the status of their affidavit of identity or received a filing. Number 7, in my case, Clerk Lovejoy Roe claimed IT issue was a factor in an email that sent to you on April 27th at 3:30pm was the cause of you not seeing my email request. That request for the record was sent to you as the filing official along with Township Supervisor, Brenda Stumbo, who confirmed to me she was able to see my request for the withdrawal communication. I have been aware of other candidates visiting Ypsilanti Township Clerks' Office, been made aware of other candidates who were allegedly initially given improper paperwork to filing for the offices sought which was corrected upon the candidates visiting the Washtenaw County Clerk's office. Again, the voters of Ypsilanti Township have the following rights, to expect our candidates seeking office in Ypsilanti Township are Ypsilanti Township residents, to expect the office of Clerk as a custodian of Township records to perform the duties of the office as prescribed by law, to have the Director of Elections in Ypsilanti Township, which this township has had since 2019 and Ypsilanti Township taxpayers pay the

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salary and benefits, therefore overseeing all matters as it relates to candidate filing and elections in Ypsilanti Township, or in the event of their absence his or her properly trained designee. It does not appear at this time that the Director of Elections was involved or otherwise made any of the errors noted above, to only have candidates on the ballot who have met or exceeded guidelines and requirements as described by law in the State of Michigan, to have fair and free elections and to know that the office of Clerk in Ypsilanti Township is run fairly without favoritism, nepotism, or any impartiality to any candidate seeking office in our township. At this point this Trustee does not believe this to be so. Voters have all rights to choose the candidates qualified for the ballot, the elected official in charge of this action must follow state law and make sure that this is so, this is why I'm calling for the Ypsilanti Township Board of Trustees to affirm my motion of a vote of no confidence for Karen Lovejoy Roe as Clerk. In closing I am also formally requesting the Michigan Secretary of State Office and/or if necessary the Attorney General to investigate these matters as described above in a letter to be forwarded to the respective offices and ask the Township Supervisor to consider such, thank you, respectfully forwarded Monica Ross-Williams, Ypsilanti Township Trustee and that is the end of my statement.

Myla Harris, Township Employee, Chief Steward of ASCME Local 3451, Ypsilanti Township Chapter stated that Clerk Lovejoy Roe has had resistance by having family working during the elections. She said she filed a grievance on behalf of union employees and overtime. She said she encourages township residents to go out and vote because she said this was not the type of leadership they should want to represent them.

Lee Tooson, Township Resident stated that after listening to what has happened he questions how ethical was it for Clerk Lovejoy Roe to do what she did. He said he classifies it as white privilege. He said because certainly a Black person wouldn't have a right to do that. He said he feels Ms. Roe is doing her daughter-in-law a disservice and she would get hell from the community. He said we should be better than this.

Melvin Parson said he was not a resident of Ypsilanti Township and he encouraged the Board to cast a no confidence vote against Karen Lovejoy Roe. He expressed concern by Karen Lovejoy Roe stepping into a candidacy where she will be running against three African American candidates.

Janessa Monahan, Township Resident, stated she was a black woman, a resident of Ypsilanti Township and an election worker. She said that she was in shock at what people were saying because Karen Lovejoy Roe has only shown her the upmost respect. She said for people to be questioning her integrity was baffling. Ms. Monahan encouraged all people to go out and vote and said she was standing by Karen Lovejoy Roe.

Clerk Lovejoy Roe stated that she didn't know where to begin but she said she knows, God knows and Monica Ross Williams knows her statements are full of outright falsehoods. She said that to say she didn't acknowledge Monica's email

CHARTER TOWNSHIP OF YPSILANTI
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was not true. Clerk Lovejoy Roe said that when she received an email she could not open she went to Travis the Township IT Manager and he said that it was sent by a corrupt server. She said the email address was not an email address that Monica had ever used. She said that she sent an email to Monica at her township email address telling her that and now Monica was saying she didn't respond. Clerk Lovejoy Roe stated that she never sent an affidavit from someone that doesn't live in the township and that was a lie. Clerk Lovejoy Roe stated the grievance that Myla Harris wrote was because JoAnn McCollum, Angela Rogers, and Nancy Hare-Dickerson helped set up for the elections. She said these workers had to be certified election workers. She said to her fellow board members that the allegations before you are false and other things would come out in court. She said the decisions she made were not done alone but with counsel from the Bureau of Elections. She said it was a big deal to take someone off the ballot and if she was going to do that she was going to have legal standing to do so. She said she would leave it up to a Judge to change that ruling since the experts in the field that she contacted led to her decision. She said she would never do anything to bring darkness to the residents she serves in Ypsilanti Township. She said she would never bring darkness to her friends or her family and most importantly she would not do anything to cause a separation from her Savior, Jesus Christ, who was the Lord of her Life.

Trustee Eldridge stated he was extremely disappointed to be here discussing this. He said he had been on this board 16 years and had considered pursuing a full time spot on this board. He stated that he hadn't up until now because they were always held by an incumbent and he respects that process. He said a year ago Treasurer Doe stated he was not running for re-election. He gave anyone an opportunity to run for that seat. He said listening to Monica she said there were three candidates whose paperwork were not handled properly by the Clerks' office. He said two of them asked to be removed from the ballot. He questioned if they filed incorrectly, why their name would be on the ballot.

Clerk Lovejoy Roe stated she had no knowledge of anyone wanting to be removed from the ballot prior to the legal deadline. She said she had one candidate that asked to be removed after the deadline and she told him it was too late per the law.

Trustee Eldridge asked if the notice to be removed came prior to the submission to the County Clerk couldn't we grant those wishes. Trustee Eldridge said if the Clerk's office received those notifications before the filing was done with the County Clerk it seems there was an opportunity to grant those wishes. He said if we're following the strict letter of the law that doesn't address if there were improper filings. He said he knew both Trustee Ross and Clerk Roe brought it up differently in their statements but if the paperwork is not filed correctly does that leave discretion, if the rules says fill something out completely and correctly it seems this is a steadfast rule, not a law but a rule. He further said if we are going to follow the rule of meeting timelines to withdraw did we meet them in the case of proper filings. He said that was his only question and said he had not seen any of the paperwork.

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Clerk Lovejoy Roe stated she had no one who tried to file after the deadline. She said only one candidate had wanted to withdraw after the deadline because he thought he had filled out his form wrong. She said that after researching and talking to the Bureau of Elections the decision not to remove people from the ballot was made and to approve all the filings.

Trustee Eldridge said he did not mean to say someone tried to file after April 21st. He said if someone tried to withdraw and there was a computer glitch and it sounds like maybe we didn't open it, do we know if that was received in time and even if it wasn't and they tried to withdraw prior to April 27th could we not have allowed that and were any of the filings received on or before April 21st not filled out correctly by law the way it is required. He said the Notary Public is pretty specific and that he did not know that it allows for discretion to be made in asking other people, and he asked what is the rule, what does the law say.

Clerk Lovejoy Roe said to withdraw under election law, Chapter 168 MCL, you have to withdraw three days following the filing deadline which was April 24th at 4:00PM. She said she did not receive anything from anyone requesting to withdraw by the deadline. She said she did receive a request three or four days after the deadline from a candidate requesting to withdraw. She said she emailed him back and explained the law to him. She said in reference to the email that was snatched by the Township IT security system, it was sent way into the next week after the deadline to withdraw. She said she did not know what it was because it could not be opened. She said she sent an email back to Monica's ytown email address. She said the email that Monica used was not the township email address or server and said it was from a server that Travis McDougald, IT Director said was a corrupted server. She said she sent it back to Monica's ytown email address with a copy of the notice indicating there was a problem with her server. She said she asked Monica to resend the email from her township email address and she never heard from her. She said for several reasons including checking past historical records and with the Bureau of Elections who shared what they would do, a decision was made to not remove candidates from the ballot. She said she researched and asked the opinion of many people with more experience and at a higher level than herself to make a decision which was proper. She said it was hard to understand the motivation as to why a person would blame her because they thought they were taken off the ballot and now because she left them on the ballot they were threatening to sue the Township Clerk, the County and involve the Attorney General and the Bureau of Elections. Clerk Lovejoy Roe said her job was to go by the law and that was done in every instance.

Trustee Jimmie Wilson stated that if the Clerks' Office had information that the affidavits were not in order the candidates should be disqualified. He said he would have concern moving forward that the Clerks' Office was not doing things ethically. He said he would have to question everything that comes out of the Clerks' Office. He said he would make a motion to table this if Clerk Lovejoy Roe does what's right tomorrow morning and authorize all three candidates to be taken off the ballot. He

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said if Clerk Lovejoy Roe cannot take that vow to do that he would have no alternative than to vote yes or no confidence.

Clerk Lovejoy Roe said she respects everyone's opinion but there was confusion over what's legal and what's not legal. She said everything that was done was legal.

Supervisor Stumbo asked why Clerk Lovejoy Roe felt she needed to speak to other election officials.

Clerk Lovejoy Roe said the County sent the information back and asked if she thought there was a discrepancy. She said she consulted with other election officials including the Bureau of Elections and she said all told her the only date that mattered would be the notary date.

Treasurer Doe said over the 19 plus years he had worked with Karen Lovejoy Roe he thought she always tried to be transparent and she wanted the voters to have a choice. He said for her to sign up in March to run and then change her mind at the last hour and her daughter-in-law change her candidacy from Trustee to Clerk that was not fair to the voters or anyone that may have wanted to run for Clerk.

Trustee Ross-Williams stated she filed her documents in December and wasn't notified until April there was a discrepancy. She said if she got notice ahead of time she would have changed it. She said it is not right for her to run if her documents weren't valid. She said she found out about the discrepancy on April 25, 2020. She said if there's an error in her paperwork it's an error and she needs to withdraw.

Supervisor Stumbo stated this was hard because she and Clerk Roe have been very close for about 30 years and she said she was very close to her kids as well. She said this was not about that. She said to her it was about shining a light and being honest. She said during a health pandemic when the building was closed it appears two board members who are related conspired to make sure there was no opposition in a race. She asked if it was legal she said she didn't know but she questioned it, because the clerk does the official filing and controls that process. She said Clerk Lovejoy Roe was a person of authority and she said when you are in that position and you are over elections, that's a sacred place and people should be treated equally. She said people were not treated equal. She said when you find an error in an affidavit it should be disqualified. She said the County Clerk told her he would not accept an affidavit that was incorrect. She said he also told her the State of Michigan wouldn't accept it either. She said it was not a matter of taking someone off the ballot they were never on the ballot. She said it was up to the Clerk to make sure the documents are accurate and Clerk Lovejoy Roe failed to do that. She said she finds it ironic that Clerk Roe fought for a Director of Elections and yet that Director of Elections was not here to assist. Supervisor Stumbo stated that everyone should have a fair and equal chance to apply for an open seat and she said only Trustee Jarrell Roe and Clerk Lovejoy Roe knew of the open seat. She said she and the rest of the Board did not know the plan but if they did they would have told people. She said Clerk Lovejoy Roe has another chance to disqualify them and she would like her to consider what Trustee Wilson had suggested.

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Doe.....Yes Wilson.....Yes Stumbo.....Yes
Lovejoy Roe.....No Ross-Williams.....Yes Eldridge.....Yes
Jarrell Roe.....No

The motion carried.

6. BUDGET AMENDMENT #5

A motion was made by Clerk Lovejoy Roe, supported by Trustee Wilson to Budget Amendment #5 (see Attached).

Doe.....Yes Wilson.....Yes Stumbo.....Yes
Lovejoy Roe.....Yes Ross-Williams.....Yes Eldridge.....Yes
Jarrell Roe.....Yes

The motion carried unanimously.

AUTHORIZATIONS AND BIDS

1. REQUEST TO SEEK PROPOSALS FOR A PREFERRED NETWORK PROVIDER

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to Approve the Request to Seek Proposals for a Preferred Network Provider.

Doe.....Yes Wilson.....Yes Stumbo.....Yes
Lovejoy Roe.....Yes Ross-Williams.....Yes Eldridge.....Yes
Jarrell Roe.....Yes

The motion carried unanimously.

BOARD MEMBER UPDATES

Clerk Lovejoy Roe stated there were a lot of requests to be placed on the permanent absentee list. She said election workers for the August and November elections were needed. She said she would be making changes at the precincts to make sure voters are 6 feet apart and was looking for a new location for the AV Count Board because of the increase in absentee voters and the social distancing rules. Clerk Lovejoy Roe thanked God for moving us forward through this pandemic. She said as a community and a nation most are taking this serious and staying home which is helping us move forward. She said she wanted to thank Commissioner Ricky Jefferson, St. Joseph Hospital, the University of Michigan Hospital, and the Washtenaw County Public Health Department for hearing our call of this side of Washtenaw County and providing testing for our residents daily at St. Joseph Hospital and with two pop-up testing sites- one on Saturday, May 9th at the Ypsilanti Township Community Center on Clark Road and one on May 16 at the Grace Fellowship Church, Community Life Center on S. Harris Rd.

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Trustee Ross-Williams thanked the various residents who had passed out food to families in need. She thanked the Washtenaw County Sheriffs' Department who helped with the distribution of food. She said she would like for residents to continue with social distancing and wearing masks.

Supervisor Stumbo stated they are having virtual neighborhood watch meetings and that will be posted on the township website. She said that waste management will begin pick-up of one bulk item and we have restored picking up yard waste.

A motion was made by Trustee Wilson, supported by Trustee Eldridge to Adjourn.

The meeting was adjourned at approximately 9:05PM.

Respectfully Submitted,

**Brenda L. Stumbo, Supervisor
Charter Township of Ypsilanti**

**Karen Lovejoy Roe, Clerk
Charter Township of Ypsilanti**

Donald G Hazzard
1421 Melvin Street
Ypsilanti, Michigan
48198

May 4, 2020

Tilden R. Stumbo Civic Center
7200 S. Huron River Drive
Ypsilanti, Michigan 48198

Attention Ms. Brenda Stumbo

RE: Current degrading and apparent illegal and disgusting action
being taken by Township employees.

SUBJECT: The actions of Karen Lovejoy Roe, Township Clerk, and
Heather 4fJarrell Roe, Township Trustee, and daughter in law of Karen
Lovejoy Roe.

Board Meeting;

Ms. Brenda Stumbo, due to the Stay in Place situation, I would like to have
this letter read into the minutes of the May 5, 2020 Board Meeting.

The current illegal malicious manipulation of the rules and regulations
controlling the proper filing and documentation of persons for any office in
the Township are despicable and give the Township a reputation that is
sickening

I am totally against all actions that are not legal and above board, and
people that don't have the moral integrity to be in any position that requires
public trust.

Arloa S. Kaiser
1421 Melvin Street
Ypsilanti, Michigan
48198

May 3,2020

Tilden R. Stumbo Civic Center
7200 S. Huron River Drive
Ypsilanti, Michigan 48198

Attention: Brenda Stumbo Supervisor

RE: Monitoring and attempted control of elections

SUBJECT: Apparent subterfuge and collusion of Karen Lovejoy Roe, township clerk and Trustee Heather Jarrell Roe, Karen Lovejoy Roe's daughter-in-law.

Board Meeting.

Ms. Brenda Stumbo, due to the current stay in place situations, I would like to have this letter read into the minutes of the May 5, 2020 Board Meeting.

The clerk is in charge elections, so with the apparent manipulations to keep the Roe dynasty in power and actions taken by the Roe's appear to be blatant disregard of any ethical action or responsibility

I am totally against this action and would hope the Board can resolve this in a Responsible manner. And I do not believe that they should be allowed to be in any government position that requires public trust.

cc: file

FOURTH ADDENDUM

This Fourth Addendum is made and entered into as of this 6 day of May, 2020, by and between the Charter Township of Ypsilanti ("Township") and Waste Management of Michigan, Inc. ("Contractor").

Recitals

WHEREAS, on or about July 1, 2000, the parties entered into the following agreements: i) Residential Solid Waste Collection and Disposal Agreement ("Solid Waste Agreement"), ii) Recyclable Agreement, and iii) Yard Waste Agreement. These three agreements were amended on or about January 19, 2005 with a First Addendum, February 16, 2010 with a Second Addendum and October 22, 2014 with a Third Addendum. The Solid Waste Agreement, Recyclable Agreement and Yard Waste Agreement, all as amended by the First, Second, Third and Fourth Addendums, shall be hereinafter referred to as the "Agreements"; and

WHEREAS, the Township and Contractor now desire to amend the Agreements.

Amendments

The Township and Contractor agree to amend the Agreements as follows:

1. Term. The term of the Agreements is hereby extended for an additional three months, commencing July 1, 2020 and ending September 30, 2020. The Agreements may be extended for additional periods of time, upon mutual agreement of the parties.
2. Rates. The service rates in effect for the period of July 1, 2020 through September 30, 2020 are as follows:

Trash	\$ 8.70 per unit per month
Recycle	\$ 2.04 per unit per month
Yard Waste	\$ 2.12 per unit per month

* Recycle processing charge is in addition to above rates and is variable based on changes in recycle volume and processing cost. Township will continue to pay for recycle processing based on the current Agreement formula (Total monthly tons x processing rate + \$2.50/ton admin fee)

3. No Changes. Except as specifically modified herein, all other terms of the Agreements will continue in full force and effect.

WHEREFORE, the Parties hereto have executed this Fourth Addendum on the date and year first written above.

CHARTER TOWNSHIP OF YPSILANTI

By: *Diana L. Stumbo* | *K. L. De*
 Title: *Supervisor* | *Mayor Debejay*
 Date: *May 6, 2020*

WASTE MANAGEMENT OF MICHIGAN, INC.

By: *[Signature]*
 Title: *AREA MANAGER, PUBLIC SECTOR*
 Date: *5/12/2020*

2020 YPSILANTI TOWNSHIP SECOND AGREEMENT

THIS AGREEMENT, made and entered into this 6 day of May, 2020, by and between the Township Board of Ypsilanti Township, Washtenaw County, parties of the first part and the Board of Washtenaw County Road Commissioners, parties of the second part.

WHEREAS, the parties of the first part desire that certain improvements be made upon the local roads in the Township of Ypsilanti, and

WHEREAS, proper authority is provided to the parties of the agreement under the provisions in Act 51 of Public Acts of 1951 as amended,

IT IS NOW THEREFORE AGREED, the parties of the second part will accomplish the improvements as specified herein, all in accordance with the standards of the parties of the second part.

1. **Mott Road, Ridge Road to Wayne County line (Sec 1):**

Work to include sealcoating. This is a proposed township share project with Superior Township.

Estimated total project cost: \$ 17,500.00

Estimated project cost to Ypsilanti Township: \$ 8,750.00

2. **Washtenaw Orchard Subdivision (Sec 1, 2):**

Work to include crack sealing. Roads to include:

- Woodruff Lane, Wiard Road to Bud Avenue
- Bud Avenue, Woodruff Lane to Blossom Avenue
- Blossom Avenue, Bud Avenue to end of road

Estimated project cost: \$ 7,600.00

3. **Washtenaw Concourse Subdivision (Sec 3):**

Work to include crack sealing. Roads to include:

- Red Leaf Lane, Wendell Road to Delaware
- Commonwealth Avenue, Wendell Road to Delaware

Estimated project cost: \$ 9,100.00

4. **Hollis Road, Cross Road to Forest Road (Sec 3):**

Work to include crack sealing.

Estimated project cost: \$ 6,100.00

5. **Townsend's Subdivision (Sec 3):**

Work to include crack sealing. Roads to include:

- Oak Road, Mohawk Avenue to Harris Road
- Mohawk Road, Forest Road to end of road
- Miami Road, Forest Road to end of road

Estimated project cost: \$ 7,600.00

6. **Parview Drive, Textile Road to end of road (Sec 20):**

Work to include crack sealing.

Estimated project cost: \$ 3,100.00

7. **Hubbard Avenue, Huron River Drive to end of road (Sec 21):**
Work to include heavy brushing, ditching, shaping the existing surface, placement of a 4" (C.I.P.) 23a limestone (approximately 300 tons) with associated dust control and project restoration.
Estimated project cost \$ 15,500.00
8. **Ford Lake Heights Subdivision (Sec 21, 22):**
Work to include crack sealing. Roads to include:
- Lake Crest Drive, HRD to HRD
 - Lake Crest Court, Lake Crest Drive to end of road
 - Applewood Drive, Valley View Drive to Lake Crest Drive
 - Faircrest Drive, Valley View Drive to Applewood Drive
 - Valley View Drive, Briarbrook Drive to Lake Crest Drive
 - Indian Trail, HRD to Valley View Drive
- Estimated project cost: \$ 21,100.00
9. **Smokler Textile Subdivision (Sec 22):**
Work to include crack sealing. Roads to include:
- Big Pine Drive, HRD to New Meadow Drive
 - New Meadow Drive, Big Pine Drive to Willowbridge Road
 - Crescent Lane, start of new pavement to New Meadow Drive
 - Farm Lane, start of new pavement to New Meadow Drive
- Estimated project cost: \$ 9,100.00
10. **Aspen Ridge Condominium (Sec 30):**
Work to include crack sealing. Roads to include:
- Breckenridge Drive, Munger Road to Aspen Way
 - Aspen Way, Breckenridge Drive to Boyne Drive
 - Vail Drive, Aspen Way to Breckenridge Drive
 - Boyne Drive, Textile Road to Breckenridge Drive
 - Schuss Xing, Boyne Drive to Breckenridge Drive
- Estimated project cost: \$ 42,200.00
11. **Creekside Village East Subdivision (Sec 35):**
Work to include crack sealing. Roads to include:
- Creekway Drive, Tuttle Hill Road to Parkland Drive
 - Parkland Drive, Creekway Drive to Creekway Drive
 - Daisey Lane, Creekway Drive to end of road
 - Shula Vista, Merritt Road to Parkland Drive
 - Marshcreek Drive, Parkland Drive to Creekway Drive
- Estimated project cost: \$ 22,600.00
-

AGREEMENT SUMMARY

2020 LOCAL ROAD PROGRAM

Mott Road	\$ 8,750.00
Washtenaw Orchard Subdivision	\$ 7,600.00
Washtenaw Concourse Subdivision	\$ 9,100.00
Hollis Road	\$ 6,100.00
Townsend's Subdivision	\$ 7,600.00
Parview Drive	\$ 3,100.00
Hubbard Avenue	\$ 15,500.00
Ford Lake Heights Subdivision	\$ 21,100.00
Smokler Textile Subdivision	\$ 9,100.00
Aspen Ridge Condominium	\$ 42,200.00
Creekside Village East Subdivision	\$ <u>22,600.00</u>
Subtotal	\$ 152,750.00
Less WCRC 2020 Conventional Matching Funds	\$ 71,575.00
Less WCRC 2019 Drainage Matching Funds	\$ 4,800.00

ESTIMATED AMOUNT TO BE PAID BY YPSILANTI TOWNSHIP
UNDER THIS AGREEMENT DURING 2020: **\$ 76,375.00**

FOR YPSILANTI TOWNSHIP:

Brenda L. Stumbo
Brenda L. Stumbo, Supervisor *May 6, 2020*

Isaac Starfield
Witness *5-6-2020*

Karen Lovejoy Roe
Karen Lovejoy Roe, Clerk *May 6, 2020*

Isaac Starfield
Witness *5-6-2020*

FOR WASHTENAW COUNTY ROAD COMMISSION:

Douglas E. Fuller, Chair

Witness

Sheryl Soderholm Siddall, Managing Director

Witness

**CHARTER TOWNSHIP OF YPSILANTI
2020 BUDGET AMENDMENT #5**

MAY 5, 2020

AMOUNTS ROUNDED UP TO THE NEAREST DOLLAR

101 - GENERAL OPERATIONS FUND

Total Increase \$20,000.00

Request to increase budget for additional expenses related to supplies and equipment needed for the COVID-19 pandemic. An original request for \$20,000 was approved by the Board on April 21, 2020. These additional funds are needed for PPE and preparing buildings for return to work and opening of the buildings. This will be funded by an Appropriation of Prior Year Fund Balance.

Revenues:	Prior Year Fund Balance	101-000-000-699.000	\$20,000.00
		Net Revenues	<u><u>\$20,000.00</u></u>
Expenditures:	COVID-19 Supplies & Equip	101-267-000-727.300	\$20,000.00
		Net Expenditures	<u><u>\$20,000.00</u></u>

226 - ENVIRONMENTAL SERVICES FUND

Total Increase \$305,950.00

Request to increase the budget for contract extension and increase from Waste Management. This budget amendment assumes increased costs of service for the remainder of 2020. This will be funded by an Appropriation of Prior Year Fund Balance.

Revenues:	Prior Year Fund Balance	226-000-000-699.000	\$305,950.00
		Net Revenues	<u><u>\$305,950.00</u></u>
Expenditures:	CONTRACTUAL/RUBBISH PICKUP	226-226.000-804.001	\$180,000.00
	CONTRACTUAL/YARDWASTE PICKUP	226-226.000-804.003	\$13,950.00
	RECYCLING PICK-UP CURBSIDE	226-226.000-804.007	\$75,000.00
	CURBSIDE RECYCLING DISPOSAL	226-226.000-804.008	\$37,000.00
		Net Expenditures	<u><u>\$305,950.00</u></u>

Motion to Amend the 2020 Budget (#5)

Move to increase the General Fund budget by \$20,000 to \$9,615,571 and approve the department line item changes as outlined.

Move to increase the Environmental Service Fund budget by \$305,950 to \$3,256,471 and approve the department line item changes as outlined.

CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MAY 5, 2020 REGULAR BOARD MEETING

Members Present: Supervisor Stumbo, Clerk Lovejoy Roe, Treasurer Doe
Trustees: Stan Eldridge, Heather Jarrell Roe
Monica Ross-Williams, and Jimmie Wilson

Supervisor Stumbo: "Lisa are you there? It's seven o'clock. The first item on the agenda is the Pledge of Allegiance and um we usually do a moment of silent prayer and we can't do that on the zoom meeting but we can say prayers and for the people who've been affected by the pandemic, the loss of lives and the continue prayer and good thoughts for our community and our county to heal and our country from this health pandemic. The first item on the agenda is the consent agenda. We have the minutes of the April 21st Work Session and Regular op I missed something so sorry."

Clerk Lovejoy Roe: "Public Comments were first."

Supervisor Stumbo: "I'm so sorry. Under Public Comments um we will everyone will give their name and address for the record and um we allow public comments for three minutes. So at this time we will hear public comments. Are there any public comments? Ok I see one all right."

Public Comments

JoAnn McCollum: "Hello."

Supervisor Stumbo: "Hello."

JoAnn McCollum: "This is JoAnn McCollum. I live at Tyler Road, Ypsilanti, Michigan and my public comment is I am very disappointed in Clerk Karen Lovejoy Roe and Trustee Heather Jarrell Roe. Both schemed to get only one person on the ballot for Clerk. Which means the voters of Ypsilanti Township do not have a choice. The choice was made for them. This was an unethical move it shows how disingenuous and apathetic both are toward the people there supposed to be serving. Once I learned of their callous scheme I stopped being an election official it disgusted me to work with someone who has no regard for anyone but herself and her family. If Heather and Karen get any position I will not trust anything they do or say. I was happy to learn of three youngish African American candidates running for Commissioner for District 5 then I learned that Karen Lovejoy Roe at the last minute applied for this candidacy knowing that she could probably beat them it's like Karen is using the Board of Commissioners as a retirement plan and not considering the future of the township. Ypsilanti Township does not need this kind of situation we've worked so hard to be seen as a fair community but two people have changed this view because of their own selfish needs when you are elected in these offices it is not for you to do as you please it is to serve the people. Karen Lovejoy Roe and Heather Jarrell Roe do not have a clue on how to be there for the people I hope somehow neither will ever represent Ypsilanti Township they don't deserve it thank you".

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Supervision Stumbo: "Next we have Jessie Moberg raised her hand is that correct? I see her hand raised, Lisa I'm having a".

Jessie Molberg: "Can you hear me now?"

Supervisor Stumbo: "Yes we sure can."

Jessie Molberg: "Can you see me as well or no?"

Supervisor Stumbo: "No"

Jessie Moberg: "Alright, well good evening everyone. For those of you who may not know me my name is Jessie Moberg, I'm a former resident of Ypsilanti Township, I currently reside in Middlesboro, Kentucky. I am the oldest daughter of Karen Lovejoy Roe. My Mom was pregnant with me the first time that she ran for office in 1988. Because of the public persecution that I witnessed my Mom endure over the years I said many times that I she would never go into politics. But in 2018 I was elected to the City Council here in Middlesboro. My decision to run for local office was because of my Mother. Because I wanted to serve my community like I've seen my Mother do my entire life. My Mom has been a public servant to Ypsilanti Township for nearly 32 years. My Mom has always put her residents first. Dishonesty and deceitfulness has never been characteristics of my Mother and it is not something that begins now as she plans to retire from her many, many years of service to Ypsilanti Township. It's my hope that the truth comes to light regarding this situation. My Mothers' success has come from always being a person of integrity, which she has taught all her children, despite this current political scheme that is sought to defame her character and slander our family name. But as Michelle Obama has said, "When they go low, we go high", thank you all for your time this evening."

Supervisor Stumbo: "Thank you Jessie. Are there any other public comments? I do have two letters from residents to read into the record."

Supervisor Stumbo read two letters from residents into the record one from Donald Hazzard and one from Arloa Kaiser (see attached).

Supervisor Stumbo: "Are there any other public comments did I get them all? Lisa did you see any other public comments that I missed, I'm trying to do two things at once."

Lisa Stanfield: "JoAnn McCullum has her hand raised again."

Supervisor Stumbo: "JoAnn before we go back to you if we could see if there are any other public comments."

JoAnn McCollum: "Sure"

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Supervisor Stumbo: "JoAnn I do not see any other public comments so you may go again."

JoAnn McCullum: "Yes, I wanted to mention too about three candidates who had the affidavits that were incorrectly done. I think that that was done poorly. Two candidates had to drop out should be three but two candidates saw that their paperwork was not done it wasn't valid when you notarize something that is a legal document that is very important and that was not taken care of correctly and that's why I think that Karen Lovejoy Roe should not be in that position and Heather should drop out because her paperwork is not valid. Thank you for hearing my comments."

Supervisor Stumbo: "Thank you. Doesn't appear to be any other raised hands so I'm going to go back to the regular board meeting"

Lisa Stanfield: "Excuse me, Brenda there is one more raised hand."

Supervisor Stumbo: "I'm sorry."

Lisa Stanfield: "Michael Richardson, and a second raised hand, Nancy as well."

Supervisor Stumbo: "Perhaps you can help with the raised hands, Mr. Richardson"

Michael Richardson: "Can you hear me?"

Supervisor Stumbo: "Yes we sure can"

Michael Richardson: "Hello, my name is Michael Richardson (stated address in Ypsilanti Township) I wanted to introduce myself, I am a member of the Township that is now running for a Trustee seat and I definitely understand that there is a little turmoil that is going on but I wanted to take the appropriate time to say hello to the board and to all the concerned citizens."

Supervisor Stumbo: "Thank you."

Lisa Stanfield: "That second hand is no longer raised so as of right now we have no raised hands."

Supervisor Stumbo: "Alright then we will go back to the panelists and go back to the board meeting. As soon as I find mine board packet, alright the next item on the agenda is the Consent Agenda, it is the minutes of the April 21st Work Session and Regular Meeting, we have statements and checks can we have a motion and please state your name for motion and support."

Consent Agenda

A. MINUTES OF THE APRIL 21, 2020 REGULAR MEETING

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B. STATEMENTS AND CHECKS

**1. STATEMENTS AND CHECKS FOR MAY 5, 2020 IN THE AMOUNT OF
\$662,743.50**

Trustee Eldridge: "Madam Chair motion by Eldridge"

Treasurer Doe: "Support by Doe"

Supervisor Stumbo: "Motion by Eldridge support by Doe questions or comments"

Clerk Lovejoy Roe: "I have a correction, Madam Supervisor?"

Supervisor Stumbo: "Yes"

Clerk Lovejoy Roe: "We did not have a work session I apologize that is an error on the agenda"

Supervisor Stumbo: "Duly noted, we have a motion and support we have to do a roll-call vote, Eldridge?"

Trustee Eldridge: "Yes"

Supervisor Stumbo: "Doe?"

Treasurer Doe: "Yes"

Supervisor Stumbo: "Wilson?"

Trustee Wilson: "Yes"

Supervisor Stumbo: "Lovejoy Roe?"

Clerk Lovejoy Roe: "Yes"

Supervisor Stumbo: "Jarrell Roe?"

Trustee Jarrell Roe: "Yes"

Supervisor Stumbo: "I vote yes, did I get everybody, Monica Ross-Williams?"

Trustee Ross-Williams: "Yes"

Supervisor Stumbo: "The motion passes. To our audience I am so sorry this is not how we normally do business."

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ATTORNEY REPORT

GENERAL LEGAL UPDATE

Supervisor Stumbo: "Attorney's Report, Mr. Winters do you have an attorney's report?"

Attorney Winters: "No report this evening"

NEW BUSINESS

Supervisor Stumbo: " Alright, under New Business we have Number 1 the **REQUEST TO APPROVE THE FOURTH ADDENDUM WITH WASTE MANAGEMENT TO EXTEND SERVICES THROUGH SEPTEMBER 30, 2020 CONTINGENT UPON APPROVAL OF THE INSURANCE AND PERFORMANCE BOND BY THE TOWNSHIP ATTORNEY**" (see attached)

Clerk Lovejoy Roe: "So moved"

Supervisor Stumbo: "Motion, motion"

Clerk Karen Lovejoy Roe: "Karen Lovejoy Roe"

Supervisor Stumbo: "Thank You"

Trustee Eldridge: "Support Eldridge".

Supervisor Stumbo: "Support Eldridge, discussion, Mr. Williams, Mr. Winters do you want"

Attorney Winters: "Yes"

Supervisor Stumbo: "or Mike, does someone want to explain what this is to the audience?"

Mike Hoffmeister: "Sure this is a"

Attorney Winters: "Ah"

Mike Hoffmeister: "Go ahead Doug please"

Attorney Winters: "No I think that the board has previously authorized Mike and as well as the Clerk's office to go out for RFPs for a new Solid waste hauler as well as a yard waste hauler and the specifications have been prepared they have not yet gone out we've obviously had a lot of challenges with COVID-19 they're now ready

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to go out. A Mike has been in constant contact with a Waste Management and they've agreed for a ninety day three month extension. The contract will begin on July one through September thirtieth, and the hope is we'll have competitive bids that can be evaluated between now and that time period so as to either see where we stand with the current contractor as well as whatever competitive bids that might be received. A there is a continuing need for waste management to continue with their performance bond and liability insurance to be in place. I know that Mike has been working on that awhile. There is also a need for them to actually file the performance bond and insurance certificate for the 2019 2020 contract year. But from my standpoint the fourth amendment is in proper form and subject to the two missing documents that need to be provided between now and July first and again this gives the township a the needed time to competitively seek additional bids for recyclables, yard waste and solid waste. I know Mike may have other issues or other concerns to address as well."

Mike Hoffmesiter: "I have nothing further Doug, I appreciate you covering the agenda item".

Supervisor Stumbo: "Alright"

Clerk Lovejoy Roe: "Madam Supervisor"

Supervisor Stumbo: "Yes"

Clerk Lovejoy Roe: "I just wanted to say, Mike I know we went back and forth not necessarily on this but the bid specs that are going to go out and I know you worked a lot on this you and Doug both and I just want to say thank you especially with everything else that is jumping off. The bid specs I know Lisa was posting them and we finally got it up or worked out today, they may already be up and if not they will definitely be up for anyone that is interested in taking a look, our haulers and contractors that may be listening in they are up and we are looking forward to taking your bids.

Supervisor Stumbo: "Alright, thank you. So we have to do a roll call vote again. Larry Doe?"

Treasurer Doe: "Yes"

Supervisor Stumbo: "Wilson, Junior?"

Trustee Wilson: "Yes"

Supervisor Stumbo: "Stumbo votes yes, Roe, Lovejoy Roe"

Clerk Lovejoy Roe: "Yes"

Supervisor Stumbo: "Ross Williams"

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Trustee Ross-Williams: "Yes"

Supervisor Stumbo: "Eldridge"

Trustee Eldridge: "Yes"

Supervisor Stumbo: "And Jarrell Roe"

Trustee Jarrell Roe: "Yes"

Supervisor Stumbo: "Ok, the motion is approved. Number two is a **REQUEST to Authorize TO APPROVE THE CONTRACT WITH BEST ASPHALT TO COMPLETE PHASE II OF THE GROVE RD PATHWAY IN THE AMOUNT OF \$225,869.50 which is BUDGETED IN LINE ITEM #212-970--997-007**" (see attached)

Trustee Eldridge: "Madam Chair Eldridge makes a motion"

Clerk Karen Lovejoy Roe: "Support Karen Lovejoy Roe"

Supervisor Stumbo: "Motion Eldridge support Lovejoy Roe, Hoffmesiter would you like to give an overview of this project?"

Mike Hoffmeister: "As you know this is Phase II of the Grove Road Trail Project, Phase I was completed last year, and as you know we've been working through the process of completing Phase II with OHM, Matt Parks is here also on the call for any questions you may have. This is part of the B2B trail as we discussed last week to be refunded and paid for by Washtenaw County Parks and Recreation."

Supervisor Stumbo: "Excellent, questions or comments by board members, no one is raising their hand so we will do a roll call vote. Doe?"

Treasurer Doe: "Yes"

Supervisor Stumbo: "Wilson"

Trustee Wilson: "Yes"

Supervisor Stumbo: "Stumbo votes yes, Lovejoy Roe?"

Clerk Lovejoy Roe: "Yes"

Supervisor Stumbo: "Ross-Williams"

Trustee Ross-Williams: "Yes"

Supervisor Stumbo: "Eldridge"

Trustee Eldridge: "Yes"

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Supervisor Stumbo: "And Jarrell Roe"

Trustee Jarrell Roe: "Yes"

Supervisor Stumbo: "The motion is approved. Number three is the **Request to Approve THE SECOND AGREEMENT WITH THE WASHTENAW COUNTY ROAD COMMISSION and this is FOR LOCAL ROAD IMPROVEMENTS IN THE AMOUNT OF \$76,375.00 which is BUDGETED IN LINE ITEM #101-446-000-818-022**"(see attached)

Clerk Lovejoy Roe: "So moved"

Trustee Wilson: "Support"

Clerk Lovejoy Roe: "That was Karen Lovejoy Roe that made the motion"

Trustee Wilson: "Support Wilson"

Supervisor Stumbo: "Motion Karen Lovejoy Roe support Wilson to approve the second agreement with the Washtenaw County Road Commission, are there questions or comments on this from board members? The total amount on this contract is actually \$156,000 or \$152,000 and the county matches dollar for dollar. Road improvements we're doing this year is seal coating and what that does is preserves the life of the pavement. We did substantial amount last year and we're \$152,000 this year as well throughout the entire township. The only one that we have a shared is with Superior Township and that is \$8,750 and that is Mott Road and that is a seal coat. We do this every year we vote on projects. So any questions or comments, hearing none we'll do a roll call vote. Doe?"

Treasurer Doe: "Yes"

Supervisor Stumbo: "Jimmie Wilson Junior"

Trustee Wilson: "Yes"

Supervisor Stumbo: "Stumbo votes yes, Lovejoy Roe"

Clerk Lovejoy Roe: "Yes"

Supervisor Stumbo: "Ross-Williams"

Trustee Ross-Williams: "Yes"

Supervisor Stumbo: "Eldridge"

Trustee Eldridge: "Yes"

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Supervisor Stumbo: "Jarrell Roe"

Trustee Jarrell Roe: "Yes"

Supervisor Stumbo: "The motion is approved. The next item on the agenda is the **REQUEST TO SUSPEND THE TOWNSHIP CHIPPING OPERATIONS EFFECTIVE MAY 29, 2020**" (see attached)

Treasurer Doe: "Move to approve, Doe"

Trustee Jarrell Roe: "Support Jarrell Roe"

Supervisor Stumbo: "There is a motion by Doe and a support by Jarrell Roe to approve this. So um there there's a pretty long memo in everyone's packet. So we've had extensive discussion with Carl Rowsey and he is also um on this zoom meeting. And we've talked with Michael Hoffmeister, Director of Residential Services, Javonna Neel, Accounting Director as well as Clerk Roe and Treasurer Doe regarding the suspension of services. First of all during the COVID-19 Virus Pandemic we've been unable to hire seasonal positions as well as we have a fulltime vacant Chipper position that is open. We did hire a um person they started and after three weeks of training he decided to go back to his old job. So um we're currently pulling one person from the parks department and one person from the compost site to try to keep it going currently. Secondly the financial cost for environmental services extension which is the current provider is about \$300,000 and we voted on that extension and there was increases in those costs so for the remainder of 2020 the additional costs is \$300,000. We're in the process of soliciting bids for garbage, recycling and yard waste services. Historically we've always extended and given another five year bid to our current waste hauler because it's usually 2.5 to 3 percent increase that was not the case this time. It's a substantial increase so we owe it the board wanted to see it make sure it is a competitive bid since the increase in costs are substantial over what we normally would do. So it's currently out for bid, for 2020, the remainder of 2020 which is September and starting to 2025. And finally Javonna Neel's our Accounting Director and we've been forecasting our millage renewals that are to be voted on in 2021, based on her assumption that were distributed this week the Environmental Services Fund which is a loaded millage, the expenditures will exceed millage revenue by 2021 by \$940,000. So we're thankful we have a fund balance but based on the extension costs for our current waste haulers we can project out what the costs is going to be. So therefore we need to have some in depth discussions on what services should be provided, we'd have to discuss the real possibility of cutting services and or we could increase millage based on the forecast. In my memo and for me and increase in property taxes is a bridge I do not want to cross over um of course it's up to the community to decide um there's a lot of residents struggling with all the tax increases in the past four or five years and um we will have a new board in November and they could have community conversations and input, and engagement regarding the millages and what services we would like to continue. The good news is that we still have pick up of branch services through Waste Management. So they are our current provider and it's in

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our yard waste contract. They pick up branches weekly as long as they're properly put in, they have to be properly bundled or put into a yard waste bag. And we would you know be communicating all that out to the residents. It's also in the helpful handbook that was mailed out to everyone. And basically what it says is that branches that are 2 inches in diameter or less can be bundled, they can't be longer than 3 to 4 feet, they must be tied with twine or string, no bundles are accepted that are over 40 pounds, or larger than 18 inches in diameter. We also have a compost site that is available for branch disposal at no additional cost and it's open 7 days a week. In addition we would recommend that in the case of a storm we would bring the chipping trucks out in order to assist with the cleanup for our community and residents using the existing staff that we have. Are there any questions from board members or attendees that I can, be happy to, do you see any questions or hands up? I don't see any."

Trustee Ross-Williams: "Supervisor Stumbo my hand was up."

Supervisor Stumbo: "Oh I'm sorry I was looking at the attendees list, I'm so sorry ok I apologize."

Trustee Ross-Williams: "That's ok I just wanted to also say that um I would have deep concerns um considering that we are in this COVID crisis and financially we're probably going to continue to be in it for quite some time a so that a is impact on residents and also taxes obviously. I would have deep concerns about a millage at this point to increase taxes to do this I just wanted to express that. That's all."

Supervisor Stumbo: "Thank you. Any other questions or comments from anyone? No, um I would also like to say that we put a memo out to all the Directors we do anticipate a well it's an assumption \$1.2 million loss in 2020 from our state shared revenue. So state shared revenue comes from sales taxes. We've been watching it very closely and it was 10 percent, and MTA said prepare for 50 percent, so \$1.2 million would be about 25 percent of our revenue for that. We are looking and trying to plan as best we can, our hope is that it's larger, it's not that large decrease in state shared revenue. We get about \$5.2 million from state shared revenue. So it's a big part of our revenue stream and our budget in 2020 and moving forward. So any other comments, any questions from Carl Rowsey or Javonna Neel? Seeing no hands raised we'll do a roll call vote. Doe?"

Treasurer Doe: "Yes"

Supervisor Stumbo: "Jimmie Wilson"

Trustee Wilson: "Yes"

Supervisor Stumbo: "Stumbo votes yes, Clerk Lovejoy Roe?"

Clerk Lovejoy Roe: "Yes"

Supervisor Stumbo: "Trustee Ross-Williams?"

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Trustee Ross-Williams: "Yes"

Supervisor Stumbo: "Trustee Eldridge?"

Trustee Eldridge: "Yes"

Supervisor Stumbo: "And Trustee Jarrell Roe?"

Trustee Jarrell Roe: "Yes"

Supervisor Stumbo: "We're sorry we have to do this but we have to plan for the future. The next item on the agenda is the **REQUEST FOR VOTE OF NO CONFIDENCE FOR CLERK KAREN LOVEJOY ROE**"

Trustee Ross-Williams: "Motion to Approve"

Supervisor Stumbo: "Motion Ross-Williams, please state your name"

Trustee Ross-Williams: "Ross-Williams"

Supervisor Stumbo: "That's ok it just helps the people, is there a support?"

Treasurer Doe: "Support, Doe"

Supervisor Stumbo: "Support Doe, does anyone have their hand raised?"

Trustee Ross-Williams: "I would like to raise my hand, so, sorry with the computer. I would like to read this statement and I will make sure it is sent over to the Clerk for the record. I will start now so it would probably give or take about 5 or 7 minutes, so. Unlikely to what is widely believed and way too overly accepted, being an Elected Official should focus on excel of the common good, welfare and quality of life for residents. What it should never be is about ego, self-gratification, nepotism, or what can be done for me versus we, the collective as a whole. This is not where in three years, 5 months, 15 days since taken oath of office I believed this board would be, at an impasse in the middle of a pandemic called corona virus, ever growing numbers of our citizens being impacted, local businesses closed, in lines and need for food, comfort, or financial assistance. Yet this is where we are, turning the clock backwards to the beginning. The job is to get to work, coming off the heels of a financial crisis from 2008 to 2013 that some feel and have voiced contempt of irritation when mentioned before this board when that not too distance past is reflected upon, repair what was broken, our residential housing stopped with financial crisis as stability for family and individuals by the addition of new businesses while supporting others that stayed and survived, promote strong neighborhoods in the rising activism ah wit them to be their best. This meant to this Trustee, work together, not in silos as a board for our constituents, moving as a collective to meet in the middle, for the good of voters and those who did not vote for us. Today I am sorried, it is not for just having to sit here is this zoom

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conference, due to a global, nationwide, state, and local pandemic versus our Ypsilanti Township Board conference room then instead it is for having to ask for a vote of no confidence against Karen Lovejoy Roe. I take no joy in this what so ever, however, our duty calls, our constituents deserve it, we are public servants to operate for the citizens only, nothing more, nothing less, this board cannot allow for these actions to continue. On April 21st, 2020 at 8:00 the collective changed. That's when nepotism showed its' colors on this board, by an action some have called political gainsmanship, others are still in shock, bewilderment and outright upheaval, the term I would use is a switcharoo, was designed in nature by two individuals over the heads of 57,000 residents, some of which were discouraged to seek office themselves as to not rock the boat. It takes courage to enter a ring against a strong opponent and an incumbent, name ID sometimes take years to build, for others to know often a drop of a hat, less known, collecting the proper signatures, and funds necessary in these days and times, for literature and other marketing materials for voters to know their name. Prior to April 20th, 2020 to the average voter it appeared incumbents were re-running with their associated name ID for their current position, they held the power of the collective, power is always with the people and their leaders are their servants, today's a measure of the people taking their power back. The facts are the following, this motion to vote of no confidence against Karen Lovejoy Roe was due to Number 1, our community is in the middle of a pandemic called corona virus 2019. As of today there are 553 individuals that have been diagnosed with Covid-19 in the 48197 and 48198 area codes. Some of which have perished although our numbers are declining overall with mitigation, which is a blessing, we remain in a state of emergency in our state and our county since mid-March 2020. Our offices in Ypsilanti Township are closed, and the public and businesses are impacted, the public accessibility to their governmental clutches have been impacted, this is a fact and all public officials must be mindful of this. We are a public service that operates for the citizens only, again nothing more, nothing less, but some seem to have forgotten that fact. On April 21, 2020 two members of this board Trustee Heather Jarrell Roe and Clerk Karen Lovejoy Roe who are related colluded in an effort to pull a switcharoo, originally filing in their current positions in February 2020 then changed in those places on April 21, 2020. Although it was not illegal to do so the appearance of using nepotism to collude voters of choices in candidates should not be a practice in elections in Ypsilanti Township. There is no right to choose a successor in Ypsilanti Township, this was a statement that was allegedly said, and if you believe that Clerk Lovejoy Roe a rightful correction is solely needed and necessary as the voters in Ypsilanti Township have that right. This is Number 3, repeated errors in affidavit identity and receipt filings which are duty bound to be reviewed by the filing official in these cases the filing official in each incident was the office of Clerk Karen Lovejoy Roe, and candidates had errors in the signatory date and the notary public date. One candidate did not sign the statements and attestations. These are legal documents, as per election law, act 116 of 1954 section 168.558 which reads as follows, as varies parts therefore.

Clerk Lovejoy Roe: "Supervisor Stumbo, I rise to a point of special priviledge, always in order."

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Supervisor Stumbo: "Clerk Roe"

Clerk Karen Lovejoy Roe: "I just have concerns right now because um of the legal action in the process according to Trustee Monica Ross-Williams, so to discuss anything in the affidavits which is what she said she is going to take court action against the Township Clerks office, the County Clerk's Office and the Bureau of Elections. Normally, traditionally or always we've been advised that those are improper subjects to have and if her attorney wants to speak with our attorney that's appropriate but not for us to have comments about those alledged allegations that she's planning on taking to court."

Supervisor Stumbo: "Oh, for clarification the only action that can happen when someone is challenging the local clerk's authority on putting names on the ballot is to go to court. That's what Clerk, County Clerk Kestenbaum advised as well as um that's just the process Karen."

Clerk Lovejoy Roe: "My point is that for us as elected officials to talk about that legal action the Monica Trustee Ross Williams has declared publicly several times I don't think it is appropriate on that subject to have that conversation for each of us, I think in the past I don't know of a case whenever a resident threatens to sue the township or a developer we're always told cease communication, they can talk to the attorneys that's my only point."

Trustee Ross-Williams: "Point of Clarification"

Supervisor Stumbo: "Wait a minute"

Clerk Lovejoy Roe: "You're absolutely correct, that's the, that's the place you go"

Supervisor Stumbo: "That's the only road to challenge the decision of the local clerk"

Clerk Lovejoy Roe: "Correct"

Supervisor Stumbo: "So based on that Trustee Williams you can continue"

Clerk Lovejoy Roe: "I was just wondering if the attorney thinks it's appropriate for us to talk about an action that's being filed against the township by one of the Trustees at this time it's going to court according to Trustee Ross-Williams."

Trustee Ross-Williams: "Madam Chair can I have my point of clarification?"

Supervisor Stumbo: "Just um um Trustee Ross-Williams since Clerk Roe has asked for an attorney opinion then she doesn't like my opinion then I will give her the attorney's opinion."

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Clerk Lovejoy Roe: "No I don't have any objection to your opinion you're correct but it's clearly going to go to court that's what she said and I didn't know if it was appropriate for us to discuss that, that's all I'm asking."

Supervisor Stumbo: "Discuss going to court"

Clerk Lovejoy Roe: "To discuss the details she's laying out details about the affidavits which is what she claimed she said publicly which is what she is going to go to court over. Which takes court action, she said she's going to take court action against myself, the County Clerk, the State Bureau of Elections"

Trustee Ross Williams: "Point of Clarification"

Clerk Lovejoy Roe: "That's all I'm asking"

Supervisor Stumbo: "Trustee Ross-Williams I'd like to hear"

Clerk Lovejoy Roe: "My only question is it appropriate for us when we know, well we don't know the suit hasn't been filed but I know when a resident, a developer or anyone threatens to sue us we're always told we shouldn't talk about that subject. That's all."

Supervisor Stumbo: "OK thank you"

Clerk Lovejoy Roe: "Thank you"

Trustee Monica Ross-Williams: "It was a legal opinion that was asked so I will wait for my clarification for that so"

Supervisor Stumbo: "Attorney Winters"

Attorney Winters: "I'm not aware of any legal action that's been filed against anybody whether by the board or against any individuals as board members. From what I understand or what I've heard so far anyways there's a lot that's being discussed as a matter of public record so board members all seven of you are free to comment as you see fit or you don't see fit. Right now there's no legal action that I'm aware of that's been filed against anybody especially the board. I represent the board anyways so I can't represent board members anyways."

Supervisor Stumbo: "OK, so we have a um Trustee Ross-Williams based"

(Inaudible)

Trustee Ross-Williams: "The only other clarification I would add is that um basically is that um I'm not doing any action against the township as a whole can I continue to read my statement?"

Supervisor Stumbo: "Yes"

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Trustee Ross-Williams: "Thank you. Um....so....when filing, going back to Number one, going back to Michigan election law 116 of 1954, section 168.558 which reads as follows in parts therefore in various sections. Number 1 when filing a nominating petition, qualifying petition, filing fee or affidavit for candidacy for a federal, county, state, township, village metropolitan district or local district office in any election a candidate may file with the officer with whom a petition fee or an affidavit is filed with two copies of affidavit identity. Number 2 the affidavit identity must contain candidates' name, residential address, statement and the candidate is a citizen of the United States entitled of office sought, and a statement that the candidate meets constitutional, statutory qualifications for the office sought, other information that may be required to satisfy the officer as the identity of the candidate in which a manner the candidate wishes to have his or her name appear on the ballot. Number 4, which is in the election law, an affidavit of identity must include a statement that as of the date of the affidavit all statements, reports, late filing fees and fines required of the candidate or any candidate committee organize and support a candidates election under Michigan Campaign Finance Act 1 1976 PA 388 MCL 169.2012. 169.202 have been filed and paid and a statement that the candidate acknowledges that making a false statement in the affidavit is perjury punishable by a fine up to \$1,000.00 or imprisonment for up to 5 years or both. If the candidate files the affidavit of identity with an officer other than with the County Clerk or Secretary of State, the officer shall immediately forward to the county one copy of the affidavit of identity by first class mail, the County Clerk immediately shall forward one copy of the affidavit of identity for state and federal candidates to the Secretary of State by first class mail. An officer shall not certify to the Board of Elections Commissioners the name of the candidate who fails to comply with this section or the name of the candidate who excludes the affidavit of identity that contains false statements with regard to any information or statement required in this section or if the information including the date therefore are wrong by not being signed or/and somehow affirms by the notary public, in front of the notary public or on different dates than the notary public, the affidavit of identity are not in compliance with state law. Ignorance of the law is no excuse, what could have been done in the past and not caught are found equally of no excuse, we must do better now. Knowing better as duly elected public officials Karen. Number 4, one candidate was only disqualified after Washtenaw County Clerks' Office rightfully questioned their voter registration status specifically the candidates' home address on the qualified voter file was not in Ypsilanti Township, Michigan. Isn't your office required to check if a voter is registered in the township prior to ever appearing on any unofficial candidates list? It is within the elected duties according to state law under the office of Township Clerk in our 1,240 townships in Michigan including our own. Michigan election law again 116 1954 168.342 township office eligibility, eligibility for membership on Board of Review, Section 342 a person is not eligible to a township office unless the person is registered in a qualified election of the township for which the election is sought by the filing deadline. Section 363 oath of office, for township officers, all township officers shall before entering upon the duties of their office take and subscribe the oath provided in section 1 article 11 of the State Constitution before the Township Clerk or any other officer authorized to administer the oath and file the same with the Township Clerk who shall report the name and such oath should be administered

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without reward and certified by the officer of whom it was taken with the date taken the same. In chapter 41 the township revised statute of 1946 41.1B definitions, section 1B for this act an officer is described as the Supervisor, Treasurer, Clerk or Trustee, in section 65 it defines the Township Clerk as the 41.65 custody of the records, books, paper preservation, delivery to the successor in office accounts, accounting records, journals, and ledgers. Again section 55 of the same act the Township Clerk at each Township shall have custody of all papers of the township when another provision is made in law the Township Clerk should file and keep all certificates of oath and other papers required under the law to be filed in his or her office and shall keep all items required by law to be recorded, end quote. Number 5, the affidavit of identity in the filing have taken an oath to the following statement with each candidate filing for office in Ypsilanti Township takes an oath for, quote, I am a citizen of the United States and I meet the statutory constitutional requirements for the office sought, I swear and affirm that the facts I have provided are true, I acknowledge that making a false statement on this affidavit is perjury a felony punishable by a fine of \$1,000.00 or imprisonment of up to 5 years or both and may result in disqualification from the ballot. This is a legal statement that is signed by the candidates, affirmed by the candidates, witnessed as fact by the notary public and reviewed on the form by your office the Township Clerk, Clerk Karen Lovejoy Roe as the local filing official some of which were signed as they were reviewed by your Deputy Clerk. Not sure if some of these candidates paperwork was actually reviewed as there's errors in these documents were not caught before some of the candidates ever appeared on unofficial or official candidate lists, at the Washtenaw County Clerks' office, or how some of these candidates weren't afforded the opportunity to correct the error paperwork. Number 6, the failure to review the four affidavits of identity in receipt of filing was unknown by two of the candidates filing for office in Ypsilanti Township until well after the filing deadline of April 21st at 4:00pm or the withdraw deadline of April 24th at 5. These two candidates made a combination of public notices to withdraw their candidacy and/or emailed the office of clerk of Ypsilanti Township after learning of these errors between April 25th and April 27th. These candidates still were added onto the official list of candidates with Washtenaw County Clerks' Office by you Ypsilanti Township Clerk as the filing official. It is unsure if the other candidates know or if they knew or cared about the status of their affidavit of identity or received a filing. Number 7, in my case, Clerk Lovejoy Roe claimed IT issue was a factor in an email that sent to you on April 27th at 3:30pm was the cause of you not seeing my email request. That request for the record was sent to you as the filing official along with Township Supervisor, Brenda Stumbo, who confirmed to me she was able to see my request for the withdrawal communication. I have been aware of other candidates visiting Ypsilanti Township Clerks' Office, been made aware of other candidates who were allegedly initially given improper paperwork to filing for the offices sought which was corrected upon the candidates visiting the Washtenaw County Clerk's office. Again, the voters of Ypsilanti Township have the following rights, to expect our candidates seeking office in Ypsilanti Township are Ypsilanti Township residents, to expect the office of Clerk as a custodian of Township records to perform the duties of the office as prescribed by law, to have the Director of Elections in Ypsilanti Township, which this township has had since 2019 and Ypsilanti Township taxpayers pay the

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salary and benefits, therefore overseeing all matters as it relates to candidate filing and elections in Ypsilanti Township, or in the event of their absence his or her properly trained designee. It does not appear at this time that the Director of Elections was involved or otherwise made any of the errors noted above, to only have candidates on the ballot who have met or exceeded guidelines and requirements as described by law in the State of Michigan, to have fair and free elections and to know that the office of Clerk in Ypsilanti Township is run fairly without favoritism, nepotism, or any impartiality to any candidate seeking office in our township. At this point this Trustee does not believe this to be so. Voters have all rights to choose the candidates qualified for the ballot, the elected official in charge of this action must follow state law and make sure that this is so, this is why I'm calling for the Ypsilanti Township Board of Trustees to affirm my motion of a vote of no confidence for Karen Lovejoy Roe as Clerk. In closing I am also formally requesting the Michigan Secretary of State Office and/or if necessary the Attorney General to investigate these matters as described above in a letter to be forwarded to the respective offices and ask the Township Supervisor to consider such, thank you, respectfully forwarded Monica Ross-Williams, Ypsilanti Township Trustee and that is the end of my statement."

Supervisor Stumbo: "I see one hand raised Myla Harris, did I do that right?"

Myla Harris: "Yes, can you hear me?"

Supervisor Stumbo: "Yep, I can hear you."

Myla Harris: "So you can hear me?"

Supervisor Stumbo: "Yes"

Myla Harris: "OK, my name is Myla Harris I am the Vice President of AFSCME Local 3451. I am also the Chief Steward of AFSCME Local 3451 Ypsilanti Township Chapter, it seems like I loss visual, it doesn't matter, um are you there?"

Supervisor Stumbo: "Yes"

Myla Harris: "Ok, so um I wanted to didn't get a chance to speak earlier and I thought this was an opportunity under this particular um article, not article but request so I concur that um Karen Lovejoy Roe Clerk Karen Lovejoy Roe's family will automatically say she's a woman of integrity but um from all of us who are not part of the family we know her to be um something else. Um so I won't speak on behalf of all the AFSCME employees I will speak on um as the leader um with the run ins I have had with Clerk Roe in regards to nepotism to where her continued um her continued um resistance to um HR's request to not have family doing AFSCME work during AFSCME worktime to where the AFSCME leader, me, I had to step in and file a grievance in regards to um the nepotism and to have the ah employees who that were due overtime that were given to her family. And with that AFSCME um won that grievance where I filed against Karen Lovejoy Roe ah so um I been township employee for 27 years so am if obvious to say that I have been um

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around pretty much since 2008 is when I believe she became Township Clerk and um we have had run ins with her and a lot of it has to do with integrity and nepotism with the family and was so, when I read the article in the newspaper it did not surprise me one bit because as AFSCME Chief Steward um because that is always something we are addressing with her or had to file grievance, I did file the grievance in the latter part of 2019 and I just encourage um Ypsilanti Township residents is to go out and vote. Your vote matters and this is not the type of leadership that you want representing um on your behalf and um so I just wanted to make sure that I spoke to make sure the residents really pay attention to whose running and what they stand for. Thank you for your time.”

Supervisor Stumbo: “Next is Valeria Brown, Valeria?”

Lee Tooson: “Can you hear me now?”

Supervisor Stumbo: “Yes”

Lee Tooson: “It’s not Valeria Brown, its Lee Tooson. Ah I have some concerns here but I don’t have enough time to address all my concerns. Ah you know I I don’t have any friends where right is wrong is concerned. And I certainly don’t have no friends here. Now my question reading the newspaper and listening to Monica’s statement I have to ask how ethical how ethical ah ah ah is it for ah ah for Miss um Roe to do such thing as she has done and I to class this with white privilege. It it it is no doubt in my mind ah that is the classification it comes under because certainly ah I do not believe a black person would have ah ah ah that right to do that. And when you talk about ah ah ah when you talk about naming the person to take your position that is just it is not nothing new nothing new ah ah you I can see Miss Roe wanting her daughter-in-law to take her position but Miss Roe must understand she is doing her daughter-in-law a disservice. Simply because the way her daughter-in-law would get the position would not be on the basis of a true won election. Ah it would be on the basis of name sake. And her daughter-in-law should look at it from the point I will catch hell from the community ah ah by getting this position the way I got. So she she she’s doing her daughter-in-law a disservice and that ah ah (can’t make out). When we talk about naming successors like I said it’s not nothing new they even do that stuff in churches. And I’m sure Miss Roe know what I’m talking about. They do that stuff in churches. When folks put a lot of their money in churches and they have a reason for the Pastor to leave by retirement or whatever they want to name their successor so that’s nothing new. Miss Roe understands what I’m talking about. I hate to be at this junction because talking to you guys on on on screen is not what I like to do. I like to see people when I’m talking to them. And I like to have a lot of time Because I know too much stuff about this stuff that’s going on and needs to be and should have been exposed many many many years ago. And it might not be to this point where we are today. This is almost like a new Jim Crow law. Now we all are

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familiar with Jim Crow law. And I don't care who it is sitting on a board anywhere they are they are familiar with Jim Crow law and I believe if you just look at the ingredients some Jim Crowing some Jim Crowing been thrown into this arena here. And it's not right, it's not fair for this kinda stuff to continue to happen because it does not share light or good light on what the Township is trying to do or should be doing and certainly it does not shed good light on the community and ah at large. We should be better than this. How can you, I know you guys going to cut me off because I like to blow when I'm talking."

Supervisor Stumbo: "I'm sorry I'm so sorry Mr. Tooson"

Lee Tooson: "I understand sister, I understand I hope there will be another chance for me to talk cause I want to drop it like it's hot I want to tell all of it because this ain't the half of it."

Supervisor Stumbo: "Thank you for your comments Mr. Tooson. We're going to move to Melvin."

Melvin Parson: "Can you hear me?"

Supervisor Stumbo: "Yes"

Melvin Parson: "Good evening everybody. My name is Melvin Parson. Well I don't want to speak for my professional position. I'll speak as Melvin Parson. And although I'm not a resident of Ypsilanti Township I'm invested there for a couple of different reasons and I would like to encourage the Trustee Board to vote for ah ah no confidence to cast a no confidence vote ah for several different reasons. One of one of the I don't know if it's been brought up yet but this move from what I understand especially in light of Washtenaw County and their whole initiative bring racial equity and inclusion and diversion and diversity one of the things this move cancels out almost is the fact that ah Karen, Clerk Lovejoy Roe now steps into ah the candidacy the open seat for the County Commissioner in the Township against three African Americans who don't come with the resources and the name recognition that she does come with and so that almost cancels out that piece of diversity for the potential for that. And the other thing it seems like it's very clear that and I could be wrong but just the aura of collusion and nepotism and like underhanded it's something that I don't think the Township itself or the Trustee Board ah ah for the governing body wants to be a part of or to approve because If you don't cast that vote for no confidence that's kind of like a being complicit In that sort of move and I'm hoping that that a vote of no confidence is cast for that. Thank you that's all I have."

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Supervisor Stumbo: "Thank you for your comments we have, Janessa"

Janessa Monahan: "Hi, can you guys hear me?"

Supervisor Stumbo: "We can."

Janessa Monahan: "I'm Janessa Monahan and I am I'm actually a black woman and I'm a resident of Ypsilanti and I'm also an election worker for Karen. And I just have to say that right now I'm very just shocked and disappointed by what everybody's saying because the different roles I've played working for Karen side by side she's never done anything but shown me the upmost respect and to question her integrity right now, I just I'm so baffled because it shows how nobody whose speaking right now truly knows Karen. And honestly at the end of the day I would just like to remind everybody that you guys all have the right to vote and whether you agree with what I'm saying or not just vote. You guys already are acting like this is what the positions are and I just think that this is very shocking and at the end of the day I just have to stand by Karen."

Supervisor Stumbo: "Thank you for your comments. Are there other comments? All right so let's go to the..I'm sorry Clerk Roe."

Clerk Lovejoy Roe: "I wanted to give everybody the opportunity to speak, I think that's really really important. I don't really even know where to begin and I'm not even going to try to it other than I know and God knows and Monica Ross Williams knows that her statement is full of outright falsehoods. The idea that I got something in the mail or got an email, I never got and I even sent you an email to your Township address. Travis who is our IT person, when I asked him what this is and I asked him to open it to fix it he kind of just went ballistic saying that whoever was running that server, and it was not an email address that you never ever used before Monica. So I clearly tried to get that and when he said that I'm not fooling with that because there's no safety or controls or it was dangerous and said I'm not messing with it so I said ok. I would email you back and I did that and you know that so you sit here and try to say that you submitted something to me and insinuate that I made a mistake it's wrong. To say that I sent an affidavit over for someone that wasn't registered here, that's a falsehood and you know that. It's one thing to not know but to purposely try to portray my background and what I'm doing in my job with outright lies, there might be things that you don't agree with but don't put falsehoods in people's heads, with other board members that is just outright flagrantly wrong. You never commented back, you never sent me anything and even if what you did send me was way past the filing deadline, if that's what it was. On your email it just said please read my letter that was attached and I could not open that because it was a security issue and was sent from some weird server and you know where it was sent

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from so be honest. I don't know anything about the issue of anybody ever registering I'm sure that the county clerk's office would have sent that one to me like they did yours and several others. And to tell me that this person is not registered is just outright falsehood. Our differences on other opinions is fine but to try to portray things and say things that are just not true is not appropriate, it's not appropriate and it's false and it's misleading to try and get your point across. In addressing Ms. Harris who made her comments, JoAnn McCullum, Angela Rogers, and Nancy Hare-Dickerson are all folks she complained about even though it was done during the same work hours and you had to be qualified to be a chairperson which everybody knows that that takes training to set up. She proceeded to write a grievance and it was not a grievance on nepotism so I wanted to clear that up. And I'm not sure why other than I know that I have had disagreements with Ms. Harris as head of the union or even as a union member or when she was a steward and most of those had to do with things protecting employees and what I saw was employees rights being overseen or being overrun by those that had nothing to do with the union contract it was personal issues that were being addressed. In closing I just want to say that I appreciate those who have commented here tonight and I really appreciate all those who have not in terms of not you have the freedom what I'm saying is I know that there's been a lot of pressure on a lot of our friends throughout Ypsilanti Township community and I'm sorry for that, that people are working you over and trying to get you to take sides and that I truly am sorry for. Other than that to all my fellow board members the allegations before you for the most part are false in terms of the things that Monica has laid out, the other things would come out in court. Some of those things are the affidavits, quoting Chapter 168, the decisions I made were not made alone and they were done with counsel from the Bureau of Elections speaking to both their attorney and their election law person. It is a big deal to take someone off the ballot and if I'm going to do that I'm going to have back up to say yes, Karen you have the legal standing to do that and I didn't get that from both the attorney at the Bureau of Elections and the Election Law Specialist whom I trust and call every time, and everyone in this, I talked to Clerk's well represented across Washtenaw County if they'd ever been involved in that and would they remove something over one little date and absolutely beyond question everyone that I talked to said, once they were given the facts, said you are absolutely correct and I wouldn't do that. If someone else wants to do that a judge that's up to them. I'm not just going to unilaterally after I've talked to specialists in the field and read the law myself take someone's name off the ballot. So to be accused of, it's insane, I don't even understand it. Why you would want, you wanted to take your name off the ballot, you wanted, you couldn't take your name off the ballot and now you blame me for your name being off the ballot and not that your name is on the ballot now you want to sue me to get your name off the ballot, I don't understand it, I don't know what your motivations are, I know they will eventually come to the light of day. Why it is that you're trying to do this trickery, I represent, really. I listened to

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you Mr. Tooson I heard what you said and I really respect you as a person of the community who does a lot for our residents. But I want to assure you and our board members that I think that in your hearts of hearts that you know that there's nothing that I've ever done or would ever do that would in any way bring any kind of darkness to the residents I serve in Ypsilanti Township whom I'm so grateful to and I love, I love taking care of their issues; and I would never bring darkness to my friends or my family and most importantly, which is the real check to live with myself and live so that I don't cause a separation between me and Jesus Christ, who really is my Savior and the Lord of my Life and I wouldn't do anything that would jeopardize that. I thank you for listening. Thanks."

Supervisor Stumbo: "Are there other comments from the board, I got to see if hands"

Trustee Eldridge: "Madam Chair"

Supervisor Stumbo: "Trustee Eldridge"

Trustee Eldridge: "I'll just be brief. Because I don't have all the information behind it but I'm extremely disappointed that we're here at this point discussing this type of an issue. I've been on this board now for just over 16 years and from time to time I've considered at some point pursuing a full time spot on this board. I never did because they were held always by an incumbent and I respect that process. Little over a year ago um I spoke to the current Treasurer and Larry let me as well as everybody know that this was going to be his last time through and he was going to be retiring. Which I think was the right thing to do because not only did it allow me but anybody else that would desire that position to file for it and to seek it. My concern here umm is that none of us knew on the board that this position was going to open up or at least that I did not. I think it would have been fair the right thing to do to allow the community to know that so they could have registered. That's all that I'll say on that issue. Ah listening to Monica earlier and trying to jot down notes as I went along she made mention that I believe there were three candidates whose paperwork is not completed correctly, if I heard correctly after that two of them asked to be removed from consideration to be placed on the ballot. So I guess my first question would be if they filed incorrectly why we haven't removed them and if two people asked to be removed of their own free volition why could they not be removed um I'll just stop there for the moment. Thank you."

Supervisor Stumbo: "Was that a question for Clerk Roe?"

Trustee Eldridge: "Well, I guess I want to be um sensitive to everybody talking about legal issues that might be forthcoming but I think these are questions that we should answer and I think it's appropriate to answer or discuss them in a public format so

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yeah it would be a question, were there incorrect filings, if so why they weren't removed, and if candidates did ask to be removed why they could not be removed from the ballot. Om, thank you."

Clerk Lovejoy Roe: "Did you want me to answer those?"

Supervisor Stumbo: "Clerk Roe"

Clerk Lovejoy Roe: "Um, I have no knowledge of anyone asking to be removed from the ballot prior to the deadline, had they done that they would have been removed. I had one candidate who asked to be removed after the fact and I informed him that it was too late I can't remember if it was 2, 3, 4 days later. And that was the only candidate that ever asked me as the filing official to remove their name and it was after, it's a law. The law says you have to ask to be removed within three days following the date that you filed and that didn't happen by any candidates."

Trustee Eldridge: "Madam Chair may I follow up?"

Trustee Ross-Williams: Inaudible...." Go ahead, sorry Trustee Eldridge"

Supervisor Stumbo: "Trustee Ross-Williams just one moment let Trustee Eldridge please continue and then I'll call on you next. If people could raise their hand I'll try to call on them. Trustee Eldridge"

Trustee Eldridge: "Thank you. Um just to follow up on that um if the notice to be removed came prior to the submission into the County Clerk then um if if the township received those notifications the Clerk's office received them before the filing was done would the County Clerk, it seems like we had an opportunity to grant those wishes um and if we're following that strict letter of the law that still doesn't address if there were improper filings. I know both Trustee Ross and Clerk Roe brought it up differently in their statements. Um, but if the paperwork's not filled correctly does that leave discretion, if the rule says fill something out completely and correctly that seems like that's a steadfast rule I won't say a law but a rule. And if we're going to follow the rule of meeting timelines to withdraw did we meet them in the case of proper filings. That's my only question. I have not seen any of the paperwork for clarification."

Clerk Lovejoy Roe: "I can address that. I had no one that tried to file after the deadline. So everybody filed on the deadline when they were supposed to file. And once their application of identity affidavits were looked at and confirmed by our office they were sent to the County Clerk's office. I only had again, to repeat earlier,

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I had one candidate and I apologize the filing was on Tuesday, you had to withdraw on Friday, by 4:00 PM, I think it was Monday, Tuesday or Wednesday that I was sent an email saying they wanted to be removed because they thought they filled out their forms wrong. So it was after the filing deadline as when they could be pulled off. And as I talked about earlier after researching and talking in particular to the Bureau of Elections, the decision to not pull people off the ballot was made and I approved all of the filings that were made.”

Trustee Eldridge: “Madam Chair may I follow up just briefly, I’ll relinquish after this.”

Supervisor Stumbo: “Yes”

Trustee Eldridge: “I, I’m sorry maybe I wasn’t clear I didn’t mean to insinuate that somebody tried to file after April 21st, if somebody tried to withdraw and there was a computer glitch and it sounds like maybe and we just didn’t open it did we know if that was received in time. And even if it wasn’t if they tried to withdraw prior to April 27th could we not have allowed that and maybe we wouldn’t have some of this going on right now. But I’m looking for an answer were any of the filings that were received on or before April 21st not filled out correctly by law, the way it’s required. Notary public is pretty specific I don’t know that it allows for discretion to be made in asking other people what did the rule, what did the law say and I’ll leave it at that. I don’t have any further questions, thank you Madam Supervisor.”

Clerk Lovejoy Roe: “I’ll cover it again to withdraw under election law, Chapter 168 MCL you have to withdraw by 4:00 PM three days following the deadline. In this case that was April 24th at 4:00PM. I did not receive anything from anyone to withdraw by that time. What I did receive again three or four days later from one candidate wishing to withdraw which I emailed back and said you had to withdraw I explained the law to him. In reference to the email that got snatched by our IT security system that was sent way into the next week I want to say, I could look it up I want to say the 28th or 29th. And I never I don’t even know what was in there because I couldn’t open it and when I sent that back to the correct Ytown address which was not what Trustee Ross-Williams sent it was from a server I think the words he used was corrupted and that was from Travis McDugald our IT person, so I sent that back and showed her a copy I did a copy and paste with statement from IT Director saying please forward to me whatever it was and she never responded. So I never got only one person well after the deadline who wanted to withdraw. And as I said again removing individuals from a ballot is serious, if it’s a flagrant you know didn’t put their name down or how they wanted to run, but for several reasons checking past historic records here in the township and in the county and because of the decisions that were made by the Bureau of Elections telling me what they would do, the decision was made to not to err on the side of allowing candidates

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who went through the process, if there is an error I don't believe, there's nothing in my heart of hearts, after discussing many times with different people that are of a much higher level and much more experience than me that anything was done that was improper. And again it just floors me that a person is complaining that I took them off the ballot and wants because I left them on the ballot now they're threatening to sue the township, the Clerk's office or the Clerk, the County get the Attorney General involved and the Bureau of Elections. It baffles me as to what's behind that but that's not for me to worry about my job is to go by the law and that's what we did in every aspect of this situation of what's involved here."

Supervisor Stumbo: "Trustee Jimmie Wilson"

Trustee Wilson: "Yes thank you Madam Chair. First and foremost I want to make it very clear that whatever was done on the filing deadline it has a lot of folks feeling deceived or it may look shady and I agree with that however it was not illegal. But I'm going to take politics out of it because if you start to let politics get involved your vote will get a little cloudy. Ah I'm also going to take personal feelings out of it because I've had a relationship with specifically with a gentleman I use to work with Rick Roe, knowing that the Roe's have been very involved in the labor movement UAW I have a personal relationship with and respect them for that. But I have to take personal feelings out of it and I'm only going to look towards if the Clerk's office has information that there's affidavits that are not in order then these candidates should be disqualified and she is choosing not to disqualify them I would have concern moving forward that from this day all the way to the end of her term that the Clerk's office is not doing things ethically. I'm going to have to question everything that comes out of the Clerk's office and think that's the culture now and so I guess I have a question through you Madam Supervisor to Clerk Roe that I would gladly make some sort of motion to table if you can vow that you have paperwork that is not in order and you will do what's right tomorrow morning say hey County Clerk these three candidates are disqualified cause the paperwork is not in order. If you can't make that kind of vow to do that then I will have to vote yes in favor of this agenda item of vote of no confidence, thank you Madam Chair."

Supervisor Stumbo: "Thank you. Clerk Roe would you"

Clerk Lovejoy Roe: "I just, there's confusion here and I respect everybody's opinion, there's confusion over what's legal and what's not legal. And everything that was done was legal. I didn't haphazardly make a decision it was done in consultation with Larry Kestenbaum with Ed Golembiewskie from the County, was done in consultation with State Election Officials who work there, and they clearly said the decision to throw those people off the ballot is a decision in conclusion is a decision that they would not do. So there's not anything improper."

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Supervisor Stumbo: "Why did you ask them Clerk Roe? Why did you even have to talk to them?"

Clerk Lovejoy Roe: "Because the County sent the information back and said we need to know if you think there is a discrepancy here. So I did research around it."

Supervisor Stumbo: "What was the discrepancy?"

Clerk Lovejoy Roe: "Pardon?"

Supervisor Stumbo: "What was that discrepancy?"

Clerk Lovejoy Roe: "There was discrepancy between dates that folks put on the application and dates that the notary signed and after research talking to folks, actually one of the election officials laughed and said I don't care if they filled out a date at all. They would never ever throw out anything because the actual official date is actually the notary's date on the application. We actually have cases if you look at your old affidavits, all you have ran a long time, see if you find a date next to your name, it doesn't even exist. So that date is not even necessary on the form and that's what I was told by the elections they literally when I called I had I talked to them and so ok that was the decision. If someone was running for Senate or Congress and filed at the state they would not that date didn't matter to them. And when we researched and found out that we don't believe that date was ever I didn't go back to the beginning of time but I went back three different prior years and you can go look at your own affidavits and that date wasn't on there. So it's not a question of a serious thing that went into it, it's like do you throw out take people off the ballot because of a date and they wanted to know, the county wanted to know, that was their position was that there was a discrepancy what's your ruling, how do you rule on it. And I didn't do that immediately there's lots of stuff that went into it the research that went into it."

Supervisor Stumbo: "I believe they're new forms."

Clerk Lovejoy Roe: "Pardon"

Supervisor Stumbo: "I believe these are new forms."

Clerk Lovejoy Roe: "There's always a new form. There are new forms every single year. Some things change or they lay it out differently, sometimes the swearing is at the top, the notary is at the top of the statement. I think probably every four years, every two years, I'm not really sure. I didn't go back to see if those were the actual

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forms that were used in 2018 because people don't file here that was one of the things that I had on my list to do but then we got busy with stuff going on in the office and I haven't had a chance to check that so."

Supervisor Stumbo: "The County Clerk notified you that there were some affidavits that were discrepancies."

Clerk Lovejoy Roe: "He said there was a discrepancy here what is your position? So I talked to them individually Larry and Ed. That's where I started and they said they talked to the Bureau of Elections so I talked to the Bureau of Elections so. And to your question Jimmie no I'm not going to pull people off the ballot when I was told that's not what they would do if you were running for U.S. Senate, I don't think that standard is any different, or for Judge if Mr. Nelson or Erane Washington had sent those in and not filled out the date maybe they didn't fill them out according to the Election Bureau they wouldn't have even looked they don't care about that date and they wouldn't use that to throw someone off the ballot."

Supervisor Stumbo: Inaudible ".. qualify for ballot"

Trustee Eldridge: "Madam Chair?"

Clerk Lovejoy Roe: "You're right they're not on the ballot, to qualify absolutely."

Trustee Wilson: "Madam Chair:

Trustee Eldridge: "Go ahead Trustee Wilson"

Supervisor Stumbo: "I'm sorry."

Trustee Wilson: "Madam Chair"

Supervisor Stumbo: "Yes"

Trustee Wilson: "I just had one final question, ultimately do these decisions fall upon the local clerk? Does it not does it have to go through the County Clerk, the Secretary of State, ultimately does it fall on the local Clerk?"

Clerk Lovejoy Roe: "It falls it depends on the position. If you read Chapter 168 MCL the filing official is different it depends on what you are running for. The local offices I'm the filing Clerk, anybody running for County positions it's the County Clerk, anybody all Judges even local Judges all the way up to the top all file with the State and so does State Reps, State Senate, US all those file with the state so the filing

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Clerk there makes the decision for them, what's on the ballot, the County Clerk makes the decision for county positions and local Villages, Townships, Cities and municipalities make the decisions for local candidates it's where you file your petitions. So wherever you petitions are filed that's the elected or appointed, in the Cities cases they are appointed."

Supervisor Stumbo: "Filing Official"

Clerk Lovejoy Roe: "That's the law. It's pretty easy to read it's not a difficult read so if you wanted to just look at MCL 168 believe me I kind of almost know it forwards and backwards not to say that I'm not an attorney that's why I deferred to the Elections Bureau in terms of making my decision."

Trustee Eldridge: "Madam Chair"

Supervisor Stumbo: "Well I also think that the affidavit of identify is pretty clear too and pretty straight forward."

Clerk Lovejoy Roe: "Actually date is only mentioned one time in the entire law and it has to do with the date of the actual application which the state's determined it's the date that's notarized, that's the date of the application. It's obvious it's the date no other date was included on it in any other affidavits from years prior."

Trustee Eldridge: "Madam Supervisor"

Inaudible

Clerk Lovejoy Roe: "...to myself and some other Clerk's in the County and other local municipal Clerk's and actually even County Clerk Larry Kestenbaum and Ed, are saying you know the confusion around that comes from the form and probably need to go back to the form they always had where the date wasn't on there."

Trustee Ross-Williams: "Madam Chair is it possible that I can have just one comment?"

Supervisor Stumbo: Inaudible

Trustee Ross-Williams: "Just real quick I know Trustee Eldridge wanted to ask a question. If the affidavit of identity was not an important paper maybe not in Ypsilanti Township at least for the county I am aware that there is a candidate that filed affidavit of identity, that candidate had an error of date that candidate was called by the county in order to correct their paperwork. I am aware of that so."

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Clerk Lovejoy Roe: "I make a motion to call the question."

Supervisor Stumbo: "No, not yet."

Clerk Lovejoy Roe: "I'm sorry"

Supervisor Stumbo: "Is there any, did I hear Larry Doe say something?"

Treasurer Doe: "Yeah"

Supervisor Stumbo: "I don't see a hand, yes Treasurer Doe I'm so sorry."

Treasurer Doe: "I just wanted to make a brief comment you know. Over the 19 plus years I've worked with Karen Lovejoy Roe. I've thought she's always tried to be transparent and wanted the voters to have a choice who they could vote for. For her to sign up to run as Clerk in March which may have kept many people from even trying to run because of her incumbency and the ability to beat her and on the 12th hour she pulls out her daughter-in-law Heather pulls out of the Trustees and signs up for the Clerk that's not fair to the voters or anyone who may have wanted to run for either of those offices. I feel this really is unethical and looks to be a collusion between the two. I can just imagine how I would feel or if I could look at myself in the mirror had I not said anything early on and ran as if I was going to run for Treasurer and had a somebody at the last minute sign up and for me to sign up it's just it just sort of smells that's my that's my feeling on it."

Supervisor Stumbo: "Trustee Eldridge"

Trustee Eldridge: "I just had a quick question maybe this would be either for the Clerk or for the attorney. I've heard the comment several times about research done on about dates on a filing document and they really don't matter if they don't matter and the dates were incorrect why would the county clerk call over and refer to it as a discrepancy. It doesn't make sense, if it doesn't matter then there shouldn't be a discrepancy. If the date is on the document then apparently it's supposed to be completed correctly or otherwise I don't believe they would have called from the County referring to it as a discrepancy. And that's it for me thank you."

Supervisor Stumbo: "Thank you. Monica Ross-Williams has her hand raised."

Trustee Ross-Williams: "Yeah, I won't speak long just a point of clarification. First thing first as the document that was put on to Facebook I think it was the 25th ah of

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April when I found out about my affidavit of identify was had errors. I filed my documents either on December 16th 2019 or December 19th 2019 I can't tell because of the fact that there's a signature with a date of the 16th and there is a notary with the date of the 19th. Those documents was somewhere ah for four months and 5 days I don't know if they were at the local Clerk's official office ah but ah I'm assuming that a copy would have to be left there somehow because State laws says two copies um so I don't know why I was not called or even given notice to correct. If I had got notice to correct like the person who filed for the county office I would have. Um I don't like to waste time and I feel like I've wasted a lot of time. It's not right for me to be in this race because of the fact there's a error in my document. It's not right. Um that's just the bottom line um period. And as for the 24th I didn't find out until the 25th, I found out by a meeting that I wasn't even at. Someone texted me and then I called and said uh there's three candidates with errors in filing dates. I wasn't even at that meeting. So to find out like that after four months and five days sad. I don't know about the other candidate I do know that um they filed on the 16th I don't believe they got notice either. Um there was a lot of discussion especially with Clerk Roe especially in regards to the withdrawal deadline and basically what that was and um if I would have found out by the 24th I would have withdrew. There's a error in my paperwork it's an error. It's also what the state law says. So I can not morally or ethically to not fight to be off the ballot if I don't if I'm not rightfully on it and I'm not because of the issues in the notary and signatory date. That is the bottom line."

Supervisor Stumbo: "Alright, thank you. Any other board members? Do I see a hand anywhere no hands, ok. Um I'd like to speak now and this is hard because Clerk Roe and I have been very close for about 30 years and I've been very close to her kids as well. But this isn't about that. To me this is shining light and being honest. And during a health pandemic when the building was closed it appears that two board members who are related conspired colluded in order to make sure there was no opposition in a race. Is it illegal I don't know I question it because the Clerk is the official filing she controls that process. So she was a person of authority and when you're in that position and you are over elections, it should be a sanctity is should be a sacred place where people are treated equal. I do not feel like this is what happened. Is it clever, is it politically a cue maybe, yes. But when you find an error in an affidavit and I disagree Clerk Roe, Larry Kestenbaum himself told me as County Clerk he would not accept an affidavit that was incorrect. Maybe he's telling you one thing and he's telling me something else but I don't think that is the case. He also went on to say that the State of Michigan would not accept it either. So it's not a matter of throwing someone's name off the ballot they were never on the ballot. The duty and responsibility of Clerk is to make sure that things are accurate before you submit the name to the county to be on the ballot. You failed to do that. I find it more than ironic that you fought for a Director of Elections and yet that Director of Elections

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was not here to assist and she's very qualified. She knows the process. These are new forms so it's a little different than in the past. I can see how mistakes have been made but when you make a mistake you call the candidate to correct it unless it's pass the time which it appears that's what happened so everyone can have a fair and equal opportunity to apply for an open seat. Only you and Heather knew what was going to go down. Not one other board member had this knowledge. Cause had we of you're right we would have let other people know. You failed to do that, I know you, that's not who you are. It's not who we are the Township Board. It should be open for all people equal opportunity and I know Heather feels the same way too. And there was not an equal opportunity. But when things happen like you have good a lot of faith. And things happen for a reason. You got a second chance to disqualify people based on their affidavit. They were never on the ballot yet. The Clerk's office notified you the problem with Heather Roe's affidavit the date she signed it was not the date it was notarized. Monica Ross-Williams had the same issue and Billy Sinkule had the same issue. You also submitted a name of a person who is not registered to vote in time to even qualify to be on the ballot. You didn't check that that's why I feel and I was hoping you would be maybe consider what Jimmie asked Karen. Because the vote of no confidence is because the inability to process forms correctly. It shows (inaudible) not only in the Clerk's office but the entire township. And I am passionate about it I know and I thought very long and hard. I was upset because all this went down when our building was closed and we had the worst health pandemic any of us have ever seen and people weren't working here. The access to the building was very hard. And I just think that I do believe we both know this was not the right way to say I don't want to run for office as Clerk. That's not who we are that's not who you are that's not who you ever are. Is it illegal, no, does it stink, yes. Does it bring a black eye or a mark on our township. I think it does. Based on the emails and comments that I have gotten from people. But I think we have an obligation to remove people not from the ballot cause they're not on there from being qualified based on not being registered on time, based on not having proper documentation to submit for office. So that's the reason I support the vote of no confidence. I'm just very concerned about the process that you used to do what happened on the very last day of the filing. Any other comments Clerk Roe did you want to respond?"

Clerk Lovejoy Roe: "No, I think I've said everything. I have good conscience about all of it. I did from my perspective, I researched it, talked to people and that is where we came down. The County Clerk's office about this is not together on that, I'm not sure when you talked with Larry Kestenbaum but I think after information was provided to him I'm not so certain that that statement is where he would be today but I'm not going to speak for him."

Supervisor Stumbo: "Ok"

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Trustee Ross-Williams: "Madam Supervisor last comment. I am also in receipt of the email which you mentioned in regards to the County Clerk's office will not accept the filing of that nature. Again a candidate for county office in fact I can go ahead and mention his name because he that it's ok Eli Savit whose running for Washtenaw County Prosecutor his paperwork was not correct and he was called by the County Clerk's office. Um my it's not really a question but just a comment um I feel disappointed ah and my former candidacy that's what I'm going to call it because that's what it is. The supporters of that candidacy there time was wasted also. And I don't personally see any reason why three candidates that have errors in their identity should be even considered for a ballot. None period at all."

Supervisor Stumbo: "Are we ready to vote on this issue? We have a motion and support on a vote of no confidence for Clerk Karen Lovejoy Roe, Doe?"

Treasurer Doe: "Yes"

Supervisor Stumbo: "Jimmie Wilson Junior"

Trustee Wilson: "Yes"

Supervisor Stumbo: "Stumbo votes yes, Clerk Lovejoy Roe"

Clerk Lovejoy Roe; "No"

Supervisor Stumbo: "Ross-Williams"

Trustee Ross-Williams: "Yes"

Supervisor Stumbo: "Eldridge"

Trustee Eldridge: "Yes"

Supervisor Stumbo: "And Jarrell Roe"

Trustee Jarrell Roe: "No"

Supervisor Stumbo: "The Motion is Approved. The next item on the agenda **BUDGET AMENDMENT #5, Clerk Roe**"

Clerk Lovejoy Roe: "Yeah, I have a budget amendment to offer a **Motion to Amend the 2020 Budget Number #5 Motion to increase the General Fund budget by \$20,000 those are expenses related to COVID-19 to \$9,615,571 and approve the**

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department line item changes as outlined and increase Environmental Services Fund budget by \$305,950 and that's the increase cost that we voted on for the amendment to the Waste Contract for \$3,256,471 and approve the department line item changes as outlined, I would so move the amendment #5 to the 2020 Budget "(see attached)

Trustee Wilson: "Support"

Supervisor Stumbo: "Motion by Clerk Roe support by Wilson, discussion on the budget amendment? Roll Call Vote Doe?"

Treasurer Doe: "Yes"

Supervisor Stumbo: "Wilson"

Trustee Wilson: "Yes"

Supervisor Stumbo: "Stumbo votes yes. Lovejoy Roe"

Clerk Lovejoy Roe: "Yes"

Supervisor Stumbo: "Ross-Williams"

Trustee Ross-Williams: "Yes"

Supervisor Stumbo: "Eldridge"

Trustee Eldridge: "Yes"

Supervisor Stumbo: "Jarrell Roe"

Trustee Jarrell Roe: "Yes"

Supervisor Stumbo: "The motion is approved."

AUTHORIZATIONS AND BIDS

- 1. Supervisor Stumbo: "The next item on the agenda is Authorizations and Bids-REQUEST TO SEEK PROPOSALS FOR A PREFERRED NETWORK PROVIDER that will come back to the Township Board."(see attached)**

Clerk Lovejoy Roe: "So Moved"

Supervisor Stumbo: "Motion"

Clerk Lovejoy Roe: "Lovejoy Roe"

Supervisor Stumbo: "Lovejoy Roe"

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Treasurer Doe: "Support"

Supervisor Stumbo: "Support Doe" Questions? Hearing none we go to a roll call vote. Doe?"

Treasurer Doe: "Yes"

Supervisor Stumbo: "Wilson Junior"

Trustee Wilson: "Yes"

Supervisor Stumbo: "Stumbo votes yes. Clerk Lovejoy Roe"

Clerk Lovejoy Roe: "Yes"

Supervisor Stumbo: "Trustee Ross-Williams"

Trustee Ross-Williams: "Yes"

Supervisor Stumbo: "Trustee Eldridge"

Trustee Eldridge: "Yes"

Supervisor Stumbo: "And Trustee Jarrell Roe"

Trustee Jarrell Roe: "Yes"

Supervisor Stumbo: "The motion is approved. There is no other business to come before the board. Are there board member updates?"

BOARD MEMBER UPDATES

Clerk Lovejoy Roe: "Madam Supervisor"

Supervisor Stumbo: "Clerk Lovejoy Roe"

Clerk Lovejoy Roe: "Yes I just wanted to report that voters are requesting daily to be added to the permanent list. They were doing that daily but now that the card went out it is really increasing and people are really grateful that the board supported doing that. Especially during a time with what's going on and people don't really want to be around large groups of people to vote. Um they can request an absentee ballot by sending that card back or emailing, it has to be in writing by law and mailing back the postcard recently mailed or sending just a written request through the mail that would be fine, to be on the list to receive an absentee ballot. We are also still in need of election workers for both the August and November elections due to the COVID-19 probably for August for sure and hopefully things keep moving in the right direction. But we're going to have to put

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election workers six feet apart and probably going to have to have someone at the door controlling it so that you only have one person at applications, so what I thought we could do with five or six workers in some cases is probably going to be six or seven in order to make sure the residents are safe. Hopefully more and more will vote. I know Senator Ruth Johnson who was Secretary of State for many many years and is a Republican is working really hard to get her Republican colleagues in the Senate to join in things like allowing us to put precincts together so we don't have to use as many workers, to allowing the ballots to at least be processed for absentee ahead of time though not tabulated, they're asking because they think it is going to take hours and have introduced legislation to allow two shifts of workers on the AV count board so people don't have to work a 24 hour day that's what it appears it's going to be with number of ballots that are coming in. One of the things that we're going to have to do is find a new location for the Absentee count board, even with just two count boards which would be a tiny, just 5,000 people voting absentee where we're expecting at least 8,000 to 12,000 in Ypsi Township based on the projections in today's election and the election in March. So that we will have to keep the AV workers six feet apart. So we don't have a facility or anywhere big enough so I've approached the Marriott and am waiting for a phone call back hopefully they will make a donation and allow us to use the grand ballroom which would be great. We're going to approach Arbor Prep though they haven't been helpful in the past. I'm thinking that since they won't be open in August that maybe they would let us use it anyway. So we're working on that, you can contact my office, you can actually get it on line put in Election Inspector Application in the search engine or call us. You just have to be 16 years of age and in school. If you're 18 or older you got to be a registered voter in the State of Michigan. I also want to take a chance and thank God for everything that He's done helping us to move forward and discerning the truth because that was kind of a big issue to figure out if this was real or not and to listen to what the science was saying. I think as a community and a nation, I think even though there are doubters, overall it's the reason we are moving forward is because we took it seriously and stayed home. Thank Him for the number of deaths that are going down and the number of new cases that are going down not just here but in other areas. Pray for those rural areas because it is just starting to reach some of those and there are even threats in areas like Texas of hospitals closing because of the loss of funding because they weren't able to do normal procedures so I think that is important. Also I really thank and shout out to Commissioner Ricky Jefferson, and St. Joe's and University of Michigan Hospitals, and the Washtenaw County Health Department for hearing our call on this side of the county where our residents are so disproportionately impacted by COVID-19 and providing testing at St. Joe's daily that has been there for some time now and the two new pop up's that are coming up. If you haven't heard there is one coming on Saturday, this Saturday May 9th at Ypsilanti Township Community Center on Clark Road and there's going to be another one the following Saturday in Ypsi Township, May 16th at the Grace Fellowship Church, also referred to as the Community Life Center on South Harris. And overall I just want to ask for continued prayer for all those that are out there in listening land and each of us with our families and I know we've been doing it on our prayer chains, just pray for all those on the frontline at the hospitals, the clinics, first responders along with all those essential workers who have done such

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a great job in providing us with needs during this critical time. And just ask to give strength and peace to all those who have lost loved ones, it's devastating, and so many are in our community. And those who are still in hospitals sick and especially our seniors. It just breaks my heart that seniors in our nursing homes are unable to see their loved ones. And just ask for divine intervention and help for those who are working scientists across the world to develop knowledge and to provide skills that would come up with a vaccine to rid us of this horrible infection. And particularly I want to thank everybody that participated from home tonight it's so exciting. I know I've gotten lots of emails from folks who are saying, Hey or it's been on Facebook, can you guys make sure and continue. I know we can't do the Zoom thing once the think is lifted but is there some way we could have so people could participate from home maybe we can have Zoom and we're not on it, I don't know how that works but maybe we can figure that out. Because we do live in one of the greatest nations on earth, there is hope for us. There are a lot of countries where you can't speak freely, the liberty we have I appreciate that and don't take that for granted. So everybody be safe out there and we're getting ready to come back to work here at the Township, right Brenda?"

Supervisor Stumbo: "I've been here. Trustee Ross-Williams"

Trustee Ross-Williams: "Yes ah thank you. I just want to take a moment to equally but separately thank County Commissioner Ricky Jefferson. He put out a video call and ah asked for residents in Ypsilanti Township in order to respond within that call. I also want to thank ah residents in Ypsilanti Township who did, I want to thank residents in various communities that have been passing out food to our families in need and and also the Washtenaw County Sheriff's Department that have been helping with that. This is a very difficult time. And even though our numbers are down it does not mean it is over. There are states where they have stopped social distancing already and have opened up businesses again. And so this virus can and the experts do say can have a 2nd wave. So I would just want to tell residents to stay vigilant in order to continue to do social distancing, highly consider wearing a mask when you are outside, when you are going to the grocery store, when you are going out and also basically it is important to save lives, obviously but we need to keep in mind also of people including here in our township that have lost their lives and then lost souls to this virus. So just wanted to make sure that residents that are still going out, right now trying to make sure our community is being fed. I know JoAnne McCullum is one of them I know I saw Justin Hodge and his wife, I have saw Michael White participate on in side of feeding our residents. Each and every resident that's going out, knowing the risk that they are putting to themselves in order to make sure our community is fed and they have the needs they require. I thank you and thank you for doing that and make that you continue to stay safe."

Supervisor Stumbo: "Thank you. There are no other board members, hands raised. But I will, we are having virtual neighborhood watch meetings now in order to try to bring people together without actually having to physically being in a place and that is May 11th, 12th and 13th for the neighborhood watch groups that will be posted on our website. We also starting Monday of this week we will have bulk

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pick-up. So our waste hauler stopped yard waste and one bulk item pick-up. We restored yard waste and now will have one item bulk pick-up as well. I was going to talk about the pop-up testing but Clerk Roe covered that. We also have, I want to apologize I don't know what happened why the board packet was not up on the website on Monday or it didn't get posted until Monday I'm not sure what happened but I know residents were texting me and calling me and I just, I apologize for that, I see there's fifty-one people in attendance virtually I do believe the next meeting will be held in person. And Clerk Roe's report also talked about a lot of absentee ballots. I haven't received whatever you mailed out Clerk Roe but I do think that the absentee ballots should have went to the Election Specialist or the Deputy Director of Elections, it should not go to you. Especially in light that your name may be on the ballot that should not have happened. If our name is on the ballot we should stay as far away from it as we can and other family members are on the ballot as well. Family members can't work the polls when your name's on the ballot you should not be handling them either especially in light of the vote of no confidence as well. So I would encourage us to use our Deputy Director of Elections for this purpose. And that's all I have. So at this time a motion to adjourn."

ADJOURNMENT

Clerk Lovejoy Roe: "So moved"

Inaudible

Supervisor Stumbo: "Motion Lovejoy Roe, support Wilson is that how it went?"

Trustee Ross-Williams: "It actually went Motion Wilson then support Eldridge that's what I heard."

Supervisor Stumbo: "Well we have a motion and support to adjourn. We'll do a roll call vote again. Do I have to do a roll call vote on adjourning, I don't think so. All in favor?"

All: "Aye"

Supervisor Stumbo: "Meeting Adjourned"

The meeting was adjourned at approximately 9:05PM.

Respectfully Submitted,

**Brenda L. Stumbo, Supervisor
Charter Township of Ypsilanti**

**Karen Lovejoy Roe, Clerk
Charter Township of Ypsilanti**

Charter Township of Ypsilanti

RESOLUTION 2020-10
(In Reference to Ordinance 2020 - 490)

Prohibition of Recreational
Marijuana Establishments

Whereas, the Michigan Legislature adopted the **2018 Michigan Regulation and Taxation of Marijuana Act**; and

Whereas, the **2018 Michigan Regulation and Taxation of Marijuana Act** governs recreational marijuana; and

Whereas, prior to the approval of the **2018 Michigan Regulation and Taxation of Marijuana Act** Michigan voters and the Michigan legislature approved the **Michigan Medical Marijuana Act, Initiated Law 1 of 2008** legalizing medical marijuana and the **Michigan Medical Marijuana Facilities Licensing Act of 2016**; and

Whereas, proposed Township Ordinance 2020-490 entitled **Prohibition of Recreational Marijuana Establishments** applies to recreational marijuana businesses pursuant to the **2018 Michigan Regulation and Taxation of Marijuana Act**; and

Whereas, proposed Township Ordinance 2020-490 does not affect medical marijuana patients' rights or medical marijuana caregivers' rights under the **2008 Medical Marijuana Ballot Initiative**, to use and grow medical marijuana; and

Whereas, proposed Township Ordinance 2020-490 does not affect adult recreational marijuana users rights to consume, smoke or ingest marijuana; and

Whereas, municipalities have the right, under the **2018 Michigan Regulation and Taxation of Marijuana Act**, to decide whether recreational marijuana businesses are permitted within their communities and if they are permitted, the type or types of businesses so allowed, the zoning districts in which said businesses are permitted, as well as the adoption of other local regulations and requirements that are deemed to be in the best interests of the community; and

Whereas, the Ypsilanti Township Board of Trustees needs additional time to consider the important issues of whether commercial recreational marijuana businesses are in the best interests of the Township and, if so, the types of businesses that may be

suiting to the Township based upon the zoning district(s) for such businesses and whether other local regulations and requirements should be adopted.

Now Therefore,

Be it resolved, that Ordinance 2020-490 prohibiting recreational marijuana establishments (businesses) within Ypsilanti Township as set forth in the **2018 Michigan Regulation and Taxation of Marijuana Act** is hereby adopted by reference.

Be it further resolved, that the Township's Planning Director, Planning Consultants and Township Attorneys are hereby directed to provide the Ypsilanti Township Board of Trustees quarterly updates as it pertains to all information and research that is being conducted.

Charter Township of Ypsilanti

ORDINANCE NO. 2020-490

An Ordinance Prohibiting Recreational Marijuana Establishments within Ypsilanti Township as Provided by the Recreational Marijuana Ballot Initiative 1 of 2018

The Charter Township of Ypsilanti hereby ordains that pursuant to the authority granted to municipalities in the Recreational Marijuana Ballot Initiative 1 of 2018, otherwise known as the Michigan Regulation and Taxation of Marijuana Act (the Act), as amended, marijuana establishments as defined in the Act, are prohibited within the boundaries of Ypsilanti Township.

Penalty for Violations

Violation of this Ordinance constitutes a municipal civil infraction punishable by a \$500 fine. The violator shall be required to pay all direct and indirect expenses incurred by the Township in connection with the prosecution of the civil infraction. Each day during which a violation continues to exist shall be a separate offense.

The Township may seek injunctive relief against persons alleged to be in violation of this Ordinance and such other relief as may be provided by law.

Severability

Should any section, subdivision, sentence, clause or phrase of this Ordinance be declared by the Courts to be invalid, the same shall not affect the validity of the Ordinance as a whole or any part thereof other than the part as invalidated.

Publication

This Ordinance shall be published in a newspaper of general circulation as required by law.

Effective date

This Ordinance shall become effective upon publication in a newspaper of general circulation as required by law. This ordinance shall cease effect on March 31, 2021. Furthermore, the Township's Planning Director, Planning Consultants and Township Attorneys are hereby directed to provide the Ypsilanti Township Board of Trustees quarterly updates as it pertains to all information and research that is being conducted.

McLAIN & WINTERS

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April 30, 2020

Brenda L. Stumbo, Supervisor
Karen Lovejoy Roe, Clerk
Larry Doe, Treasurer
Charter Township of Ypsilanti
7200 S. Huron River Drive
Ypsilanti, MI 48197

Re: Proposed Ordinance 2020-490 extending the opt out time period for recreational marijuana businesses

Dear Township Board members,

As you will remember, in November of 2018, Michigan passed a referendum ballot initiative legalizing recreational marijuana. The law entitled the “**Michigan Regulation and Taxation Act**” (“the Act”), MCL 333.27951 et. seq. is a complex piece of legislation. It contains many provisions, including one that provides that municipalities have the choice to opt out of allowing recreational marijuana businesses within their communities. In the past year, a large majority of municipalities have opted out. Some communities did not want recreational businesses period. Other communities that opted out did so to allow for additional time. They wanted to understand the different types of potential marijuana businesses created under the new law and many other concerns. These municipalities knew that the decision to opt out could be changed at a later time. In contrast, municipalities which have already decided to opt in, allowing recreational marijuana businesses to open, will be confronted with numerous challenges, if they later wish to change zoning or other regulations, for existing recreational marijuana businesses.

According to the Michigan Marijuana Regulatory Affairs website, as of April 24, 2020, **1425** municipalities have opted **out** of all types of recreational businesses and **46** have opted **in**.

Stumbo.Roe.Doe
Re: Marijuana Resolution
April 29, 2020
Page 2

In May 2019, Ypsilanti Township was among the municipalities that chose to opt out. The Township Board decided to press the pause button on recreational marijuana businesses to allow time to gather more information. Under the terms of the opt out ordinance (Township Ordinance 2019-484), the ordinance expires on **June 30, 2020**.

Before going any further, we want to be clear about what is and what is not affected by Township Ordinance 2020-490. The Ordinance **only** relates to the **recreational marijuana businesses**. **It does not affect medical marijuana patients' rights or medical marijuana caregivers rights to buy and use marijuana for their own personal use under the 2008 Medical Marijuana Act**. The Ordinance also does **not** affect an individual's right under the **2008 Medical Marijuana Act** to grow up to 12 marijuana plants for personal use or a caregiver's right to grow up to 72 plants for their patients and themselves. Medical marijuana patients and caregivers rights afforded in the **Medical Marijuana Act** are **not** affected by Township Ordinance 2020-490. Proposed Ordinance 2020-490 is limited to **recreational for profit marijuana businesses**.

Due to the complex issues and decisions presented by recreational marijuana business opt in or opt out decision, and the current challenges the Township Board is facing due to the Covid-19 pandemic, we are writing to you jointly to recommend that you adopt the attached ordinance 2020-490. The Ordinance, if adopted extends the opt out period for recreational marijuana to **June 30, 2021**.

From a planning professional's perspective, the Township recently completed an extensive process to update the Township's Master Plan. The Board also authorized the revision of the entire Zoning Ordinance. While this revision is in process, the amended Zoning Ordinance will not be completed and ready for adoption until this time next year. In the revision of the Zoning Ordinance, it is anticipated that there will be new zoning districts created and existing zoning districts eliminated in order to align the Zoning Ordinance and Master Plan. Until that process is complete, it would be difficult, if not impossible, for the Planning Commission to provide reasonable recommendations to the Board regarding appropriate locations and standards for any one of the eleven potential recreational marijuana facilities.

There is no need here to explain to you the current and future upending of our normal way of doing business in the Township. Meetings are all conducted online. Discussions with Township staff and their consultants are done via email, telephone or zoom. We all know that it is not easy to collaborate on Township matters the way we did pre-COVID 19. In our opinion, the Township should not

Stumbo.Roe.Doe
Re: Marijuana Resolution
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Page 3

rush into deciding whether to allow recreational businesses to operate within its borders. There are many considerations that need to be addressed before any permanent decision is reached on recreational marijuana businesses. For the reasons explained in this letter, the next few months are not sufficient time for the Township Board to decide what if any marijuana businesses should be permitted and, if so, implement zoning and other special regulations regarding those businesses.

From a township attorney's perspective, there are many complex considerations and decisions that municipalities face when deciding whether or not to allow recreational marijuana businesses to locate within their communities. For this reason, it is necessary to explain some of the important legislation contained within the Act. The following is an overview of the types of marijuana businesses created by the **Michigan Taxation and Regulation Act**.

The **Michigan Taxation and Regulation Act** contains many important provisions. Among the important provisions are laws governing: 1) the adoption and enforcement of municipal ordinances; 2) the implementation, administration, and enforcement of the Act; 3) delegation of rule-making authority to the Department of Licensing and Regulatory Affairs (later delegated to the newly created Marijuana Regulatory Affairs Agency); 4) definitions of the various types of recreational marijuana businesses; 5) licensing fees for recreational marijuana businesses; 6) taxation on recreational marijuana; and 7) the establishment of a recreational marijuana fund setting forth the distribution of the marijuana taxes among a variety of different governmental entities and clinical trials. Under the Act, the first 20 million dollars generated by the tax on recreational marijuana will fund clinical trials approved by the FDA. The remaining tax revenue is split between the following governmental entities: 1) 15% divided between all municipalities that permit retail sales and micro businesses sales of recreational marijuana; 2) 15% divided between all counties with municipalities which permit retail sales and micro business sales of recreational marijuana; 3) 35% to the K-12 school aid fund; and 4) 35% to the Michigan transportation fund for roads and bridges.

In Michigan, there are eleven different types of for-profit marijuana businesses which municipalities may permit to do business within their borders. The businesses are: 1-3) class A, B, and C marijuana grower businesses which can grow and sell up to 2,000 marijuana plants (classification determines the number of marijuana plants permitted) ; 4) marijuana processor businesses (facilities which prepare marijuana plants by compounding, blending, extracting, infusing marijuana); 5) for profit marijuana retail businesses (sales of marijuana); 6)

Stumbo.Roe.Doe
Re: Marijuana Resolution
April 29, 2020
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marijuana safety compliance facilities (testing facilities for potency and presence of contaminants); 7) marijuana secure transporter businesses (transports marijuana to and from other marijuana establishments); 8) marijuana microbusinesses (cultivates, processes and packages 150 marijuana plants); 9) marijuana event organizers (persons licensed to hold temporary marijuana events); 10) marijuana temporary events (events held by a marijuana event organizer with onsite sale and consumption of marijuana products at a specific location); and 11) marijuana designated consumption businesses (commercial space where marijuana products are consumed on premises). A municipality has the right to decide to permit none of the eleven businesses, some of the marijuana businesses, or all of the eleven businesses.

In addition to deciding whether to permit one or more of the eleven different types of marijuana businesses, there are other very important zoning and regulatory decisions that a Township must make regarding each business. One important decision for municipalities that choose to allow a marijuana business is zoning. For each type of permitted marijuana business, the Township must decide what zoning district or districts the business is permitted to operate. Keep in mind that each type of for-profit marijuana business, presents different concerns. For example, a marijuana processing business involves extracting marijuana resin from the plant and processing it into a liquid or solid. One of the more cost effective marijuana processing methods uses butane as a solvent in either open or closed loop system. Both methods use a hazardous substance which runs the risk of being mishandled, resulting in potential fires or explosions. Another more expensive process uses CO₂ in a highly pressurized form which is also risky in terms of potential explosions. These types of uses are generally regarded as "industrial". Depending on the nature of the industrial use, the Township's Zoning Code currently has 3 industrial districts (I-III). The I-3 Industrial District is intended for the heaviest of industrial uses. The Township Planning Commission needs to first hold public hearings and make a recommendation to the Township Board as to what zoning district(s) is appropriate for a specific type of recreational marijuana business. The appropriate zoning district needs to be determined for every type of marijuana business a municipality permits.

Besides deciding the zoning district for each type of possible business, the law permits the Township to also include possible distancing requirements. As you know, a distancing requirement means that a marijuana business, even if it is in a permitted zoning district, cannot locate within a certain distance of places such as schools, houses of worship or residences. For each type of business permitted, the Township needs to consider whether a distancing requirement should be

Stumbo.Roe.Doe
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imposed. This distancing requirement would be a separate layer of regulation on where the business may locate in addition to the zoning regulation.

Another very important decision that must be made if a municipality decides to permit one or more of the 11 different types of recreational marijuana businesses, is whether to impose a cap on the number of businesses allowed in the municipality. Many of the municipalities that have opted in to allow recreational marijuana businesses, have placed different caps on the number of individual businesses allowed in the community.

The last but certainly not least decision that a Township Board must make regarding whether to allow recreational marijuana businesses, especially if there is a decision to impose caps on the number of businesses, is the criteria that will be used to determine which applicants qualify for a license. In some communities, there are a certain number of licenses that are designated for applicants which meet certain criteria. An example of the criteria that might be included is whether the applicant has business roots in the community, whether an applicant will agree to employ a certain number of local residents, and whether an applicant agrees to pay a living wage to its workers. These are just a few examples of the types of local control regulations that may be considered. There are many other types of special restrictions that can be included in licensing criteria for each type of marijuana business that is permitted.

On May 7, 2019, the Township Board adopted the Ordinance 2019-484. When the Ordinance was adopted the Michigan regulations regarding recreational marijuana were unknown. They were being drafted. As we have already mentioned, since that time, many municipalities have opted out of allowing recreational marijuana business within their communities.

As mentioned previously, when the Board decided to opt out of allowing recreational businesses to operate within the Township, the Board included a June 30, 2020, sunset provision in the ordinance.

If the attached Ordinance is adopted, it will preserve the status quo and will allow you to take the time necessary to carefully consider whether or not to permitting commercial recreational marijuana businesses is in the best interests of the Township. If the Board decides to allow some or all of the 11 types of different recreational marijuana businesses, the Board will need to determine zoning regulations, caps on licenses, and other special requirements such as distancing.

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Re: Marijuana Resolution
April 29, 2020
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If you decide to maintain the status quo, you will be able to learn whether communities that currently allow the various types of recreational marijuana businesses benefitted from the decision to opt in. This includes learning the **actual** amount of taxes received by the opt in communities from the marijuana tax fund. This information will be helpful in performing a cost/benefit analysis using the actual taxes received and the municipal costs associated with regulating recreational marijuana businesses in those communities. The passage of time will also allow you to find out if there were unforeseen negative consequences to the municipalities that approved marijuana businesses. Under the law, there is no provision for revoking a marijuana business license once it has been granted unless there is a violation of the State regulations.

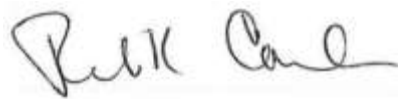
Giving the Board additional time to consider this important issue will not impact the ability of recreational marijuana customers to buy marijuana products. They are able to buy the product in the near-by Cities of Ypsilanti and Ann Arbor. They are also able to buy recreational marijuana via home delivery and carry out service. Home delivery services were available before the Covid-19 crisis. Home delivery of marijuana remains available during the Covid-19 crisis. A quick Google search will reveal how easy it is to buy recreational marijuana.

We think it makes sense to for the Board to take time considering the important question of whether recreational marijuana business should be allowed to locate within Ypsilanti Township.

Sincerely,



Angela B. King



Richard Carlisle

ABK/js

NEW BUSINESS

CHARTER TOWNSHIP OF YPSILANTI

OFFICE OF COMMUNITY STANDARDS

Building Safety • Planning & Zoning • Ordinance Enforcement • Police Services

To: Karen Lovejoy Roe, Clerk
From: Jason Iacoangeli, Planning Director
Ben Carlisle, Planning Consultant
Re: **Request to approve the variances from the Private Road Ordinance:**

Section 47-29, Private road design standards, sub-section (L) for a 780-foot long private road, exceeding the maximum length of 600 feet by 180 feet, without a second means of access to another road system for sites zoned R-1, Single Family Residential, located at 6575 Munger Road, Parcel # K -11-30-300-022, 6501 Munger Road, Parcel # K -11-30-300-001, 5287 Merritt Road, Parcel # K -11-30-300-032, and 5285 Merritt Road, Parcel # K -11-30-300-033; and

Section 47-28.1 Private driveway design standards, sub-section (a). for one (1) private driveway to access two (2) lots zoned R-1, Single Family Residential where only one (1) lot can be accessed by a private driveway for sites zoned R-1, Single Family Residential, located at 5287 Merritt Road, Parcel # K -11-30-300-032 and 5285 Merritt Road, Parcel # K -11-30-300-033.

Copy: McLain & Winters, Township Attorneys
Date: June 3, 2020

Background

The requested variances from the Private Road Ordinances are part of a process to develop 6501 and 6575 Munger Road (Sauter properties) as six (6) single family residential parcels, and 5287 and 5285 Merritt Road (Bullock properties) as two (2) single family residential parcels, for a total of eight (8) residential parcels. On September 18, 2019, the Township Board of Trustees denied the above private road variances.

On October 15, 2019, the OCS received a revised, complete application for the two (2) variance requests. The reviews from the Fire Department, planning consultant, and engineering consultant recommend conditional approval. Ypsilanti Community Utilities Authority (YCUA) did not submit a formal review but stated in an e-mail dated October 25, 2019 that the water main satisfies YCUA standards. In accordance with Section 47-33 of the Private Road Ordinance, a Township Board public hearing was held on November 19, 2019.

CHARTER TOWNSHIP OF YPSILANTI

Reviews

The requested variances have been approved by the following departments:

Ypsilanti Township Fire Department:

1. According to the IFC 2012, the minimum fire-flow (water flow) that is required to protect a single family dwelling that is 3,600 square feet or smaller, requires 1,000 gallons per minute of water for a duration of at least one hour. If the dwelling is larger, more water is needed. Hydrant spacing along a private road (fire apparatus access road) shall not exceed 500 feet.
2. The driveway shall extend to within a 150 foot radius of the entire dwelling and be passable by an Ypsilanti Township Fire Truck (maintain tree clearance).
3. The IFC 2012 gives Group R-3 (single-family dwelling) an additional 200 feet from a hydrant. Therefore, a single family dwelling shall not be more than 600 feet from a hydrant.

Therefore, in order to protect lives and property, any building used as a dwelling shall be built within 600 feet from a hydrant. If the builder/developer chooses not to build within 600 feet of a hydrant, this office **is requiring through the “Conditions of Variance Approval” agreement that** it be equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 thru 903.3.1.3.

Township Engineer

As presented in OHM’s April 22, 2019 site plan review letter, outside agency reviews and permits will be required for the project prior to commencing construction; however, these permits, and approvals have no effect on the two (2) variances requested.

YCUA

Lots 1,2,3 and 4 will have access to a YCUA water main. Lots east of lots 3, and 4 will not have access.

Carlisle|Wortman Planning

CWA recommends approval of the two (2) variances with the condition that the applicant agree to the Conditions of Approval.

CHARTER TOWNSHIP OF YPSILANTI

Conditions of Approval

Working with the Township Attorney and Carlisle Wortman staff have drafted a Conditions of Approval document for the Township Board to consider. We find these conditions are necessary to allow for the variances as requested by the applicant but also ensure the protection of public health, safety, and welfare. These conditions include:

1. Future splits in accordance with the State of Michigan Land Division Act may be permitted on the Sauter property as currently described; however, there shall be no more than a total of six (6) homes on the Sauter property as currently described.
2. There shall be no more than a total of two (2) homes on the Bullock property as currently described.
3. There shall be no more than a maximum of eight (8) homes served by the private road. The eight (8) homes include the two (2) homes on the Bullock property as currently described.
4. The shared driveway serving the Bullock property as currently described, shall be maintained to in such a way to provide access to emergency vehicles.
5. Jeff and Kimberly Bullock agree to vacate the 22-foot wide access easement to Textile Road and revoke the 1984 ZBA variance granted to YP#30-8.
6. The Applicants agree to enter and record a Private Road Maintenance Agreement that shall run with the land and be recorded with the County.
7. In order to protect lives and property, any building used as a dwelling shall be built within 600 feet from a hydrant. If the applicant chooses not to build within 600 feet of a hydrant, any building used as a dwelling outside 600 feet of a hydrant be equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 thru 903.3.1.3.
8. No land contracts in violation of the State of Michigan Land Division Act.

Summary and Recommendation

We recommend approval of the variances subject to the applicant executing the “Conditions of Private Road Variance Approval” agreement. With the attached Exhibit A Layout Plan. Deputy Assessor Brian McCleery has reviewed the Exhibit A Layout Plan and stated *“This plan for 4 divisions is consistent with what we had been discussing pertaining to the private road approval and complies with the Land Division Act. Once the Township Board approves the private road, Mr. Sauter will have to reapply for the land division which is currently denied. When they reapply for the land division, they will have to submit a new survey and legal descriptions to match the site plan that the Board approves”*.

If the Township Board approves the variance request the Township Attorney, and township staff will work with the applicant to sign and execute a “Conditions of Private Road Variance Approval,” which codify the conditions listed in the resolution. The Conditions of Private Road Variance Approval will be recorded with the County.

CHARTER TOWNSHIP OF YPSILANTI

We respectfully request that you place this information packet on the **June 16, 2020** Board of Trustees meeting agenda for its consideration. Please contact us with questions or concerns.

Jason Iacoangeli

Jason Iacoangeli, AICP
Planning Director
Charter Township of Ypsilanti

McLAIN & WINTERS

ATTORNEYS AND COUNSELORS AT LAW

61 N. HURON
YPSILANTI, MICHIGAN 48197
(734) 481-1120

DENNIS O. McLAIN
WM. DOUGLAS WINTERS
ANGELA B. KING

FAX (734) 481-8909
[E-MAIL: mcwinlaw@gmail.com](mailto:mcwinlaw@gmail.com)

May 31, 2020

Brenda L. Stumbo, Supervisor
Karen Lovejoy Roe, Clerk
Larry Doe, Treasurer
Linda Gosselin, Assessor
Brian McCleery, Deputy Assessor
Charter Township of Ypsilanti
7200 S. Huron River Dr.
Ypsilanti, MI 48197

Jason Iacoangeli, Planning Director
Mike Radzik, OCS Director
Ben Carlisle, Planning Consultant

Re: Location #1: 6501 & 6575 Munger Road

Tax Parcel No.: K-11-30-300-001 & K-11-30-300-022

Property Owner: John A. Sauter
1515 Patricia Ave.
Ann Arbor, MI 48103

Location #2: 5285 and 5287 Merritt Rd

Tax Parcel No.: K-11-30-300-033 & K-11-30-300-032

Property Owner: Jeffery & Kimberly Bullock
6800 Apple Hill Dr.
Ypsilanti, MI 48197

1. Letter to Attorney Paul C. Schultz Wherein I Acknowledged the Receipt of His Email Dated May 26, 2020 Wherein He Advised that Mr. Sauter is Agreeable to the Terms of the "Conditions" that Were Previously Prepared Back on January 30, 2020 and Furthermore is Requesting that the Approval of the Two Variances Along with the Agreement be Placed on the Township Board's June 16 Agenda for Consideration

2. Letter to Attorney Schultz Wherein I Advised that I Have Shared Both the “Clean Copy” and “Red-Lined Copy” that He Requested Our Office and the Township’s Administrative Staff and Consultants to Consider Which Does NOT Include any Further Discussion Pertaining to “Land Transfers and Boundary Adjustments” and Furthermore Recognizes that the 22 Foot Wide Access Easement to the Bullock Property will be Abandoned by Them PRIOR to the Issuance of the Necessary Private Road Permit

3. Letter to Attorney Schultz Wherein I Acknowledged that While the Township’s Administrative Staff and Consultants and Our Office are Willing to Recommend the Approval of the Two Variances to the Township’s Private Road Ordinance Being Requested by John A. Sauter and Jeffrey and Kimberly Bullock at the Upcoming Meeting of the Township Board Scheduled for Tuesday, June 16, 2020 that He Forward a Copy of “Exhibit A” to the Agreement Entitled “Preliminary Private Road Design Plan” so as to Insure All of Us are Proceeding on the Same Wavelength

4. Confirmation that Upon Receipt of the Document Entitled Preliminary Private Road Design Plan Exhibit A this Document will also Need to be Confirmed by Administrative Staff and Consultants so as to Allow the Agreement to be in Final Form for Consideration by the Township Board on June 16, 2020

Dear Board Members, Assessor Gosselin, Deputy Assessor McCleery, Director Radzik, Director Iacoangeli, and Planning Consultant Carlisle:

As a follow up to my previous letter addressed to Attorney Paul C. Schultz who represents John A. Sauter as well as my letter addressed to your offices dated **May 26, 2020** wherein I received and forwarded to you both the “**clean copy**” and “**red-lined copy**” as it pertains to the proposed “**Agreement**” to approve two variances to the Township’s Private Road Ordinance, please find enclosed a second letter addressed to Attorney Schultz dated **May 31, 2020**. This letter recognizes and confirms that the Township’s Administrative Staff and Consultants have reviewed the “**clean copy**” received from Attorney Schultz on **May 26** and are willing to recommend approval to the Township Board of said Agreement at the **June 16, 2020** Board meeting, a copy of that “**Agreement**” being attached hereto.

Stumbo/Roe/Doe/Gosselin/McCleery/Radzik/Iacoangeli/B. Carlisle
Re: 6501 & 6575 Munger/5285 and 5287 Merritt Road
May 31, 2020
Page 3

As noted in previous letters and reiterated in today's letter to Attorney Schultz, this proposed "**Agreement**" no longer contains any discussion and/or options to the Petitioners as it pertains to "**land transfers and boundary adjustments**" and furthermore recognizes that the 22 foot wide access easement to the Bullock property from Textile Road will be abandoned by the Bullocks prior to the issuance of the "**Private Road Permit**." In that regard, I have also had an opportunity to review a joint draft memorandum prepared by Planning Director Jason Iacoangeli and Planning Consultant Carlisle which will be forwarded to the Township Clerk for placement on the Township Agenda once the Agreement and Exhibit A have been finalized.

However, inasmuch as the Agreement approving the two variances to the Township's Private Road Ordinances also makes reference to the "**Preliminary Private Road Design Plan**" (Exhibit A) which is attached to the Agreement and incorporated by reference, I have requested Attorney Schultz to forward a copy of Exhibit A so as to insure all of us are proceeding with the same documents. At this point I have no idea if the "**Exhibit A Preliminary Private Road Design Plan**" is the same one that the Township's Administrative Staff and Consultants have been working from. Inasmuch as this Agreement will attach that exhibit and will be incorporated into the Agreement itself, I want not only to receive Exhibit A from Attorney Schultz but would also like the same to be reviewed and confirmed by Administrative Staff and Consultants before placing this matter on the **June 16** Board agenda.

As you can see from my letter to Attorney Schultz dated **May 31**, I have advised him that this Agreement along with Exhibit A will need to be filed with the Township Clerk by the close of business on Monday, **June 8, 2020** and hopefully this Exhibit will be forwarded to my attention early this week and, more importantly, this Exhibit is the same one that staff and our consultants have been reviewing for approval. At this point in time, given what we have gone through with this process, I am taking absolutely nothing for granted and while I remain optimistic that this will not be a problem, I want to be certain that all of the professional consultants and administrative staff are all working off the same "**Preliminary Private Road Design Plan**."

Stumbo/Roe/Doe/Gosselin/McCleery/Radzik/Iacoangeli/B. Carlisle

Re: 6501 & 6575 Munger/5285 and 5287 Merritt Road

May 31, 2020

Page 4

I will continue to keep your offices apprised in all matters pertaining to this issue and if after review of this correspondence and attachments you have any questions or I can be of further assistance please contact me.

Very truly yours,



Wm. Douglas Winters

js/enc.

cc: Trustees
Charlotte Wilson
Eric Copeland, Fire Chief
Dan Kimball, Fire Marshal
Dennis O. McLain

McLAIN & WINTERS

ATTORNEYS AND COUNSELORS AT LAW

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YPSILANTI, MICHIGAN 48197
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FAX (734) 481-8909
[E-MAIL: mcwinlaw@gmail.com](mailto:mcwinlaw@gmail.com)

May 31, 2020

Paul C. Schultz
Mitzel Law Group PLC
1590 Eisenhower Place
Ann Arbor, MI 48108
pschultz@mitzellaw.com

Re: Location #1: 6501 & 6575 Munger Road

Tax Parcel No.: K-11-30-300-001 & K-11-30-300-022

**Property Owner: John A. Sauter
1515 Patricia Ave.
Ann Arbor, MI 48103**

Location #2: 5285 and 5287 Merritt Rd

Tax Parcel No.: K-11-30-300-033 & K-11-30-300-032

**Property Owner: Jeffery & Kimberly Bullock
6800 Apple Hill Dr.
Ypsilanti, MI 48197**

1. Follow Up to the Exchange of Our Letters on Tuesday, May 26, 2020 Wherein I Acknowledged the Receipt Your Email Wherein You Advised that Mr. Sauter is Agreeable to the Terms of the "Conditions" that Were Previously Prepared Back on January 30, 2020 and Furthermore is Requesting that the Approval of the Two Variances Along with the Agreement be Placed on the Township Board's June 16 Agenda for Consideration

Schultz

Re: 6501 & 6575 Munger/5285 and 5287 Merritt Road

May 31, 2020

Page 2

2. Confirmation that I Have Shared Both the “Clean Copy” and “Red-Lined Copy” that You Requested Our Office and the Township’s Administrative Staff and Consultants to Consider Which Does NOT Include any Further Discussion Pertaining to “Land Transfers and Boundary Adjustments” and Furthermore Recognizes that the 22 Foot Wide Access Easement to the Bullock Property will be Abandoned by Them PRIOR to the Issuance of the Necessary Private Road Permit

3. Confirmation that While the Township’s Administrative Staff and Consultants and Our Office are Willing to Recommend the Approval of the Two Variances to the Township’s Private Road Ordinance Being Requested by John A. Sauter and Jeffrey and Kimberly Bullock at the Upcoming Meeting of the Township Board Scheduled for Tuesday, June 16, 2020, Please Forward a Copy of “Exhibit A” to the Agreement Entitled “Preliminary Private Road Design Plan” so as to Insure All of Us are Proceeding on the Same Wavelength

Dear Attorney Schultz:

As a follow up to your email dated **May 26, 2020** wherein you advised that your client John Sauter “...**is agreeable to the terms of the ‘Conditions’ that you sent us...and has asked that he and the Bullocks be added to the Township Board’s meeting agenda for June 16, 2020 with the recommendation of approval of the variances from you and the staff,**” this will confirm that both the “**clean copy**” and the “**red-lined copy**” of the Agreement have been sent to the Township Board, Administrative Staff and Planning Consultants for their review.

Inasmuch as the “**clean copy**” that you sent on **May 26, 2020** (a copy of which I have attached for your convenience) does not include any further discussion pertaining to “**land transfers and boundary adjustments and furthermore recognizes that the 22 foot wide access easement to the Bullock property will be abandoned by them prior to the issuance of the private road permit,**” this “**clean copy**” has been approved by Township Administrative Staff, the Planning Consultants and our office. However, in order to insure that all of us are proceeding on the same wavelength and that the Township Board has a complete “**Agreement**” at the time of the **June 16** meeting, I would appreciate if you would forward what is referred to in the Agreement as Exhibit A entitled “**Preliminary Private Road Design Plan**” inasmuch as this Plan is being attached to the Agreement and incorporated by reference.

Schultz

Re: 6501 & 6575 Munger/5285 and 5287 Merritt Road

May 31, 2020

Page 3

I have likewise requested the same from the Township's Administrative Staff and Planning Consultants to make sure that all of us are referencing the same document especially given all the number of changes, revised drawings that have gone back and forth during the last two years. Inasmuch as all of these documents are required to be filed with the Township Clerk by the close of business on Monday, **June 8, 2020** so as to allow this matter to be placed on the **June 16** Board Agenda, please forward Exhibit A to my attention as soon as possible.

If after review of this correspondence and attachment you have any questions or I can be of further assistance, please contact me.

Sincerely,



Wm. Douglas Winters

General Counsel to the Charter Township of Ypsilanti

/js

**CONDITIONS ATTACHED TO PRIVATE ROAD AND DRIVEWAY
VARIANCE APPROVAL**

THIS AGREEMENT is made and entered into this ____ day of _____, 2020, by and between the **Charter Township of Ypsilanti**, a municipal corporation, whose business address is **7200 S. Huron River Drive, Ypsilanti, Michigan, 48197** ("Township") and **John Sauter, of 1515 Patricia Avenue, Ann Arbor, MI 48103, and Jeff and Kimberly Bullock, of 6800 Apple Hill, Ypsilanti, MI 48197** ("Applicants"), upon the following terms and conditions:

RECITALS

- A. John Sauter is the owner of properties located at 6501 and 6575 Munger Road, Ypsilanti Township, Washtenaw County, Michigan, Parcel No. K - 11-30-300-001 and K -11-30-300-022, and which properties are more particularly described as follows:

YP#30-10E-2 BEG AT THE W 1/4 COR OF SEC 30, T3S, R7E YPSI TWP, WASH CTY, MI: TH S 89 58 E1332.65 FT; ALONG THE E AND W 1/4 LINE OF SAID SEC; TH S 0 8 30 W, 400.0 FT; ALG THE E LINE OF THE W 1/2 OF THE SW 1/4 OF SAID SEC TH N 89 58 W 733.66 FT; TH N 0 11 W 365.0 FT; TH N 89 58 W 596.73 FT; TH N 0 11 W 35.0 FT; ALG THE W LINE OF SAID SEC ; AND THE CENTER- LINE OF MUNGER RD; TO THE POB BEING A PART OF THE SW 1/4 OF SAID SEC 30 CONT 7.23 AC OF LAND MORE OR LESS SUBJ TO THE RIGHTS OF PUBLIC OVER THE WLY 33.0 FT; AS OCCUPIED BY MUNGER RD, SUBJ TO EASEMENTS OF RECORD.

and

YP 30-10A-1 COMM AT W 1/4 COR OF SEC 30 TH S 0-11 E 400.00 FT ALG W LN OF SEC 30 FOR A P.O.B.TH S 89-58-E 1330.39 FT,

PARALLEL TO E & W 1/4 LN, TH S 0-08-30 W 364.67 FT, TH N 89-58-W 747.52 FT, PARALLEL TO E & W 1/4 LN, TH N 0-11 W 84.68 FT, PARALLEL TO W LN OF SEC, TH N 89-58-W 580.80 FT, TH N 0-11-W 280.0 FT ALG W LN OF SEC & C/LN OF MUNGER RD TO P.O.B. BEING PT OF W 1/2 OF S/W 1/4 OF SEC 30. T3S, R7E. CONT. 10.00 AC'. PARCEL "A";

- B. Jeffrey and Kimberly Bullock are the owners of properties located at 5285 and 5287 Merritt Road, Ypsilanti Township, Washtenaw County, Michigan, Parcel No. K -11-30-300-033 and K -11-30-300-032, and which properties are more particularly described as follows:

YP30-8B: COM AT THE NW COR OF SEC 30, TH N 89-20-20 E 1348.91FT ALG THE N LINE OF SEC 30; TH S 00-41-33 E 2648.23 FT; TH S 00-07-35 W 656.70 FT TO THE POB; TH N 89-19-45 E 662.44 FT; TH S 00-22-23 W 663.88 FT; TH N 89-54-33 W 659 .52 FT; TH N 00-07-35 E 655.07 FT TO POB. CONT 10.01 ACRES, T3S-R7E, SEC 30, SUB. TO EASEMENTS OF RECORD.

and

YP#30-8: COM AT THE NW CORNER OF SEC 30, TH N 89-20-20 E 1348.91 FT ALG N LINE OF SEC 30; TH S 00-41-33 E. 2648.23 FT TO THE POB, SAID POINT BEING ON THE E/W LINE OF SEC; TH N 89-19-45 E 665.27 FT; TH S 00-22- 23 W 656.73 FT; TH S 89-19-45 W 662.44 FT; TH N 00-07-35 E 656.70 FT TO THE POB. CONTAINING 10.01 ACRES. T3S- R7E, SEC 30, SUB. TO EASEMENT OF RECORDS;

- C. The Applicants submitted to the Township an application for two variances from the Private Road Ordinance to 1) allow for a private road to exceed the maximum length of 600 feet; and 2) for one driveway to serve two single-family lots (Bullock property) upon the subject properties, as currently described in Paragraph A and B above, as

illustrated in the preliminary private road design plan shown in Exhibit A, a copy of which is attached hereto and incorporated by reference.

- D. At a meeting held on **November 19, 2019**, the Ypsilanti Township Board of Trustees (Board) conducted a public hearing regarding the two variance requests, which meeting was attended by both applicants.
- E. After holding the public hearing and receiving public comments, on **June 16, 2020** the Board granted approval for the two variances subject to certain enumerated conditions as agreed upon by the Township and the Applicants, which conditions the parties wish to memorialize.
- F. The Township and the Applicants further agree that this Agreement shall be recorded with the Washtenaw County Register of Deeds which terms and conditions shall **“run with the land”** and shall be binding and inure to the benefit of any successors and assigns.

NOW, THEREFORE, and in consideration of the Board granting approval of the two variances to the Applicants, the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Township and Applicants agree as follows:

1. **Granting of Preliminary Private Road Design Plan.** Township hereby grants to the Applicants and their successors and assigns, two variances as illustrated on the Preliminary Private Road Design Plan shown in Exhibit A, a copy of which is attached hereto, and incorporated by reference, and in accordance with the following terms and conditions:
 - a. Irrespective of opportunities afforded under the Michigan Land Division Act, Sauter or his successors shall build no more than six (6) homes within the boundaries of the property described in Paragraph A of the recitals.
 - b. Irrespective of opportunities afforded under the Michigan Land Division Act, Jeffrey and Kim Bullock or their successors shall

build no more than a total of two (2) homes within the boundaries of the property described in Paragraph B of the recitals.

- c. There shall be a maximum of eight (8) homes served by the private road. The eight (8) homes include a maximum of six (6) homes which would be built on the Sauter Property (within the boundaries of the property described in Paragraph A of the recitals), and a maximum of two (2) homes on the Bullock Property (within the boundaries of the property described in Paragraph B of the recitals).
- d. It is proposed that a shared driveway will serve two homes on the Bullock property (described in Paragraph B of the recitals). Once constructed, the said shared driveway shall be maintained at all times by owners of homes within the boundaries of the property described in Paragraph B of the recitals in such a manner so as to provide adequate access for emergency vehicles to wit fire, police, and medical rescue.
- e. Upon approval of the private road permit and prior to issuance of said private road permit, Jeffrey and Kimberly Bullock (or their successors and assigns) hereby agree to vacate the 22-foot wide access easement to Textile Road and also agree to the revocation of the 1984 ZBA variance granted in Application Number YP#30-8. The abandonment of this easement shall be prepared by the Bullocks (or their successors and assigns) and shall be presented to the Township Attorney for approval, which shall then be recorded with the Washtenaw County Register of Deeds.
- f. The Applicants agree to prepare and submit a Private Road Maintenance Agreement, to be reviewed by the Township Planner and Attorney, which upon approval shall then be recorded with the Washtenaw County Register of Deeds.

Furthermore, said agreement shall ***“run with the land”*** and shall be binding and inure to the benefit of successors and assigns.

- g. Pursuant to the Ypsilanti Township Fire Department’s review dated November 27, 2019, and in accordance with the applicable International Fire Code, no single-family dwelling shall be located further than 600 feet from a fire hydrant. However, in order to protect the health, safety, and welfare of the residents and general public, if an applicant chooses to construct a single family residential dwelling which is located further than 600 feet from a hydrant Ypsilanti Township and its boards and departments shall grant building and occupancy permits for such a dwelling so long as said single family residential dwelling shall be equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 thru 903.3.1.3.
- h. No land contracts shall be entered into between the Applicants or any third-party in contravention of the State of Michigan Land Division Act.

2. **Amendment.** Except as otherwise provided below, this Agreement may be amended, modified, or terminated (in whole or in part) only by the written agreement of the parties or their respective heirs, successors, agents or assigns, and duly recorded in the Washtenaw County of the Register of Deeds.

3. **Agreement Runs With the Land.** This Variance Agreement shall be recorded with the Washtenaw County Register of Deeds and the provisions contained herein shall ***“run with the land”*** and shall be binding and inure to the benefit of successors and assigns, unless otherwise amended or terminated in accordance with Paragraph 2 above.

4. **Revocation.** This Variance Approval may be revoked by the Township Board if the Applicant, or its successors, violate any of the terms or provisions of this Agreement, or for other valid and legal reasons. However, the Applicants, or its successors, shall be entitled to written notice and be provided

due process, including a hearing before the Board at which both parties shall be afforded an opportunity to testify and present witnesses as well as evidence in support of their respective positions.

5. **Notice.** Except as specifically provided otherwise in this Agreement, any notices or demands required under this Agreement shall be in writing addressed to the party at the address set forth above or such changed address provided in writing by such party pursuant to this paragraph, and served as follows: (a) by personal service with service being effective upon delivery, or (b) by certified mail, return receipt requested, with service being effective two (2) business days after mailing, or (c) by recognized overnight courier service, with service being effective one (1) day after delivery by such courier service. Notices by the parties may be given on their behalf by their respective counsel.

6. **Governing Law.** This Agreement shall be construed in accordance with and governed by the laws of the State of Michigan.

7. **Invalidity.** The invalidity or unenforceability of any part or revision of this Agreement shall not affect the validity or enforceability of any other part or provision.

8. **Entire Agreement.** This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof.

The undersigned have executed this Agreement on the date first above written.

IN THE PRESENCE OF:

Charter Township of Ypsilanti:

Witness:

By: Brenda L. Stumbo, Supervisor
Charter Township of Ypsilanti

Witness:

By: Karen Lovejoy Roe, Clerk
Charter Township of Ypsilanti

STATE OF MICHIGAN)
)SS
COUNTY OF)

The foregoing Variance Agreement was executed this ____ day of _____, 2020, by Brenda L. Stumbo, Supervisor for the Charter Township of Ypsilanti and Karen Lovejoy Roe, Clerk for the Charter Township of Ypsilanti

, Notary Public
Commissioned in: County, MI
Acting in: County, MI
Commission Expires:

Applicants

Witness:

By: John Sauter

STATE OF MICHIGAN)
)SS.
COUNTY OF)

The foregoing Variance Agreement was executed this ____ day of _____, 2020, by John Sauter, Applicant.

), Notary Public
Commissioned in: County, MI
Acting in County, MI
Commission Expires:

Witness:

By: Jeffrey Bullock

Witness:

By: Kimberly Bullock

STATE OF MICHIGAN)
)SS.
COUNTY OF)

The foregoing Variance Agreement was executed this ____ day of _____, 2020, by Jeffrey and Kimberly Bullock, Applicants.

), Notary Public
Commissioned in: County, MI
Acting in County, MI
Commission Expires:

Drafted by and return to:

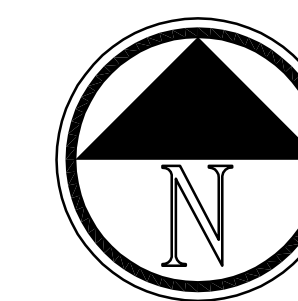
Wm. Douglas Winters
McLain & Winters
61 N. Huron St., Ypsilanti, MI 48197

SAUTER FAMILY DEVELOPMENT

PRIVATE ROAD

OWNER:
JOHN SAUTER
 1515 PATRICIA AVE.
 ANN ARBOR, MI 48103
 PH: (734) 904-2313
 jasauter@gmail.com

ENGINEER:
ENGINEERING TECHNOLOGIES CORPORATION
 802 PHOENIX DRIVE
 ANN ARBOR, MI 48108
 TEL: (734) 944-2020
 FAX: (734) 868-3824
 MCOUSINO@ETCINC.COM
 WWW.ETCINC.COM



SCALE: 1"=50'

DESIGNER: KPC
 DRAWN BY: ETC
 PROJECT: SAUTER FAMILY
 PATH NAME: Sauter Family Site 2018
 X-REFS: LIST ALL XREFS

REVISIONS:

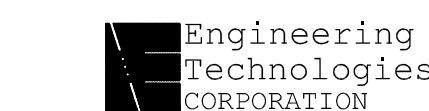
NO.	DESCRIPTION	DATE

DRAWING TITLE:
LAYOUT PLAN

DATE:
7 MAY 2019

SHEET NO.:

2



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 copyright

JOHN & ROBIN EGGERTSEN
 6369 MUNGER RD
 TAX ID: K-11-30-200-039

JEFFERY & KIMBERLY BULLOCK
 TAX ID: K-11-30-300-032

S00098300"W
 397.67'

12'

102'

30' RAD

S0009300"W
 367.00'

JEFFERY & KIMBERLY BULLOCK
 TAX ID: K-11-30-300-033

DOUGLAS & LINDA HALL
 6495 MUNGER RD
 TAX ID: K-11-30-200-049

LOT 4
 7.31 AC GROSS
 7.00 AC NET
 364.17' FRONTAGE

12' WIDE PAVED SHARED DRIVEWAY
 CENTERED IN 66' R.O.W. EASEMENT
 TO SERVICE PARCELS K-11-30-300-032
 AND K-11-30-300-033

T-TYPE FIRE TRUCK TURNAROUND
 PER YPSILANTI TWP FIRE CHIEF ERIC COPELAND

LOT 3
 5.91 AC GROSS
 5.71 AC NET
 277.77' FRONTAGE

N 89°58'00" W 747.52

TIMMY & LUANN BARNARD
 6631 MUNGER RD
 TAX ID: K-11-30-300-024

L=129.03
 R=230.00
 DELTA=32°08'39"
 CHORD=573'10.42" W
 127.35'

L=104.37
 R=120.00
 DELTA=96°00'03"
 CHORD=170°6'34"E
 103.48'

L=24.64
 R=200.00
 DELTA=08°08'21"
 CHORD=085°38'29"E
 24.63'

THOMAS & VIVIAN WILSON
 6487 MUNGER RD
 TAX ID: K-11-30-200-050

ALBERT TIMMER III
 6545 MUNGER RD
 TAX ID: K-11-30-300-002

LOT 1
 2.37 AC GROSS
 1.65 AC NET
 336.60' FRONTAGE

LOT 2
 1.63 AC GROSS
 1.23 AC NET
 282.09' FRONTAGE

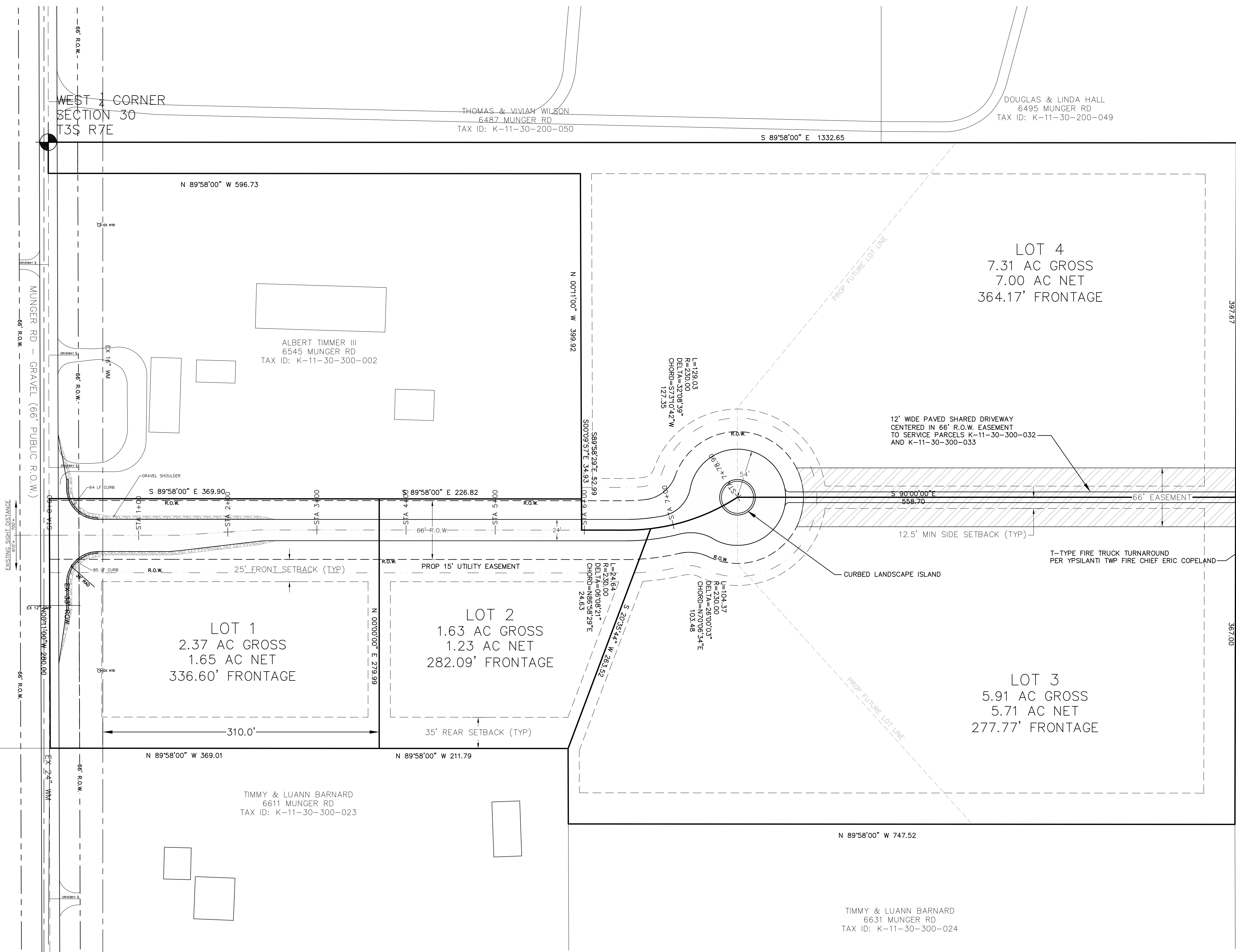
TIMMY & LUANN BARNARD
 6611 MUNGER RD
 TAX ID: K-11-30-300-023

WEST 1/4 CORNER
 SECTION 30
 T3S R7E

LEGAL LAND CONSERVANCY
 6530 MUNGER RD
 TAX ID: L-12-25-100-022

SANDRA JOHNSON
 6588 MUNGER RD
 TAX ID: L-12-25-400-001

BEFORE YOU DIG
 CALL MISS DIG
 800-482-7171



CHARTER TOWNSHIP OF YPSILANTI

RESOLUTION 2020-13 (In Reference to Ordinance 2020-491)

Amending the Charter Township of Ypsilanti's Code of Ordinances to Clarify the Procedure for the Establishment of "Houses of Worship" in Conformity with the Requirements of the Religious Land Use and Institutionalized Persons Act

Whereas, at its regularly scheduled meeting held **May 26, 2020**, the Charter Township of Ypsilanti (Township) Planning Commission (Commission) recommended to the Township Board of Trustees (Board) changes to its Zoning Code to accommodate the requirements of the Federal "***Religious Land Use and Institutionalized Persons Act;***" and

Whereas, the changes recommended by the Commission include:

1. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE II: "Definitions" by adding the following to Section 201:

House of Worship: A site used for or intended for the regular assembly of persons for the conducting of religious services and accessory uses therewith.

2. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE III: "Zoning Districts and Map" by amending Section 306 "***Schedule of Uses***", sub-section 3, table "***Residential Districts Use Table***", so as to make the process for establishing a "***House of Worship***" in various residential zoning districts compatible with other similar uses.

3. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE III: "Zoning Districts and Map" by amending Section 306 "***Schedule of Uses***", sub-section 6, Table "***Industrial Use***" so as to require a "***House of Worship***" to obtain a special conditional use permit for establishment in the enumerated industrial districts, specifically, the 1RO district.

4. AMENDMENT TO TOWNSHIP ORDINANCE ARTICLE XXI: "General Provisions" by amending Section 2104 "***Parking Requirements***" for "***Places of Worship.***"

5. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XXI: "General Provisions" by removing Section 2118 "***Access to Major Thoroughfares or Collector Streets.***"

6. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII: "Specific Land Use Provisions" by amending Section 1805 "***Institutional or community recreation centers and nonprofit swimming pool clubs***" so as to provide requirements for lot size, landscaping, parking, and with respect to the construction of swimming pools, certain safety requirements.

7. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII: “Specific Land Use Provisions” by amending Section 1806 “Golf Courses” whether or not operated for profit so as to provide for specific site plan requirements and in the case of construction of a swimming pool, safety requirements.

8. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII: “Specific Use Provisions” by amending Section 1807 “Colleges and Universities,” to require colleges and universities and other such institutions of higher learning, public and private, offering courses in general, technical or religious education and not operated for profit, be developed only on sites of at least 40 acres in area, not be permitted on any portion of any recorded subdivision plat, and no building shall be closer than 80 feet to any property line.

9. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII: “Specific Land Use Provisions” by amending Section 1822 “Restaurants” to provide that restaurants in the OS-1 and B-1 zoning districts meet certain specific conditions; and

Whereas, proposed Ordinance 2020-491 correctly memorializes the recommendations of the Township’s Commission and this Board finds that the adoption of this Ordinance is in the best interest of the Charter Township of Ypsilanti.

Now Therefore, Be it resolved that the Charter Township of Ypsilanti Board of Trustees hereby adopts and incorporates by reference the attached Ordinance No. 2020-491 in its entirety.

CHARTER TOWNSHIP OF YPSILANTI

ORDINANCE 2020-491

An Ordinance Amending the Zoning Code of the Charter Township of Ypsilanti

The Charter Township of Ypsilanti hereby ordains that the Ypsilanti Township Zoning Code, adopted May 18, 1994, shall be amended as follows:

SECTION 1. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE II:
Township Zoning Ordinance Article II, “Definitions” by amending Section 201 “Definitions”, as follows:

House of Worship: A site used for or intended for the regular assembly of persons for the conducting of religious services and accessory uses therewith.

SECTION 2. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE III:
Township Zoning Ordinance Article III, “Zoning Districts and Map” by amending Section 306 “Schedule of Uses”, sub-section 3, table “Residential Districts Use Table”, as follows:

Residential Districts Use Table	R-1 to R-5	RM-1 and RM-2	RM-3 and RM-4	RM-5	MHP	Notes
P= Permitted Use S=Special Conditional Use A= Accessory Use -- = Not permitted						
House of Worship	S	P	P	-	P	
Publicly owned and operated libraries	S	P	P	-	P	
Public, parochial and other private elementary schools offering courses in general education, and not operated for profit.	S	-	-	-	-	
Public, parochial and private intermediate and/or secondary schools offering courses in general education, not operated for profit.	S	P	P	-	-	
Publicly owned and operated recreational facilities	S	p	P	-	P	Subject to conditions in section 1805
Institutional or community recreation centers and nonprofit swimming pool clubs	S	P	P	P	P	

SECTION 3. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE III:
Township Zoning Ordinance Article III, “Zoning Districts and Map” by amending Section 306 “Schedule of Uses”, sub-section 6, table “Industrial Use”, as follows:

Industrial Districts Use Table	IRO	I-1	I-2	I-3	I-C	Notes
P= Permitted Use S=Special Conditional Use A= Accessory Use -- = Not permitted						
House of Worship	S	-	-	-	-	

SECTION 4. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XXI:
Township Zoning Ordinance Article XXI, “General Provisions” by amending Section 2104 “Parking Requirements”, to change the following term:

USE		Number of Minimum Parking Spaces Per Unit of Measure	
<i>b.</i>	<i>Institutional</i>		
	(1)	Places of Worship	One for each three seats or six feet of pews in the main unit of worship

SECTION 5. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XXI:
Township Zoning Ordinance Article XXI, “General Provisions” by removing Section 2118
“Access to Major Thoroughfares or Collector Streets”

SECTION 6. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII:
Township Zoning Ordinance Article XVIII, “Specific Use Provisions” by amending Section 1805
“*Institutional or community recreation centers and nonprofit swimming pool clubs*”, to amend as follows:

Institutional or community recreation centers and nonprofit swimming pool clubs, all subject to the following conditions:

- a. Front, side and rear yards shall be at least 80 feet wide, and shall be landscaped in trees, shrubs, and grass. All such landscaping shall be maintained in a healthy condition. There shall be no parking or structures permitted in these yards, except required entrance drives and those walls used to obscure the use from abutting residential districts.
- b. Off-street parking shall be provided so as to accommodate not less than one-half of the member families and/or individual members. The planning commission may modify the off-street parking requirements in those instances wherein it is specifically determined that the users will originate from the immediately adjacent areas, and will therefore be pedestrian. Prior to the issuance of a building permit or zoning compliance permit, bylaws of the organization shall be provided in order to establish the membership involved for computing the off-street parking requirements. In those cases wherein the proposed use or organization does not have bylaws or formal membership, the off-street parking requirement shall be determined by the planning commission on the basis of usage.
- c. Whenever a swimming pool is constructed under this ordinance, said pool area shall be provided with a protective fence, six feet in height, and entry shall be provided by means of a controlled gate.

SECTION 7. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII:
Township Zoning Ordinance Article XVIII, “Specific Use Provisions” by amending Section 1806
“*Golf Courses*”, to amend as follows:

Golf courses, which may or may not be operated for profit, subject to the following conditions:

- a. The site plan shall be laid out to achieve a relationship between the major thoroughfare and any proposed service roads, entrances, driveways, and parking areas which will encourage pedestrian and vehicular traffic safety.
- b. In residential zoning districts where golf courses are allowed (R-1 to R-5, RM-1 to RM-4), development features including the principal and accessory buildings and structures shall be so located and related as to minimize the possibilities of any adverse effects upon adjacent property. All principal or accessory buildings shall be not less than 200 feet from any property line abutting residentially zoned lands; provided that where topographic conditions are such that buildings would be screened from view, the planning commission may modify this requirement.
- c. Whenever a swimming pool is to be provided, said pool shall be provided with a protective fence, six feet in height, and entry shall be provided by means of a controlled gate.

SECTION 8. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII:
Township Zoning Ordinance Article XVIII, “Specific Use Provisions” by amending Section 1807
“*Colleges and universities*”, to amend as follows:

Colleges, universities and other such institutions of higher learning, public and private, offering courses in general, technical, or religious education and not operated for profit, all subject to the following conditions:

- a. Any use permitted herein shall be developed only on sites of at least 40 acres in area, and shall not be permitted on any portion of a recorded subdivision plat.
- b. No building shall be closer than 80 feet to any property line.

SECTION 9. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII: Township Zoning Ordinance Article XVIII, “Specific Use Provisions” by amending Section 1822 “Restaurants”, to amend as follows:

- a. In the OS-1 and B-1 zoning districts, restaurants must meet the following conditions:
 - 1) Service is wholly within the building and no drive-in facilities are provided.
 - 2) When adjacent to a residential zoning district boundary, the building shall have a minimum setback of 20 feet from the residential zoning district boundary.
 - 3) Parking areas shall be screened from adjacent residential areas in accord with section 2108 and such screening walls shall be constructed of finished materials in harmony with the residential character of abutting residential zones.
 - 4) Outdoor lighting, of a type and location which will not be a nuisance to abutting residential districts, shall be provided. The type of lighting and the location of such lighting shall be included on the plan for review by the planning commission.
 - 5) All access to the site shall be from an existing or planned major or minor thoroughfare, or from a collector street.

SECTION 10. SEVERABILITY. In the event that any one or more sections, provisions, phrases or words of this ordinance shall be found to be invalid by a Court of competent jurisdiction, such holding shall not affect the validity nor the enforceability of the remaining sections, provisions, phrases or words of this Ordinance unless expressly so determined by a Court of competent jurisdiction.

SECTION 11. PUBLICATION. This ordinance shall be published in a newspaper of general circulation as required by law.

SECTION 12. EFFECTIVE DATE: This ordinance shall become effective upon publication in a newspaper of general circulation as required by law.

SECTION 13. REPEAL: All Ordinances or parts of Ordinances in conflict herewith are hereby repealed.

Effective date This Ordinance shall become effective upon publication in a newspaper of general circulation as required by law.

CHARTER TOWNSHIP OF YPSILANTI

OFFICE OF COMMUNITY STANDARDS

Building Safety • Planning & Zoning • Ordinance Enforcement • Police Services

To: Karen Lovejoy Roe, Clerk
From: Jason Iacoangeli AICP, Planning Director
Re: **Zoning Ordinance Amendments to comply with the Religious Land Use and Institutionalized Persons Act (RLUIPA) of 2000**
Date: June 1, 2020

Background:

The land use provisions of the Religious Land Use and Institutionalized Persons Act of 2000 (RLUIPA), protect individuals, houses of worship, and other religious institutions from discrimination in zoning and land regulations. RLUIPA prohibits zoning and land regulations that substantially burden the religious exercise of churches or other religious assemblies or institutions absent the least restrictive means of furthering a compelling governmental interest. RLUIPA is not a blanket exemption from zoning laws. As a general matter, religious institutions must apply for the same permits, follow the same requirements, and go through the same land use processes as other like assembly uses.

RLUIPA prohibits a local government from applying zoning laws or regulations in a way that:

1. Substantially burdens religious exercise without a compelling justification pursued through the least restrictive means.
2. Treats religious uses less favorably than nonreligious assemblies and institutions
Discriminates based on religion or religious denomination.
3. Totally or unreasonably restricts religious uses in the local jurisdiction.

With regards to land use regulations, the most common RLUIPA violation is placing land use regulations on religious institutions that do not apply to like nonreligious places of assembly and institutions. Nonreligious assemblies and institutions in the Township Zoning Ordinance include libraries, theaters, assembly halls, concert halls, halls for private clubs, recreational clubs and centers, fraternal order halls, lodge halls, civic organizations, unions and membership halls, schools, and government buildings.

CHARTER TOWNSHIP OF YPSILANTI

Proposed Ordinance Changes:

The proposed Ordinance changes address the RLUIPA issues in the R1-R5 Single Family Zoning Districts. In the draft Ordinance amendment, Houses of Worship are currently treated as a **Special Conditional Use** in the Single Family Zoning Districts. This is in contrast to other assembly uses being **Permitted Uses** in those districts, like libraries, schools, and non-profit recreation centers and pools. This Ordinance amendment remedies the situation by making all assembly uses in the R1-R5 Zoning Districts Special Conditional Uses, thus eliminating inconsistency with regard to religious institutions. Planning Commission can make the right decisions with regard to assembly uses in neighborhoods by giving them the tools to make sure those uses are in harmony with surrounding land uses.

Another issue being addressed in this Ordinance amendment is Section 2218, Access to Major Thoroughfares. Currently, the Ordinance requires that Houses of Worship be located on Major Thoroughfares as a condition of the special use. We identified this section as cumbersome and confusing. Not only does this section apply to Houses of Worship but other assembly uses. The current standards for traffic and access management review, as a part of the site plan review process, limit the need to regulate assembly uses to major thoroughfares and collector streets. Our planning standards ensure that new development occurs on a scale that is appropriate for the surrounding area. This amendment eliminates Section 2118 and all of the references to it throughout the Ordinance.

Finally, the amendment proposes a definition for Houses of Worship that is inclusive of all faiths within our community. The amendments replace the term “Churches and Temples” to Houses of Worship to provide a broader term for religious inclusion.

Conclusion:

In conclusion the Planning Department feels that these changes to our Ordinance are a meaningful and proactive approach to keeping our Ypsilanti Township Zoning Ordinance in compliance with State and Federal Law. Further, the proposed changes create a fair approach to land use decisions in the Township that deals with both faith based and secular places of assembly. If you have any questions or concerns regarding this matter please feel free to contact me anytime.

Jason Iacoangeli

Jason Iacoangeli, AICP
Planning Director
Charter Township of Ypsilanti

PROPOSED ORDINANCE 2020-491

An Ordinance Amending the Zoning Code of the Charter Township of Ypsilanti

The Charter Township of Ypsilanti hereby ordains that the Ypsilanti Township Zoning Code, adopted May 18, 1994, shall be amended as follows:

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SECTION 2. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE III: Township Zoning Ordinance Article III, “Zoning Districts and Map” by amending Section 306 “Schedule of Uses”, sub-section 3, table “Residential Districts Use Table”, as follows:

Residential Districts Use Table	R-1 to R-5	RM-1 and RM-2	RM-3 and RM-4	RM-5	MHP	Notes
P= Permitted Use S=Special Conditional Use A= Accessory Use -- = Not permitted						
House of Worship	S	P	P	-	P	Access must comply with regulations in section 2118.
Publicly owned and operated libraries	P S	P	P	-	P	
Public, parochial and other private elementary schools offering courses in general education, and not operated for profit.	P S	-	-	-	-	
Public, parochial and private intermediate and/or secondary schools offering courses in general education, not operated for profit.	S	P	P	-	-	Access must comply with regulations in section 2118.
Publicly owned and operated recreational facilities	P S	p	P	-	P	Subject to conditions in section 1805
Institutional or community recreation centers and nonprofit swimming pool clubs	P S	P	P	P	P	

SECTION 3. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE III: Township Zoning Ordinance Article III, “Zoning Districts and Map” by amending Section 306 “Schedule of Uses”, sub-section 6, table “Industrial Use”, as follows:

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P= Permitted Use S=Special Conditional Use A= Accessory Use -- = Not permitted						
House of Worship	<u>S</u>	-	-	-	-	

SECTION 4. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XXI: Township Zoning Ordinance Article XXI, “General Provisions” by amending Section 2104 “Parking Requirements”, to change the following term:

USE		Number of Minimum Parking Spaces Per Unit of Measure	
b.	<i>Institutional</i>		
	(1)	Churches and Temples Places of Worship	One for each three seats or six feet of pews in the main unit of worship

SECTION 5. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XXI: Township Zoning Ordinance Article XXI, “General Provisions” by amending Section 2118 “Access to Major Thoroughfares or Collector Streets”, to remove as follows:

~~For uses making reference to this section 2118, vehicular access shall be provided only to an existing or planned major thoroughfare, freeway service drive, or collector street. Provided, however, that access driveways may be permitted to other than a major thoroughfare, freeway service drive, or collector street where such access is provided to a street where the property directly across the street from such driveway and the major thoroughfare, freeway service drive, or collector street is zoned for multiple family use or any collector street is zoned for multiple-family use or any nonresidential uses, is developed with permanent uses other than single family residences or is an area which, in the opinion of the planning commission, will be used for other than single family purposes in the future. This exception shall only apply if the planning commission finds that there are special circumstances which indicate that there will be a substantial improvement in traffic safety by reducing the number of driveways to a thoroughfare.~~

SECTION 6. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII: Township Zoning Ordinance Article XVIII, “Specific Use Provisions” by amending Section 1805 “Institutional or community recreation centers and nonprofit swimming pool clubs”, to amend as follows:

Institutional or community recreation centers and nonprofit swimming pool clubs, all subject to the following conditions:

- ~~a. The site shall have at least one property line abutting a major thoroughfare as designated on the major thoroughfare plan, and the site shall be so planned as to provide all access in accordance with section 2118.~~
- a.** Front, side and rear yards shall be at least 80 feet wide, and shall be landscaped in trees, shrubs, and grass. All such landscaping shall be maintained in a healthy condition. There shall be no parking or structures permitted in these yards, except required entrance drives and those walls used to obscure the use from abutting residential districts.
- b.** Off-street parking shall be provided so as to accommodate not less than one-half of the member families and/or individual members. The planning commission may modify the off-street parking requirements in those instances wherein it is specifically determined that the users will originate from the immediately adjacent areas, and will therefore be pedestrian. Prior to the issuance of a building permit or zoning compliance permit, bylaws of the organization shall be provided in order to establish the membership involved for computing the off-street parking requirements. In those cases wherein the proposed use or organization does not have bylaws or formal membership, the off-street parking requirement shall be determined by the planning commission on the basis of usage.
- c.** Whenever a swimming pool is constructed under this ordinance, said pool area shall be provided with a protective fence, six feet in height, and entry shall be provided by means of a controlled gate.

SECTION 7. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII:

Township Zoning Ordinance Article XVIII, "Specific Use Provisions" by amending Section 1806 "Golf Courses", to amend as follows:

Golf courses, which may or may not be operated for profit, subject to the following conditions:

- ~~a. The site shall be so planned as to provide all access in accordance with section 2118.~~
- a.** The site plan shall be laid out to achieve a relationship between the major thoroughfare and any proposed service roads, entrances, driveways, and parking areas which will encourage pedestrian and vehicular traffic safety.
- b.** In residential zoning districts where golf courses are allowed (R-1 to R-5, RM-1 to RM-4), development features including the principal and accessory buildings and structures shall be so located and related as to minimize the possibilities of any adverse effects upon adjacent property. All principal or accessory buildings shall be not less than 200 feet from any property line abutting residentially zoned lands; provided that where topographic conditions are such that buildings would be screened from view, the planning commission may modify this requirement.
- c.** Whenever a swimming pool is to be provided, said pool shall be provided with a protective fence, six feet in height, and entry shall be provided by means of a controlled gate.

SECTION 8. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII:

Township Zoning Ordinance Article XVIII, "Specific Use Provisions" by amending Section 1807 "Colleges and universities", to amend as follows:

Colleges, universities and other such institutions of higher learning, public and private, offering courses in general, technical, or religious education and not operated for profit, all subject to the following conditions:

- a. Any use permitted herein shall be developed only on sites of at least 40 acres in area, and shall not be permitted on any portion of a recorded subdivision plat.
- ~~b. All access to said site shall be in accordance with section 2118.~~
- b.** No building shall be closer than 80 feet to any property line.

SECTION 9. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII:

Township Zoning Ordinance Article XVIII, “Specific Use Provisions” by amending Section 1822 “Restaurants”, to amend as follows:

- a. In the OS-1 and B-1 zoning districts, restaurants must meet the following conditions:
 - 1) Service is wholly within the building and no drive-in facilities are provided.
 - 2) When adjacent to a residential zoning district boundary, the building shall have a minimum setback of 20 feet from the residential zoning district boundary.
 - 3) Parking areas shall be screened from adjacent residential areas in accord with section 2108 and such screening walls shall be constructed of finished materials in harmony with the residential character of abutting residential zones.
 - 4) Outdoor lighting, of a type and location which will not be a nuisance to abutting residential districts, shall be provided. The type of lighting and the location of such lighting shall be included on the plan for review by the planning commission.
 - 5) All access to the site shall be ~~in accordance with section 2118.~~ **from an existing or planned major or minor thoroughfare, or from a collector street.**

SECTION 10. SEVERABILITY. In the event that any one or more sections, provisions, phrases or words of this ordinance shall be found to be invalid by a Court of competent jurisdiction, such holding shall not affect the validity nor the enforceability of the remaining sections, provisions, phrases or words of this Ordinance unless expressly so determined by a Court of competent jurisdiction.

SECTION 11. PUBLICATION. This ordinance shall be published in a newspaper of general circulation as required by law.

SECTION 12. EFFECTIVE DATE: This ordinance shall become effective upon publication in a newspaper of general circulation as required by law.

SECTION 13. REPEAL: All Ordinances or parts of Ordinances in conflict herewith are hereby repealed.

PROPOSED ORDINANCE 2020-491

An Ordinance Amending the Zoning Code of the Charter Township of Ypsilanti

The Charter Township of Ypsilanti hereby ordains that the Ypsilanti Township Zoning Code, adopted May 18, 1994, shall be amended as follows:

SECTION 1. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE II: Township Zoning Ordinance Article II, “Definitions” by amending Section 201 “Definitions”, as follows:

House of Worship: A site used for or intended for the regular assembly of persons for the conducting of religious services and accessory uses therewith.

SECTION 2. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE III: Township Zoning Ordinance Article III, “Zoning Districts and Map” by amending Section 306 “Schedule of Uses”, sub-section 3, table “Residential Districts Use Table”, as follows:

Residential Districts Use Table	R-1 to R-5	RM-1 and RM-2	RM-3 and RM-4	RM-5	MHP	Notes
P= Permitted Use S=Special Conditional Use A= Accessory Use -- = Not permitted						
House of Worship	S	P	P	-	P	
Publicly owned and operated libraries	S	P	P	-	P	
Public, parochial and other private elementary schools offering courses in general education, and not operated for profit.	S	-	-	-	-	
Public, parochial and private intermediate and/or secondary schools offering courses in general education, not operated for profit.	S	P	P	-	-	
Publicly owned and operated recreational facilities	S	p	P	-	P	Subject to conditions in section 1805
Institutional or community recreation centers and nonprofit swimming pool clubs	S	P	P	P	P	

SECTION 3. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE III: Township Zoning Ordinance Article III, “Zoning Districts and Map” by amending Section 306 “Schedule of Uses”, sub-section 6, table “Industrial Use”, as follows:

Industrial Districts Use Table	IRO	I-1	I-2	I-3	I-C	Notes
P= Permitted Use S=Special Conditional Use A= Accessory Use -- = Not permitted						
House of Worship	S	-	-	-	-	

SECTION 4. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XXI: Township Zoning Ordinance Article XXI, “General Provisions” by amending Section 2104 “Parking Requirements”, to change the following term:

USE	Number of Minimum Parking Spaces Per Unit of Measure
<i>b.</i>	<i>Institutional</i>
	(1) Places of Worship One for each three seats or six feet of pews in the main unit of worship

SECTION 5. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XXI: Township Zoning Ordinance Article XXI, “General Provisions” by removing Section 2118 “Access to Major Thoroughfares or Collector Streets”

SECTION 6. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII: Township Zoning Ordinance Article XVIII, “Specific Use Provisions” by amending Section 1805 “Institutional or community recreation centers and nonprofit swimming pool clubs”, to amend as follows:

Institutional or community recreation centers and nonprofit swimming pool clubs, all subject to the following conditions:

- a. Front, side and rear yards shall be at least 80 feet wide, and shall be landscaped in trees, shrubs, and grass. All such landscaping shall be maintained in a healthy condition. There shall be no parking or structures permitted in these yards, except required entrance drives and those walls used to obscure the use from abutting residential districts.
- b. Off-street parking shall be provided so as to accommodate not less than one-half of the member families and/or individual members. The planning commission may modify the off-street parking requirements in those instances wherein it is specifically determined that the users will originate from the immediately adjacent areas, and will therefore be pedestrian. Prior to the issuance of a building permit or zoning compliance permit, bylaws of the organization shall be provided in order to establish the membership involved for computing the off-street parking requirements. In those cases wherein the proposed use or

organization does not have bylaws or formal membership, the off-street parking requirement shall be determined by the planning commission on the basis of usage.

- c. Whenever a swimming pool is constructed under this ordinance, said pool area shall be provided with a protective fence, six feet in height, and entry shall be provided by means of a controlled gate.

SECTION 7. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII:

Township Zoning Ordinance Article XVIII, “Specific Use Provisions” by amending Section 1806 “Golf Courses”, to amend as follows:

Golf courses, which may or may not be operated for profit, subject to the following conditions:

- a. The site plan shall be laid out to achieve a relationship between the major thoroughfare and any proposed service roads, entrances, driveways, and parking areas which will encourage pedestrian and vehicular traffic safety.
- b. In residential zoning districts where golf courses are allowed (R-1 to R-5, RM-1 to RM-4), development features including the principal and accessory buildings and structures shall be so located and related as to minimize the possibilities of any adverse effects upon adjacent property. All principal or accessory buildings shall be not less than 200 feet from any property line abutting residentially zoned lands; provided that where topographic conditions are such that buildings would be screened from view, the planning commission may modify this requirement.
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- a. Any use permitted herein shall be developed only on sites of at least 40 acres in area, and shall not be permitted on any portion of a recorded subdivision plat.
- b. No building shall be closer than 80 feet to any property line.

SECTION 9. AMENDMENT TO TOWNSHIP ZONING ORDINANCE ARTICLE XVIII:

Township Zoning Ordinance Article XVIII, “Specific Use Provisions” by amending Section 1822 “Restaurants”, to amend as follows:

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 - 1) Service is wholly within the building and no drive-in facilities are provided.
 - 2) When adjacent to a residential zoning district boundary, the building shall have a minimum setback of 20 feet from the residential zoning district boundary.
 - 3) Parking areas shall be screened from adjacent residential areas in accord with section 2108 and such screening walls shall be constructed of finished materials in harmony with the residential character of abutting residential zones.

- 4) Outdoor lighting, of a type and location which will not be a nuisance to abutting residential districts, shall be provided. The type of lighting and the location of such lighting shall be included on the plan for review by the planning commission.
- 5) All access to the site shall be from an existing or planned major or minor thoroughfare, or from a collector street.

SECTION 10. SEVERABILITY. In the event that any one or more sections, provisions, phrases or words of this ordinance shall be found to be invalid by a Court of competent jurisdiction, such holding shall not affect the validity nor the enforceability of the remaining sections, provisions, phrases or words of this Ordinance unless expressly so determined by a Court of competent jurisdiction.

SECTION 11. PUBLICATION. This ordinance shall be published in a newspaper of general circulation as required by law.

SECTION 12. EFFECTIVE DATE: This ordinance shall become effective upon publication in a newspaper of general circulation as required by law.

SECTION 13. REPEAL: All Ordinances or parts of Ordinances in conflict herewith are hereby repealed.

**CHARTER TOWNSHIP OF YPSILANTI
PLANNING COMMISSION
MINUTES OF THE MAY 26, 2020 REGULAR MEETING**

Chair Sally Richie called the regular meeting to order at 6:30 pm via Zoom due to COVID-19.

Commissioners Present: Chair Sally Richie and Commissioners Bill Sinkule, Laurence Krieg, Elizabeth El-Assadi, Muddassar Tawakkul, Gloria Peterson and Stan Eldridge

Commissioners Absent: None

Others in Attendance: Denny McLain, Township Attorney; Megan Masson-Minock, Carlisle-Wortman; Elliot Smith, OHM; Jason Iacoangeli, Planning Director and Charlotte Wilson, Planning and Development Coordinator

1. CALL TO ORDER

2. ROLL CALL

3. APPROVAL OF THE APRIL 28, 2020 REGULAR MEETING MINUTES

A motion was made by Commissioner Eldridge supported by Commissioner Sinkule to approve the minutes of the April 28, 2020 Regular Meeting. The motion carried unanimously.

4. APPROVAL OF AGENDA

A motion was made by Commissioner Eldridge supported by Commissioner Sinkule to approve the agenda. The motion carried unanimously.

5. PUBLIC HEARINGS AND PLAN REVIEW

A. ZONING ORDINANCE AMENDMENTS – TO CONSIDER RECOMMENDING TO THE TOWNSHIP BOARD OF TRUSTEES THE PROPOSED AMENDMENTS TO UPDATE THE ZONING ORDINANCE IN ACCORDANCE WITH THE RELIGIOUS LAND USE AND INSTITUTIONALIZED PERSONS ACT.

The public hearing opened at 6:38pm

Lamar Weir, representative of Congresswoman Dingell spoke.

The public hearing closed at 6:41pm

A motion was made by Commissioner Tawakkul, supported by Commissioner Eldridge to recommend to the Township Board of Trustees the proposed amendments to update the zoning ordinance in accordance with the Religious Land Use and Institutionalized Persons Act.

The motion carried as follows:

Sinkule: Yes Eldridge: Yes Krieg: Yes Tawakkul: Yes Richie: Yes

El-Assadi: Yes Peterson: Yes

B. EARTH BALANCING AND EXCAVATION PERMIT EXTENSION – CREEKSIDE VILLAGE NORTH – 6601 TUTTLE HILL ROAD – TO CONSIDER EXTENDING THE EARTH BALANCING AND EXCAVATION PERMIT GRANTED ON MAY 28, 2019 FOR AN ADDITIONAL YEAR TO MOVE, AND THEN GRADE, APPROXIMATELY 10,000 CUBIC YARDS OF FILL MATERIAL FROM TRENCH AND BASEMENT EXCAVATIONS AT LOMBARDO PROJECTS MAJESTIC LAKES ESTATE (CHARTER TOWNSHIP OF

YPSILANTI), THE VILLAGE AT MAJESTIC LAKES (CHARTER TOWNSHIP OF YPSILANTI), THE PONDS AT MAJESTIC LAKES (CHARTER TOWNSHIP OF YPSILANTI), AND ARBOR RIDGE (CHARTER TOWNSHIP OF PITTSFIELD) TO THE NORTHEAST CORNER OF THE CREEKSIDE VILLAGE NORTH DEVELOPMENT LOCATED AT 6601 TUTTLE HILL ROAD, PARCEL K-11-26-300-009.

A motion was made by Commissioner Eldridge, supported by Commissioner El-Assadi to approve an extension of the earth balancing permit to SE Michigan Land Holdings LLC to transport, place and grade approximately 10,000 cubic yards of fill material on the designated area of Parcel K-11-26-300-009 known as 6601 Tuttle Hill Road subject to the following conditions:

The permit authorizes the placement and grading of fill materials, no excavation has been requested or approved for the location.

The origin and type of fill material shall be documented and the reports provided to the Office of Community Standards.

The fill material originating from outside of Ypsilanti Township may require testing upon request of the Township and based on conditions set forth by Township Engineer.

The fill material delivered to the site shall be graded within two (2) weeks of placement.

Dust control measures shall be implemented and maintained at all times.

The trucking and grading activity shall be restricted to the hours of 8am to 5pm with no activity on Sundays or legal holidays.

The designated trucking routes shall be noted and used.

That an escrow in the amount of \$2,500 be maintained.

That a surety in the amount of \$30,000 shall be maintained.

Sinkule: Yes Eldridge: Yes Krieg: Yes Tawakkul: Yes Richie: Yes

El-Assadi: Yes Peterson: Yes

6. OLD BUSINESS

None

7. NEW BUSINESS

None

8. OPEN DISCUSSION FOR ISSUES NOT ON THE AGENDA

A. CORRESPONDENCE RECEIVED

None

B. PLANNING COMMISSION MEMBERS

None

C. MEMBERS OF THE AUDIENCE

None

9. TOWNSHIP BOARD REPRESENTATIVE REPORT

Commissioner Eldridge spoke about Covid testing in the Township.

10. ZONING BOARD OF APPEALS REPRESENTATIVE REPORT

None

11. TOWNSHIP ATTORNEY REPORT

None

12. PLANNING DEPARTMENT REPORT

Jason Iacoangeli gave an update.

13. OTHER BUSINESS

None

A motion was made by a Commissioner Peterson, supported by Commissioner Eldridge to adjourn the meeting. The motion carried unanimously.

The meeting was adjourned at approximately 7:15 pm

Respectfully submitted,
Laura Gough
OCS Clerk

**CHARTER TOWNSHIP OF YPSILANTI
PLANNING COMMISSION
MINUTES OF THE APRIL 28, 2020 REGULAR MEETING**

Vice Chair Sally Richie called the regular meeting to order at 6:30 pm via Zoom due to COVID-19.

Commissioners Present: Chair Sally Richie and Commissioners Bill Sinkule, Laurence Krieg, Elizabeth El-Assadi, Muddassar Tawakkul and Stan Eldridge

Commissioners Absent: None

Others in Attendance: Denny McLain, Township Attorney; Megan Masson-Minock, Carlisle-Wortman; Jason Iacoangeli, Planning Director, Charlotte Wilson, Planning and Development Coordinator and Mike Radzik, OCS Director

1. CALL TO ORDER

2. ROLL CALL

3. APPROVAL OF THE FEBRUARY 11, 2020 REGULAR MEETING MINUTES

A motion was made by Commissioner Krieg supported by Commissioner Eldridge to approve the minutes of the February 11, 2020 Regular Meeting. The motion carried unanimously.

4. APPROVAL OF AGENDA

A motion was made by Commissioner Eldridge supported by Commissioner Sinkule to approve the agenda. The motion carried unanimously.

5. PUBLIC HEARINGS AND PLAN REVIEW

- A. PRELIMINARY SITE PLAN AND SPECIAL USE PERMIT – SUNCO PROPERTIES LLC – 2380 EAST MICHIGAN AVENUE – TO CONSIDER THE PRELIMINARY SITE PLAN AND SPECIAL USE PERMIT FOR THE CONSTRUCTION OF A 2,783 SQUARE FOOT OIL CHANGE AND MINOR AUTOMOTIVE REPAIR FACILITY LOCATED AT 2380 EAST MICHIGAN AVENUE, PARCEL K-11-02-480-011.**

The public hearing opened at 7:02pm

No persons wished to speak.

The public hearing closed at 7:04pm

A motion was made by Commissioner Eldridge, supported by Commissioner Sinkule to approve the preliminary site plan for the Parcel K-11-02-480-011 at 2380 East Michigan Avenue for Sunco Properties LLC

The motion carried as follows:

Sinkule: Yes Eldridge: Yes Krieg: Yes Tawakkul: Yes Richie: Yes

El-Assadi: Yes

A motion was made by Commissioner Eldridge, supported by Commissioner Krieg to approve the special use permit for Parcel K-11-02-480-011 at 2380 East Michigan Avenue for Sunco Properties LLC with the following conditions:

The correct square footage be listed in all paperwork.

No vehicles shall park outside overnight. All vehicles to be repaired should be pulled inside the building after business hours.

That the truck turning and access is sufficient and gains approval from the Township engineer and Fire Marshal.

The installation of shrubs to screen.

The vinyl fencing along the western property line be six (6) feet in height and be sufficient grade and color.

The applicant agrees to make payment in lieu of a sidewalk along Wiard Road, the amount to be determined by the Township engineer.

All full color elevations of the facility are provided.

The installation of an exterior security video system be added with a retaining date of 30-40 dates and access to law enforcement at request.

The motion carried as follows:

Sinkule: Yes Eldridge: Yes Krieg: Yes Tawakkul: Yes Richie: Yes

El-Assadi: Yes

B. PRELIMINARY SITE PLAN AMENDMENT AND SPECIAL USE PERMIT – AMERICAN CENTER FOR MOBILITY (ACM) – 2801 AIRPORT DRIVE – TO CONSIDER THE PRELIMINARY SITE PLAN AMENDMENT AND SPECIAL USE PERMIT FOR AN EVENT CENTER AND TEMPORARY PARKING AT THE EXISTING AMERICAN CENTER FOR MOBILITY (ACM) FACILITY LOCATED AT 2801 AIRPORT DRIVE, PARCEL K-11-12-100-005.

A motion was made by Commissioner Tawakkul, supported by Commissioner Sinkule to table the item for sixty (60) days.

The motion carried as follows:

Sinkule: Yes Eldridge: Yes Krieg: Yes Tawakkul: Yes Richie: Yes

El-Assadi: Yes

6. OLD BUSINESS

None

7. NEW BUSINESS

A. ZONING ORDINANCE AMENDMENTS – TO DISCUSS PROPOSED AMENDMENTS TO UPDATE THE ZONING ORDINANCE IN ACCORDANCE WITH THE RELIGIOUS LAND USE AND INSTITUTIONALIZED PERSONS ACT.

Planning Director Iacoangeli and Planning Consultant Megan Masson-Minock discussed the Religious Land Use and Institutionalized Persons Act with the Planning Commission. Megan Masson-Minock reviewed the changes to the Township Zoning Ordinance with the Planning Commission. Planning Director Iacoangeli made a request that the Planning Commission set a Public Hearing date of May 26th, 2020 to take public comment on the proposed Ordinance Amendment.

A motion was made by Commissioner Eldridge, supported by Commissioner Krieg to set a public hearing date of May 26th, 2020 for the proposed Ordinance Changes

regarding houses of worship and the Religious Land Use and Institutionalized Persons Act.

The motion carried as follows:

Sinkule: Yes Eldridge: Yes Krieg: Yes Tawakkul: Yes Richie: Yes

El-Assadi: Yes

8. OPEN DISCUSSION FOR ISSUES NOT ON THE AGENDA

A. CORRESPONDENCE RECEIVED

None

B. PLANNING COMMISSION MEMBERS

None

C. MEMBERS OF THE AUDIENCE

None

9. TOWNSHIP BOARD REPRESENTATIVE REPORT

None

10. ZONING BOARD OF APPEALS REPRESENTATIVE REPORT

None

11. TOWNSHIP ATTORNEY REPORT

None

12. PLANNING DEPARTMENT REPORT

None

13. OTHER BUSINESS

None

A motion was made by a Commissioner Krieg, supported by Commissioner Eldridge to adjourn the meeting. The motion carried unanimously.

The meeting was adjourned at approximately 9pm

Respectfully submitted,
Laura Gough
OCS Clerk

Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
STAN ELDRIDGE
HEATHER JARRELL ROE
MONICA ROSS WILLIAMS
JIMMIE WILSON, JR.



Charter Township of Ypsilanti

Clerk's Office

7200 S. Huron River
Drive
Ypsilanti, MI 48197
Phone: (734) 484-4700
Fax: (734) 484-5156

MEMORANDUM

To: Ypsilanti Township Board

From: Karen Lovejoy Roe, Clerk

Date: June 10, 2020

June 15, 2020 Board Agenda Item:

Formation of Equity Committee to Begin Process of Systemic and Structural Change

Request Authorization to Develop an Ypsilanti Township Equity Committee with representation from the Township Board, Human Resources Department, 14-B Court, Fire Department, all Township Union leadership and membership, management staff from all Departments, Consultants and members of the public and any others deemed needed for the purpose of developing strategies to begin the process of systemic and structural change in the culture of Township Government and the Township Community to elevate the quality of life of women, veterans and people of color in our community also authorizing the Human Resources Department to seek specialist in area of community equity to assist in facilitating the needs of the Equity Committee.

In view of the recent call for action to make a difference in the lives of people of color living in our nation, it is more than appropriate to research and act on what we as a Township Board can do to make a difference in our community to bring about systemic and cultural change in our community. Washtenaw County is one of the most economically segregated regions in our Nation and is one of the worst areas to live in if you are trying to work your way out of poverty. The majority of those in poverty live within the township borders. The formation of an Equity Committee with support of an Equity Specialist to look at our written and unwritten policies, procedures, culture and how we can impact change on external organizations that impact our residents and make recommendations and implement new actions that will improve the quality of life

of Ypsilanti Township residents who are marginalized would be a beginning to start the discussion about bringing about systemic and structural change.

Suggested Goals of the Equity Committee could include the following (not all inclusive):

1. Review recruitment, hiring and advancement practices with recommendations and steps to encourage workforce make up in all departments that is reflective of the community. Along with identifying barriers for women, veterans and people of color to becoming employed by Ypsilanti Township.
2. Review contracting and bidding policies with recommended changes to encourage outreach to minority vendors and contractors.
3. Review areas where licensing and certification requirements are governed by law and develop strategies and training for Township residents to prepare them for qualifying for these careers.
4. Work with the Unions to explore the development of agreements to allow paid internships for residents interested to learn about careers in Township government.
5. Develop strategies to meet needs of employees, current and future with young children.
6. Formulate steps Township government can take to help with improving access to health care of all residents.
7. Formulate ideas for improving public transportation throughout the Township.

Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
STAN ELDRIDGE
HEATHER JARRELL ROE
MONICA ROSS WILLIAMS
JIMMIE WILSON, JR.



Charter Township of Ypsilanti

Clerk's Office

7200 S. Huron River
Drive
Ypsilanti, MI 48197
Phone: (734) 484-4700
Fax: (734) 484-5156

MEMORANDUM

To: Ypsilanti Township Board

From: Karen Lovejoy Roe, Clerk

June 16, 2020 Board Meeting Agenda Item

RE: Authorization for the Board to request the Planning Commission to act on the motion approving the second reading Resolution 2017-15, Ordinance 2017-473, to revisit the Backyard Chicken Ordinance language and host public hearings for smaller lots and request the planning consultants to research other municipalities ordinances on this subject and problems they have experienced in order to develop an Ordinance to allow Chickens on all residential lots in Ypsilanti Township.

The Township Board agreed to revisit this issue at the beginning of 2018 in a motion to adopt Resolution 2017-15, Proposed Ordinance 2017-473 when the resolution and ordinance were approved at the second reading on Tuesday, March 21, 2017. We are now over two years from the time we had approved in the motion, to start the process of review for smaller lots for Backyard Chickens.

The need for backyard chickens is more pressing now than ever. Covid-19 has brought much higher prices for the purchase of protein, all the while incomes have been severely impacted. Fresh eggs are a simple way for families at low cost to provide safe protein in their diets.

There are well established benefits to raising back yard chickens that we have discussed in the past so I won't revisit all of those at this time.

Recently the City of Ann Arbor repealed their ordinance requiring that neighbors approve backyard chickens before a resident was allowed to have chickens. This is because of the lack of problems with their back yard chicken ordinance. As you know the City of Ann Arbor in many locations has smaller lots then even our R-5 zoning district yet chickens are allowed in all their residential areas.

Several township residents have once again brought this issue to our attention and it seems the time is right for moving ahead and approving a change in our ordinance to allow backyard chickens in all residential neighborhoods as we all agreed to start the review process again at the beginning of 2018, which is now over two years ago.

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF TUESDAY, MARCH 21, 2017 REGULAR MEETING
PAGE 3**

Stumbo: Yes Doe: Yes Wilson: Yes

The motion carried unanimously.

- 2. 2nd READING OF RESOLUTION 2017-05, PROPOSED ORDINANCE 2017-473, AMENDING THE TOWNSHIP ZONING CODE, SECTION 401 TO PERMIT RAISING UP TO FOUR (4) HENS ON RESIDENTIAL PARCELS WITH ONE ACRE OR MORE AND REQUESTS THE PLANNING COMMISSION TO REVISIT THIS ORDINANCE AT THE BEGINNING OF 2018 TO REVIEW THE LANGUAGE AND HOST PUBLIC HEARINGS FOR SMALLER LOTS AND ALSO REQUESTS THE PLANNING CONSULTANTS TO RESEARCH OTHER MUNICIPALITIES ORDINANCES ON THIS SUBJECT AND PROBLEMS THEY HAVE EXPERIENCED**

A motion was made by Clerk Lovejoy Roe, supported by Trustee Ross-Williams to Approve the 2nd Reading of Resolution 2017-05, Proposed Ordinance 2017-473, Amending the Township Zoning Code, Section 401 to Permit Raising up to Four (4) Hens on Residential Parcels with One Acre or more (see attached).

**Eldridge: Yes Ross-Williams: Yes Lovejoy Roe: Yes
Stumbo: Yes Doe: Yes Wilson: Yes**

The motion carried unanimously.

NEW BUSINESS

- 1. BUDGET AMENDMENT #4**

A motion was made by Clerk Lovejoy Roe, supported by Treasurer Doe to Approve Budget Amendment #4 (see attached).

The motion carried unanimously.

- 2. REQUEST OF YANKEE AIR FORCE, INC. (YAM) AND MICHIGAN AEROSPACE FOUNDATION (MAF) FOR A ONE YEAR EXTENSION TO THE PD #21-2015 STAGE 1 SITE PLAN AND REZONING APPROVAL GRANTED BY YPSILANTI TOWNSHIP ON MAY 19, 2015 PER RESOLUTION NO. 2015-09 ORDINANCE NO. 2015-444**

A motion was made by Treasurer Doe, supported by Clerk Lovejoy Roe to Approve Request of Yankee Air Force, Inc. (YAM) and Michigan Aerospace Foundation (MAF) for a One Year Extension to the PD #21-2015 Stage 1 Site Plan and Rezoning Approval Granted by Ypsilanti Township on May 19, 2016 Per Resolution No. 2015-09 Ordinance No. 2015-444.

The motion carried unanimously.

CHARTER TOWNSHIP OF YPSILANTI

Resolution 2020-15

RESOLUTION FOR GRANT APPLICATION WITH THE U.S. ECONOMIC DEVELOPMENT ADMINISTRATION (EDA) PUBLIC WORKS AND ECONOMIC ADJUSTMENT ASSISTANCE PROGRAM

WHEREAS, the Economic Development Administration's (EDA's) mission is to lead the federal economic development agenda by promoting innovation and competitiveness, preparing American regions for economic growth and success in the worldwide economy, and

WHEREAS, the EDA solicits applications from applicants in order to provide investments that support construction, non-construction, planning, technical assistance, and revolving loan fund projects under EDA's Public Works program and EAA program, and

WHEREAS, The LDFA has a goal to establish a connected high-tech ecosystem with infrastructure;

WHEREAS, An integral part of this goal is the connection of the Ann Arbor downtown Tech Park with the City of Ypsilanti and the American Center for Mobility;

WHEREAS, The City of Ann Arbor has already installed conduit and fiber in the downtown area which could be leveraged, but with little exception the system is full and cannot handle additional needs,

WHEREAS, the installation of a robust conduit and fiber system linking Downtown Ann Arbor to Ypsilanti, running through Ypsilanti Township and Pittsfield Township will leverage existing infrastructure investments and make it easier for company to innovate and grow, and

WHEREAS, Ann Arbor SPARK, in partnership with its local partners in the City of Ann Arbor, City of Ypsilanti, Ypsilanti Township, Pittsfield Township will file an application for the **ANN ARBOR -YPSILANTI FIBER AND CONDUIT NETWORK BACKBONE** , with the EDA under Funding Opportunity number PWEAA2020 requesting \$3,000,000, and

WHEREAS, the Ann Arbor/Ypsilanti Smartzone will provide a match of \$600,000 to construct the **ANN ARBOR -YPSILANTI FIBER AND CONDUIT NETWORK BACKBONE** which will be used as a matching grant funds that are a cash match that is readily available and unencumbered, and

WHEREAS, Ann Arbor SPARK will be the lead applicant, with City of Ann Arbor, City of Ypsilanti, Ypsilanti Township and Pittsfield Township as the co-applicants, and

WHEREAS, the Ann Arbor SPARK will administer the grant, and

WHEREAS, Ypsilanti Township will not incur any costs associated with construction of the Fiber and Conduit Network Backbone

WHEREAS, Ypsilanti Township representatives of the effected taxing units will be given an opportunity for public comment at an informational meeting held on a date yet to be determined, and

WHEREAS, the SPARK CEO Paul Krutko, is the authorized representative on behalf of the EDA Grant, and is authorized to sign any and all documentation related to the grant.

Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
STAN ELDRIDGE
HEATHER ROE
MONICA ROSS-WILLIAMS
JIMMIE WILSON, JR.



Charter Township of Ypsilanti
SUPERVISOR'S OFFICE
7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 481.0617
Fax: (734) 484.0002
www.ytown.org

TO: Township Board
FROM: Brenda Stumbo
DATE: June 9, 2020

Ann Arbor Spark and Washtenaw County has requested that Ypsilanti Township adopt a resolution of support for a regional grant through the Federal CARES Act. The grant is for a broad band fiber optic and conduit network from Ann Arbor to ACM.

Ann Arbor Spark will administer the grant, no costs will be associated with the construction if grant is awarded to the region.

Thank you for your consideration.

CHARTER TOWNSHIP OF YPSILANTI

OFFICE OF COMMUNITY STANDARDS

Building Safety • Planning & Zoning • Ordinance Enforcement • Police Services

To: Karen Lovejoy Roe, Clerk

From: Michael Radzik, OCS Director

Re: **1) Request to waive the financial policy and approve the purchase of BS&A On-Line Services for BS&A Building Department software offered exclusively by BS&A; funding is budgeted in the Building Dept Fund 249-249.000-801.000 in the amount of \$12,650.**

2) Request to amend the Building Dept fee schedule to add a \$2 Technology Fee to be applied to online application submittals for cost recovery.

Copy: McLain & Winters, Township Attorneys
Dave Bellers, Chief Building Official; Travis McDugald, IS Manager;
Tammie Keen, OCS Executive Coordinator

Date: June 8, 2020

The Office of Community Standards (OCS) has received the enclosed quote for software and services to purchase and implement On-Line Services for BS&A Building Department. Implementation of this software program will make the following services available to Building Department customers and the general public:

- **View My Activity:** Enables contractors and the general public to easily access inspections and permits they have requested.
- **Inspection Scheduling:** Enables contractors and the general public to submit requests for inspections online.
- **Building Department Search:** Performs a search by any record number, including addresses, permits, and certificates.
- **Rental Property Search:** Enables users to search for addresses that are flagged as rental properties.
- **Permit Applications.** Enables contractors and the general public to submit permit applications online. This feature requires the Payment of Fees feature.

CHARTER TOWNSHIP OF YPSILANTI

- Payment of Fees: Enables contractors and the general public to pay for permits and other fees online.

The initial cost to purchase and implement the software program is \$12,650 including remote implementation, setup and training with BS&A.

After the first year of implementation, there is an annual service fee of \$2,280 that is guaranteed for years two and three of the agreement; the service fee may be adjusted after the third year. Future annual service fees will be budgeted in the Building Dept Fund 249 as appropriate.

I have verified with BS&A that the credit card payment vendor currently used by the Treasurer's Office, Point & Pay, is an authorized partner of BS&A and may be used to facilitate on-line credit card payments with this software program.

Technology Fee

Once On-line Services is operational, BS&A will charge the Township a \$2 fee for every permit application that is submitted on-line using its software program. The Township will be billed quarterly for those fees and will have to adjust the building permit fee schedule in order to recover those costs.

Accordingly, I am requesting to amend the Building Dept Fee Schedule to add a \$2 Technology Fee that will be applied to every permit application that is submitted electronically using the On-Line Services software program. Assessment of this fee will ensure that use of the On-Line Services program will be cost neutral for building permit revenue. Payment of the quarterly fees will essentially become a pass through cost directly from the customer to BS&A.

I will work with the Accounting Director to set up appropriate revenue and expense accounts to receive, track and pay the technology fees. There were about 4,000 permits issued in 2019.

Request

Please place my request on the agenda for the June 16, 2020 meeting of the Board of Trustees for its consideration. I respectfully request that the Board review and approve the proposal, authorize acceptance the proposal, and amend the Building Dept fee schedule as indicated. BS&A is the only company that offers BS&A On-Line Services for BS&A Building Dept software, therefore the financial policy requiring competitive bids must be waived to purchase it.

Thank you for the Board's consideration. Please contact me with questions or concerns.

Proposal for BS&A Online - Community Development, Presented to...
Ypsilanti Charter Township, Washtenaw County MI

June 8, 2020

Quoted by: Dan J. Burns, CPA



Thank you for the opportunity to quote our software and services.

At BS&A, we are focused on delivering unparalleled service, solutions, support, and customer satisfaction. You'll see this in our literature, but it's not just a marketing strategy... it's a mindset deeply embedded in our DNA. Our goal is to provide such remarkable customer service that our customers feel compelled to remark about it.

*We are extremely proud of the many long-term customer relationships we have built. Our success is directly correlated with putting the customer first and consistently choosing to **listen**. Delivering unparalleled customer service is the foundation of our company.*

Cost Summary

On-Line Services for BS&A Building Department (requires the use of Building Department .NET)

Initial Fee	\$11,400
Application Fee This fee is for permit application submission only. Fees are accumulated and billed to the municipality.	\$2/application
Remote Implementation/Setup/Training on the use of BS&A Online – Community Development Includes implementation of the items selected below. On-site training is available as an option, and will be quoted separately.	\$1,000

Project Management and Implementation Planning

Services include:

- Analyzing customer processes to ensure all critical components are addressed.
- Creating and managing the project schedule in accordance with the customer's existing processes and needs.
- Planning and scheduling training around any planned process changes included in the project plan.
- Modifying the project schedule as needed to accommodate any changes to the scope and requirements of the project that are discovered.
- Providing a central contact between the customer's project leaders, developers, trainers, IT staff, conversion staff, and other resources required throughout the transition period.
- Installing the software and providing IT consultation for network, server, and workstation configuration and requirements.
- Reviewing and addressing the specifications for needed customizations to meet customer needs (when applicable).
- Includes all features below:
 - View My Activity (always enabled): Enables contractors and the general public to easily access inspections and permits they have requested.
 - Inspection Scheduling: Enables contractors and the general public to submit requests for inspections online.
 - Building Department Search: Performs a search by any record number, including addresses, permits, and certificates.
 - Rental Property Search: Enables users to search for addresses that are flagged as rental properties.
 - Permit Applications: Enables contractors and the general public to submit permit applications online (see "Application Fee," below). This feature requires the Payment of Fees feature.
 - Payment of Fees: Enables contractors and the general public to pay for permit and other fees online (see "Payment Processing Requirements," below).

\$250



Connection Requirements

BS&A Online requires a high-speed internet connection (cable modem or DSL).

Payment Processing Requirements

Acceptance of online payments requires a contract with one of BS&A's approved Online Credit Card Processing companies. Please visit <https://www.bsasoftware.com/solutions/bsaonline/public-records-search/> for information.



Cost Totals

Initial Fee	\$11,400
Remote Implementation/Setup/Training	\$1,000
Project Management and Implementation Planning	\$250
Total Proposed	\$12,650

Payment Schedule

- 1st Payment: **\$250** to be invoiced upon execution of this agreement.
- 2nd Payment: **\$11,400** to be invoiced at start of training.
- 3rd Payment: **\$1,000** to be invoiced upon completion of training.

Annual Service Fee

Unlimited support during your first year with the program is included in your purchase price. Thereafter, Service Fees are billed annually. After two (2) years, BS&A Software reserves the right to increase the Annual Service Fee by no more than the yearly Consumers Price Index (CPI).

\$2,280



Acceptance

Signature constitutes...

1. An order for products and services as quoted
2. Agreement with the proposed Annual Service Fee

Signature

Date

Returning Accepted Proposal to BS&A

Please return the entire proposal, with signature/date (this page) and contact information (next page) filled out, by any of these methods:

Mail: BS&A Software
14965 Abbey Lane
Bath, MI 48808

Fax: (517) 641-8960

Email: dburns@bsasoftware.com

Once your proposal is received, a BS&A representative will contact you to begin the setup process.



Contact Information

If any mailing addresses are PO Boxes, please also provide a Street Address for UPS/Overnight mail.

If additional contacts need to be submitted, please make a copy of this page.

Support Contact

Name _____ Title _____

Phone/Fax _____ Email _____

Mailing Address _____

City, State, Zip _____

IT Contact

Name _____ Title _____

Phone/Fax _____ Email _____

Mailing Address _____

City, State, Zip _____



Supervisor
BRENDA L. STUMBO
Clerk
KAREN LOVEJOY ROE
Treasurer
LARRY J. DOE
Trustees
STAN ELDRIDGE
Heather Jarrell Roe
Jimmie Wilson
Monica Ross Williams



Supervisor's Office

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 481-0617
Fax: (734) 484-0002
www.ytown.org

TO: Township Board

FROM: Brenda L. Stumbo, Supervisor

DATE: June 8, 2020

Please find attached the L-4029 – 2020 Tax Rate Request. This sets our tax rates for the 2021 budget. This has been prepared and verified by Javonna, our Accounting Director.

We are requesting this item be placed on the June 16, 2020 agenda for the Board's consideration.

dg

Attachment

cc: Javonna Neel, Accounting Director
Linda Gosselin, Assessor

2020 Tax Rate Request (This form must be completed and submitted on or before September 30, 2020)

MILLAGE REQUEST REPORT TO COUNTY BOARD OF COMMISSIONERS

Carefully read the instructions on page 2.

This form is issued under authority of MCL Sections 211.24e, 211.34 and 211.34d. Filing is mandatory; Penalty applies.

County(ies) Where the Local Government Unit Levies Taxes Washtenaw	2020 Taxable Value of ALL Properties in the Unit as of 5-26-2020 TV 1,448,894,756 (TV minus Renaissance Zone 1,421,901,034)
Local Government Unit Requesting Millage Levy Charter Township of Ypsilanti	For LOCAL School Districts: 2020 Taxable Value excluding Principal Residence, Qualified Agricultural, Qualified Forest, Industrial Personal and Commercial Personal Properties.

This form must be completed for each unit of government for which a property tax is levied. Penalty for non-filing is provided under MCL Sec 211.119. The following tax rates have been authorized for levy on the 2020 tax roll.

(1) Source	(2) Purpose of Millage	(3) Date of Election	(4) Original Millage Authorized by Election Charter, etc.	(5) ** 2019 Millage Rate Permanently Reduced by MCL 211.34d "Headlee"	(6) 2020 Current Year "Headlee" Millage Reduction Fraction	(7) 2020 Millage Rate Permanently Reduced by MCL 211.34d "Headlee"	(8) Sec. 211.34 Truth in Assessing or Equalization Millage Rollback Fraction	(9) Maximum Allowable Millage Levy *	(10) Millage Requested to be Levied July 1	(11) Millage Requested to be Levied Dec. 1	(12) Expiration Date of Millage Authorized
Allocated	Gen Op	N/A	1.1160	1.0064	.9972	1.0035	1.0000	1.0035		1.0035	N/A
Voted	Fire Prot	11/8/16	3.1250	3.0649	.9972	3.0563	1.0000	3.0563		3.0563	2020
Voted	Fire Cap	5/8/18	.5000	.4949	.9972	.4935	1.0000	.4935		.4935	2022
Voted	Solid Waste	11/18/16	2.1550	2.1135	.9972	2.1075	1.0000	2.1075		2.1075	2020
Voted	Police	11/18/16	5.9500	5.8356	.9972	5.8192	1.0000	5.8192		5.8192	2020
Voted	Rec/BP	11/18/16	1.0059	.9865	.9972	.9837	1.0000	.9837		.9837	2020
PA345	FPen/HC	N/A						1.3300		1.3300	N/A

Prepared by Javonna Neel	Telephone Number (734) 484-3702	Title of Preparer Accounting Director	14.7937	Date
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CERTIFICATION: As the representatives for the local government unit named above, we certify that these requested tax levy rates have been reduced, if necessary to comply with the state constitution (Article 9, Section 31), and that the requested levy rates have also been reduced, if necessary, to comply with MCL Sections 211.24e, 211.34 and, for LOCAL school districts which levy a Supplemental (Hold Harmless) Millage, 380.1211(3).

<input checked="" type="checkbox"/> Clerk	Signature	Print Name	Date
<input type="checkbox"/> Secretary		Karen Lovejoy Roe	
<input type="checkbox"/> Chairperson	Signature	Print Name	Date
<input checked="" type="checkbox"/> President		Brenda L. Stumbo	

* Under Truth in Taxation, MCL Section 211.24e, the governing body may decide to levy a rate which will not exceed the maximum authorized rate allowed in column 9. The requirements of MCL 211.24e must be met prior to levying an operating levy which is larger than the base tax rate but not larger than the rate in column 9.

** **IMPORTANT:** See instructions on page 2 regarding where to find the millage rate used in column (5).

Local School District Use Only. Complete if requesting millage to be levied. See STC Bulletin 2 of 2020 for instructions on completing this section.

Total School District Operating Rates to be Levied (HH/Supp and NH Oper ONLY)	Rate
For Principal Residence, Qualified Ag, Qualified Forest and Industrial Personal	
For Commercial Personal	
For all Other	

**CHARTER TOWNSHIP OF YPSILANTI
2020 BUDGET AMENDMENT #7 REVISED**

June 16, 2020

AMOUNTS ROUNDED UP TO THE NEAREST DOLLAR

101 - GENERAL OPERATIONS FUND

Total Increase \$321,941.00

Request to increase budget for additional expenses related to supplies and equipment needed for the COVID-19 pandemic to reopen facilities. These additional funds are needed for PPE and preparing buildings for the return of public and opening of the buildings. This will be funded by an Appropriation of Prior Year Fund Balance.

Revenues:	Prior Year Fund Balance	101-000-000-699.000	\$20,000.00
		Net Revenues	<u><u>\$20,000.00</u></u>
Expenditures:	COVID-19 Supplies & Equip	101-267-000-727.300	\$20,000.00
		Net Expenditures	<u><u>\$20,000.00</u></u>

Request to increase budget for PTO payout request of 60 hours to be paid at 75%. This will be funded by an Appropriation for Prior Year Fund Balance.

Revenues:	Prior Year Fund Balance	101-000-000-699.000	\$1,941.00
		Net Revenues	<u><u>\$1,941.00</u></u>
Expenditures:	Salaries Pay Out - PTO & Sick	101-253-000-708.004	\$1,803.00
	FICA	101-253-000-715.000	\$138.00
		Net Expenditures	<u><u>\$1,941.00</u></u>

* Request to increase budget to transfer funds from General Fund to 14B District Court Fund for operations such as payroll and health care. Due to the circumstances revolving around the COVID-19 pandemic, the revenue has been extremely low. This will be funded by an Appropriation for Prior Year Fund Balance.

Revenues:	Prior Year Fund Balance	101-000-000-699.000	\$300,000.00
		Net Revenues	<u><u>\$300,000.00</u></u>
Expenditures:	Transfer to 14B Court	101-999-000-969.236	\$300,000.00
		Net Expenditures	<u><u>\$300,000.00</u></u>

**CHARTER TOWNSHIP OF YPSILANTI
2020 BUDGET AMENDMENT #7 REVISED**

June 16, 2020

236 - 14 B DISTRICT COURT FUND

\$1,395.00

Request to increase budget for PTO payout request of 45 hours to be paid at 75%. This will be funded by an Appropriation for Prior Year Fund Balance.

Revenues:	Prior Year Fund Balance	236-000-000-699.000	\$1,395.00
		Net Revenues	<u><u>\$1,395.00</u></u>

Expenditures:	Salaries Pay Out - PTO & Sick	236-136-000-708.004	\$1,296.00
	FICA	236-136-000-715.000	\$99.00
		Net Expenditures	<u><u>\$1,395.00</u></u>

* Request to accept transferred funds from General Fund to 14B District Court Funds for operations such as payroll and health care. Due to the circumstances revolving around the COVID-19 pandemic, the revenue has been extremely low. The net to the Fund Balance will be zero because we will increase the transfer in revenue line and decrease the fines and costs revenue line. This will be funded by a Transfer of cash from General Fund to 14B District Court Fund.

Revenues:	Transfer In: General Fund	236-000-000-697.000	\$300,000.00
		Net Revenues	<u><u>\$300,000.00</u></u>

Revenues	14B Ordinance Fines and Costs	236-000-000-605.001	(\$300,000.00)
		Net Expenditures	<u><u>(\$300,000.00)</u></u>

* Revised budget amendment requested by Supervisor Stumbo

Motion to Amend the 2020 Budget (#7 REVISED)

Move to increase the General Fund budget by \$321,941 to \$9,937,512 and approve the department line item changes as outlined.

Move to increase the 14B District Court Fund budget by \$1,395 to \$1,779,765 and approve the department line item changes as outlined.

AUTHORIZATIONS AND BIDS

CHARTER TOWNSHIP OF YPSILANTI

INFORMATION SERVICES

Computer Support • Web Content Management • Communications Services

To: Township Board
From: Travis McDugald, IS Manager
Re: Request approval to accept the proposal and designate Trendset Communications Group as the Township preferred Network Cable Installer valid until July 2022 and authorize forgoing the bid requirements for network cabling jobs valued under \$7500.
Date: June 8, 2020

On May 5th 2020 the Township Board authorized seeking sealed proposals for a Preferred Network Cable Installer. The Township receive eight qualified proposals as listed below.

Company	Bid Sample	Sample 1	Sample 2	Sample 3
Allcomm Inc	\$980	\$1,866	\$565	\$1,819
Arncomm Telecommunications Inc.	\$805	\$1,985	\$604	\$2,005
Bayview Electric Company, LLC	\$529	\$2,065	\$674	\$2,008
Challenger Technologies LLC	\$745	\$1,960	\$632	\$1,781
Competitive Network Management	\$827	\$2,035	\$559	\$1,873
Stingray Systems, LLC	\$944	\$2,072	\$639	\$2,021
Teoma Systems	\$874	\$2,094	\$644	\$2,043
Trendset Communications Group, LLC	\$876	\$1,862	\$632	\$1,854

The purpose of designating a Preferred Network Cable (PNC) installer is to have work for hire understanding between the Township and the PNC installer that individual cabling jobs under a specific dollar amount will first be offered to the PNC installer based on a previous bid process for a specific duration.

In the past, the Township has found it sometimes difficult to get pricing quotes for cabling jobs. These difficulties often lead to delays in other projects.

Having a PNC installer will allow the Township to forgo some of the bid requirements for network cable installations.

Evaluation was performed by comparing the initial RFP theoretical sample along with three samples based on previous installations. The results of these samples are shown in the chart above.

This understanding has no minimal or maximum dollars amounts. The RFP also stated this is a non-exclusive agreement. Should the Township find it best to proceed with the standard bid processed it shall have the ability to do so.

Trendset Communications Group was previously granted the Townships preferred network cable installer. Given their quality workmanship and current knowledge of Township buildings, I am recommending we continue our relationship with Trendset.

I respectfully request approval to accept the proposal and designate Trendset Communications Group as the Township preferred Network Cable Installer valid until July 2022 and authorize forgoing the bid requirements for network cabling jobs valued under \$7500.

Thank you for your consideration.

Travis McDugald
IS Manager, Charter Township of Ypsilanti

OTHER BUSINESS

BOARD MEMBER UPDATES
