



**Planning Commission
Regular Meeting
December 17, 2019
7:00 p.m.**

1. CALL MEETING TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ROLL CALL
4. APPROVAL OF MINUTES
- November 19, 2019
5. CORRESPONDENCE / BOARD REPORTS / PRESENTATIONS
6. APPROVAL OF AGENDA
7. PUBLIC COMMENT: Restricted to (3) minutes regarding items not on this agenda
8. NEW BUSINESS
 - A. SUP 2019-07 Sand and Gravel Pit located at S LINCOLN RD MOUNT PLEASANT, MI 48858-0000 PID 14-033-30-006-00 Owner: ZALUD JAMES and DANIEL ZALUD
 - B. (Not Ready for Review and Approval) SPR 2019-14 Sand and Gravel Pit located at S LINCOLN RD MOUNT PLEASANT, MI PID 14-033-30-006-00 48858-0000 Owner: JAMES ZALUD AND DANIEL ZALUD
 - C. SPR 2019-15 Self-Storage buildings located at S PARK PLACE MOUNT PLEASANT, MI 48858 PID 14-011-30-001-14. Owner: MT PLEASANT STORAGE CENTRAL LLC
 - D. SPR 2019-16 Isabella County Road Commission Facilities located at 2261 E REMUS RD MOUNT PLEASANT, MI PID 14-016-30-003-00 48858 Owner: ISABELLA COUNTY ROAD COMMISSION
9. OTHER BUSINESS
10. EXTENDED PUBLIC COMMENT: Restricted to 5 minutes regarding any issue
11. FINAL BOARD COMMENT
12. ADJOURNMENT

Board Expiration Dates

Planning Commission Board Members (9 Members) 3 year term			
#	F Name	L Name	Expiration Date
1-BOT Representative	Lisa	Cody	11/20/2020
2-Chair	Phil	Squatrito	2/15/2020
3-Vice Chair	Denise	Webster	2/15/2020
4-Secretary	Alex	Fuller	2/15/2020
5 - Vice Secretary	Mike	Darin	2/15/2022
6	Stan	Shingles	2/15/2021
7	Ryan	Buckley	2/15/2022
8	vacant seat		2/15/2021
9	Doug	LaBelle II	2/15/2022
Zoning Board of Appeals Members (5 Members, 2 Alternates) 3 year term			
#	F Name	L Name	Expiration Date
1-Chair	Tim	Warner	12/31/2019
2-PC Rep	Ryan	Buckley	2/18/2021
3-Secretary	Jake	Hunter	12/31/2019
4- Vice Secretary	Andy	Theisen	12/31/2019
5	Taylor	Sheahan-Stahl	12/31/2021
Alt. #1	John	Zerbe	12/31/2019
Alt. #2	Liz	Presnell	2/15/2021
Board of Review (3 Members) 2 year term			
#	F Name	L Name	Expiration Date
1	Doug	LaBelle II	12/31/2020
2	James	Thering	12/31/2020
3	Bryan	Neyer	12/31/2020
Alt #1	Randy	Golden	1/25/2021
Citizens Task Force on Sustainability (4 Members) 2 year term			
#	F Name	L Name	Expiration Date
1	Don	Long	12/31/2020
2	Mike	Lyon	12/31/2020
3	vacant seat		12/31/2018
4- BOT Representative	vacant seat		11/20/2020
Construction Board of Appeals (3 Members) 2 year term			
#	F Name	L Name	Expiration Date
1	Colin	Herron	12/31/2019
2	Richard	Jakubiec	12/31/2019
3	Andy	Theisen	12/31/2019
Hannah's Bark Park Advisory Board (2 Members from Township) 2 year term			
1	Mark	Stuhldreher	12/31/2020
2	John	Dinse	12/31/2021
Chippewa River District Library Board 4 year term			
1	Ruth	Helwig	12/31/2023
2	Lynn	Laskowsky	12/31/2021



Board Expiration Dates

EDA Board Members (11 Members) 4 year term			
#	F Name	L Name	Expiration Date
1BOT Representative	Ben	Gunning	11/20/2020
2	Thomas	Kequom	4/14/2023
3	James	Zalud	4/14/2023
4	Richard	Barz	2/13/2021
5	Robert	Bacon	1/13/2023
6	Marty	Figg	6/22/2022
7	Sarvjit	Chowdhary	1/20/2022
8	Cheryl	Hunter	6/22/2023
9	Vance	Johnson	2/13/2021
10	Michael	Smith	2/13/2021
11	David	Coyne	3/26/2022
Mid Michigan Area Cable Consortium (2 Members)			
#	F Name	L Name	Expiration Date
1	Kim	Smith	12/31/2020
2	Vacant		
Cultural and Recreational Commission (1 seat from Township) 3 year term			
#	F Name	L Name	Expiration Date
1	Brian	Smith	12/31/2019
Sidewalks and Pathways Prioritization Committee (2 year term)			
#	F Name	L Name	Expiration Date
1 BOT Representative	Kimberly	Rice	11/20/2020
2 PC Representative	Denise	Webster	8/15/2020
3 Township Resident	Sherrie	Teall	8/15/2021
4 Township Resident	Jeremy	MacDonald	10/17/2020
5 Member at large	Connie	Bills	8/15/2021

CHARTER TOWNSHIP OF UNION
Planning Commission
Regular Meeting

A regular meeting of the Charter Township of Union Planning Commission was held on November 19, 2019 at the Township Hall.

Meeting was called to order at 7:01 p.m.

Roll Call

Present: Darin, Fuller, LaBelle, Shingles, Squattrito, and Webster

Excused: Clerk Cody and Buckley

Others Present

Township Planner, Peter Gallinat and Secretary, Jennifer Loveberry

Approval of Minutes

Webster moved **Shingles** supported the approval of the October 15, 2019 regular meeting as amended. **Vote: Ayes: 6 Nays: 0. Motion carried.**

Correspondence / Reports/ Presentations

The Planning Commission received the annual Report from the Zoning Board of Appeals.

Approval of Agenda

Shingles moved **LaBelle** supported approval of the agenda as presented. **Vote: Ayes: 6 Nays 0. Motion carried.**

Public Comment – 7:06 p.m.

Tim Beebe, CMS&D, 2257 Broomfield Rd. – Proposed test amendment to section 30, asked Planning Commissioners to route comments to Township Planner regarding the packet he presented.

Closed 7:09 p.m.

New Business

A. SPR 2019-11 (Preliminary Review) D. Clare Services office and storage located at 4491 E. River Rd., PID 14-002-30-013-03 Owner: BGL Holdings LLC

Applicants representative, Tim Beebe, CMS&D, 2257 Broomfield Rd. – presented the preliminary site plan confirming the proposed preliminary site plan located in an I1 district would be a permitted use. On the site plan he showed an existing pole barn structure and proposed an 80’x80’ and another 60’x100’ building. Outside from the outside agency approvals, the applicant did not receive any other comments from the Planning Commission.

B. SPR 2019-12 (Preliminary Review) Dunkin Donuts/Filling Station located at S. Isabella Rd., PID 14-026-20-001-06 Owner: McGarry, Robert and Motz, James & Amy

Applicants representative, Sarah Ross, Practical Engineers, Inc. – presented the preliminary site plan located in a B4 district with an approved special use by the Township Board for a filling station. She proposed a 7,200 square foot building with two commercial tenants, each with a separate drive thru

(Tenant #1 Dunkin Donuts, Tenant #2 TBD) on the preliminary site plan. Outside from the outside agency approvals, the applicant did not receive any other comments from the Planning Commission.

C. 2019 PC Annual Report to the Board of Trustees

Planning Commission reviewed 2019 Annual Report to the Board of Trustees.

Other Business

Planning Commissioners completed their review of Part III sections 11-15 of the Zoning Ordinance Amend/Rewrite.

The Commissioners stated that upon completion of the draft of their recommendations completed by the Consultant, they would welcome any comments from the stakeholders.

Extended Public Comment Open – 8:56 p.m.

No comments were offered.

Final Board Comment

Webster – Stated that her Planning Commission term ends 2/15/20 and will not be reapplying for another term.

Adjournment – Chairman Squattrito adjourned the meeting at 8:59 p.m.

APPROVED BY:

Alex Fuller - Secretary
Mike Darin – Vice Secretary

(Recorded by Jennifer Loveberry)



Peter Gallinat, Township Planner
pgallinat@uniontownshipmi.com
2010 South Lincoln
Mt. Pleasant, MI 48858
Phone 989-772-4600 Ext. 241
Fax 989-773-1988

TO: Planning Commission
FROM: Township Planner

Meeting 12/17/19

NEW BUSINESS

SUBJECT: A) SUP 2019-07 Sand and Gravel Pit located at S LINCOLN RD MOUNT PLEASANT, MI 48858-0000 PID 14-033-30-006-00 Owner: ZALUD JAMES and DANIEL ZALUD

Applicant: James Zalud and Daniel Zalud

Owner: James Zalud and Daniel Zalud

Location: S LINCOLN RD. MOUNT PLEASANT MI 48858-0000

Current Zoning: AG

Adjacent Zoning: AG, AG-1 (Restrictive Agricultural Lincoln Twp)

Future Land Use/Intent: *Rural Preservation:* Rural Preservation Areas outside of the growth boundary should be maintained at a low intensity rural character of development that will not adversely impact natural features and agricultural uses. Agriculture should be promoted and future rezoning requests for residential should be prohibited to prevent leapfrog development.

Current Use: Vacant

Reason for Request: Sand and Gravel Pit

History: Applicant applied for same special use with site plan in January of 2018. The applicant withdrew the application ahead of the scheduled public hearing. (See attached withdrawal letter)

Objective of board: Review requirements from sections 30.3.A and 30.4.S of the Zoning Ordinance. Within a reasonable time following the public hearing, the Planning Commission shall review the application for the special use permit, testimony received at the public hearing, and other materials submitted in relation to the request and make a recommendation to the Township Board.

Recommendation from Township Planner

At this time, I would approve SUP 2019 with the following conditions:

- Final Site Plan approved in accordance with section 12 of the Zoning Ordinance.
- Property screened.
- Assurance of Millbrook Rd maintained.
- Guidelines related to Bald Eagles followed.
- Reclamation materials need to be inert material as described in Part 115, Section 11504 of Act 451 of 1994.

Twp Planner
Peter Gallinat

From: [Robert F](#)
To: [Jennifer Loveberry](#)
Subject: No on Pit proposal
Date: Tuesday, December 17, 2019 4:20:04 PM

Dear Jennifer Loveberry,

>

> I am contacting you to urge the committee to vote no on the proposal for a pit at the intersection of Lincoln and Millbrook. I am extremely concerned about the negative impact this will have on the residents who live in the area.

>

> Thank you so much for hearing my concern, and disseminating my opinion to the committee.

>

> Sincerely,

> Robert Fanning

>

>

>

> Sent from my iPhone

From: [Ari Berk](#)
To: [Jennifer Loveberry](#)
Subject: No Pit on Millbrook/Tonight's meeting
Date: Tuesday, December 17, 2019 2:54:15 PM

To Whom it May Concern,

As a concerned resident, a caring neighbor, and a voter, I am strongly against the special permit request for a gravel pit on Millbrook road. This permit should absolutely be denied on the basis of how it will adversely impact the families and property owners, as well as the nature environment in the area. That Union Township is even considering this proposal is shameful, and the fact that the permit applicant is himself a member of the committee is a gross misuse of the committee's authority for his own personal gain.

I strongly urge you to vote NO on this permit.

Thank you.
Dr. Ari Berk

Ari Berk, Ph.D.
Professor of English
Central Michigan University
www.ariberk.com

From: [Annette Thornton](#)
To: [Jennifer Loveberry](#)
Subject: Sad and gravel pit
Date: Tuesday, December 17, 2019 3:03:19 PM

Dear Ms. Loveberry,

I am unable to attend the meeting tonight so I am writing to be a part of the support of the residents who will be affected by the Millbrook Rd Sand and Gravel Pit. I encourage the board to vote NO for the special use permit.

Sincerely,
Annette Thornton
608 Crescent Dr.
Mt. Pleasant, MI 48858

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Please Vote NO on the Special Use Permit for Millbrook Gravel Pit
Date: Tuesday, December 17, 2019 9:31:09 AM

From: Kim Smith <ksmith@uniontownshipmi.com>
Sent: Monday, December 16, 2019 6:01 PM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Subject: Fwd: Please Vote NO on the Special Use Permit for Millbrook Gravel Pit

Kim Smith
Charter Township of Union

Begin forwarded message:

From: Denise Fanning <denisefanning4@gmail.com>
Date: December 16, 2019 at 5:46:52 PM EST
To: "info@uniontownshipmi.com" <info@uniontownshipmi.com>
Subject: Please Vote NO on the Special Use Permit for Millbrook Gravel Pit

Dear Union Township Officials,

I write today as the very concerned friend of the resident most likely to be impacted by the decision about the gravel pit at Millbrook and Lincoln Roads. I understand that when making decisions regarding Special Use Permits, there are many factors to consider. I write today to urge you to give particular attention to the consideration of how this decision will impact the lives of the residents living closest to the pit, above and beyond the financial gain of the township. I am alarmed to read that James Zalud, who has proposed this special use permit, is also on the decision-making board about the fate of this land, and the residents who live nearby. I hope that all members of the board will vote from an informed place, and with their good consciences, and not with allegiance to a fellow board member.

As you proceed toward your votes, I appeal to your human decency and compassion. I ask you simply to put yourself in the shoes (or homes!) of the residents living closest to the proposed pit site and consider the Golden Rule: Do unto others as you would have them do unto you. Would you approve a Sand and Gravel Pit beside your own lifelong family home? Beside your vacation cottage? Beside your mother's home? Would you purchase a home beside an active Sand and Gravel Pit?

No matter where you currently live, please take a moment to imagine the land beside your home being opened up and transformed into an active quarry site. Imagine the incessant noise of heavy machinery working to break up the earth from 7am-7pm every single day, 7 days a week. Imagine trying to sit outside with friends in your once quiet yard, while the loud, clanking and beeping of earth movers is constant. Imagine trying garden, the dust covering your plants, your land and home (not to mention your lungs and your children's lungs). Imagine planning to retire in the next year or two, and ****trying**** to sell your home in the midst of this chaos. Imagine trying to sell your home EVER again. Imagine losing the only investment you have worked your whole life to pay off, with expectation of selling it one day, and now knowing you've lost the ability to ever sell your home and move elsewhere, along with your peace of mind, and your daily quality of life. These people chose their home in quiet agricultural regions with expectations that they would live in the peaceful country atmosphere. They did not choose to live beside loud and chaotic sand and gravel pits. They **STILL DO NOT** choose to live beside sand and gravel pits. Just as I suspect none of you would choose either. Ask Mr. Zalud if he would choose to live beside a pit himself, or if he intends to buy the home/s of the people living closest to the site so that they might have any chance at a future option to live away from his proposed environmental catastrophe.

Additional questions I hope are being deeply researched and discussed:

- 1.) What is the impact of such a site on the local air quality and respiratory health of nearby residents?
- 2.) What is the potential impact on ground water?
- 3.) What regulations are placed on refilling the holes with "unusable material"? How can residents know or trust that their local land and water are not going to be contaminated with toxic substances?
- 4.) Even if the site is returned to agricultural status in 5 years as promised, at what cost to the local eco-system?
- 5.) If you ignore the urging of the residents to deny this permit, what regulations will ensure their quality of life?

Please consider this decision from a health standpoint - both the physical and mental health of local residents, as well as the health of the environment. Do not make this decision lightly, or simply because you are expected to approve a fellow board member's project. Know that this decision will have a great impact on the faith of your community members to believe in you, to believe in the power of local government, or to believe that local government is looking out for the best interests of its residents. Please consider the impact this decision has on the very real, human lives who you are representing, and vote to protect those who depend on you to do so - your residents.

Most Sincerely,

Denise Fanning
Mt. Pleasant resident

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Gravel pit
Date: Tuesday, December 17, 2019 9:31:53 AM

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Kim Smith <ksmith@uniontownshipmi.com>
Sent: Monday, December 16, 2019 8:32 PM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Subject: Fwd: Gravel pit

Kim Smith
Charter Township of Union

Begin forwarded message:

From: Renn Richards <lrichardscst@gmail.com>
Date: December 16, 2019 at 8:21:40 PM EST
To: "info@uniontownshipmi.com" <info@uniontownshipmi.com>
Subject: Gravel pit

To whom it may concern,

I am extremely opposed to the sand and gravel pit proposed for the lot at Lincoln and Millbrook in Mt. Pleasant. I grew up in the house near that corner on Millbrook and my mother still lives there. The lot is visible from the back yard of her house and from the rooms on that side of the house. It will completely disrupt the peace and quiet we've had there for nearly 24 years. The house she has worked so hard to completely remodel over the years will be virtually worthless with that quarry so close by. The surrounding farm land will be negatively affected, the animals in the area will be displaced including a family of bald eagles who should be protected and not to mention

the sly back door politics that are being used to push this gravel pit through are all reasons it shouldn't happen. It is immoral and a conflict of interest for someone to both be on the board for voting this project through and to also greatly financially benefit from the project. We see what's happening here and we do not consent.

Renn Richards

Former resident at 2283 E Millbrook Rd in Mt. Pleasant, MI and concerned citizen

December 10, 2019

To: Union Township Planning Committee

Re: Special Use Permit for Sand and Gravel Pit

Submitted by:

Denise Richards

2283 E. Millbrook Road

Mt. Pleasant, Michigan



I am writing to urge you to decline the application for the Special Use Permit for the forty acres at Millbrook and Lincoln Roads.

First, however, for the record, I would respectfully like to address the applicant's Summary of Request's current false statements regarding the 2017 opposition of the proposed sand and gravel pit. The Summary, page 1, paragraph 3, states "At the time of the 2017 special use submittal, there were individuals, which had sent in photos of bald eagles in and around the area. The indication was that the eagles shown in the photos were all located on the proposed project site and it was implied that this was a nesting area. Some of the eagles photographed may have been on the project site, but based on the landmarks shown in the photos, some were not".

In disputation of these comments, on page 30 of the 2017 packet, the individual in question clearly stated that regards to eagles nesting on the proposed site, "...they are not known to be nesting on this property...". Also, ALL photographs submitted were carefully selected from hundreds of eagle photos taken on the property on Lincoln and Millbrook Roads, to include landmarks in the proposed site area; and do, in fact, exhibit such identifiable landmarks.

Peter Gallinat, Union Township Planner, indicated to me on 12/4/2019 that the first four of the eight criteria in the Special Use Application process are "basically subjective". These criteria are as follows,

1. The special use shall be designed, constructed, operated, and maintained in a manner harmonious with the character of adjacent property and the areas.
2. This special use shall not change the essential character of the surrounding areas.
3. The special use shall not interfere with the general enjoyment of adjacent property.
4. The special use shall not be hazardous to adjacent property or involve uses, activities, materials, or equipment that will be detrimental to the health, safety, or welfare of persons or property through the excessive production of traffic, noise, smoke, odor, fumes, or glare.

I'm wondering why these are considered 'subjective' rather than objective? All of these can be quite easily measured; and, by definition, a sand and gravel pit does not meet any of these criterion while located in an agricultural area: Especially for adjacent private residents and for those in neighboring areas. Yet, the Township Planner seemingly indicated a recommended approval for the special use, with six conditions, at the time of the first submission (See page 2, of 2018 packet).

I'm also wondering whose rights and privileges are taken into consideration when a special use permit is granted? How is this decision process undertaken? I request transparency be offered to the neighboring residents whose everyday lives will be adversely affected: Possibly every day from 7:00am until 7:00pm. Is the motivation for approval a financial decision? If so, for whom? Not for the taxpayers who live near the site, as their property values will plummet. Will the township revise these owners' taxable values if the site is approved?

The Summary of Request states "based on the owners anticipated needs, the activities will occur over approximately a 5 year period." A pertinent question is, why the owners of the the proposed sand and gravel pit needs are greater than the needs of the adjacent property owners? Residents, who, by the way, have the right to assume that purchasing residences near the agricultural zone would allow for open land, open views; and a quiet environment free from the eyesore, noise, road deterioration and pollution of a pit operation. How is this decision-making process undertaken by the commissioners? Whose rights have precedence? I've owned my property for more than twenty years in Union Township: Is longevity a consideration in the decision-making process?

Also, how is an open-ended declaration of "approximately 5 years" measured? Will the commission demand a definite end time to the permit, if they approve it? Will the commission restrict the unimaginable proposed daily hours of operation of 7am-7pm? What enforcement mechanisms will be utilized?

The property in question was placed for sale recently, as indicated by the For Sale sign situated on the corner of Lincoln and Millbrook Roads' electrical pole. Will the township planning commission and/or trustees determine if the special permit is being sought in an attempt to increase the value of that property for sale? And, if so, will the township apply all conditions/restrictions to the potential new owners?

Surrounding agricultural property is for sale by auction on December 11, 2019. This special use permit could set a precedent for the surrounding agricultural properties to initiate sand and gravel pits. This, and subsequent projects then could impact many more people in Union Township, as well residents in surrounding townships and areas. This potential leapfrogging would prove devastatingly detrimental. Would this commission limit the number of township agricultural acres that can be transformed into sand and gravel pits?

There are concerns regarding the "unusable excavated materials will be brought in from the owner's active construction site to refill the excavated areas" (page 1, summary application request). According to the township planner these materials will not be inspected prior to or during refill activities; and, only upon complaints by witnesses would any investigations occur. Will this process also be categorized as "self restricted"? As the suggested time frame of 7am-7pm is "self restricted"? What prevents the area from becoming a landfill? The application is limited in details, and this project sounds to me like a football game with no referees. I am aware that there is a permit process for reuse of materials. But said permit and a special use permit without enforcement procedures are "un-usable".

In the interest of transparency, I'm wondering what is the ratio of special use permits submissions to Union Township, to the number of special use permits granted? Additionally, how many of those granted permits were opposed by the public?

Clearly, I'm adamantly opposed to having a sand and gravel pit operation as a next door neighbor. However, I'm wondering if my rights, and, if my opinion, have any impact on the outcome of the granting of this proposal.

A handwritten signature in blue ink, appearing to be a stylized name, possibly "D. P.". The signature is written in a cursive, somewhat abstract style with several loops and a long horizontal stroke at the end.

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Submission for Planning Commission Packet 12/17/2019
Date: Wednesday, December 11, 2019 5:01:26 PM

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Denise Richards <2283dar@gmail.com>
Sent: Wednesday, December 11, 2019 4:02 PM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Subject: Submission for Planning Commission Packet 12/17/2019

<https://salidadailypost.com/2017/04/10/letter-physician-warns-of-adverse-health-effects-of-proposed-gravel-pit/>

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Submission for 12/17/19 Planning Commission Packet
Date: Wednesday, December 11, 2019 5:01:52 PM

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Denise Richards <2283dar@gmail.com>
Sent: Wednesday, December 11, 2019 4:10 PM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Subject: Submission for 12/17/19 Planning Commission Packet

Please submit and include attached documents to packets. Thank you.

Denise Richards
Union Township Resident

<https://www.castanet.net/news/Homeopathy/37167/Dangers-of-gravel-pit-dust-explored>

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: 12/17/19 Planning meeting submission
Date: Wednesday, December 11, 2019 5:02:09 PM

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Denise Richards <2283dar@gmail.com>
Sent: Wednesday, December 11, 2019 4:22 PM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Subject: 12/17/19 Planning meeting submission

Please include the following in the packet for the above meeting.

Sincerely,

Denise Richards
Union Township Resident

<https://www.countynewsonline.ca/opinion-living-near-a-gravel-pit-2/>

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Submission for Planning Commission Packet 12/17/19
Date: Wednesday, December 11, 2019 5:02:27 PM

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Denise Richards <2283dar@gmail.com>
Sent: Wednesday, December 11, 2019 4:37 PM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Subject: Submission for Planning Commission Packet 12/17/19

Please submit to packet for the 12/17/19 planning commission meeting.

Denise Richards
Union Township Resident

<https://www.sltrib.com/news/politics/2018/12/03/lehis-assurance-that/>

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Zalud Sand Pit
Date: Wednesday, December 11, 2019 1:09:17 PM

Add to packet as comments.

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Schwerin, Gary (EGLE) <SchwerinG@michigan.gov>
Sent: Wednesday, December 11, 2019 7:46 AM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Cc: Confer, Trisha (EGLE) <ConferT@michigan.gov>
Subject: Zalud Sand Pit

Mr. Gallinat,

Thank you for meeting with me on Friday and discussing the proposed special use permit application for sand and gravel pit operations. The reclamation of the cell described in the Summary of Request portion of the application is vague in its description. The application states "Un-usable excavated materials will be brought in from the owner's active construction sites to refill the excavated areas." Please ensure the owner understands the reclamation materials need to be inert material as described in Part 115, Section 11504 of Act 451 of 1994. This section generally describes inert material as rock; trees, stumps, and other similar land-clearing debris, which is placed at least 3 feet above the groundwater table; uncontaminated excavated soil; uncontaminated construction brick, masonry, pavement, or broken concrete that does not have exposed reinforcing bar; asphalt or concrete pavement removed from a public right-of-way that has been stockpiled or crushed for reuse as aggregate and does not contain exposed reinforcement bar. If you have any questions, feel free to contact me. Thank you.

Gary Schwerin
Senior Environmental Engineer
Materials Management Division
Michigan Department of Environment, Great Lakes, and Energy
586-243-2641; schwering@michigan.gov



CMS & D

SURVEYING/ENGINEERING

510 West Pickard, Mt. Pleasant, MI 48858

Phone: 989-775-0756, Fax: 989-775-5012 Email: info@cms-d.com

January 15, 2018

Attn: Union Township Planning Commission
c/o Peter Gallinat
Union Charter Township
2010 South Lincoln Road
Mt. Pleasant, Michigan 48858

Re: Request to Withdraw SUP-2018-01 and Related Site Plan.

Members,

On behalf of the Land Owners James and Daniel Zalud, we wish to formally withdraw the Special Use Application for the +/- 40 acre parcel of land in the Northeast Quadrant of Lincoln and Millbrook Roads, being the Southwest ¼ of the Southwest ¼ of Section 33, T.14 N.- R.04 W., Union Township, Isabella County, Michigan.

Based on the information provided by the public of Bald Eagles frequenting the area, we have looked into the proposed mining activities as it relates to active nesting of Bald Eagles. There are Specific Laws and Guidelines related to active nests and their isolation. The Special Use and Site plan will remain withdrawn until such time that a Qualified Environmental Specialist clears the location and activity and can assure the property owners that no State/Federal Laws and/or Guidelines are being broken.

We appreciate the time and effort that the Planning Commissioners and Township Staff have spent on this item, but we would rather err on the side of caution and withdraw the application.

Submitted on Behalf of,
James and Daniel Zalud

Central Michigan Surveying & Development Company, Inc.

Timothy Bebee
President

APPLICATION FOR A SPECIAL USE PERMIT

I (we) JAMES ZALUD & JEREMY ZALUD OWNERS OF PROPERTY AT
14-033-30-006-00 LEGAL DESCRIPTION AS FOLLOWS:

SEE ATTACHED



Respectfully request that a determination be made by the Township Board on the following request:

- I. Special Use For SAND AND GRAVEL PIT
II. Junk Yard Permit

Note: Use one of the sections below as appropriate. If space provided is inadequate, use a separate sheet.

I. Special Use Permit is requested for SEE ATTACHED

Give reason why you feel permit should be granted: SEE ATTACHED

II. Junk Yard Permit requirements are:

Location of property to be used

Zoning of the area involved is AGRICULTURAL (AG)

Zoning of the abutting areas AGRICULTURAL (AG)

Fees Signature of Applicant James Zalud

Date 11-22-19

PROPOSED SPECIAL USE FOR SAND AND GRAVEL PIT OPERATIONS

LEGAL DESCRIPTION OF THE DEVELOPMENT PARCEL PROVIDED:

The Southwest ¼ of the Southwest ¼ of Section 33, T.14 N.- R.4 W., Union Township, Isabella County, Michigan.

Summary of Request

This request is for the Special Use of a Sand and Gravel Mining Operation to be allowed within the 40+/- Acre Agricultural Parcel located at the corner of Leaton Road and Millbrook Road. The Requested Special Use will be restricted to the most Northeasterly +/- 10 acres of the overall project site. The sand and aggregate extraction will be staged in the manner shown in the plan set. Based on the owners anticipated needs, the activities will occur over approximately a 5 year period. The active cell(s) are approximately 2.5 acres in size. The first cell will be stripped of topsoil and the screening berms will be built and stabilized. As the cell is mined of its sand and gravel, reclamation of the cell will also be occurring. Un-usable excavated materials will be brought in from the owner's active construction sites to refill the excavated areas. This fill will be placed, bringing the area back to grade and re-top soiled by spreading the topsoil from the screening berms. Final reclamation will be to bring the project area back into agricultural use. Based on the concerns posed by the public during the 2017 special use submittal, the request has been reduce in size and staged in smaller cells. This gives the Township an opportunity to visually see how the overall process will move from extraction to reclamation without opening too large of an area.

Screening and buffering will be completed with berming and distance. The active cells will be approximately 600+ feet away from the adjacent residences. The access drive will be located +/- 600 feet East of Lincoln Road and exit onto Millbrook Road. This means that all activities will be 2 football fields away from the nearest residents.

At the time of the 2017 special use submittal, there were individuals, which had sent in photos of bald eagles in and around the area. The indication was that the eagles shown in the photos were all located on the proposed project site and it was implied that this was a nesting area. Some of the eagles photographed may have been on the project site, but based on the landmarks shown in the photos, some were not. At the time, we were not prepared to address the potential impact on Bald Eagles or their nesting. Since that time, we have obtained the "National Bald Eagle Management Guidelines" by the U.S. Fish and Wildlife Service, dated May 2007. This is a guide that has been "... based on several decades of behavioral observations, science and conservation measures to avoid or minimize adverse impacts to bald eagles." The guide has broken down activities into 8 general categories. Each category has its own isolation distance. Mining falls under Category B. Category B states that a minimum distance of 660 feet should be allowed between the mining operation and an Eagles Nest. We have provided the Guideline Document to Township Staff as a PDF to distribute.

As an example, there is an active eagle's nest just Southeast of Ithaca, Michigan. The new soybean processing plant has been under construction for several years and is adjacent to this nest. The isolation distance was used here to protect the nesting pair. During construction, all means of heavy equipment have been used, including high lift cranes, excavators, dozers, ect.

Give Reason why you feel permit should be granted:

1. The special use shall be designed, constructed, operated, and maintained in a manner harmonious with the character of adjacent property and the surrounding area.

A mining operation is different from the agricultural and residential uses currently adjacent to the parcel. The key to allowing this type of special use is buffering/screening, limiting access points and hours of operation. Mining of sand and gravel will typically occur from the beginning of April to the End of November. The operation will not occur on a continuous basis during this period but will be operated as the need for material arises. The hours of operation will be self restricted to by from 7:00 AM to 7:00 PM.

2. The special use shall not change the essential character of the surrounding area.

During the active mining, there will be a change. However, mining activities will be limited to a 2.5 acre cell for mining at any one time. This will limit the exposure to that change. The closure plan for the project is to bring the parcel full circle back to being a productive agricultural parcel and thus will not change the essential character of the surrounding area once completed.

3. The special use shall not interfere with the general enjoyment of adjacent property.

The special use's design and operation that is being proposed will limit the affect on adjacent parcels and allow the three uses (Agricultural, Residential and Mining) to co-exist. The mining activity will not limit any adjacent property from continuing to function as it always has.

4. The special use shall not be hazardous to adjacent property or involve uses, activities, materials, or equipment that will be detrimental to the health, safety, or welfare of persons or property through the excessive production of traffic, noise, smoke, odor, fumes, or glare.

The proposed design will require the project to be screened, by berming, nearing surrounding the active cell. The berming will create a physical barrier between the project and the adjacent properties. All activities will be a minimum of 50 feet from any property line and more than 2 football fields away from and residence.

5. The special use shall be adequately served by essential public facilities and services; or it shall be demonstrated that the person responsible for the proposed special use shall be able to continually provide adequate services and facilities deemed essential to the special use under consideration. The said facilities or services shall be approved by the Central Michigan District Health Department.

The proposed mining operation will not require these types of public facilities and services. As there is a requirement of no permanent structures to be placed as part of the operation, only a temporary job site bathroom will be placed for employees.

6. When deemed necessary by the Township Board or Planning Commission, the use shall be adequately screened by distance and landscaping to protect the rights of all adjoining property.

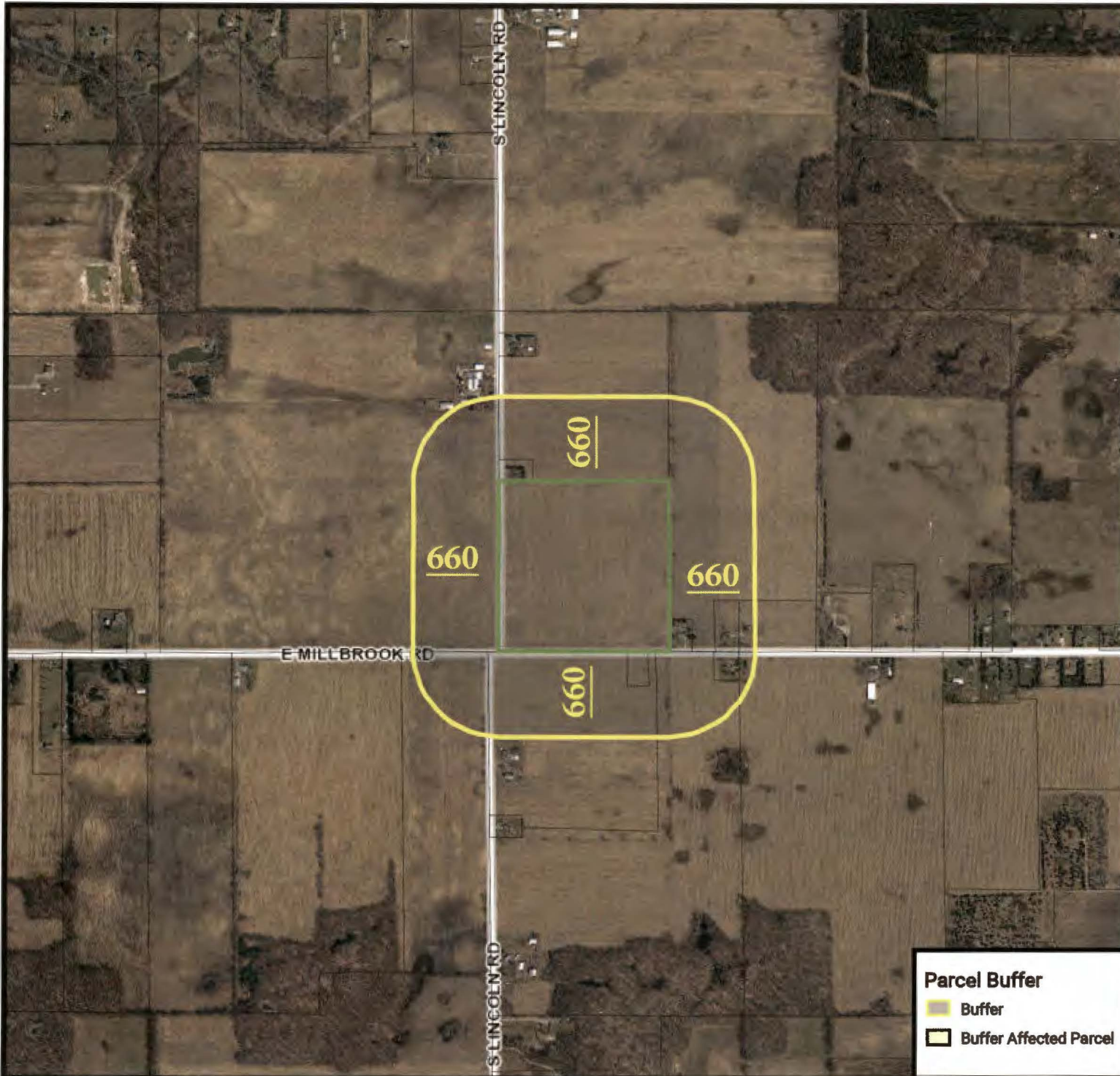
As part of the Special Use Criteria for mining operations, specific expanded setbacks or buffers are already required.

7. The Township Board or Planning Commission, in connection with approval of any application, may require reasonable undertaking by the applicant to guarantee and assure by agreement, including a performance bond to be posted by the applicant or by some other reasonable surety arrangement at appropriate stages of the planned development, that the development will be executed in accordance with the approved plan.

The Owner/Operator would be happy to discuss these types of additional requirements.

8. That such use will be an asset to the Township.

Although a sand and gravel mining operation may not be the most desirable neighbor for everyone, there is a need for a reliable source of construction grade material within the Township. This location, being within Union Township and its proximity to the developing portions of the City of Mt. Pleasant and Central Michigan University will be an asset to the Township, the City and CMU.



County of Isabella



Map Publication:
11/26/2019 11:45 AM



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Disclaimer: This map does not represent a survey or legal document and is provided on an "as is" basis. Isabella County expresses no warranty for the information displayed on this map document.

Parcel Buffer

-  Buffer
-  Buffer Affected Parcel



County of Isabella



Map Publication:
11/26/2019 12:02 PM



powered by
FetchGIS 

Parcel Buffer

-  Buffer
-  Buffer Affected Parcel

Disclaimer: This map does not represent a survey or legal document and is provided on an "as is" basis. Isabella County expresses no warranty for the information displayed on this map document.

UNION TOWNSHIP PUBLIC HEARING NOTICE -SPECIAL USE PERMIT

NOTICE is hereby given that a Public Hearing will be held on Tuesday, December 17, 2019, at 7:00 p.m. at the Union Township Hall located at 2010 South Lincoln Road, Mt. Pleasant, Michigan, before the Union Township Planning Commission for the purpose of hearing any interested persons in the following request for a Special Use Permit, as allowed by the Union Township Zoning Ordinance 1991-5 as amended.

Requested by **James Zalud and Daniel Zalud**, a Special Use Permit in an AG (Agricultural District) for a Sand and Gravel Pit

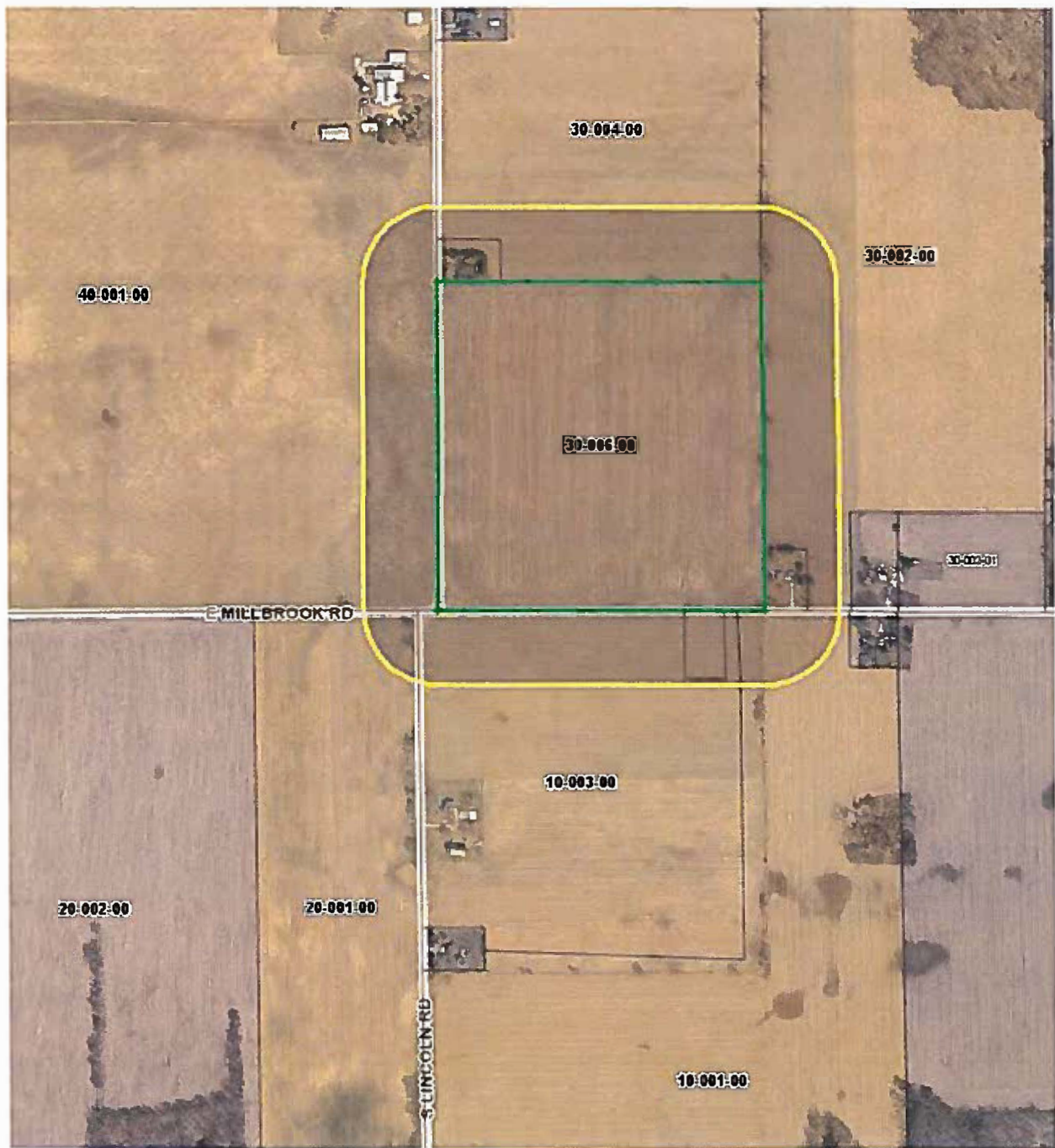
Legal Description of property: T14N R4W, SEC 33; SW 1/4 OF SW 1/4

This property is located at: S. Lincoln Rd. MT PLEASANT, MI 48858
PID 14-033-30-006-00

All interested persons may submit their views in person, in writing, or by signed proxy prior to the public hearing or at the public hearing.

All materials concerning this request may be seen at the Union Township Hall, located at 2010 S. Lincoln Road, Mt. Pleasant, Michigan, between the hours of 8:30 a.m. and 4:30 p.m., Monday through Friday. Phone (989) 772 4600 extension 241.

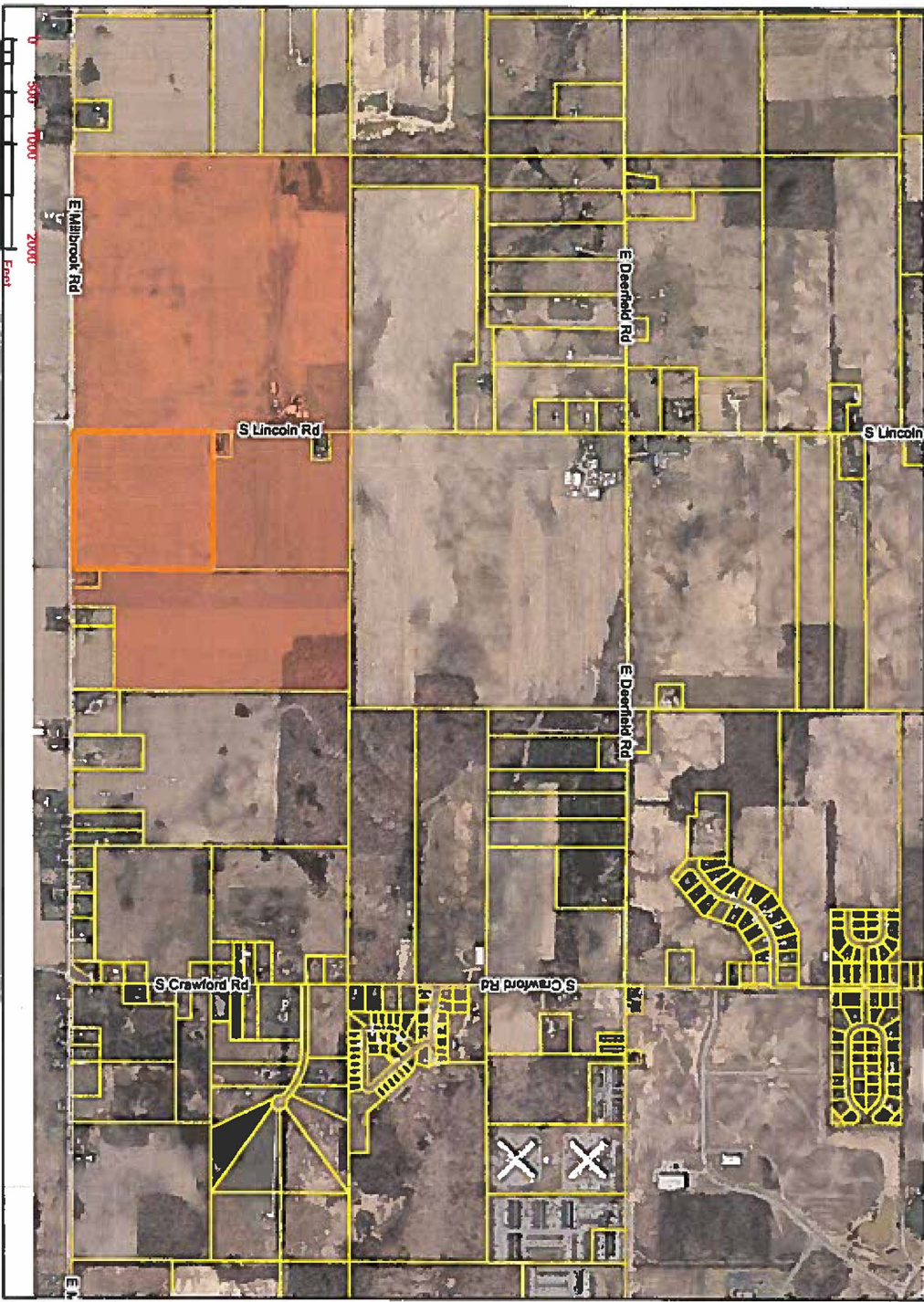
Peter Gallinat,
Township Planner



The above parcel highlighted in **GREEN** is the subject parcel PID 14-033-30-006-00. Corner of Lincoln and Millbrook Rd.

The **YELLOW** border represents a 300ft radius. Property owners within the 300ft radius are sent notice of the public hearing.

UNION MAP 2019





BELLINGER MARVIN & SALLY
6415 S LINCOLN RD
MT PLEASANT, MI 48858

BELLINGER EDWARD
6183 S LINCOLN RD
MT PLEASANT, MI 48858

RECKER JAMES
5620 S LINCOLN
MT PLEASANT, MI 48858

BELLINGAR LARRY G &
3300 S STATE
DAVISON, MI 48423

RECKER JAMES SR & PHYLLIS TRUST
5620 S LINCOLN RD
MT PLEASANT, MI 48858

RECKER RAYMOND & ANNA
5089 S LINCOLN RD
MT PLEASANT, MI 48858

RICHARDS DENISE A TRUST
2283 E MILLBROOK RD
MT PLEASANT, MI 48858

RECKER JAMES SR & PHYLLIS TRUST
5620 S LINCOLN RD
MT PLEASANT, MI 48858

RECKER JAMES SR & PHYLLIS TRUST
5620 S LINCOLN RD
MT PLEASANT, MI 48858

ZALUD JAMES & ZALUD JEREMY M
6422 S WHITEVILLE RD
MOUNT PLEASANT, MI 48858

AFFIDAVIT OF PUBLICATION

2125 Butterfield Dr, Suite 102N • Troy MI 48084

CHARTER TOWNSHIP OF UNION
2010 S Lincoln

Mount Pleasant, MI 48858
Attention: KIM SMITH

STATE OF MICHIGAN,
COUNTY OF ISABELLA

The undersigned Gandy Slater Gandy Slater, being duly sworn the he/she is the principal clerk of Morning Sun, morningstarpublishing.com, published in the English language for the dissemination of local or transmitted news and intelligence of a general character, which are duly qualified newspapers, and the annexed hereto is a copy of certain order, notice, publication or advertisement of:

CHARTER TOWNSHIP OF UNION

Published in the following edition(s):

Morning Sun 12/02/19
morningstarpublishing.com 12/02/19

TINA M CROWN
Notary Public - Michigan
Lapeer County
My Commission Expires Mar 30, 2021
Acting in the County of Oakland

Sworn to the subscribed before me this 9th December 2019

Tina M Crown

Notary Public, State of Michigan
Acting in Oakland County

Advertisement Information

Client Id: 531226 **Ad Id:** 1918878 **PO:** **Sales Person:** 200308

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Peter Gallinat,
Township Planner

Published December 2, 2019

NATIONAL BALD EAGLE MANAGEMENT GUIDELINES

U.S. Fish and Wildlife Service

May 2007

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INTRODUCTION

The bald eagle (*Haliaeetus leucocephalus*) is protected by the Bald and Golden Eagle Protection Act (Eagle Act) and the Migratory Bird Treaty Act (MBTA). The MBTA and the Eagle Act protect bald eagles from a variety of harmful actions and impacts. The U.S. Fish and Wildlife Service (Service) developed these National Bald Eagle Management Guidelines to advise landowners, land managers, and others who share public and private lands with bald eagles when and under what circumstances the protective provisions of the Eagle Act may apply to their activities. A variety of human activities can potentially interfere with bald eagles, affecting their ability to forage, nest, roost, breed, or raise young. The Guidelines are intended to help people minimize such impacts to bald eagles, particularly where they may constitute "disturbance," which is prohibited by the Eagle Act.

The Guidelines are intended to:

- (1) Publicize the provisions of the Eagle Act that continue to protect bald eagles, in order to reduce the possibility that people will violate the law,
- (2) Advise landowners, land managers and the general public of the potential for various human activities to disturb bald eagles, and
- (3) Encourage additional nonbinding land management practices that benefit bald eagles (see Additional Recommendations section).

While the Guidelines include general recommendations for land management practices that will benefit bald eagles, the document is intended primarily as a tool for landowners and planners who seek information and recommendations regarding how to avoid disturbing bald eagles. Many States and some tribal entities have developed state-specific management plans, regulations, and/or guidance for landowners and land managers to protect and enhance bald eagle habitat, and we encourage the continued development and use of these planning tools to benefit bald eagles.

Adherence to the Guidelines herein will benefit individuals, agencies, organizations, and companies by helping them avoid violations of the law. However, the Guidelines themselves are not law. Rather, they are recommendations based on several decades of behavioral observations, science, and conservation measures to avoid or minimize adverse impacts to bald eagles.

The U.S. Fish and Wildlife Service strongly encourages adherence to these guidelines to ensure that bald and golden eagle populations will continue to be sustained. The Service realizes there may be impacts to some birds even if all reasonable measures are taken to avoid such impacts. Although it is not possible to absolve individuals and entities from liability under the Eagle Act or the MBTA, the Service exercises enforcement discretion to focus on those individuals, companies, or agencies that take migratory birds without regard for the consequences of their actions and the law, especially when conservation measures, such as these Guidelines, are available, but have not been implemented. The Service will prioritize its enforcement efforts to focus on those individuals or entities who take bald eagles or their parts, eggs, or nests without implementing appropriate measures recommended by the Guidelines.

The Service intends to pursue the development of regulations that would authorize, under limited circumstances, the use of permits if “take” of an eagle is anticipated but unavoidable. Additionally, if the bald eagle is delisted, the Service intends to provide a regulatory mechanism to honor existing (take) authorizations under the Endangered Species Act (ESA).

During the interim period until the Service completes a rulemaking for permits under the Eagle Act, the Service does not intend to refer for prosecution the incidental “take” of any bald eagle under the MBTA or Eagle Act, if such take is in full compliance with the terms and conditions of an incidental take statement issued to the action agency or applicant under the authority of section 7(b)(4) of the ESA or a permit issued under the authority of section 10(a)(1)(B) of the ESA.

The Guidelines are applicable throughout the United States, including Alaska. The primary purpose of these Guidelines is to provide information that will minimize or prevent violations only of *Federal* laws governing bald eagles. In addition to Federal laws, many states and some smaller jurisdictions and tribes have additional laws and regulations protecting bald eagles. In some cases those laws and regulations may be more protective (restrictive) than these Federal guidelines. If you are planning activities that may affect bald eagles, we therefore recommend that you contact both your nearest U.S. Fish and Wildlife Service Field Office (see the contact information on p.16) and your state wildlife agency for assistance.

LEGAL PROTECTIONS FOR THE BALD EAGLE

The Bald and Golden Eagle Protection Act

The Eagle Act (16 U.S.C. 668-668c), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from “taking” bald eagles, including their parts, nests, or eggs. The Act provides criminal and civil penalties for persons who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof.” The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” “Disturb” means:

“Disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle’s return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment.

A violation of the Act can result in a criminal fine of \$100,000 (\$200,000 for organizations), imprisonment for one year, or both, for a first offense. Penalties increase substantially for additional offenses, and a second violation of this Act is a felony.

The Migratory Bird Treaty Act

The MBTA (16 U.S.C. 703-712), prohibits the taking of any migratory bird or any part, nest, or egg, except as permitted by regulation. The MBTA was enacted in 1918; a 1972 agreement supplementing one of the bilateral treaties underlying the MBTA had the effect of expanding the scope of the Act to cover bald eagles and other raptors. Implementing regulations define "take" under the MBTA as "pursue, hunt, shoot, wound, kill, trap, capture, possess, or collect."

Copies of the Eagle Act and the MBTA are available at: <http://permits.fws.gov/ltr/ltr.shtml>.

State laws and regulations

Most states have their own regulations and/or guidelines for bald eagle management. Some states may continue to list the bald eagle as endangered, threatened, or of special concern. If you plan activities that may affect bald eagles, we urge you to familiarize yourself with the regulations and/or guidelines that apply to bald eagles in your state. Your adherence to the Guidelines herein does not ensure that you are in compliance with state laws and regulations because state regulations can be more specific and/or restrictive than these Guidelines.

NATURAL HISTORY OF THE BALD EAGLE

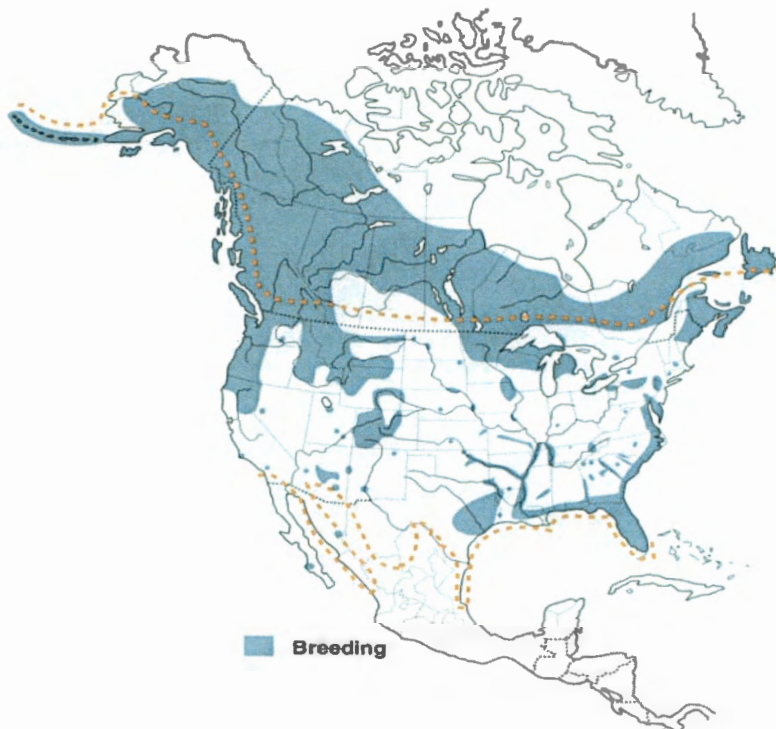
Bald eagles are a North American species that historically occurred throughout the contiguous United States and Alaska. After severely declining in the lower 48 States between the 1870s and the 1970s, bald eagles have rebounded and re-established breeding territories in each of the lower 48 states. The largest North American breeding populations are in Alaska and Canada, but there are also significant bald eagle populations in Florida, the Pacific Northwest, the Greater Yellowstone area, the Great Lakes states, and the Chesapeake Bay region. Bald eagle distribution varies seasonally. Bald eagles that nest in southern latitudes frequently move northward in late spring and early summer, often summering as far north as Canada. Most eagles that breed at northern latitudes migrate southward during winter, or to coastal areas where waters remain unfrozen. Migrants frequently concentrate in large numbers at sites where food is abundant and they often roost together communally. In some cases, concentration areas are used year-round: in summer by southern eagles and in winter by northern eagles.

Juvenile bald eagles have mottled brown and white plumage, gradually acquiring their dark brown body and distinctive white head and tail as they mature. Bald eagles generally attain adult plumage by 5 years of age. Most are capable of breeding at 4 or 5 years of age, but in healthy populations they may not start breeding until much older. Bald eagles may live 15 to 25 years in the wild. Adults weigh 8 to 14 pounds (occasionally reaching 16 pounds in Alaska) and have wingspans of 5 to 8 feet. Those in the northern range are larger than those in the south, and females are larger than males.

Where do bald eagles nest?

Breeding bald eagles occupy "territories," areas they will typically defend against intrusion by other eagles. In addition to the active nest, a territory may include one or more alternate nests (nests built or maintained by the eagles but not used for nesting in a given year). The Eagle Act prohibits removal or destruction of both active and alternate bald eagle nests. Bald eagles exhibit high nest site fidelity and nesting territories are often used year after year. Some territories are known to have been used continually for over half a century.

Bald eagles generally nest near coastlines, rivers, large lakes or streams that support an adequate food supply. They often nest in mature or old-growth trees; snags (dead trees); cliffs; rock promontories; rarely on the ground; and with increasing frequency on human-made structures such as power poles and communication towers. In forested areas, bald eagles often select the tallest trees with limbs strong enough to support a nest that can weigh more than 1,000 pounds. Nest sites typically include at least one perch with a clear view of the water where the eagles usually forage. Shoreline trees or snags located in reservoirs provide the visibility and accessibility needed to locate aquatic prey. Eagle nests are constructed with large sticks, and may be lined with moss, grass, plant stalks, lichens, seaweed, or sod. Nests are usually about 4-6 feet in diameter and 3 feet deep, although larger nests exist.



Copyright *Birds of North America*, 2000

The range of breeding bald eagles in 2000 (shaded areas). This map shows only the larger concentrations of nests; eagles have continued to expand into additional nesting territories in many states. The dotted line represents the bald eagle's wintering range.

When do bald eagles nest?

Nesting activity begins several months before egg-laying. Egg-laying dates vary throughout the U.S., ranging from October in Florida, to late April or even early May in the northern United States. Incubation typically lasts 33-35 days, but can be as long as 40 days. Eaglets make their first unsteady flights about 10 to 12 weeks after hatching, and fledge (leave their nests) within a few days after that first flight. However, young birds usually remain in the vicinity of the nest for several weeks after fledging because they are almost completely dependent on their parents for food until they disperse from the nesting territory approximately 6 weeks later.

The bald eagle breeding season tends to be longer in the southern U.S., and re-nesting following an unsuccessful first nesting attempt is more common there as well. The following table shows the timing of bald eagle breeding seasons in different regions of the country. The table represents the range of time within which the majority of nesting activities occur in each region and does not apply to any specific nesting pair. Because the timing of nesting activities may vary within a given region, you should contact the nearest U.S. Fish and Wildlife Service Field Office (see page 16) and/or your state wildlife conservation agency for more specific information on nesting chronology in your area.

Chronology of typical reproductive activities of bald eagles in the United States.

Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.
SOUTHEASTERN U.S. (FL, GA, SC, NC, AL, MS, LA, TN, KY, AR, eastern 2 of TX)											
Nest Building											
Egg Laying/Incubation											
Hatching/Rearing Young											
Fledging Young											
CHESAPEAKE BAY REGION (NC, VA, MD, DE, southern 2 of NJ, eastern 2 of PA, panhandle of WV)											
Nest Building											
Egg Laying/Incubation											
Hatching/Rearing Young											
Fledging Young											
NORTHERN U.S. (ME, NH, MA, RI, CT, NY, northern 2 of NJ, western 2 of PA, OH, WV exc. panhandle, IN, IL, MI, WI, MN, IA, MO, ND, SD, NB, KS, CO, UT)											
Nest Building											
Egg Laying/Incubation											
Hatching/Rearing Young											
Fledging Young											
PACIFIC REGION (WA, OR, CA, ID, MT, WY, NV)											
Nest Building											
Egg Laying/Incubation											
Hatching/Rearing Young											
Fledging Young											
SOUTHWESTERN U.S. (AZ, NM, OK panhandle, western 2 of TX)											
Nest Building											
Egg Laying/Incubation											
Hatching/Rearing Young											
Fledging Young											
ALASKA											
Nest Building											
Egg Laying/Incubation											
Hatching/Rearing Young											
Ing Young				Fledg-							
Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.

How many chicks do bald eagles raise?

The number of eagle eggs laid will vary from 1-3, with 1-2 eggs being the most common. Only one eagle egg is laid per day, although not always on successive days. Hatching of young occurs on different days with the result that chicks in the same nest are sometimes of unequal size. The overall national fledging rate is approximately one chick per nest, annually, which results in a healthy expanding population.

What do bald eagles eat?

Bald eagles are opportunistic feeders. Fish comprise much of their diet, but they also eat waterfowl, shorebirds/colonial waterbirds, small mammals, turtles, and carrion. Because they are visual hunters, eagles typically locate their prey from a conspicuous perch, or soaring flight, then swoop down and strike. Wintering bald eagles often congregate in large numbers along streams to feed on spawning salmon or other fish species, and often gather in large numbers in areas below reservoirs, especially hydropower dams, where fish are abundant. Wintering eagles also take birds from rafts of ducks at reservoirs and rivers, and congregate on melting ice shelves to scavenge dead fish from the current or the soft melting ice. Bald eagles will also feed on carcasses along roads, in landfills, and at feedlots.

During the breeding season, adults carry prey to the nest to feed the young. Adults feed their chicks by tearing off pieces of food and holding them to the beaks of the eaglets. After fledging, immature eagles are slow to develop hunting skills, and must learn to locate reliable food sources and master feeding techniques. Young eagles will congregate together, often feeding upon easily acquired food such as carrion and fish found in abundance at the mouths of streams and shallow bays and at landfills.

The impact of human activity on nesting bald eagles

During the breeding season, bald eagles are sensitive to a variety of human activities. However, not all bald eagle pairs react to human activities in the same way. Some pairs nest successfully just dozens of yards from human activity, while others abandon nest sites in response to activities much farther away. This variability may be related to a number of factors, including visibility, duration, noise levels, extent of the area affected by the activity, prior experiences with humans, and tolerance of the individual nesting pair. The relative sensitivity of bald eagles during various stages of the breeding season is outlined in the following table.

Nesting Bald Eagle Sensitivity to Human Activities

Phase	Activity	Sensitivity to Human Activity	Comments
I	Courtship and Nest Building	Most sensitive period; likely to respond negatively	Most critical time period. Disturbance is manifested in nest abandonment. Bald eagles in newly established territories are more prone to abandon nest sites.
II	Egg laying	Very sensitive period	Human activity of even limited duration may cause nest desertion and abandonment of territory for the breeding season.
III	Incubation and early nestling period (up to 4 weeks)	Very sensitive period	Adults are less likely to abandon the nest near and after hatching. However, flushed adults leave eggs and young unattended; eggs are susceptible to cooling, loss of moisture, overheating, and predation; young are vulnerable to elements.
IV	Nestling period, 4 to 8 weeks	Moderately sensitive period	Likelihood of nest abandonment and vulnerability of the nestlings to elements somewhat decreases. However, nestlings may miss feedings, affecting their survival.
V	Nestlings 8 weeks through fledging	Very sensitive period	Gaining flight capability, nestlings 8 weeks and older may flush from the nest prematurely due to disruption and die.

If agitated by human activities, eagles may inadequately construct or repair their nest, may expend energy defending the nest rather than tending to their young, or may abandon the nest altogether. Activities that cause prolonged absences of adults from their nests can jeopardize eggs or young. Depending on weather conditions, eggs may overheat or cool too much and fail to hatch. Unattended eggs and nestlings are subject to predation. Young nestlings are particularly vulnerable because they rely on their parents to provide warmth or shade, without which they may die as a result of hypothermia or heat stress. If food delivery schedules are interrupted, the young may not develop healthy plumage, which can affect their survival. In addition, adults startled while incubating or brooding young may damage eggs or injure their young as they abruptly leave the nest. Older nestlings no longer require constant attention from the adults, but they may be startled by loud or intrusive human activities and prematurely jump from the nest before they are able to fly or care for themselves. Once fledged, juveniles range up to ¼ mile from the nest site, often to a site with minimal human activity. During this period, until about six weeks after departure from the nest, the juveniles still depend on the adults to feed them.

The impact of human activity on foraging and roosting bald eagles

Disruption, destruction, or obstruction of roosting and foraging areas can also negatively affect bald eagles. Disruptive activities in or near eagle foraging areas can interfere with feeding, reducing chances of survival. Interference with feeding can also result in reduced productivity (number of young successfully fledged). Migrating and wintering bald eagles often congregate at specific sites for purposes of feeding and sheltering. Bald eagles rely on established roost sites because of their proximity to sufficient food sources. Roost sites are usually in mature trees where the eagles are somewhat sheltered from the wind and weather. Human activities near or within communal roost sites may prevent eagles

from feeding or taking shelter, especially if there are not other undisturbed and productive feeding and roosting sites available. Activities that permanently alter communal roost sites and important foraging areas can altogether eliminate the elements that are essential for feeding and sheltering eagles.

Where a human activity agitates or bothers roosting or foraging bald eagles to the degree that causes injury or substantially interferes with breeding, feeding, or sheltering behavior and causes, or is likely to cause, a loss of productivity or nest abandonment, the conduct of the activity constitutes a violation of the Eagle Act's prohibition against disturbing eagles. The circumstances that might result in such an outcome are difficult to predict without detailed site-specific information. If your activities may disturb roosting or foraging bald eagles, you should contact your local Fish and Wildlife Service Field Office (see page 16) for advice and recommendations for how to avoid such disturbance.

RECOMMENDATIONS FOR AVOIDING DISTURBANCE AT NEST SITES

In developing these Guidelines, we relied on existing state and regional bald eagle guidelines, scientific literature on bald eagle disturbance, and recommendations of state and Federal biologists who monitor the impacts of human activity on eagles. Despite these resources, uncertainties remain regarding the effects of many activities on eagles and how eagles in different situations may or may not respond to certain human activities. The Service recognizes this uncertainty and views the collection of better biological data on the response of eagles to disturbance as a high priority. To the extent that resources allow, the Service will continue to collect data on responses of bald eagles to human activities conducted according to the recommendations within these Guidelines to ensure that adequate protection from disturbance is being afforded, and to identify circumstances where the Guidelines might be modified. These data will be used to make future adjustments to the Guidelines.

To avoid disturbing nesting bald eagles, we recommend (1) keeping a distance between the activity and the nest (distance buffers), (2) maintaining preferably forested (or natural) areas between the activity and around nest trees (landscape buffers), and (3) avoiding certain activities during the breeding season. The buffer areas serve to minimize visual and auditory impacts associated with human activities near nest sites. Ideally, buffers would be large enough to protect existing nest trees and provide for alternative or replacement nest trees.

The size and shape of effective buffers vary depending on the topography and other ecological characteristics surrounding the nest site. In open areas where there are little or no forested or topographical buffers, such as in many western states, distance alone must serve as the buffer. Consequently, in open areas, the distance between the activity and the nest may need to be larger than the distances recommended under Categories A and B of these guidelines (pg. 12) if no landscape buffers are present. The height of the nest above the ground may also ameliorate effects of human activities; eagles at higher nests may be less prone to disturbance.

In addition to the physical features of the landscape and nest site, the appropriate size for the distance buffer may vary according to the historical tolerances of eagles to human activities in particular localities, and may also depend on the location of the nest in relation

to feeding and roosting areas used by the eagles. Increased competition for nest sites may lead bald eagles to nest closer to human activity (and other eagles).

Seasonal restrictions can prevent the potential impacts of many shorter-term, obtrusive activities that do not entail landscape alterations (e.g. fireworks, outdoor concerts). In proximity to the nest, these kinds of activities should be conducted only outside the breeding season. For activities that entail both short-term, obtrusive characteristics and more permanent impacts (e.g., building construction), we recommend a combination of both approaches: retaining a landscape buffer *and* observing seasonal restrictions.

For assistance in determining the appropriate size and configuration of buffers or the timing of activities in the vicinity of a bald eagle nest, we encourage you to contact the nearest U.S. Fish and Wildlife Service Field Office (see page 16).

Existing Uses

Eagles are unlikely to be disturbed by routine use of roads, homes, and other facilities where such use pre-dates the eagles' successful nesting activity in a given area. Therefore, in most cases *ongoing* existing uses may proceed with the same intensity with little risk of disturbing bald eagles. However, some *intermittent, occasional, or irregular* uses that pre-date eagle nesting in an area may disturb bald eagles. For example: a pair of eagles may begin nesting in an area and subsequently be disturbed by activities associated with an annual outdoor flea market, even though the flea market has been held annually at the same location. In such situations, human activity should be adjusted or relocated to minimize potential impacts on the nesting pair.

ACTIVITY-SPECIFIC GUIDELINES

The following section provides the Service's management recommendations for avoiding bald eagle disturbance as a result of new or intermittent activities proposed in the vicinity of bald eagle nests. Activities are separated into 8 categories (A – H) based on the nature and magnitude of impacts to bald eagles that usually result from the type of activity. Activities with similar or comparable impacts are grouped together.

In most cases, impacts will vary based on the visibility of the activity from the eagle nest and the degree to which similar activities are already occurring in proximity to the nest site. Visibility is a factor because, in general, eagles are more prone to disturbance when an activity occurs in full view. For this reason, we recommend that people locate activities farther from the nest structure in areas with open vistas, in contrast to areas where the view is shielded by rolling topography, trees, or other screening factors. The recommendations also take into account the existence of similar activities in the area because the continued presence of nesting bald eagles in the vicinity of the existing activities indicates that the eagles in that area can tolerate a greater degree of human activity than we can generally expect from eagles in areas that experience fewer human impacts. To illustrate how these factors affect the likelihood of disturbing eagles, we have incorporated the recommendations for some activities into a table (categories A and B).

First, determine which category your activity falls into (between categories A – H). If the activity you plan to undertake is not specifically addressed in these guidelines, follow the recommendations for the most similar activity represented.

If your activity is under A or B, our recommendations are in table form. The vertical axis shows the degree of visibility of the activity from the nest. The horizontal axis (header row) represents the degree to which similar activities are ongoing in the vicinity of the nest. Locate the row that best describes how visible your activity will be from the eagle nest. Then, choose the column that best describes the degree to which similar activities are ongoing in the vicinity of the eagle nest. The box where the column and row come together contains our management recommendations for how far you should locate your activity from the nest to avoid disturbing the eagles. The numerical distances shown in the tables are the closest the activity should be conducted relative to the nest. In some cases we have included additional recommendations (other than recommended *distance* from the nest) you should follow to help ensure that your activity will not disturb the eagles.

Alternate nests

For activities that entail permanent landscape alterations that may result in bald eagle disturbance, these recommendations apply to both active and alternate bald eagle nests. Disturbance becomes an issue with regard to alternate nests if eagles return for breeding purposes and react to land use changes that occurred while the nest was inactive. The likelihood that an alternate nest will again become active decreases the longer it goes unused. If you plan activities in the vicinity of an alternate bald eagle nest and have information to show that the nest has not been active during the preceding 5 breeding seasons, the recommendations provided in these guidelines for avoiding disturbance around the nest site may no longer be warranted. The nest itself remains protected by other provisions of the Eagle Act, however, and may not be destroyed.

If special circumstances exist that make it unlikely an inactive nest will be reused before 5 years of disuse have passed, and you believe that the probability of reuse is low enough to warrant disregarding the recommendations for avoiding disturbance, you should be prepared to provide all the reasons for your conclusion, including information regarding past use of the nest site. Without sufficient documentation, you should continue to follow these guidelines when conducting activities around the nest site. If we are able to determine that it is unlikely the nest will be reused, we may advise you that the recommendations provided in these guidelines for avoiding disturbance are no longer necessary around that nest site.

This guidance is intended to minimize disturbance, as defined by Federal regulation. In addition to Federal laws, most states and some tribes and smaller jurisdictions have additional laws and regulations protecting bald eagles. In some cases those laws and regulations may be more protective (restrictive) than these Federal guidelines.

Temporary Impacts

For activities that have temporary impacts, such as the use of loud machinery, fireworks displays, or summer boating activities, we recommend seasonal restrictions. These types of activities can generally be carried out outside of the breeding season without causing disturbance. The recommended restrictions for these types of activities can be lifted for alternate nests within a particular territory, including nests that were attended during the current breeding season but not used to raise young, after eggs laid in another nest within the territory have hatched (depending on the distance between the alternate nest and the active nest).

In general, activities should be kept as far away from nest trees as possible; loud and disruptive activities should be conducted when eagles are not nesting; and activity between the nest and the nearest foraging area should be minimized. If the activity you plan to undertake is not specifically addressed in these guidelines, follow the recommendations for the most similar activity addressed, or contact your local U.S. Fish and Wildlife Service Field Office for additional guidance.

If you believe that special circumstances apply to your situation that increase or diminish the likelihood of bald eagle disturbance, or if it is not possible to adhere to the guidelines, you should contact your local Service Field Office for further guidance.

Category A:

- Building construction, 1 or 2 story, with project footprint of ½ acre or less.
- Construction of roads, trails, canals, power lines, and other linear utilities.
- Agriculture and aquaculture – new or expanded operations.
- Alteration of shorelines or wetlands.
- Installation of docks or moorings.
- Water impoundment.

Category B:

- Building construction, 3 or more stories.
- Building construction, 1 or 2 story, with project footprint of more than ½ acre.
- Installation or expansion of marinas with a capacity of 6 or more boats.
- Mining and associated activities.
- Oil and natural gas drilling and refining and associated activities.

	<i>If there is no similar activity within 1 mile of the nest</i>	<i>If there is similar activity closer than 1 mile from the nest</i>
<i>If the activity will be visible from the nest</i>	660 feet. Landscape buffers are recommended.	660 feet, or as close as existing tolerated activity of similar scope. Landscape buffers are recommended.
<i>If the activity will not be visible from the nest</i>	Category A: 330 feet. Clearing, external construction, and landscaping between 330 feet and 660 feet should be done outside breeding season. Category B: 660 feet.	330 feet, or as close as existing tolerated activity of similar scope. Clearing, external construction and landscaping within 660 feet should be done outside breeding season.

The numerical distances shown in the table are the closest the activity should be conducted relative to the nest.

Category C. Timber Operations and Forestry Practices

- Avoid clear cutting or removal of overstory trees within 330 feet of the nest at any time.
- Avoid timber harvesting operations, including road construction and chain saw and yarding operations, during the breeding season within 660 feet of the nest. The distance may be decreased to 330 feet around alternate nests within a particular territory, including nests that were attended during the current breeding season but not used to raise young, after eggs laid in another nest within the territory have hatched.
- Selective thinning and other silviculture management practices designed to conserve or enhance habitat, including prescribed burning close to the nest tree, should be undertaken outside the breeding season. Precautions such as raking leaves and woody debris from around the nest tree should be taken to prevent crown fire or fire climbing the nest tree. If it is determined that a burn during the breeding season would be beneficial, then, to ensure that no take or disturbance will occur, these activities should be conducted only when neither adult eagles nor young are present at the nest tree (i.e., at the beginning of, or end of, the breeding season, either before the particular nest is active or after the young have fledged from that nest). Appropriate Federal and state biologists should be consulted before any prescribed burning is conducted during the breeding season.
- Avoid construction of log transfer facilities and in-water log storage areas within 330 feet of the nest.

Category D. Off-road vehicle use (including snowmobiles). No buffer is necessary around nest sites outside the breeding season. During the breeding season, do not operate off-road vehicles within 330 feet of the nest. In open areas, where there is increased visibility and exposure to noise, this distance should be extended to 660 feet.

Category E. Motorized Watercraft use (including jet skis/personal watercraft). No buffer is necessary around nest sites outside the breeding season. During the breeding season, within 330 feet of the nest, (1) do not operate jet skis (personal watercraft), and (2) avoid concentrations of noisy vessels (e.g., commercial fishing boats and tour boats), except where eagles have demonstrated tolerance for such activity. Other motorized boat traffic passing within 330 feet of the nest should attempt to minimize trips and avoid stopping in the area where feasible, particularly where eagles are unaccustomed to boat traffic. Buffers for airboats should be larger than 330 feet due to the increased noise they generate, combined with their speed, maneuverability, and visibility.

Category F. Non-motorized recreation and human entry (e.g., hiking, camping, fishing, hunting, birdwatching, kayaking, canoeing). No buffer is necessary around nest sites outside the breeding season. If the activity will be visible or highly audible from the nest, maintain a 330-foot buffer during the breeding season, particularly where eagles are unaccustomed to such activity.

Category G. Helicopters and fixed-wing aircraft.

Except for authorized biologists trained in survey techniques, avoid operating aircraft within 1,000 feet of the nest during the breeding season, except where eagles have demonstrated tolerance for such activity.

Category H. Blasting and other loud, intermittent noises.

Avoid blasting and other activities that produce extremely loud noises within 1/2 mile of active nests, unless greater tolerance to the activity (or similar activity) has been demonstrated by the eagles in the nesting area. This recommendation applies to the use of fireworks classified by the Federal Department of Transportation as Class B explosives, which includes the larger fireworks that are intended for licensed public display.

RECOMMENDATIONS FOR AVOIDING DISTURBANCE AT FORAGING AREAS AND COMMUNAL ROOST SITES

1. Minimize potentially disruptive activities and development in the eagles' direct flight path between their nest and roost sites and important foraging areas.
2. Locate long-term and permanent water-dependent facilities, such as boat ramps and marinas, away from important eagle foraging areas.
3. Avoid recreational and commercial boating and fishing near critical eagle foraging areas during peak feeding times (usually early to mid-morning and late afternoon), except where eagles have demonstrated tolerance to such activity.
4. Do not use explosives within 1/2 mile (or within 1 mile in open areas) of communal roosts when eagles are congregating, without prior coordination with the U.S. Fish and Wildlife Service and your state wildlife agency.
5. Locate aircraft corridors no closer than 1,000 feet vertical or horizontal distance from communal roost sites.

ADDITIONAL RECOMMENDATIONS TO BENEFIT BALD EAGLES

The following are additional management practices that landowners and planners can exercise for added benefit to bald eagles.

1. Protect and preserve potential roost and nest sites by retaining mature trees and old growth stands, particularly within ½ mile from water.
2. Where nests are blown from trees during storms or are otherwise destroyed by the elements, continue to protect the site in the absence of the nest for up to three (3) complete breeding seasons. Many eagles will rebuild the nest and reoccupy the site.
3. To avoid collisions, site wind turbines, communication towers, and high voltage transmission power lines away from nests, foraging areas, and communal roost sites.
4. Employ industry-accepted best management practices to prevent birds from colliding with or being electrocuted by utility lines, towers, and poles. If possible, bury utility lines in important eagle areas.
5. Where bald eagles are likely to nest in human-made structures (e.g., cell phone towers) and such use could impede operation or maintenance of the structures or jeopardize the safety of the eagles, equip the structures with either (1) devices engineered to discourage bald eagles from building nests, or (2) nesting platforms that will safely accommodate bald eagle nests without interfering with structure performance.
6. Immediately cover carcasses of euthanized animals at landfills to protect eagles from being poisoned.
7. Do not intentionally feed bald eagles. Artificially feeding bald eagles can disrupt their essential behavioral patterns and put them at increased risk from power lines, collision with windows and cars, and other mortality factors.
8. Use pesticides, herbicides, fertilizers, and other chemicals only in accordance with Federal and state laws.
9. Monitor and minimize dispersal of contaminants associated with hazardous waste sites (legal or illegal), permitted releases, and runoff from agricultural areas, especially within watersheds where eagles have shown poor reproduction or where bioaccumulating contaminants have been documented. These factors present a risk of contamination to eagles and their food sources.

CONTACTS

The following U.S. Fish and Wildlife Service Field Offices provide technical assistance on bald eagle management:

<u>Alabama</u>	Daphne	(251) 441-5181	<u>New Hampshire</u>	Concord	(603) 223-2541
<u>Alaska</u>	Anchorage	(907) 271-2888	<u>New Jersey</u>	Pleasantville	(609) 646-9310
	Fairbanks	(907) 456-0203	<u>New Mexico</u>	Albuquerque	(505) 346-2525
	Juneau	(907) 780-1160	<u>New York</u>	Cortland	(607) 753-9334
<u>Arizona</u>	Phoenix	(602) 242-0210		Long Island	(631) 776-1401
<u>Arkansas</u>	Conway	(501) 513-4470	<u>North Carolina</u>	Raleigh	(919) 856-4520
<u>California</u>	Arcata	(707) 822-7201		Asheville	(828) 258-3939
	Barstow	(760) 255-8852	<u>North Dakota</u>	Bismarck	(701) 250-4481
	Carlsbad	(760) 431-9440	<u>Ohio</u>	Reynoldsburg	(614) 469-6923
	Red Bluff	(530) 527-3043	<u>Oklahoma</u>	Tulsa	(918) 581-7458
	Sacramento	(916) 414-6000	<u>Oregon</u>	Bend	(541) 383-7146
	Stockton	(209) 946-6400		Klamath Falls	(541) 885-8481
	Ventura	(805) 644-1766		La Grande	(541) 962-8584
	Yreka	(530) 842-5763		Newport	(541) 867-4558
<u>Colorado</u>	Lakewood	(303) 275-2370		Portland	(503) 231-6179
	Grand Junction	(970) 243-2778		Roseburg	(541) 957-3474
<u>Connecticut</u>	(See New Hampshire)		<u>Pennsylvania</u>	State College	(814) 234-4090
<u>Delaware</u>	(See Maryland)		<u>Rhode Island</u>	(See New Hampshire)	
<u>Florida</u>	Panama City	(850) 769-0552	<u>South Carolina</u>	Charleston	(843) 727-4707
	Vero Beach	(772) 562-3909	<u>South Dakota</u>	Pierre	(605) 224-8693
	Jacksonville	(904) 232-2580	<u>Tennessee</u>	Cookeville	(931) 528-6481
<u>Georgia</u>	Athens	(706) 613-9493	<u>Texas</u>	Clear Lake	(281) 286-8282
	Brunswick	(912) 265-9336	<u>Utah</u>	West Valley City	(801) 975-3330
	Columbus	(706) 544-6428	<u>Vermont</u>	(See New Hampshire)	
<u>Idaho</u>	Boise	(208) 378-5243	<u>Virginia</u>	Gloucester	(804) 693-6694
	Chubbuck	(208) 237-6975	<u>Washington</u>	Lacey	(306) 753-9440
	Rock Island	(309) 757-5800		Spokane	(509) 891-6839
<u>Illinois/Iowa</u>	Bloomington	(812) 334-4261		Wenatchee	(509) 665-3508
<u>Indiana</u>	Manhattan	(785) 539-3474	<u>West Virginia</u>	Elkins	(304) 636-6586
<u>Kansas</u>	Frankfort	(502) 695-0468	<u>Wisconsin</u>	New Franken	(920) 866-1725
<u>Kentucky</u>	Lafayette	(337) 291-3100	<u>Wyoming</u>	Cheyenne	(307) 772-2374
<u>Louisiana</u>	Old Town	(207) 827-5938		Cody	(307) 578-5939
<u>Maine</u>	Annapolis	(410) 573-4573			
<u>Maryland</u>	(See New Hampshire)				
<u>Massachusetts</u>	East Lansing	(517) 351-2555			
<u>Michigan</u>	Bloomington	(612) 725-3548			
<u>Minnesota</u>	Jackson	(601) 965-4900			
<u>Mississippi</u>	Columbia	(573) 234-2132			
<u>Missouri</u>	Helena	(405) 449-5225			
<u>Montana</u>	Grand Island	(308) 382-6468			
<u>Nebraska</u>	Las Vegas	(702) 515-5230			
<u>Nevada</u>	Reno	(775) 861-6300			

<p><u>National Office</u> U.S. Fish and Wildlife Service Division of Migratory Bird Management 4401 North Fairfax Drive, MBSP-4107 Arlington, VA 22203-1610 (703) 358-1714 http://www.fws.gov/migratorybirds</p>
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State Agencies

To contact a state wildlife agency, visit the Association of Fish & Wildlife Agencies' website at http://www.fishwildlife.org/where_us.html

GLOSSARY

The definitions below apply to these National Bald Eagle Management Guidelines:

Communal roost sites – Areas where bald eagles gather and perch overnight – and sometimes during the day in the event of inclement weather. Communal roost sites are usually in large trees (live or dead) that are relatively sheltered from wind and are generally in close proximity to foraging areas. These roosts may also serve a social purpose for pair bond formation and communication among eagles. Many roost sites are used year after year.

Disturb – To agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.

In addition to immediate impacts, this definition also covers impacts that result from human-caused alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle=s return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment.

Fledge – To leave the nest and begin flying. For bald eagles, this normally occurs at 10-12 weeks of age.

Fledgling – A juvenile bald eagle that has taken the first flight from the nest but is not yet independent.

Foraging area – An area where eagles feed, typically near open water such as rivers, lakes, reservoirs, and bays where fish and waterfowl are abundant, or in areas with little or no water (i.e., rangelands, barren land, tundra, suburban areas, etc.) where other prey species (e.g., rabbit, rodents) or carrion (such as at landfills) are abundant.

Landscape buffer – A natural or human-made landscape feature that screens eagles from human activity (e.g., strip of trees, hill, cliff, berm, sound wall).

Nest – A structure built, maintained, or used by bald eagles for the purpose of reproduction. An **active** nest is a nest that is attended (built, maintained or used) by a pair of bald eagles during a given breeding season, whether or not eggs are laid. An **alternate** nest is a nest that is not used for breeding by eagles during a given breeding season.

Nest abandonment – Nest abandonment occurs when adult eagles desert or stop attending a nest and do not subsequently return and successfully raise young in that nest for the duration of a breeding season. Nest abandonment can be caused by altering habitat near a nest, even if the alteration occurs prior to the breeding season. Whether the eagles migrate during the non-breeding season, or remain in the area throughout the non-breeding season, nest abandonment can occur at any point between the time the eagles return to the nesting site for the breeding season and the time when all progeny from the breeding season have

dispersed.

Project footprint – The area of land (and water) that will be permanently altered for a development project, including access roads.

Similar scope – In the vicinity of a bald eagle nest, an existing activity is of similar scope to a new activity where the types of impacts to bald eagles are similar in nature, and the impacts of the existing activity are of the same or greater magnitude than the impacts of the potential new activity. Examples: (1) An existing single-story home 200 feet from a nest is similar in scope to an additional single-story home 200 feet from the nest; (2) An existing multi-story, multi-family dwelling 150 feet from a nest has impacts of a greater magnitude than a potential new single-family home 200 feet from the nest; (3) One existing single-family home 200 feet from the nest has impacts of a lesser magnitude than three single-family homes 200 feet from the nest; (4) an existing single-family home 200 feet from a communal roost has impacts of a lesser magnitude than a single-family home 300 feet from the roost but 40 feet from the eagles' foraging area. The existing activities in examples (1) and (2) are of similar scope, while the existing activities in example (3) and (4) are not.

Vegetative buffer – An area surrounding a bald eagle nest that is wholly or largely covered by forest, vegetation, or other natural ecological characteristics, and separates the nest from human activities.

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Peter Gallinat, Township Planner
pgallinat@uniontownshipmi.com
2010 South Lincoln
Mt. Pleasant, MI 48858
Phone 989-772-4600 Ext. 241
Fax 989-773-1988

TO: Zoning Board of Appeals
FROM: Township Planner

Meeting

NEW BUSINESS

SUBJECT: B) (Not Ready for Review and Approval) SPR 2019-14 Sand and Gravel Pit located at S LINCOLN RD MOUNT PLEASANT, MI PID 14-033-30-006-00 48858-0000 Owner: JAMES ZALUD AND DANIEL ZALUD

Applicant: The Isabella Corporation

Owner: James Zalud and Daniel Zalud

Location: S LINCOLN RD. MOUNT PLEASANT MI 48858-0000

Current Zoning: AG

Adjacent Zoning: AG, AG-1 (Restrictive Agricultural Lincoln Twp)

Future Land Use/Intent: *Rural Preservation:* Rural Preservation Areas outside of the growth boundary should be maintained at a low intensity rural character of development that will not adversely impact natural features and agricultural uses. Agriculture should be promoted and future rezoning requests for residential should be prohibited to prevent leapfrog development.

Current Use: Vacant

Reason for Request: Sand and Gravel Pit.

History: Applicant applied for same special use with site plan in January of 2018. The applicant withdrew the application ahead of the scheduled public hearing. (See attached withdrawal letter) At this time I do not have outside agency approvals from the ICRC, ICTC, or Township Utilities. I do not have storm water management approval but it is likely this project will not need it. Sidewalks are not shown on the plan and no relief from construction has been requested.

Objective of board: Review sections 12 and 30.4.S of the Zoning Ordinance. The Planning Commission shall study the site plan and shall, within sixty days of its submittal to the Zoning Official, either approve or disapprove the proposed site plan. If the site plan is disapproved, the reasons for disapproval shall be stated. Upon approval of a site plan, at least two copies of the site plan as finally approved shall be signed and dated by the Secretary of the Planning Commission.

Recommendation from Township Planner

At this time, I would NOT review SPR 2019-14 as it is not ready for approval. You may use it as information when reviewing SUP 2019-07.

Twp Planner
Peter Gallinat

Union Township Site Plan Review Application 2015 Revision



FILL OUT THE FOLLOWING

- I. This application is for (circle one) Preliminary Site Plan Review **Final Site Plan Review**
- II. Applicant Name The Isabella Corporation
- III. Applicant Address 2201 Commence St., Mt. Pleasant, MI
- IV. Applicant Phone 989-772-5890 Owner Phone 989-772-5890
- V. Applicant is (circle) Contractor Architect/Engineer Developer **Land Owner** skip V& VI
Other
- VI. Land Owner Name JAMES ZALUD & JEREMY ZALUD
- VII. Land Owner Address 6422 S. WHITEVILLE ROAD, MT. PLEASANT, MI 48858
- VIII. Project/Business Name Millbrook and Lincoln Parcel
- IX. Fill out check list that follows. You must check off that each item has been included in the drawing. If an item is not going to be included in the construction, note that in the comment area. For the first three items, check off if you have made the required submittals to other reviewing agencies.

SUBMITTALS TO OTHER AGENCIES		Off
Storm water management plan approval prior to application. Reviewed by the County Engineer	✓	Copy of Union Township Storm Water Management Plan available upon request. Submit (2) copies of plan and calculations directly to the Isabella County Engineer, contact Bruce Rohrer at (989) 772 0911, ext. 231. Any review fees are additional.
All curb cuts, acceleration/deceleration lanes, additional drives, and other matters pertaining to roads to be approved by MDOT or Isabella County Road Commission prior to application.	✓	MDOT (M 20, BR 127 sites) at (989) 773 7756. Contact Isabella County Road Commission (all other county roads) at (989) 773 7131. Submit (3) copies.
Mt. Pleasant Fire Dept.	✓	Sgt Randy Keeler (989) 779-5122, (2) copies
Isabella Co Transportation Commission (ICTC)	✓	Rick (989) 773 2913, (2) copies
WELLHEAD PROTECTION REPORTING FORMS (Required for all Site Plans)		
Hazardous Substances Reporting Form Part I and II (Forms included in this packet)	N/A	Kim Smith (989) 772-4600 ext 224 ksmith@uniontownshipmi.com
PERMIT INFORMATION - DEQ Check List	✓	
SITE PLAN REQUIREMENTS	I Of	Comments - (also indicate any features which will not be included in the development or are not applicable)
Name and addresses of Property Owner	✓	
Name and Address of Applicant	✓	
Provide Construction Type (per Mi Building Code) and if sprinkled, (assume Type IVb, un-sprinkled if not provided)	N/A	

Union Township Site Plan Review Application 2015 Revision

The date, north arrow and scale. The scale shall be not less than 1"= 20' for property under three (3) acres and not more than 1"=40' for property greater than three acres.	✓	
All lot and/or property lines are to be shown and dimensioned, including building setback lines	✓	
The location and dimensions of all existing and proposed: fire hydrants (within 400 feet of building) - - - drives,----- sidewalks, (required) ----- curb openings, ----- acceleration/deceleration lanes, ----- signs, ----- exterior lighting on buildings and parking lots, - - parking areas (including handicapped parking spaces, barrier-free building access, unloading areas), ----- recreation areas, ----- common use areas, ----- areas to be conveyed for public use and purpose. -	N/A N/A	
Elevation of building front, side, and back. Include Sign size, height, and design. Canopy heights extending over driveways accommodate Public Transportation	N/A	
Source of utilities. Public water and sewer approval by Union Township Utility Coordinator prior to application.	N/A	Note: Union Township policy is to issue sewer and water permits after application for a building permit. Applicant is advised to contact the utility department for availability prior to site plan review. The township does not coordinate other utility matters. Applicant to assure himself that site is suitable for septic systems, contact Central Michigan District Health Department
All dumpsters shall be screened from public view with an opaque fence or wall no less than six feet in height. Show location. (Note most refuse contractors require concrete pad to place dumpsters upon)		
The location and right-of-way width of all abutting roads, streets, alleys and easements.	✓	
A locational sketch drawn to scale giving the section number and the nearest crossroads.	✓	

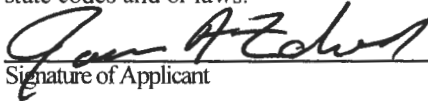
Union Township Site Plan Review Application 2015 Revision

The zoning of the subject property and the abutting properties.	✓	
The location, height and type of fences and walls.		
The location and detailed description of landscaping.	N/A	
For multiple family and mobile home parks, contour intervals shall be shown (two foot intervals for average slopes ten percent and under and five foot intervals for slopes over ten percent). Topography, however, is encouraged to be shown on all site plans.	N/A	
The location of all existing and proposed structures on and within one hundred feet of the subject property's boundary.	✓	
For apartments, provide a count of bedrooms per building and total count of bedrooms for the project.	N/A	

APPLICANT COMMENTS

Union Township Site Plan Review Application 2015 Revision

I submit the site plan and this application as a true representation of existing and proposed conditions. I agree to install all features as shown and to abide by conditions placed upon approval of this plan by the Union Township Planning Commission . False or inaccurate information placed upon this plan may be cause for revocation of any permits issued pursuant to site plan approval and / or removal of work installed. Any changes to the Site Plan now or in the future must be approved by the Union Township Planning Commission or Zoning Administrator. Approval of this plan shall not constitute the right to violate any provisions of the Union Township Zoning Ordinance 1991-5, or other applicable building or state codes and or laws.



Signature of Applicant

11-22-19

Date

Signature of Owner (if other than applicant)

Date

PLEASE PLACE OUR REVIEW ON THE 12/17/19 (INSERT DATE)
PLANNING COMMISSION MEETING. An owners representative WILL / WILL NOT attend. You will not receive a reminder of the scheduled meeting.

Union Township Site Plan Review Application 2015 Revision

<u>Township use</u>	Review Comments
File # _____	_____
Fee Paid initial _____	_____
Receipt # _____	_____
Date received _____	_____
Date review completed by Zoning Administrator _____	
Place on the _____ Planning Commission Agenda	
Planning Commission Decision _____	



PERMIT INFORMATION

www.michigan.gov/deqpermits

The Department of Environmental Quality (DEQ) has prepared a list of key questions to help identify what DEQ permits, licenses, or approvals of a permit-like nature may be needed. By contacting the appropriate offices indicated, you will help reduce the possibility that your project or activity will be delayed due to the untimely discovery of additional permitting requirements later in the construction process. While this list covers the existence of permits and approvals required from the DEQ, it is not a comprehensive list of all legal responsibilities. A useful way to learn whether other requirements will apply is to go through the Self-Environmental Assessment in the Michigan Guide to Environmental, Health, and Safety Regulations, online at: <http://www.michigan.gov/ehsguide>. Please call the Environmental Assistance Center at 800-662-9278 to talk with any of the DEQ programs noted below.

KEY QUESTIONS:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	PROGRAM WEBPAGE AND CONTACTS
MISCELLANEOUS CONSTRUCTION			
<i>Air Quality Permit to Install:</i> Will your business involve the installation or construction of any process equipment that has the potential to emit air contaminants (e.g. dry sand blasting, boilers, standby generators)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Air Quality Division (AQD), Permit Section
<i>Asbestos Notification:</i> Does the project involve renovating or demolishing all or portions of a building? Notification is required for asbestos removal and required for all demolitions even if the structure never contained asbestos.	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	AQD, Asbestos Program
<i>Land and Water Featured Programs (Water Resources Division) - USACE Consolidated Permits:</i> Please consult the Land and Water Management Decision Tree document to evaluate whether your project needs a land and water management permit (i.e., Does the project involve filling, dredging, placement of structures, draining, or use of a wetland?).	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Water Resources Division (WRD), Joint Permit Application
<i>Soil Erosion and Sedimentation Control:</i> Does the project involve an earth change activity (including land balancing, demolition involving soil movement, and construction)?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Soil Erosion and Construction Storm Water , or Contact your Local Agency
<i>NPDES Storm Water Discharge from Construction Sites Notice of Coverage:</i> Does the project involve construction which will disturb one or more acres that come into contact with storm water that enters a storm sewer, drain, lake, stream, or other surface water?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	NPDES Storm Water Permits Program , or appropriate DEQ District Office
<i>Public Swimming Pool Construction (Spas/Hot Tubs) Permits:</i> Will your business involve the construction or modification of a public swimming pool, spa or hot tub?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Public Swimming Pool Program , or appropriate DEQ District Office
<i>Threatened and Endangered Species:</i> Does the project involve activities that would destroy a protected species of plant or animal or disturb a protected animal species?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Endangered Species Assessment, Threatened and Endangered Species Program , 517-373-1552
Does the project involve <i>construction</i> or alteration of any <i>sewage collection or treatment</i> facility?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Appropriate District Office , WRD, Part 41 Construction Permit Program
Does the project involve construction of a facility that landfills, transfers, or processes of any type of <i>solid non-hazardous waste</i> on-site, or places <i>industrial residuals/sludge</i> into or onto the ground?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Office of Waste Management and Radiological Protection (OWMRP), Solid Waste , Appropriate DEQ District Office
Does the project involve the construction of an on-site treatment, storage, or disposal facility for <i>hazardous waste</i> ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OWMRP, Hazardous Waste Section, Treatment, Storage and Disposal
WATER SUPPLY (More information, see: http://www.michigan.gov/deqwater, select "drinking water")			
I am buying water from my community water supply (i.e. city of Detroit or Grand Rapids)	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Contact your Local Water Utility
I have a private or other water supply well (Type III)	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Contact your (District or County) Local Health Department
I have a Non-Community Water Supply (Type II)	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Guide , Contact your (District or County) Local Health Department
I am a community water supply (Type I)	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Community Water Supply, DEQ District Office Community Water Supply Program

WASTEWATER MANAGEMENT			
<i>Storm Water Discharge to Wetlands:</i> Will storm water be collected, stored, or treated in a wetland area from a public road, industrial, commercial, or multi-unit residential development?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
<i>Great Lakes:</i> Does the project involve construction, filling, or dredging below the Ordinary High Water Mark of one of the Great Lakes?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
<i>Inland Lakes and Streams:</i> Does the project involve any dredging, filling, placement of structures, or the operation of a marina within an inland waterbody (e.g. lake, river, stream, drain, creek, ditch, or canal), enlargement of a waterbody, or excavation of a pond within 500 feet of a waterbody?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
<i>Storm Water Ponds and Discharges to Inland Lakes/Streams, or Great Lakes:</i> Will storm water from any road or any other part of the development be discharged either directly or ultimately to an inland waterbody, or one of the Great Lakes; or will a storm water pond be constructed within 500 feet of an inland waterbody?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
Does the project involve placement of fill, earth moving, or placement of structures within the 100-year <i>floodplain</i> of a watercourse?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
Does the project involve construction of a building or septic system in a designated Great Lakes <i>high risk erosion area</i> ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Shoreland Management</u>
Does the project involve dredging, filling, grading, or other alteration of the soil, vegetation, or natural drainage, or placement of permanent structures in a designated <i>environmental area</i> ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Shoreland Management</u>
Does the project propose any development, construction, silvicultural activities or contour alterations within a designated <i>critical dune area</i> ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Sand Dune Management</u>
Does the project involve construction of a <i>dam</i> , weir or other structure to impound flow?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Dam Safety Program</u>
CONSTRUCTION PERMITS (SECTOR SPECIFIC)			
Does the project involve the construction or alteration of a water supply system or sewage disposal system for a manufactured housing project?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Office of Drinking Water & Municipal Assistance (ODWMA)
Does the project involve a subdivision or site condominium project utilizing individual on-site subsurface disposal systems or individual wells?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA
Does the project involve the construction or modification of a campground ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA, <u>Campgrounds program</u>
Does the project involve the construction or modification of a public swimming pool ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA, <u>Swimming pools program</u>
OPERATIONAL PERMITS			
Renewable Operating Permit: Does your facility have the potential to emit any of the following: 100 tons per year or more of any criteria pollutant; 10 tons per year or more of any hazardous air pollutant ; or 25 tons per year or more of any combination of hazardous air pollutants ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	AQD, <u>Permit Section</u>
NPDES: Does the project involve the discharge of any type of wastewater to a storm sewer, drain, lake, stream, or other surface water ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, Appropriate <u>DEQ District Office</u> , or <u>National Pollutant Discharge Elimination (NPDES) Permit Program</u>
Does the facility have industrial activity that comes into contact with storm water that enters a storm sewer, drain, lake, stream, or other surface water?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Permits Section</u> , or appropriate <u>DEQ District Office</u>
Does the project involve the discharge of wastewaters into or onto the ground (e.g. subsurface disposal or irrigation)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Groundwater Permits Program</u>
Does the project involve the drilling or deepening of wells for waste disposal ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	<u>Office of Oil, Gas and Minerals (OOGM)</u>
Does the project involve landfilling , transferring, or processing of any type of solid non-hazardous waste on-site, or placing industrial residuals/sludge into or onto the ground?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	<u>OWMRP</u> or Appropriate <u>DEQ District Office</u>

Does the project involve the on-site treatment, storage, or disposal of hazardous waste ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Hazardous and Liquid Waste</u>
Does the project require a site identification number (EPA number) for regulated waste activities (used oil, liquid waste, hazardous waste, universal waste, PCBs)? (<u>Web Site</u>)	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, Appropriate <u>DEQ District Office</u>
Does the project involve the receipt, possession, manufacture, use, storage, transport, transfer, release, or disposal of radioactive material in any form?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Radioactive Material and Standards Unit</u>
Does the project involve decommissioning or decontamination of tanks, piping, and/or appurtenances that may have radioactive levels above background?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP <u>Radioactive Material and Standards Unit</u>
Do you desire to develop a withdrawal of over 2,000,000 gallons of water per day from any source other than the Great Lakes and their connecting waterways? Or, do you desire to develop a withdrawal of over 5,000,000 gallons of water per day from the Great Lakes or their connecting waterways?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, DWEHS, <u>Source Water Protection Unit</u>
CHEMICAL ADDITION PROJECTS		
Are you using chemicals or materials in, or in contact with, drinking water at any point in the water works system ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, Appropriate <u>DEQ District Office, Public Water Supply Program</u>
Are you applying a chemical treatment for the purpose of aquatic nuisance control (pesticide/herbicide etc) in a water body (i.e. lake, pond or river)? (5.	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, <u>Aquatic Nuisance Control and Remedial Action Unit</u>
Are you applying materials to a water body for a water resource management project (i.e. mosquito control treatments, dye testing, or fish reclamation projects)?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, <u>Surface Water Assessment Section</u>
OPERATIONAL PERMITS (SECTOR SPECIFIC)		
Does the project involve the transport of some other facility's non-hazardous liquid waste ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Transporter Program</u>
Does the project involve the transport hazardous waste ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Transporter Program</u>
Does your facility have an electric generating unit that sells electricity to the grid and burns a fossil fuel?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	AQD, <u>Acid Rain Permit Program</u>
Is the project a dry cleaning establishment utilizing perchloroethylene or a flammable solvent in the cleaning process?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DEQ, AQD, <u>Dry Cleaning Program</u>
Does your laboratory test potable water as required for compliance and monitoring purposes of the Safe Drinking Water Act?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DEQ, <u>Laboratory Services Certifications</u>
Does the project involve the generation of medical waste or a facility that treats medical waste prior to its disposal?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Medical Waste Regulatory Program</u>
Does the project involve transport of septic tank, cesspool, or dry well contents or the discharge of septage or sewage sludge into or onto the ground?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	ODWMA, <u>Septage Program</u>
Do you store, haul, shred or process scrap tires ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Scrap Tire Program</u>
Does the project involve the operation of a public swimming pool ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	ODWMA, <u>Public Swimming Pools Program</u>
Does the project involve the operation of a campground ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	ODWMA, <u>Campgrounds</u>
Do you engage in the business of hauling bulk water for drinking or household purposes (except for your own household use)?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	ODWMA, <u>Water Hauler Information</u>
PERSONAL LICENSES/CERTIFICATIONS		
Are you designated by your facility to be the Certified Operator to fulfill the requirements of a wastewater discharge permit (NPDES including Storm	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	WRD, <u>Operator Training, Storm Water Program</u>

Water or Groundwater)?			
Are you a drinking water operator in charge of a water treatment or water distribution system, back-up operator, or shift operator?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Operator Training</u>
Are you a water-well drilling contractor, pump installer, dewatering well contractor or dewatering well pump installer?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Well Construction Unit</u>
OIL, GAS AND MINERALS			
Do you want to operate a central production facility (applies to oil and gas production facilities where products of diverse ownership are commingled)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Petroleum Geology and Production Unit</u>
Does the project involve the removal of sand from a sand dune area within two (2) miles of a Great Lakes shoreline?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, Minerals and Mapping Unit, <u>Sand Dune Mining Program</u>
Does the project involve the diversion and control of water for the mining and processing of low-grade iron ore?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the surface or open-pit mining of metallic mineral deposits?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the mining of nonferrous mineral deposits at the surface or in underground mines?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve mining coal?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Do you want to change the status of an oil or gas well (i.e. plug the well)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve drilling of oil, gas, brine disposal, secondary recovery, or hydrocarbon storage wells?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve plugging or deepening of an oil or gas well , or conveying rights in the well as an owner to another person?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve changing the status or plugging of a mineral well?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the drilling or deepening of wells for brine production, solution mining, storage, or as test wells?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve decommissioning or decontamination of tanks, piping, and/or appurtenances that may have radioactive levels above background?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OWMRP, <u>Radioactive Protection Programs</u>
STORAGE TANKS (CONSTRUCTION AND OPERATION)			
Does the project involve the installation of an aboveground storage tank for a flammable or combustible liquid (under 200 degrees Fahrenheit)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Michigan Department of Licensing and Regulatory Affairs (DLARA) - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a compressed natural gas dispensing station with storage?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a liquefied petroleum gas container filling location or storage location that has a tank with a capacity of more than 2,000 gallons or has two (2) or more tanks with an aggregate capacity of more than 4,000 gallons?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation, removal, or upgrade of an underground storage tank containing a petroleum product or a hazardous substance?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a hydrogen system?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>

TAKEN FROM UNION TOWNSHIP ZONING ORDINANCE AVAILABLE ON THEIR WEBSITE

AG ZONE	
MINIMUM FRONT YARD SETBACK	50 FT (I)
MINIMUM SIDE YARD SETBACK	(D) (E)
MINIMUM REAR YARD SETBACK	50 FT
MINIMUM LOT WIDTH	165 FT
MINIMUM LOT SIZE	43,560 SQFT
MAXIMUM BUILDING HEIGHT	35 FT (C)

- C. NO BUILDING OR STRUCTURE SHALL EXCEED A HEIGHT OF TWO AND ONE-HALF STORIES OR THIRTY-FIVE FEET, EXCEPT THAT SILOS, ELEVATORS, BARN AND OTHER STRUCTURES CUSTOMARILY NECESSARY FOR FARMING MAY BE INCREASED NOT TO EXCEED A MAXIMUM HEIGHT OF NINETY-NINE FEET; PROVIDED THAT ANY REQUIRED YARD SHALL BE INCREASED BY ONE FOOT FOR EACH FOOT IN HEIGHT THE STRUCTURE EXCEEDS THIRTY-FIVE FEET.
- D. FOR ONE-FAMILY DWELLINGS THERE SHALL BE TWO SIDE YARDS. NO SIDE YARD SHALL BE LESS THAN TEN PERCENT OF THE REQUIRED LOT WIDTH. FOR ALL OTHER USES THERE SHALL BE TWO SIDE YARDS WITH NO LESS THAN 30 FEET.
- E. SIDE YARDS ON A STREET SHALL MEET FRONT YARD REQUIREMENTS.
- I. SEE SECTION 8.40, URBAN OVERLAY ZONE FOR AREAS WITH INCREASED SET BACKS (SUB-SECTIONS DO NOT AFFECT PROPERTY)

JAMES AND JEREMY ZALUD

PROPOSED SPECIAL USE AND SITE PLAN



NOT TO SCALE

SHEET INDEX	
SHEET 1	COVER SHEET
SHEET 2	BOUNDARY & EXISTING TOPOGRAPHY
SHEET 3	ACCESS ROAD DETAIL
SHEET 4	SITE PLAN DETAIL YEAR 1
SHEET 5	SITE PLAN DETAIL YEARS 2-3
SHEET 6	SITE PLAN DETAIL YEARS 4-5
SHEET 7	SOIL EROSION

MISS DIG:
FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL "MISS DIG" 1-800-482-7171 A MINIMUM OF 3 WORKING DAYS PRIOR TO ANY EXCAVATION. ALL "MISS DIG" PARTICIPATING MEMBERS WILL BE APPROPRIATELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

UTILITY NOTE:
THE UTILITY LOCATIONS AS HEREON SHOWN ARE BASED ON FIELD OBSERVATIONS AND A CAREFUL REVIEW OF MUNICIPAL AND UTILITY COMPANY RECORDS. HOWEVER, IT IS NOT POSSIBLE TO DETERMINE THE PRECISE LOCATION AND DEPTH OF UNDERGROUND UTILITIES WITHOUT EXCAVATION. THEREFORE, WE CANNOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE BURIED UTILITY INFORMATION HEREON SHOWN. THE CONTRACTOR SHALL CALL "MISS DIG" (1-800-282-7171) PRIOR TO ANY EXCAVATION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THESE UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND SHALL MAKE EVERY EFFORT TO PROTECT AND OR RELOCATE THEM AS REQUIRED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER/SURVEYOR AS SOON AS POSSIBLE IN THE EVENT A DISCREPANCY IS FOUND. UNDERGROUND SERVICE LEADS FOR GAS, ELECTRIC, TELEPHONE AND CABLE MAY BE ACROSS PROPERTY, NO INFORMATION AVAILABLE PLEASE CALL MISS DIG.

FLOOD ZONE CERTIFICATION:
A PORTION OF SAID DESCRIBED PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION OF X BY THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT, ON FLOOD INSURANCE RATE MAP NO. 26073C0325D WITH AN EFFECTIVE DATE OF 02/05/2014 FOR THE CHARTER TOWNSHIP OF UNION, MICHIGAN COMMUNITY WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PREMISES IS SITUATED.

SITE: NON ADDRESSED S LINCOLN RD, MT PLEASANT, MI, 48858

OWNER/CLIENT: JIM ZALUD & JEREMY ZALUD
C/O ISABELLA CORPORATION, INC.
2201 COMMERCE STREET
MT. PLEASANT, MI 48858
989-772-5890
FAX: 989-773-2978
jzalud@isabellacorporation.com

CONSULTANT: CENTRAL MICHIGAN SURVEYING & DEVELOPMENT CO., INC.
510 W. PICKARD STREET - SUITE C
MT. PLEASANT, MI 48858
CONTACT PERSON: TIMOTHY E BEBEE
PHONE: (989) 775-0756
FAX: (989) 775-5012
EMAIL: info@cms-d.com

CHARTER COMMUNICATIONS
915 E. BROOMFIELD ROAD
MT. PLEASANT, MI 48858
(989) 621-4932
RANDY BUNKER
rbunker@chartercom.com

CONSUMERS ENERGY
1325 WRIGHT AVENUE
ALMA, MI 48801
(989) 466-4282
KIM STUDDT
kimberly.studdt@cmsenergy.com

FRONTIER
345 PINE STREET
ALMA, MI 48801
(989) 463-0392
MARK A. MARSHALL
Mark.Marshall@tr.com

DTE ENERGY
4420 44TH ST., S.E., SUITE B
KENTWOOD, MI 49512
(616) 954-4623
MARY JO MCKERSIE
mckersiem@dteenergy.com

MT. PLEASANT FIRE DEPARTMENT
804 EAST HIGH STREET
MT. PLEASANT, MI 48858
(989) 779-5100 EXT 5122
SGT. RANDY KEELER
rkeeler@mt-pleasant.org

CHARTER TOWNSHIP OF UNION
PUBLIC WATER/PUBLIC SEWER
2010 N. LINCOLN ROAD
MT. PLEASANT, MI 48858
(989) 772-4600 EXT 24
KIM SMITH
ksmith@uniontownshipmi.com

CHARTER TOWNSHIP OF UNION
PLANNING & ZONING
2010 NORTH LINCOLN ROAD
MT. PLEASANT, MI 48858
(989) 772-4600 EXT 241
PETER GALLINAT
pgallinat@uniontownshipmi.com

DRAIN COMMISSIONERS OFFICE
ISABELLA COUNTY BUILDING
200 NORTH MAIN STREET ROOM 140
MT. PLEASANT, MI 48857
(989) 772-0911
ROBERT WILLOUGHBY
drain@isabellacounty.org

ISABELLA COUNTY ROAD COMMISSION
2261 EAST REMUS ROAD
MT. PLEASANT, MI 48858
(989) 773-7131 EXT 115
PATRICK GAFFNEY
Pgaffney@isabellaroads.com

LEGEND SYMBOLS		
○ BOLLARD	⊕ GAS RISER	⊗ SOIL BORING
▣ CATCH BASIN (CURB INLET)	⊙ GUY ANCHOR	⊕ STORM SEWER MANHOLE
⊙ CATCH BASIN (ROUND)	⊕ HYDRANT - EXISTING	⊕ TELEPHONE RISER
▣ CATCH BASIN (SQUARE)	⊕ HYDRANT - PROPOSED	● TREE - CONIFEROUS
○ CLEAN OUT	⊕ LIGHT POLE	● TREE - DECIDUOUS
→ DRAINAGE FLOW	⊕ MAILBOX	⊕ UTILITY POLE
⊕ ELECTRICAL BOX	⊕ MONITORING WELL	⊕ WATER MAIN VALVE
● FOUND CONC. MONUMENT	⊕ SANITARY SEWER MANHOLE	⊕ WATER SHUT-OFF
○ FOUND IRON	● SET IRON	⊕ WATER WELL
⊕ GAS MAIN VALVE	⊕ SIGN	⊕ WOOD STAKE

LINETYPES	
—ELEC—	BURIED ELECTRICAL CABLE
—PHONE—	BURIED TELEPHONE CABLE
—DITCH—CL—	CENTERLINE OF DITCH
—FM—	FORCE MAIN
—GAS—	GAS MAIN
—RD—CL—	ROAD CENTERLINE
—8" SAN—	SANITARY SEWER
—12" SS—	STORM SEWER
—EX-TOS—	TOE OF SLOPE
—EX-TOB—	TOP OF BANK
—OHE—OHE—	UTILITIES - OVERHEAD
—UTL—	UTILITIES - UNDERGROUND
—12" WM—	WATER MAIN

HATCH PATTERNS	
[Hatched Pattern]	ASPHALT - EXISTING
[Hatched Pattern]	ASPHALT - PROPOSED
[Hatched Pattern]	CONCRETE
[Hatched Pattern]	GRAVEL
[Hatched Pattern]	LANDSCAPING
[Hatched Pattern]	RIP-RAP

PARCEL INFO
THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 33, T.14 N.- R.04 W., UNION TOWNSHIP, ISABELLA COUNTY, MICHIGAN
PARCEL IDENTIFICATION NUMBER: 14-003-30-006-00

CMS & D
SURVEYING/ENGINEERING
510 W. PICKARD STREET - SUITE C
MT. PLEASANT, MICHIGAN 48858
PHONE: (989) 775-0756
FAX: (989) 775-5012
EMAIL: info@cms-d.com



COVER SHEET
JAMES AND JEREMY ZALUD
THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4
OF SECTION 33, T.14N, R.4W
UNION TOWNSHIP, MICHIGAN

REVISIONS:	SUBMITTALS:	JOB NUMBER:	SCALE:
	SUBMITTAL TO CLIENT FOR REVIEW 12-15-17	1707-093	N/A
	SUBMITTAL TO TOWNSHIP FOR SPECIAL USE 11-26-19	DRAWN BY: BTM	
		DESIGNED BY: N/A	
		CHECKED BY: TELB	
		SHEET NUMBER 1 OF 7	



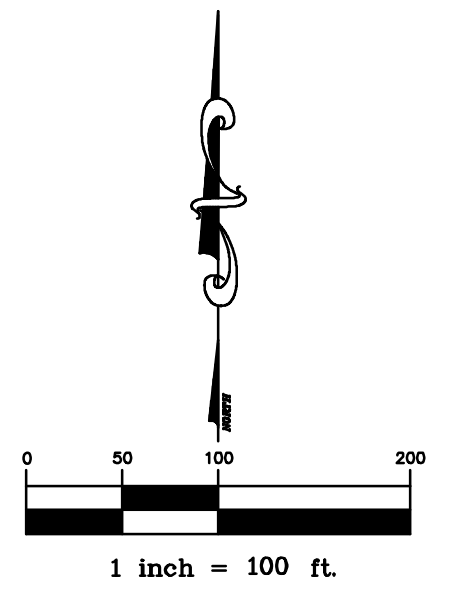
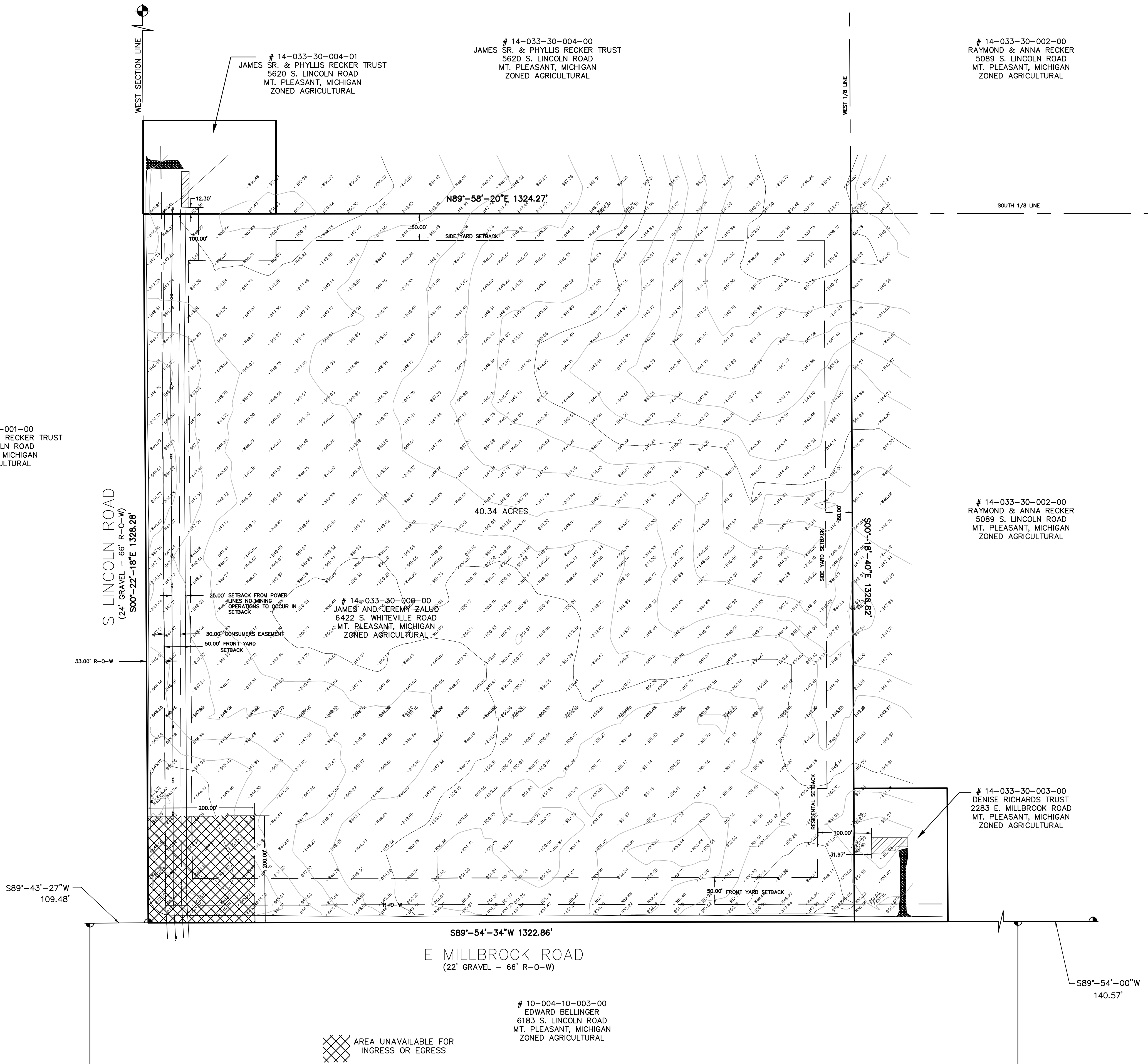
BOUNDARY AND EXISTING TOPOGRAPHY
 JAMES AND JEREMY ZALUD
 THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4
 OF SECTION 33, T14N, R4W
 UNION TOWNSHIP, MICHIGAN

REVISIONS:

SUBMITTALS:
 SUBMITTAL TO CLIENT FOR REVIEW 12-15-17
 SUBMITTAL TO TOWNSHIP FOR SPECIAL USE
 11-26-19

JOB NUMBER:
 1707-093
 DRAWN BY:
 BTM
 DESIGNED BY:
 N/A
 CHECKED BY:
 TELB

SCALE
 1" = 100'
 SHEET NUMBER
 2 OF 7



AREA UNAVAILABLE FOR INGRESS OR EGRESS

10-004-10-003-00
 EDWARD BELLINGER
 6183 S. LINCOLN ROAD
 MT. PLEASANT, MICHIGAN
 ZONED AGRICULTURAL

14-032-40-001-00
 JAMES SR. & PHYLLIS RECKER TRUST
 5620 S. LINCOLN ROAD
 MT. PLEASANT, MICHIGAN
 ZONED AGRICULTURAL

14-033-30-004-01
 JAMES SR. & PHYLLIS RECKER TRUST
 5620 S. LINCOLN ROAD
 MT. PLEASANT, MICHIGAN
 ZONED AGRICULTURAL

14-033-30-004-00
 JAMES SR. & PHYLLIS RECKER TRUST
 5620 S. LINCOLN ROAD
 MT. PLEASANT, MICHIGAN
 ZONED AGRICULTURAL

14-033-30-002-00
 RAYMOND & ANNA RECKER
 5089 S. LINCOLN ROAD
 MT. PLEASANT, MICHIGAN
 ZONED AGRICULTURAL

14-033-30-002-00
 RAYMOND & ANNA RECKER
 5089 S. LINCOLN ROAD
 MT. PLEASANT, MICHIGAN
 ZONED AGRICULTURAL

14-033-30-003-00
 DENISE RICHARDS TRUST
 2283 E. MILLBROOK ROAD
 MT. PLEASANT, MICHIGAN
 ZONED AGRICULTURAL

S LINCOLN ROAD
(24' GRAVEL - 66' R-O-W)
N00°-22'-18"W 1328.28'

FARM FIELD

FARM FIELD

FARM FIELD

ACTIVE PROJECT AREA YEARS 4-5
SEE SHEET 6 FOR DETAILS

ACTIVE PROJECT AREA YEAR 1
SEE SHEET 4 FOR DETAILS

ACTIVE PROJECT AREA YEARS 2-3
SEE SHEET 5 FOR DETAILS

PROPOSED GRAVEL DRIVE
AND TURNAROUND PAD

WEST 1/8 LIT

SECTION 3.0'-91'-00S

25.00' SETBACK FROM
POWER LINES NO
MINING OPERATIONS
TO OCCUR IN
SETBACK

30.00' CONSUMERS EASEMENT

50.00' FRONT YARD
SETBACK

SIDE YARD SETBACK

RESIDENTIAL SETBACK

50.00' FRONT YARD SETBACK

100.00'

31.97'

R30.00'

R30.00'

R300.00'

R270.00'

489.22'

486.32'

30.00'

203.8'

191.3'

150.00'

150.00'

60.00'

60.00'

30.00'

60.00'

S89°-54'-34"W 1322.86'
(22' GRAVEL - 66' R-O-W)

CMS & D
SURVEYING / ENGINEERING
2257 E BROOMFIELD ROAD
MT. PLEASANT, MICHIGAN 48858
PHONE: (989) 775-0756
FAX: (989) 775-5012
EMAIL: info@cms-d.com



ACCESS ROAD DETAIL
JAMES AND JEREMY ZALUD
THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4
OF SECTION 33, T14N, R4W
UNION TOWNSHIP, MICHIGAN

REVISIONS:

SUBMITTALS:
SUBMITTAL TO CLIENT FOR REVIEW 12-15-17
SUBMITTAL TO TOWNSHIP FOR SPECIAL USE
11-26-19

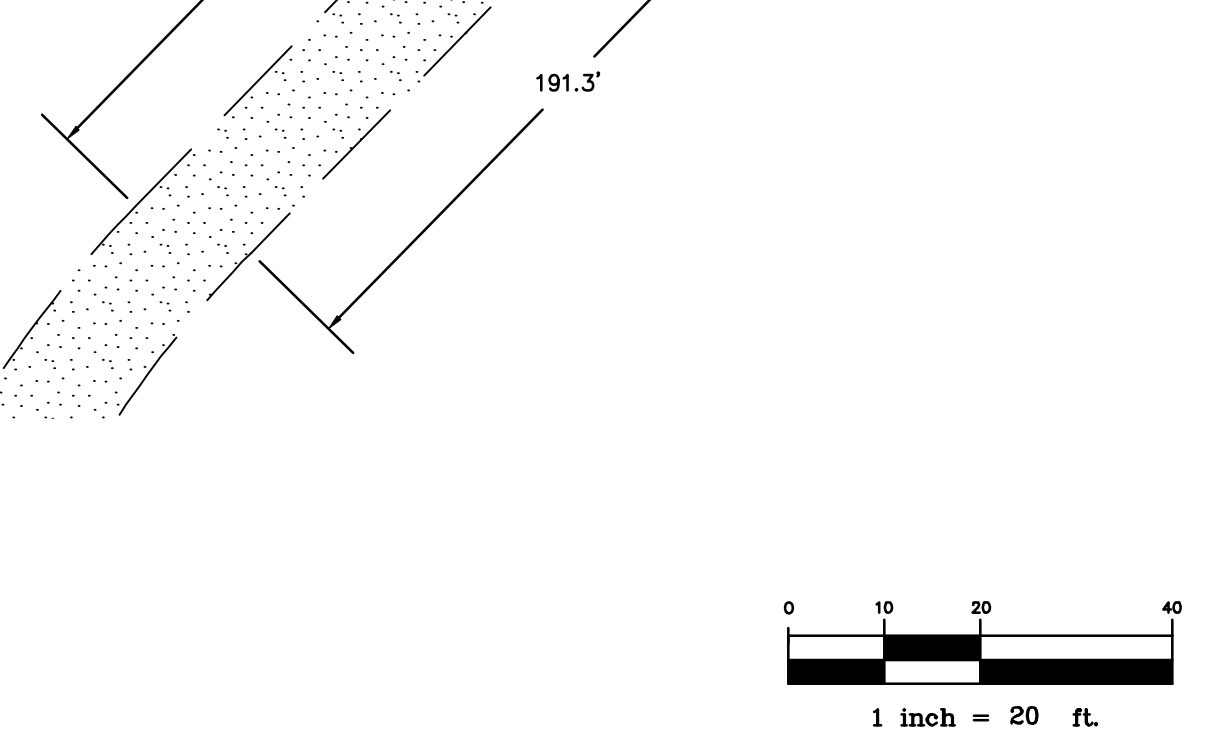
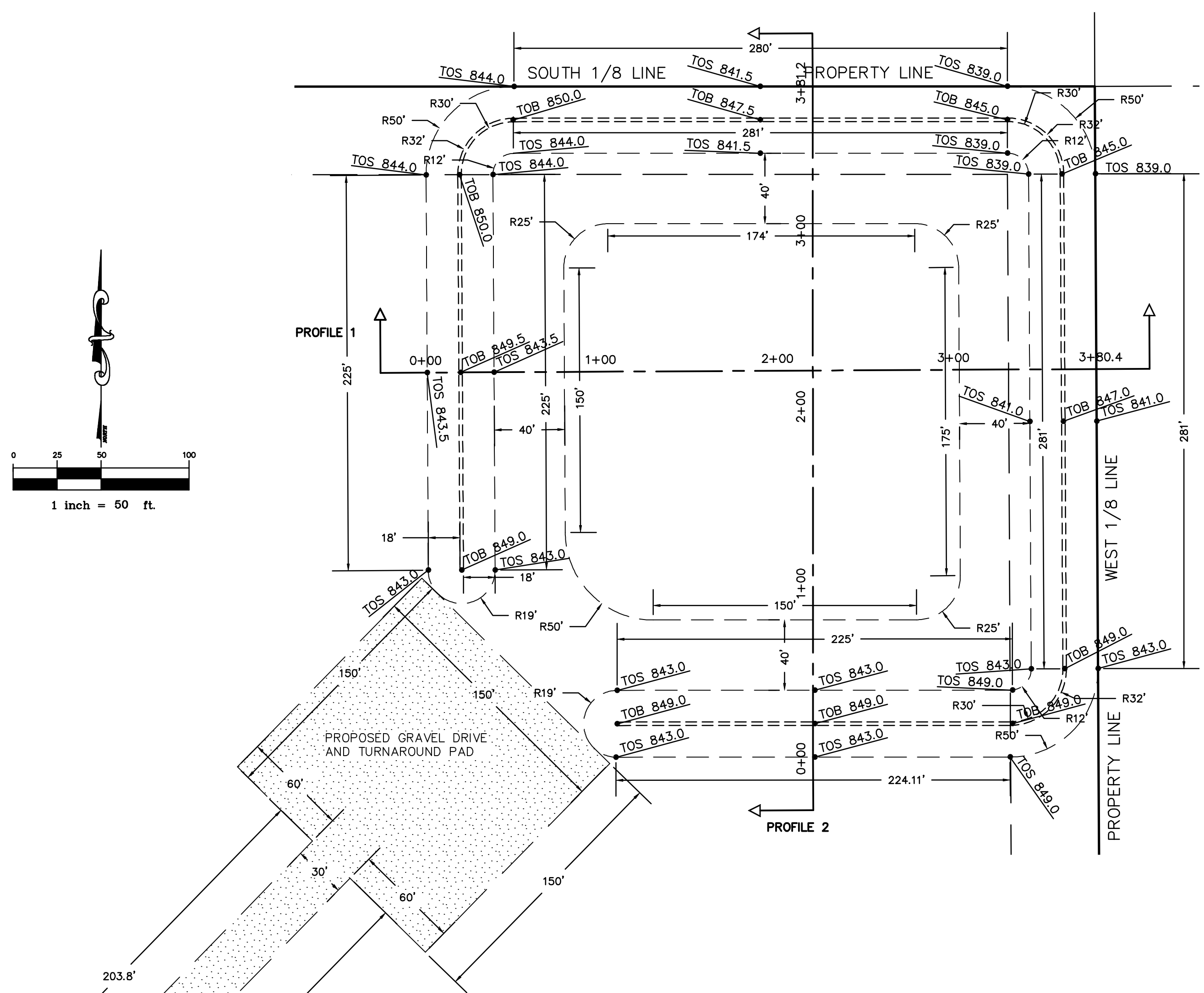
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DRAWN BY:
BTM
DESIGNED BY:
TELB
CHECKED BY:
TELB

SCALE:
1" = 50'
SHEET NUMBER:
3 OF 7

ACTIVE PROJECT AREA YEAR 1

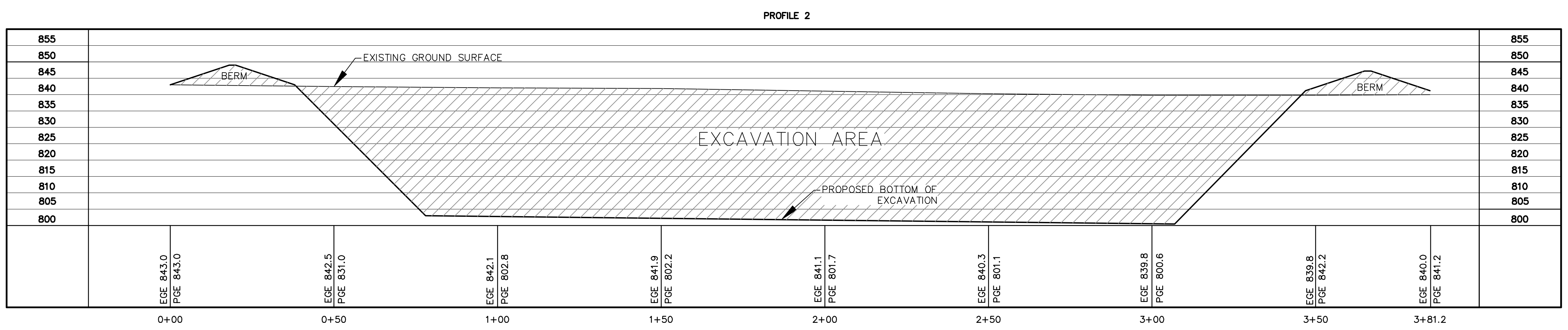
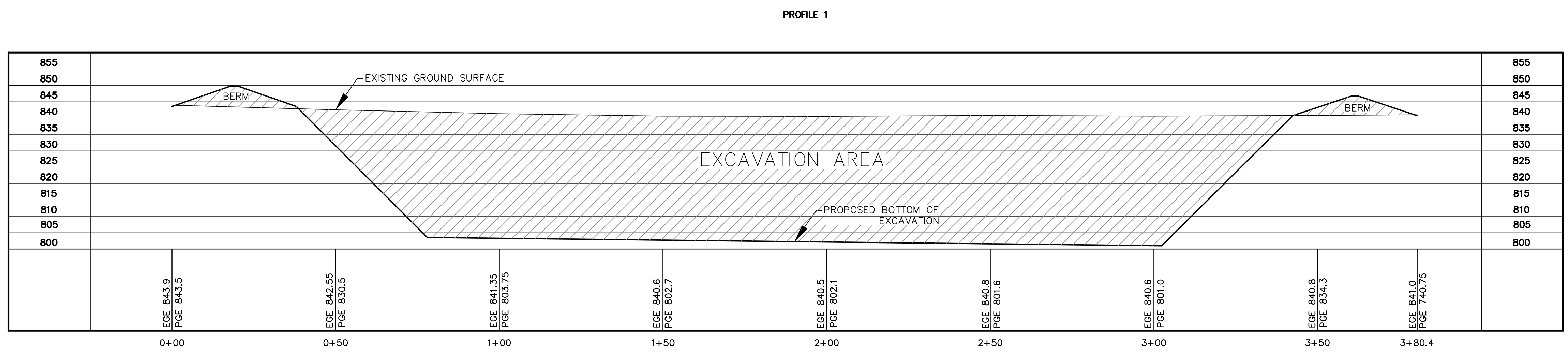


SITE PLAN DETAIL YEAR 1
 JAMES AND JEREMY ZALUD
 THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4
 OF SECTION 33, T14N, R4W
 UNION TOWNSHIP, MICHIGAN



NOTE:
 EGE - EXISTING GROUND ELEVATION
 PGE - PROPOSED GROUND ELEVATION

NOTE:
 EGE - EXISTING GROUND ELEVATION
 PGE - PROPOSED GROUND ELEVATION



REVISIONS:

SUBMITTALS:
 SUBMITTAL TO CLIENT FOR REVIEW 12-15-17
 SUBMITTAL TO TOWNSHIP FOR SPECIAL USE
 11-26-19

JOB NUMBER:
 1707-093

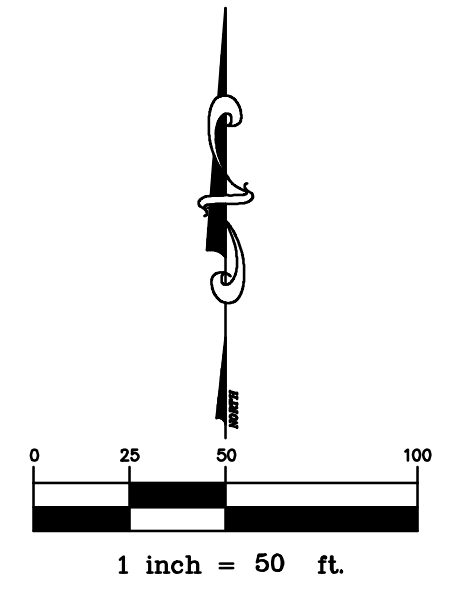
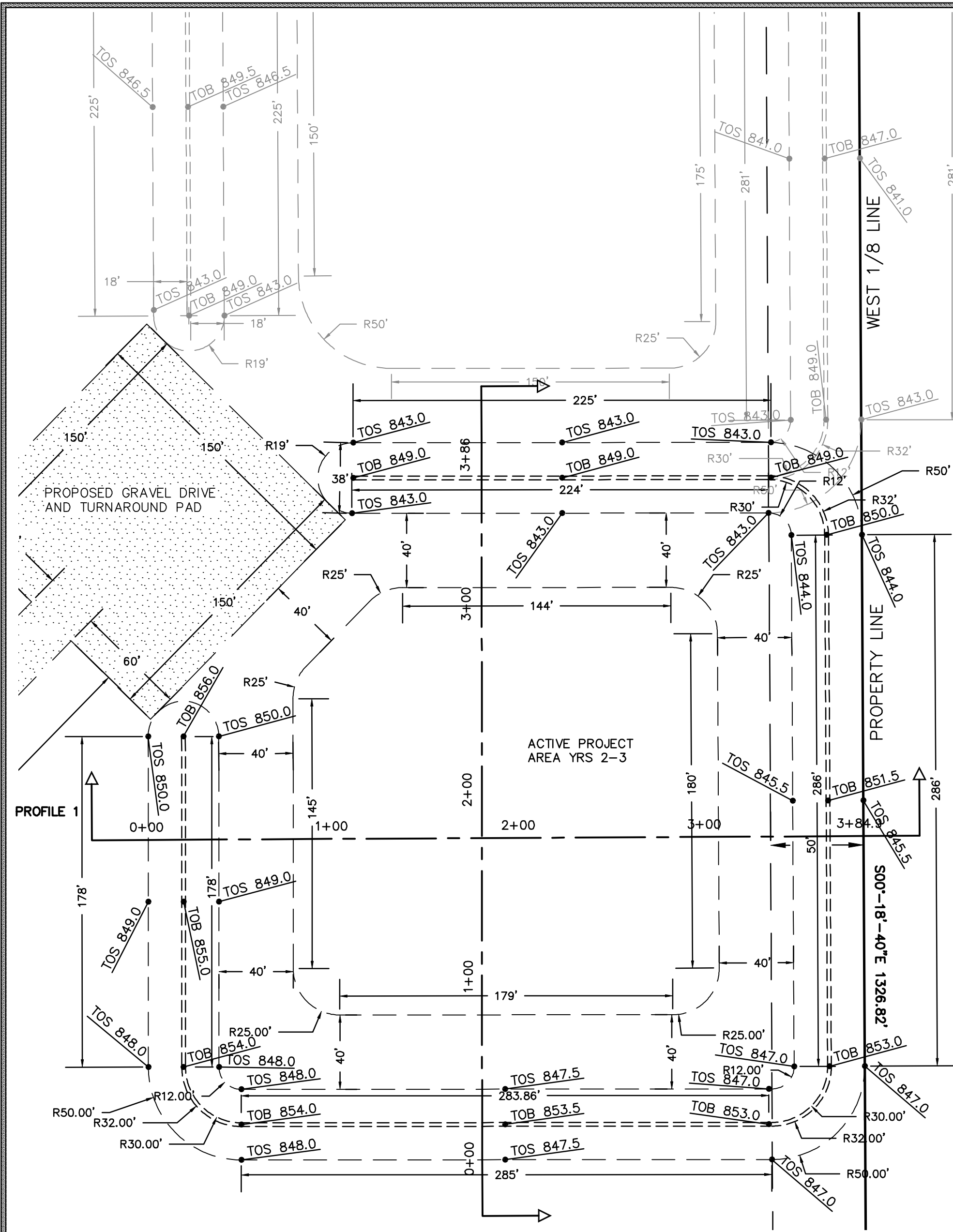
SCALE
 1" = 50'

DRAWN BY:
 BTM

SHEET NUMBER
 4 OF 7

DESIGNED BY:
 TELB

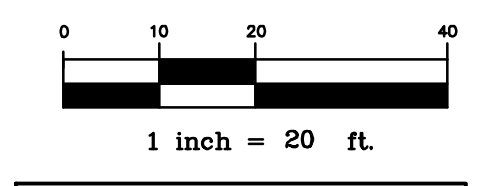
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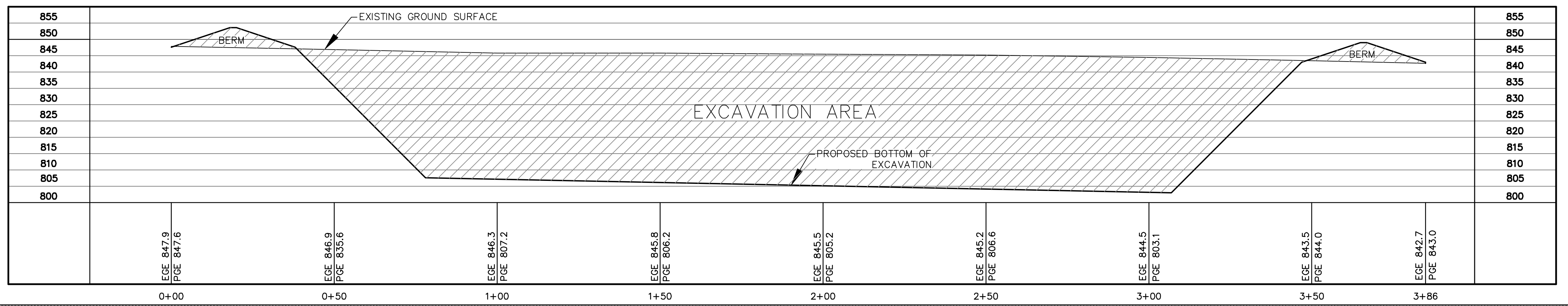
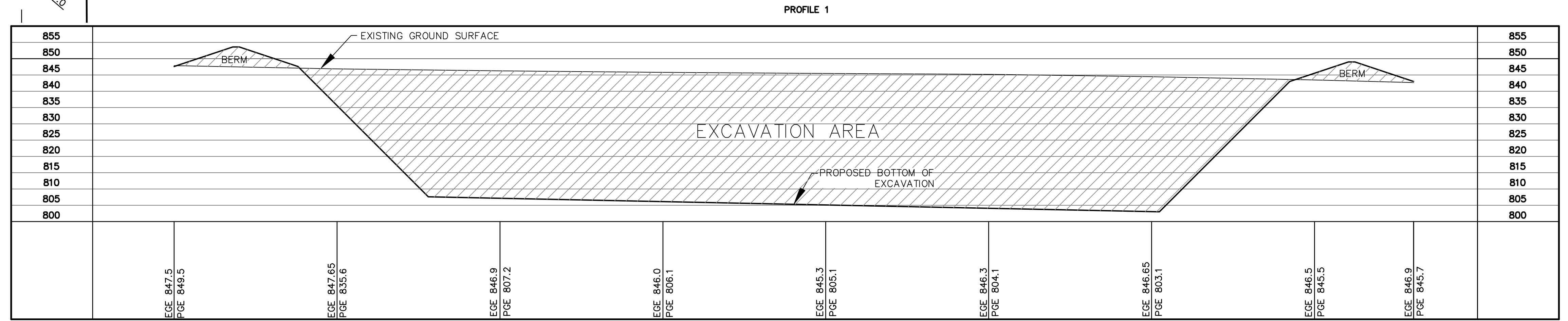
ACTIVE PROJECT AREA YEARS 2-3



NOTE:
 EGE - EXISTING GROUND ELEVATION
 PGE - PROPOSED GROUND ELEVATION



NOTE:
 EGE - EXISTING GROUND ELEVATION
 PGE - PROPOSED GROUND ELEVATION



REVISIONS:

SUBMITTAL TO CLIENT FOR REVIEW 12-15-17
 SUBMITTAL TO TOWNSHIP FOR SPECIAL USE
 11-26-19

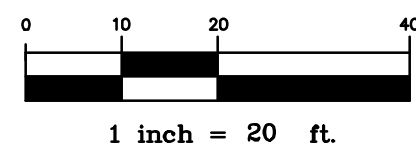
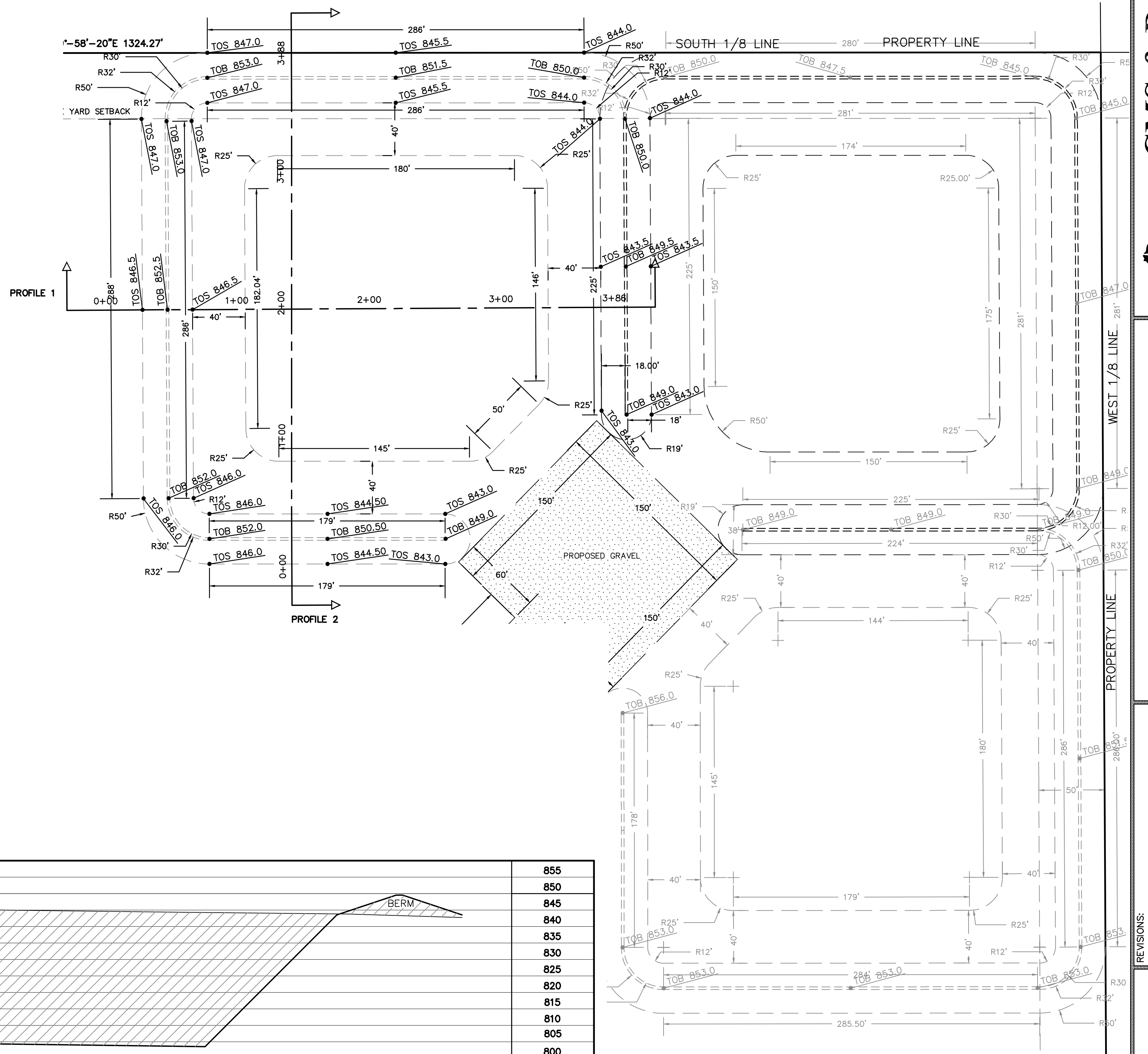
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 DRAWN BY:
 BTM
 DESIGNED BY:
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 CHECKED BY:
 TELB

SCALE
 1" = 50'
 SHEET NUMBER
 5 OF 7

ACTIVE PROJECT AREA YEARS 4-5

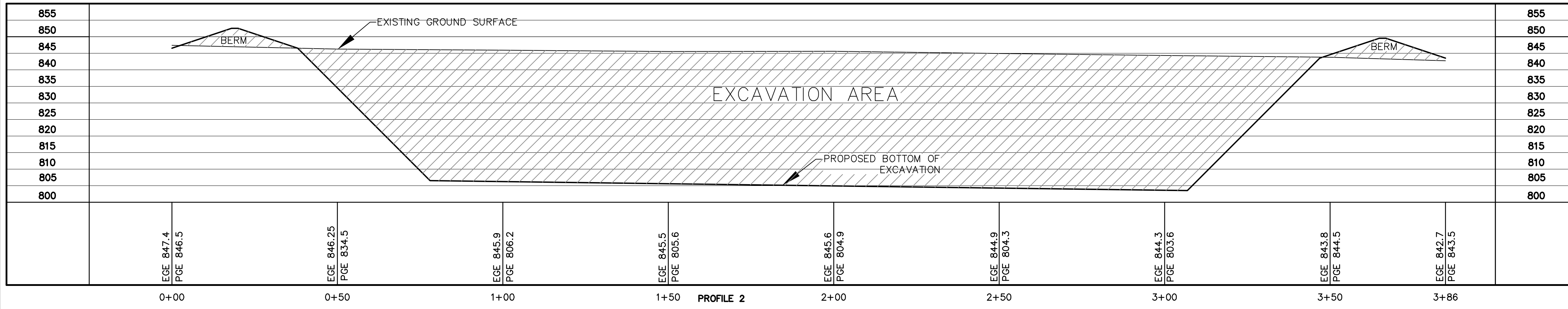


SITE PLAN DETAIL YEARS 4-5
JAMES AND JEREMY ZALUD
THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4
OF SECTION 33, T14N, R4W
UNION TOWNSHIP, MICHIGAN

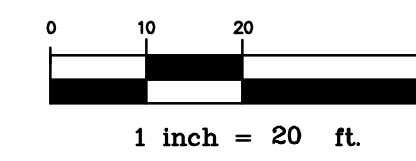
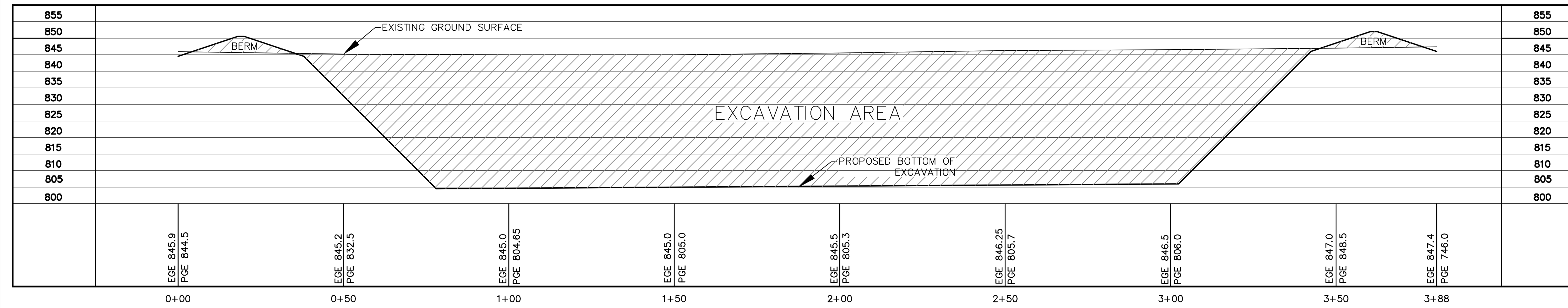


NOTE:
EGE - EXISTING GROUND ELEVATION
PGE - PROPOSED GROUND ELEVATION

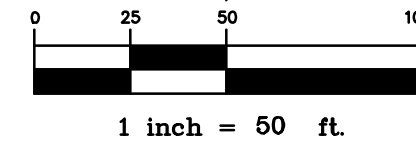
PROFILE 1



PROFILE 2



NOTE:
EGE - EXISTING GROUND ELEVATION
PGE - PROPOSED GROUND ELEVATION



REVISIONS:


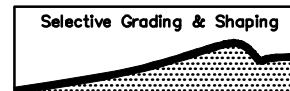
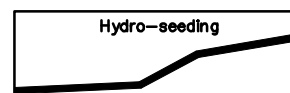
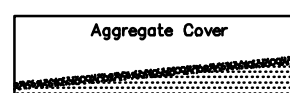
SUBMITTAL TO CLIENT FOR REVIEW 12-15-17
SUBMITTAL TO TOWNSHIP FOR SPECIAL USE
11-26-19

JOB NUMBER: 1707-093	DRAWN BY: BTM	DESIGNED BY: TELB	CHECKED BY: TELB
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SCALE: 1" = 50'	SHEET NUMBER: 6 OF 7
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MICHIGAN UNIFIED KEYING SYSTEM

SOIL EROSION & SEDIMENTATION CONTROL MEASURES

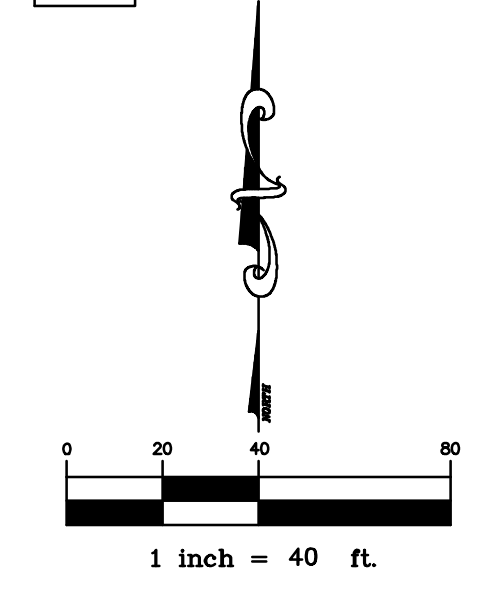
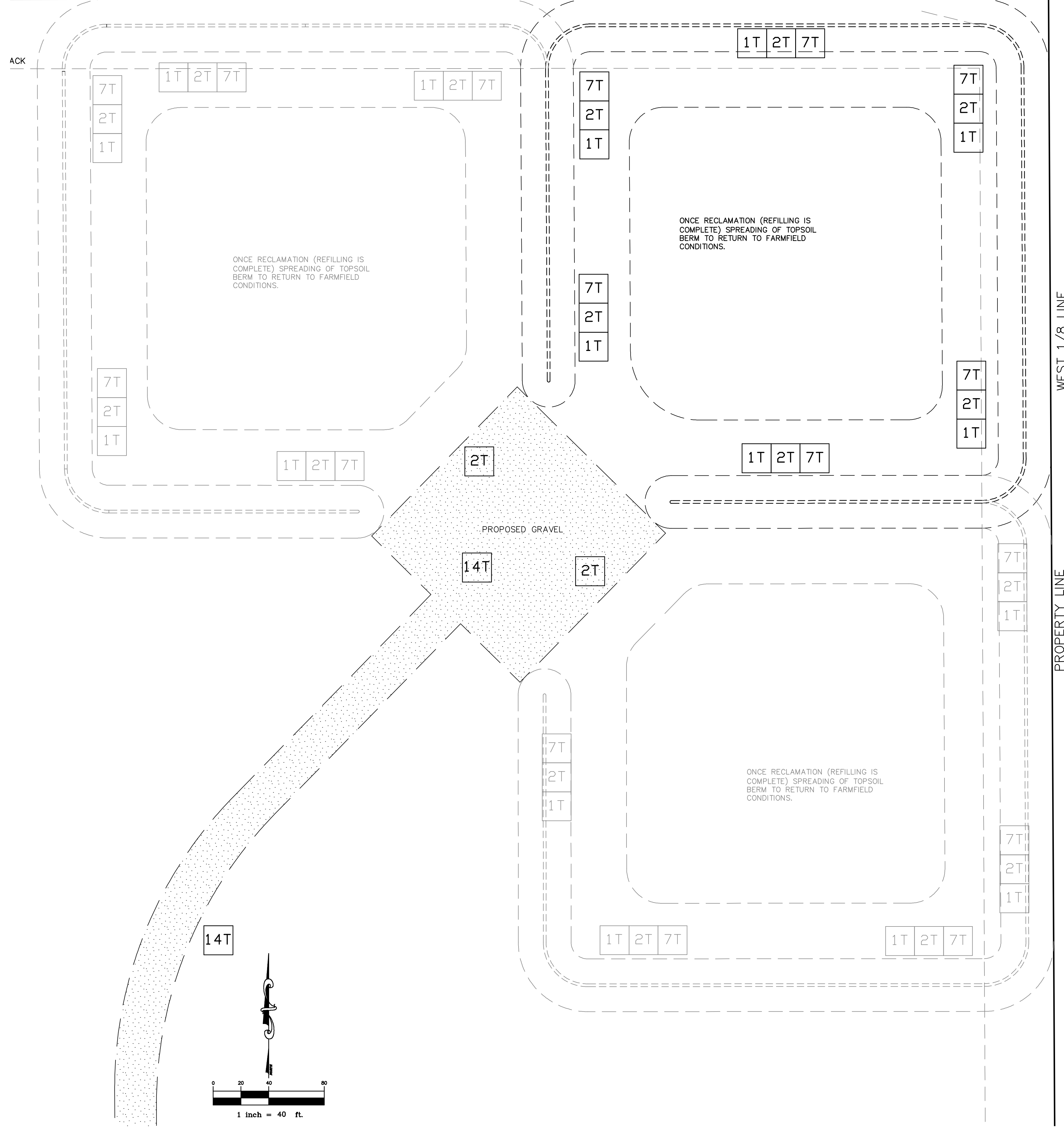
KEY	DETAIL	CHARACTERISTICS
1		Topsoil may be stockpiled above borrow areas to act as a diversion. Stockpile should be temporarily seeded.
2		Water can be diverted to minimize erosion. Flatter slopes ease erosion problems.
7		Effective on large areas. Mulch locking agent used to provide immediate protection until grass is rooted. Should include prepared topsoil bed.
14		Stabilizes soil surface, thus minimizing erosion. Permits construction traffic in adverse weather. May be used as part of permanent base construction of paved areas.

NOTE: XXT XXP
 T = TEMPORARY P = PERMANENT


1324.27'

SOUTH 1/8 LINE

PROPERTY LINE



CMS & D
 SURVEYING / ENGINEERING
 2257 E BROOMFIELD ROAD
 MT. PLEASANT, MICHIGAN 48858
 PHONE: (989) 775-0756
 FAX: (989) 775-5012
 EMAIL: info@cms-d.com



SOIL EROSION
JAMES AND JEREMY ZALUD
 THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4
 OF SECTION 33, T14N, R4W
 UNION TOWNSHIP, MICHIGAN

REVISIONS:

SUBMITTALS:

SCALE	1" = 40'
JOB NUMBER:	1707-093
DRAWN BY:	BTM
DESIGNED BY:	TELB
CHECKED BY:	TELB
SHEET NUMBER	7 OF 7



Mount Pleasant Fire Department
804 E. High Street
Mount Pleasant, Mi 48858

Union Township Site Plan Review

Thursday December 5, 2019

Gravel Pit-Lincoln and Milbrook

5000blk S Lincoln RD
Mt. Pleasant, MI 48858

A Site Plan Review was conducted on Thursday December 5, 2019 and revealed the following requirements listed below.

ORDER TO COMPLY: Since these conditions are contrary to code, you must correct them upon receipt of this notice. Please provide our department the documentation that verifies compliance with the code.

This list shall not be considered all-inclusive, as other requirements may be necessary, additional requirements are located in Chapter 5 and appendixes B, C, and D of the 2012 Edition of the International Fire Code.

If you have any questions regarding this matter, please feel free to contact me at (989) 779-5122.

Violation Code

1 PROPERTY Identification

Gravel/Sand Pit
S. Lincoln Rd and Millbrook Rd.

ACCESS ROAD LOAD Designed and Maintained to Support the

All fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities in accordance with Chapter 5, Sections 503.2.3 and 503.4 of the 2012 Edition of the International Fire Code.

DIMENSIONS Road Width Without Hydrants

Fire apparatus access roads shall have an unobstructed width of not less than 20 feet, exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches.

Site plan meets requirements.

Union Township Site Plan Review

Keeler, Randy
Lieutenant
Mount Pleasant Fire Department

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Zalud Sand Pit
Date: Wednesday, December 11, 2019 5:03:05 PM

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Pat Gaffney <PGaffney@isabellaroads.com>
Sent: Wednesday, December 11, 2019 4:17 PM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Cc: Timothy Bebee <tbebee@cms-d.com>; Jim Zalud (jzalud@isabellacorporation.com)
<jzalud@isabellacorporation.com>
Subject: RE: Zalud Sand Pit

Peter,

I have reviewed the above site plan.

Driveway permit will be required, also a road use agreement was discussed in regards to dust control along Millbrook and Lincoln Road depending upon the route trucks are using going to and from the proposed site.

Patrick J. Gaffney, PE
Engineer Superintendent
Isabella CRC
989-773-7131 x115
989-772-2371 fax
pgaffney@isabellaroads.com

From: Peter Gallinat [<mailto:pgallinat@uniontownshipmi.com>]
Sent: Wednesday, December 11, 2019 11:41 AM
To: Pat Gaffney
Subject: FW: Zalud Sand Pit

The third attachment is a site plan for a Sand and Gravel pit on Millbrook and Lincoln.
Looking for any comments.

Also don't have any comments from you on the Road Commission new Facility Plan.

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com



Peter Gallinat, Township Planner
pgallinat@uniontownshipmi.com
2010 South Lincoln
Mt. Pleasant, MI 48858
Phone 989-772-4600 Ext. 241
Fax 989-773-1988

TO: Planning Commission
FROM: Township Planner

Meeting 12/17/19

NEW BUSINESS

SUBJECT: C) SPR 2019-15 Self-Storage buildings located at S PARK PLACE MOUNT PLEASANT, MI 48858 PID 14-011-30-001-14. Owner: MT PLEASANT STORAGE CENTRAL LLC

Applicant: Alan Johns

Owner: MT. PLEASANT STORAGE CENTRAL LLC

Location: S PARK PLACE. MOUNT PLEASANT MI 48858

Current Zoning: B-4

Adjacent Zoning: B-4, I-1, SD-1 (Industrial MP City)

Future Land Use/Intent: *Industrial/Employment:* This category promotes traditional industrial employment. Located near regional nodes with convenient access to interchanges, this district provides an opportunity to diversify the industrial employment base of the township by reserving areas for research, development, technology, and corporate offices or campuses that will have less of an impact than traditional industrial uses. Uses to complement CMU's Smart Zone would include research, design, engineering, testing, laboratories, diagnostics, and experimental product development. Types of industries may include automotive, electronics, alternative energy technologies, computers, communications, information technology, chemical or biomedical engineering.

Current Use: Vacant.

Reason for Request: Construct 7 self-storage buildings.

History: A special use permit (SUP 2019-05) was approved for self-storage buildings in September of this year on the condition that a site plan was approved. As discussed during the SUP application the applicant who owns the I-1 parcel to the south with existing self-storage buildings plans to combine both parcels into one parcel with split zoning. At this time the project has received all outside agency approvals. MPFD, ICRC, ICTC, Isabella County Drain Office for Stormwater Management and Union Township Utilities.

Objective of board: Review sections 12 and 30.4.U of the Zoning Ordinance. The Planning Commission shall study the site plan and shall, within sixty days of its submittal to the Zoning Official, either approve or disapprove the proposed site plan. If the site plan is disapproved, the reasons for disapproval shall be stated. Upon approval of a site plan, at least two copies of the site plan as finally approved shall be signed and dated by the Secretary of the Planning Commission.

Recommendation from Township Planner

At this time, I would approve SPR 2019-15 on the condition of photometric lighting plan submitted and approved at time of building permit.

Twp Planner
Peter Gallinat

Union Township Site Plan Review Application 2015 Revision



FILL OUT THE FOLLOWING

- I. This application is for (circle one) Preliminary Site Plan Review Final Site Plan Review
- II. Applicant Name Alan Johns
- III. Applicant Address 1414 W. High Street, Mt. Pleasant, MI 48858
- IV. Applicant Phone (989) 775-5050 Owner Phone _____
- V. Applicant is (circle) Contractor Architect/Engineer Developer Land Owner (skip V& VI)
Other
- VI. Land Owner Name _____
- VII. Land Owner Address _____
- VIII. Project/Business Name Mt. Pleasant Storage, LLC Central, LLC
- IX. Fill out check list that follows. You must check off that each item has been included in the drawing. If an item is not going to be included in the construction, note that in the comment area. For the first three items, check off if you have made the required submittals to other reviewing agencies.

SUBMITTALS TO OTHER AGENCIES		Off
Storm water management plan approval prior to application. Reviewed by the County Engineer	✓	Copy of Union Township Storm Water Management Plan available upon request. Submit (2) copies of plan and calculations directly to the Isabella County Engineer, contact Bruce Rohrer at (989) 772 0911, ext. 231. Any review fees are additional.
		<u>Submittal & Approval in process</u>
All curb cuts, acceleration/deceleration lanes, additional drives, and other matters pertaining to roads to be approved by MDOT or Isabella County Road Commission prior to application.	✓	MDOT (M 20, BR 127 sites) at (989) 773 7756. Contact Isabella County Road Commission (all other county roads) at (989) 773 7131. Submit (3) copies.
		<u>ICRC and MDOT have no Jurisdiction over roadways</u>
Mt. Pleasant Fire Dept.	✓	Sgt Randy Keeler (989) 779-5122, (2) copies <u>In process of obtaining approval letter</u>
Isabella Co Transportation Commission (ICTC)	✓	Rick (989) 773 2913, (2) copies <u>In process of obtaining approval letter</u>
WELLHEAD PROTECTION REPORTING FORMS (Required for all Site Plans)		
Hazardous Substances Reporting Form Part I and II (Forms included in this packet)	✓	Kim Smith (989) 772-4600 ext 224 <u>ksmith@uniontownshipmi.com</u>
PERMIT INFORMATION - DEQ Check List	✓	
SITE PLAN REQUIREMENTS		
	I Of	Comments - (also indicate any features which will not be included in the development or are not applicable)
Name and addresses of Property Owner Name and Address of Applicant	✓	<u>Applicant & Owner are the same as indicated above</u>
Provide Construction Type (per Mi Building Code) and if sprinkled, (assume Type IVb, un-sprinkled if not provided)	✓	<u>TYPE IIB: Non-Combustible Metal Buildings</u>

Union Township Site Plan Review Application 2015 Revision

<p>The date, north arrow and scale. The scale shall be not less than 1"= 20' for property under three (3) acres and not more than 1"=40' for property greater than three acres.</p>	<p>✓</p>	<p><u>6.62 Acres - 1"=40'</u></p>
<p>All lot and/or property lines are to be shown and dimensioned, including building setback lines</p>	<p>✓</p>	<p><u>Shown</u></p>
<p>The location and dimensions of all existing and proposed: fire hydrants (within 400 feet of building) - - - drives, ----- sidewalks, (required) ----- curb openings, ----- acceleration/deceleration lanes, ----- signs, ----- exterior lighting on buildings and parking lots, - - parking areas (Including handicapped parking spaces, barrier-free building access, unloading areas), ----- recreation areas, ----- common use areas, ----- areas to be conveyed for public use and purpose. -</p>	<p>✓</p>	<p><u>Shown</u></p>
<p>Elevation of building front, side, and back. Include Sign size, height, and design. Canopy heights extending over driveways accommodate Public Transportation</p>	<p>✓</p>	<p><u>JBS Contracting</u></p>
<p>Source of utilities. Public water and sewer approval by Union Township Utility Coordinator prior to application.</p>	<p><u>N/A</u></p>	<p>Note: Union Township policy is to issue sewer and water permits after application for a building permit. Applicant is advised to contact the utility department for availability prior to site plan review. The township does not coordinate other utility matters. Applicant to assure himself that site is suitable for septic systems, contact Central Michigan District Health Department</p>
<p>All dumpsters shall be screened from public view with an opaque fence or wall no less than six feet in height. Show location. (Note most refuse contractors require concrete pad to place dumpsters upon)</p>	<p><u>N/A</u></p>	<p><u>No dumpster proposed</u></p>
<p>The location and right-of-way width of all abutting roads, streets, alleys and easements.</p>	<p>✓</p>	
<p>A locational sketch drawn to scale giving the section number and the nearest crossroads.</p>	<p>✓</p>	<p><u>Location Map on Cover Sheet</u></p>

Union Township Site Plan Review Application 2015 Revision

I submit the site plan and this application as a true representation of existing and proposed conditions. I agree to install all features as shown and to abide by conditions placed upon approval of this plan by the Union Township Planning Commission . False or inaccurate information placed upon this plan may be cause for revocation of any permits issued pursuant to site plan approval and / or removal of work installed. Any changes to the Site Plan now or in the future must be approved by the Union Township Planning Commission or Zoning Administrator. Approval of this plan shall not constitute the right to violate any provisions of the Union Township Zoning Ordinance 1991-5, or other applicable building or state codes and or laws.

Signature of Applicant

Date

Signature of Owner (if other than applicant)

Date

PLEASE PLACE OUR REVIEW ON THE December 17, 2019 (INSERT DATE)
PLANNING COMMISSION MEETING. An owners representative WILL / WILL NOT attend. You will not receive a reminder of the scheduled meeting.

Union Township Site Plan Review Application 2015 Revision

<u>Township use</u>	Review Comments
File # _____	_____
Fee Paid initial _____	_____
Receipt # _____	_____
Date received _____	_____
Date review completed by Zoning Administrator _____	_____
Place on the _____ Planning Commission Agenda	
Planning Commission Decision _____	_____

CHARTER TOWNSHIP OF UNION

SITE PLAN REVIEW HAZARDOUS SUBSTANCES REPORTING FORM

This form must be completed and submitted as part of the site plan for facilities which may use, store, or generate hazardous substances or polluting materials (including petroleum-based products)

Name of business: Mt. Pleasant Storage, ~~EEG~~ Central, LLC

Name of business owner(s): Alan Johns

Street and mailing address: 1414 W. High Street
Mt. Pleasant, MI 48858

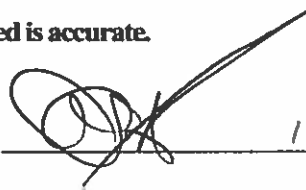
Telephone: (989) 775-5050

Fax: (989) 772-6151

Email: ajohns@appraisaladvisorygroup.com

I affirm that the information submitted is accurate.

Owner(s) signature and date:

 12/2/2019

Information compiled by:

Part 1: Management of Hazardous Substances and Polluting Materials

1. Y(N) Will the proposed facility store, use or generate hazardous substances or polluting materials (including petroleum-based products) now or in the future? If yes, please complete this form and submit with your site plan. A catalogue and map of natural resources on and near the site, including an assessment of groundwater vulnerability is required to be submitted with your plan.
2. Y(N) ~~Will the facility~~
on-site?
3. Y(N) — Will any hazardous substances or polluting materials be stored on-site? If yes, identify the storage location on the site plan. Describe the size and type of secondary containment structure here or on an attached page. Submit a map and/or diagram of facilities on the site related to groundwater protection, including secondary containment structures, loading/unloading areas, drinking water wells, septic systems, underground storage tanks and storm drain inlets.
4. Y(N) Will the new underground storage tanks be located less than 2000 feet from a drinking water well serving more than a single household?
5. Y(N) Are existing underground storage tanks on-site less than 200 feet from a drinking water well serving more than a single household?
- If the answer to questions 4 or 5 are yes, you may be in violation of the State of Michigan underground storage tank regulations . For specific requirements, please contact the MDEQ Underground Storage Tank Division. District Office Telephone: 989-894-6200 (Saginaw Bay District Office)
6. Y(N) — — Will the interior of the facility have general purpose floor drains? (general purpose floor drains should not be connected to a sanitary sewer system, stormwater drainage system, dry well or septic system). If yes, will the floor drain connect to: (circle one)
- a. on-site holding tank
b. on-site system
- The on-site system must be approved by the MDEQ.
Contact: MDEQ Waste Management Division.
District Office telephone: 989-894-6200 (Saginaw Bay District Office)
7. Y(N) Will hazardous substances or polluting materials be stored, used, or handled out-of doors near storm drains which discharge to lakes, streams, or wetlands? If yes, describe the type of catch basin or spill containment facilities which will be used (use an attached sheet with diagram if appropriate).

cc: Charter Township of Union Department of Public Works



PERMIT INFORMATION

www.michigan.gov/deqpermits

The Department of Environmental Quality (DEQ) has prepared a list of key questions to help identify what DEQ permits, licenses, or approvals of a permit-like nature may be needed. By contacting the appropriate offices indicated, you will help reduce the possibility that your project or activity will be delayed due to the untimely discovery of additional permitting requirements later in the construction process. While this list covers the existence of permits and approvals required from the DEQ, it is not a comprehensive list of all legal responsibilities. A useful way to learn whether other requirements will apply is to go through the Self-Environmental Assessment in the Michigan Guide to Environmental, Health, and Safety Regulations, online at: <http://www.michigan.gov/ehsguide>. Please call the Environmental Assistance Center at 800-662-9278 to talk with any of the DEQ programs noted below.

KEY QUESTIONS:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	PROGRAM, WEBPAGE, AND CONTACTS
MISCELLANEOUS CONSTRUCTION			
<i>Air Quality Permit to Install:</i> Will your business involve the installation or construction of any process equipment that has the potential to emit air contaminants (e.g. dry sand blasting, boilers, standby generators)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Air Quality Division (AQD), <u>Permit Section</u>
<i>Asbestos Notification:</i> Does the project involve renovating or demolishing all or portions of a building? Notification is required for asbestos removal and required for all demolitions even if the structure never contained asbestos.	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	AQD, <u>Asbestos Program</u>
<i>Land and Water Featured Programs (Water Resources Division) - USACE Consolidated Permits:</i> Please consult the <u>Land and Water Management Decision Tree</u> document to evaluate whether your project needs a land and water management permit (i.e., Does the project involve filling, dredging, placement of structures, draining, or use of a welland?).	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Water Resources Division (WRD), <u>Joint Permit Application</u>
<i>Soil Erosion and Sedimentation Control:</i> Does the project involve an earth change activity (including land balancing, demolition involving soil movement, and construction)?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	<u>Soil Erosion and Construction Storm Water</u> , or Contact your <u>Local Agency</u>
<i>NPDES Storm Water Discharge from Construction Sites Notice of Coverage:</i> Does the project involve construction which will disturb one or more acres that come into contact with storm water that enters a storm sewer, drain, lake, stream, or other surface water?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	NPDES <u>Storm Water Permits Program</u> , or appropriate <u>DEQ District Office</u>
<i>Public Swimming Pool Construction (Spas/Hot Tubs) Permits:</i> Will your business involve the construction or modification of a public swimming pool, spa or hot tub?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	<u>Public Swimming Pool Program</u> , or appropriate <u>DEQ District Office</u>
<i>Threatened and Endangered Species:</i> Does the project involve activities that would destroy a protected species of plant or animal or disturb a protected animal species?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Endangered Species Assessment, <u>Threatened and Endangered Species Program</u> , 517-373-1552
Does the project involve construction or alteration of any sewage collection or treatment facility?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Appropriate <u>District Office</u> , WRD, Part 41 <u>Construction Permit Program</u>
Does the project involve construction of a facility that landfills, transfers, or processes of any type of solid non-hazardous waste on-site, or places industrial residuals/sludge into or onto the ground?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Office of Waste Management and Radiological Protection (OWMRP), <u>Solid Waste</u> , Appropriate <u>DEQ District Office</u>
Does the project involve the construction of an on-site treatment, storage, or disposal facility for hazardous waste?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OWMRP, Hazardous Waste Section, <u>Treatment, Storage and Disposal</u>
WATER SUPPLY (More information, see: http://www.michigan.gov/deqwater, select "drinking water")			
I am buying water from my community water supply (i.e. city of Detroit or Grand Rapids)	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Contact your <u>Local Water Utility</u>
I have a private or other water supply well (Type III)	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Contact your (District or County) <u>Local Health Department</u>
I have a Non-Community Water Supply (Type II)	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	<u>Guide</u> , Contact your (District or County) <u>Local Health Department</u>
I am a community water supply (Type I)	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	<u>Community Water Supply</u> , <u>DEQ District Office Community Water Supply Program</u>

WASTEWATER MANAGEMENT			
<i>Storm Water Discharge to Wetlands:</i> Will storm water be collected, stored, or treated in a wetland area from a public road, industrial, commercial, or multi-unit residential development?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
<i>Great Lakes:</i> Does the project involve construction, filling, or dredging below the Ordinary High Water Mark of one of the Great Lakes?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
<i>Inland Lakes and Streams:</i> Does the project involve any dredging, filling, placement of structures, or the operation of a marina within an inland waterbody (e.g. lake, river, stream, drain, creek, ditch, or canal), enlargement of a waterbody, or excavation of a pond within 500 feet of a waterbody?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
<i>Storm Water Ponds and Discharges to Inland Lakes/Streams, or Great Lakes:</i> Will storm water from any road or any other part of the development be discharged either directly or ultimately to an inland waterbody, or one of the Great Lakes; or will a storm water pond be constructed within 500 feet of an inland waterbody?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
Does the project involve placement of fill, earth moving, or placement of structures within the 100-year <i>floodplain</i> of a watercourse?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
Does the project involve construction of a building or septic system in a designated Great Lakes <i>high risk erosion area</i> ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Shoreland Management</u>
Does the project involve dredging, filling, grading, or other alteration of the soil, vegetation, or natural drainage, or placement of permanent structures in a designated <i>environmental area</i> ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Shoreland Management</u>
Does the project propose any development, construction, silvicultural activities or contour alterations within a designated <i>critical dune area</i> ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Sand Dune Management</u>
Does the project involve construction of a <i>dam</i> , weir or other structure to impound flow?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Dam Safety Program</u>
CONSTRUCTION PERMITS (SECTOR SPECIFIC)			
Does the project involve the construction or alteration of a water supply system or sewage disposal system for a manufactured housing project?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Office of Drinking Water & Municipal Assistance (ODWMA)
Does the project involve a subdivision or site condominium project utilizing individual on-site subsurface disposal systems or individual wells?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA
Does the project involve the construction or modification of a campground?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA, <u>Campgrounds program</u>
Does the project involve the construction or modification of a public swimming pool?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA, <u>Swimming pools program</u>
OPERATIONAL PERMITS			
Renewable Operating Permit: Does your facility have the potential to emit any of the following: 100 tons per year or more of any criteria pollutant; 10 tons per year or more of any hazardous air pollutant; or 25 tons per year or more of any combination of hazardous air pollutants?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	AQD, <u>Permit Section</u>
NPDES: Does the project involve the discharge of any type of wastewater to a storm sewer, drain, lake, stream, or other surface water?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, Appropriate <u>DEQ District Office</u> , or <u>National Pollutant Discharge Elimination (NPDES) Permit Program</u>
Does the facility have industrial activity that comes into contact with storm water that enters a storm sewer, drain, lake, stream, or other surface water?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Permits Section</u> , or appropriate <u>DEQ District Office</u>
Does the project involve the discharge of wastewaters into or onto the ground (e.g. subsurface disposal or irrigation)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Groundwater Permits Program</u>
Does the project involve the drilling or deepening of wells for waste disposal?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	<u>Office of Oil, Gas and Minerals (OOGM)</u>
Does the project involve landfilling, transferring, or processing of any type of solid non-hazardous waste on-site, or placing industrial residuals/sludge into or onto the ground?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	<u>OWMRP</u> or Appropriate <u>DEQ District Office</u>

Does the project involve the on-site treatment, storage, or disposal of hazardous waste?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OWMRP, <u>Hazardous and Liquid Waste</u>
Does the project require a site identification number (EPA number) for regulated waste activities (used oil, liquid waste, hazardous waste, universal waste, PCBs)? (<u>Web Site</u>)	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OWMRP, Appropriate <u>DEQ District Office</u>
Does the project involve the receipt, possession, manufacture, use, storage, transport, transfer, release, or disposal of radioactive material in any form?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OWMRP, <u>Radioactive Material and Standards Unit</u>
Does the project involve decommissioning or decontamination of tanks, piping, and/or appurtenances that may have radioactive levels above background?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OWMRP <u>Radioactive Material and Standards Unit</u>
Do you desire to develop a withdrawal of over 2,000,000 gallons of water per day from any source other than the Great Lakes and their connecting waterways? Or, do you desire to develop a withdrawal of over 5,000,000 gallons of water per day from the Great Lakes or their connecting waterways?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, DWEHS, <u>Source Water Protection Unit</u>
CHEMICAL ADDITION PROJECTS			
Are you using chemicals or materials in, or in contact with, drinking water at any point in the water works system?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, Appropriate <u>DEQ District Office, Public Water Supply Program</u>
Are you applying a chemical treatment for the purpose of aquatic nuisance control (pesticide/herbicide etc) in a water body (i.e. lake, pond or river)? (5.	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Aquatic Nuisance Control and Remedial Action Unit</u>
Are you applying materials to a water body for a water resource management project (i.e. mosquito control treatments, dye testing, or fish reclamation projects)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Surface Water Assessment Section</u>
OPERATIONAL PERMITS (SECTOR SPECIFIC)			
Does the project involve the transport of some other facility's non-hazardous liquid waste?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OWMRP, <u>Transporter Program</u>
Does the project involve the transport hazardous waste?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OWMRP, <u>Transporter Program</u>
Does your facility have an electric generating unit that sells electricity to the grid and burns a fossil fuel?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	AQD, <u>Acid Rain Permit Program</u>
Is the project a dry cleaning establishment utilizing perchloroethylene or a flammable solvent in the cleaning process?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	DEQ, AQD, <u>Dry Cleaning Program</u>
Does your laboratory test potable water as required for compliance and monitoring purposes of the Safe Drinking Water Act?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	DEQ, <u>Laboratory Services Certifications</u>
Does the project involve the generation of medical waste or a facility that treats medical waste prior to its disposal?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OWMRP, <u>Medical Waste Regulatory Program</u>
Does the project involve transport of septic tank, cesspool, or dry well contents or the discharge of septage or sewage sludge into or onto the ground?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA, <u>Septage Program</u>
Do you store, haul, shred or process scrap tires?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OWMRP, <u>Scrap Tire Program</u>
Does the project involve the operation of a public swimming pool?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA, <u>Public Swimming Pools Program</u>
Does the project involve the operation of a campground?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA, <u>Campgrounds</u>
Do you engage in the business of hauling bulk water for drinking or household purposes (except for your own household use)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA, <u>Water Hauler Information</u>
PERSONAL LICENSES/CERTIFICATIONS			
Are you designated by your facility to be the Certified Operator to fulfill the requirements of a wastewater discharge permit (NPDES including Storm	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Operator Training, Storm Water Program</u>

Water or Groundwater)?			
Are you a drinking water operator in charge of a water treatment or water distribution system, back-up operator, or shift operator?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Operator Training</u>
Are you a water-well drilling contractor, pump installer, dewatering well contractor or dewatering well pump installer?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Well Construction Unit</u>
OIL, GAS AND MINERALS			
Do you want to operate a central production facility (applies to oil and gas production facilities where products of diverse ownership are commingled)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Petroleum Geology and Production Unit</u>
Does the project involve the removal of sand from a sand dune area within two (2) miles of a Great Lakes shoreline?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, Minerals and Mapping Unit, <u>Sand Dune Mining Program</u>
Does the project involve the diversion and control of water for the mining and processing of low-grade iron ore?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the surface or open-pit mining of metallic mineral deposits?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the mining of nonferrous mineral deposits at the surface or in underground mines?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve mining coal?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Do you want to change the status of an oil or gas well (i.e. plug the well)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve drilling of oil, gas, brine disposal, secondary recovery, or hydrocarbon storage wells?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve plugging or deepening of an oil or gas well, or conveying rights in the well as an owner to another person?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve changing the status or plugging of a mineral well?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the drilling or deepening of wells for brine production, solution mining, storage, or as test wells?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve decommissioning or decontamination of tanks, piping, and/or appurtenances that may have radioactive levels above background?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	OOWRP, <u>Radioactive Protection Programs</u>
STORAGE TANKS (CONSTRUCTION AND OPERATION)			
Does the project involve the installation of an aboveground storage tank for a flammable or combustible liquid (under 200 degrees Fahrenheit)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Michigan Department of Licensing and Regulatory Affairs (DLARA) - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a compressed natural gas dispensing station with storage?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a liquefied petroleum gas container filling location or storage location that has a tank with a capacity of more than 2,000 gallons or has two (2) or more tanks with an aggregate capacity of more than 4,000 gallons?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation, removal, or upgrade of an underground storage tank containing a petroleum product or a hazardous substance?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a hydrogen system?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>

Union Township Site Plan Review Application 2015 Revision

Storm Water Management Plan

Submit (2) copies of Storm Water Management Plan directly to county engineer prior to Site Plan Review Code - Union Township Ord. 1992-9 Storm Water Management

Isabella County Building

Resource Management
ATTN: Bruce Rohrer PE
200 N. Main St.
Mt. Pleasant, MI 48858

(989) 772 0911 Ext. 231 (FAX) 773 7431

Plumbing, Electrical, Mechanical Permits

Isabella County Building
Inspections
ATTN: (SEE FOLLOWING LIST)
200 N. Main St.
Mt. Pleasant, MI 48858
(989) 772 0911 Ext. (SEE FOLLOWING) (FAX) 773 7431

Electrical Inspector
Tim Wardwell - Ext. 230

Plumbing and Mechanical Inspector
Doug Elias - Ext. 228

Fire Department Review

Sgt. Randy Keeler
804 E. High St.
Mt. Pleasant, MI 48858
(989) 779-5122 (FAX) 773 4020
rkeeler@mt-pleasant.org

Addressing

Isabella County Building Official (989) 772 0911, Ext 228

Miscellaneous

Phone - GTE (800) 483 5600, Verizon (800) 483 4000
Gas/Electric - Consumer Energy (800) 572 4788, MichCon (800) 477 4747 Central MI Dist. Health Dept. (989) 773 5921
Miss Dig (800) 482 7171

Union Township Site Plan Review Application 2015 Revision

UNION TOWNSHIP CONSTRUCTION CONTACTS

Building & Zoning Permits
Sign Permit
Water and Sewer review
Site Plan Review

Charter Township of Union
2010 S. Lincoln Rd
Mt. Pleasant, MI 48858

(989) 772 4600 (switchboard)
(989) 773 1988 (FAX)

Building Official
Randy Robinson - Ext. 227
rrobinson@uniontownshipmi.com

Zoning Administrator
Peter Gallinat - Ext. 241
pgallinat@uniontownshipmi.com

Public Works Coordinator
Kim Smith - Ext. 224
ksmith@uniontownshipmi.com

Road Permits
(submit (2) copies of site plan directly to proper authority prior to Site Plan Review)

State Highways M 20 and US 127 (portions of E. Pickard Rd, E Remus Rd, and Mission Rd)

MDOT
1212 Corporate Drive
Mt. Pleasant, MI 48858
(989) 773-7756 FAX 775 6329

All other roads

Isabella County Road Commission
2261 E. Remus Rd
Mt. Pleasant, MI 48858
(989) 773 7131 (FAX) 772 2371

ICTC
2100 E Transportation Dr
Mt. Pleasant, MI 48858
(989)772-9441

PLAN ISSUE:	
PERMIT	
NO.	DESCRIPTION
1	SHOW BLD. 2 AS FUTURE
2	ADD SHEETS 4 THROUGH 9
3	MOD. BLD. 5 & 6, ADD HYDRANT

REVISIONS		
NO.	DATE	DESCRIPTION

COVER

MT. PLEASANT STORAGE CENTRAL, LLC
Section 11, T14N., R4W, Union Township,
Isabella County, Michigan

LORENZ
SURVEYING & ENGINEERING, INC.
 3229 W. Beal City Road Phone: (989) 644-5953
 Weldman, Michigan 48893 Fax: (989) 644-8659
 pete@lorenzse.com

JOB NO: 190065
 SCALE: NONE
 DRAWN BY: TPL
 DATE: 12/03/19
 SHEET NO. **C1**

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
C1	COVER
C2	TOPOGRAPHIC SURVEY
C3	SITE PLAN
C4	GRADING PLAN 1
C5	GRADING PLAN 2
C6	STORM SEWER PLAN & PROFILE
C7	STORM WATER MANAGEMENT PLAN
C8	WATER MAIN PLAN
C9	SOIL EROSION & SEDIMENTATION CONTROL PLAN
C10	DETAILS

PROPERTY DESCRIPTIONS

14-011-30-002-01
 A parcel of land in the Northeast 1/4 of the Southwest 1/4 of Section 11, T14N, R4W, Union Township, Isabella County, Michigan described as: To fix the Point of Beginning, commence at the West 1/4 corner of Section 11; thence South 01°00'00" West, on the West line of said section, 1348.96 feet; thence South 87°54'00" East, on the South 1/8 line of said section, 1389.46 feet; thence North 00°42'00" East, parallel with and 66.00 feet, measured at right angles, East of the West 1/8 line of said section, 551.71 feet; thence South 87°54'00" East, parallel with said South 1/8 line, 300.00 feet to the Point of Beginning of this description; thence continuing South 87°54'00" East, 33.88 feet to a point on a 133.00 foot radius curve, said point being a point on the Southwesterly right of way of Park Place (so-called); thence Southeasterly on the arc of said curve 118.08 feet to the point of tangency, said arc being subtended by a chord bearing South 62°15'42" East, 114.24 feet to said point of tangency; thence South 87°54'00" East, parallel with said South 1/8 line, 53.04 feet; thence South 00°42'00" West, parallel with said West 1/8 line, 260.55 feet; thence North 87°54'00" West, parallel with said South 1/8 line, 188.71 feet; thence North 00°42'00" East, parallel with said West 1/8 line, 310.00 feet back to the Point of Beginning.

AND

Parcel II: Part of the Northeast 1/4 of the Southwest 1/4 of Section 11, T14N, R4W, Union Township, Isabella County, Michigan described as beginning at a point which is South 01°00' West, 1348.96 feet along the West Section line and South 87°54' East, 1389.46 feet along the South, East-West 1/8 line and North 00°42' East, 241.71 feet parallel with the West, North-South 1/8 line from the West 1/4 corner of Section 11; thence North 00°42' East, 310.00 feet on a line which is parallel with and 66.0 feet East of the West line of said Northeast 1/4 of the Southwest 1/4; thence South 87°54' East, 300.00 feet; thence South 00°42' West, 310.00 feet; thence North 87°54' West, 300.00 feet to the Point of Beginning. Together with the use of the South 551.71 feet of the West 66.0 feet of the Northeast 1/4 of the Southwest 1/4 of Section 11, T14N, R4W, as an ingress and egress easement. Together with an ingress and egress easement 33.0 feet wide, lying 16.5 feet on each side of the following described centerline, beginning at a point which is South 01°00' West, 1348.96 feet and South 87°54' East, 1389.46 feet and North 00°42' East, 551.71 feet and South 87°54' East, 300.0 feet from the West 1/4 corner of Section 11, T14N, R4W, thence North 62°09'52" East, 34.85 feet to the Southwesterly right of way line of Park Place and the terminus of said easement.

14-011-30-001-14
 Part of the Northeast 1/4 of the Southwest 1/4 of Section 11, T14N, R4W, Union Township, Isabella County, Michigan described as beginning at a point on the West, N-S 1/8 line, which is S 01°00' W, 1348.96 feet along the West Section line and S 87°54' E, 1323.46 feet along the South, E-W 1/8 line and N 00°42' E, 551.71 feet along the West, N-S 1/8 line from the West 1/4 corner of Section 11; thence N 00°42' E, 266.85 feet along the West, N-S 1/8 line; thence S 87°10'57" E, 405.05 feet to the centerline of Park Place; thence S 00°42' W, 180.64 feet along said centerline; thence along said centerline on a curve to the left, having a radius of 100 feet on a chord bearing and distance of S 14°28' E, 52.33 feet; thence S 62°09'52" W, 60.07 feet; thence N 87°54' W, 366.0 feet to the point of beginning. Subject to the use of the Easterly 33.0 feet thereof as Park Place and subject to the use of the Westerly 66.0 feet thereof as an ingress-egress easement and subject to the use of 16.5 feet along the line bearing S 62°09'52" W, as an ingress-egress easement. Also to include the 66 foot strip and the West 66 feet of the South 551.71 feet of the Northeast 1/4 of the Southwest 1/4 of Section 11, T14N, R4W

ZONING REQUIREMENTS

B-4 ZONING

MINIMUM LOT FRONTAGE, LOT WIDTH 80 FEET
 MINIMUM LOT AREA 12,000 SQ. FT.
 MAXIMUM BUILDING HEIGHT 35 FEET
 SETBACK REQUIREMENTS FRONT YARD: 50 FEET (A)
 SIDE YARD: 20 FEET (B)
 REAR YARD: 25 FEET (B)

MAXIMUM LOT COVERAGE (BY ALL BUILDINGS) 30%

I-1 ZONING

MINIMUM LOT FRONTAGE, LOT WIDTH 100 FEET
 MINIMUM LOT AREA 43,560 SQ. FT.
 MAXIMUM BUILDING HEIGHT 35 FEET
 SETBACK REQUIREMENTS FRONT YARD: 75 FEET (A)
 SIDE YARD: 30 FEET (C)
 REAR YARD: 50 FEET (C)

MAXIMUM LOT COVERAGE (BY ALL BUILDINGS) 40%

A) OFF-STREET PARKING SHALL BE PERMITTED TO OCCUPY A PORTION OF THE REQUIRED FRONT YARD, PROVIDED THAT THERE SHALL BE MAINTAINED A MINIMUM UNOBSTRUCTED AND LANDSCAPED SETBACK OF TEN (10) FEET BETWEEN THE NEAREST POINT OF THE OFF STREET PARKING AREAS, EXCLUSIVE OF ACCESS DRIVEWAYS AND THE NEAREST RIGHT-OF-WAY LINE AS INDICATED ON THE MAJOR THOROUGHFARE PLAN.

B) A LOT IN THE B-4 AND B-5 DISTRICT WILL PROVIDE A SIDE AND REAR YARD OF AT LEAST FORTY (40) FEET WHEN ABUTTING A RESIDENTIAL DISTRICT.

C) A LOT IN THE I-1 OR I-2 DISTRICT WILL PROVIDE A SIDE AND REAR YARD OF AT LEAST SIXTY (60) FEET IN DEPTH WHEN ABUTTING A RESIDENTIAL USE OR DISTRICT.

OWNER

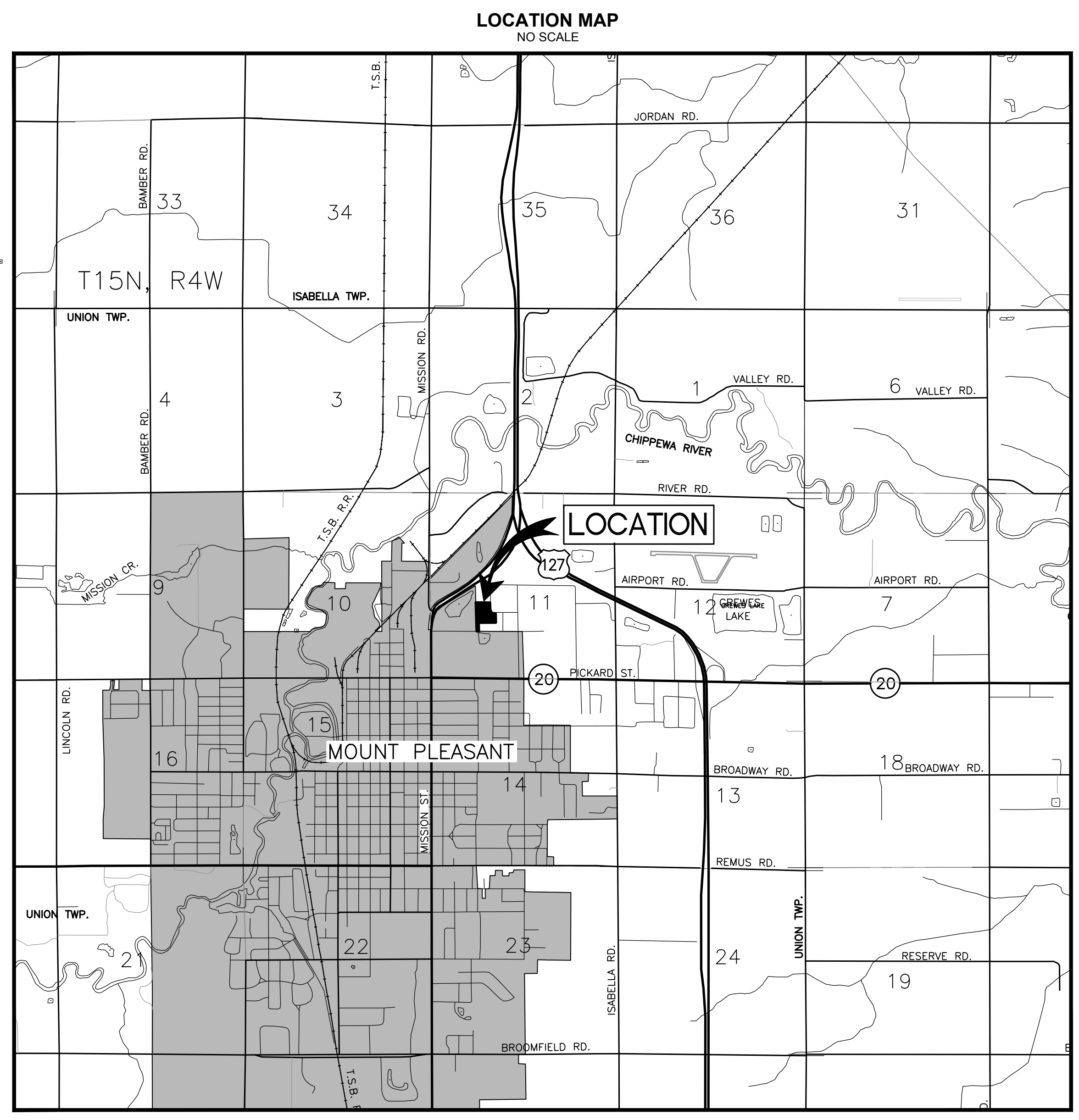
MT. PLEASANT STORAGE CENTRAL, LLC
 MR. ALAN JOHNS
 1414 W. HIGH STREET
 MT. PLEASANT, MI 48858
 PHONE: (989) 775-5050

NOTES

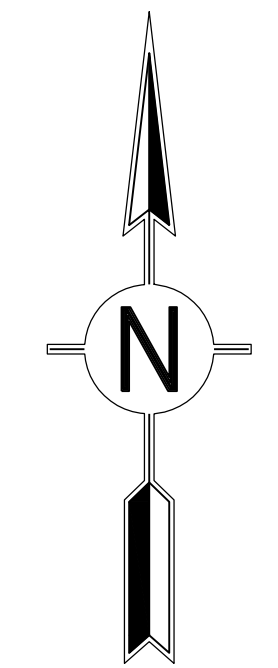
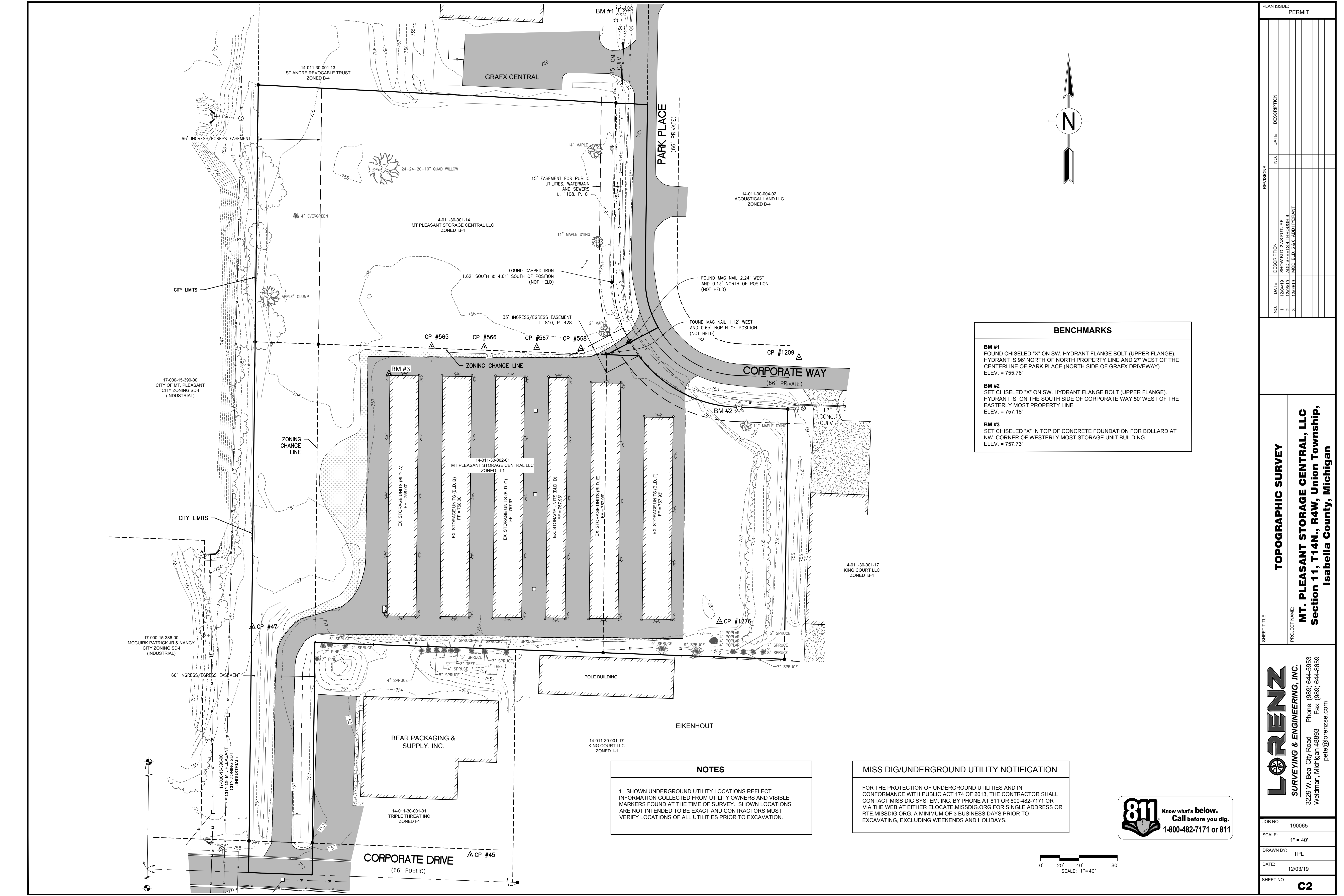
1. SHOWN UNDERGROUND UTILITY LOCATIONS REFLECT INFORMATION COLLECTED FROM UTILITY OWNERS AND VISIBLE MARKERS FOUND AT THE TIME OF SURVEY. SHOWN LOCATIONS ARE NOT INTENDED TO BE EXACT AND CONTRACTORS MUST VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO EXCAVATION.

MISS DIG/UNDERGROUND UTILITY NOTIFICATION

FOR THE PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CONTACT MISS DIG SYSTEM, INC. BY PHONE AT 811 OR 800-482-7171 OR VIA THE WEB AT EITHER ELOCATE.MISSDIG.ORG FOR SINGLE ADDRESS OR RTE.MISSDIG.ORG. A MINIMUM OF 3 BUSINESS DAYS PRIOR TO EXCAVATING, EXCLUDING WEEKENDS AND HOLIDAYS.



LEGEND		
⊙	DRAINAGE MANHOLE	△ BM #1
□	CATCH BASIN	⊕
▷	CULVERT END SECTION	⊙
⊙	SANITARY SEWER MANHOLE	⊕
⊙	SANITARY SEWER CLEANOUT	⊕
⊙	FORCE MAIN CLEANOUT	⊕
—	SIGN - SINGLE POST	⊕
—	SIGN - DOUBLE POST	⊕
⊕	FIRE HYDRANT	⊕
⊕	WATER VALVE	⊕
⊕	CURB STOP	⊕
⊕	WATER METER	⊕
⊕	WATER WELL	⊕
⊕	WATER MANHOLE	⊕
⊕	YARD HYDRANT	⊕
⊕	IRRIGATION VALVE	⊕
⊕	IRRIGATION SPRINKLER HEAD	⊕
⊕	GOVERNMENT CORNER	⊕
●	FOUND PROPERTY CORNER	⊕
■	FOUND CONCRETE MONUMENT	⊕
▲	FOUND PK OR MAG NAIL	⊕
○	SET CAPPED IRON #46677	⊕
△	SET MAG NAIL	⊕
△ CP #1000	CONTROL POINT	⊕
⊕	BENCHMARK	⊕
⊕	FLAG POLE	⊕
⊕	UTILITY POLE	⊕
⊕	GUY ANCHOR	⊕
⊕	ELECTRICAL TRANSFORMER	⊕
⊕	ELECTRIC METER	⊕
⊕	ELECTRICAL MANHOLE	⊕
⊕	ELECTRICAL VAULT	⊕
⊕	PEDESTRIAN SIGNAL	⊕
⊕	LIGHT POLE	⊕
⊕	FLOOD LIGHT	⊕
⊕	A.C. COMPRESSOR	⊕
⊕	ELECTRICAL PANEL	⊕
⊕	MONITORING WELL	⊕
⊕	GAS VALVE	⊕
⊕	GAS METER	⊕
⊕	TELEPHONE VAULT	⊕
⊕	TELEPHONE MANHOLE	⊕
⊕	PEDESTAL	⊕
⊕	CABLE VAULT	⊕
⊕	HANDHOLE	⊕
⊕	POST	⊕
⊕	BOLLARD	⊕
⊕	MAILBOX	⊕
⊕	DECIDUOUS TREE	⊕
⊕	CONIFEROUS TREE	⊕
⊕	BUSH OR SHRUB	⊕
⊕	STUMP	⊕
⊕	WALL PACK LIGHT	⊕
—	STORM SEWER	⊕
—	SANITARY SEWER	⊕
—	OVERHEAD WIRE	⊕
—	GAS LINE	⊕
—	ELECTRIC LINE	⊕
—	PHONE LINE	⊕
—	CABLE TV LINE	⊕
—	WATER LINE	⊕
—	FENCE LINE	⊕
⊕	TREELINE	⊕
⊕	EXISTING ASPHALT	⊕
⊕	EXISTING CONCRETE	⊕
⊕	EXISTING GRAVEL	⊕
⊕	PROPOSED ASPHALT	⊕
⊕	PROPOSED CONCRETE	⊕
(M)	MEASURED	⊕
(R)	RECORDED	⊕



BENCHMARKS

BM #1
 FOUND CHISELED "X" ON SW. HYDRANT FLANGE BOLT (UPPER FLANGE).
 HYDRANT IS 98' NORTH OF NORTH PROPERTY LINE AND 27' WEST OF THE
 CENTERLINE OF PARK PLACE (NORTH SIDE OF GRAFX DRIVEWAY).
 ELEV. = 755.76'

BM #2
 SET CHISELED "X" ON SW. HYDRANT FLANGE BOLT (UPPER FLANGE).
 HYDRANT IS ON THE SOUTH SIDE OF CORPORATE WAY 50' WEST OF THE
 EASTERLY MOST PROPERTY LINE.
 ELEV. = 757.18'

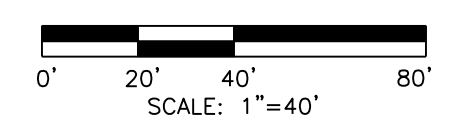
BM #3
 SET CHISELED "X" IN TOP OF CONCRETE FOUNDATION FOR BOLLARD AT
 NW. CORNER OF WESTERLY MOST STORAGE UNIT BUILDING.
 ELEV. = 757.73'

NOTES

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PLAN ISSUE:	
PERMIT	
NO.	DESCRIPTION
1	SHOW BLD. 2 AS FUTURE
2	ADD SHEETS 4 THROUGH 9
3	MOD. BLD. 5 & 6, ADD HYDRANT

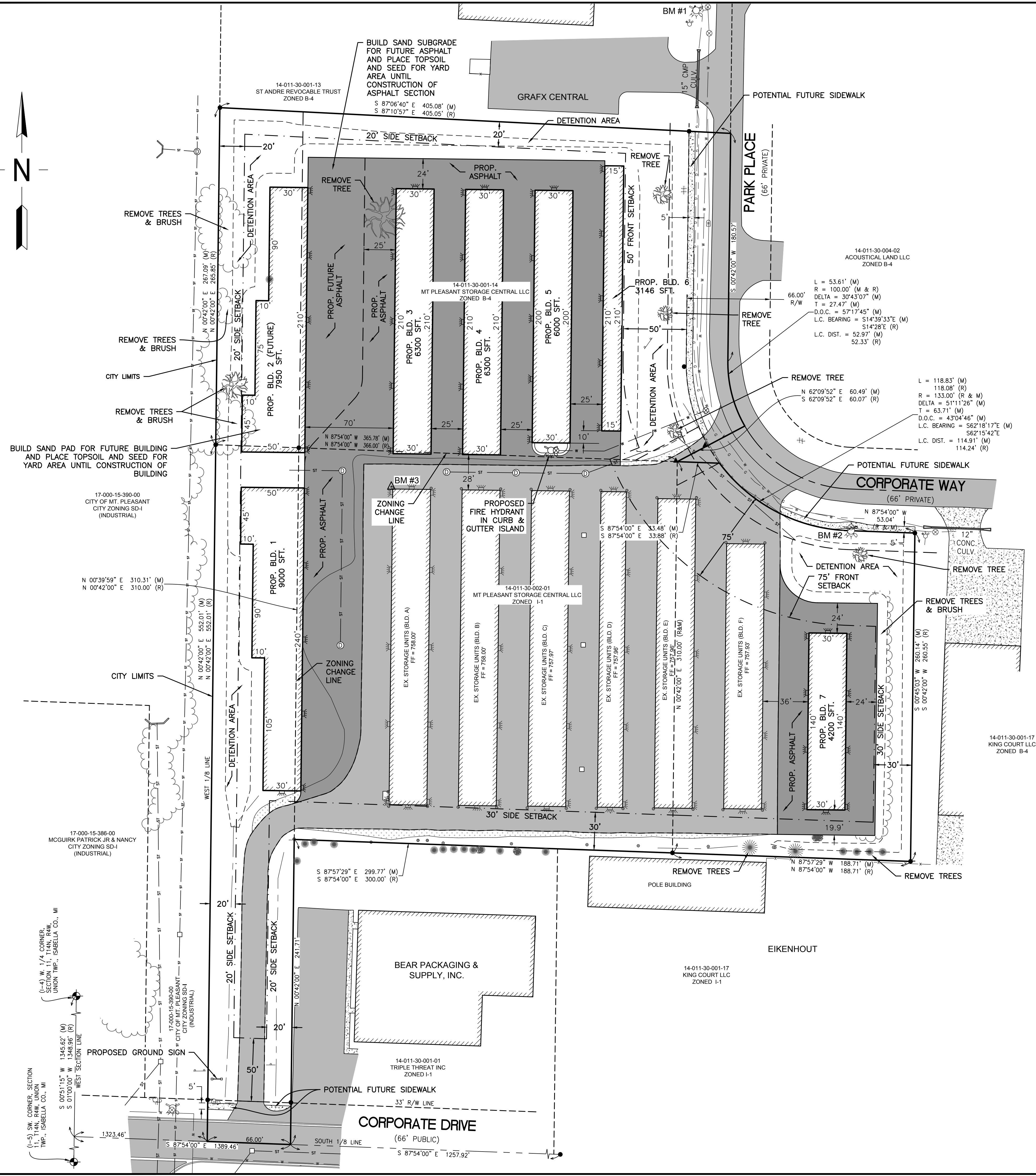
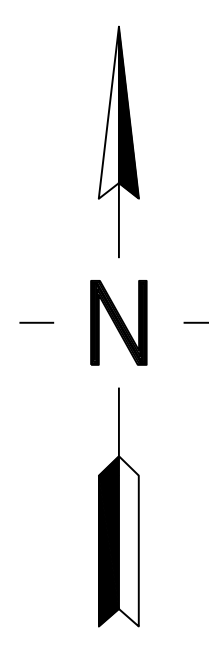
NO.	DATE	DESCRIPTION
1	12/04/19	
2	12/08/19	
3	12/08/19	

TOPOGRAPHIC SURVEY

PROJECT NAME:
 MT. PLEASANT STORAGE CENTRAL, LLC
 Section 11, T14N., R4W, Union Township,
 Isabella County, Michigan

LORENZ SURVEYING & ENGINEERING, INC.
 3229 W. Beal City Road Phone: (989) 644-5953
 Weldman, Michigan 48893 Fax: (989) 644-8659
 pete@lorenzse.com

JOB NO: 190065
 SCALE: 1" = 40'
 DRAWN BY: TPL
 DATE: 12/03/19
 SHEET NO: **C2**



OWNER & SITE PLAN APPLICANT

MT. PLEASANT STORAGE CENTRAL, LLC
 MR. ALAN JOHNS
 1414 W. HIGH STREET
 MT. PLEASANT, MI 48858
 PHONE: (989) 775-5050

BUILDING CONSTRUCTION TYPE

TYPE IIB: NON-COMBUSTIBLE METAL BUILDINGS

PARCEL AREAS

PARCEL NO.	AREA (SQ. FT.)	AREA (ACRES)
14-011-30-001-14	143,205	3.29
14-011-30-002-01	145,299	3.34
TOTAL	288,504	6.62

MAXIMUM LOT COVERAGE (BY ALL BUILDINGS)

I-1 AREA: PARCEL #14-011-30-002-01		B-4 AREA: PARCEL #14-011-30-001-14	
AREA = 145299 SFT		AREA = 143205 SFT	
EXISTING BUILDINGS		PROPOSED BUILDINGS	
BLD. AREA (SFT)		BLD. AREA (SFT)	
A 7500		1 9000	
B 7500		2 7950	
C 7500		3 6300	
D 5000		4 6300	
E 7350		5 6300	
F 6300		6 3150	
TOTAL	41,150 SFT	TOTAL	39,000 SFT
PROPOSED BUILDING 7 AREA = 4200 SFT		% COVERAGE 27.2% (ALLOWABLE = 30%)	
TOTAL ALL BUILDINGS AREA = 45350SFT		% COVERAGE 31.2% (ALLOWABLE = 40%)	

SIDEWALKS

SIDEWALK RELIEF IS REQUESTED BASED ON THE FOLLOWING:

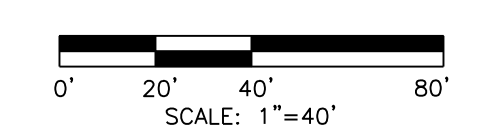
- THE DEVELOPMENT IS LOCATED ON A PROPERTY ZONED INDUSTRIAL.
- LESS THAN 50% OF THE SURVEYED SECTIONS OF THE TOWNSHIP ALONG THE ROAD FRONTING THE PROPOSED DEVELOPMENT HAS SIDEWALKS (NO EXISTING SIDEWALKS ALONG CORPORATE DR., PACKARD ST., PARK PL. OR CORPORATE WAY)

SITE LIGHTING

PROPOSED WALL PACK LIGHTING SHALL HAVE CUT-OFF SHIELDS TO DIRECT LIGHT DOWNWARD, REDUCE LIGHT POLLUTION AND GLARE.

PROPOSED SIGN

THE PROPOSED SIGN SHALL MEET UNION TOWNSHIP ORDINANCES AND A SIGN PERMIT WILL BE REQUIRED.



PLAN ISSUE: PERMIT

NO.	DATE	DESCRIPTION
1	12/04/19	SHOW BLD. 2 AS FUTURE
2	12/06/19	ADD SHEETS 4 THROUGH 9
3	12/08/19	MOD. BLD. 5 & 6, ADD HYDRANT

REVISIONS

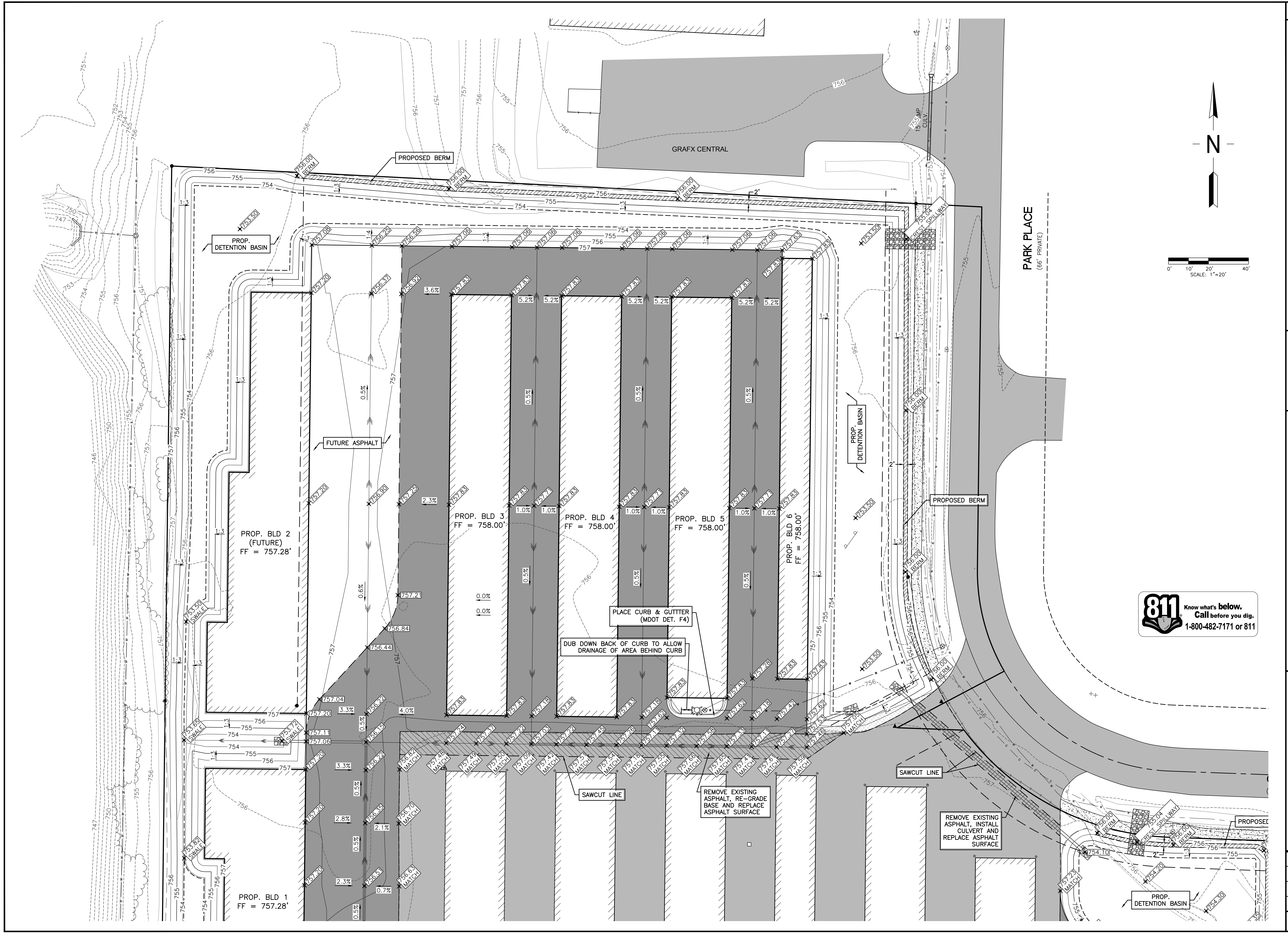
NO.	DATE	DESCRIPTION
1	12/04/19	SHOW BLD. 2 AS FUTURE
2	12/06/19	ADD SHEETS 4 THROUGH 9
3	12/08/19	MOD. BLD. 5 & 6, ADD HYDRANT

SITE PLAN

MT. PLEASANT STORAGE CENTRAL, LLC
 Section 11, T14N., R4W, Union Township,
 Isabella County, Michigan

LORENZ
 SURVEYING & ENGINEERING, INC.
 3229 W. Beal City Road Phone: (989) 644-5953
 Weldman, Michigan 48893 Fax: (989) 644-8659
 pete@lorenzse.com

JOB NO: 190065
 SCALE: 1" = 40'
 DRAWN BY: TPL
 DATE: 12/03/19
 SHEET NO. **C3**



PLAN ISSUE	
NO.	DESCRIPTION
1	SHOW BLD. 2 AS FUTURE
2	ADD SHEETS 4 THROUGH 9
3	MOD. BLD. 5 & 6, ADD HYDRANT

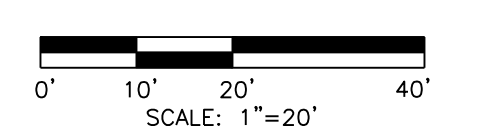
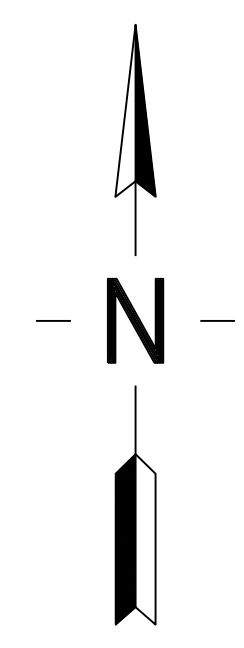
REVISIONS	
NO.	DATE

GRADING PLAN 1

MT. PLEASANT STORAGE CENTRAL, LLC
 Section 11, T14N., R4W, Union Township,
 Isabella County, Michigan

LORENZ
 SURVEYING & ENGINEERING, INC.
 3229 W. Beal City Road Phone: (989) 644-5953
 Weldman, Michigan 48893 Fax: (989) 644-8659
 pete@lorenzse.com

JOB NO: 190065
 SCALE: 1" = 20'
 DRAWN BY: TPL
 DATE: 12/03/19
 SHEET NO. **C4**



PLAN ISSUE		PERMIT	
NO.	DATE	NO.	DESCRIPTION
1	12/03/19		SHOW BLD. 2 AS FUTURE
2	12/03/19		ADD SHEETS 4 THROUGH 9
3	12/03/19		MOD. BLD. 5 & 6, ADD HYDRANT

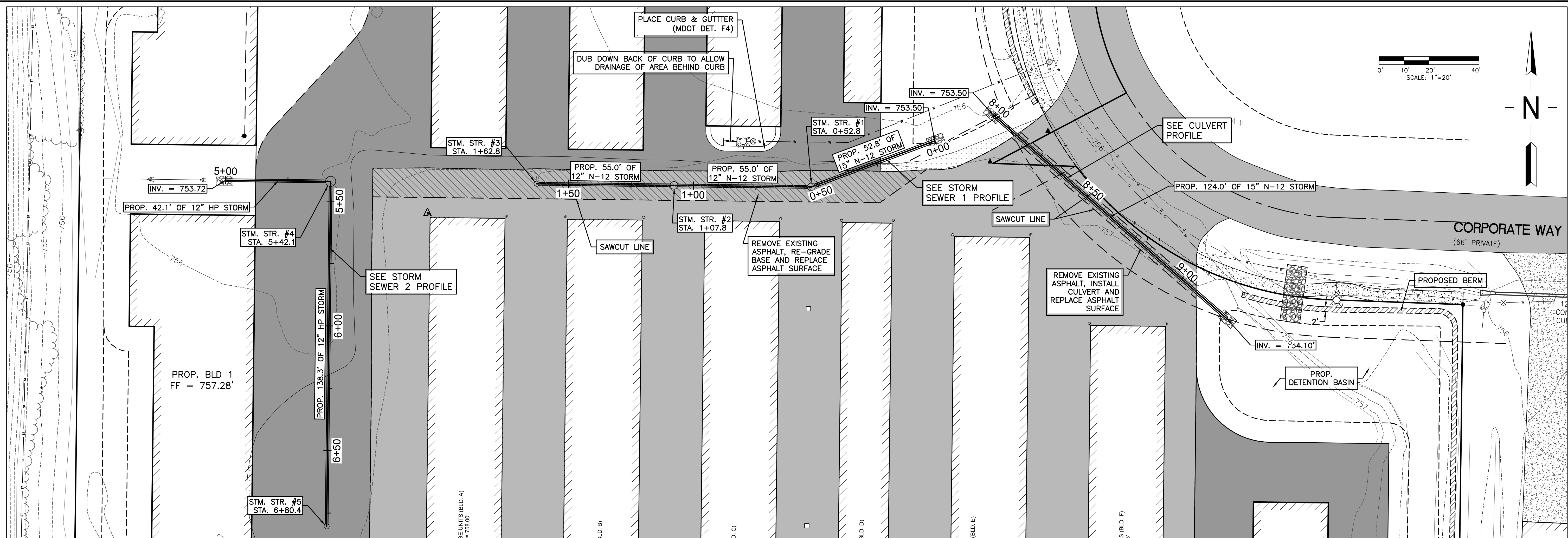
NO.	DATE	DESCRIPTION
1	12/03/19	SHOW BLD. 2 AS FUTURE
2	12/03/19	ADD SHEETS 4 THROUGH 9
3	12/03/19	MOD. BLD. 5 & 6, ADD HYDRANT

GRADING PLAN 2

MT. PLEASANT STORAGE CENTRAL, LLC
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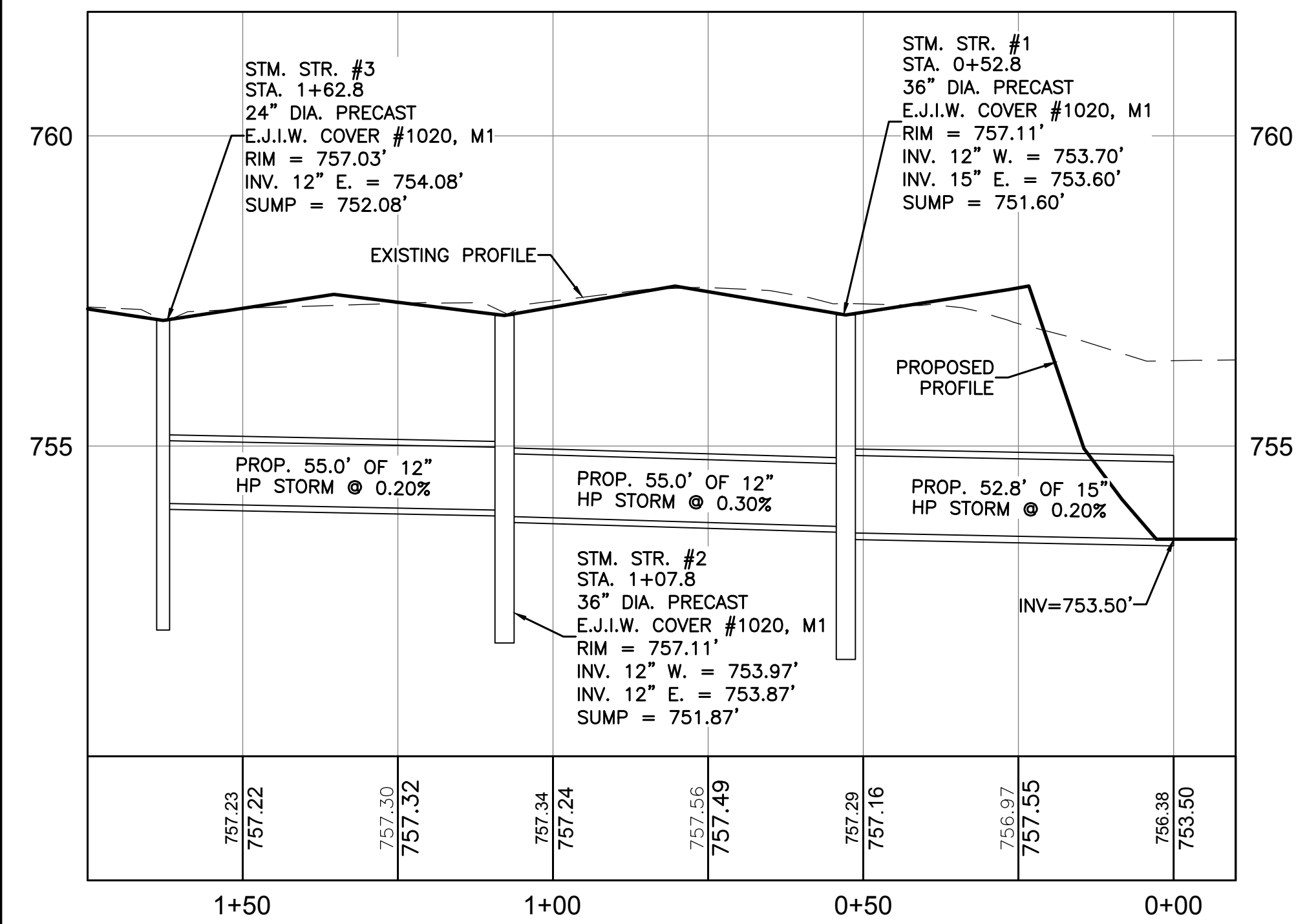
JOB NO: 190065
 SCALE: 1" = 20'
 DRAWN BY: TPL
 DATE: 12/03/19
 SHEET NO: **C5**



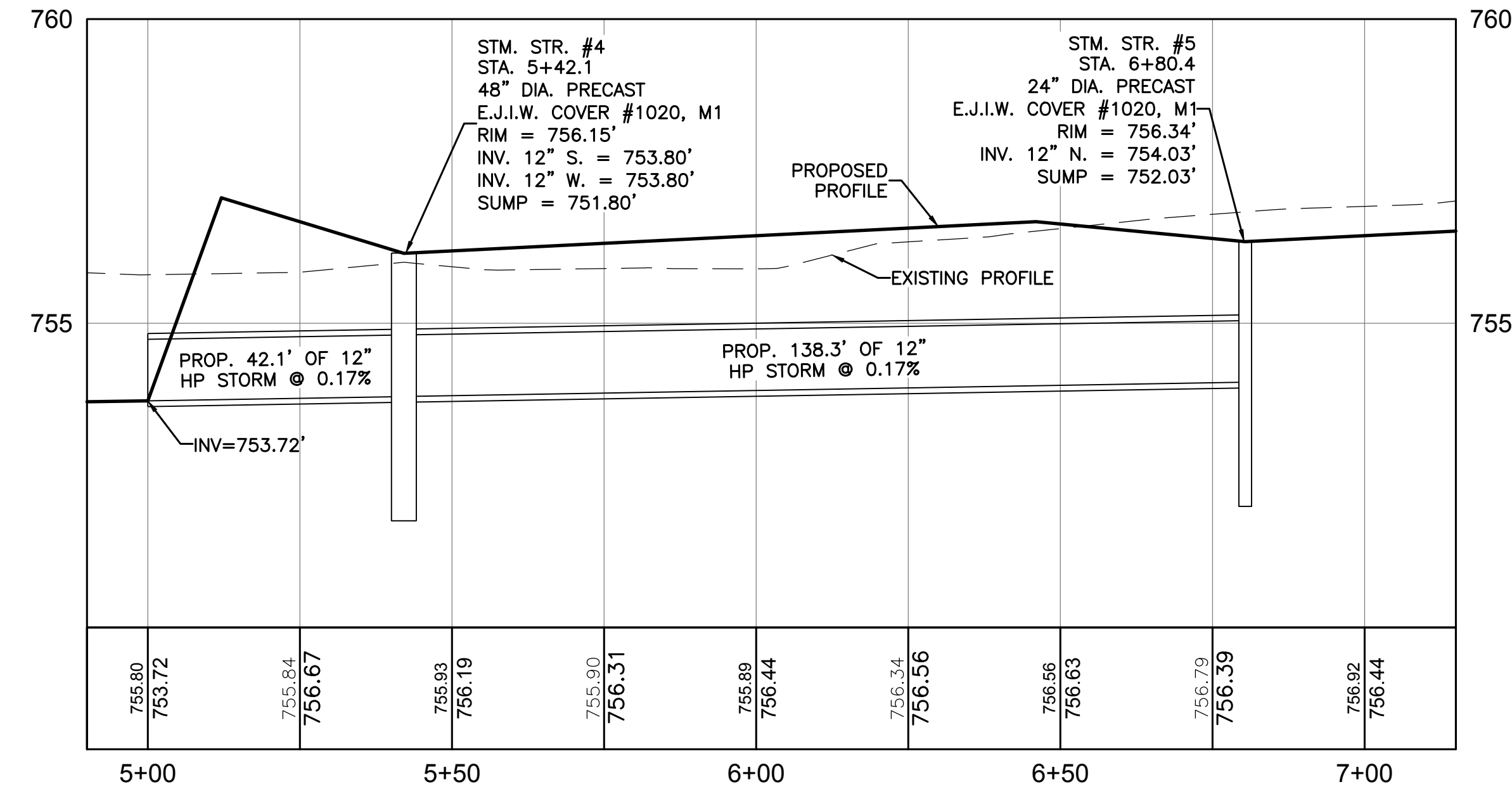
PLAN ISSUE: PERMIT

NO.	DATE	DESCRIPTION
1	12/03/19	SHOW BLD. 2 AS FUTURE
2	12/03/19	ADD SHEETS 4 THROUGH 9
3	12/03/19	MOD. BLD. 5 & 6, ADD HYDRANT

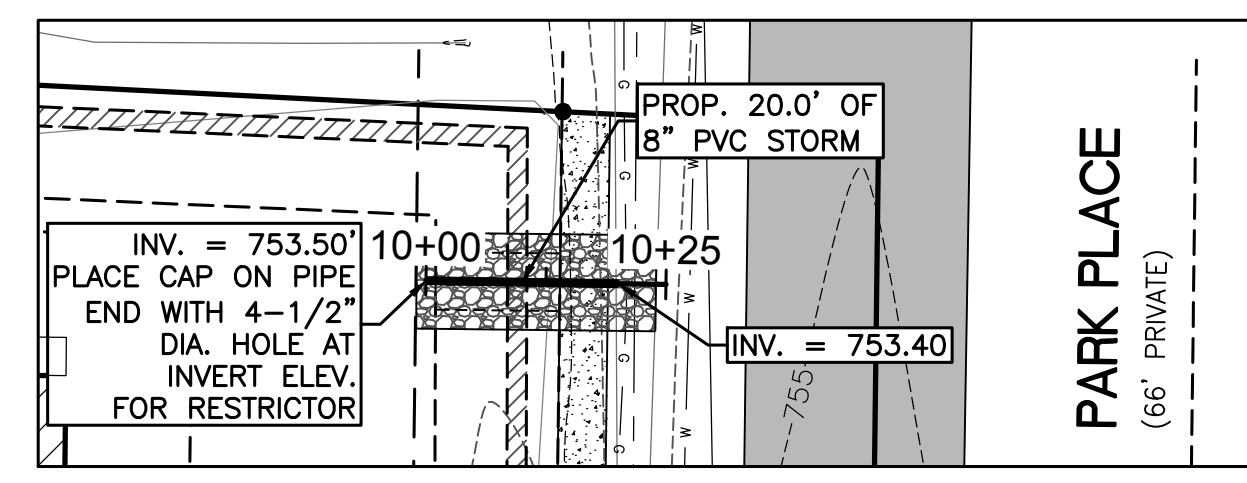
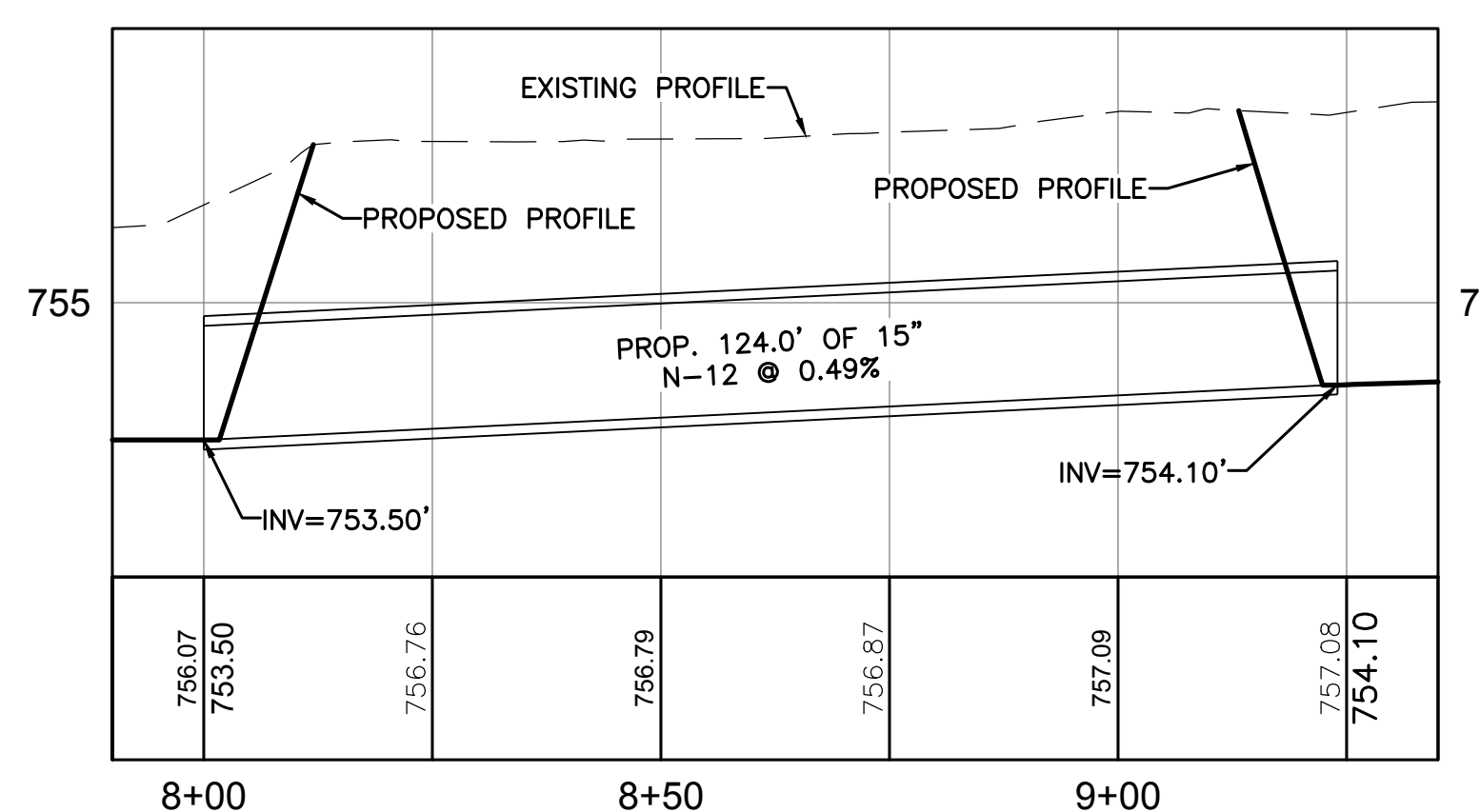
STORM SEWER 1 PROFILE



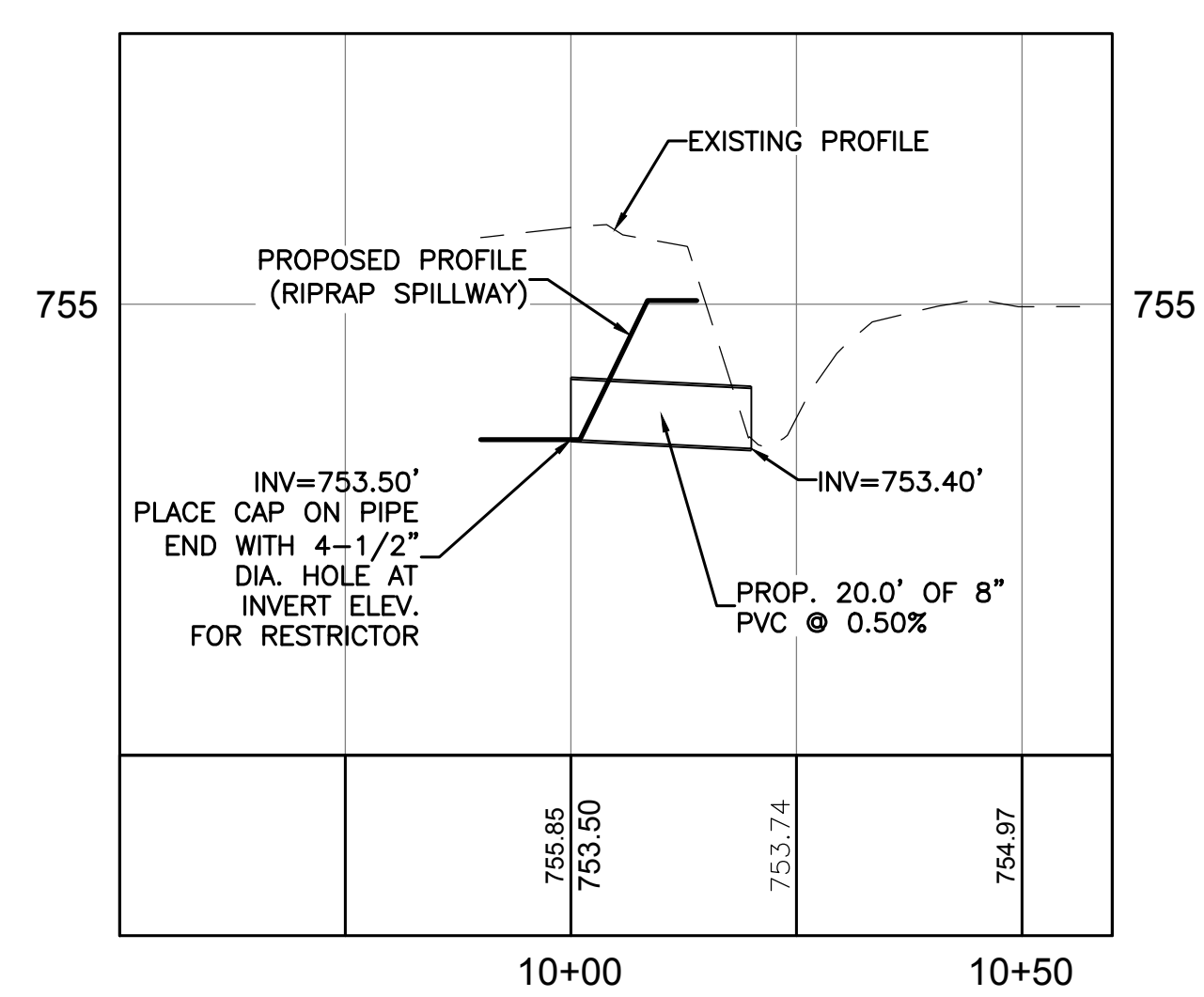
STORM SEWER 2 PROFILE



CULVERT PROFILE



RESTRICTOR PIPE PROFILE

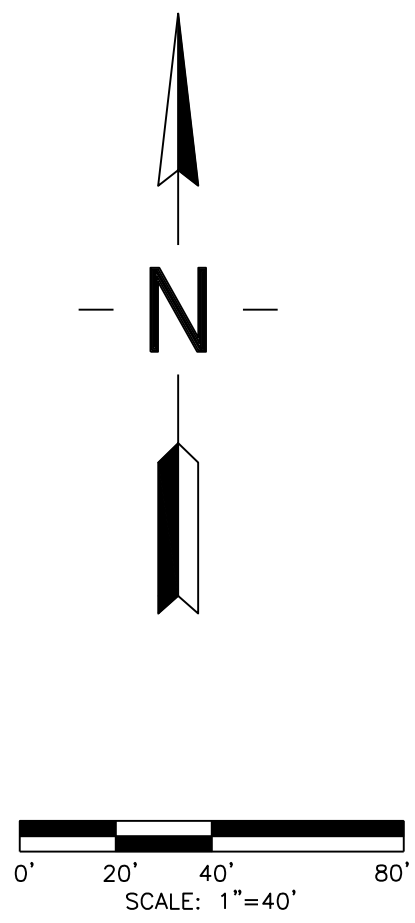
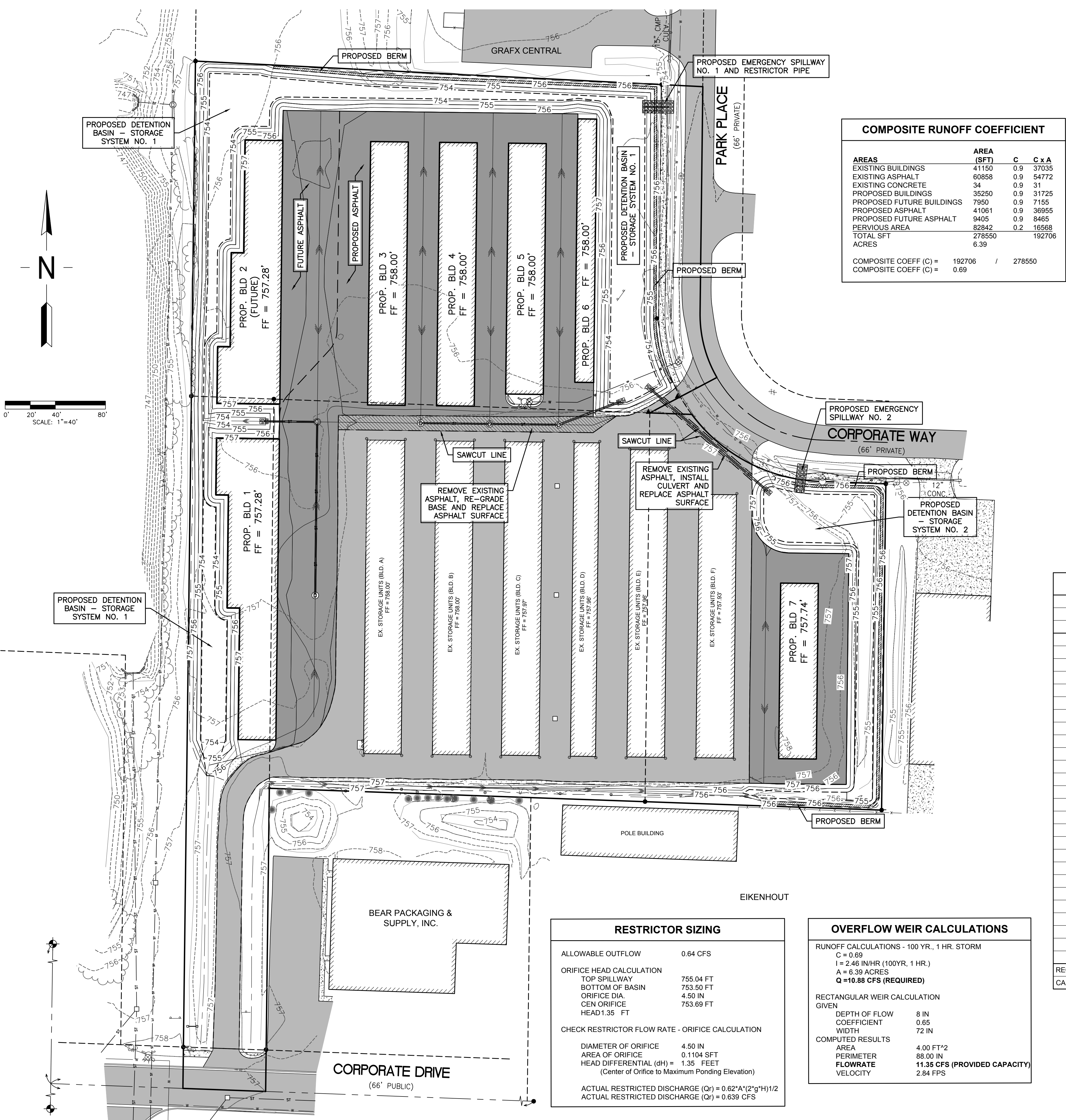


STORM SEWER PLAN & PROFILE

PROJECT NAME:
MT. PLEASANT STORAGE CENTRAL, LLC
 Section 11, T14N., R4W, Union Township,
 Isabella County, Michigan

LORENZ
 SURVEYING & ENGINEERING, INC.
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 Fax: (989) 644-8659
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JOB NO: 190065
 SCALE: 1" = 20'
 DRAWN BY: TPL
 DATE: 12/03/19
 SHEET NO: **C6**



COMPOSITE RUNOFF COEFFICIENT			
AREAS	AREA (SFT)	C	C x A
EXISTING BUILDINGS	41150	0.9	37035
EXISTING ASPHALT	60858	0.9	54772
EXISTING CONCRETE	34	0.9	31
PROPOSED BUILDINGS	35250	0.9	31725
PROPOSED FUTURE BUILDINGS	7950	0.9	7155
PROPOSED ASPHALT	41061	0.9	36955
PROPOSED FUTURE ASPHALT	9405	0.9	8465
PERVIOUS AREA	82842	0.2	16568
TOTAL SFT	278550		192706
ACRES	6.39		192706
COMPOSITE COEFF (C) = 192706 / 278550			
COMPOSITE COEFF (C) = 0.69			

REQUIRED DETENTION							
AREA OF SITE = 6.39 ACRES ALLOWABLE RELEASE RATE = 0.64 CFS COMPOSITE RUNOFF COEFFICIENT = 0.69							
STORM DURATION	INTENSITY FOR 25-YEAR STORM	RUNOFF FLOW RATE	ALLOWABLE OUTFLOW	STORED RATE	RESERVOIR SIZE	RESERVOIR SIZE	
(HOURS)	(MINUTES)	(IN/HR)	(CFS)	(CFS)	(ACRE/FEET)	(CFT)	
0.08	5	7.1400	31.56	0.64	30.92	0.21	9277
0.17	10	5.97	26.39	0.64	25.75	0.35	15452
0.33	20	4.19	18.52	0.64	17.88	0.49	21461
0.50	30	3.26	14.41	0.64	13.77	0.57	24791
0.67	40	2.69	11.89	0.64	11.25	0.62	27007
0.83	50	2.31	10.21	0.64	9.57	0.66	28719
1.00	60	2.03	8.97	0.64	8.34	0.69	30006
1.50	90	1.51	6.68	0.64	6.04	0.75	32596
2.00	120	1.22	5.39	0.64	4.75	0.79	34231
3.00	180	0.89	3.93	0.64	3.30	0.82	35591
3.50	210	0.79	3.49	0.64	2.85	0.83	35952
4.00	240	0.71	3.14	0.64	2.50	0.83	35996
4.50	270	0.64	2.83	0.64	2.19	0.81	35482
4.67	280	0.63	2.79	0.64	2.15	0.83	36054
5.00	300	0.59	2.61	0.64	1.97	0.81	35446
5.50	330	0.55	2.43	0.64	1.79	0.81	35489
6.00	360	0.51	2.25	0.64	1.62	0.80	34896
7.00	420	0.45	1.99	0.64	1.35	0.78	34028
8.00	480	0.40	1.77	0.64	1.13	0.75	32523
9.00	540	0.37	1.64	0.64	1.00	0.74	32292
10.00	600	0.34	1.50	0.64	0.86	0.71	31105
11.00	660	0.31	1.37	0.64	0.73	0.66	28964
12.00	720	0.29	1.28	0.64	0.64	0.64	27778
13.00	780	0.27	1.19	0.64	0.55	0.60	25955
14.00	840	0.25	1.11	0.64	0.47	0.54	23495
15.00	900	0.24	1.06	0.64	0.42	0.52	22786
16.00	960	0.23	1.02	0.64	0.38	0.50	21759
17.00	1020	0.22	0.97	0.64	0.33	0.47	20414
18.00	1080	0.21	0.93	0.64	0.29	0.43	18750
19.00	1140	0.20	0.88	0.64	0.25	0.38	16768
20.00	1200	0.19	0.84	0.64	0.20	0.33	14467
21.00	1260	0.18	0.80	0.64	0.16	0.27	11849
22.00	1320	0.17	0.75	0.64	0.11	0.20	8912
23.00	1380	0.17	0.75	0.64	0.11	0.21	9317
24.00	1440	0.14	0.62	0.64	-0.02	-0.04	-1737
					REQUIRED STORAGE	0.83	36054

PROVIDED DETENTION VOLUME									
ELEV. FT.	DETENTION SYSTEM NO. 1				DETENTION SYSTEM NO. 2				TOTAL ACC. VOL. CFT.
	AREA FT.	DEPTH FT.	VOL. CFT.	ACC. VOL. CFT.	AREA FT.	DEPTH FT.	VOL. CFT.	ACC. VOL. CFT.	
753.5	13230			0					
753.6	13726	0.1	1348	1348					
753.7	14357	0.1	1404	2752					
753.8	14996	0.1	1468	4220					
753.9	18515	0.1	1676	5895					
754.0	19251	0.1	1888	7783					
754.1	19989	0.1	1962	9745	14			0	9745
754.2	20727	0.1	2036	11781	1138	0.1	58	58	11839
754.3	21467	0.1	2110	13891	2651	0.1	189	247	14138
754.4	22208	0.1	2184	16075	3712	0.1	318	565	16640
754.5	22949	0.1	2258	18333	4196	0.1	395	961	19294
754.6	23692	0.1	2332	20665	4735	0.1	447	1407	22072
754.7	24436	0.1	2406	23071	5311	0.1	502	1909	24980
754.8	25181	0.1	2481	25552	5924	0.1	562	2471	28023
754.9	25927	0.1	2555	28107	6574	0.1	625	3096	31203
755.0	26674	0.1	2630	30737	7168	0.1	687	3783	34520
755.1	27422	0.1	2705	33442	7591	0.1	738	4521	37963
755.2	28171	0.1	2780	36222	8024	0.1	781	5302	41524
755.3	28921	0.1	2855	39076	8337	0.1	818	6120	45196
755.4	29672	0.1	2930	42006	8610	0.1	847	6967	48973
755.5	30425	0.1	3005	45011	8903	0.1	876	7843	52854
755.6	31178	0.1	3080	48091	9217	0.1	906	8749	56840
755.7	31932	0.1	3156	51247	9551	0.1	938	9687	60934
755.8	32688	0.1	3231	54478	9906	0.1	973	10660	65138
755.9	33444	0.1	3307	57784	10282	0.1	1009	11670	69454
756.0	34202	0.1	3382	61166	10678	0.1	1048	12718	73884
REQUIRED DETENTION VOLUME				36054	CFT.				
CALCULATED DESIGN STORM ELEVATION				755.05	FT				

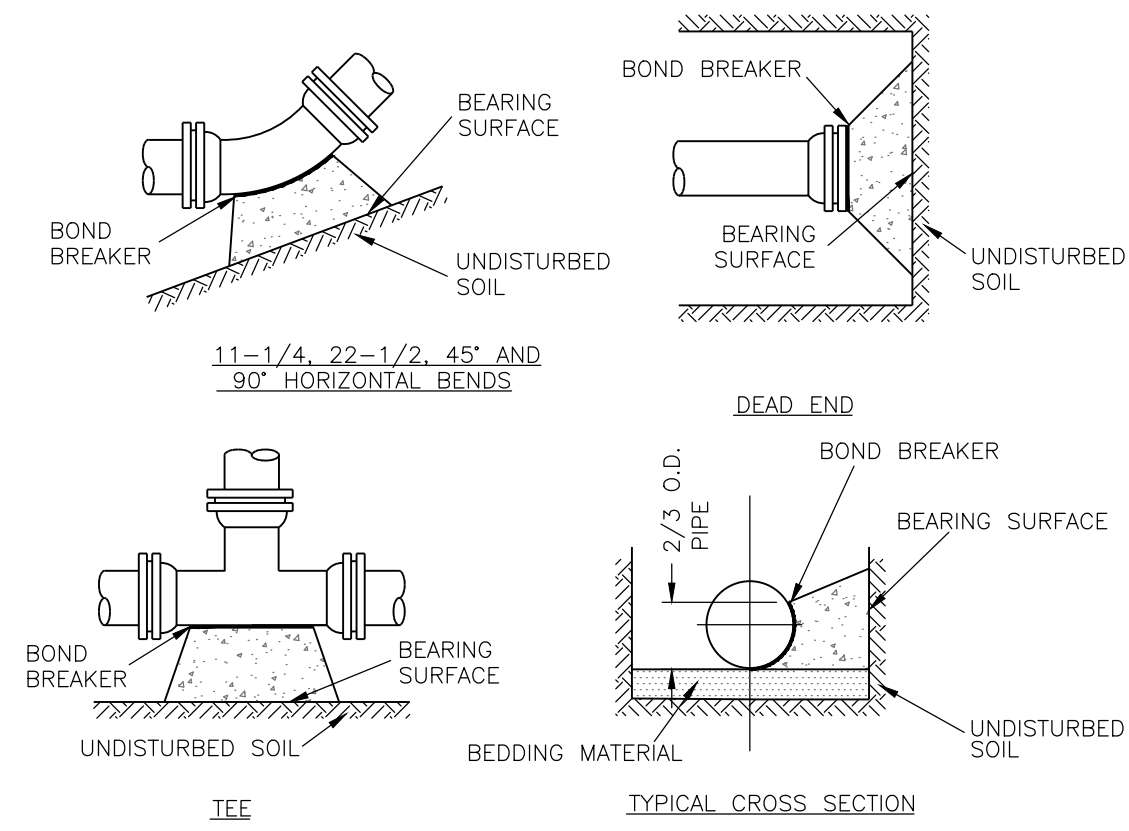
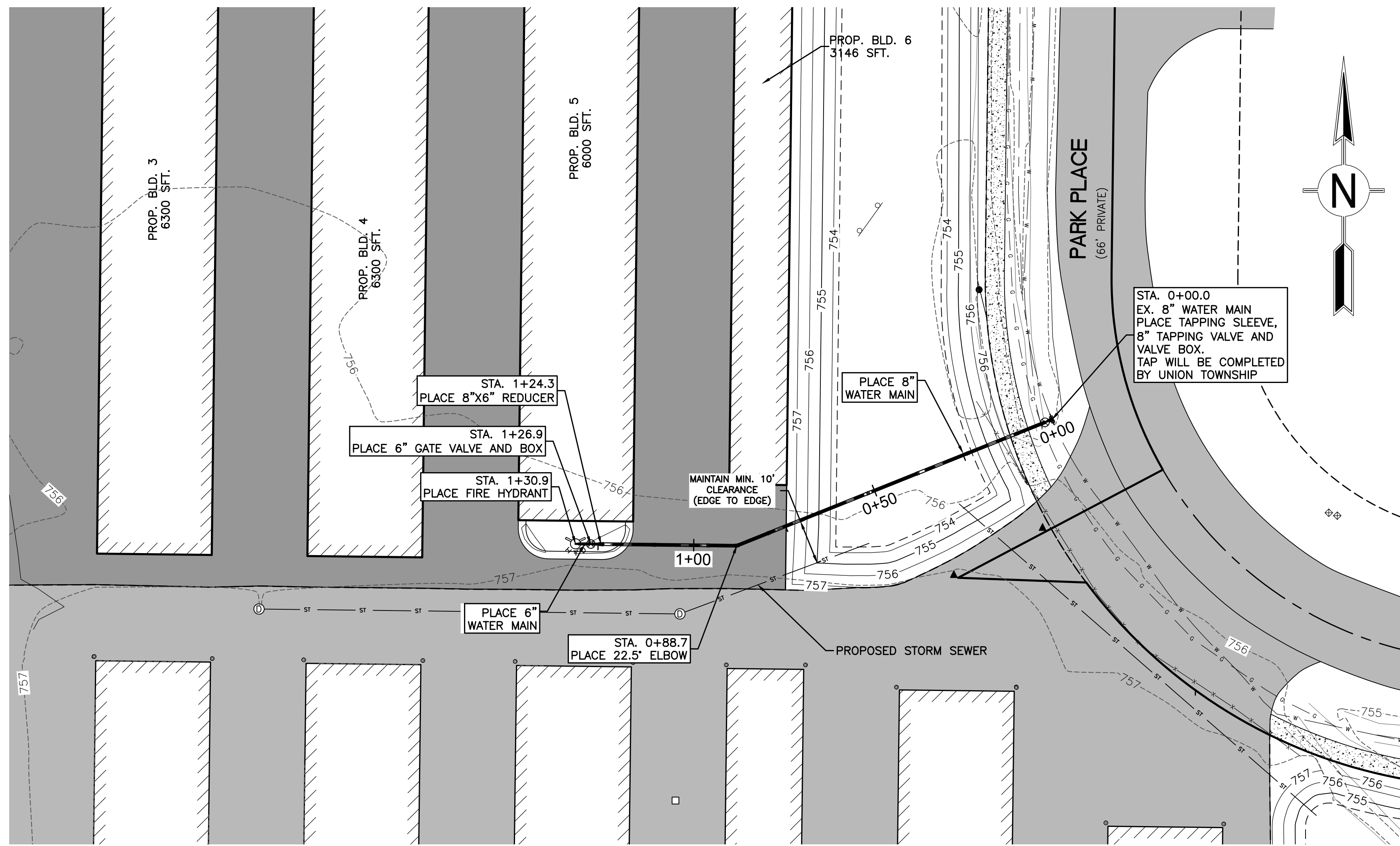
RESTRICTOR SIZING	
ALLOWABLE OUTFLOW	0.64 CFS
ORIFICE HEAD CALCULATION	
TOP SPILLWAY	755.04 FT
BOTTOM OF BASIN	753.50 FT
ORIFICE DIA.	4.50 IN
CEN ORIFICE	753.69 FT
HEAD	1.35 FT
CHECK RESTRICTOR FLOW RATE - ORIFICE CALCULATION	
DIAMETER OF ORIFICE	4.50 IN
AREA OF ORIFICE	0.1104 SFT
HEAD DIFFERENTIAL (dH) =	1.35 FEET (Center of Orifice to Maximum Ponding Elevation)
ACTUAL RESTRICTED DISCHARGE (Qr) =	0.62*A*(2*g*H) ^{1/2}
ACTUAL RESTRICTED DISCHARGE (Qr) =	0.639 CFS

OVERFLOW WEIR CALCULATIONS	
RUNOFF CALCULATIONS - 100 YR., 1 HR. STORM	
C	0.69
I	2.46 IN/HR (100YR, 1 HR.)
A	6.39 ACRES
Q	10.88 CFS (REQUIRED)
RECTANGULAR WEIR CALCULATION GIVEN	
DEPTH OF FLOW	8 IN
COEFFICIENT	0.65
WIDTH	72 IN
COMPUTED RESULTS	
AREA	4.00 FT ²
PERIMETER	88.00 IN
FLOWRATE	11.35 CFS (PROVIDED CAPACITY)
VELOCITY	2.84 FPS

STORM WATER MANAGEMENT PLAN
 MT. PLEASANT STORAGE CENTRAL, LLC
 Section 11, T14N., R4W, Union Township,
 Isabella County, Michigan

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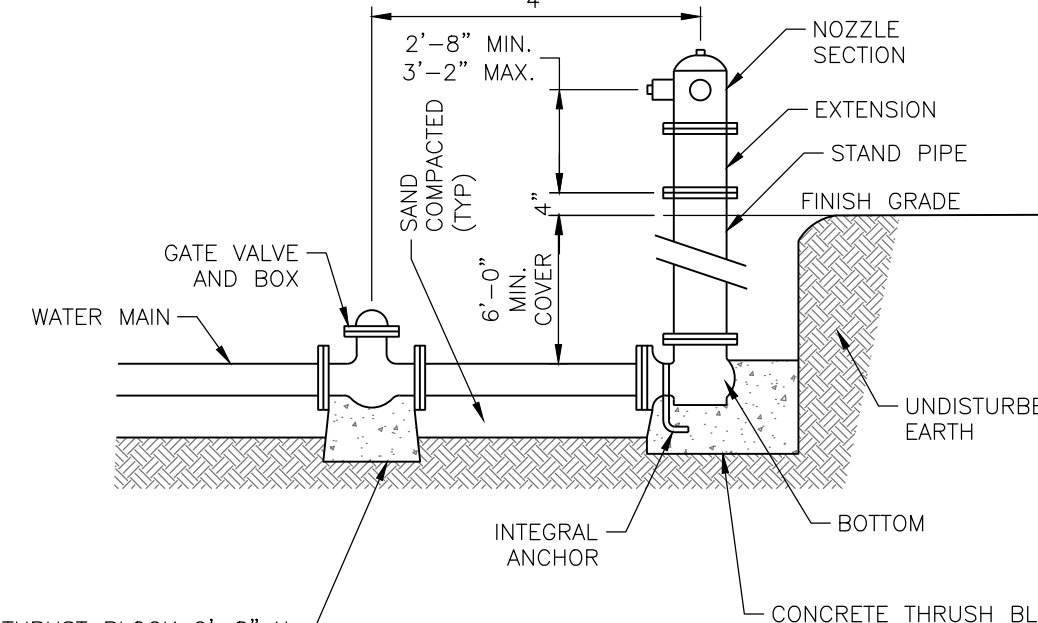
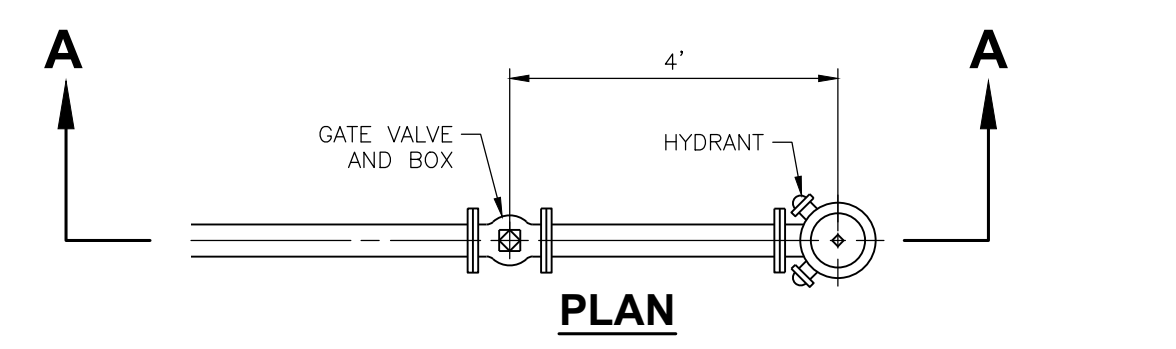


NOTES:
 1. BEARING SURFACES SHOWN IN TABLE ARE MINIMUMS.
 2. TABLE IS BASED ON 150 PSI INTERNAL PIPE PRESSURE PLUS WATER HAMMER.
 4", 6", AND 12" WATER HAMMER = 110 PSI
 16", 20", AND 24" WATER HAMMER = 70 PSI
 3. TABLE IS BASED ON 3,000 P.S.F. SOIL BEARING CAPACITY.

MINIMUM BEARING SURFACE AREA
(IN SQUARE FEET)

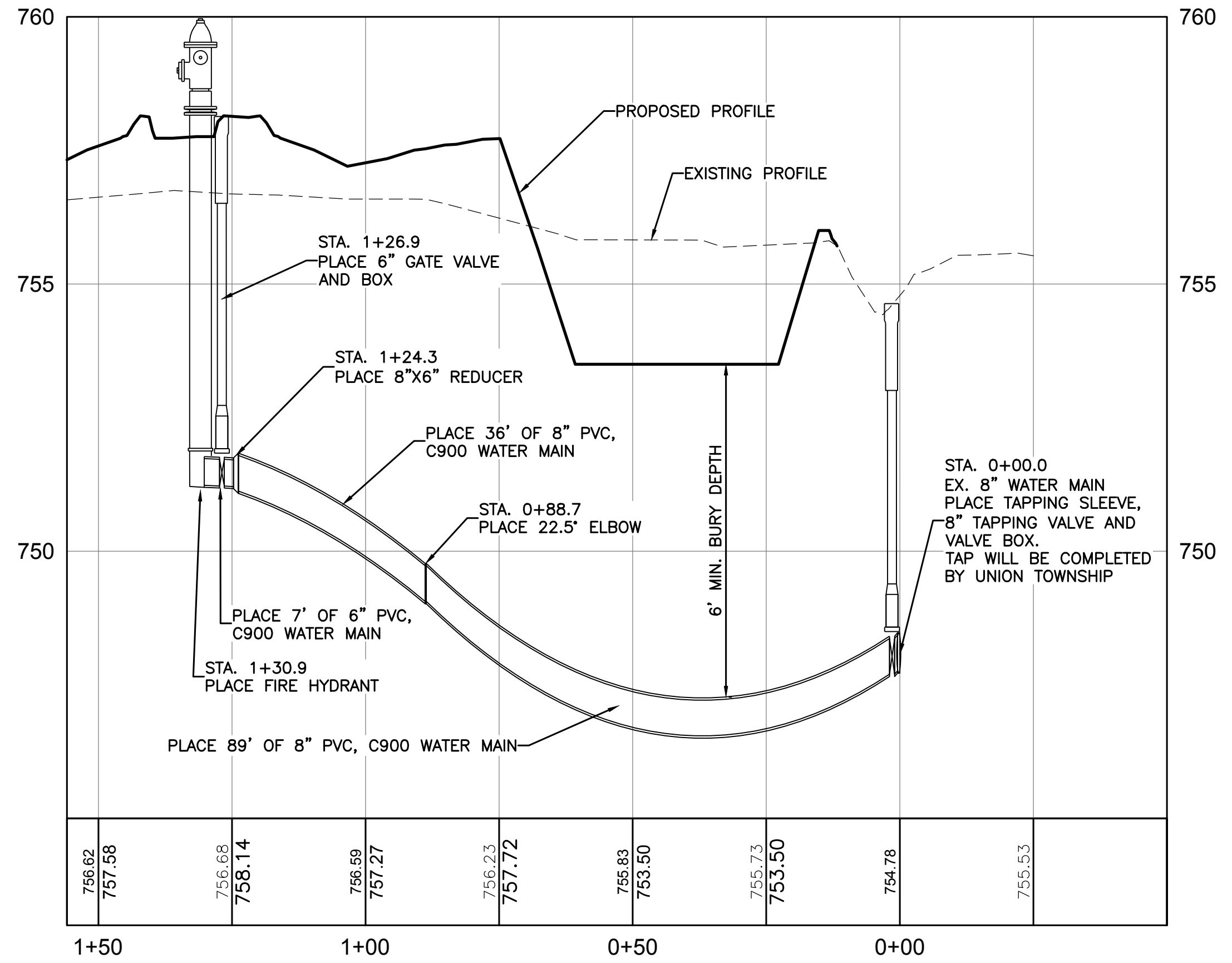
SIZE OF MAIN	HORIZONTAL BENDS				TEE OR DEAD END PLUG
	11-1/4'	22-1/2'	45'	90'	
4"	0.0	1.00	1.00	2.50	1.50
6"	0.0	1.25	2.25	5.00	3.00
8"	0.0	2.00	4.00	8.00	5.25
12"	2.25	4.50	8.75	16.25	11.25
16"	3.75	7.50	14.50	24.00	19.00
20"	5.00	10.00	19.50	35.50	25.00
24"	7.00	14.00	27.75	51.00	36.00

THRUST BLOCKING
NO SCALE

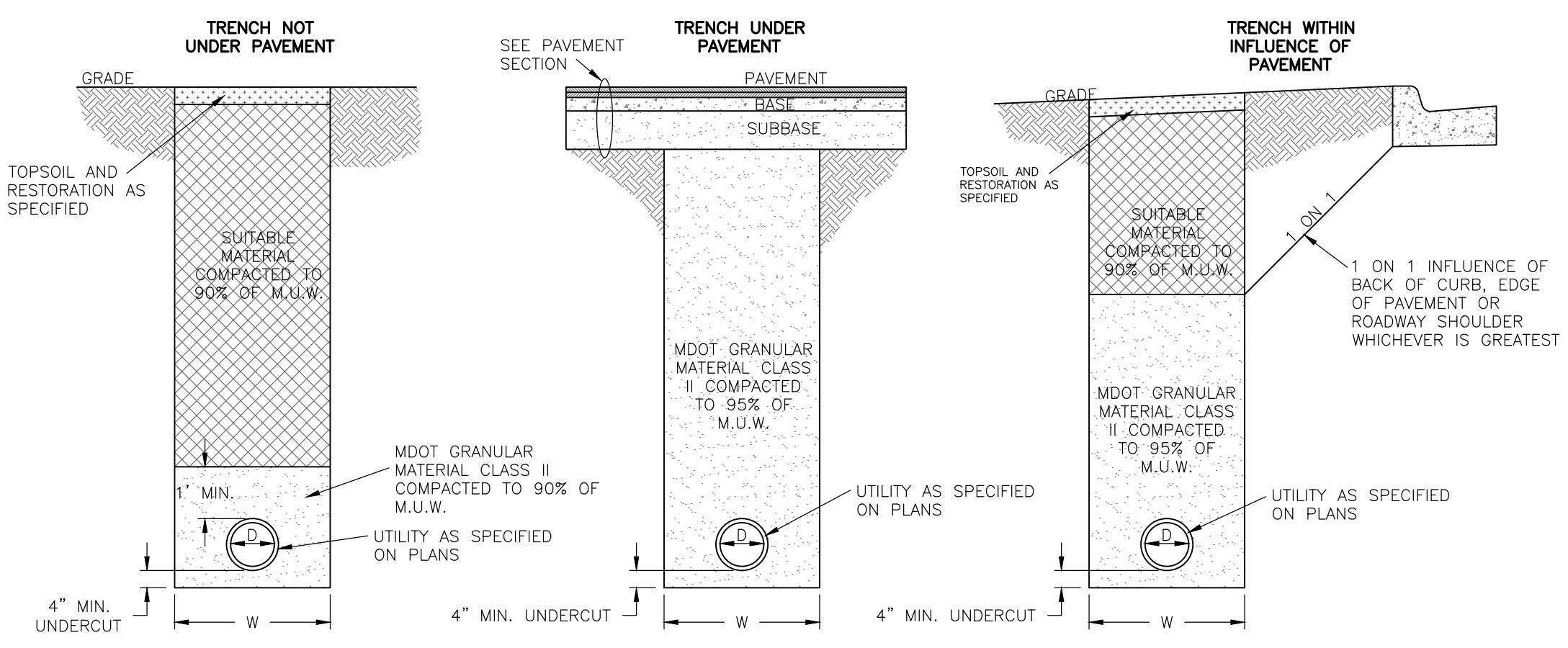
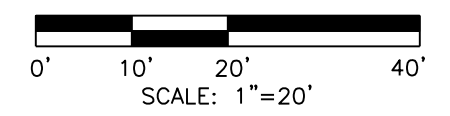


SECTION A-A
HYDRANT ASSEMBLY
NO SCALE

WATER MAIN PROFILE



NOTE: ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO CHARTER TOWNSHIP OF UNION STANDARD SPECIFICATIONS.



"D" PIPE DIA. INCHES	LESS THAN 18"	21	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108
"W" TRENCH WIDTH FEET	3.0	3.5	4.0	5.0	6.0	7.0	8.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0

UTILITY TRENCHES
NO SCALE

PLAN ISSUE: PERMIT

NO.	DATE	DESCRIPTION
1	12/03/19	SHOW BLD. 2 AS FUTURE
2	12/03/19	ADD SHEETS 4 THROUGH 9
3	12/03/19	MOD. BLD. 5 & 6, ADD HYDRANT

WATER MAIN PLAN
 PROJECT NAME: **MT. PLEASANT STORAGE CENTRAL, LLC**
Section 11, T14N-, R4W, Union Township,
Isabella County, Michigan

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JOB NO: 190065
 SCALE: 1" = 20'
 DRAWN BY: TPL
 DATE: 12/03/19
 SHEET NO. **C8**

PLAT TYPE	SEEDING FOR TEMPORARY VEGETATION COVER TYPES			POUNDS PER 1,000 SQUARE FEET	POUNDS PER ACRE
	1. UPPER PENINSULA	2. NORTHERN LOWER PENINSULA	3. SOUTHERN LOWER PENINSULA		
BUCKWHEAT	6/15 TO 7/15	6/1 TO 7/15	6/1 TO 7/15	2	75
CEREAL RYE	8/1 TO 10/1	8/1 TO 10/1	8/1 TO 10/15	3	120
OATS	5/1 TO 8/1	4/15 TO 8/1	4/15 TO 8/1	2	96
PERENNIAL RYGRASS	8/1 TO 10/1	6/1 TO 8/1	8/1 TO 10/15	0.5	20
SUNDANGRASS	NOT RECOMMENDED	6/1 TO 7/15	6/1 TO 7/15	1	40
WHEAT	9/10 TO 10/1	9/10 TO 10/1	9/20 TO 10/15	3	120

PLANTING ZONE	SEEDING DATE RANGES FOR PERMANENT VEGETATION COVER		
	WITH IRRIGATION AND/OR MULCH	WITHOUT IRRIGATION OR MULCH	DORMANT SEEDING
1. UPPER PENINSULA	5/1 TO 9/10	5/1 TO 6/15 OR 8/1 TO 9/20	10/25 TO FREEZE-UP
2. NORTHERN LOWER PENINSULA	5/1 TO 9/20	5/1 TO 6/10 OR 8/1 TO 9/20	10/25 TO FREEZE-UP
3. SOUTHERN LOWER PENINSULA	4/1 TO 10/1	4/1 TO 5/20 OR 8/10 TO 10/1	11/1 TO FREEZE-UP

SOIL INFORMATION			
SYMBOL & NAME	DEPTH (IN)	USDA TEXTURE	UNIFIED CLASSIFICATION
20A - PIPESHONE SAND			
	0-5	SAND	SP-SM, SW, SP, SW-SM
	5-11	SAND, FINE SAND	SW-SM, SM, SP-SM, SW, SP
	11-22	SAND, FINE SAND	SW, SP-SM, SP, SW-SM, SM
	22-35	SAND, FINE SAND	SP, SP-SM, SW, SW-SM, SP
	35-80	SAND, FINE SAND	SW-SM, SM, SP-SM, SW, SP

MICHIGAN UNIFIED KEYING SYSTEM

KEY	DETAIL	CHARACTERISTICS
5	SEEDING	INEXPENSIVE AND VERY EFFECTIVE STABILIZES SOIL, MINIMIZING EROSION PERMITS RUNOFF TO INFILTRATE SOIL, REDUCING RUNOFF VOLUME SHOULD INCLUDE PREPARED TOPSOIL BED
13	RIPRAP, RUBBLE, GABIONS	USED WHERE VEGETATION IS NOT EASILY ESTABLISHED EFFECTIVE FOR HIGH VELOCITIES OR HIGH CONCENTRATIONS PERMITS RUNOFF TO INFILTRATE SOIL, REDUCING RUNOFF VOLUME DESPITES ENERGY FLOW AT SYSTEM OUTLETS
15	PAVING	PROTECTS AREAS WHICH CANNOT OTHERWISE BE PROTECTED, BUT INCREASES RUNOFF VOLUME AND VELOCITY IRREGULAR SURFACE WILL HELP SLOW VELOCITY
35	STORM SEWER	SYSTEM REMOVES COLLECTED RUNOFF FROM SITE, PARTICULARLY FROM PAVED AREAS, CAN ACCEPT LARGE CONCENTRATIONS OF RUNOFF CONDUCTS RUNOFF TO MUNICIPAL SEWER SYSTEM OR STABILIZED OUTFALL LOCATION, USE CATCH BASINS TO COLLECT SEDIMENT
54	SILT FENCE	USES GEOTEXTILE FABRIC AND POSTS OR POLES, EASY TO CONSTRUCT AND LOCATE AS NECESSARY.

CONSTRUCTION SCHEDULE

- STAGE 1
SITE STRIPPING AND LAND BALANCING
- PLACE GEOTEXTILE SILT FENCE (PRIOR TO COMMENCING ANY WORK)
- SWEEP STREETS AND PAVEMENT AREAS AS REQUIRED
- STAGE 2
PARKING LOT BASE AND STORM SEWERS
- MAINTAIN CONTROL MEASURES AND INSTALL SILT SACKS IN CATCH BASINS
- STAGE 3
BUILDING CONSTRUCTION
- MAINTAIN CONTROL MEASURES
- STAGE 4
FINAL GRADING & PAVING PARKING LOTS
- MAINTAIN TEMPORARY CONTROL MEASURES
- PLACE RIPRAP
- PLACE TOPSOIL SURFACE IN DISTURBED AREAS AND PERMANENT SEEDING PRIOR TO OCT. 1.

GENERAL NOTES

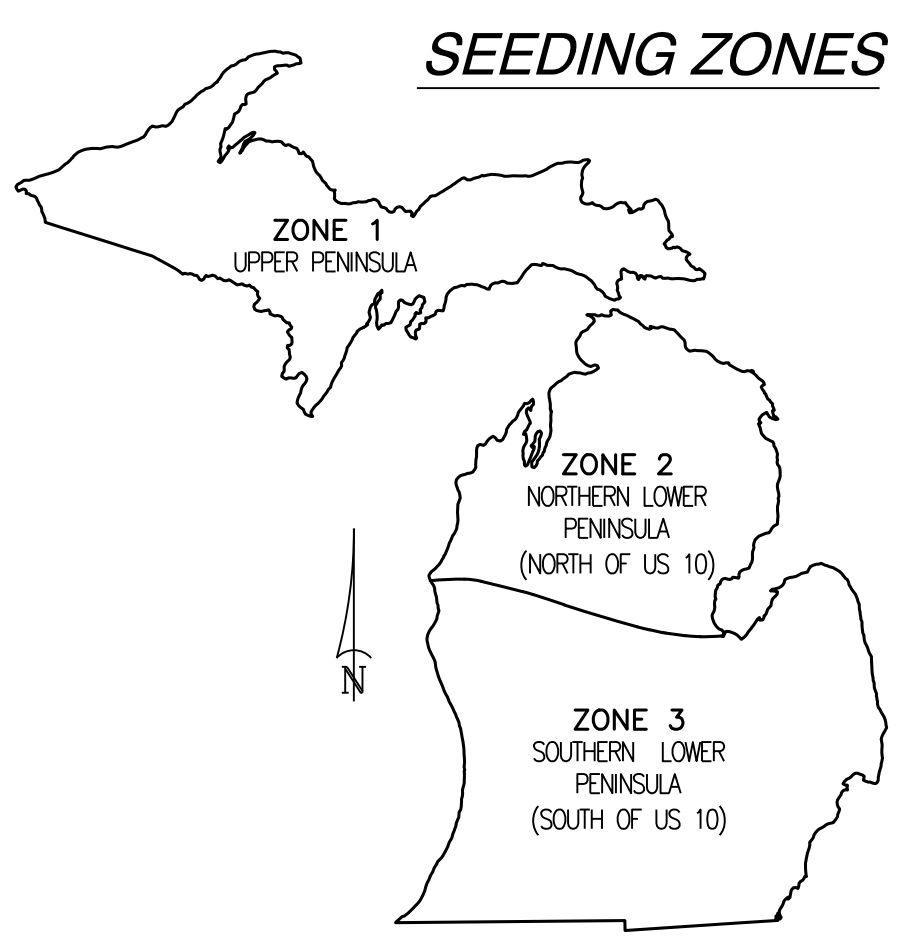
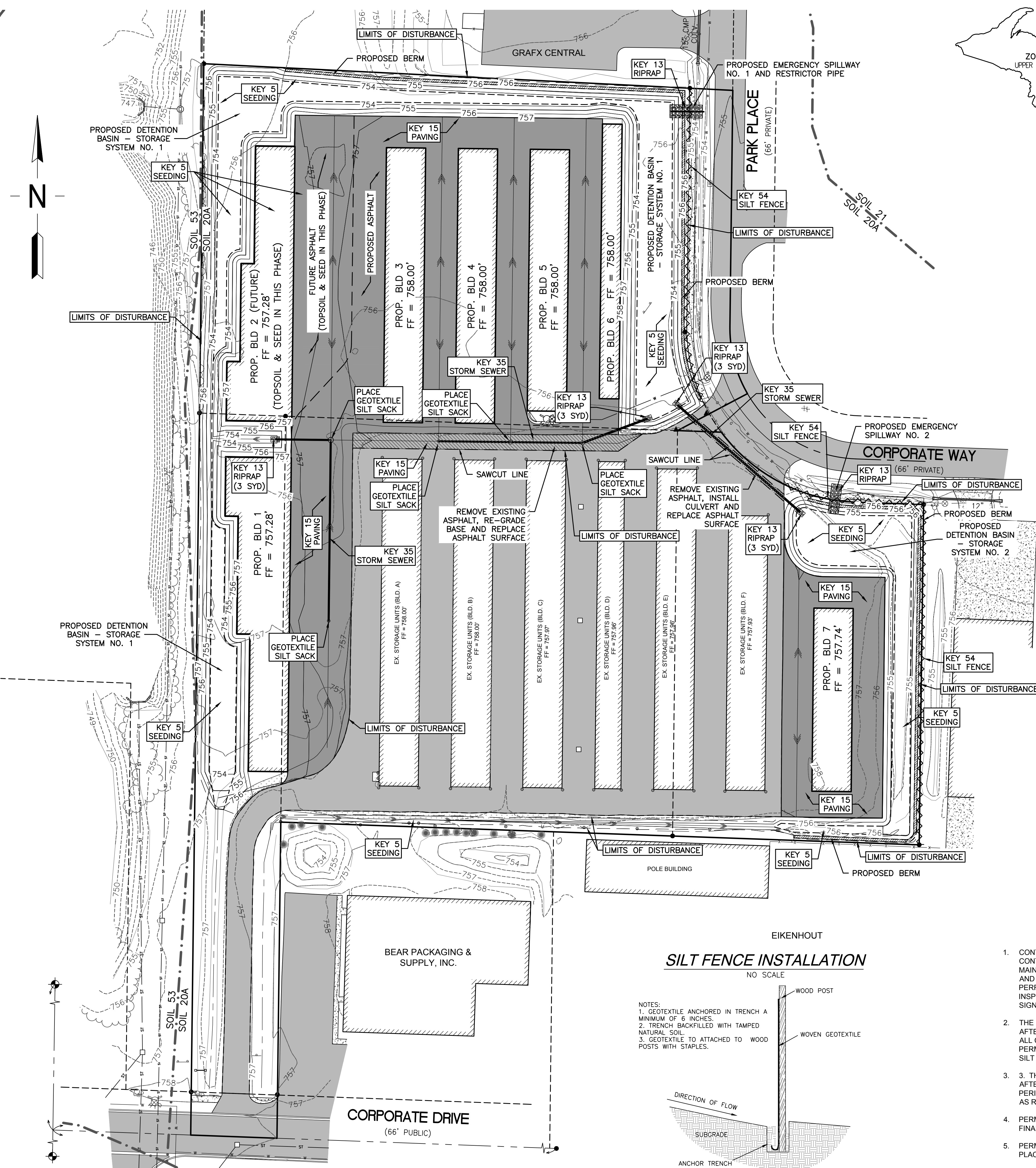
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TEMPORARY AND PERMANENT CONTROL MEASURES UNTIL VEGETATION HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS. MAINTENANCE SHALL INCLUDE: PERIODIC INSPECTIONS, REMOVING ACCUMULATED SEDIMENT AND REPAIRING OR REPLACING DAMAGED CONTROL MEASURES. INSPECTIONS SHALL BE PERFORMED DAILY DURING THE CONSTRUCTION PROCESS. FOLLOWING CONSTRUCTION INSPECTIONS SHALL BE PERFORMED AT LEAST ON A WEEKLY BASIS AND AFTER EVERY SIGNIFICANT RAIN EVENT UNTIL VEGETATION HAS BEEN ESTABLISHED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF TEMPORARY CONTROL MEASURES AFTER ALL DISTURBED AREAS HAVE BEEN RESTORED AND VEGETATION HAS BEEN ESTABLISHED. ALL CATCH BASINS WITHIN THE CONSTRUCTION INFLUENCE AREA SHALL BE PROTECTED UNTIL PERMANENT MEASURES HAVE TAKEN EFFECT. INLETS SHALL BE PROTECTED WITH GEOTEXTILE SILT SACKS. INSTALL SILT FENCES PRIOR TO ANY SITE WORK.
- THE OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE OF PERMANENT CONTROL MEASURES AFTER THE ESTABLISHMENT OF VEGETATION ON DISTURBED AREAS. THE OWNER SHALL MAKE PERIODIC INSPECTIONS, AND REPLACE OR REPAIR DAMAGED PERMANENT CONTROL MEASURES AS REQUIRED.
- PERMANENT CONTROL MEASURES SHALL BE COMPLETED WITHIN 15 CALENDAR DAYS AFTER FINAL EARTH CHANGE IS COMPLETED.
- PERMANENT SEEDING SHALL BE PLACED BY OCTOBER 1. IF PERMANENT SEEDING CAN NOT BE PLACED BY OCTOBER 1, TEMPORARY SEEDING SHALL BE PLACED FOR WINTER STABILIZATION.

DISTURBANCE AREA

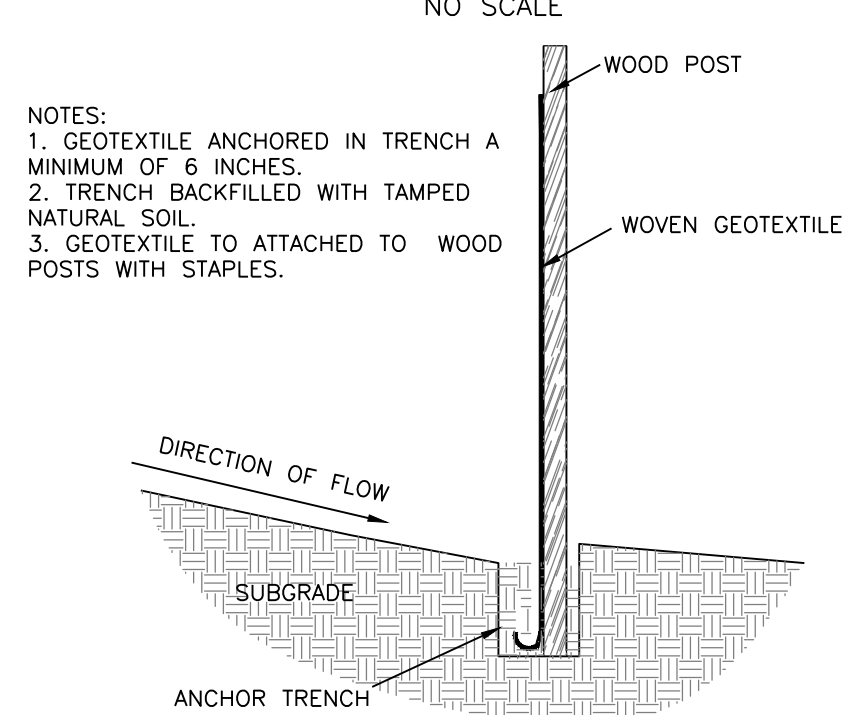
TOTAL DISTURBANCE AREA = 3.8 ACRES



811 Know what's below. Call before you dig. 1-800-482-7171 or 811



SILT FENCE INSTALLATION



- NOTES:
1. GEOTEXTILE ANCHORED IN TRENCH A MINIMUM OF 6 INCHES.
2. TRENCH BACKFILLED WITH TAMPED NATURAL SOIL.
3. GEOTEXTILE TO ATTACHED TO WOOD POSTS WITH STAPLES.

SOIL EROSION & SEDIMENTATION CONTROL PLAN
MT. PLEASANT STORAGE CENTRAL, LLC
 Section 11, T14N., R4W, Union Township,
 Isabella County, Michigan

LORENZ
 SURVEYING & ENGINEERING, INC.
 3229 W. Beal City Road
 Weldman, Michigan 48893
 Phone: (989) 644-5953
 Fax: (989) 644-8659
 pete@lorenzse.com

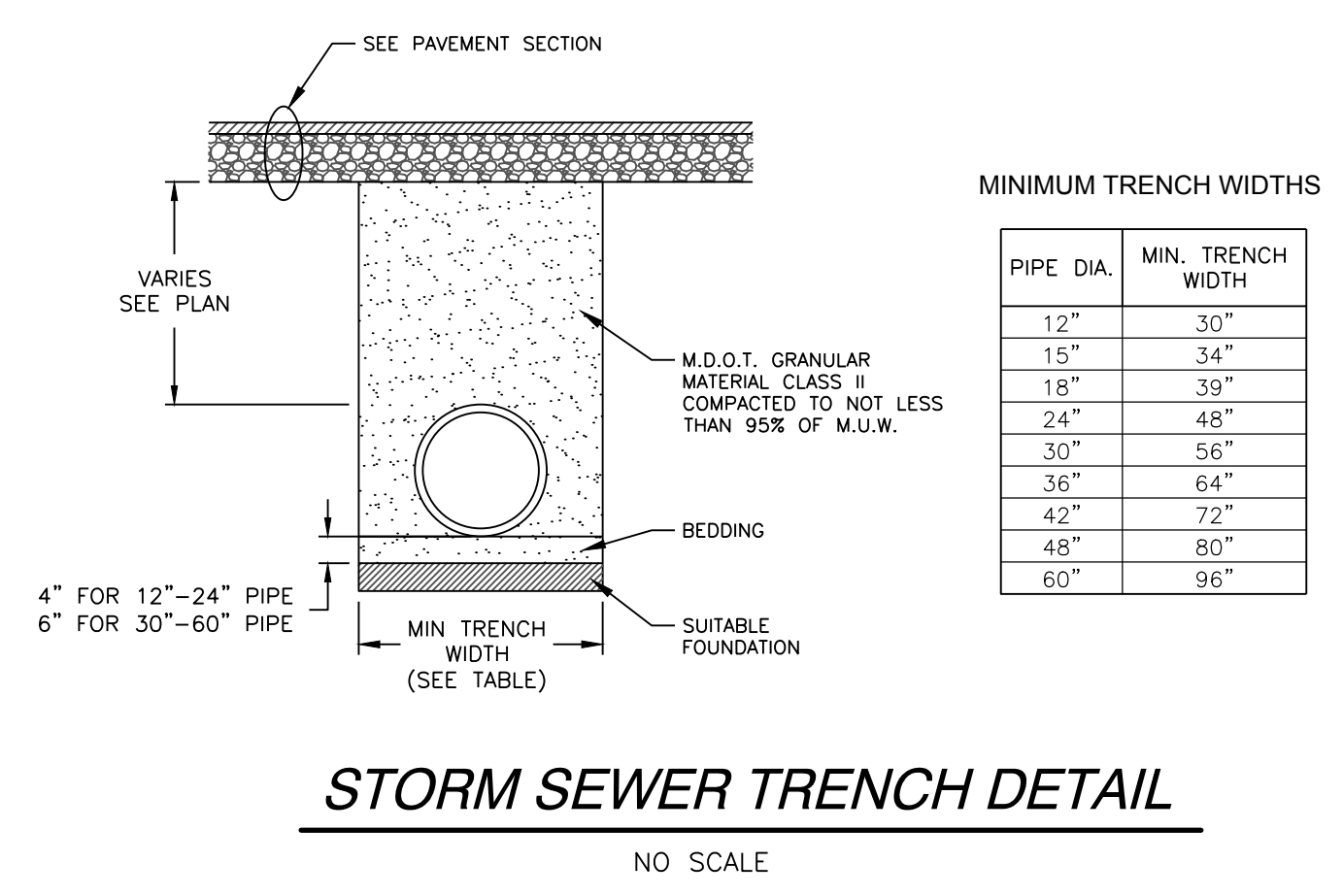
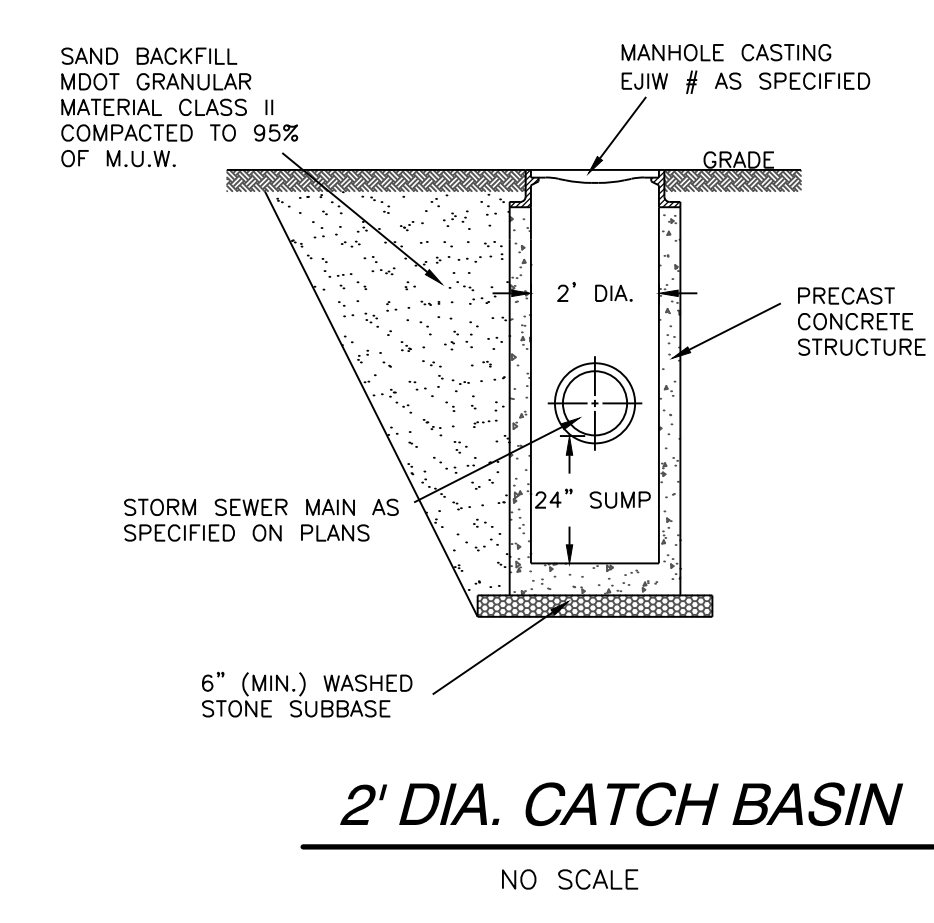
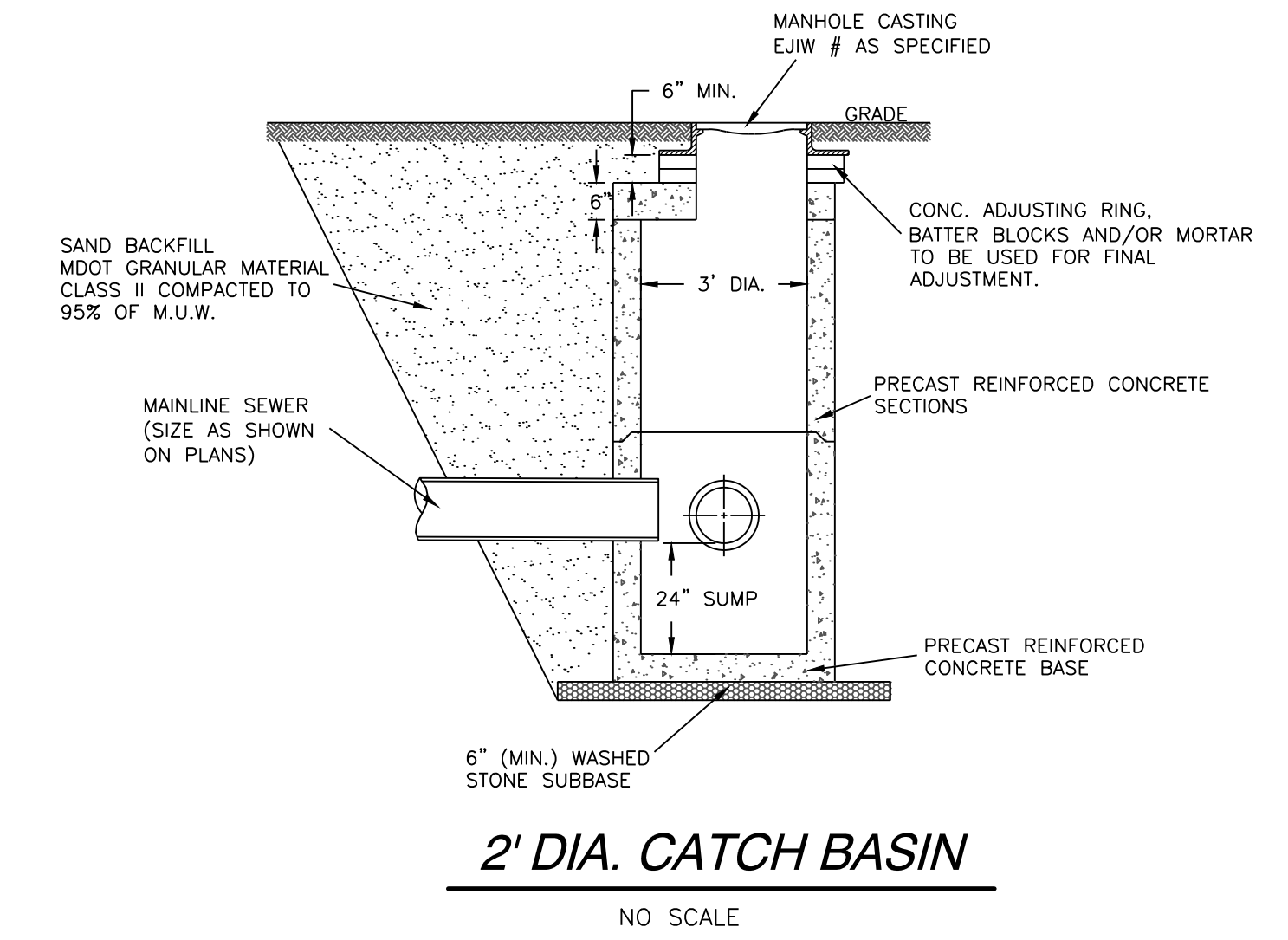
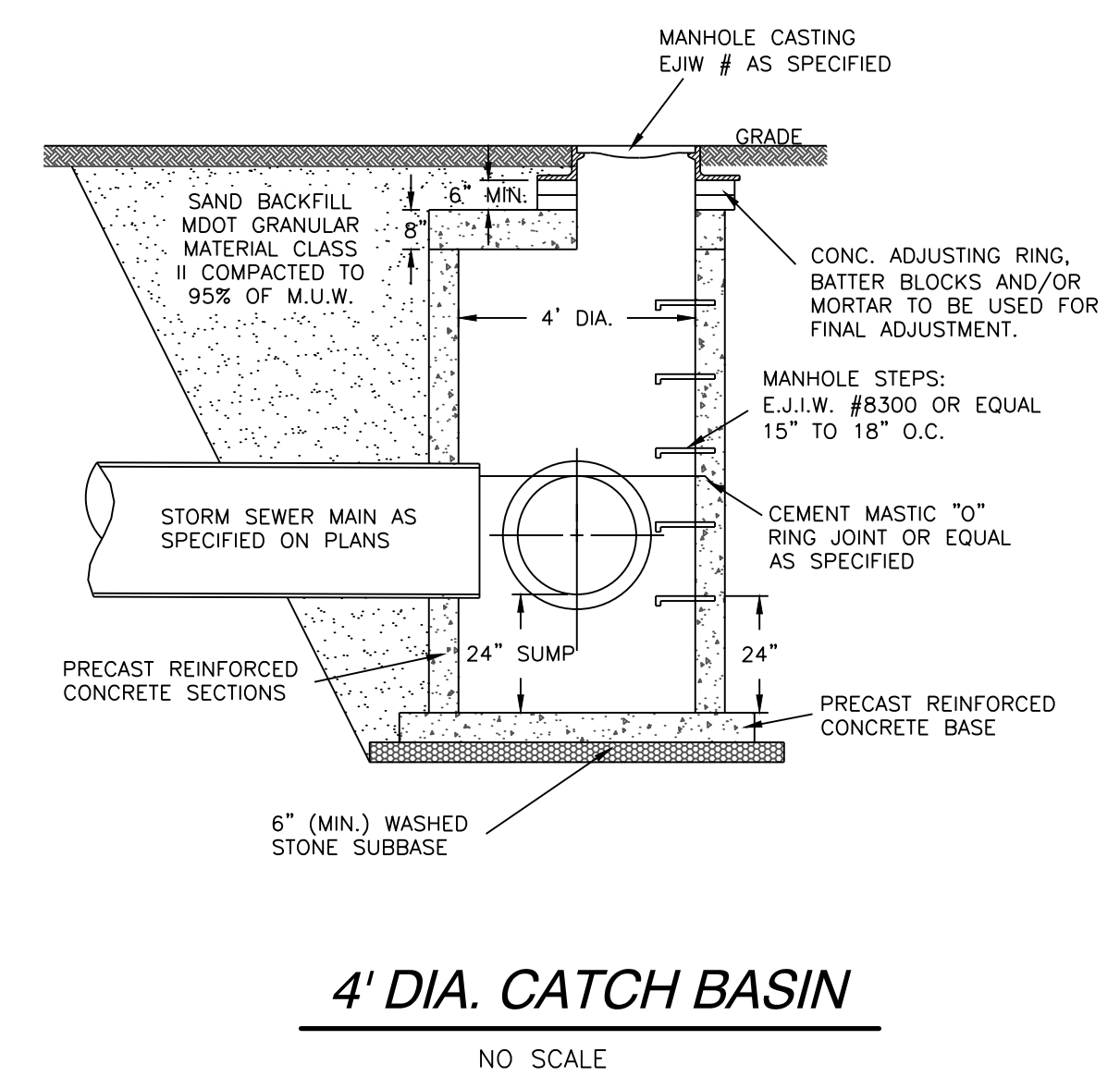
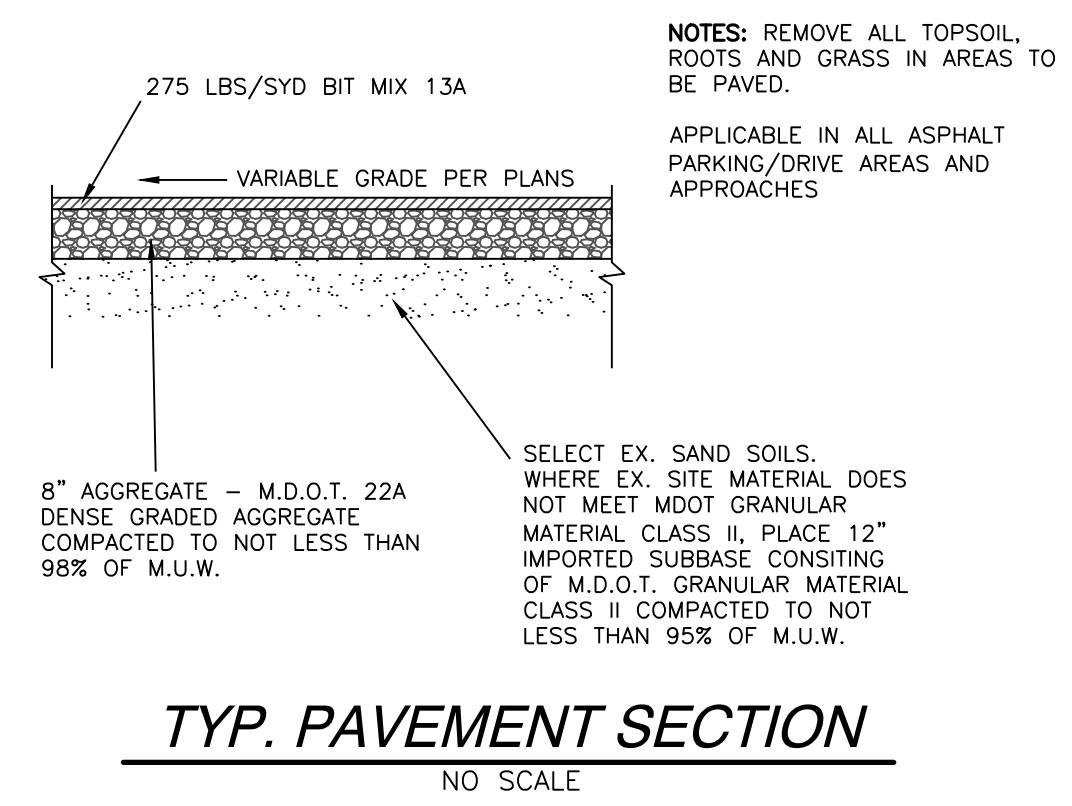
PLAN ISSUE:		PERMIT
NO.	DATE	DESCRIPTION
1	12/03/19	SHOW BLD. 2 AS FUTURE
2	12/03/19	ADD SHEETS 4 THROUGH 9
3	12/03/19	MOD. BLD. 5 & 6, ADD DRAINAGE

REVISIONS		
NO.	DATE	DESCRIPTION
1	12/03/19	SHOW BLD. 2 AS FUTURE
2	12/03/19	ADD SHEETS 4 THROUGH 9
3	12/03/19	MOD. BLD. 5 & 6, ADD DRAINAGE

DETAILS

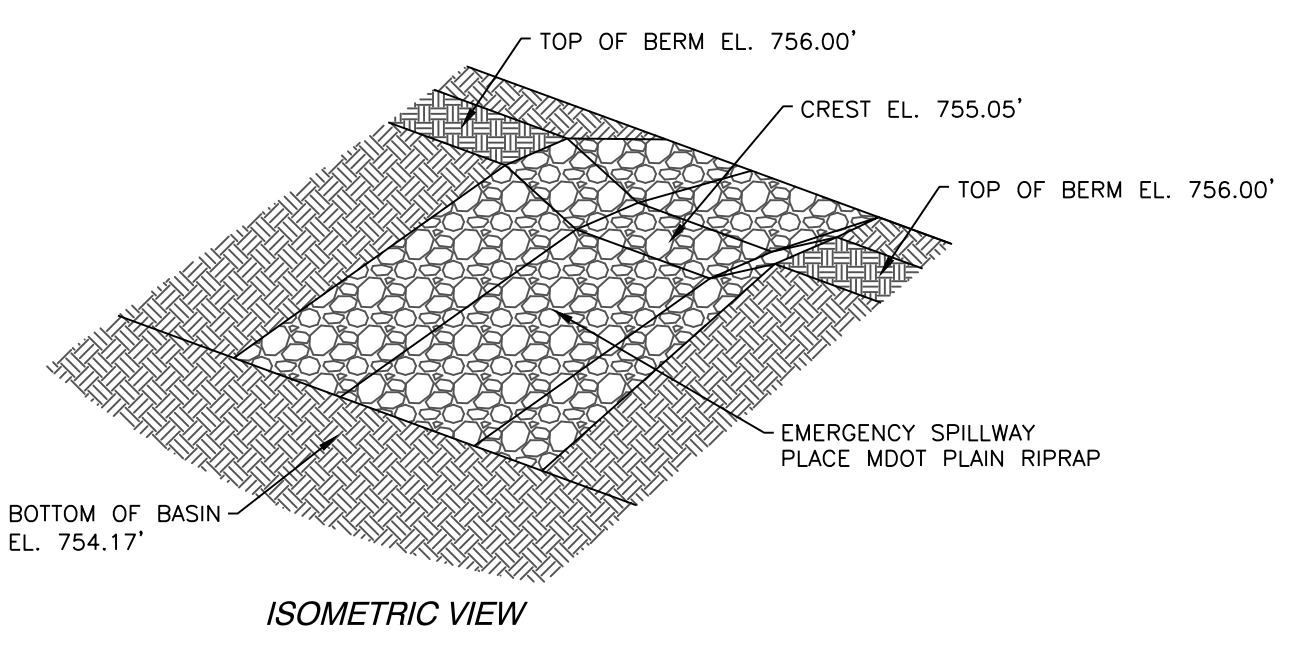
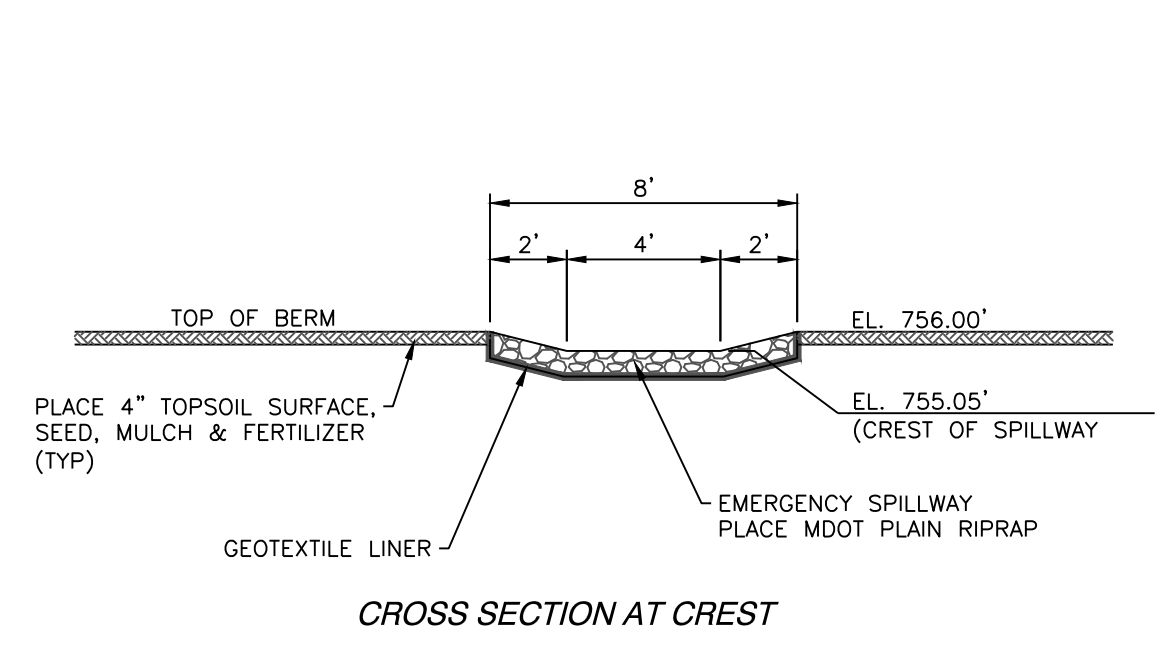
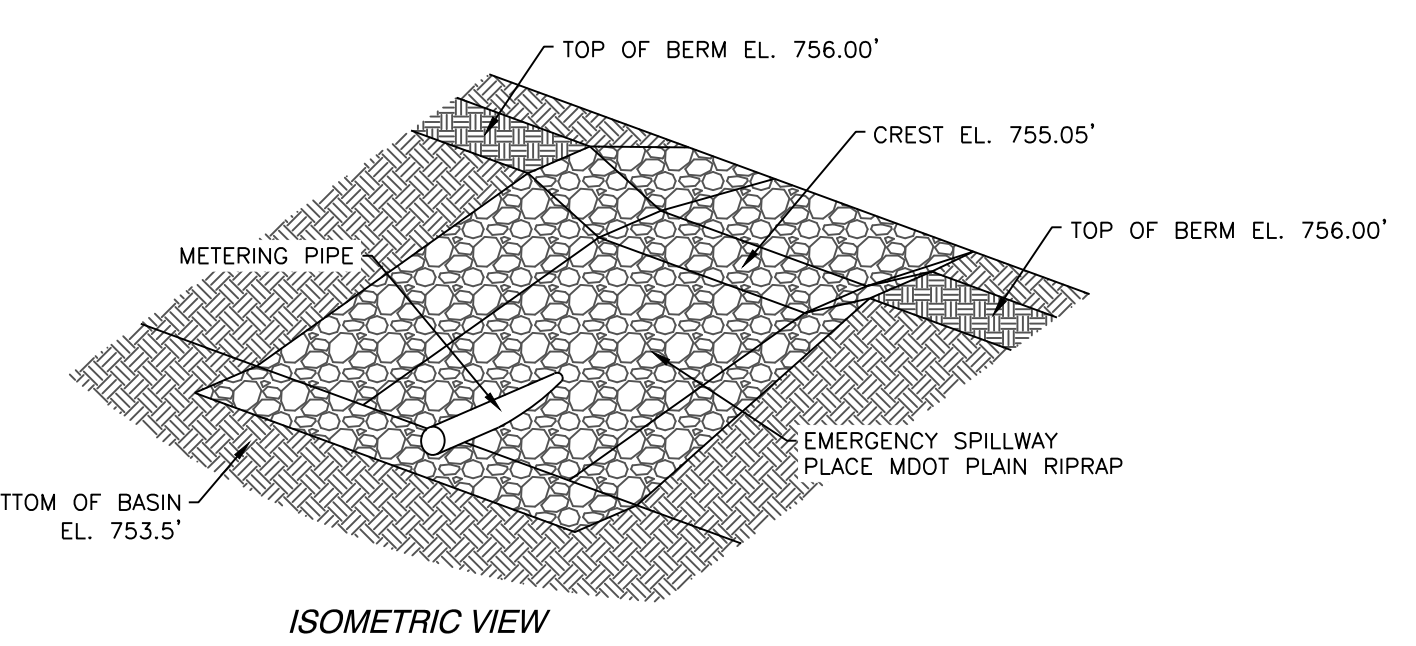
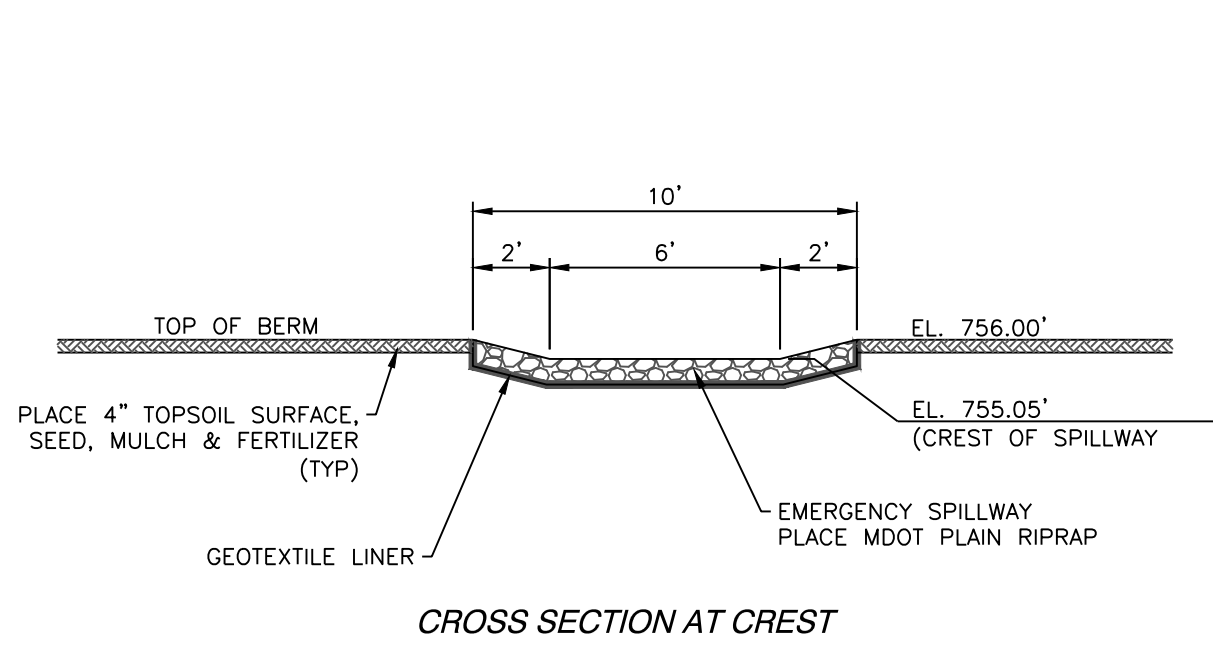
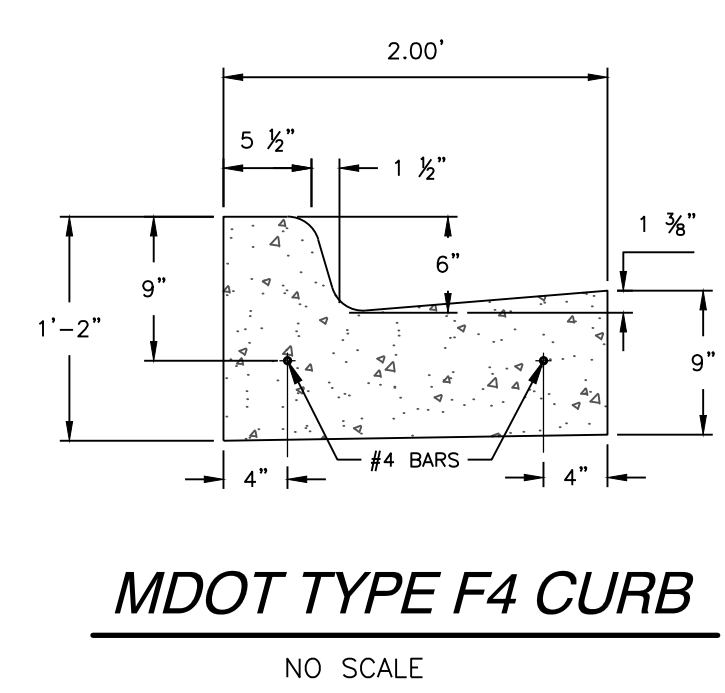
MT. PLEASANT STORAGE CENTRAL, LLC
Section 11, T14N-, R4W, Union Township,
Isabella County, Michigan

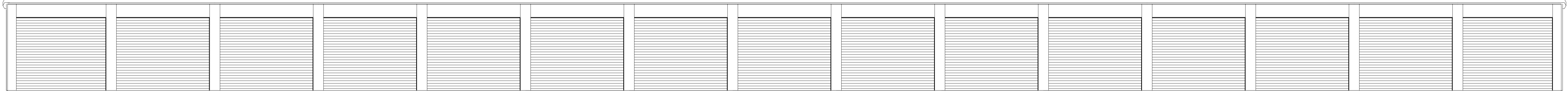
LORENZ
SURVEYING & ENGINEERING, INC.
 3229 W. Beal City Road Phone: (989) 644-5953
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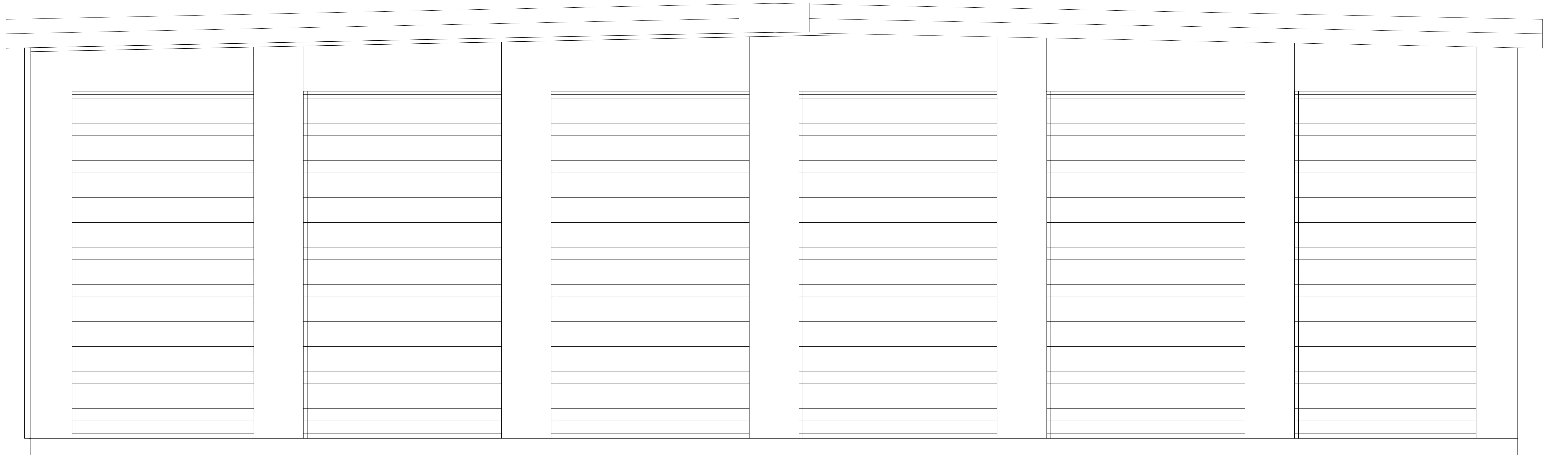
MINIMUM TRENCH WIDTHS

PIPE DIA.	MIN. TRENCH WIDTH
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
60"	96"





SIDE WALL ELEVATION



END WALL ELEVATION





Mount Pleasant Fire Department
804 E. High Street
Mount Pleasant, Mi 48858

Union Township Site Plan Review

Tuesday December 10, 2019

Mt Pleasant Storage Central, LLC

4263 Corporate DR

Mt. Pleasant, MI 48858

A Site Plan Review was conducted on Thursday December 5, 2019 and revealed the following requirements listed below.

ORDER TO COMPLY: Since these conditions are contrary to code, you must correct them upon receipt of this notice. Please provide our department the documentation that verifies compliance with the code.

This list shall not be considered all-inclusive, as other requirements may be necessary, additional requirements are located in Chapter 5 and appendixes B, C, and D of the 2012 Edition of the International Fire Code.

If you have any questions regarding this matter, please feel free to contact me at (989) 779-5122.

Violation Code

1 PROPERTY Identification

Mt. Pleasant Storage Central, LLC

4263 Corporate Dr

Mt. Pleasant, MI 48858

Proposed additional buildings to an existing mini self storage units.

ACCESS AND WATER Road and Water Supply

When fire apparatus access roads or water supply for fire protection is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles in accordance with Section 505.2 of the 2012 Edition of the International Fire Code.

ACCESS ROAD 150 FT Buildings within 150ft of Access Road

All portions of a building are required to be within 150 feet of an approved Fire Department access road, in accordance with Chapter 5, Section 503.1.1 of the 2012 Edition of the International Fire Code.

Site plan meets requirements.

Union Township Site Plan Review

ACCESS ROAD LOAD Designed and Maintained to Support the

All fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities in accordance with Chapter 5, Sections 503.2.3 and 503.4 of the 2012 Edition of the International Fire Code.

ACCESS ROAD OBSTRUCTED Dimensions and Clearances

All fire apparatus access roads, including parking lots, shall have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches in accordance with Chapter 5, Sections 503.2.1, 503.2.2, 503.3 and 503.4 of the 2012 Edition of the International Fire Code. Fire Prevention Ordinance 93.02(D)

ACCESS ROAD TURN AROUND Turn Around Required when Road in

Provide an approved turn around for dead end fire apparatus access roads in excess of 150' in Length in accordance with Chapter 5, Section 503.2.5 and appendix D, Section D103.4 of the 2012 Edition of the International Fire Code.

Site plan meets requirements.

BUILDING IDENTIFICATION Buildings Shall Have Address

Provide address identification numbers in accordance with Chapter 5, Sections 505.1 of the 2012 Edition of the International Fire Code or applicable to the City of Mt. Pleasant code of ordinances 150.01 Land Usage.

Site will have visible address from road access.

HYDRANT DISTANCE Hydrant maximum distance from buildings

Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official. Exceptions: 1. For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m). 2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 m).

Site plan shows new hydrant to meet above requirements.

WATER SUPPLY (GPM) Capable of Supplying the Required Fire

Provide fire hydrants capable of supplying the required fire flow in accordance with Chapter 5, Section 507 of the 2012 Edition of the International Fire Code.

Union Township Site Plan Review

The number and spacing of fire hydrants is based on the construction type and square footage of the building in accordance with Appendix B and C and tables B105.1 and C105.1 of the 2012 Edition of the International Fire Code. (Contact Fire Department to verify locations.)

Proposed steel type buildings with the largest building at 9,000sq. ft. The required fire flow is 2,000gpm. Two hydrants required with a maximum distance of 450' between hydrants. With the location of the new required hydrant the south or east public hydrant meets the 450' spacing.

KNOX BOX Knox Box Requirements and Location

Provide a Knox Key entry device and install it in approved location by the Fire Code Official, as in accordance with Chapter 5, Section 506.1, 506.1.1 and 506.2 of the 2012 Edition of the International Fire Code. (Go to Knoxbox.com and search by fire department or zip code - select "Mt. Pleasant Fire Department" and place order for the type of Knox box desired.)

Install a fire department knox box on location at the required placement location of the fire department.

Keeler, Randy
Lieutenant
Mount Pleasant Fire Department

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Cc: [Pete Lorenz](#)
Subject: FW: Mt. Pleasant Storage Central
Date: Wednesday, December 4, 2019 10:40:21 AM

Jennifer, Please add to packet.

Copied Pete because it doesn't look like Rick did in his reply.

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Rick Collins <rcollins@ictcbus.com>
Sent: Tuesday, December 3, 2019 5:14 PM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Subject: RE: Mt. Pleasant Storage Central

We have no issue with the attached plans. Thanks



Rick Collins | Executive Director
2100 E. Transportation Dr | Mt. Pleasant, MI 48858
Phone 989.773.6766 | Fax 989.773.1873
rcollins@ictcbus.com
Visit our website at ictcbus.com

From: Peter Gallinat <pgallinat@uniontownshipmi.com>
Sent: Tuesday, December 3, 2019 3:37 PM
To: Rick Collins <rcollins@ictcbus.com>
Cc: Pete Lorenz <pete@lorenzse.com>
Subject: FW: Mt. Pleasant Storage Central

Attached is a site plan for storage buildings for review. Please respond with approval or if you need any more information.

Pete has been copied in the email if you have any questions for him.

Thank you,

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

| | |

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Mt Pleasant Storage LLC Site Plan
Date: Wednesday, December 11, 2019 5:00:42 PM
Attachments: [image001.png](#)

From: Kim Smith <ksmith@uniontownshipmi.com>
Sent: Wednesday, December 11, 2019 3:47 PM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Cc: Pete Lorenz (pete@lorenzse.com) <pete@lorenzse.com>
Subject: RE: Mt Pleasant Storage LLC Site Plan

Peter,

Good afternoon, the site plan for parcel (s) number 14-011-30-002-01 & 14-011-30-001-14/Mt. Pleasant Storage Central, LLC located 4263 Corporate Drive, was provided to the Public Service Department on December 10, 2019 via email. These comments pertain to site plan approval only.

The storage units indicated on the site plan are not serviced by Township water and do not have Township sewer service available. The Mt. Pleasant Fire Department is requiring that one (1) hydrant be installed onsite. Prior to permits being issued for this project the full plans, profiles, and specifications for the water extension will be reviewed, and approved by the Township Department of Public Services. In accordance with the City of Mt. Pleasant Fire Department Requirements the water extension shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided.

Thank you,

Kim Smith



Department of Public Services
Charter Township of Union
5228 South Isabella Road
Mt. Pleasant, MI 48858
Phone (989) 772-4600 ext. 224
Fax (989) 773-1988
Visit us on the Web at
<http://www.uniontownshipmi.com>

"This institution is an equal opportunity provider, and employer."

From: Peter Gallinat <pgallinat@uniontownshipmi.com>
Sent: Wednesday, December 11, 2019 9:55 AM
To: Kim Smith <ksmith@uniontownshipmi.com>
Cc: Pete Lorenz (pete@lorenzse.com) <pete@lorenzse.com>
Subject: RE: Mt Pleasant Storage LLC Site Plan

Please see attachment.

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Kim Smith <ksmith@uniontownshipmi.com>
Sent: Wednesday, December 11, 2019 9:45 AM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Cc: Pete Lorenz (pete@lorenzse.com) <pete@lorenzse.com>
Subject: Mt Pleasant Storage LLC Site Plan

Peter,
Good morning, I received a copy of the site plan for the Mt Pleasant Storage LLC project on December 9, 2019. I did not receive a copy of the Wellhead Protection paperwork that should have accompanied the site plan submitted to your office. Did you receive the Wellhead Protection paperwork with this site plan submittal? If it was included please forward a copy to the Public Services Department for review.

Thank you,

Kim Smith



Department of Public Services

Charter Township of Union

5228 South Isabella Road

Mt. Pleasant, MI 48858

Phone (989) 772-4600 ext. 224

Fax (989) 773-1988

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"This institution is an equal opportunity provider, and employer."

Sam **B**er **E**ngineering

Bruce E. Rohrer, P.E.
1216 E. Gaylord Street
Mt. Pleasant, Michigan 48858
(989) 330-2150

December 9, 2019

Peter Galliant
Charter Township of Union Planner
2010 S. Lincoln Road
Mt. Pleasant, MI 48858

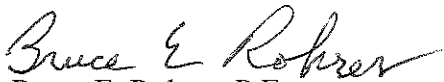
RE: Storm Water Management Plan for the Mt Pleasant Storage Central, LLC - Site Addition

Dear Mr. Galliant:

I have reviewed the Storm Water Management Plan prepared by Pete Lorenz, P.E., of Lorenz Surveying & Engineering, Inc., dated Dec. 6, 2019, for the above captioned project located in part of the NE $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 11, Union Township, located between Corporate Drive and Park Place. The proposed plan is consistent with the Union Township Storm Water Ordinance.

If you have any questions or need any further information, please feel free to contact me.

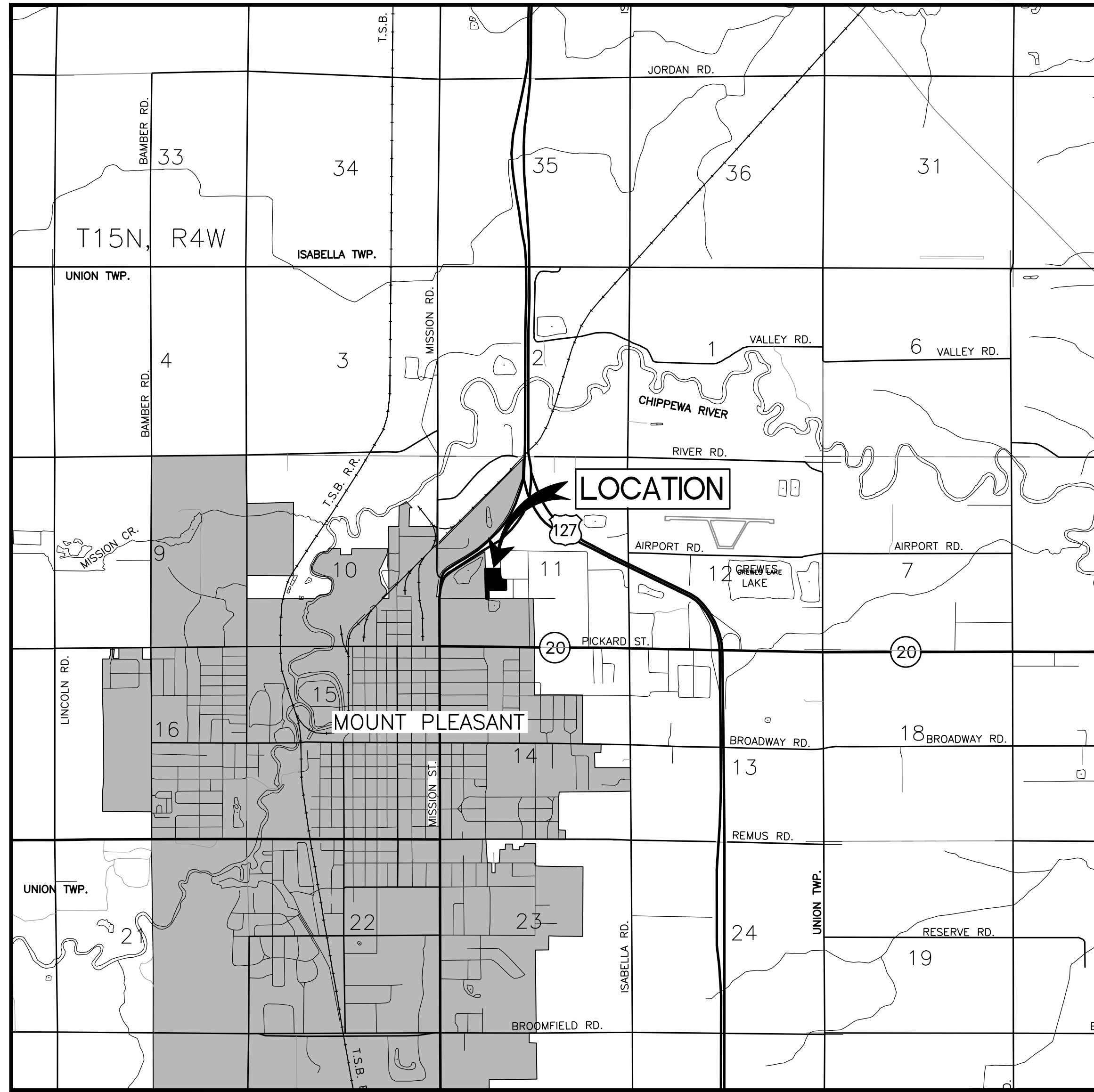
Sincerely,


Bruce E. Rohrer, P.E.
Consulting Engineer
Isabella County

BER/taw

cc: Pete Lorenz, P.E., Lorenz Surveying & Engineering, Inc.

LOCATION MAP
NO SCALE



ZONING REQUIREMENTS

B-4 ZONING

MINIMUM LOT FRONTAGE, LOT WIDTH	80 FEET
MINIMUM LOT AREA	12,000 SQ. FT.
MAXIMUM BUILDING HEIGHT	35 FEET
SETBACK REQUIREMENTS	
FRONT YARD:	50 FEET (A)
SIDE YARD:	20 FEET (B)
REAR YARD:	25 FEET (B)
MAXIMUM LOT COVERAGE (BY ALL BUILDINGS)	30%

I-1 ZONING

MINIMUM LOT FRONTAGE, LOT WIDTH	100 FEET
MINIMUM LOT AREA	43,560 SQ. FT.
MAXIMUM BUILDING HEIGHT	35 FEET
SETBACK REQUIREMENTS	
FRONT YARD:	75 FEET (A)
SIDE YARD:	30 FEET (C)
REAR YARD:	50 FEET (C)
MAXIMUM LOT COVERAGE (BY ALL BUILDINGS)	40%

A) OFF-STREET PARKING SHALL BE PERMITTED TO OCCUPY A PORTION OF THE REQUIRED FRONT YARD, PROVIDED THAT THERE SHALL BE MAINTAINED A MINIMUM UNOBSTRUCTED AND LANDSCAPED SETBACK OF TEN (10) FEET BETWEEN THE NEAREST POINT OF THE OFF STREET PARKING AREAS, EXCLUSIVE OF ACCESS DRIVEWAYS AND THE NEAREST RIGHT-OF-WAY LINE AS INDICATED ON THE MAJOR THOROUGHFARE PLAN.

B) A LOT IN THE B-4 AND B-5 DISTRICT WILL PROVIDE A SIDE AND REAR YARD OF AT LEAST FORTY (40) FEET WHEN ABUTTING A RESIDENTIAL DISTRICT.

C) A LOT IN THE I-1 OR I-2 DISTRICT WILL PROVIDE A SIDE AND REAR YARD OF AT LEAST SIXTY (60) FEET IN DEPTH WHEN ABUTTING A RESIDENTIAL USE OR DISTRICT.

SHEET INDEX

Sheet Number	Sheet Title
C1	COVER SHEET
C2	TOPOGRAPHIC SURVEY
C3	SITE PLAN

PROPERTY DESCRIPTIONS

14-011-30-002-01
A parcel of land in the Northeast 1/4 of the Southwest 1/4 of Section 11, T14N, R4W, Union Township, Isabella County, Michigan described as: To fix the Point of Beginning, commence at the West 1/4 corner of Section 11; thence South 01°00'00" West, on the West line of said section, 1348.96 feet; thence South 87°54'00" East, on the South 1/8 line of said section, 1389.46 feet; thence North 00°42'00" East, parallel with and 66.00 feet, measured at right angles, East of the West 1/8 line of said section, 551.71 feet; thence South 87°54'00" East, parallel with said South 1/8 line, 300.00 feet to the Point of Beginning of this description; thence continuing South 87°54'00" East, 33.88 feet to a point on a 133.00 foot radius curve, said point being a point on the Southwesterly right of way of Park Place (so-called); thence Southeasterly on the arc of said curve 118.08 feet to the point of tangency, said arc being subtended by a chord bearing South 62°15'42" East, 114.24 feet to said point of tangency; thence South 87°54'00" East, parallel with said South 1/8 line, 53.04 feet; thence South 00°42'00" West, parallel with said West 1/8 line, 260.55 feet; thence North 87°54'00" West, parallel with said South 1/8 line, 188.71 feet; thence North 00°42'00" East, parallel with said West 1/8 line, 310.00 feet back to the Point of Beginning.

AND

Parcel II: Part of the Northeast 1/4 of the Southwest 1/4 of Section 11, T14N, R4W, Union Township, Isabella County, Michigan described as beginning at a point on the West, N-S 1/8 line, which is S 01°00'00" W, 1348.96 feet along the West Section line and South 87°54' East, 1389.46 feet along the South, East-West 1/8 line and North 00°42' East, 241.71 feet parallel with the West, North-South 1/8 line from the West 1/4 corner of Section 11; thence North 00°42' East, 310.00 feet on a line which is parallel with and 66.0 feet East of the West line of said Northeast 1/4 of the Southwest 1/4; thence South 87°54' East, 300.00 feet; thence South 00°42' West, 310.00 feet; thence North 87°54' West, 300.00 feet to the Point of Beginning. Together with the use of the South 551.71 feet of the West 66.0 feet of the Northeast 1/4 of the Southwest 1/4 of Section 11, T14N, R4W, as an ingress and egress easement. Together with an ingress and egress easement 33.0 feet wide, lying 16.5 feet on each side of the following described centerline, beginning at a point which is South 01°00' West, 1348.96 feet and South 87°54' East, 1389.46 feet and North 00°42' East, 551.71 feet and South 87°54' East, 300.0 feet from the West 1/4 corner of Section 11, T14N, R4W, thence North 62°09'52" East, 34.85 feet to the Southwesterly right of way line of Park Place and the terminus of said easement.

14-011-30-001-14
Part of the Northeast 1/4 of the Southwest 1/4 of Section 11, T14N, R4W, Union Township, Isabella County, Michigan described as beginning at a point on the West, N-S 1/8 line, which is S 01°00' W, 1348.96 feet along the West Section line and S 87°54' E, 1323.46 feet along the South, E-W 1/8 line and N 00°42' E, 551.71 feet along the West, N-S 1/8 line from the West 1/4 corner of Section 11; thence N 00°42' E, 265.85 feet along the West, N-S 1/8 line; thence S 87°10'57" E, 405.05 feet to the centerline of Park Place; thence S 00°42' W, 180.64 feet along said centerline; thence along said centerline on a curve to the left, having a radius of 100 feet on a chord bearing and distance of S 14°29' E, 52.33 feet; thence S 62°09'52" W, 60.07 feet; thence N 87°54' W, 366.0 feet to the point of beginning. Subject to the use of the Easterly 33.0 feet thereof as Park Place and subject to the use of the Westerly 66.0 feet thereof as an ingress-egress easement and subject to the use of 16.5 feet along the line bearing S 62°09'52" W, as an ingress-egress easement. Also to include the 66 foot strip and the West 66 feet of the South 551.71 feet of the Northeast 1/4 of the Southwest 1/4 of Section 11, T14N, R4W

OWNER

MT. PLEASANT STORAGE CENTRAL, LLC
MR. ALAN JOHNS
1414 W. HIGH STREET
MT. PLEASANT, MI 48858
PHONE: (989) 775-5050

Corporate Drive - City of Mt. Pleasant Street Corporate Way & Park Place are Private Isabella County Road Commission has no jurisdiction.

BENCHMARKS

BM #1
FOUND CHISELED "X" ON SW HYDRANT FLANGE BOLT (UPPER FLANGE), HYDRANT IS 96" NORTH OF NORTH PROPERTY LINE AND 27" WEST OF THE CENTERLINE OF PARK PLACE (NORTH SIDE OF GRAFX DRIVEWAY)
ELEV. = 755.76'

BM #2
SET CHISELED "X" ON SW HYDRANT FLANGE BOLT (UPPER FLANGE), HYDRANT IS ON THE SOUTH SIDE OF CORPORATE WAY 50' WEST OF THE EASTERLY MOST PROPERTY LINE
ELEV. = 757.18'

BM #3
SET CHISELED "X" IN TOP OF CONCRETE FOUNDATION FOR BOLLARD AT NW CORNER OF WESTERLY MOST STORAGE UNIT BUILDING
ELEV. = 757.73'

LEGEND

⊙	DRAINAGE MANHOLE	△ BM #1	BENCHMARK	☁	DECIDUOUS TREE
□	CATCH BASIN	🚧	FLAG POLE	☀	CONIFEROUS TREE
▷	CULVERT END SECTION	⊕	UTILITY POLE	⊗	BUSH OR SHRUB
⊙	SANITARY SEWER MANHOLE	—	GUY ANCHOR	🪓	STUMP
♂	SANITARY SEWER CLEANOUT	⊠	ELECTRICAL TRANSFORMER	🏠	WALL PACK LIGHT
⊙	FORCE MAIN CLEANOUT	⊖	ELECTRIC METER	— ST —	STORM SEWER
—	SIGN - SINGLE POST	⊕	ELECTRICAL MANHOLE	— SAN —	SANITARY SEWER
—	SIGN - DOUBLE POST	⊕	ELECTRICAL VAULT	— OHW —	OVERHEAD WIRE
🚒	FIRE HYDRANT	⊠	PEDESTRIAN SIGNAL	— G —	GAS LINE
⊕	WATER VALVE	☆	LIGHT POLE	— E —	ELECTRIC LINE
🛑	CURB STOP	☑	FLOOD LIGHT	— P —	PHONE LINE
⊠	WATER METER	⊠	A.C. COMPRESSOR	— TV —	CABLE TV LINE
⊕	WATER WELL	⊠	ELECTRICAL PANEL	— W —	WATER LINE
⊕	WATER MANHOLE	⊕	MONITORING WELL	— X —	FENCE LINE
⊕	YARD HYDRANT	⊠	GAS VALVE	🌳	TREELINE
⊠	IRRIGATION VALVE	⊕	GAS METER	■	EXISTING ASPHALT
☀	IRRIGATION SPRINKLER HEAD	⊠	TELEPHONE VAULT	■	EXISTING CONCRETE
📍	GOVERNMENT CORNER	⊕	TELEPHONE MANHOLE	■	EXISTING GRAVEL
●	FOUND PROPERTY CORNER	🚧	PEDESTAL	■	PROPOSED ASPHALT
■	FOUND CONCRETE MONUMENT	⊠	CABLE VAULT	■	PROPOSED CONCRETE
▲	FOUND PK OR MAG NAIL	⊕	HANDHOLE	(M)	MEASURED
○	SET CAPPED IRON #46677	⊕	POST	(R)	RECORDED
△	SET MAG NAIL	⊕	BOLLARD		
△ CP #1000	CONTROL POINT	⊠	MAILBOX		

NOTES

1. SHOWN UNDERGROUND UTILITY LOCATIONS REFLECT INFORMATION COLLECTED FROM UTILITY OWNERS AND VISIBLE MARKERS FOUND AT THE TIME OF SURVEY. SHOWN LOCATIONS ARE NOT INTENDED TO BE EXACT AND CONTRACTORS MUST VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO EXCAVATION.

MISS DIG/UNDERGROUND UTILITY NOTIFICATION

FOR THE PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CONTACT MISS DIG SYSTEM, INC. BY PHONE AT 811 OR 800-482-7171 OR VIA THE WEB AT EITHER ELOCATE.MISSDIG.ORG FOR SINGLE ADDRESS OR RTE.MISSDIG.ORG. A MINIMUM OF 3 BUSINESS DAYS PRIOR TO EXCAVATING, EXCLUDING WEEKENDS AND HOLIDAYS.



COVER SHEET

PROJECT NAME:
MT. PLEASANT STORAGE CENTRAL, LLC
Section 11, T14N., R4W, Union Township,
Isabella County, Michigan

LORENZ
SURVEYING & ENGINEERING, INC.
3229 W. Beal City Road Phone: (989) 644-5953
Weldman, Michigan 48893 Fax: (989) 644-8659
pete@lorenzse.com

JOB NO: 190065
SCALE: NONE
DRAWN BY: TPL
DATE: 12/03/19
SHEET NO: **C1**

NO.	DATE	DESCRIPTION

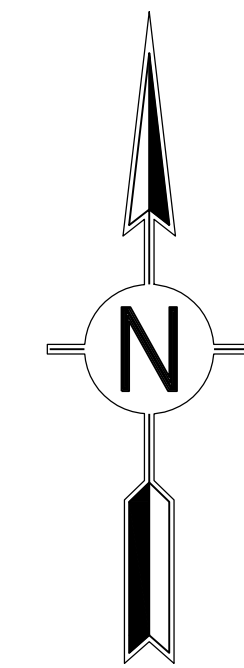
NO.	DATE	DESCRIPTION

TOPOGRAPHIC SURVEY

PROJECT NAME:
MT. PLEASANT STORAGE CENTRAL, LLC
Section 11, T14N., R4W, Union Township,
Isabella County, Michigan

LORENZ
SURVEYING & ENGINEERING, INC.
 3229 W. Beal City Road Phone: (989) 644-5953
 Weldman, Michigan 48893 Fax: (989) 644-8659
 pete@lorenzse.com

JOB NO: 190065
 SCALE: 1" = 40'
 DRAWN BY: TPL
 DATE: 12/03/19
 SHEET NO: **C2**



BENCHMARKS

BM #1
 FOUND CHISELED "X" ON SW. HYDRANT FLANGE BOLT (UPPER FLANGE).
 HYDRANT IS 98' NORTH OF NORTH PROPERTY LINE AND 27' WEST OF THE
 CENTERLINE OF PARK PLACE (NORTH SIDE OF GRAFX DRIVEWAY).
 ELEV. = 755.76'

BM #2
 SET CHISELED "X" ON SW. HYDRANT FLANGE BOLT (UPPER FLANGE).
 HYDRANT IS ON THE SOUTH SIDE OF CORPORATE WAY 50' WEST OF THE
 EASTERLY MOST PROPERTY LINE.
 ELEV. = 757.18'

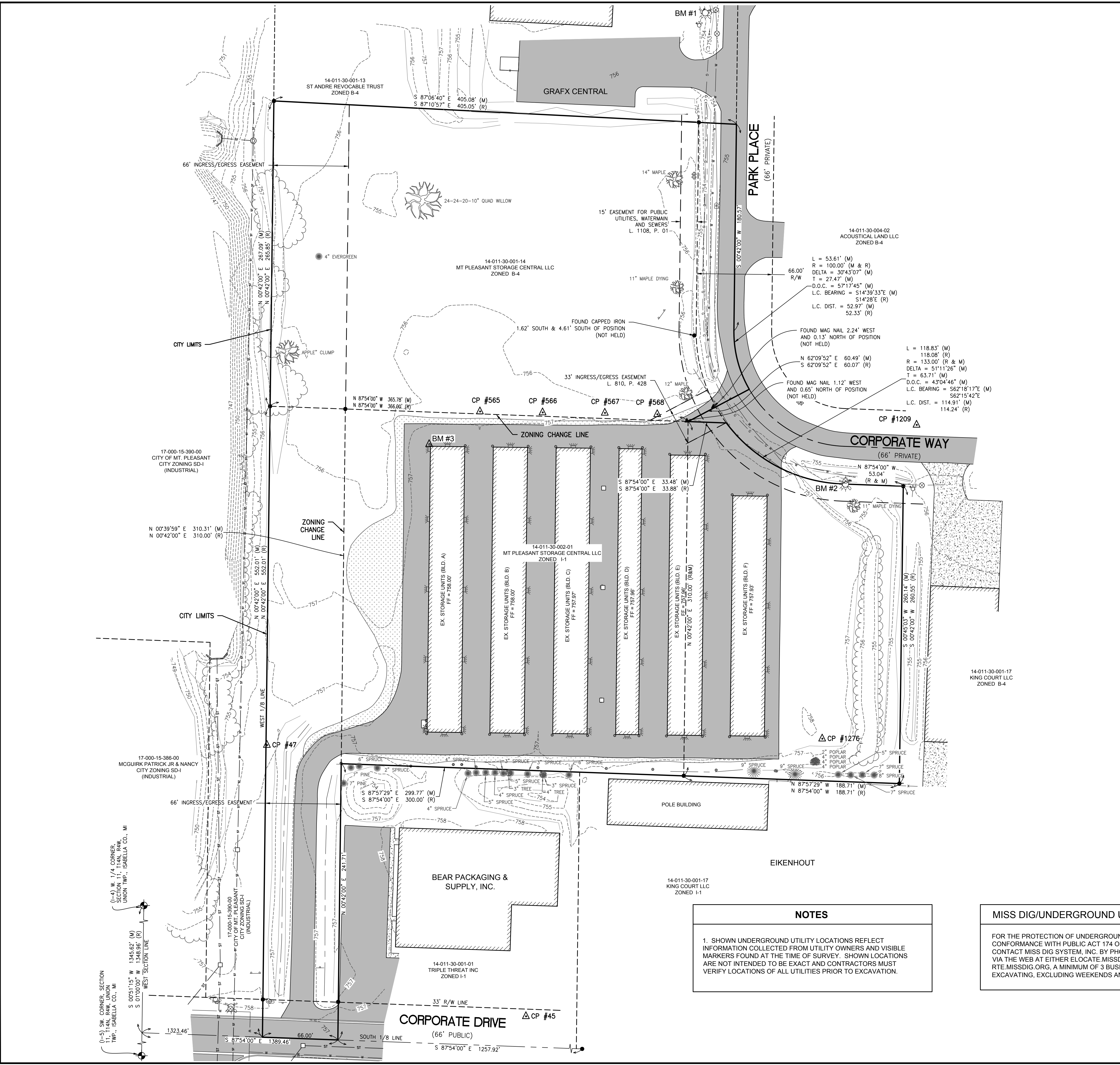
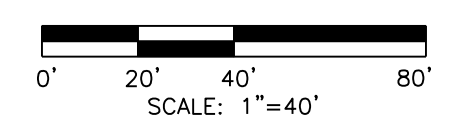
BM #3
 SET CHISELED "X" IN TOP OF CONCRETE FOUNDATION FOR BOLLARD AT
 NW. CORNER OF WESTERLY MOST STORAGE UNIT BUILDING
 ELEV. = 757.73'

NOTES

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(1-4) W. 1/4 CORNER, SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-5) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-6) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-7) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-8) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-9) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-10) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-11) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-12) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-13) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-14) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-15) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-16) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-17) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-18) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-19) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-20) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-21) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

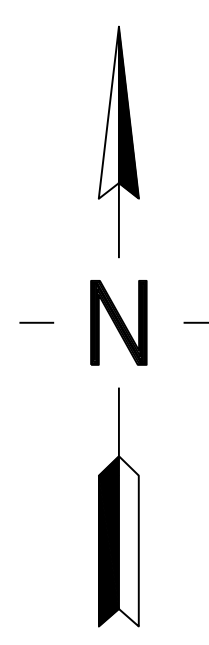
(1-22) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-23) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-24) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-25) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE

(1-26) SW CORNER SECTION 11, T14N., R4W, UNION TWP., ISABELLA CO., MI
 S 00751.15" W 1345.62' (M)
 S 01000.00" W 1348.96' (R)
 WEST SECTION LINE



OWNER & SITE PLAN APPLICANT

MT. PLEASANT STORAGE CENTRAL, LLC
 MR. ALAN JOHNS
 1414 W. HIGH STREET
 MT. PLEASANT, MI 48858
 PHONE: (989) 775-5050

BUILDING CONSTRUCTION TYPE

TYPE IIB: NON-COMBUSTIBLE METAL BUILDINGS

PARCEL AREAS

PARCEL NO.	AREA (SQ. FT.)	AREA (ACRES)
14-011-30-001-14	143,205	3.29
14-011-30-002-01	145,299	3.34
TOTAL	288,504	6.62

MAXIMUM LOT COVERAGE (BY ALL BUILDINGS)

I-1 AREA: PARCEL #14-011-30-002-01		B-4 AREA: PARCEL #14-011-30-001-14	
AREA = 145299 SFT		AREA = 143205 SFT	
EXISTING BUILDINGS		PROPOSED BUILDINGS	
BLD.	AREA (SFT)	BLD.	AREA (SFT)
A	7500	1	9000
B	7500	2	7950
C	7500	3	6300
D	5000	4	6300
E	7350	5	6300
F	6300	6	3150
TOTAL	41,150 SFT	TOTAL	39,000 SFT
PROPOSED BUILDING 7 AREA = 4200 SFT		% COVERAGE 27.2% (ALLOWABLE = 30%)	
TOTAL ALL BUILDINGS AREA = 45350 SFT		% COVERAGE 31.2% (ALLOWABLE = 40%)	

SIDEWALKS

SIDEWALK RELIEF IS REQUESTED BASED ON THE FOLLOWING:

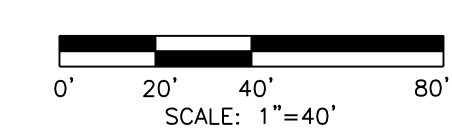
- THE DEVELOPMENT IS LOCATED ON A PROPERTY ZONED INDUSTRIAL.
- LESS THAN 50% OF THE SURVEYED SECTIONS OF THE TOWNSHIP ALONG THE ROAD FRONTING THE PROPOSED DEVELOPMENT HAS SIDEWALKS (NO EXISTING SIDEWALKS ALONG CORPORATE DR., PACKARD ST., PARK PL. OR CORPORATE WAY)

SITE LIGHTING

PROPOSED WALL PACK LIGHTING SHALL HAVE CUT-OFF SHIELDS TO DIRECT LIGHT DOWNWARD, REDUCE LIGHT POLLUTION AND GLARE.

PROPOSED SIGN

THE PROPOSED SIGN SHALL MEET UNION TOWNSHIP ORDINANCES AND A SIGN PERMIT WILL BE REQUIRED.



811 Know what's below.
 Call before you dig.
 1-800-482-7171 or 811

PLAN ISSUE: PERMIT

NO.	DATE	DESCRIPTION

REVISIONS

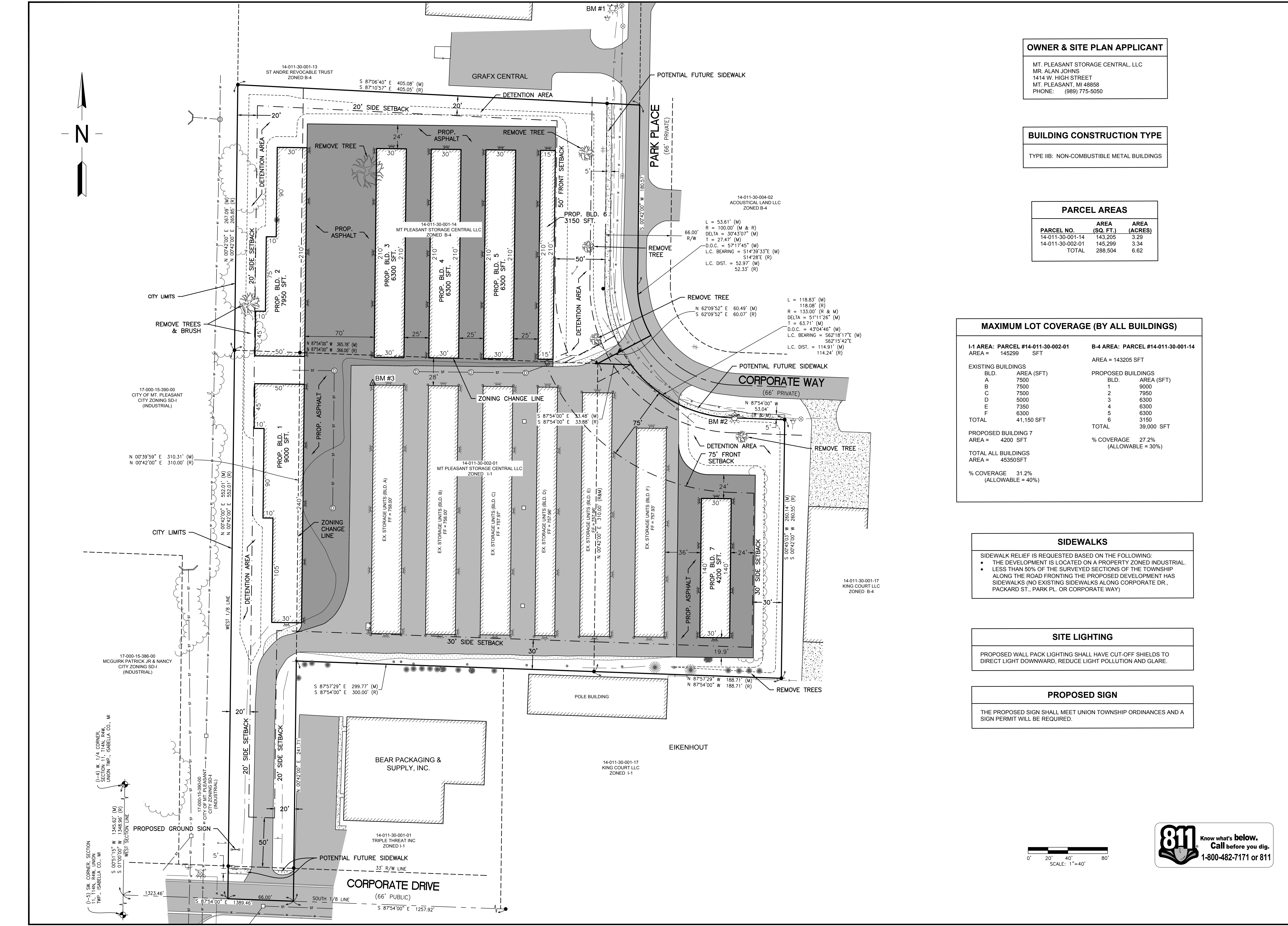
NO.	DATE	DESCRIPTION

SITE PLAN

PROJECT NAME:
MT. PLEASANT STORAGE CENTRAL, LLC
Section 11, T14N., R4W, Union Township,
Isabella County, Michigan

LORENZ
 SURVEYING & ENGINEERING, INC.
 3229 W. Beal City Road Phone: (989) 644-5953
 Weldman, Michigan 48893 Fax: (989) 644-8659
 pete@lorenzse.com

JOB NO.	190065
SCALE:	1" = 40'
DRAWN BY:	TPL
DATE:	12/03/19
SHEET NO.	C3





Peter Gallinat, Township Planner
pgallinat@uniontownshipmi.com
2010 South Lincoln
Mt. Pleasant, MI 48858
Phone 989-772-4600 Ext. 241
Fax 989-773-1988

TO: Planning Commission
FROM: Township Planner

Meeting 12/17/19

NEW BUSINESS

SUBJECT: D) SPR 2019-16 Isabella County Road Commission Facilities located at 2261 E REMUS RD MOUNT PLEASANT, MI PID 14-016-30-003-00 48858 Owner: ISABELLA COUNTY ROAD COMMISSION

Applicant: Isabella County Road Commission

Owner: ISABELLA COUNTY ROAD COMMISSION

Location: 2261 E REMUS RD. MOUNT PLEASANT MI 48858

Current Zoning: B5

Adjacent Zoning: R-2A, B-5, CZ (Civic MP City)

Future Land Use/Intent: *Commercial/Light Industrial:* This district is intended for a blend of medium intensity commercial and small-scale light industrial uses. Light industrial uses include but are not limited to small-scale manufacturing, laboratories, R&D (research and development) firms, information technology firms, or other businesses that might be found in a technology park.

Current Use: Essential Services: Isabella County Rd. Commission.

Reason for Request: Construct new Road Commission facilities including Administration Buildings and Maintenance building.

History: Applicant applied for a Public and Institutional Special use for new facilities on a vacant property on S. Lincoln Rd in December of 2018. Following the Planning Commission's recommendation to NOT approve the application. Applicant applied for a Text Interpretation from the ZBA in February of this year. The ZBA determined that the ICRC is an essential service. At this time the project has received all outside agency approvals. MPFD, ICRC, ICTC, Isabella County Drain Office for Stormwater Management and Union Township Utilities.

Objective of board: Review section 12 of the Zoning Ordinance. The Planning Commission shall study the site plan and shall, within sixty days of its submittal to the Zoning Official, either approve or disapprove the proposed site plan. If the site plan is disapproved, the reasons for disapproval shall be stated. Upon approval of a site plan, at least two copies of the site plan as finally approved shall be signed and dated by the Secretary of the Planning Commission.

Recommendation from Township Planner

At this time I would approve SPR 2019-16.

Twp Planner
Peter Gallinat

Union Township Site Plan Review Application 2015 Revision

FILL OUT THE FOLLOWING

- I. This application is for (circle one) Preliminary Site Plan Review Final Site Plan Review
- II. Applicant Name **Isabella County Road Commission**
- III. Applicant Address **2261 E. Remus Road, Mt Pleasant Mi**
- IV. Applicant Phone **989-773-7131** Owner Phone _____
- V. Applicant is (circle) Contractor Architect/Engineer Developer Land Owner (skip V& VI)
Other
- VI. Land Owner Name -----
- VII. Land Owner Address **2261 E. Remus Road, Mt Pleasant Mi**
- VIII. Project/Business Name **Isabella County Road Commission**
- IX. Fill out check list that follows. You must check off that each item has been included in the drawing. If an item is not going to be included in the construction, note that in the comment area. For the first three items, check off if you have made the required submittals to other reviewing agencies.

SUBMITTALS TO OTHER AGENCIES	Off	
Storm water management plan approval prior to application. Reviewed by the County Engineer	<input type="checkbox"/>	Copy of Union Township Storm Water Management Plan available upon request. Submit (2) copies of plan and calculations directly to the Isabella County Engineer, contact Bruce Rohrer at (989) 772 0911, ext. 231. Any review fees are additional.
All curb cuts, acceleration/deceleration lanes, additional drives, and other matters pertaining to roads to be approved by MDOT or Isabella County Road Commission prior to application.	<input type="checkbox"/>	MDOT (M 20, BR 127 sites) at (989) 773 7756. Contact Isabella County Road Commission (all other county roads) at (989) 773 7131. Submit (3) copies.
Mt. Pleasant Fire Dept.	<input type="checkbox"/>	Sgt Randy Keeler (989) 779-5122, (2) copies
Isabella Co Transportation Commission (ICTC)	<input type="checkbox"/>	Rick (989) 773 2913, (2) copies
WELLHEAD PROTECTION REPORTING FORMS (Required for all Site Plans)		
Hazardous Substances Reporting Form Part I and II (Forms included in this packet)	<input type="checkbox"/>	Kim Smith (989) 772-4600 ext 224 ksmith@uniontownshipmi.com
PERMIT INFORMATION - DEQ Check List		
SITE PLAN REQUIREMENTS	I Of	Comments - (also indicate any features which will not be included in the development or are not applicable)
Name and addresses of Property Owner	<input type="checkbox"/>	
Name and Address of Applicant	<input checked="" type="checkbox"/>	
Provide Construction Type (per Mi Building Code) and if sprinkled, (assume Type IVb, un-sprinkled if not provided)	<input checked="" type="checkbox"/>	IIb, Fully sprinkled - NFPA 13

Union Township Site Plan Review Application 2015 Revision

The date, north arrow and scale. The scale shall be not less than 1"= 20' for property under three (3) acres and not more than 1"=40' for property greater than three acres.	X	Drawings for the board printed on 11x17, these will not be to scale
All lot and/or property lines are to be shown and dimensioned, including building setback lines	X	
The location and dimensions of all existing and proposed: fire hydrants (within 400 feet of building) - - - - drives, ----- sidewalks, (required) ----- curb openings, ----- acceleration/deceleration lanes, ----- signs, ----- exterior lighting on buildings and parking lots, - - parking areas (Including handicapped parking spaces, barrier-free building access, unloading areas), ----- recreation areas, ----- common use areas, ----- areas to be conveyed for public use and purpose. -	X	
Elevation of building front, side, and back. Include Sign size, height, and design. Canopy heights extending over driveways accommodate Public Transportation	X	
Source of utilities. Public water and sewer approval by Union Township Utility Coordinator prior to application.		Note: Union Township policy is to issue sewer and water permits after application for a building permit. Applicant is advised to contact the utility department for availability prior to site plan review. The township does not coordinate other utility matters. Applicant to assure himself that site is suitable for septic systems, contact Central Michigan District Health Department
All dumpsters shall be screened from public view with an opaque fence or wall no less than six feet in height. Show location. (Note most refuse contractors require concrete pad to place dumpsters upon)	X	
The location and right-of-way width of all abutting roads, streets, alleys and easements.	X	
A locational sketch drawn to scale giving the section number and the nearest crossroads.	X	

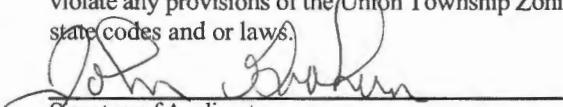
Union Township Site Plan Review Application 2015 Revision

The zoning of the subject property and the abutting properties.	X	
The location, height and type of fences and walls.	X	
The location and detailed description of landscaping.	X	
For multiple family and mobile home parks, contour intervals shall be shown (two foot intervals for average slopes ten percent and under and five foot intervals for slopes over ten percent). Topography, however, is encouraged to be shown on all site plans.	X	
The location of all existing and proposed structures on and within one hundred feet of the subject property's boundary.	X	
For apartments, provide a count of bedrooms per building and total count of bedrooms for the project.		Not applicable

APPLICANT COMMENTS

Union Township Site Plan Review Application 2015 Revision

I submit the site plan and this application as a true representation of existing and proposed conditions. I agree to install all features as shown and to abide by conditions placed upon approval of this plan by the Union Township Planning Commission . False or inaccurate information placed upon this plan may be cause for revocation of any permits issued pursuant to site plan approval and / or removal of work installed. Any changes to the Site Plan now or in the future must be approved by the Union Township Planning Commission or Zoning Administrator. Approval of this plan shall not constitute the right to violate any provisions of the Union Township Zoning Ordinance 1991-5, or other applicable building or state codes and or laws.



Signature of Applicant

12-3-19

Date

Signature of Owner (if other than applicant)

Date

PLEASE PLACE OUR REVIEW ON THE 12/17/19 _____ (INSERT DATE)
PLANNING COMMISSION MEETING. An owners representative WILL / WILL NOT attend. You will not receive a reminder of the scheduled meeting.

Union Township Site Plan Review Application 2015 Revision

<u>Township use</u>	Review Comments
File # _____	_____
Fee Paid initial _____	_____
Receipt # _____	_____
Date received _____	_____
Date review completed by Zoning Administrator _____	
Place on the _____ Planning Commission Agenda	
Planning Commission Decision _____	

CHARTER TOWNSHIP OF UNION

SITE PLAN REVIEW HAZARDOUS SUBSTANCES REPORTING FORM

This form must be completed and submitted as part of the site plan for facilities which may use, store, or generate hazardous substances or polluting materials (including petroleum-based products)

Name of business: Isabella County Road Commission

Name of business owner(s): Isabella County Road Commission

Street and mailing address: 2261 E. Remus Road, Mt Pleasant Mi

Telephone: _____

Fax: 989-773-7131

Email: tcasali@isabellaroads.com

I affirm that the information submitted is accurate.

Owner(s) signature and date: _____

Information compiled by: _____

Part 1: Management of Hazardous Substances and Polluting Materials

1. Y N Will the proposed facility store, use or generate hazardous substances or polluting materials (including petroleum-based products) now or in the future? **If yes**, please complete this form and submit with your site plan. A catalogue and map of natural resources on and near the site, including an assessment of groundwater vulnerability is required to be submitted with your plan. All petroleum based products will be stored within the building within a secondary containment area.
2. Y N ~~Will any hazardous substances or polluting materials be stored on-site?~~
on-site?
3. Y N Will any hazardous substances or polluting materials be stored on-site? **If yes**, identify the storage location on the site plan. Describe the size and type of secondary containment structure here or on an attached page. Submit a map and/or diagram of facilities on the site related to groundwater protection, including secondary containment structures, loading/unloading areas, drinking water wells, septic systems, underground storage tanks and storm drain inlets.
4. Y N Will the new underground storage tanks be located less than 2000 feet from a drinking water well serving more than a single household? **No underground storage tanks**
5. Y N Are existing underground storage tanks on-site less than 200 feet from a drinking water well serving more than a single household? **No underground storage tanks**
- If the answer to questions 4 or 5 are yes, you may be in violation of the State of Michigan underground storage tank regulations . For specific requirements, please contact the MDEQ Underground Storage Tank Division. District Office Telephone: 989-894-6200 (Saginaw Bay District Office)
6. Y N Will the interior of the facility have general purpose floor drains? (general purpose floor drains should not be connected to a sanitary sewer system, stormwater drainage system, dry well or septic system). If yes, will the floor drain connect to: (circle one)
- a. on-site holding tank
 - b. on-site system
- The on-site system must be approved by the MDEQ.
Contact: MDEQ Waste Management Division.
District Office telephone: 989-894-6200 (Saginaw Bay District Office)
7. Y N Will hazardous substances or polluting materials be stored, used, or handled out-of doors near storm drains which discharge to lakes, streams, or wetlands? If yes, describe the type of catch basin or spill containment facilities which will be used (use an attached sheet with diagram if appropriate).

cc: Charter Township of Union Department of Public Works

Part II: Types and Quantities of Hazardous Substances and Polluting Materials Used, Stored or Generated On-Site

Please list the hazardous substances and polluting materials (including chemicals, hazardous materials, petroleum products, hazardous wastes and other polluting materials) which are expected to be used, stored or generated on-site. Quantities should reflect the maximum volumes on hand at any time. Attach additional pages if necessary to list all hazardous substances and polluting materials.

Common Name	CHEMICAL NAME (components)	Form	MAX QUANTITY ON HAND AT ONE TIME	TYPE OF STORAGE CONTAINERS
Motor Oil			400 Gallons	AGT inside building
Automatic Transmission Oil			275 Gallons	AGT inside building
Hydraulic Oil			400 Gallons	AGT inside building
Engine Coolant			200 Gallons	AGT inside building
	KEY: LQ. = liquid P,LQ = pressurized liquid S = solids G = gas PG = pressurized gas			KEY: AGT = above ground tank = drums DM = drums UGT = underground tank Cy = cylinders CM = metal cylinders CW = wooden or composition container TP = portable tank



PERMIT INFORMATION

www.michigan.gov/deqpermits

The Department of Environmental Quality (DEQ) has prepared a list of key questions to help identify what DEQ permits, licenses, or approvals of a permit-like nature may be needed. By contacting the appropriate offices indicated, you will help reduce the possibility that your project or activity will be delayed due to the untimely discovery of additional permitting requirements later in the construction process. While this list covers the existence of permits and approvals required from the DEQ, it is not a comprehensive list of all legal responsibilities. A useful way to learn whether other requirements will apply is to go through the Self-Environmental Assessment in the Michigan Guide to Environmental, Health, and Safety Regulations, online at: <http://www.michigan.gov/ehsguide>. Please call the Environmental Assistance Center at 800-662-9278 to talk with any of the DEQ programs noted below.

KEY QUESTIONS:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	PROGRAM WEBPAGE AND CONTACTS
MISCELLANEOUS CONSTRUCTION			
<i>Air Quality Permit to Install:</i> Will your business involve the installation or construction of any process equipment that has the potential to emit air contaminants (e.g. dry sand blasting, boilers, standby generators)?	Y <input type="checkbox"/>	N X	Air Quality Division (AQD), Permit Section
<i>Asbestos Notification:</i> Does the project involve renovating or demolishing all or portions of a building? Notification is required for asbestos removal and required for all demolitions even if the structure never contained asbestos.	Y <input type="checkbox"/>	N X	AQD, Asbestos Program
<i>Land and Water Featured Programs (Water Resources Division) - USACE Consolidated Permits:</i> Please consult the Land and Water Management Decision Tree document to evaluate whether your project needs a land and water management permit (i.e., Does the project involve filling, dredging, placement of structures, draining, or use of a wetland?).	Y <input type="checkbox"/>	N X	Water Resources Division (WRD), Joint Permit Application
<i>Soil Erosion and Sedimentation Control:</i> Does the project involve an earth change activity (including land balancing, demolition involving soil movement, and construction)?	Y X	N <input type="checkbox"/>	Soil Erosion and Construction Storm Water , or Contact your Local Agency
<i>NPDES Storm Water Discharge from Construction Sites Notice of Coverage:</i> Does the project involve construction which will disturb one or more acres that come into contact with storm water that enters a storm sewer, drain, lake, stream, or other surface water?	Y X	N <input type="checkbox"/>	NPDES Storm Water Permits Program , or appropriate DEQ District Office
<i>Public Swimming Pool Construction (Spas/Hot Tubs) Permits:</i> Will your business involve the construction or modification of a public swimming pool, spa or hot tub?	Y <input type="checkbox"/>	N X	Public Swimming Pool Program , or appropriate DEQ District Office
<i>Threatened and Endangered Species:</i> Does the project involve activities that would destroy a protected species of plant or animal or disturb a protected animal species?	Y <input type="checkbox"/>	N X	Endangered Species Assessment, Threatened and Endangered Species Program , 517-373-1552
Does the project involve construction or alteration of any sewage collection or treatment facility?	Y <input type="checkbox"/>	N X	Appropriate District Office , WRD, Part 41 Construction Permit Program
Does the project involve construction of a facility that landfills, transfers, or processes of any type of solid non-hazardous waste on-site, or places industrial residuals/sludge into or onto the ground?	Y <input type="checkbox"/>	N X	Office of Waste Management and Radiological Protection (OWMRP), Solid Waste , Appropriate DEQ District Office
Does the project involve the construction of an on-site treatment, storage, or disposal facility for hazardous waste?	Y <input type="checkbox"/>	N X	OWMRP, Hazardous Waste Section, Treatment, Storage and Disposal
WATER SUPPLY (More information, see: http://www.michigan.gov/deqwater, select "drinking water")			
I am buying water from my community water supply (i.e. city of Detroit or Grand Rapids)	Y X	N <input type="checkbox"/>	Contact your Local Water Utility
I have a private or other water supply well (Type III)	Y <input type="checkbox"/>	N X	Contact your (District or County) Local Health Department
I have a Non-Community Water Supply (Type II)	Y <input type="checkbox"/>	N X	Guide , Contact your (District or County) Local Health Department
I am a community water supply (Type I)	Y <input type="checkbox"/>	N X	Community Water Supply , DEQ District Office Community Water Supply Program

WASTEWATER MANAGEMENT			
<i>Storm Water Discharge to Wetlands:</i> Will storm water be collected, stored, or treated in a wetland area from a public road, industrial, commercial, or multi-unit residential development?	Y <input type="checkbox"/>	N X	WRD, <u>Joint Permit Application</u>
<i>Great Lakes:</i> Does the project involve construction, filling, or dredging below the Ordinary High Water Mark of one of the Great Lakes?	Y <input type="checkbox"/>	N X	WRD, <u>Joint Permit Application</u>
<i>Inland Lakes and Streams:</i> Does the project involve any dredging, filling, placement of structures, or the operation of a marina within an inland waterbody (e.g. lake, river, stream, drain, creek, ditch, or canal), enlargement of a waterbody, or excavation of a pond within 500 feet of a waterbody?	Y <input type="checkbox"/>	N X	WRD, <u>Joint Permit Application</u>
<i>Storm Water Ponds and Discharges to Inland Lakes/Streams, or Great Lakes:</i> Will storm water from any road or any other part of the development be discharged either directly or ultimately to an inland waterbody, or one of the Great Lakes; or will a storm water pond be constructed within 500 feet of an inland waterbody?	Y <input type="checkbox"/>	N X	WRD, <u>Joint Permit Application</u>
Does the project involve placement of fill, earth moving, or placement of structures within the 100-year <i>floodplain</i> of a watercourse?	Y <input type="checkbox"/>	N X	WRD, <u>Joint Permit Application</u>
Does the project involve construction of a building or septic system in a designated Great Lakes <i>high risk erosion area</i> ?	Y <input type="checkbox"/>	N X	WRD, <u>Shoreland Management</u>
Does the project involve dredging, filling, grading, or other alteration of the soil, vegetation, or natural drainage, or placement of permanent structures in a designated <i>environmental area</i> ?	Y <input type="checkbox"/>	N X	WRD, <u>Shoreland Management</u>
Does the project propose any development, construction, silvicultural activities or contour alterations within a designated <i>critical dune area</i> ?	Y <input type="checkbox"/>	N X	WRD, <u>Sand Dune Management</u>
Does the project involve construction of a <i>dam</i> , weir or other structure to impound flow?	Y <input type="checkbox"/>	N X	WRD, <u>Dam Safety Program</u>
CONSTRUCTION PERMITS (SECTOR SPECIFIC)			
Does the project involve the construction or alteration of a water supply system or sewage disposal system for a manufactured housing project?	Y <input type="checkbox"/>	N X	<u>Office of Drinking Water & Municipal Assistance (ODWMA)</u>
Does the project involve a subdivision or site condominium project utilizing individual on-site subsurface disposal systems or individual wells?	Y <input type="checkbox"/>	N X	<u>ODWMA</u>
Does the project involve the construction or modification of a campground ?	Y <input type="checkbox"/>	N X	<u>ODWMA, Campgrounds program</u>
Does the project involve the construction or modification of a public swimming pool ?	Y <input type="checkbox"/>	N X	<u>ODWMA, Swimming pools program</u>
OPERATIONAL PERMITS			
Renewable Operating Permit: Does your facility have the potential to emit any of the following: 100 tons per year or more of any criteria pollutant; 10 tons per year or more of any hazardous air pollutant; or 25 tons per year or more of any combination of hazardous air pollutants?	Y <input type="checkbox"/>	N X	AQD, <u>Permit Section</u>
NPDES: Does the project involve the discharge of any type of wastewater to a storm sewer, drain, lake, stream, or other surface water?	Y <input type="checkbox"/>	N X	WRD, <u>Appropriate DEQ District Office, or National Pollutant Discharge Elimination (NPDES) Permit Program</u>
Does the facility have industrial activity that comes into contact with storm water that enters a storm sewer, drain, lake, stream, or other surface water?	Y <input type="checkbox"/>	N X	WRD, <u>Permits Section</u> , or appropriate <u>DEQ District Office</u>
Does the project involve the discharge of wastewaters into or onto the ground (e.g. subsurface disposal or irrigation)?	Y <input type="checkbox"/>	N X	WRD, <u>Groundwater Permits Program</u>
Does the project involve the drilling or deepening of wells for waste disposal?	Y <input type="checkbox"/>	N X	<u>Office of Oil, Gas and Minerals (OOGM)</u>
Does the project involve landfilling, transferring, or processing of any type of solid non-hazardous waste on-site, or placing industrial residuals/sludge into or onto the ground?	Y <input type="checkbox"/>	N X	<u>OWMRP</u> or Appropriate <u>DEQ District Office</u>

Does the project involve the on-site treatment, storage, or disposal of hazardous waste?	Y <input type="checkbox"/>	N X	OWMRP, <u>Hazardous and Liquid Waste</u>
Does the project require a site identification number (EPA number) for regulated waste activities (used oil, liquid waste, hazardous waste, universal waste, PCBs)? (<u>Web Site</u>)	Y <input type="checkbox"/>	N X	OWMRP, Appropriate <u>DEQ District Office</u>
Does the project involve the receipt, possession, manufacture, use, storage, transport, transfer, release, or disposal of radioactive material in any form?	Y <input type="checkbox"/>	N X	OWMRP, <u>Radioactive Material and Standards Unit</u>
Does the project involve decommissioning or decontamination of tanks, piping, and/or appurtenances that may have radioactive levels above background?	Y <input type="checkbox"/>	N X	OWMRP <u>Radioactive Material and Standards Unit</u>
Do you desire to develop a withdrawal of over 2,000,000 gallons of water per day from any source other than the Great Lakes and their connecting waterways? Or, do you desire to develop a withdrawal of over 5,000,000 gallons of water per day from the Great Lakes or their connecting waterways?	Y <input type="checkbox"/>	N X	WRD, DWEHS, <u>Source Water Protection Unit</u>
CHEMICAL ADDITION PROJECTS			
Are you using chemicals or materials in, or in contact with, drinking water at any point in the water works system ?	Y <input type="checkbox"/>	N X	WRD, Appropriate <u>DEQ District Office, Public Water Supply Program</u>
Are you applying a chemical treatment for the purpose of aquatic nuisance control (pesticide/herbicide etc) in a water body (i.e. lake, pond or river)? (5.	Y <input type="checkbox"/>	N X	WRD, <u>Aquatic Nuisance Control</u> and Remedial Action Unit
Are you applying materials to a water body for a water resource management project (i.e. mosquito control treatments, dye testing, or fish reclamation projects)?	Y <input type="checkbox"/>	N X	WRD, <u>Surface Water Assessment Section</u>
OPERATIONAL PERMITS (SECTOR SPECIFIC)			
Does the project involve the transport of some other facility's non-hazardous liquid waste ?	Y <input type="checkbox"/>	N X	OWMRP, <u>Transporter Program</u>
Does the project involve the transport hazardous waste ?	Y <input type="checkbox"/>	N X	OWMRP, <u>Transporter Program</u>
Does your facility have an electric generating unit that sells electricity to the grid and burns a fossil fuel?	Y <input type="checkbox"/>	N X	AQD, <u>Acid Rain Permit Program</u>
Is the project a dry cleaning establishment utilizing perchloroethylene or a flammable solvent in the cleaning process?	Y <input type="checkbox"/>	N X	DEQ, AQD, <u>Dry Cleaning Program</u>
Does your laboratory test potable water as required for compliance and monitoring purposes of the Safe Drinking Water Act?	Y <input type="checkbox"/>	N X	DEQ, <u>Laboratory Services Certifications</u>
Does the project involve the generation of medical waste or a facility that treats medical waste prior to its disposal?	Y <input type="checkbox"/>	N X	OWMRP, <u>Medical Waste Regulatory Program</u>
Does the project involve transport of septic tank, cesspool, or dry well contents or the discharge of septage or sewage sludge into or onto the ground?	Y <input type="checkbox"/>	N X	ODWMA, <u>Septage Program</u>
Do you store, haul, shred or process scrap tires ?	Y <input type="checkbox"/>	N X	OWMRP, <u>Scrap Tire Program</u>
Does the project involve the operation of a public swimming pool ?	Y <input type="checkbox"/>	N X	ODWMA, <u>Public Swimming Pools Program</u>
Does the project involve the operation of a campground ?	Y <input type="checkbox"/>	N X	ODWMA, <u>Campgrounds</u>
Do you engage in the business of hauling bulk water for drinking or household purposes (except for your own household use)?	Y <input type="checkbox"/>	N X	ODWMA, <u>Water Hauler Information</u>
PERSONAL LICENSES/CERTIFICATIONS			
Are you designated by your facility to be the Certified Operator to fulfill the requirements of a wastewater discharge permit (NPDES including Storm	Y <input type="checkbox"/>	N X	WRD, <u>Operator Training, Storm Water Program</u>

Water or Groundwater)?		
Are you a drinking water operator in charge of a water treatment or water distribution system, back-up operator, or shift operator?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, <u>Operator Training</u>
Are you a water-well drilling contractor , pump installer, dewatering well contractor or dewatering well pump installer?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, <u>Well Construction Unit</u>
OIL, GAS AND MINERALS		
Do you want to operate a central production facility (applies to oil and gas production facilities where products of diverse ownership are commingled)?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Petroleum Geology and Production Unit</u>
Does the project involve the removal of sand from a sand dune area within two (2) miles of a Great Lakes shoreline?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, Minerals and Mapping Unit, <u>Sand Dune Mining Program</u>
Does the project involve the diversion and control of water for the mining and processing of low-grade iron ore ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the surface or open-pit mining of metallic mineral deposits ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the mining of nonferrous mineral deposits at the surface or in underground mines?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve mining coal ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Do you want to change the status of an oil or gas well (i.e. plug the well)?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve drilling of oil, gas, brine disposal, secondary recovery, or hydrocarbon storage wells ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve plugging or deepening of an oil or gas well , or conveying rights in the well as an owner to another person?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve changing the status or plugging of a mineral well ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the drilling or deepening of wells for brine production, solution mining, storage, or as test wells ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve decommissioning or decontamination of tanks, piping, and/or appurtenances that may have radioactive levels above background?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Radioactive Protection Programs</u>
STORAGE TANKS (CONSTRUCTION AND OPERATION)		
Does the project involve the installation of an aboveground storage tank for a flammable or combustible liquid (under 200 degrees Fahrenheit)?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	Michigan Department of Licensing and Regulatory Affairs (DLARA) - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a compressed natural gas dispensing station with storage?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a liquefied petroleum gas container filling location or storage location that has a tank with a capacity of more than 2,000 gallons or has two (2) or more tanks with an aggregate capacity of more than 4,000 gallons?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation, removal, or upgrade of an underground storage tank containing a petroleum product or a hazardous substance?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a hydrogen system ?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>

Union Township Site Plan Review Application 2015 Revision

UNION TOWNSHIP CONSTRUCTION CONTACTS

Building & Zoning Permits

Sign Permit

Water and Sewer review

Site Plan Review

Charter Township of Union
2010 S. Lincoln Rd
Mt. Pleasant, MI 48858

(989) 772 4600 (switchboard)
(989) 773 1988 (FAX)

Building Official

Randy Robinson - Ext. 227

rrobinson@uniontownshipmi.com

Zoning Administrator

Peter Gallinat - Ext. 241

pgallinat@uniontownshipmi.com

Public Works Coordinator

Kim Smith - Ext. 224

ksmith@uniontownshipmi.com

Road Permits

(submit (2) copies of site plan directly to proper authority prior to Site Plan Review)

State Highways M 20 and US 127 (portions of E. Pickard Rd, E Remus Rd, and Mission Rd)

MDOT

1212 Corporate Drive

Mt. Pleasant, MI 48858

(989) 773-7756 FAX 775 6329

All other roads

Isabella County Road Commission

2261 E. Remus Rd

Mt. Pleasant, MI 48858

(989) 773 7131 (FAX) 772 2371

ICTC

2100 E Transportation Dr

Mt. Pleasant, MI 48858

(989)772-9441

Union Township Site Plan Review Application 2015 Revision

Storm Water Management Plan

Submit (2) copies of Storm Water Management Plan directly to county engineer prior to Site Plan Review Code - Union Township Ord. 1992-9 Storm Water Management

Isabella County Building

Resource Management
ATTN: Bruce Rohrer PE
200 N. Main St.
Mt. Pleasant, MI 48858

(989) 772 0911 Ext. 231 (FAX) 773 7431

Plumbing, Electrical, Mechanical Permits

Isabella County Building
Inspections
ATTN: (SEE FOLLOWING LIST)
200 N. Main St.
Mt. Pleasant, MI 48858
(989) 772 0911 Ext. (SEE FOLLOWING) (FAX) 773 7431

Electrical Inspector
Tim Wardwell - Ext. 230

Plumbing and Mechanical Inspector
Doug Elias - Ext. 228

Fire Department Review

Sgt. Randy Keeler
804 E. High St.
Mt. Pleasant, MI 48858
(989) 779-5122 (FAX) 773 4020
rkeeler@mt-pleasant.org

Addressing

Isabella County Building Official (989) 772 0911, Ext 228

Miscellaneous

Phone - GTE (800) 483 5600, Verizon (800) 483 4000
Gas/Electric - Consumer Energy (800) 572 4788, MichCon (800) 477 4747 Central MI Dist. Health Dept. (989) 773 5921
Miss Dig (800) 482 7171

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Isabella County Road Commission - Site Plan
Date: Tuesday, December 17, 2019 9:31:26 AM

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Burrows, Ben (MDOT) <Burrowsb@michigan.gov>
Sent: Monday, December 16, 2019 2:51 PM
To: Pat Gaffney <PGaffney@isabellaroads.com>; Loynes, Michael (MDOT) <LoynesM@michigan.gov>; Bates, Shaun (MDOT) <BatesS2@michigan.gov>; Peter Gallinat <pgallinat@uniontownshipmi.com>
Cc: Tony Casali <TCasali@isabellaroads.com>; Jalene A. Sandel <JSandel@isabellaroads.com>; joew@wolveng.com
Subject: RE: Isabella County Road Commission - Site Plan

Peter,
MDOT has reviewed the site plan for the Isabella County Road Commission. We will allow the proposed driveway changes that Pat showed us. Once the site plan is finalized we will need a permit from the Isabella County Road Commission. We will have a construction project in this location next summer. As we discussed with Pat if he can have his drives removed and the new ones installed prior to our contractor being ready to pave we should be able to pave up to the new curb. We will be unable to slow our contractor down or create more work for them so the Isabella County Road Commission will need to coordinate closely with them.
If you have any questions or concerns please let me know.

Thanks,
Ben

Ben Burrows
Mt. Pleasant TSC
1212 Corporate Drive
Mount Pleasant, Mi 48858
989-775-6104 ext 305

From: Pat Gaffney <PGaffney@isabellaroads.com>
Sent: Monday, December 16, 2019 8:36 AM
To: Burrows, Ben (MDOT) <Burrowsb@michigan.gov>; Loynes, Michael (MDOT) <LoynesM@michigan.gov>; Bates, Shaun (MDOT) <BatesS2@michigan.gov>
Cc: Tony Casali <TCasali@isabellaroads.com>; Jalene A. Sandel <JSandel@isabellaroads.com>; joew@wolveng.com
Subject: Isabella County Road Commission - Site Plan

Ben/Mike,

Can you get a letter or email over to Peter Gallinat of Union Township regarding the Road Commission Site plan we went over last week.

Please cc me on the email for my file.

Patrick J. Gaffney, PE
Engineer Superintendent
Isabella CRC
989-773-7131 x115
989-772-2371 fax
pgaffney@isabellaroads.com



Mount Pleasant Fire Department
804 E. High Street
Mount Pleasant, Mi 48858

Union Township Site Plan Review

Tuesday December 10, 2019

Isabella County Road Commission

2261 E Remus RD

Mt. Pleasant, MI 48858

A Site Plan Review was conducted on Tuesday December 10, 2019 and revealed the following requirements listed below.

ORDER TO COMPLY: Since these conditions are contrary to code, you must correct them upon receipt of this notice. Please provide our department the documentation that verifies compliance with the code.

This list shall not be considered all-inclusive, as other requirements may be necessary, additional requirements are located in Chapter 5 and appendixes B, C, and D of the 2012 Edition of the International Fire Code.

If you have any questions regarding this matter, please feel free to contact me at (989) 779-5122.

Violation Code

1 PROPERTY Identification

Isabella County Road Commission
2261 E Remus Rd

Scope of project: Proposed: 49,530sq. ft. maintenance building and 8,469sq. ft. administration building.

ACCESS AND WATER Road and Water Supply

When fire apparatus access roads or water supply for fire protection is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles in accordance with Section 505.2 of the 2012 Edition of the International Fire Code.

ACCESS ROAD 150 FT Buildings within 150ft of Access Road

All portions of a building are required to be within 150 feet of an approved Fire Department access road, in accordance with Chapter 5, Section 503.1.1 of the 2012 Edition of the International Fire Code.

Site plan meets requirements above.

Union Township Site Plan Review

ACCESS ROAD LOAD Designed and Maintained to Support the

All fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities in accordance with Chapter 5, Sections 503.2.3 and 503.4 of the 2012 Edition of the International Fire Code.

ACCESS ROAD OBSTRUCTED Dimensions and Clearances

All fire apparatus access roads, including parking lots, shall have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches in accordance with Chapter 5, Sections 503.2.1, 503.2.2, 503.3 and 503.4 of the 2012 Edition of the International Fire Code. Fire Prevention Ordinance 93.02(D)

ACCESS ROAD W/HYDRANT Width of Road with a Fire Hydrant

Where a fire hydrant is located on a fire department apparatus access road, the minimum road width shall be 26 feet, exclusive of shoulders as in accordance with Appendix D, Section D103.1 of the 2012 Edition of the International Fire Code.

Site plan meets requirements above.

AERIAL ACCESS PROXIMITY Proximity to building

At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official as in accordance with Appendix D, Section D 105.3 of the 2012 Edition of the International Fire Code.

Site plan meets requirements.

BUILDING IDENTIFICATION Buildings Shall Have Address

Provide address identification numbers in accordance with Chapter 5, Sections 505.1 of the 2012 Edition of the International Fire Code or applicable to the City of Mt. Pleasant code of ordinances 150.01 Land Usage.

FDC HORN STROBE Horn Strobe Above FDC

Provide a horn strobe above the Fire Department Connection. Fire Prevention Ordinance 93.12(A)

FDC LOCATION FDC Location and Distance

Fire Department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved by the fire chief. The fire department connection shall be located within 150 feet of a fire hydrant, in

Union Township Site Plan Review

accordance with Chapter 9, Section 912.2.1 of the 2012 Edition of the International Fire Code and the Fire Prevention Ordinance 93.12 Provide a 5" Storz Fire Department Connection with a 30 degree downturn.

Location of FDC on sitel plan meets requirements above.

FDC MAINTENANCE FDC Maintained and Unobstructed

Immediate access to fire department connections shall be maintained at all times and without obstruction by fences, bushes, trees, walls or any other fixed or moveable object. Access to fire department connections shall be approved by the fire chief as in accordance with Chapter 9, Section 912.3 of the 2012 Edition of the International Fire Code.

HYDRANT DISTANCE Hydrant maximum distance from buildings

Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official. Exceptions: 1. For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m). 2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 m).

Site plan meets above requirements.

KNOX BOX Knox Box Requirements and Location

Provide a Knox Key entry device and install it in approved location by the Fire Code Official, as in accordance with Chapter 5, Section 506.1, 506.1.1 and 506.2 of the 2012 Edition of the International Fire Code. (Go to Knoxbox.com and search by fire department or zip code - select "Mt. Pleasant Fire Department" and place order for the type of Knox box desired.)

Requiring three knoxbox locations. One at the east entrance gate and the other two knoxboxes to be located at the north two entrance gates.

WATER SUPPLY (GPM) Capable of Supplying the Required Fire

Provide fire hydrants capable of supplying the required fire flow in accordance with Chapter 5, Section 507 of the 2012 Edition of the International Fire Code. The number and spacing of fire hydrants is based on the construction type and square footage of the building in accordance with Appendix B and C and tables B105.1 and C105.1 of the 2012 Edition of the International Fire Code. (Contact

Union Township Site Plan Review

Fire Department to verify locations.)

The fire flow is based on the largest building of 49,530sq. ft. Total fire flow required is 4,750gpm. A 50% reduction is allowed for a sprinkled building leaving the total fire flow at 2,375gpm. Three hydrants are required for fire flow with an average spacing of 450'. Two of the existing public hydrants on Remus Road and the new proposed hydrant meet the requirement for fire flow. The average spacing is $236' + 550' = 786' / 2 = 393' < 450'$. Site plan meets fire flow requirements.

Keeler, Randy
Lieutenant
Mount Pleasant Fire Department

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Isabella County Road Commission Plans
Date: Wednesday, December 11, 2019 11:27:31 AM

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Rick Collins <rcollins@ictcbus.com>
Sent: Wednesday, December 11, 2019 11:26 AM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>; Pat Gaffney <PGaffney@isabellaroads.com>
Cc: Lisa Pratt <lpratt@ictcbus.com>
Subject: Isabella County Road Commission Plans

We have reviewed plans for the proposed Road Commission project and have no issues.



Rick Collins | Executive Director
2100 E. Transportation Dr | Mt. Pleasant, MI 48858
Phone 989.773.6766 | Fax 989.773.1873
rcollins@ictcbus.com
Visit our website at ictcbus.com

Sam **B**er **E**ngineering

Bruce E. Rohrer, P.E.
1216 E. Gaylord Street
Mt. Pleasant, Michigan 48858
(989) 330-2150

December 6, 2019

Peter Galliant
Charter Township of Union Planner
2010 S. Lincoln Road
Mt. Pleasant, MI 48858

RE: Storm Water Management Plan for the ICRC Redevelopment project

Dear Mr. Galliant:

I have reviewed the Storm Water Management Plan prepared by Joseph White, P.E., of Wolverine Engineering, dated Dec. 3, 2019, for the above captioned project located in part of the SW ¼ of Section 16, Union Township, located at 2261 East Remus Road. The proposed plan is consistent with the Union Township Storm Water Ordinance.

If you have any questions or need any further information, please feel free to contact me.

Sincerely,



Bruce E. Rohrer, P.E.
Consulting Engineer
Isabella County

BER/taw

cc: Patrick Gaffney, P.E., ICRC

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Isabella County Road Commission Site Plan 2261 E. Remus Road
Date: Wednesday, December 11, 2019 1:50:58 PM

From: Pat Gaffney <PGaffney@isabellaroads.com>
Sent: Wednesday, December 11, 2019 1:43 PM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Cc: Tony Casali <TCasali@isabellaroads.com>; joew@wolveng.com; patg@studiointrigue.com
Subject: Isabella County Road Commission Site Plan 2261 E. Remus Road

Peter,

I have reviewed the site plan and have no issues with the proposed driveways.

Patrick J. Gaffney, PE
Engineer Superintendent
Isabella CRC
989-773-7131 x115
989-772-2371 fax
pgaffney@isabellaroads.com

From: [Peter Gallinat](#)
To: [Jennifer Loveberry](#)
Subject: FW: Isabella County Road Commission Site Plan Review
Date: Thursday, December 12, 2019 10:38:56 AM
Attachments: [image001.png](#)

Peter Gallinat
Township Planner
Charter Twp of Union
2010 S. Lincoln Rd.
Mt Pleasant, MI 48858
989-772-4600 x 241
pgallinat@uniontownshipmi.com

From: Kim Smith <ksmith@uniontownshipmi.com>
Sent: Thursday, December 12, 2019 10:37 AM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Cc: 'tcasali@isabellaroads.com' <tcasali@isabellaroads.com>; 'Joseph White' <joew@wolveng.com>
Subject: RE: Isabella County Road Commission Site Plan Review

Peter,

Good morning, the site plan for the Isabella County Road Commission located at 2261 E Remus Road was provided to the Public Service Department on December 9, 2019. These comments pertain to site plan approval only.

The Isabella County Road Commission is currently serviced by Township water and sanitary sewer service. The Mt. Pleasant Fire Department is requiring that one (1) hydrant be installed onsite and fire suppression be provided in the building. The additional capacity requirements for water and sewer at the new facility will require that new water and sewer leads be installed to the new facility. The layout provided for the water and sewer extensions provided on the site plan are acceptable.

Prior to permits being issued for this project the full plans, profiles, and specifications for the water extension and sewer service will be reviewed, and is required to be approved by the Township Department of Public Services. In accordance with the City of Mt. Pleasant Fire Department Requirements the water extension shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided.

Thank you,

Kim Smith



Department of Public Services
Charter Township of Union
5228 South Isabella Road
Mt. Pleasant, MI 48858
Phone (989) 772-4600 ext. 224
Fax (989) 773-1988
Visit us on the Web at
<http://www.uniontownshipmi.com>

"This institution is an equal opportunity provider, and employer."

From: Kim Smith
Sent: Wednesday, December 11, 2019 8:56 AM
To: Peter Gallinat <pgallinat@uniontownshipmi.com>
Cc: 'tcasali@isabellaroads.com' <tcasali@isabellaroads.com>; Joseph White <joew@wolveng.com>
Subject: Isabella County Road Commission Site Plan Review

Peter,

Good morning, I received a copy of the site plan for the Isabella County Road Commission project on December 9, 2019. I did not receive a copy of the Wellhead Protection paperwork that should have accompanied the site plan submitted to your office. Did you receive the Wellhead Protection paperwork with this site plan submittal? If it was included please forward a copy to the Public Services Department for review.

Thank you,

Kim Smith



Department of Public Services
Charter Township of Union
5228 South Isabella Road
Mt. Pleasant, MI 48858
Phone (989) 772-4600 ext. 224

Fax (989) 773-1988

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<http://www.uniontownshipmi.com>

"This institution is an equal opportunity provider, and employer."

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION (INCLUDING REFERENCED MDOT STANDARD PLANS AND PUBLICATIONS) AND THIS PROJECT'S CONTRACT DOCUMENT. MDOT 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION ARE AVAILABLE AT www.mdot.state.mi.us/specbook/

Sheet List Table

SHEET NUMBER	SHEET TITLE
0	COVER SHEET
1	LEGEND SITE INFORMATION
2	TOPOGRAPHIC SURVEY
3	GENERAL NOTES & DETAILS
4	DEMOLITION PLAN
5	OVERALL SITE PLAN
6	SITE PLAN ENLARGEMENT
7	GRADING PLAN
8	GRADING ENLARGEMENT
9	UTILITY PLAN
10	WATER AND SANITARY PLAN & PROFILES
11	STORM SYSTEM PLAN & PROFILES
12	STORM SYSTEM PLAN & PROFILES
13	STORM SYSTEM PLAN & PROFILES
14	STORM SYSTEM PLAN & PROFILES
15	STORM WATER MANAGEMENT PLAN
16	STORM WATER MANAGEMENT CALCULATIONS
17	SESC PLAN
18	LANDSCAPE PLAN
19	MDOT STANDARD PLANS & SPECIAL DETAILS
20	MDOT STANDARD PLANS & SPECIAL DETAILS
21	MDOT STANDARD PLANS & SPECIAL DETAILS
22	MDOT STANDARD PLANS & SPECIAL DETAILS
23	MDOT STANDARD PLANS & SPECIAL DETAILS
24	MDOT STANDARD PLANS & SPECIAL DETAILS
25	M-20 REMOVAL PLAN
26	M-20 CONSTRUCTION PLAN
27	MAIN ENTRANCE DRIVE CONSTRUCTION PLAN
A-001	COMPOSITE FLOOR PLAN
A-300	ADMINISTRATION BUILDING EXTERIOR ELEVATIONS
A-301	PARKING_MAINTENANCE BUILDING EXTERIOR ELEVATIONS

NOTES TO APPLY TO MDOT STANDARD PLANS AND SPECIAL DETAILS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON THE PLANS, THE ITEMS SHALL BE CONSTRUCTED ACCORDING TO THE MDOT STANDARD PLAN GIVEN BELOW, UNLESS OTHERWISE MODIFIED BY SPECIAL PROVISION OR DIRECTED BY THE ENGINEER

ITEM OF WORK	STANDARD PLAN NO.
DRAINAGE STRUCTURES	R-1-G *
COVER B	R-7-F
COVER E	R-10-D
MONUMENT BOXES	R-11-E
COVER J	R-14-D
COVER Q	R-18-F
SIDEWALK RAMPS AND DETECTABLE WARNING DETAILS	R-28-J *
DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALKS	R-29-I
CONCRETE CURB AND CONCRETE CURB & GUTTER	R-30-G
CONCRETE SHOULDER GUTTER AND SPILLWAY	R-35-E *
PAVED AND COBBLE DITCHES & DRAINAGE TREATMENT DETAILS	R-46-D
GRANULAR BLANKET, UNDERDRAINS, OUTLET ENDINGS FOR UNDERDRAINS, AND SEWER BULKHEADS	R-80-E
BEDDING AND FILLING AROUND PIPE CULVERTS	R-82-D
UTILITY TRENCHES	R-83-C
OUTLET HEADWALLS	R-85-D
PRECAST CONCRETE END SECTION FOR PIPE CULVERT	R-86-F *
SOIL EROSION & SEDIMENTATION CONTROL MEASURES	R-96-E
CHAIN LINK FENCE (USING TENSION WIRE)	R-98-B
SEEDING AND TREE PLANTING	R-100-H

* SPECIAL DETAILS



!!! CAUTION !!!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITY OWNERS IN ACCORDANCE WITH MICHIGAN P.A. NO. 174 OF 2013.

ISABELLA COUNTY ROAD COMMISSION

IN CO-OPERATION WITH

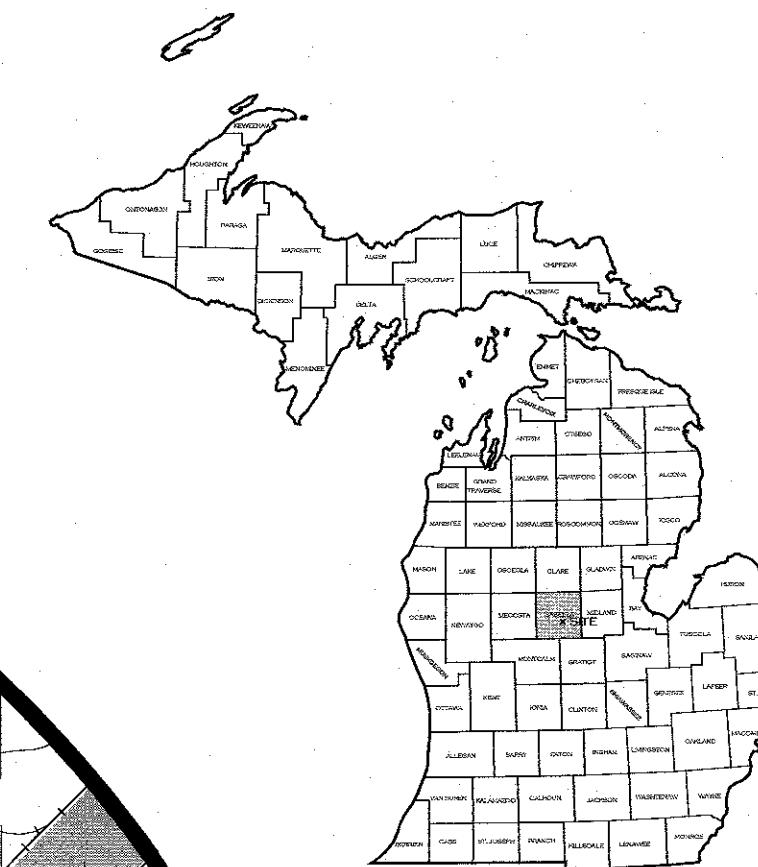
UNITED STATES DEPARTMENT OF AGRICULTURE

RURAL DEVELOPMENT

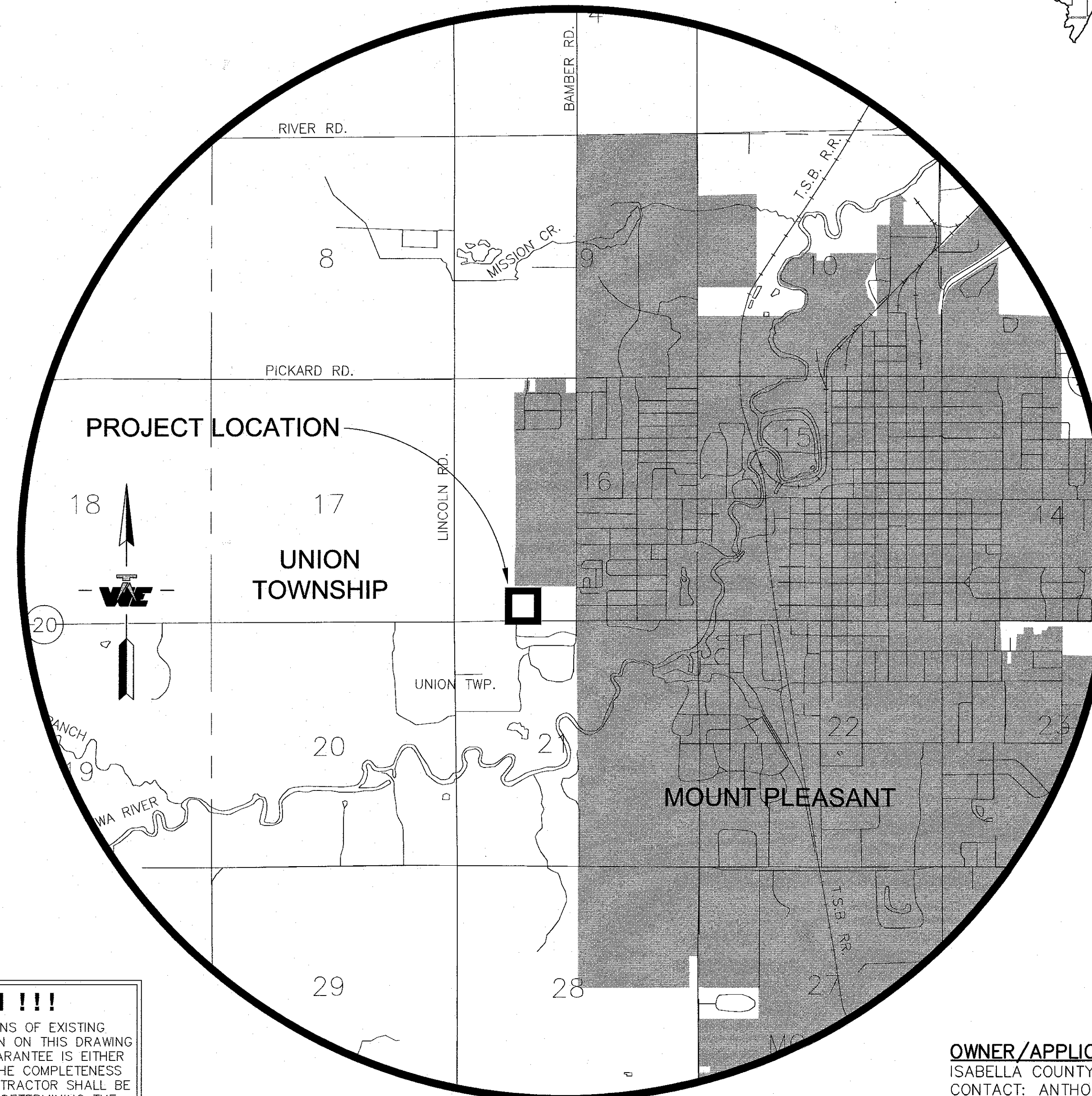
PLAN OF PROPOSED

ROAD COMMISSION FACILITY REDEVELOPMENT

UNION TOWNSHIP, ISABELLA COUNTY, MICHIGAN



COUNTY KEY



LOCATION MAP
NOT TO SCALE

OWNER/APPLICANT CONTACT INFORMATION

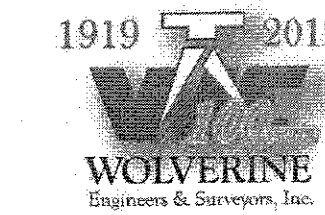
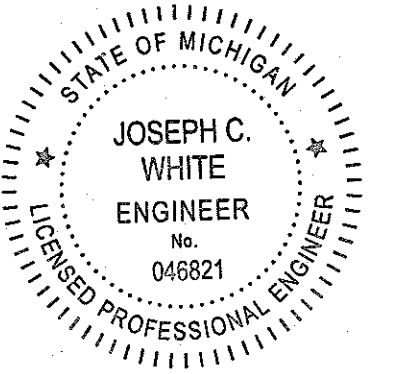
ISABELLA COUNTY ROAD COMMISSION
 CONTACT: ANTHONY CASALI
 2261 EAST REMUS ROAD (M-20)
 MT. PLEASANT, MICHIGAN 48858-9002
 PH: 989-773-7131
 FX: 989-772-2371
 EMAIL: tcasali@isabellaroads.com

PROJECT: ICRC FACILITY REDEVELOPMENT
 CONTRACT FOR: NEW ROAD COMMISSION BUILDING AND ASSOCIATED SITE IMPROVEMENTS

APPROVAL

PREPARED UNDER SUPERVISION OF

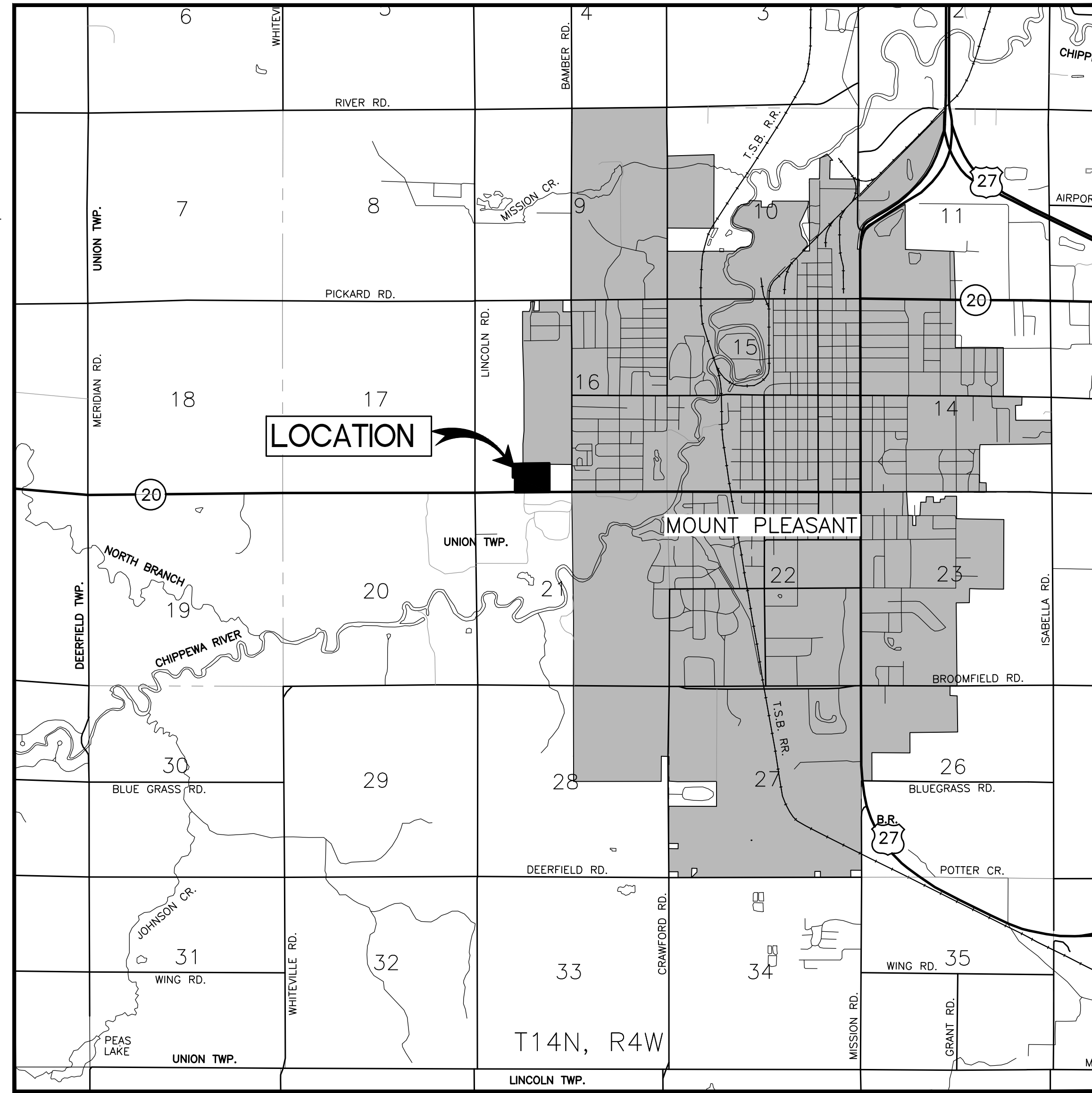
CIVIL ENGINEER (SEAL)
 SIGNATURE:
 LICENSE NUMBER: 46821
 DATE: 12/10/19



PROJECT INFO: ROAD COMMISSION FACILITY REDEVELOPMENT 180014

S:\Projects\2018\18-0014_C3D\DWG\0_COVER.dwg, Monday, December 9, 2019 7:34:15 AM, Joseph White

LOCATION MAP
NO SCALE



ZONING REQUIREMENTS

ZONED:
B-5

MINIMUM LOT FRONTAGE, LOT WIDTH
100 FEET

MINIMUM LOT AREA
16,000 SQ. FT.

MAXIMUM BUILDING HEIGHT
35 FEET

SETBACK REQUIREMENTS
FRONT YARD: 50 FEET (A,B)
SIDE YARD: 20 FEET (B)
REAR YARD: 25 FEET (A,B)

MAXIMUM LOT COVERAGE (BY ALL BUILDINGS)
30%

A) OFF-STREET PARKING SHALL BE PERMITTED TO OCCUPY A PORTION OF THE REQUIRED FRONT YARD, PROVIDED THAT THERE SHALL BE MAINTAINED A MINIMUM UNOBSTRUCTED AND LANDSCAPED SETBACK OF TEN (10) FEET BETWEEN THE NEAREST POINT OF THE OFF STREET PARKING AREAS, EXCLUSIVE OF ACCESS DRIVEWAYS AND THE NEAREST RIGHT-OF-WAY LINE AS INDICATED ON THE MAJOR THOROUGHFARE PLAN.

B) A LOT IN THE B-4 AND B-5 DISTRICT WILL PROVIDE A SIDE AND REAR YARD OF AT LEAST FORTY (40) FEET WHEN ABUTTING A RESIDENTIAL DISTRICT.

PROPERTY DESCRIPTIONS

PARCEL 1
Part of the Southwest 1/4 of the Southwest 1/4 of Section 16, T14N, R4W, Union Township, Isabella County, Michigan, described as beginning at a point on the South Section line, which is North 89°24'50" East, 1107.77 feet from the Southwest Section corner; thence North 89°24'50" East, 212.75 feet; thence North 0°06'50" East, 409.58 feet along the West, North and South 1/8 line, as occupied; thence South 89°59' West, 212.73 feet; thence South 0°06'50" West, 411.69 feet to the Point of Beginning.

PARCEL 2
The South 792.0 feet of the West 429.0 feet of the SE 1/4 of the SW 1/4 of Section 16, T14N, R4W, subject to the rights of the State of Michigan over the South 50 feet of the above described land.

PARCEL 3
A parcel of land being part of the Southeast Quarter (SE 1/4) of the Southwest Quarter (SW 1/4) of Section 16, T14N, R4W, described as beginning at a point on the South Section line which is South 89°24'50" West, 592.92 feet from the South 1/4 corner of Section 16; thence South 89°24'50" West, along the South Section line, 300.00 feet; thence North 00°06'01" East, 792.00 feet; thence North 89°24'17" East, 300.00 feet; thence South 00°06'01" West, 792.00 feet to the point of beginning Union Township, Isabella County, Michigan.

PARCEL 4 *
Part of the Southwest One-quarter of the Southwest One-quarter of Section 16, T14N, R4W, Union Township, Isabella County, Michigan, described as commencing at the Southwest Corner of said Section 16; thence N. 00°08'43" W., along the West line of said Section 16, 757.60 feet; thence N. 89°51'34" E., along the South line of Transportation Drive, 399.19 feet; thence N. 86°54'01" E., continuing along said South line of Transportation Drive, 648.31 feet to the true POINT OF BEGINNING; thence N. 86°57'13" E., continuing along said South line of Transportation Drive, 275.93 feet to the West One-eighth line of said Section 16; thence S. 00°01'08" E., along said West One-eighth line, 382.49 feet; thence S. 89°51'34" W., 275.13 feet; thence N. 00°04'58" W., 368.50 feet to the Point of Beginning. Containing 2.37 acres more or less. Subject to easements, right of ways, restrictions and reservations whether used, implied or of record.

* NOTE
Parcel 4 description is on a different basis of bearing than the metes and bounds descriptions for Parcels 1 and 3. The bearings shown on this survey reflect the basis of bearing for Parcels 1 and 3.

PREPARED FOR

MR. TONY CASALI
ISABELLA COUNTY ROAD COMMISSION
2261 E. REMUS ROAD
MT. PLEASANT, MI 48858
PHONE: (989) 773-7131

BENCHMARKS

BM #1
SET CHISELED "X" ON NW. HYDRANT
FLANGE BOLT (LOWER FLANGE)
ELEV. = 777.20'

BM #2
SET 60D SPIKE IN NE. FACE OF UTILITY POLE
ELEV. = 780.42'

BM #2
SET 60D SPIKE IN N. FACE OF UTILITY POLE
ELEV. = 780.66'

DATUM: 2007 ISABELLA COUNTY DRAIN
COMMISSION BELTINCK DRAIN (#220) PLANS

LEGEND

⊙	DRAINAGE MANHOLE	△ CP #1000	CONTROL POINT	⊙	BOLLARD
□	CATCH BASIN	△ BM #1	BENCHMARK	✉	MAILBOX
▽	CULVERT END SECTION	+	FLAG POLE	🌳	DECIDUOUS TREE
⊙	SANITARY SEWER MANHOLE	⊙	UTILITY POLE	🌲	CONIFEROUS TREE
⊙	SANITARY SEWER CLEANOUT	⊙	GUY ANCHOR	🌿	BUSH OR SHRUB
⊙	FORCE MAIN CLEANOUT	⊙	ELECTRICAL TRANSFORMER	🪵	STUMP
+	SIGN - SINGLE POST	⊙	ELECTRIC METER	— ST —	STORM SEWER
+	SIGN - DOUBLE POST	⊙	ELECTRICAL MANHOLE	— SW —	SANITARY SEWER
🔥	FIRE HYDRANT	⊙	ELECTRICAL VAULT	— OH —	OVERHEAD WIRE
⊙	WATER VALVE	⊙	PEDESTRIAN SIGNAL	— G —	GAS LINE
⊙	CURB STOP	⊙	LIGHT POLE	— E —	ELECTRIC LINE
⊙	WATER METER	⊙	FLOOD LIGHT	— P —	PHONE LINE
⊙	WATER WELL	⊙	A.C. COMPRESSOR	— TV —	CABLE TV LINE
⊙	WATER MANHOLE	⊙	ELECTRICAL PANEL	— W —	WATER LINE
⊙	YARD HYDRANT	⊙	MONITORING WELL	— X —	FENCE LINE
⊙	IRRIGATION VALVE	⊙	GAS VALVE	🌳	TREELINE
⊙	IRRIGATION SPRINKLER HEAD	⊙	GAS METER	🏠	EXISTING ASPHALT
⊙	GOVERNMENT CORNER	⊙	TELEPHONE VAULT	🏠	EXISTING CONCRETE
⊙	FOUND PROPERTY CORNER	⊙	TELEPHONE MANHOLE	🏠	EXISTING GRAVEL
⊙	FOUND CONCRETE MONUMENT	⊙	PEDESTAL	🏠	EXISTING PULVERIZED ASPHALT
⊙	FOUND PK OR MAG NAIL	⊙	CABLE VAULT	🏠	EXISTING RIPRAP
⊙	SET CAPPED IRON #46677	⊙	HANDHOLE	(M)	MEASURED
⊙	SET MAG NAIL	⊙	POST	(R)	RECORDED

NOTES

1. SHOWN UNDERGROUND UTILITY LOCATIONS REFLECT INFORMATION COLLECTED FROM UTILITY OWNERS AND VISIBLE MARKERS FOUND AT THE TIME OF SURVEY. SHOWN LOCATIONS ARE NOT INTENDED TO BE EXACT AND CONTRACTORS MUST VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO EXCAVATION.

MISS DIG/UNDERGROUND UTILITY NOTIFICATION

FOR THE PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CONTACT MISS DIG SYSTEM, INC. BY PHONE AT 811 OR 800-482-7171 OR VIA THE WEB AT EITHER ELOCATE.MISSDIG.ORG FOR SINGLE ADDRESS OR RTE.MISSDIG.ORG. A MINIMUM OF 3 BUSINESS DAYS PRIOR TO EXCAVATING, EXCLUDING WEEKENDS AND HOLIDAYS.



PLAN ISSUE: PERMIT

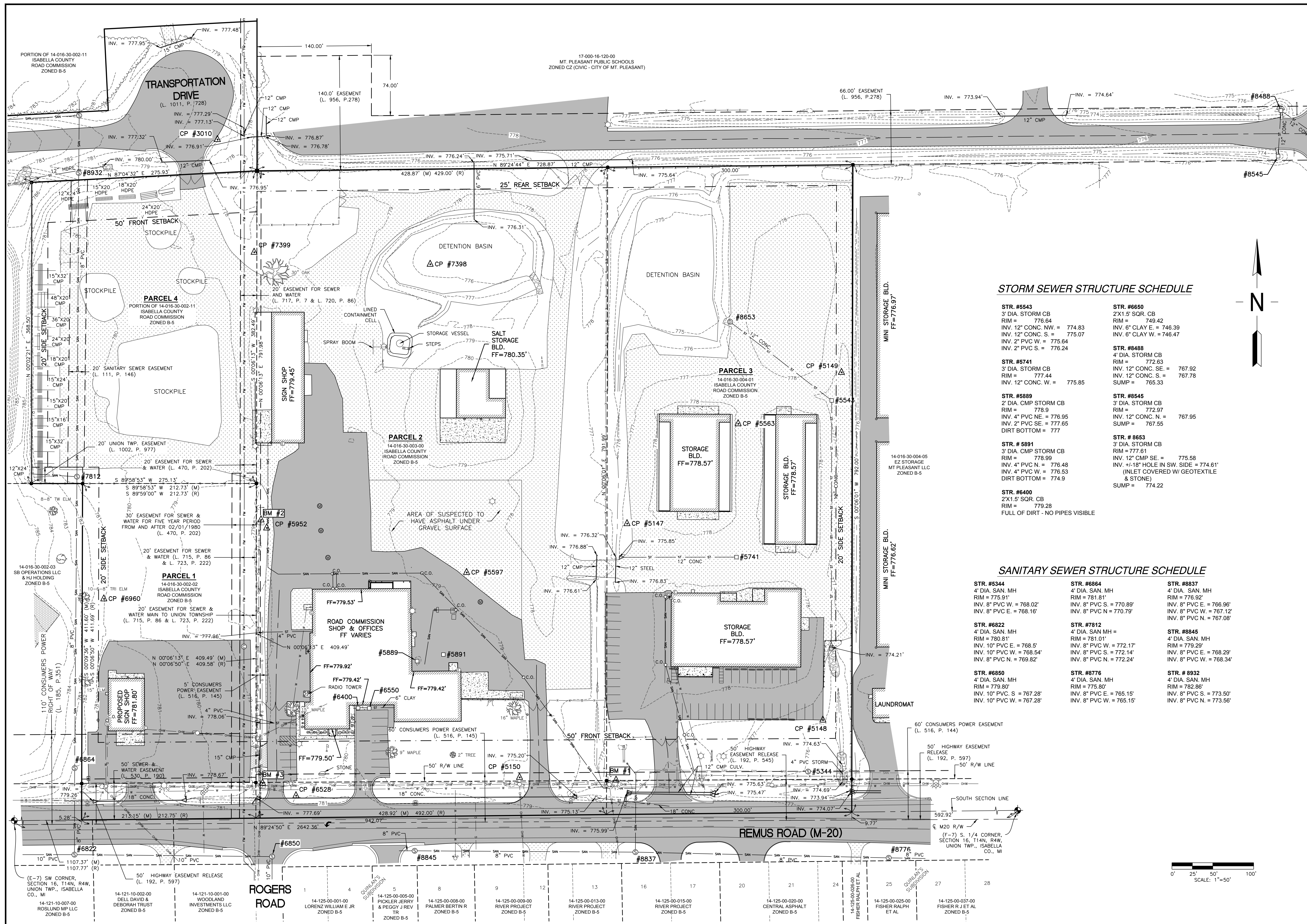
NO.	DATE	DESCRIPTION
1	11/29/19	CORRECT SAN.MH.#834 INFORMATION
2	11/27/19	ADD PARCEL 4 DESCRIPTION & ADJUST PROPERTY LINES

**TOPOGRAPHIC SURVEY
LEGEND & SITE INFORMATION**

ISABELLA COUNTY ROAD COMMISSION
Section 16, T14N., R4W, Union Township,
Isabella County, Michigan

LORENZ
SURVEYING & ENGINEERING, INC.
3229 W. Beal City Road
Weidman, Michigan 48893
Phone: (989) 644-5953
Fax: (989) 644-8659
pate@lorenzse.com

JOB NO. 190033
SCALE: NONE
DRAWN BY: TPL
DATE: 09/16/2019
SHEET NO. 1



PLAN ISSUE:		PERMIT	
NO.	DATE	DESCRIPTION	
1	11/29/19		
2	11/27/19	CORRECT SAN MH #834 INFORMATION ADD PARCEL 4 DESCRIPTION & ADJUST PROPERTY LINES	

NO.	DATE	DESCRIPTION
1	11/29/19	
2	11/27/19	CORRECT SAN MH #834 INFORMATION ADD PARCEL 4 DESCRIPTION & ADJUST PROPERTY LINES

NO.	DATE	DESCRIPTION
1	11/29/19	
2	11/27/19	CORRECT SAN MH #834 INFORMATION ADD PARCEL 4 DESCRIPTION & ADJUST PROPERTY LINES

TOPOGRAPHIC SURVEY

ISABELLA COUNTY ROAD COMMISSION
Section 16, T14N., R4W, Union Township,
Isabella County, Michigan

SHEET TITLE: TOPOGRAPHIC SURVEY
PROJECT NAME: ISABELLA COUNTY ROAD COMMISSION Section 16, T14N., R4W, Union Township, Isabella County, Michigan

JOB NO. 190033
SCALE: 1" = 50'
DRAWN BY: TPL
DATE: 09/16/2019
SHEET NO. 2

GENERAL PLAN NOTES:

EXISTING WATER MAINS, SANITARY SEWERS, STORM SEWERS, COMBINED SEWERS, ETC.:

THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES DURING ALL CONSTRUCTION ACTIVITIES. INSPECT ALL EXISTING SEWER PIPES ENCOUNTERED DURING CONSTRUCTION AND CONNECT TO APPROPRIATE SEWER AS DIRECTED BY THE ENGINEER.

MIOSHA:

PERFORM ALL WORK UNDER THIS CONTRACT IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS, POLICIES, RULES, AND STANDARDS OF THE MICHIGAN OCCUPATIONAL SAFETY AND HEALTH ACT (MIOSHA).

DUST CONTROL:

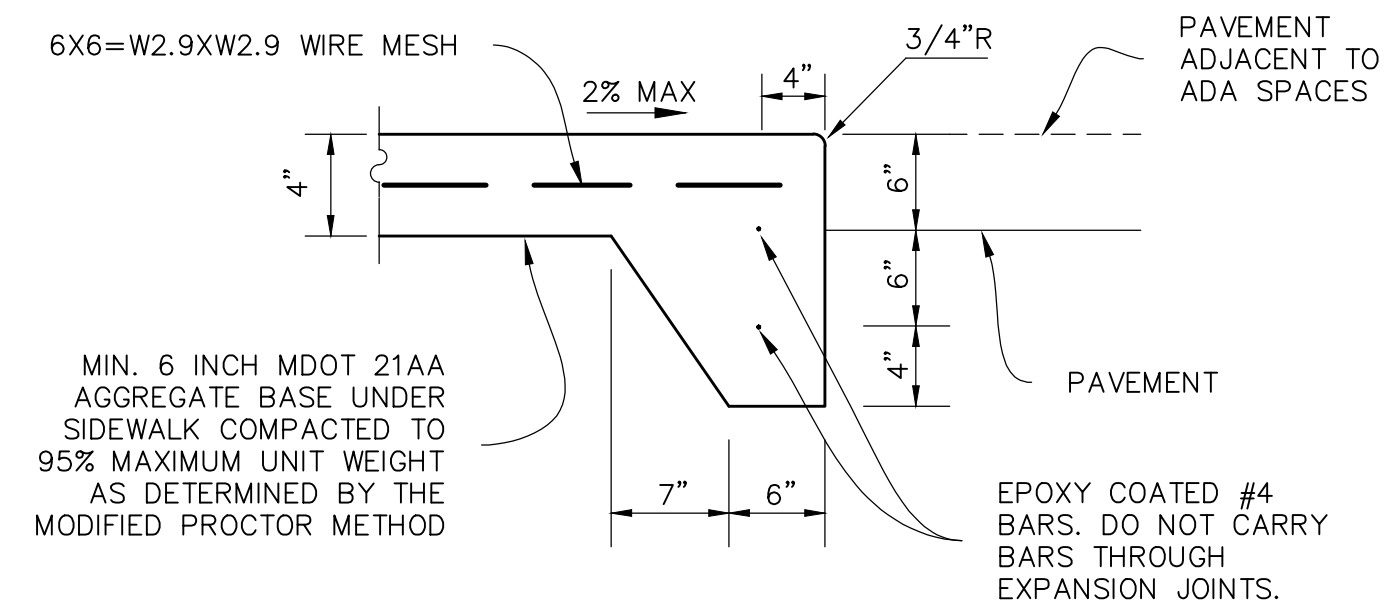
PROVIDE DUST CONTROL AS DIRECTED BY THE ENGINEER.

EXISTING UTILITY CONFLICTS:

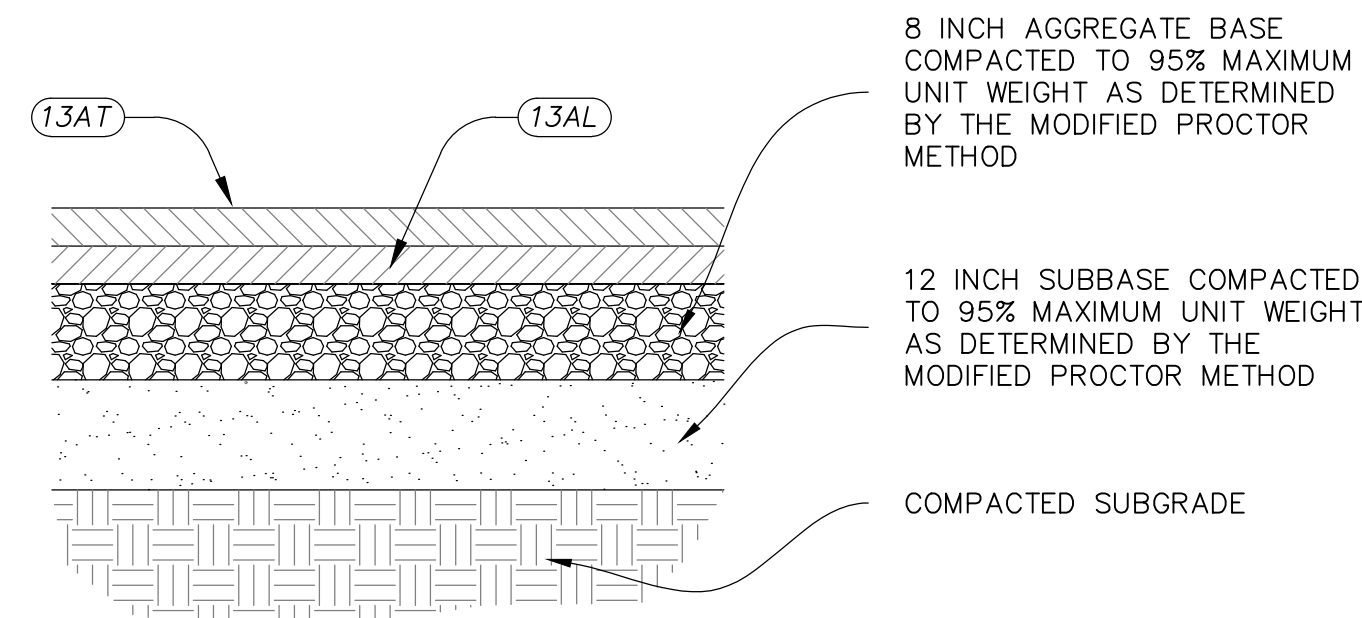
RELOCATE EXISTING BURIED UTILITY LINES THAT CONFLICT WITH NEW CONSTRUCTION. COORDINATE WITH ENGINEER AND SERVICE PROVIDER. PAYMENT FOR RELOCATING EXISTING UTILITY LINES IS INCLUDED IN RELATED ITEMS OF WORK.

UNDERGROUND UTILITY ACCURACY:

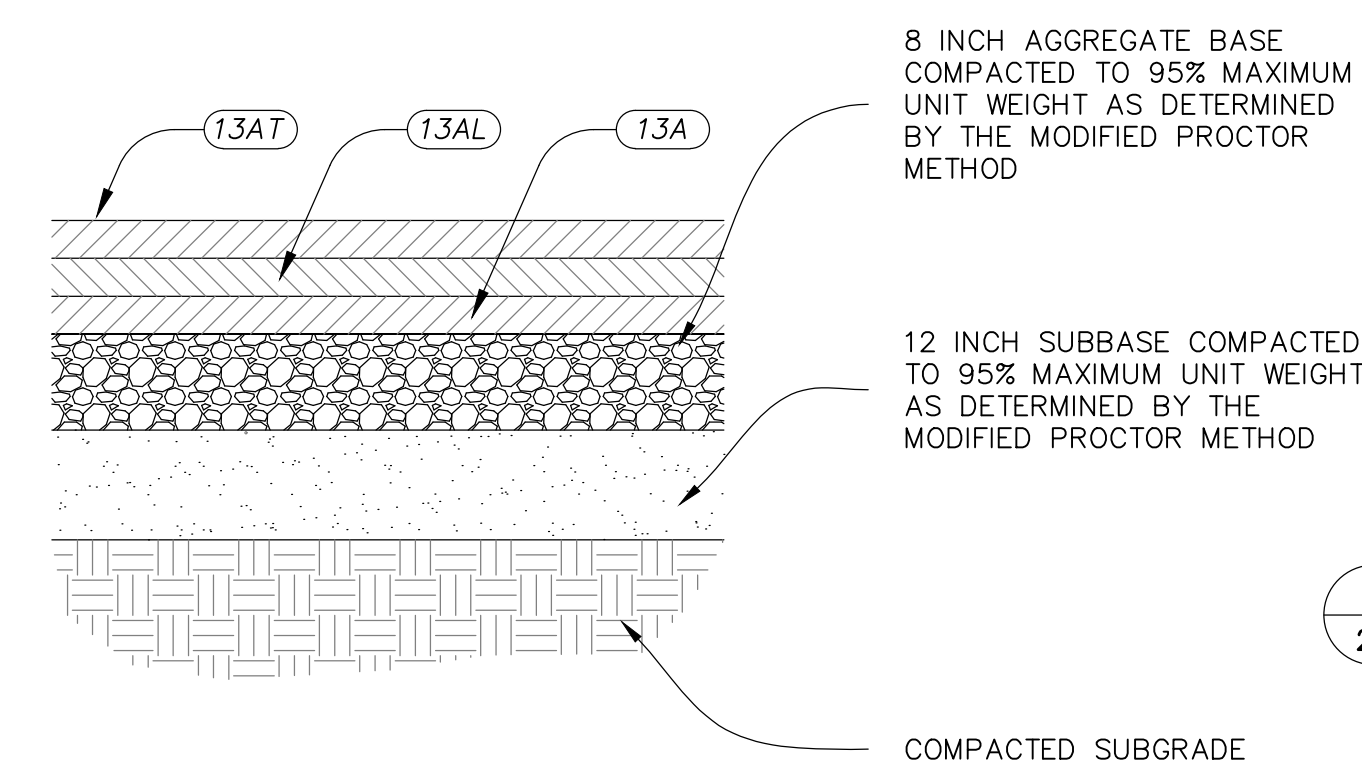
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND FROM UTILITY COMPANY INFORMATION. THE ENGINEER MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.



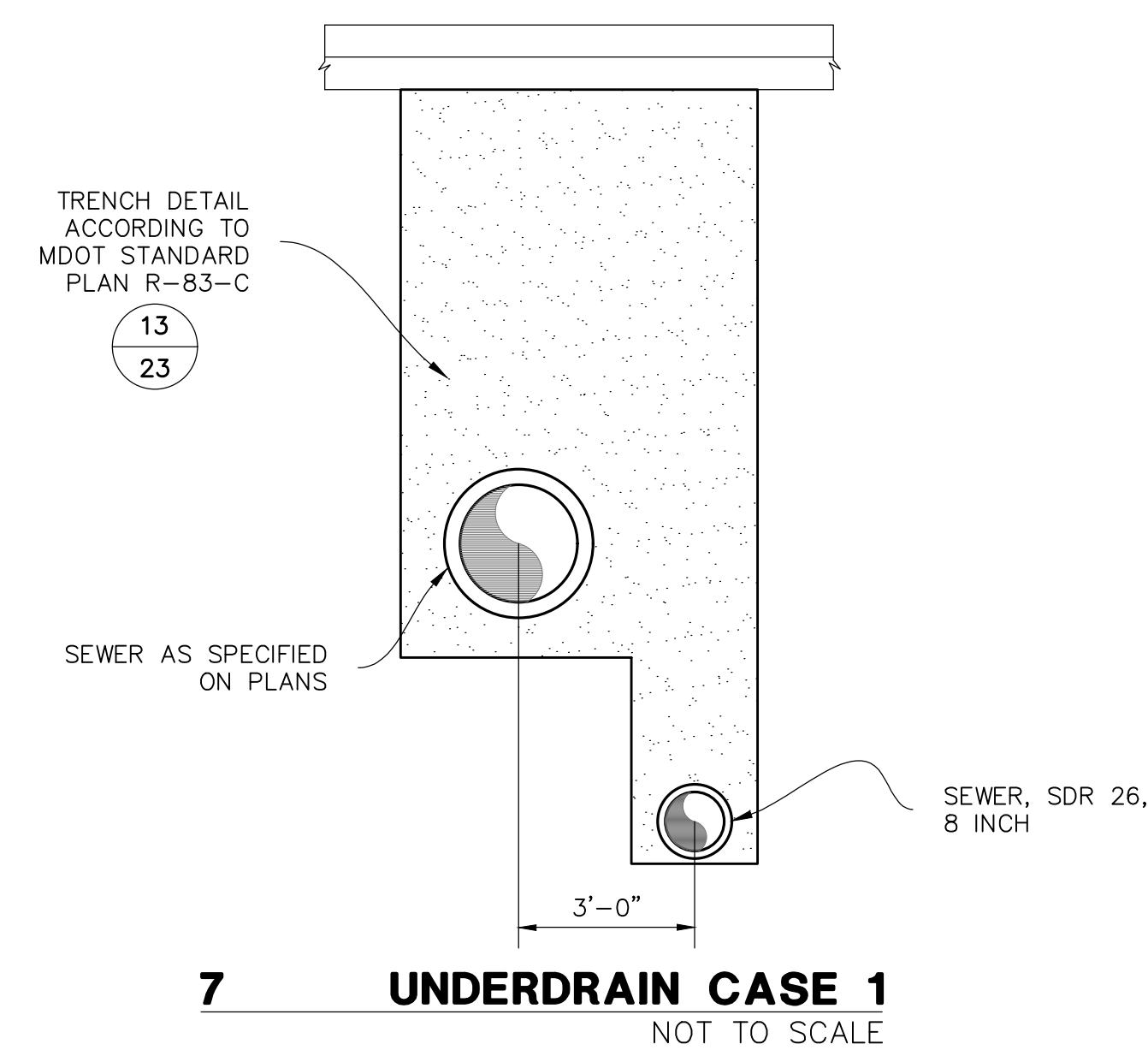
4 THICKENED EDGE WALK
NOT TO SCALE



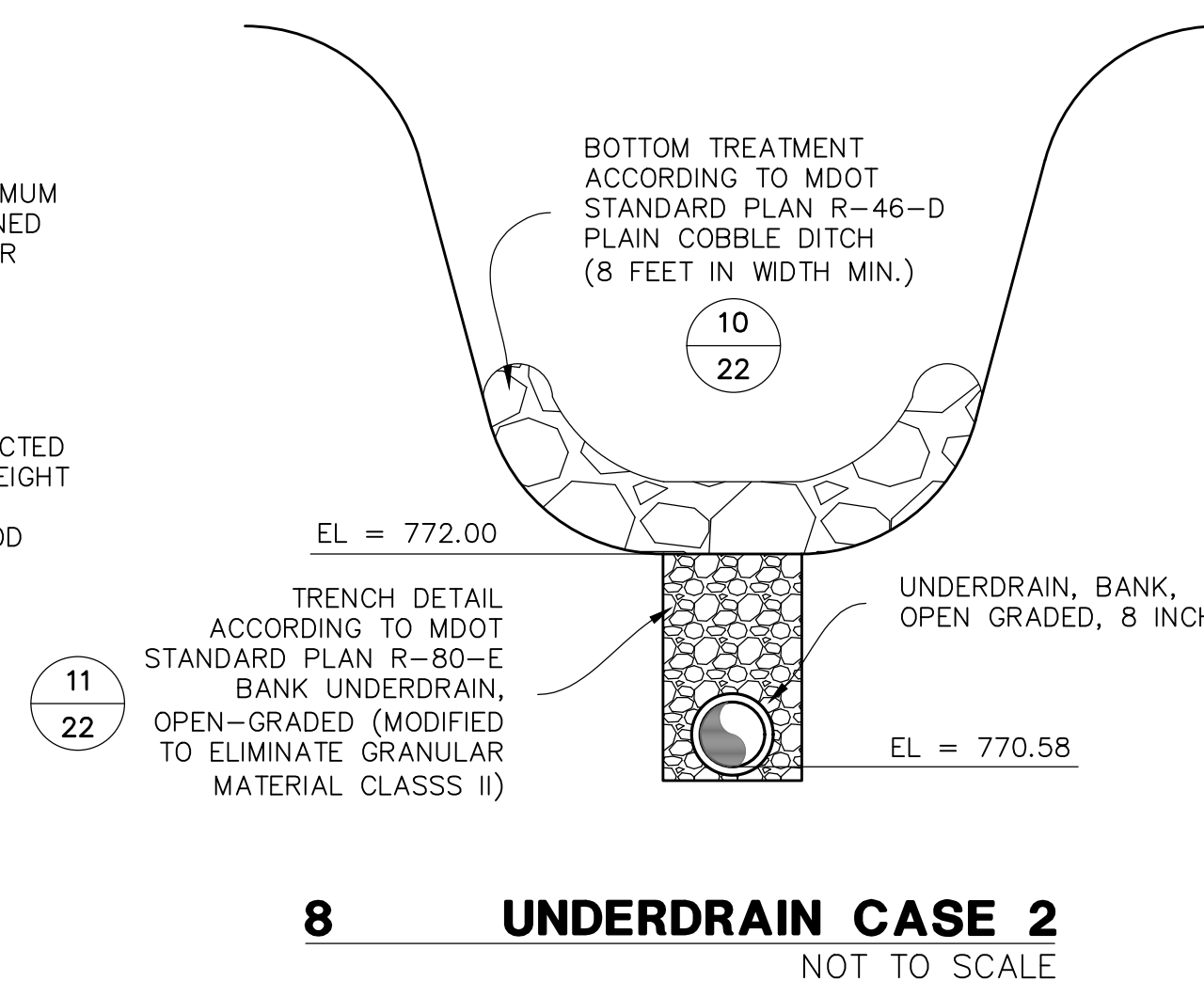
5 STANDARD PAVT SECT
NOT TO SCALE



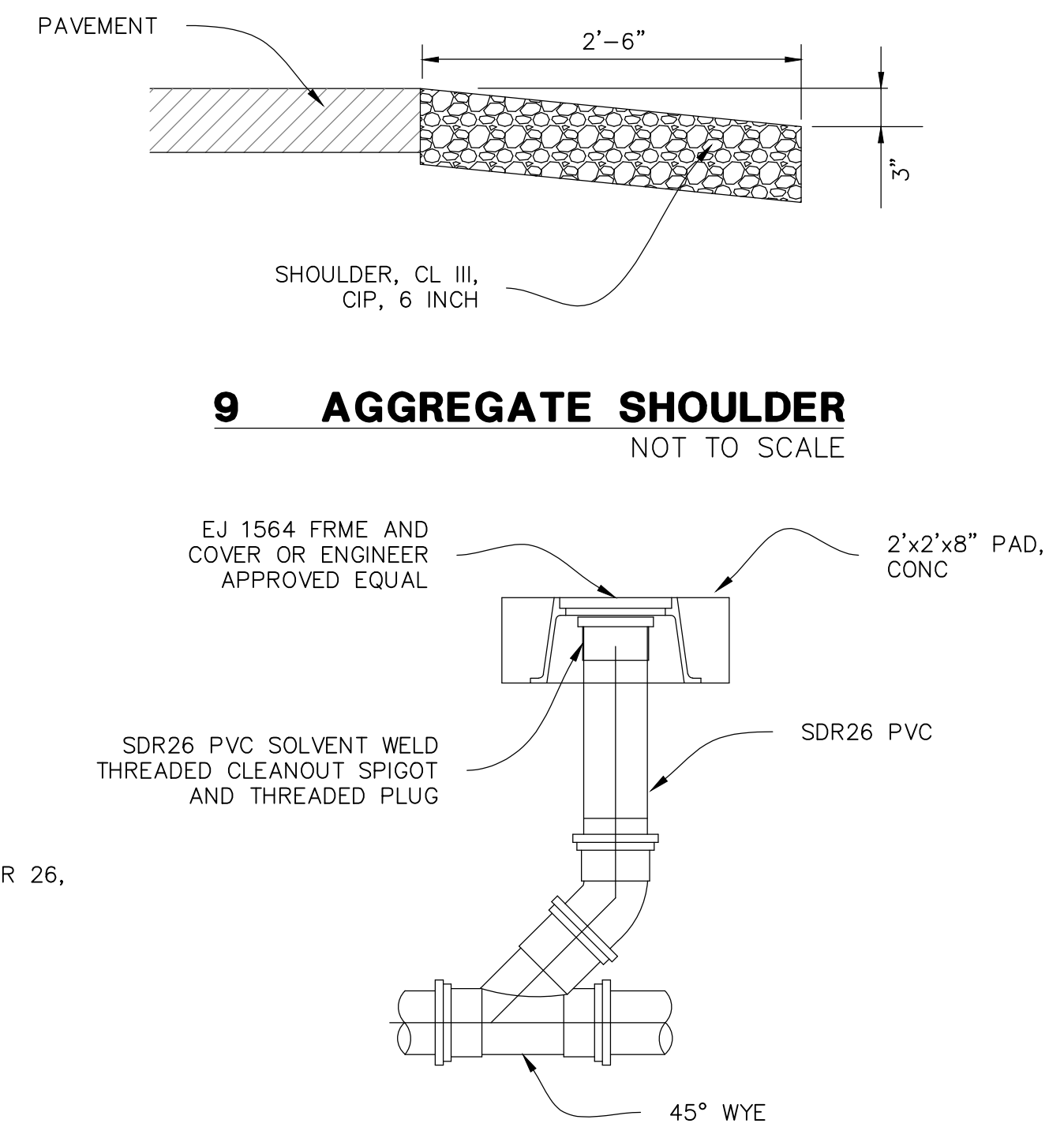
6 HEAVY PAVT SECT
NOT TO SCALE



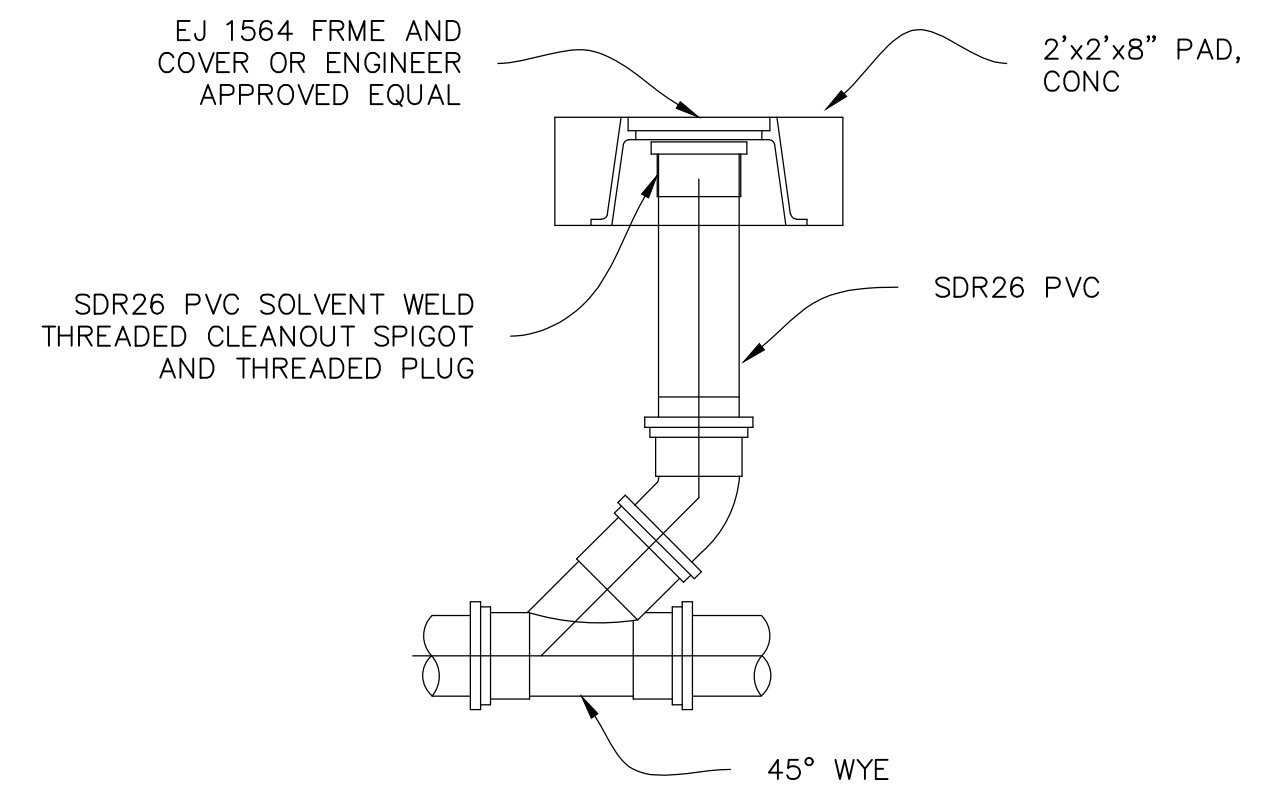
7 UNDERDRAIN CASE 1
NOT TO SCALE



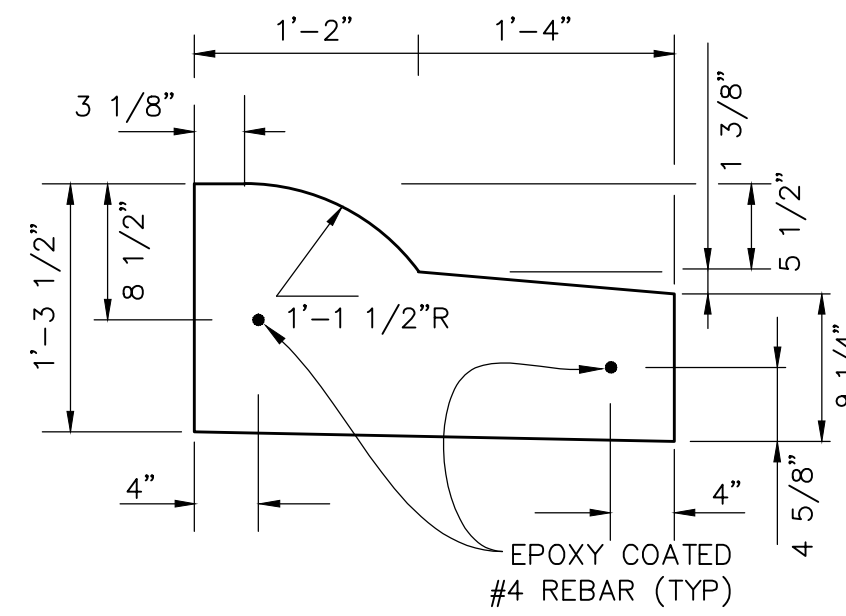
8 UNDERDRAIN CASE 2
NOT TO SCALE



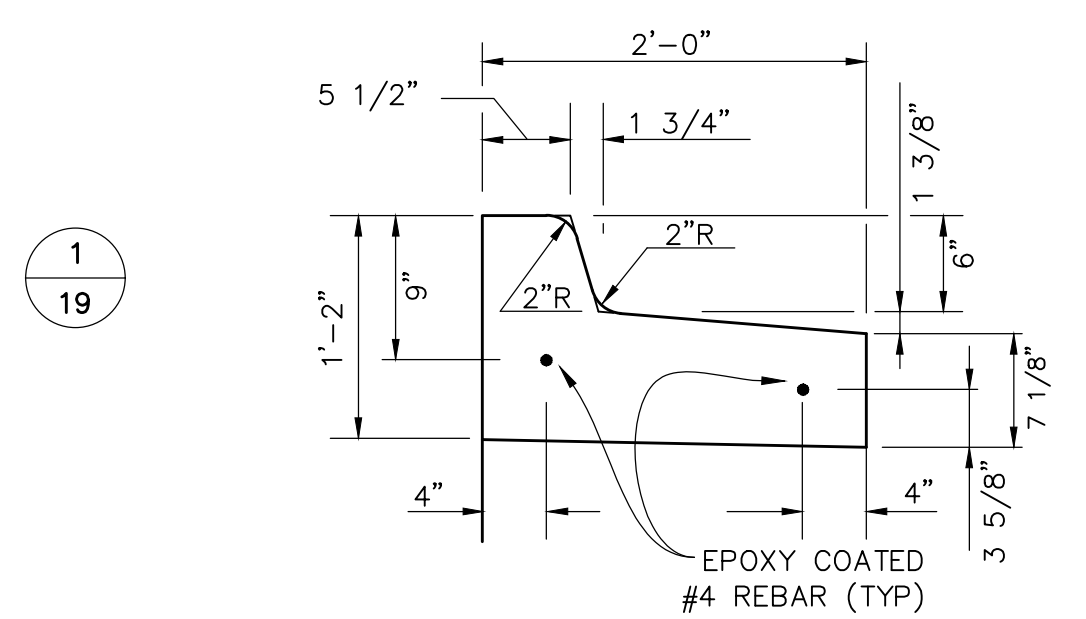
9 AGGREGATE SHOULDER
NOT TO SCALE



10 SANITARY CLEANOUT
NOT TO SCALE

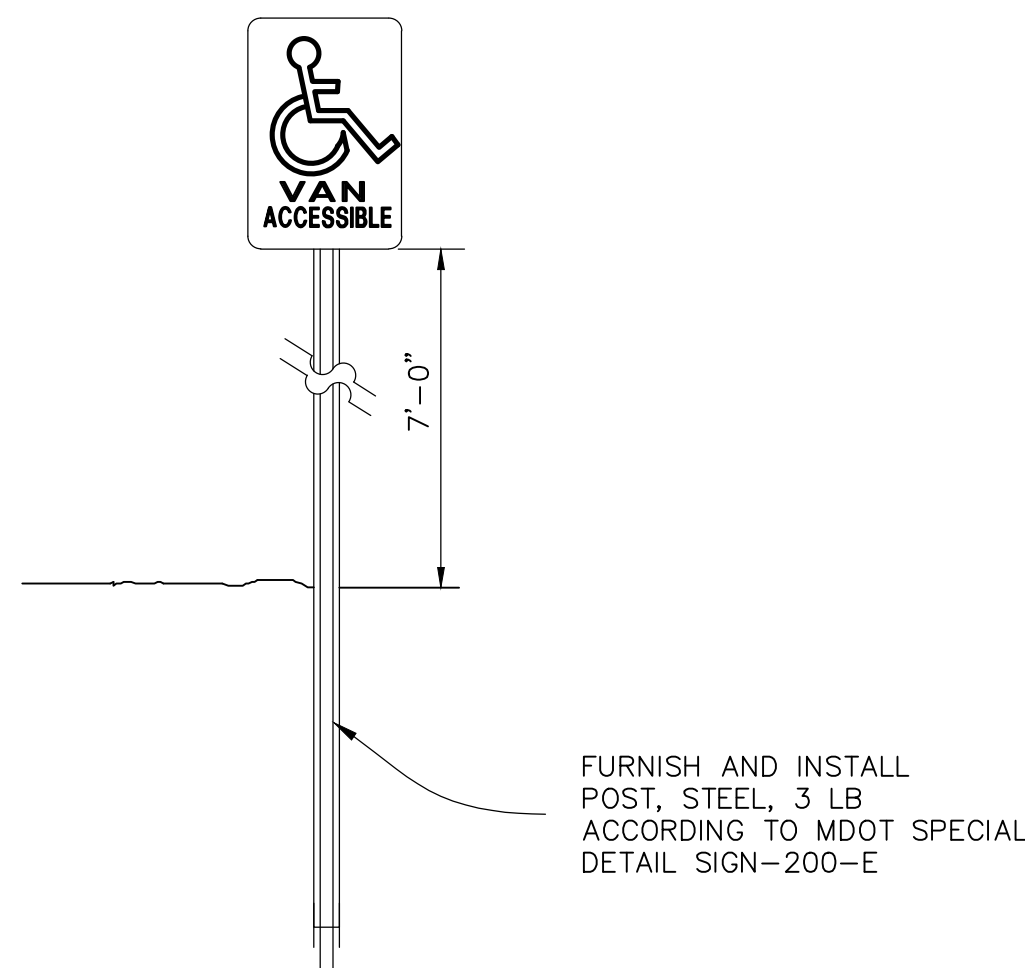
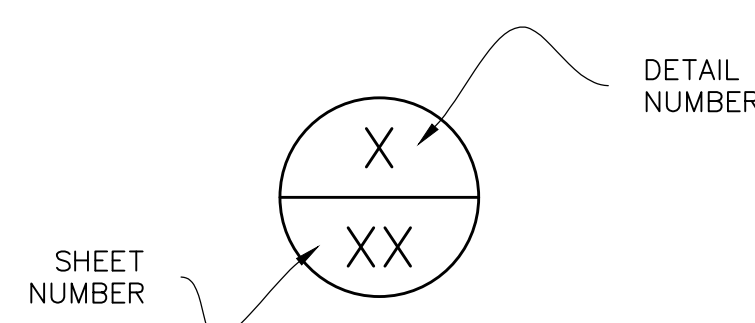


1 MDOT DET B2, MODIFIED
NOT TO SCALE

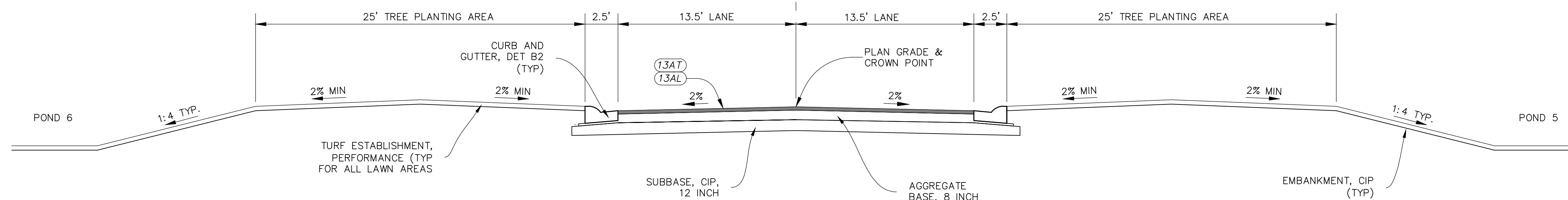


2 MDOT DET F4, MODIFIED
NOT TO SCALE

DETAIL KEY SYMBOL:



3 MMUTCD R7-8E
NOT TO SCALE



11 OUTLET WEIR STRUCTURE
NOT TO SCALE

PROPOSED HMA APPLICATION ESTIMATE				
IDENT NO.	ITEM	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
13A	HMA, 13AT	165	PG 58-28	TOP COURSE (AWI 260)
13A	HMA, 13AL	220	PG 58-28	LEVELING COURSE
13A	HMA, 13A	220	PG 58-28	BASE COURSE



PROPOSED NORMAL SECTION MAIN ENTRANCE

REVISION	DATE	DESCRIPTION

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 317.676.9200
Fax: 317.676.9396
http://www.woleng.com

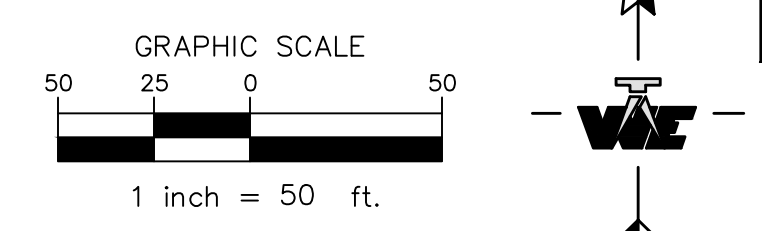
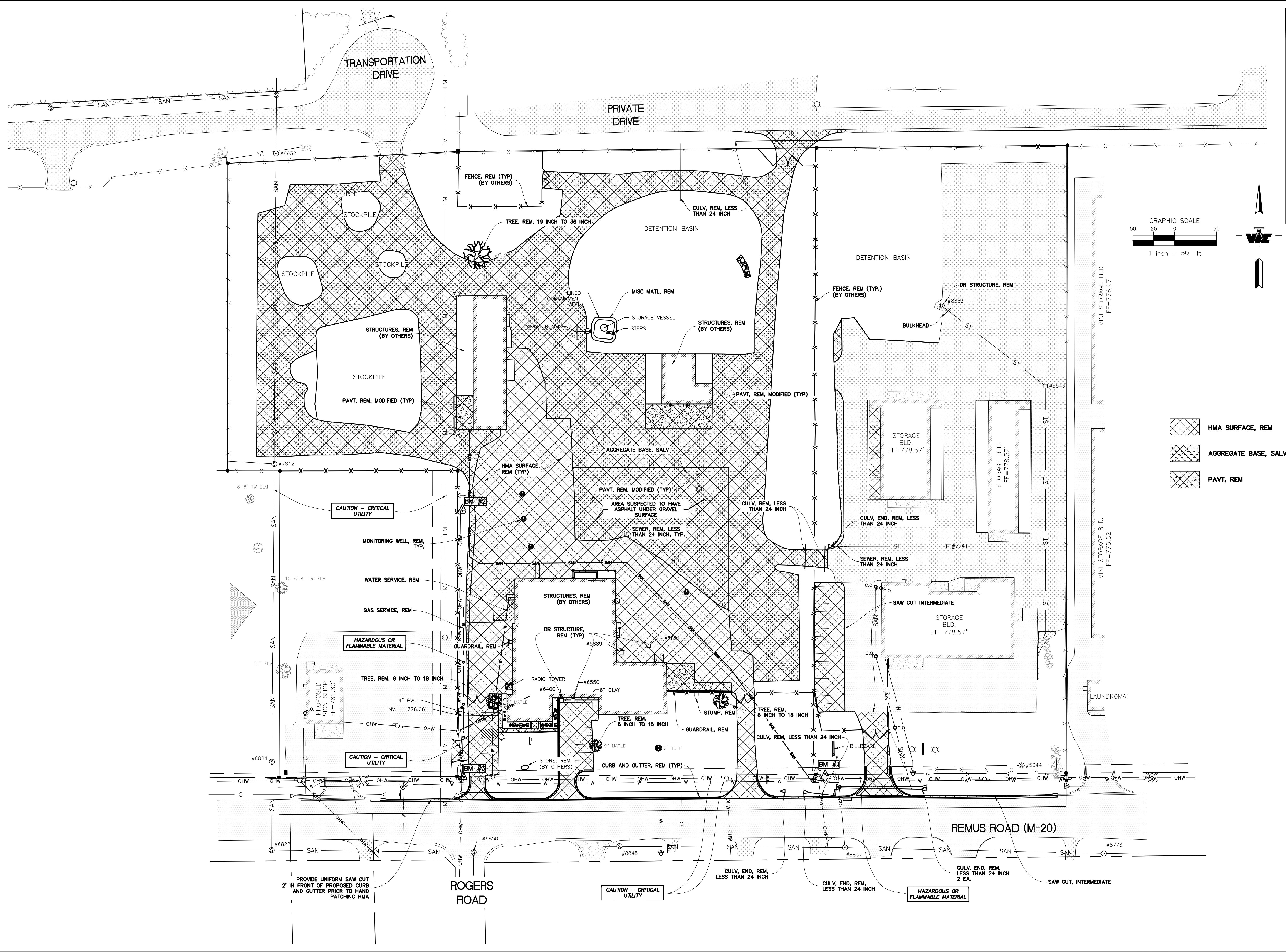
ISABELLA COUNTY ROAD COMMISSION
CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN

GENERAL NOTES & DETAILS

PROJECT	APPROVED	JCW
CHECKED	JCW	
DRAWN	JCW	
JOB NO.	18-0014	
DATE		
SCALE	NO SCALE	
SHEET NO.	3	

S:\Projects\2018\18-0014\CADD\DWG\3 GENERAL NOTES & DETAILS.dwg, Sunday, December 8, 2019 3:59:06 PM, Joseph White

S:\Projects\2018\18-0014_C30\DWG\18-0014 DEMOLITION PLAN.dwg, Sunday, December 8, 2019 12:01:51 PM, Ross, Whittead



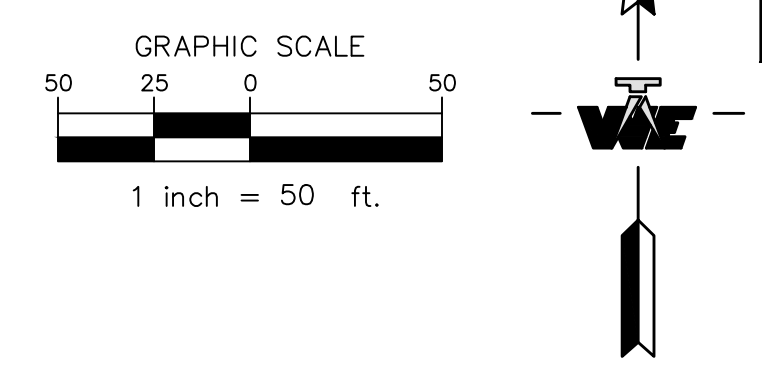
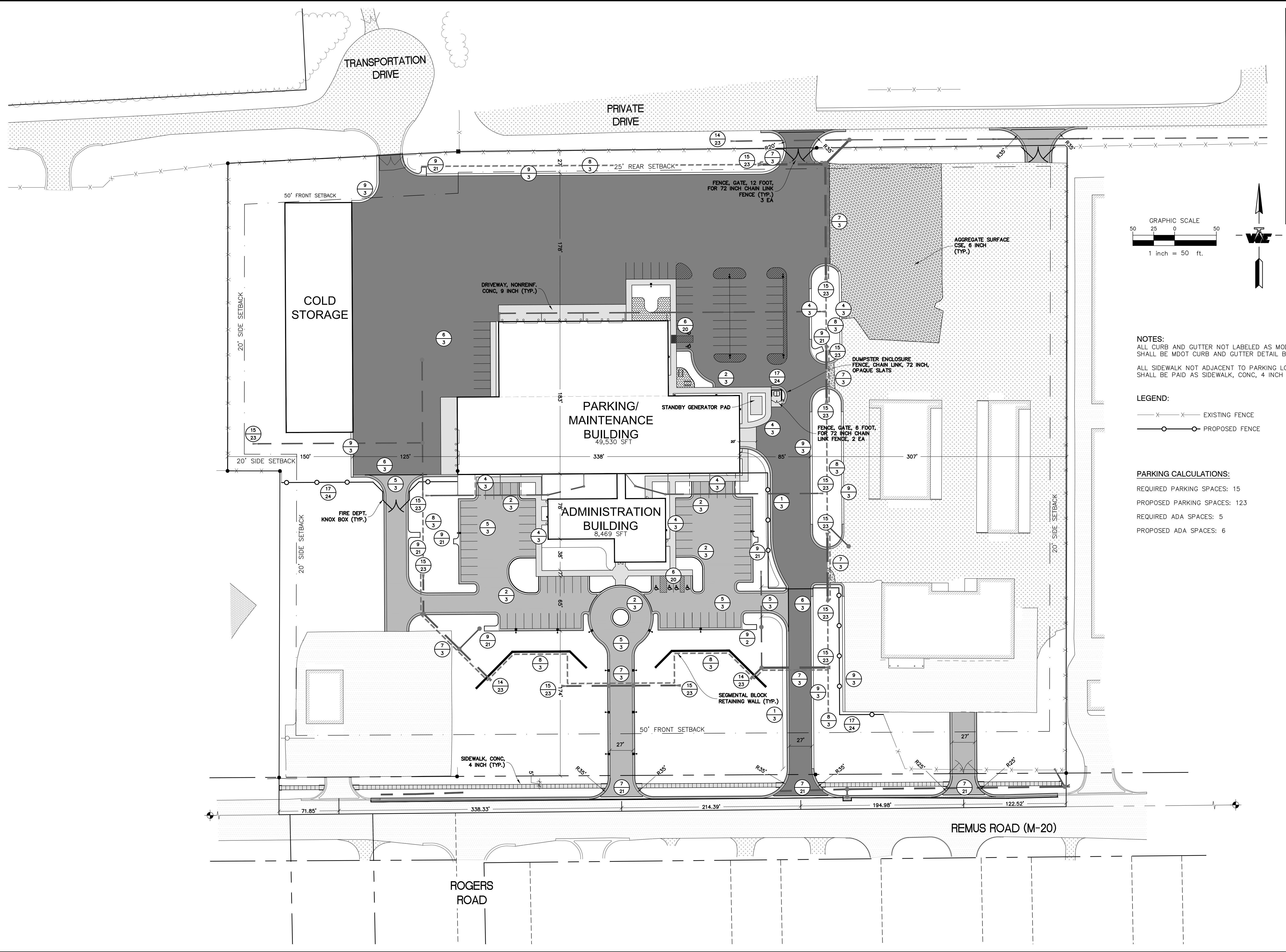
- HMA SURFACE, REM
- AGGREGATE BASE, SALV
- PAVT, REM

REVISION	DATE	DESCRIPTION

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 317.676.9200
Fax: 317.676.9396
http://www.wolvenet.com

PROJECT	ISABELLA COUNTY ROAD COMMISSION CITY OF M.T. PLEASANT ISABELLA COUNTY, MICHIGAN
APPROVED	JCW
CHECKED	JCW
DRAWN	TAP
JOB NO.	18-0014
DATE	12/9/2019
SCALE	1" = 50'
SHEET NO.	4

S:\Projects\2018\18-0014\CADD\DWG\5-6 SITE PLAN.dwg, Sunday, December 8, 2019, 2:53:33 PM, Ross Whitehead



NOTES:
ALL CURB AND GUTTER NOT LABELED AS MODIFIED SHALL BE MDOT CURB AND GUTTER DETAIL B2
ALL SIDEWALK NOT ADJACENT TO PARKING LOT SHALL BE PAID AS SIDEWALK, CONC, 4 INCH

LEGEND:
— x — x — x — EXISTING FENCE
— o — o — o — PROPOSED FENCE

PARKING CALCULATIONS:
REQUIRED PARKING SPACES: 15
PROPOSED PARKING SPACES: 123
REQUIRED ADA SPACES: 5
PROPOSED ADA SPACES: 6

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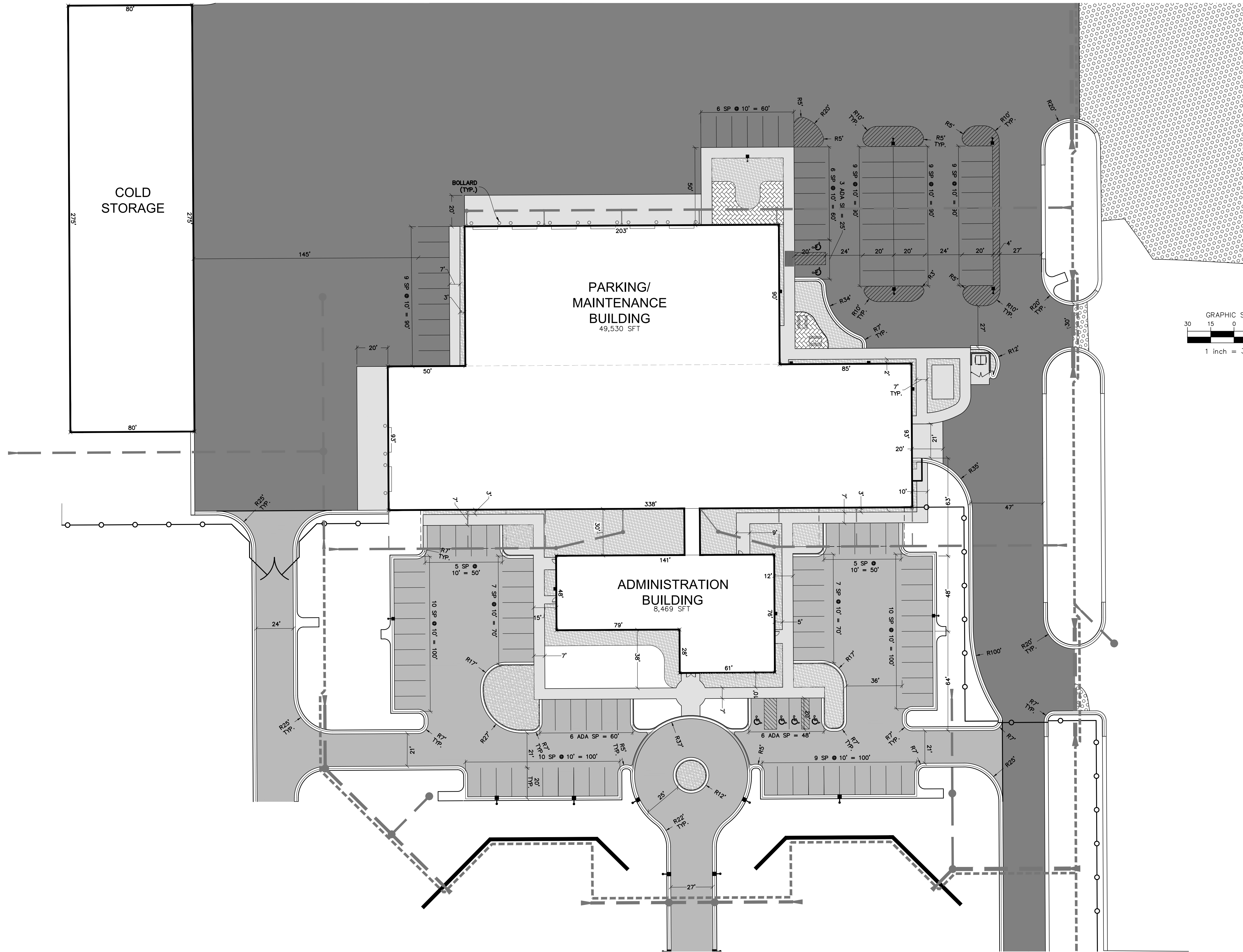
REVISION	DATE	DESCRIPTION

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Engineers & Surveyors, Inc.
312 North Street
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Ph: 317.676.9200
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PROJECT	ISABELLA COUNTY ROAD COMMISSION CITY OF M.T. PLEASANT ISABELLA COUNTY, MICHIGAN
APPROVED	JCW
CHECKED	JCW
DRAWN	TAP
JOB NO.	18-0014
DATE	12/9/2019
SCALE	1" = 50'
SHEET NO.	5

OVERALL SITE PLAN

S:\Projects\2018\18-0014\C3P\DWG\5-6 SITE PLAN.dwg, Tuesday, December 10, 2019 4:18:32 PM, Ross Whitehead



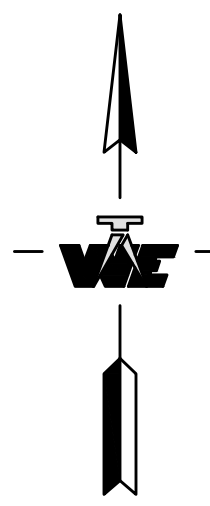
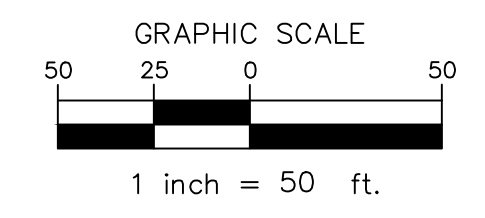
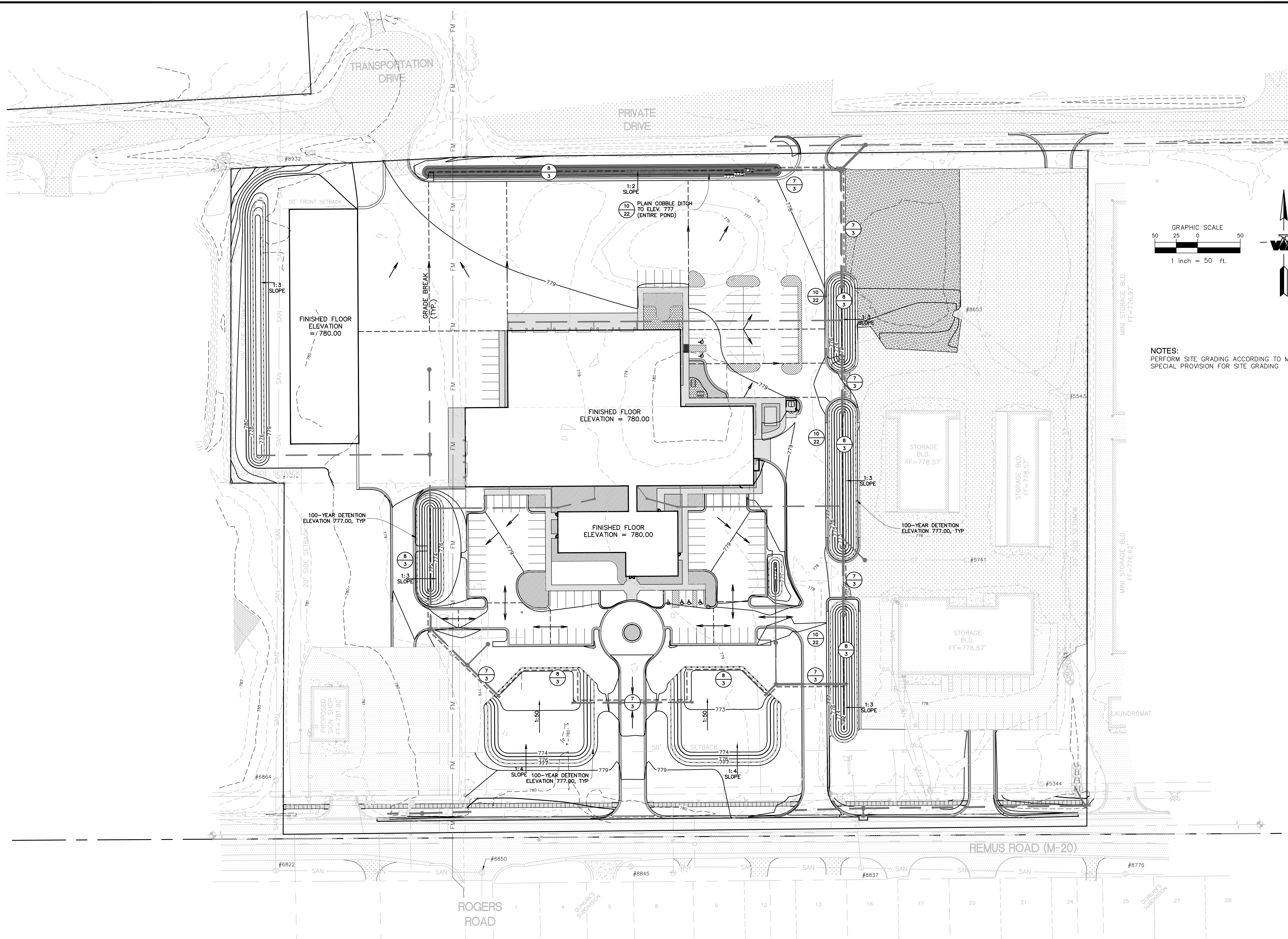
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PROJECT	ISABELLA COUNTY ROAD COMMISSION CITY OF M.T. PLEASANT ISABELLA COUNTY, MICHIGAN
APPROVED	JCW
CHECKED	JCW
DRAWN	RTW
JOB NO.	18-0014
DATE	12/9/2019
SCALE	1" = 30'
SHEET NO.	6

S:\Projects\2018\18-0014_C3D\DWG\7-8 GRADING PLAN & ENLARGEMENTS.dwg, Monday, December 9, 2019 6:55:12 AM, Joseph White



NOTES:
PERFORM SITE GRADING ACCORDING TO MDOT
SPECIAL PROVISION FOR SITE GRADING

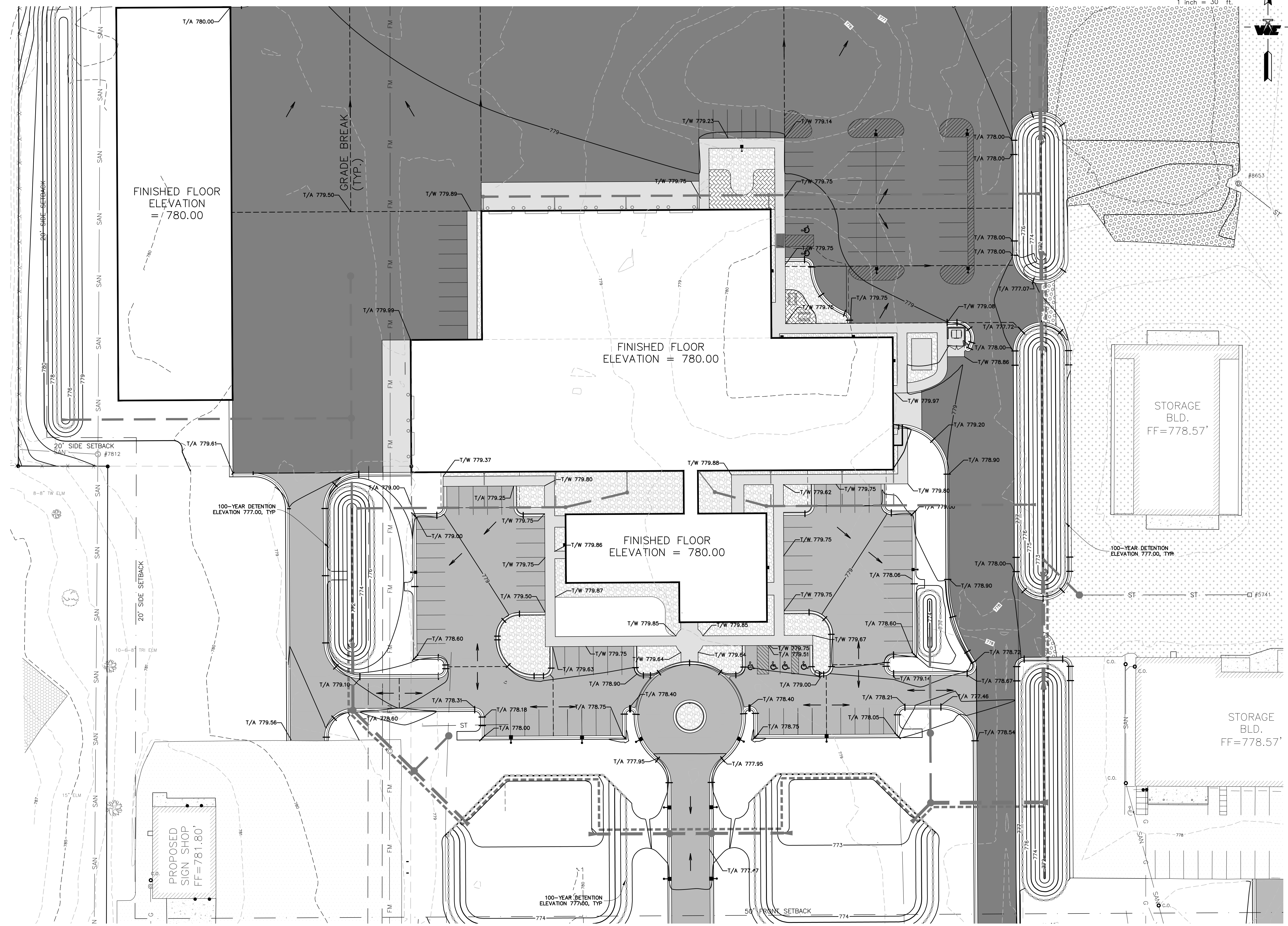
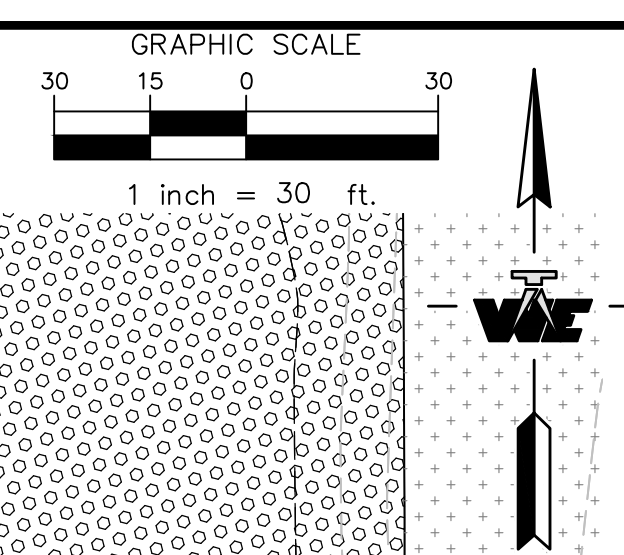
REVISION	DATE	DESCRIPTION

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ISABELLA COUNTY ROAD COMMISSION
CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN

PROJECT	ISABELLA COUNTY ROAD COMMISSION
APPROVED	JCW
CHECKED	JCW
DRAWN	TAP
JOB NO.	18-0014
DATE	12/9/2019
SCALE	1" = 50'
SHEET NO.	7

GRADING PLAN



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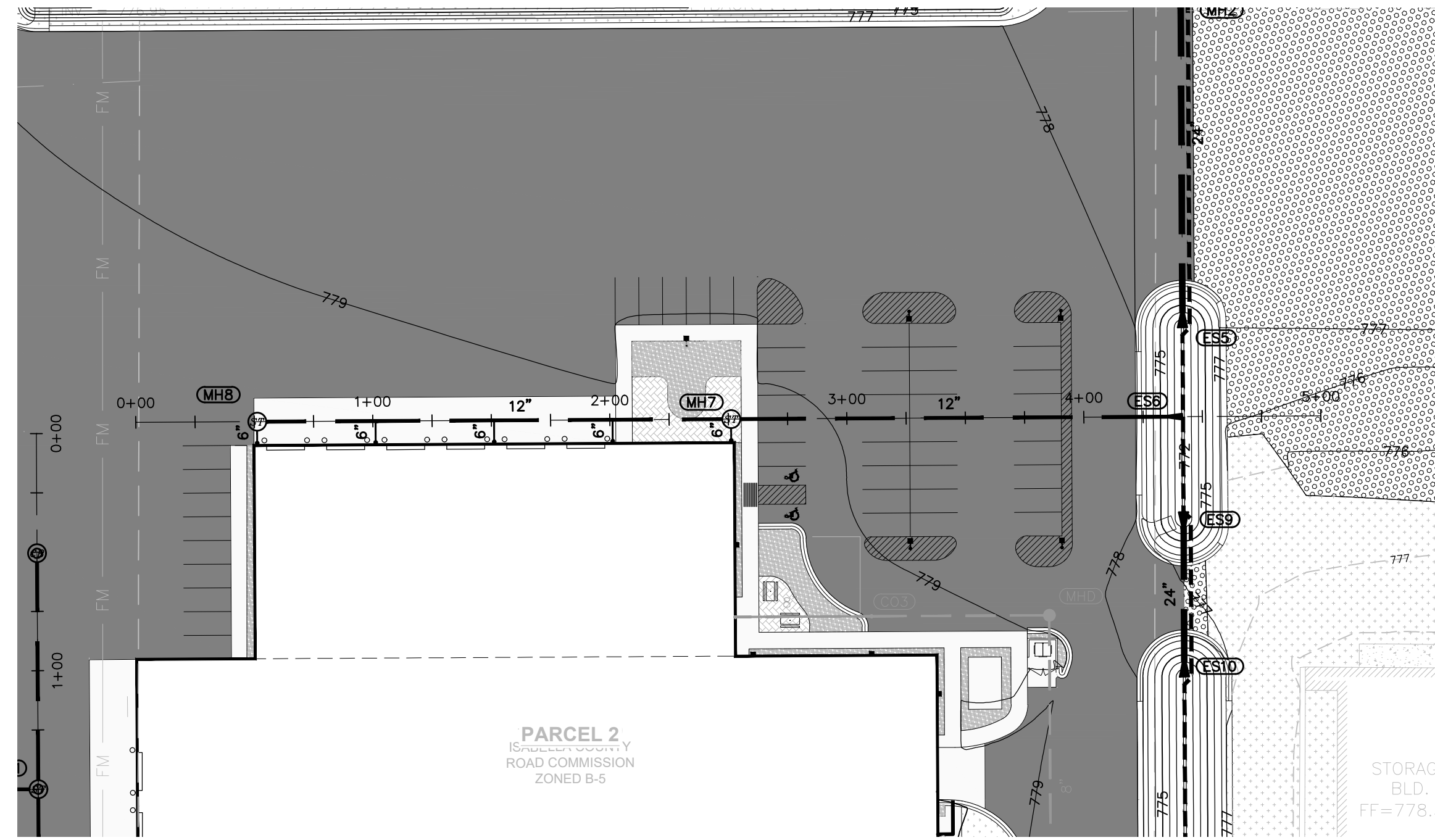
ISABELLA COUNTY ROAD COMMISSION
CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN

GRADING ENLARGEMENT

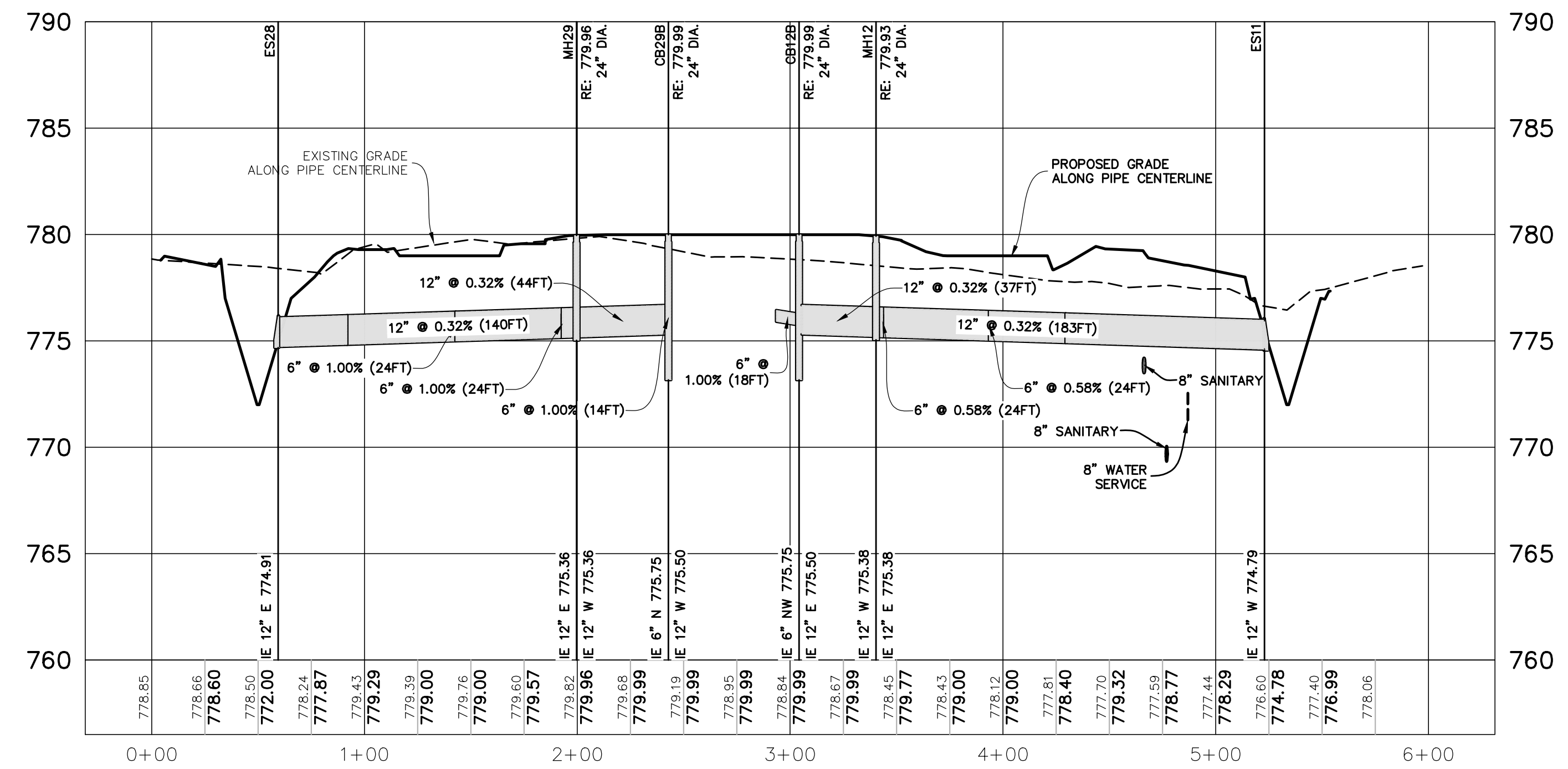
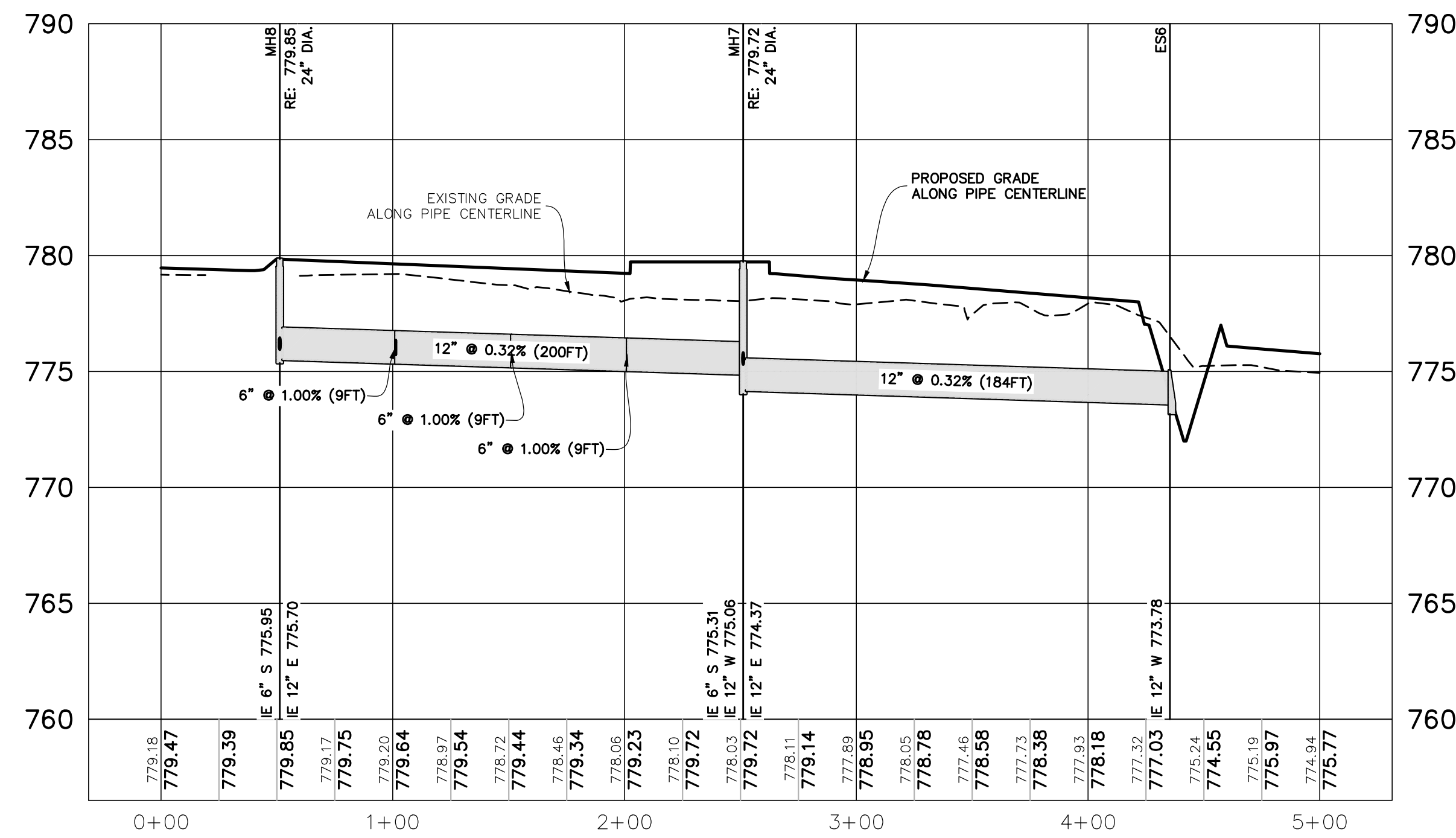
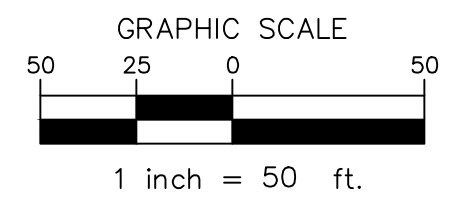
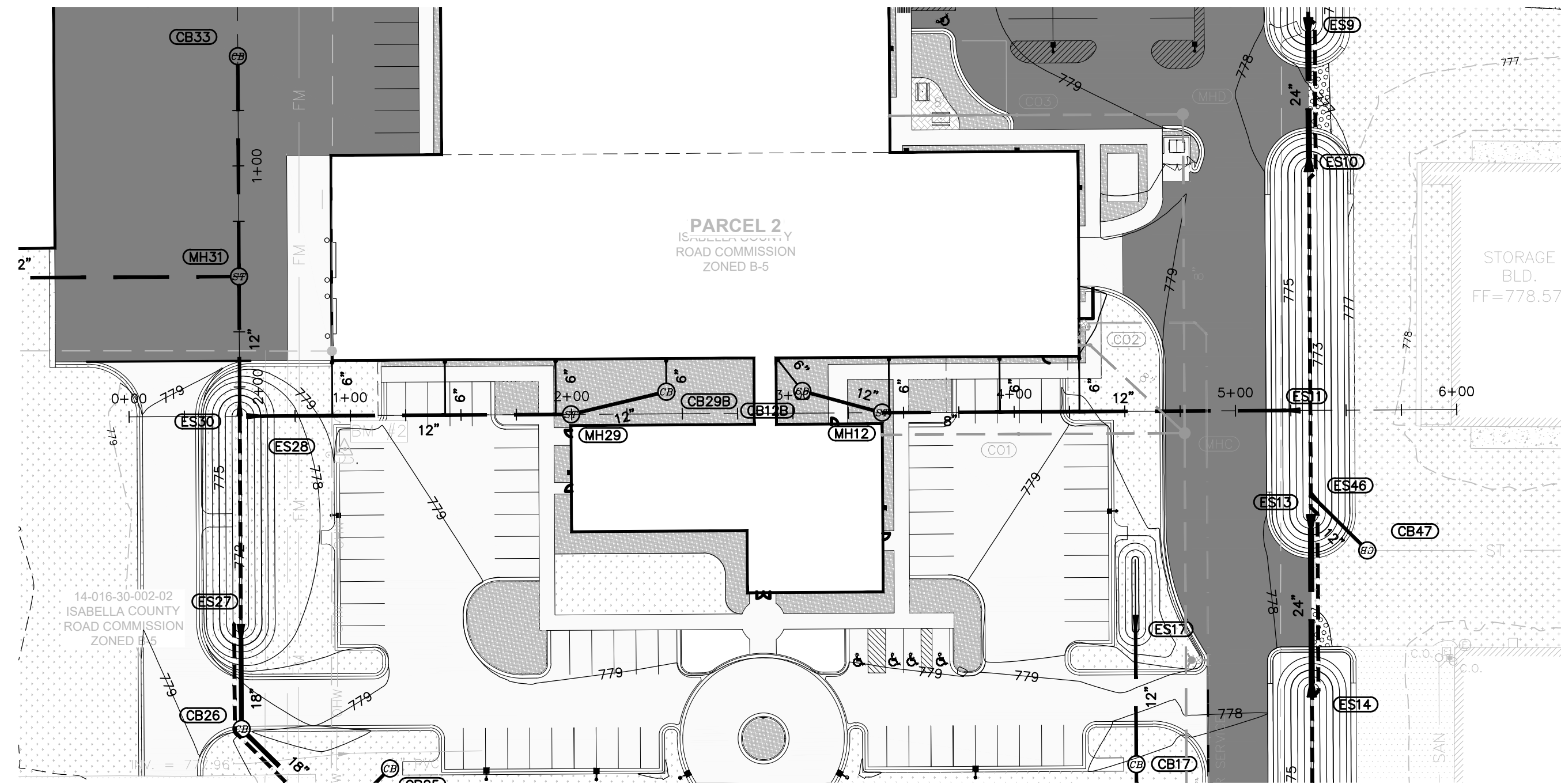
PROJECT	APPROVED	JCW
	CHECKED	JCW
	DRAWN	TAP
JOB NO.		18-0014
DATE		12/9/2019
SCALE		1" = 5' V 1" = 50' H
SHEET NO.		8

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STORM SYSTEM NORTH OF BUILDING



STORM SYSTEM SOUTH OF BUILDING



S:\Projects\2018\18-0014_C3D\DWG\18-0014 UTILITY PLAN & PROFILES.dwg, Monday, December 09, 2019 8:04:08 AM, Trent Powers

REVISION	DATE	DRAWN	DESCRIPTION

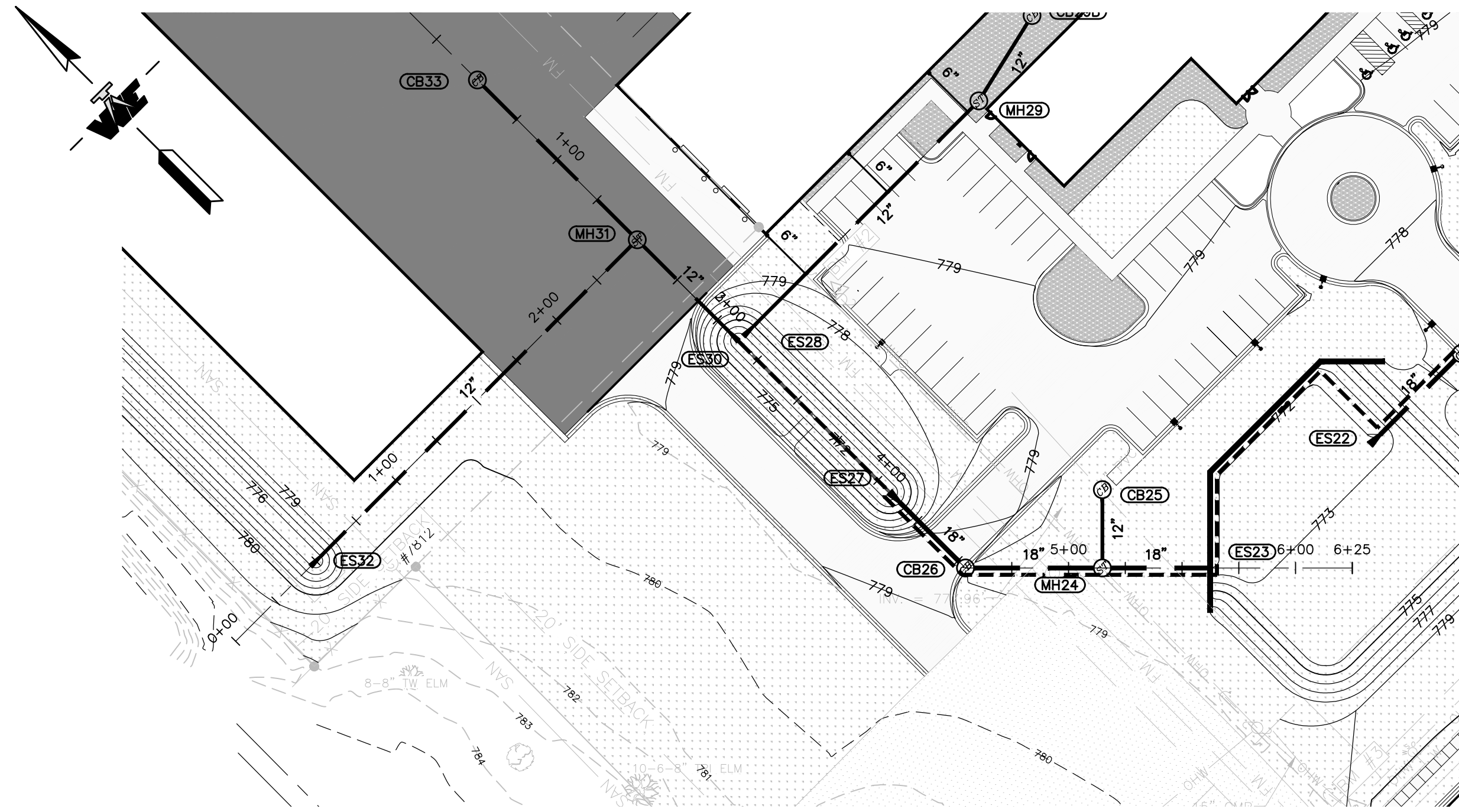
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Mason, Michigan 48854
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ISABELLA COUNTY ROAD COMMISSION
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ISABELLA COUNTY, MICHIGAN

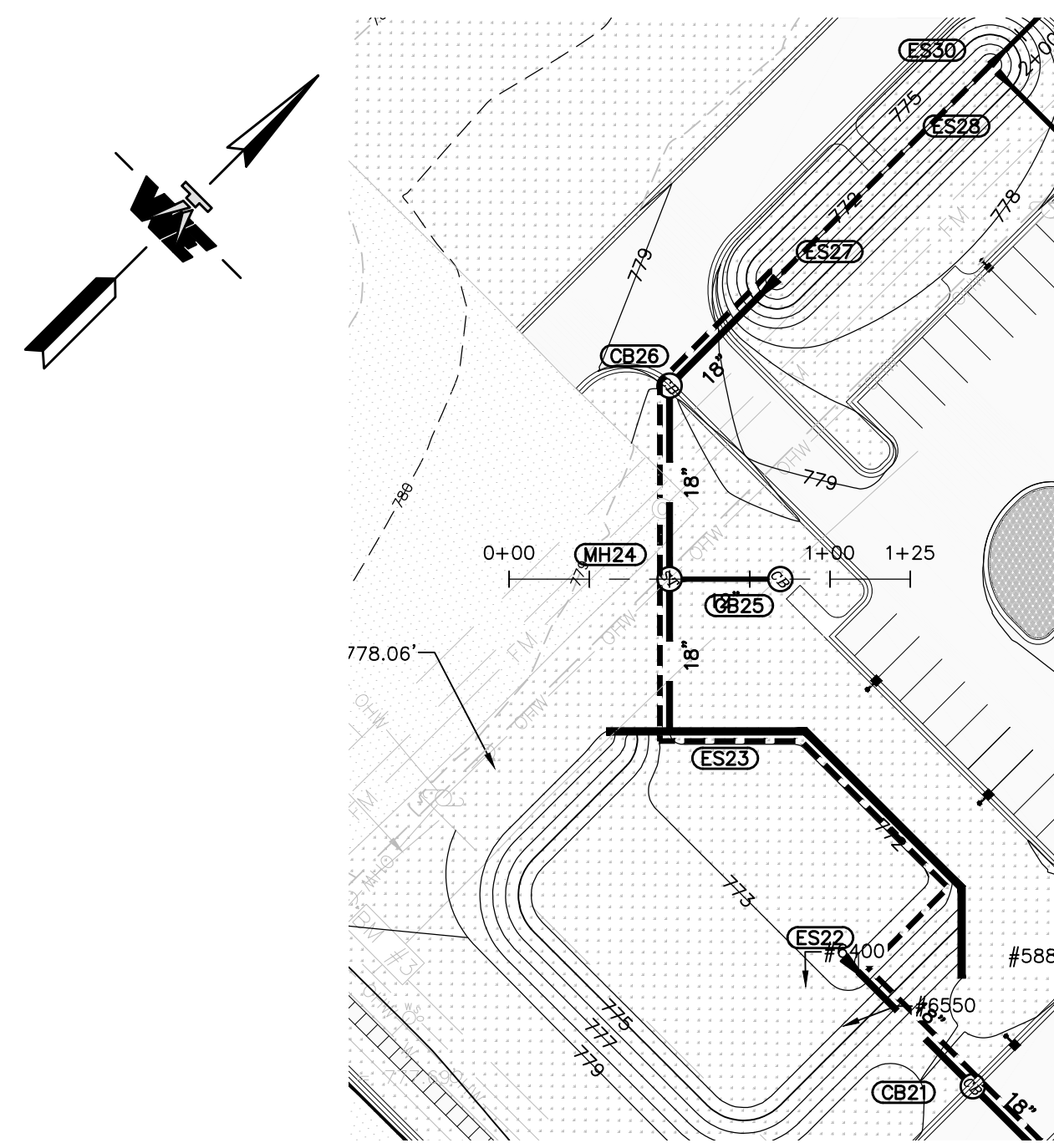
STORM SYSTEM PLAN & PROFILES

PROJECT	APPROVED	JCW
CHECKED	JCW	
DRAWN	TAP	
JOB NO.	18-0014	
DATE	12/9/2019	
SCALE	1" = 5' V 1" = 50' H	
SHEET NO.	11	

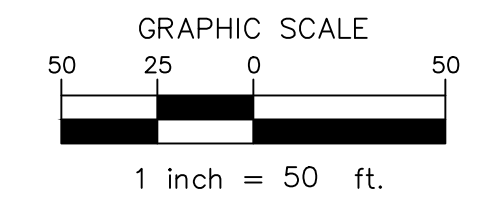
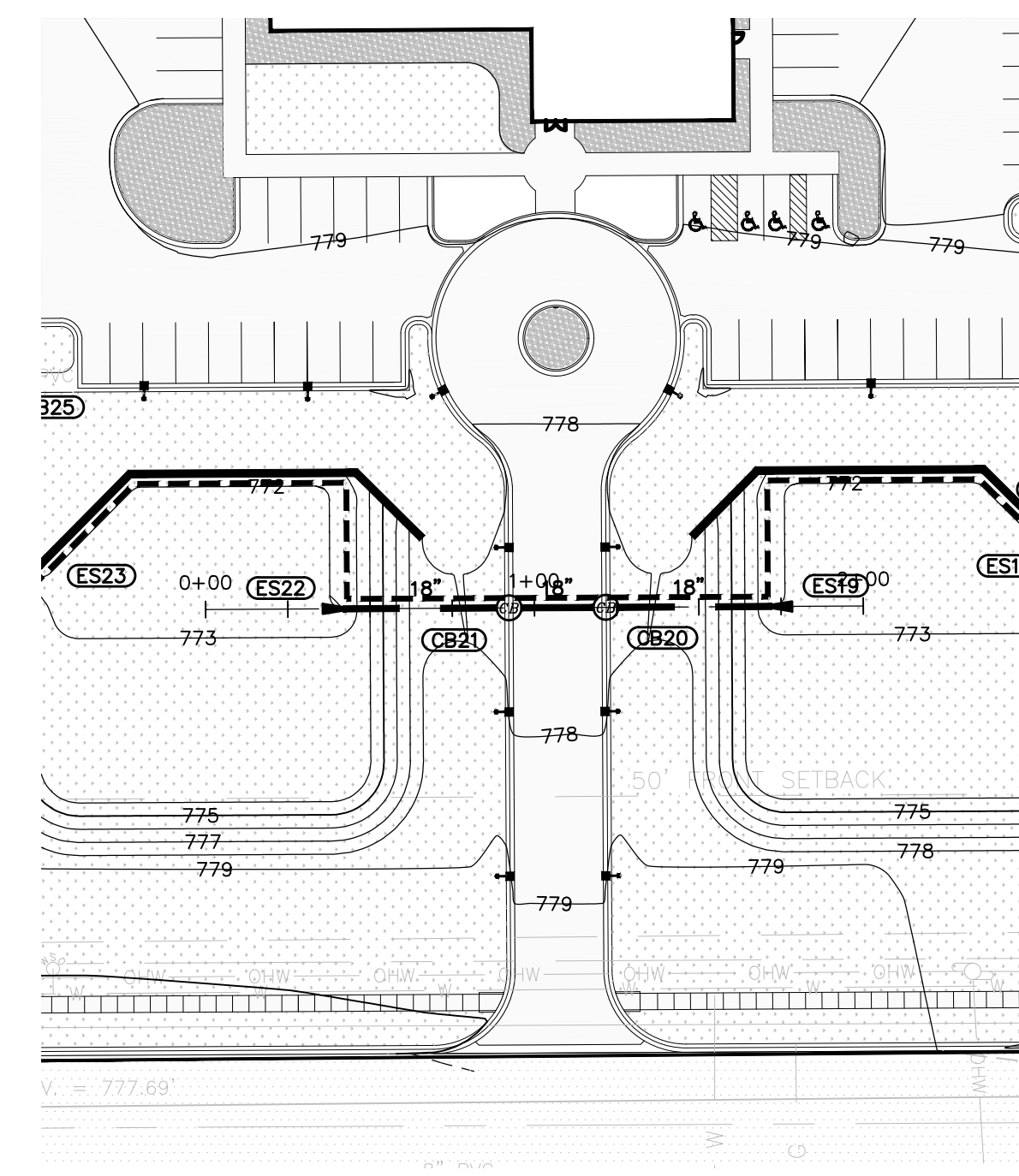
STORM SYSTEM WEST MAIN



STORM SYSTEM WEST BRANCH

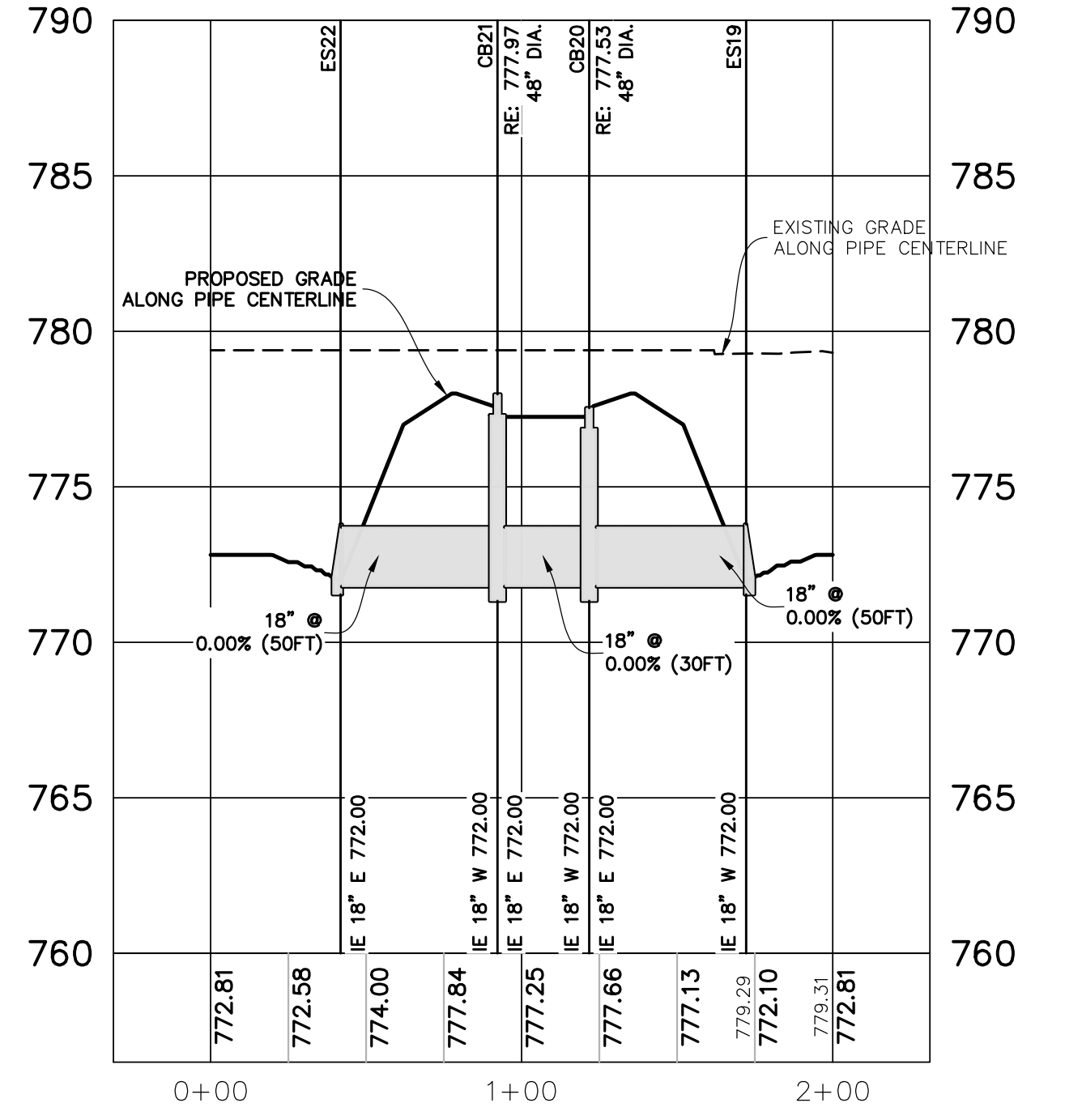
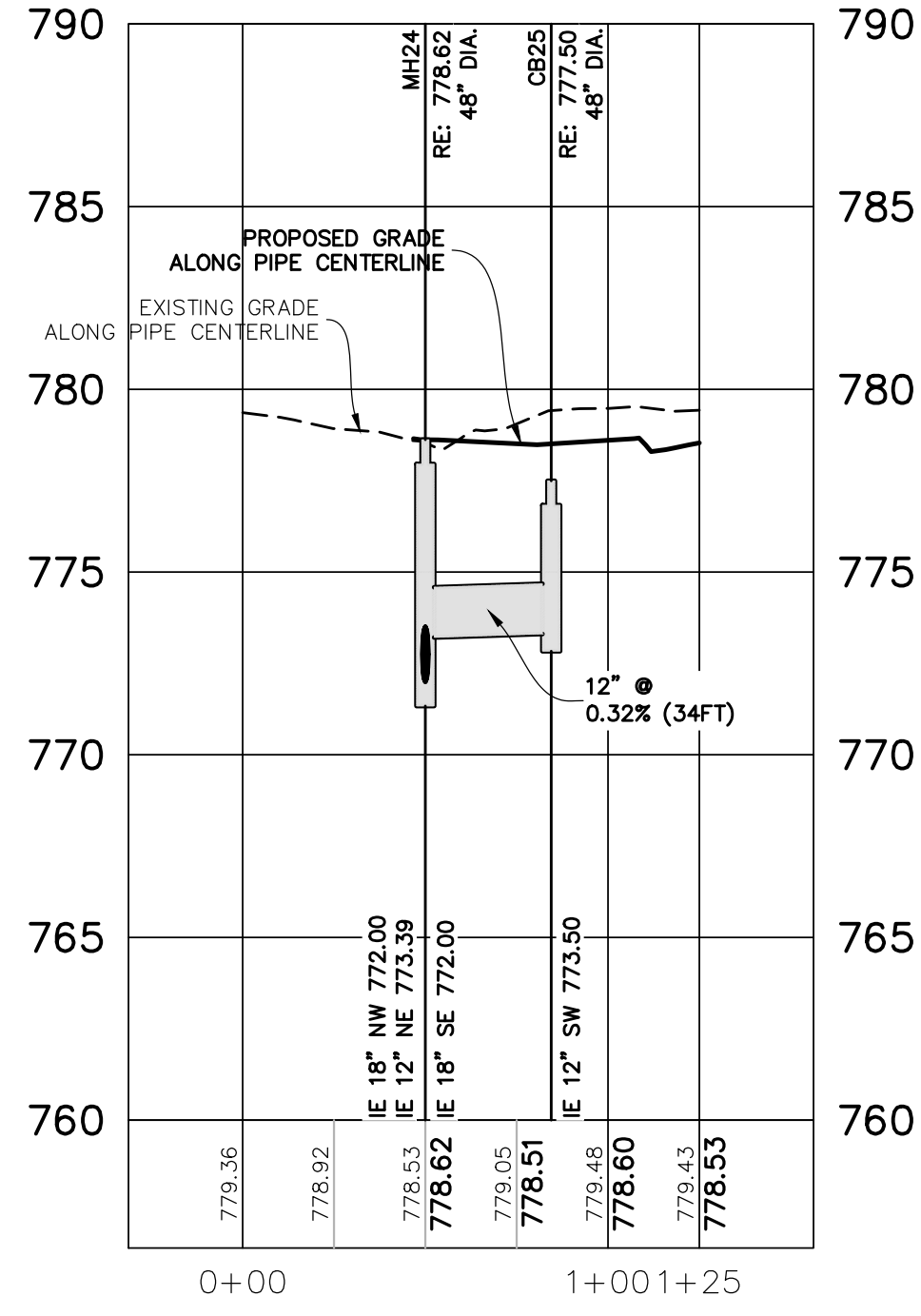
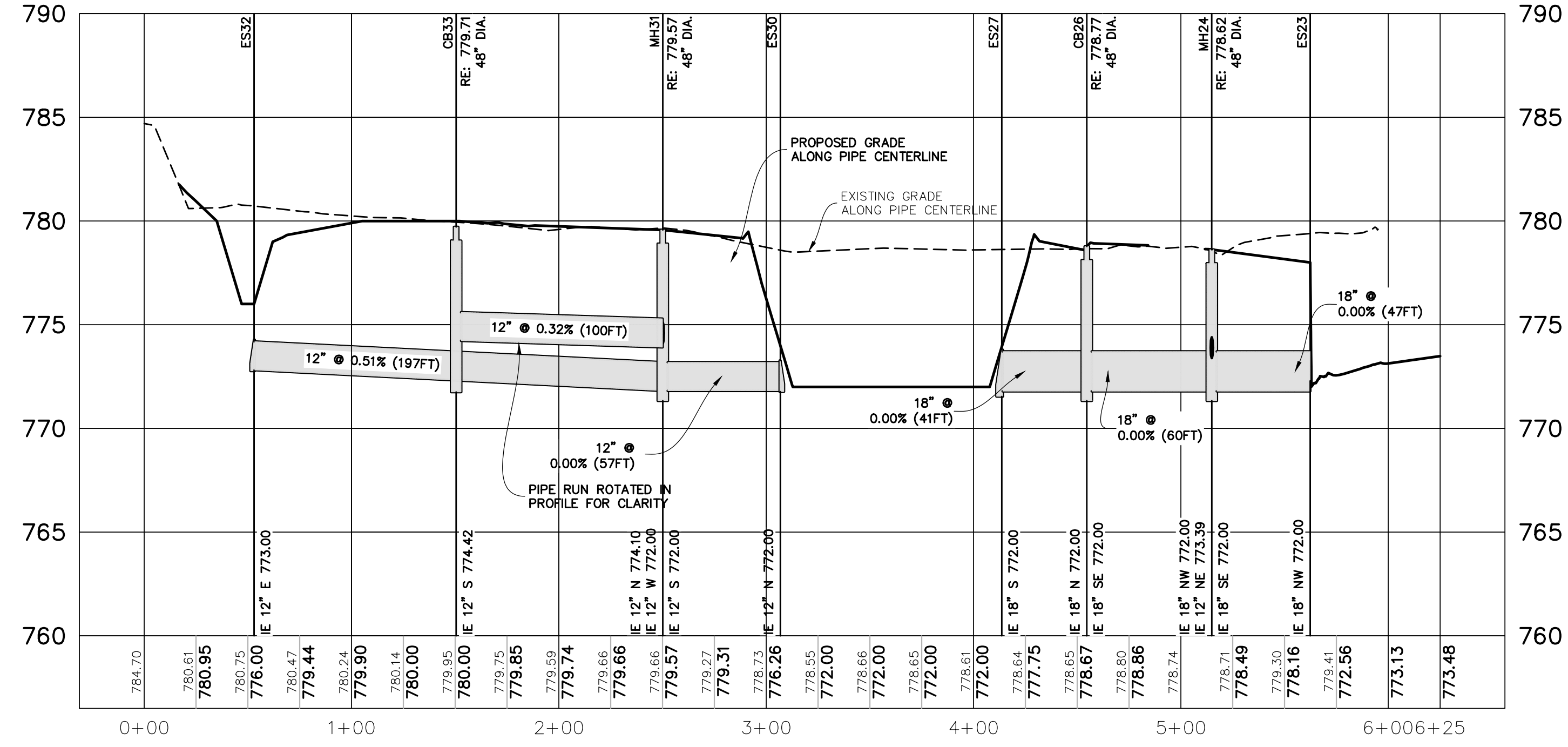


STORM SYSTEM FRONT BASIN EQUALIZATION



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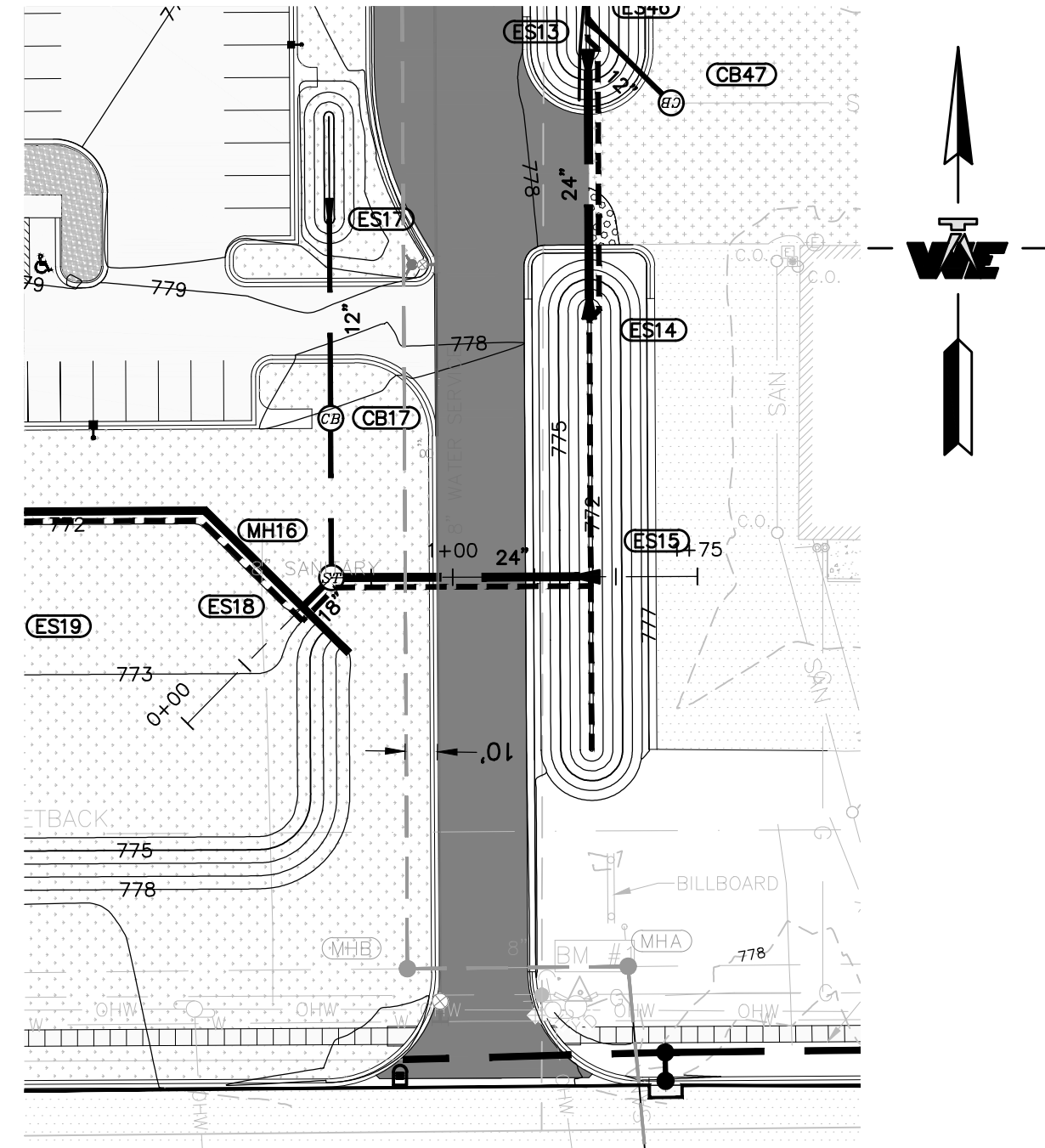
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ISABELLA COUNTY, MICHIGAN

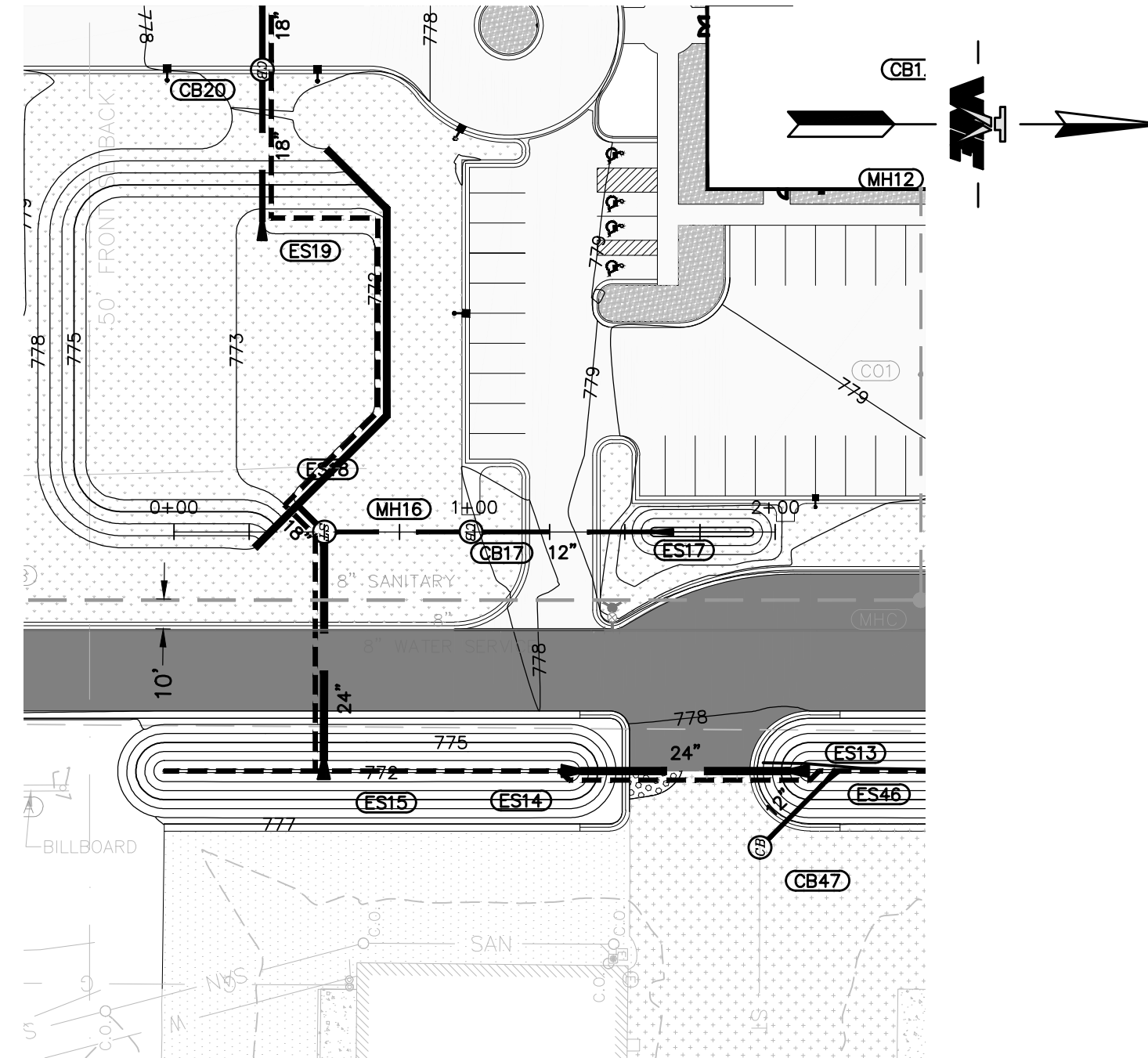
STORM SYSTEM PLAN & PROFILES

PROJECT	APPROVED	JCW
CHECKED	JCW	
DRAWN	TAP	
JOB NO.	18-0014	
DATE	12/9/2019	
SCALE	1" = 5' V 1" = 50' H	
SHEET NO.	12	

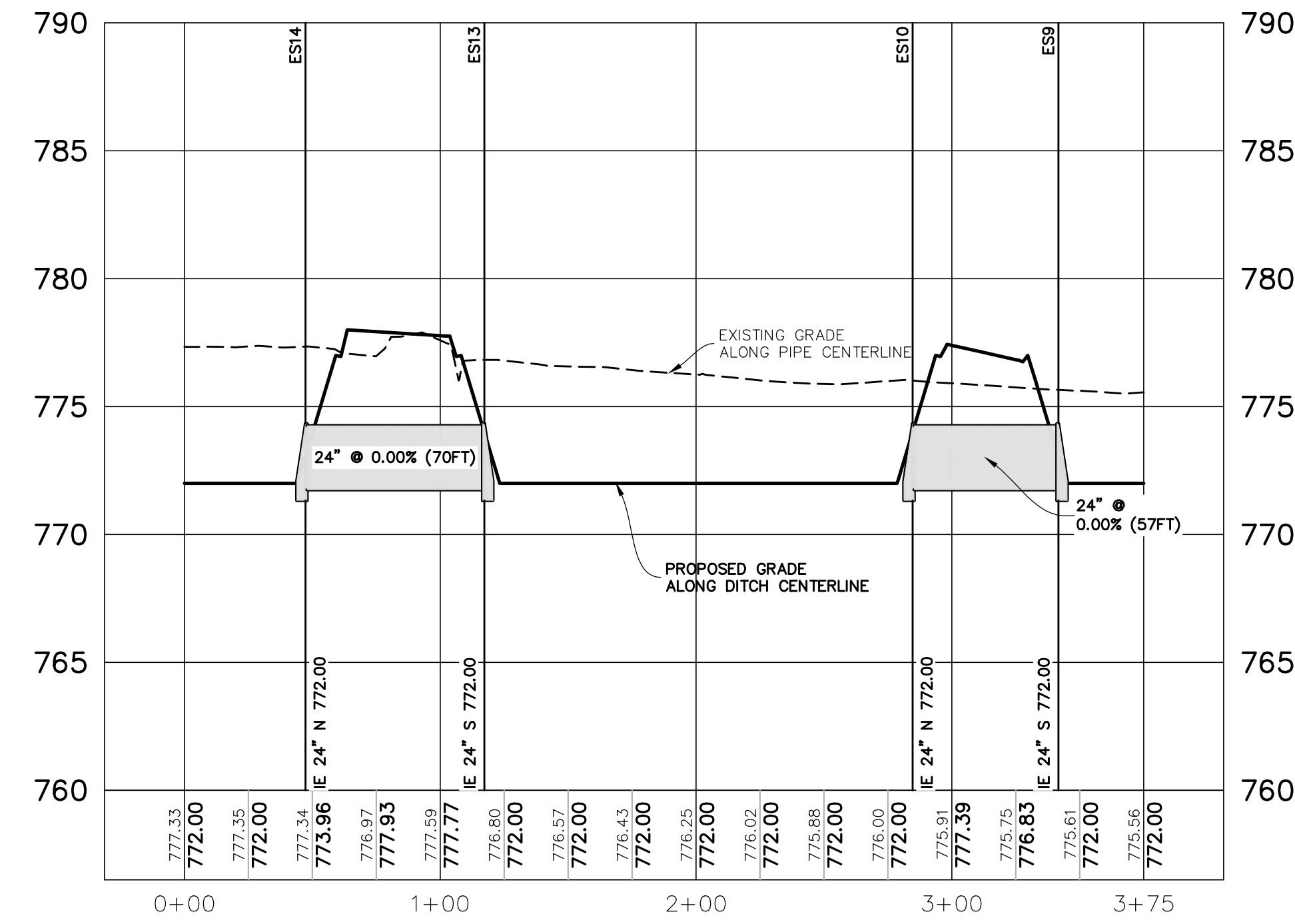
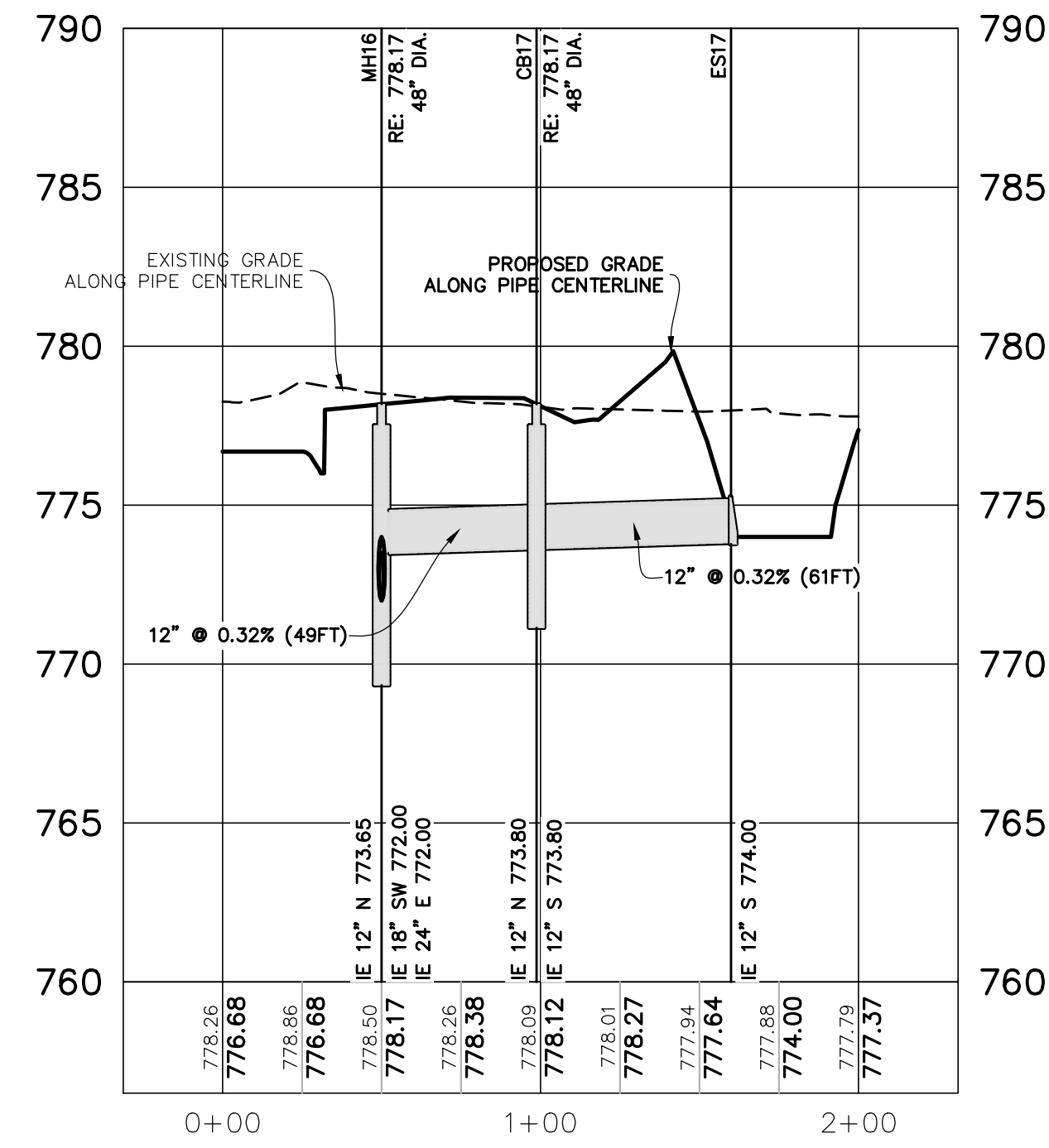
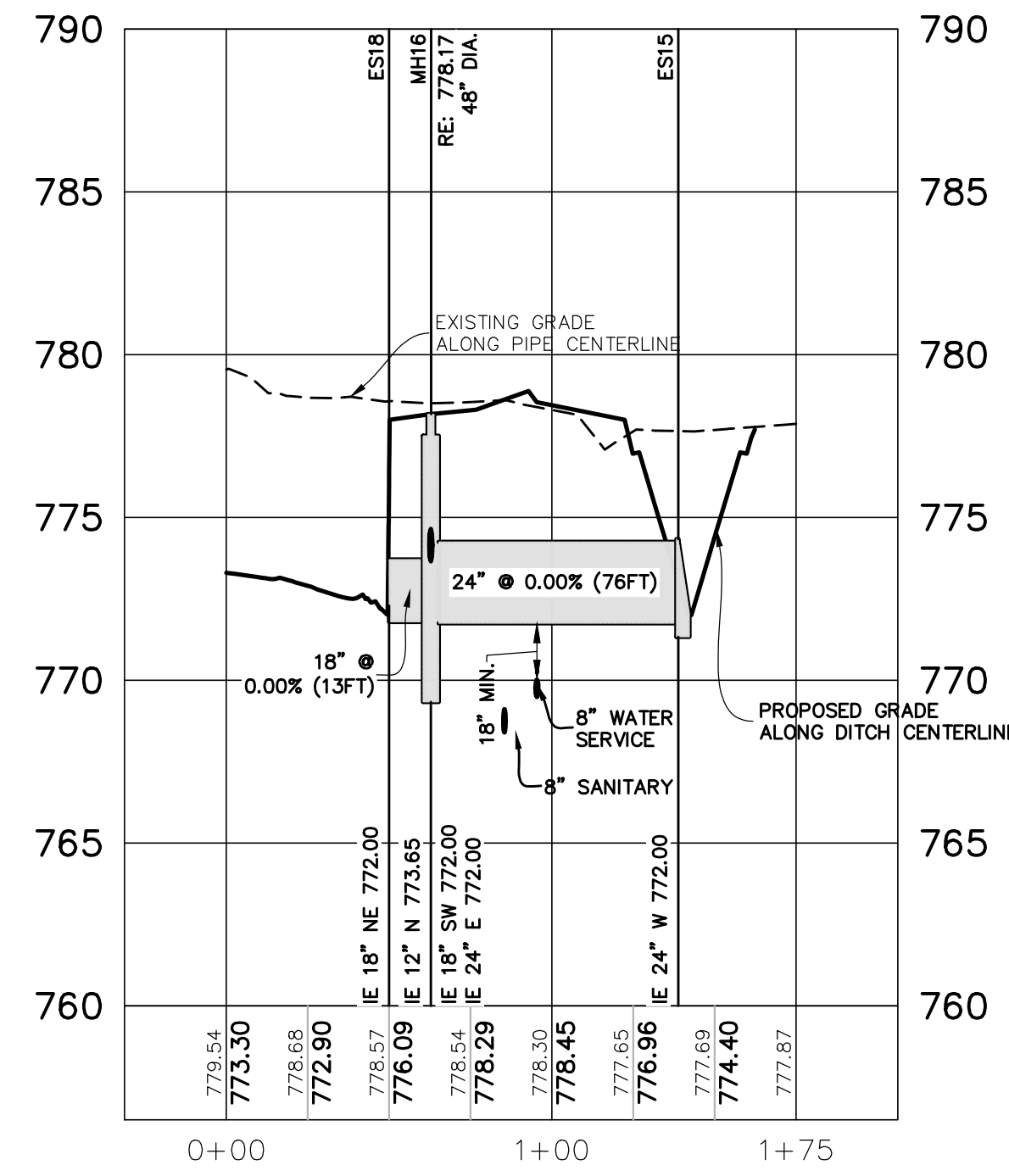
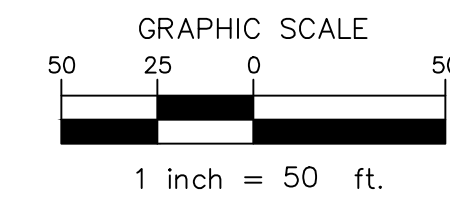
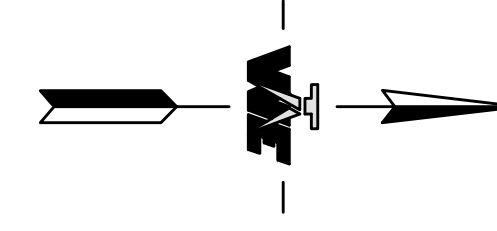
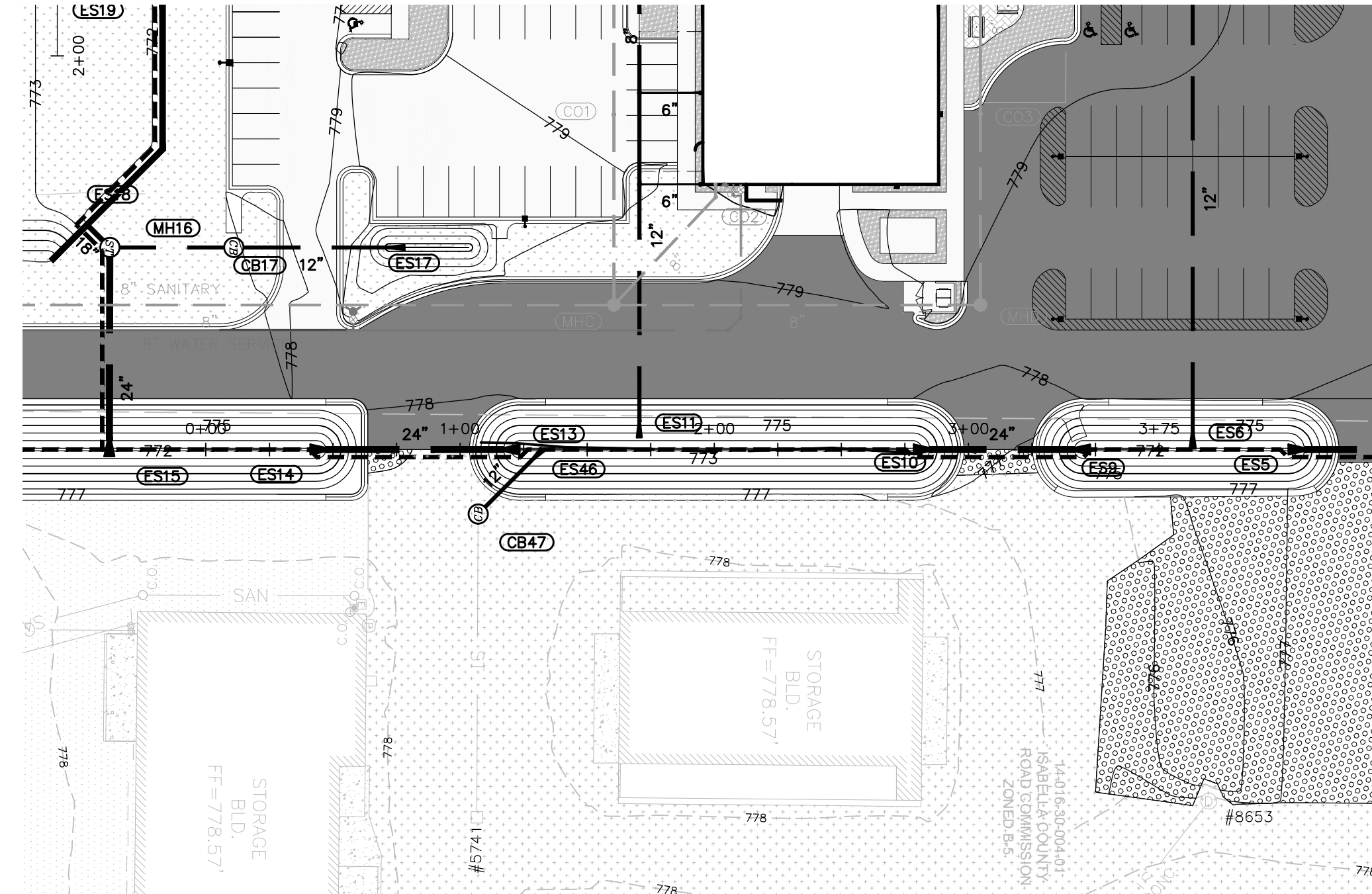
STORM SYSTEM EAST MAIN



STORM SYSTEM EAST MAIN BRANCH



STORM SYSTEM EAST DETENTION DITCH



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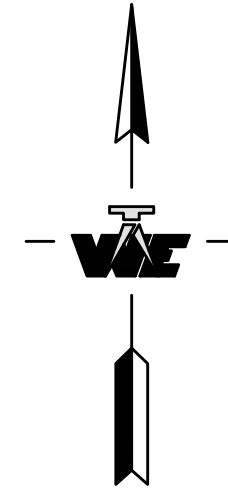
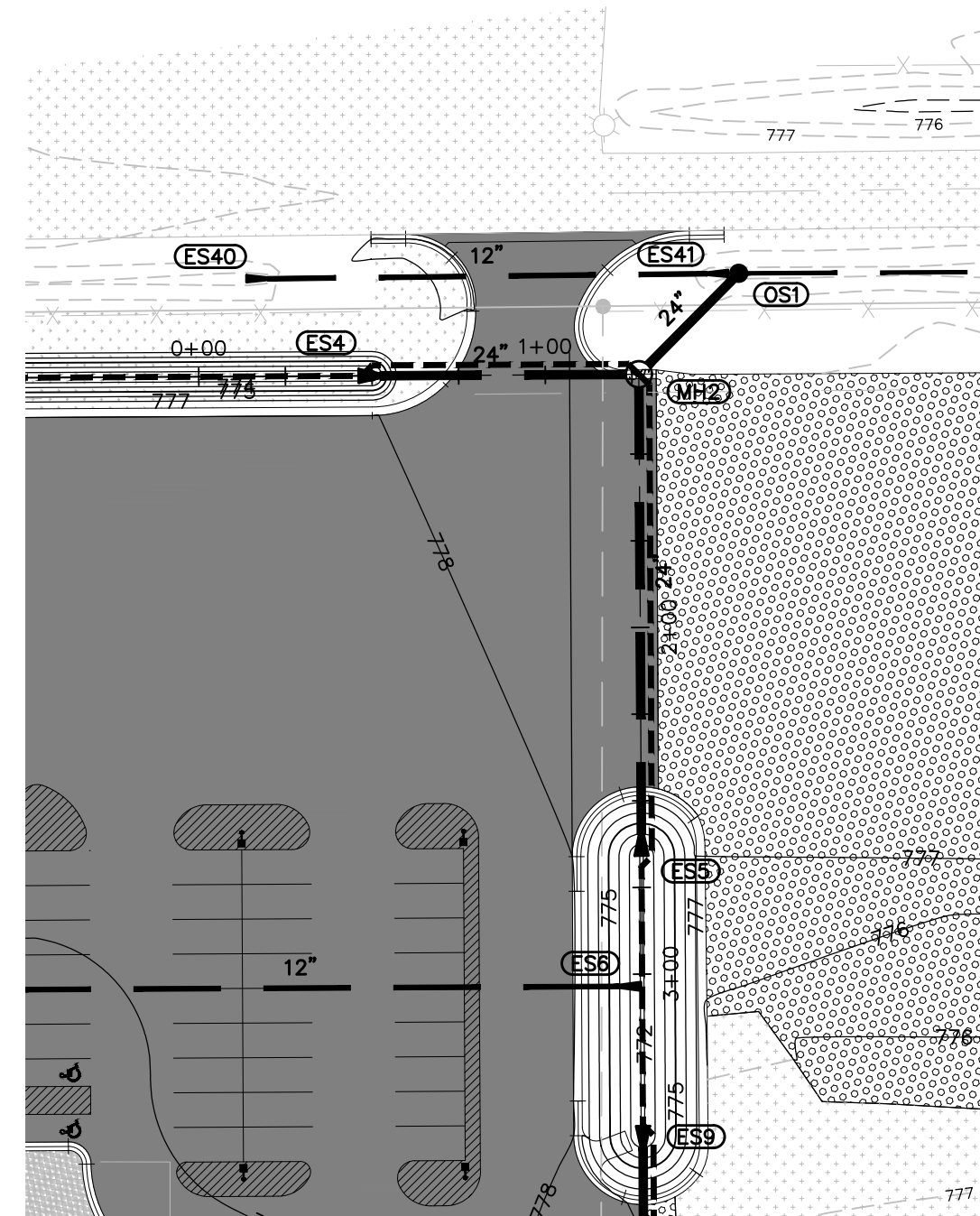
ISABELLA COUNTY ROAD COMMISSION
CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN

STORM SYSTEM PLAN & PROFILES

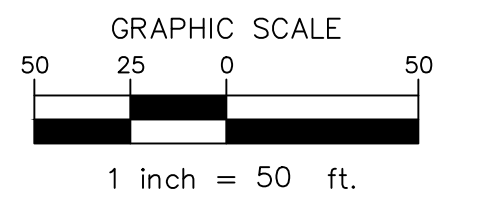
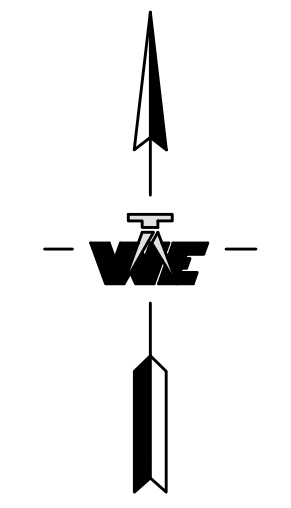
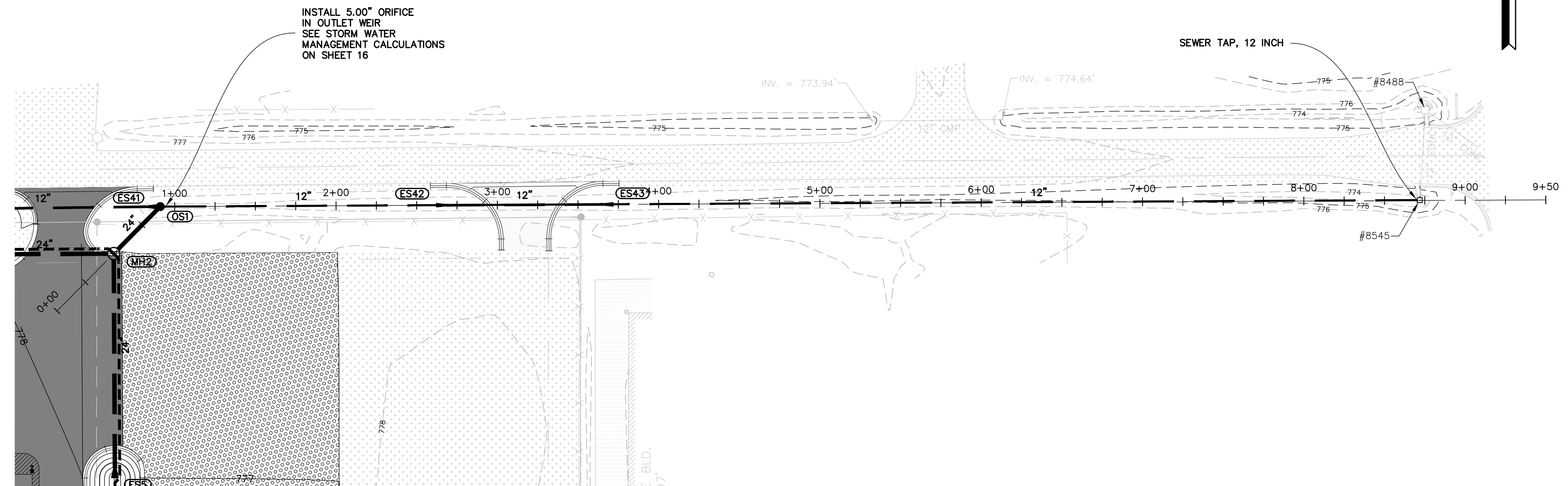
PROJECT	APPROVED
	JCW
CHECKED	JCW
DRAWN	TAP
JOB NO.	18-0014
DATE	12/9/2019
SCALE	1" = 5' V 1" = 50' H
SHEET NO.	13

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STORM SYSTEM NORTHEAST MAIN

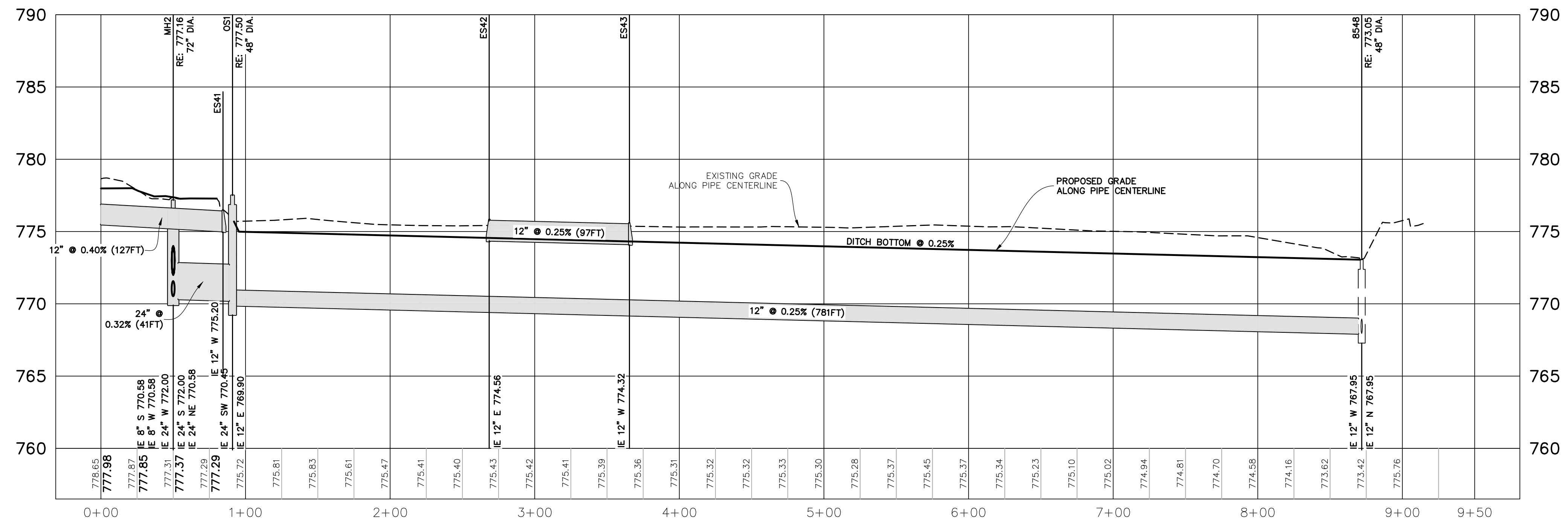
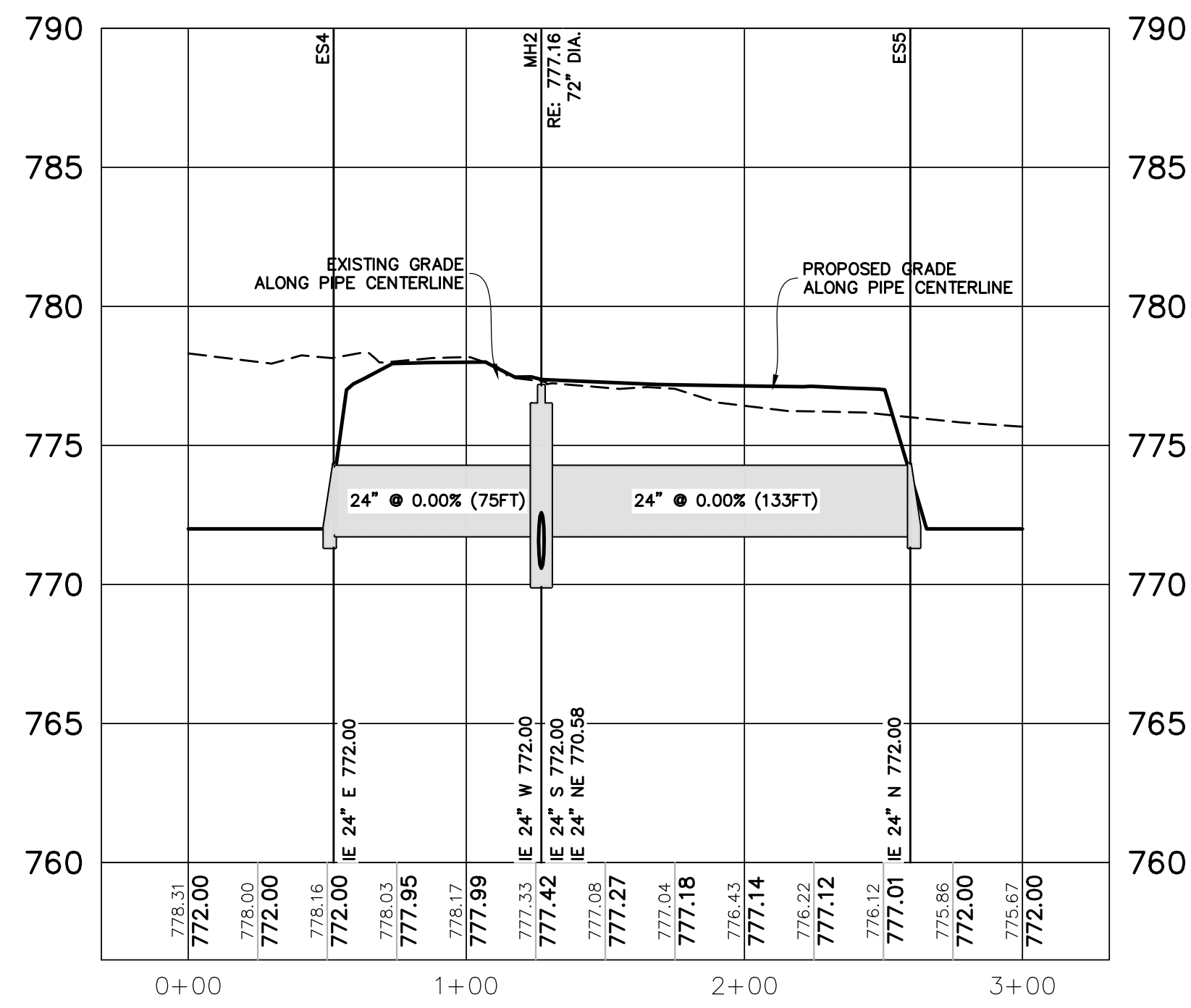


STORM SYSTEM STORM SYSTEM OUTLET



REVISION	DATE	DESCRIPTION

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Fax: 317.676.9396
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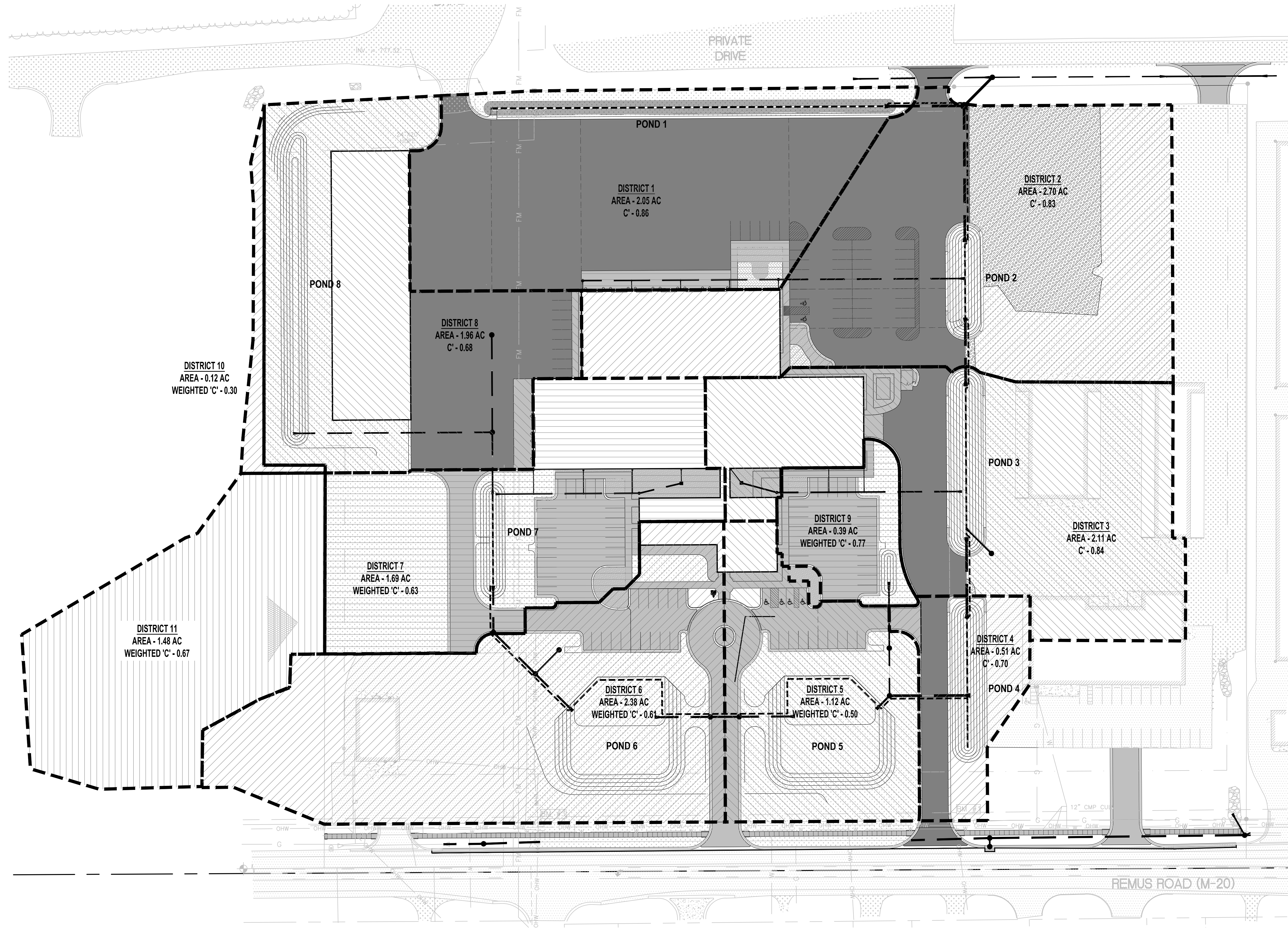
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ISABELLA COUNTY ROAD COMMISSION
CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN

STORM SYSTEM PLAN & PROFILES

PROJECT	APPROVED	JCW
CHECKED	JCW	
DRAWN	TAP	
JOB NO.	18-0014	
DATE	12/9/2019	
SCALE	1" = 5' V 1" = 50' H	
SHEET NO.	14	

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ISABELLA COUNTY ROAD COMMISSION
CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN

STORM WATER MANAGEMENT PLAN

PROJECT	ISABELLA COUNTY ROAD COMMISSION CITY OF M.T. PLEASANT ISABELLA COUNTY, MICHIGAN
APPROVED	JCW
CHECKED	JCW
DRAWN	TAP
JOB NO.	18-0014
DATE	12/9/2019
SCALE	1" = 50'
SHEET NO.	15

PIPE CALCULATIONS

DESIGN STORM: 10 YEAR - 15 MINUTES

RAINFALL INTENSITY I = 119/(15+T) WHERE T = TIME OF CONCENTRATION IN MINUTES

LOCATION	District	Drainage Area		C	Time of	Rainfall	Qcfs	Qcfs	Invert Elevation	L	Actual	Size	Manning's Capacity	Surcharged Capacity	Velocity	Travel Time	Rim Elev	Hydraulic grade	Hyd.		
from and to		Increment	Accumulated	Factor	Concentration	inches/hr	Increment	Accumulated	up	down	ft	Inches	cfs	cfs	fps	minutes		up	dn	Slope	
MH8 TO DS8C	2	0.05	0.05	0.95	15.00	3.97	0.20	0.20	775.70	775.54	50	0.32%	12	n/a	2.57	0.32	779.85	777.23	777.07	n/a	
DS8C TO DS8B	2	0.10	0.16	0.95	15.32	3.92	0.39	0.59	775.54	775.38	50	0.32%	12	2.02	n/a	2.57	0.32	779.85	777.07	776.91	n/a
DS8B TO DS8A	2	0.10	0.26	0.95	15.65	3.88	0.38	0.97	775.38	775.22	50	0.32%	12	2.02	n/a	2.57	0.32	N/A	776.91	776.75	n/a
DS8A TO MH7	2	0.10	0.36	0.95	15.97	3.84	0.38	1.35	775.22	775.06	50	0.32%	12	2.02	n/a	2.57	0.32	N/A	776.75	776.59	n/a
MH7 TO ES6	2	0.06	0.42	0.95	16.30	3.80	0.20	1.54	774.37	773.78	184	0.32%	12	2.02	n/a	2.57	1.20	779.71	776.59	776.00	n/a
CB12B TO MH12	3	0.18	0.18	0.95	15.00	3.97	0.66	0.66	774.48	774.36	37	0.32%	12	n/a	2.57	0.24	779.00	776.70	776.58	n/a	
MH12 TO DS12B	3	0.11	0.28	0.95	15.24	3.94	0.40	1.06	774.36	774.19	53	0.32%	12	2.02	n/a	2.57	0.34	779.75	776.58	776.41	n/a
DS12B TO DS12A	3	0.13	0.41	0.95	15.58	3.89	0.48	1.54	774.19	774.08	36	0.32%	12	2.02	n/a	2.57	0.23	N/A	776.41	776.30	n/a
DS12A TO ES11	3	0.00	0.41	0.95	15.82	3.86	0.00	1.54	774.08	773.78	93	0.32%	12	2.02	n/a	2.57	0.60	N/A	776.30	776.00	n/a
CB29B TO MH29	7	0.22	0.22	0.95	15.00	3.97	0.83	0.83	774.37	774.23	44	0.32%	12	2.02	n/a	2.57	0.29	779.00	776.60	776.46	n/a
MH29 TO DS29B	7	0.11	0.33	0.95	15.29	3.93	0.40	1.23	774.23	774.05	57	0.32%	12	2.02	n/a	2.57	0.37	779.75	776.46	776.27	n/a
DS29B TO DS29A	7	0.11	0.43	0.95	15.66	3.88	0.39	1.62	774.05	773.88	51	0.32%	12	2.02	n/a	2.57	0.33	N/A	776.27	776.11	n/a
DS29A TO ES28	7	0.13	0.56	0.95	15.99	3.84	0.48	2.10	773.88	773.78	32	0.32%	12	2.02	2.10	2.67	0.20	N/A	776.11	776.00	0.35%
ES27 TO CB26	7/8/10/11	5.28	5.28	0.65	15.00	3.97	13.65	13.65	773.49	773.35	44	0.32%	24	12.80	13.65	4.35	0.17	N/A	776.57	776.41	0.36%
CB26 TO MH24	7/8/10/11	0.00	5.28	0.00	15.17	3.94	0.00	13.65	773.35	773.16	57	0.32%	24	12.80	13.65	4.35	0.22	778.77	776.41	776.21	0.36%
CB25 TO MH24	7/8/10/11	0.10	0.10	0.95	0.00	7.93	0.73	0.73	773.35	773.16	57	0.32%	24	12.80	n/a	4.07	0.23	777.50	776.39	776.21	n/a
MH24 TO ES23	7/8/10/11	0.00	5.37	0.00	15.39	3.92	0.00	14.38	773.16	773.00	51	0.32%	24	12.80	14.38	4.58	0.19	778.62	776.21	776.00	0.40%
ES32 TO MH31	8/10	1.45	1.45	2.37	15.00	3.97	13.65	13.65	773.82	773.19	197	0.32%	24	12.80	13.65	4.35	0.76	N/A	777.59	776.87	0.36%
CB33 TO MH31	8/10	0.63	0.63	0.95	15.00	3.97	2.36	2.36	773.51	773.19	100	0.32%	24	12.80	n/a	4.07	0.41	777.35	777.19	776.87	n/a
MH31 TO ES30	8/10	0.00	2.08	0.00	15.41	3.91	0.00	16.02	773.19	773.00	60	0.32%	24	12.80	16.02	5.10	0.20	779.57	776.87	776.57	0.50%

STORAGE REQUIRED 98900
STORAGE PROVIDED (TO 776 CONTOUR) 99781

POND SIZING

POND 1

Contour Elevation (Feet)	Contour Area (Sq. Ft.)	Incremental Depth (Feet)	Incremental Volume (Cu. Ft.)	Total Volume (Cu. Ft.)
771	816	0	0	0
772	1639	1	1227	1227
773	2467	1	2065	3290
774	3301	1	2884	6164
775	4143	1	3722	9886
776	4990	1	4567	14452
777	5844	1	5417	19869

POND 2

Contour Elevation (Feet)	Contour Area (Sq. Ft.)	Incremental Depth (Feet)	Incremental Volume (Cu. Ft.)	Total Volume (Cu. Ft.)
772	81	0	0	0
773	602	1	342	342
774	1179	1	891	1232
775	1813	1	1496	2728
776	2503	1	2158	4886
777	3250	1	2877	7763

POND 3

Contour Elevation (Feet)	Contour Area (Sq. Ft.)	Incremental Depth (Feet)	Incremental Volume (Cu. Ft.)	Total Volume (Cu. Ft.)
772	155	0	0	0
773	1120	1	638	638
774	2141	1	1631	2268
775	3219	1	2680	4948
776	4354	1	3787	8735
777	5545	1	4950	13684

POND 4

Contour Elevation (Feet)	Contour Area (Sq. Ft.)	Incremental Depth (Feet)	Incremental Volume (Cu. Ft.)	Total Volume (Cu. Ft.)
772	135	0	0	0
773	581	1	559	559
774	1883	1	1432	1990
775	2842	1	2363	4353
776	3857	1	3350	7702
777	4929	1	4393	12095

POND 5

Contour Elevation (Feet)	Contour Area (Sq. Ft.)	Incremental Depth (Feet)	Incremental Volume (Cu. Ft.)	Total Volume (Cu. Ft.)
772	0	0	0	0
773	4320	1	2160	2160
774	9608	1	6964	9124
775	10651	1	10130	19254
776	11713	1	11182	30436
777	12792	1	12253	42688

POND 6

Contour Elevation (Feet)	Contour Area (Sq. Ft.)	Incremental Depth (Feet)	Incremental Volume (Cu. Ft.)	Total Volume (Cu. Ft.)
772	0	0	0	0
773	4320	1	2160	2160
774	9608	1	6964	9124
775	10651	1	10130	19254
776	11713	1	11182	30436
777	12792	1	12253	42688

POND 7

Contour Elevation (Feet)	Contour Area (Sq. Ft.)	Incremental Depth (Feet)	Incremental Volume (Cu. Ft.)	Total Volume (Cu. Ft.)
773	94	0	0	0
774	697	1	396	396
775	1356	1	1027	1422
776	2071	1	1714	3136
777	2843	1	2457	5593

POND 8

Contour Elevation (Feet)	Contour Area (Sq. Ft.)	Incremental Depth (Feet)	Incremental Volume (Cu. Ft.)	Total Volume (Cu. Ft.)
778	1701	0	0	0
777	3621	1	2661	2661
776	5530	1	4576	7237
779	7496	1	6513	13750

PONDS 1-8 COMBINED

Contour Elevation (Feet)	Total Volume (Cu. Ft.)
771	0
772	1227
773	9137
774	30297
775	61843
776	99781
777	147040
778	17237
779	13750

OUTLET CALCULATIONS

ALLOWABLE OUTFLOW CALCULATION

ALLOWABLE OUTFLOW 1.65 CFS

ORIFICE HEAD CALCULATION

TOP WEIR 776.50 FT
CEN ORIFICE 770.55 FT
HEAD 5.95 FT
RIM 777.50 FT
INLET INVERT 770.45 FT
OUTLET INVERT 769.90 FT

CHECK RESTRICTOR FLOW RATE - ORIFICE CALCULATION

DIAMETER OF ORIFICE = 5 INCHES
AREA OF ORIFICE = 0.1364 SFT
HEAD DIFFERENTIAL (dh) = 5.95 FEET

ACTUAL RESTRICTED DISCHARGE (Qr) = 62 * A * (2 * g * h)^1/2
ACTUAL RESTRICTED DISCHARGE (Qr) = 1.65 CFS

25-YEAR DETENTION BASIN CALCULATIONS

AREA OF SITE 16.52 ACRES
ALLOWABLE RELEASE RATE 1.65 CFS
COMPOSITE RUNOFF COEFFICIENT 0.72

STORM DURATION (MINUTES)	(HOURS)	25-YEAR TOTAL RAINFALL (INCHES)	25-YEAR RAINFALL INTENSITY (IN/HR)	PROPOSED RUNOFF FLOW RATE (CFS)	PROPOSED RUNOFF VOLUME (CFT)	MAXIMUM ALLOWABLE OUTFLOW (CFS)	REQUIRED DETENTION STORAGE (CFT)
5	0.08	0.50	6.00	71.21	21363	1.65	20868
10	0.17	0.87	5.22	61.95	37172	1.65	36181
15	0.25	1.12	4.48	53.17	47854	1.65	46368
20	0.33	1.21	3.64	43.22	51867	1.65	49885
30	0.50	1.54	3.08	36.56	65800	1.65	62827
40	0.67	1.67	2.51	29.80	71514	1.65	67550
50	0.83	1.82	2.19	25.95	77841	1.65	72886
60	1.00	1.95	1.95	23.14	83318	1.65	77372
90	1.50	2.21	1.47	17.50	94503	1.65	85584
120	2.00	2.41	1.21	14.30	102972	1.65	91980
180	3.00	2.86	0.89	10.52	113654	1.65	95316
240	4.00	2.86	0.72	8.49	122305	1.65	98521
300	5.00	3.01	0.60	7.15	128630	1.65	98900
360	6.00	3.11	0.52	6.15	132891	1.65	97206
420	7.00	3.23	0.46	5.48	138167	1.65	96546
480	8.00	3.32	0.42	4.93	141952	1.65	94385
540	9.00	3.40	0.38	4.48	145290	1.65	91778
600	10.00	3.47	0.35	4.12	148277	1.65	88818
660	11.00	3.53	0.32	3.81	150978	1.65	85574
720	12.00	3.61	0.30	3.57	154244	1.65	82894
900	15.00	3.74	0.25	2.96	159770	1.65	70582
1080	18.00	3.90	0.22	2.57	166635	1.65	59610
1260	21.00	3.96	0.19	2.24	169307	1.65	44444
1440	24.00	4.15	0.17	2.05	177317	1.65	34616
2880	48.00	4.59	0.10	1.13	196117	1.65	-89285

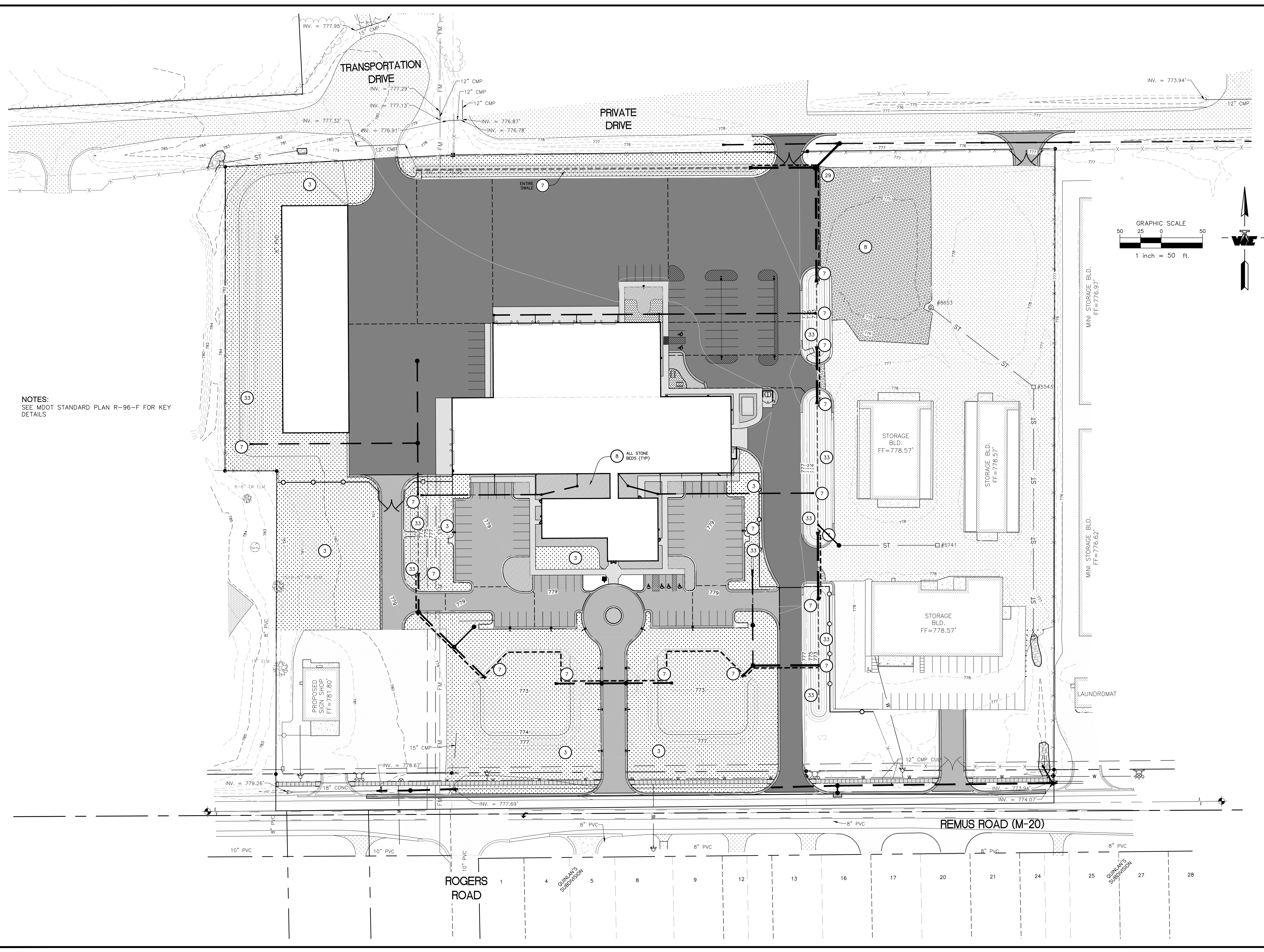
STORAGE REQUIRED 98900
STORAGE PROVIDED (TO 776 CONTOUR) 99781

100-YEAR DETENTION BASIN CALCULATIONS

AREA OF SITE 16.52 ACRES
ALLOWABLE RELEASE RATE 1.65 CFS
COMPOSITE RUNOFF COEFFICIENT 0.72

STORM DURATION (MINUTES)	(HOURS)	100-YEAR TOTAL RAINFALL (INCHES)	100-YEAR RAINFALL INTENSITY (IN/HR)	PROPOSED RUNOFF FLOW RATE (CFS)	PROPOSED RUNOFF VOLUME (CFT)	MAXIMUM ALLOWABLE OUTFLOW (CFS)	REQUIRED DETENTION STORAGE (CFT)
5	0.08	0.67	8.04	95.42	28627	1.65	28132
10	0.17	1.18	7.08	84.03	50418	1.65	49427
15	0.25	1.52	6.08	72.16	64945	1.65	634

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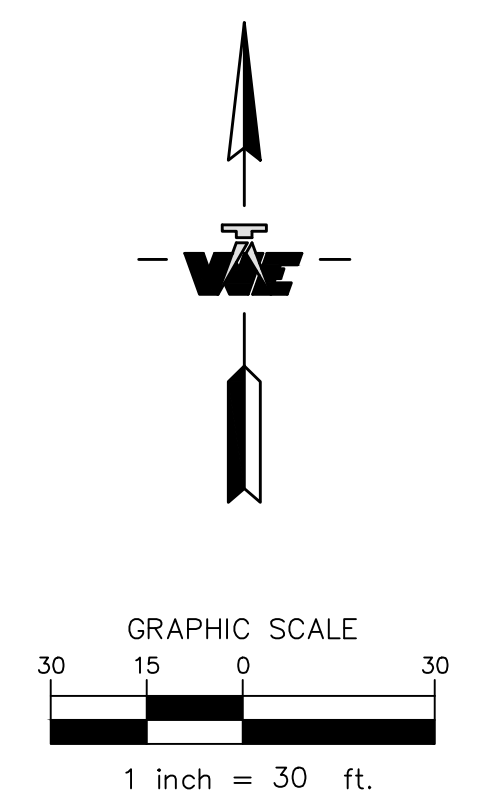
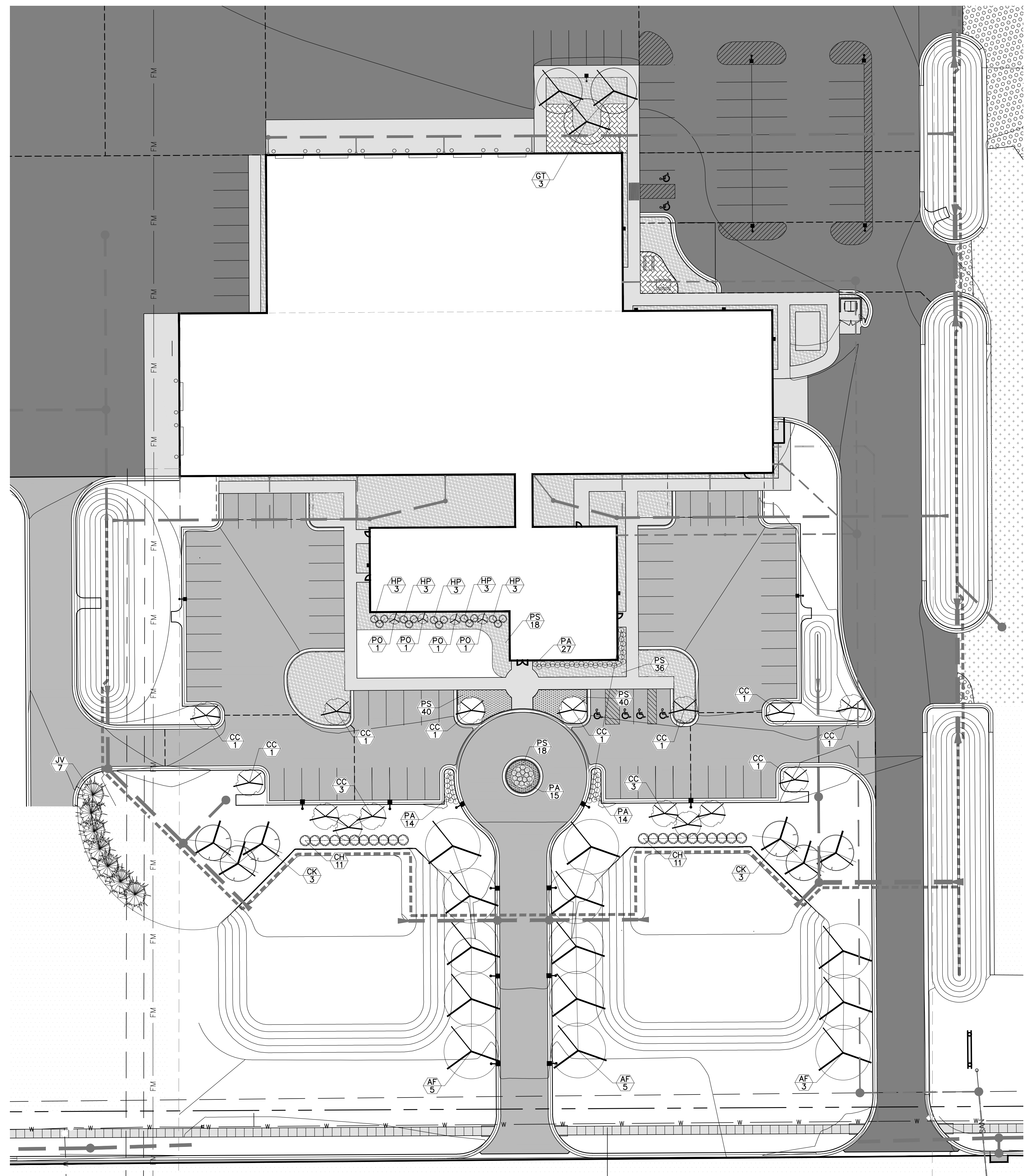
NOTES:
SEE MDOT STANDARD PLAN R-96-F FOR KEY DETAILS

REVISION	DATE	DESCRIPTION

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 317.676.9200
Fx: 317.676.9396
http://www.wolveneg.com

PROJECT	ISABELLA COUNTY ROAD COMMISSION CITY OF M.T. PLEASANT ISABELLA COUNTY, MICHIGAN
APPROVED	JCW
CHECKED	JCW
DRAWN	TAP
JOB NO.	18-0014
DATE	12/9/2019
SCALE	1" = 50'
SHEET NO.	17

S:\Projects\2018\18-0014_C3D\DWG\17-LANDSCAPE PLAN.dwg, Monday, December 9, 2019 7:47:25 AM, Joseph White



- NOTES:**
- 18/24 INSTALL PLANT MATERIALS ACCORDING TO MDOT STANDARD PLAN R-100-H
 - 18/24 RESTORE ALL GRASS AREAS ACCORDING TO MDOT SPECIAL PROVISION FOR TURF ESTABLISHMENT, PERFORMANCE AND MDOT STANDARD PLAN R-100-H

PAY ITEM CODE	UNIT	KEY	QUANTITY	PLANT NAME	INSTALL SIZE	ROOT	FULL SIZE
TREES							
8150222	EACH	AF	13	Acer x freemanii Autumn Blaze	2" CAL.	B&B	H:50-60' S:30-40'
8150808	EACH	CC	15	Cercis canadensis, tree form	2" CAL.	B&B	H:10-15' S:10-15'
8151000	EACH	CK	6	Cornus kousa, tree form	2" CAL.	B&B	H:20-25' S:20-25'
8151657	EACH	GT	3	Gleditsia triacanthos inermis Shademaster	2" CAL.	B&B	H:30-70' S:30-70'
8152032	EACH	JV	7	Juniperus virginiana	6 FOOT	B&B	H:15-25' S:8-15'
SHRUBS							
8151116	EACH	CH	22	Cotoneaster horizontalis	#3	CONTNR	H:1-2' S:5-7'
8151799	EACH	HP	15	Hydrangea paniculata Limelight	#3	CONTNR	H:3-5' S:3-5'
8152675	EACH	PA	70	Perovskia atriplicifolia	#2	CONTNR	H:3-4' S:3-4'
8152702	EACH	PS	152	Phlox subulata David	#1	CONTNR	H:6" S:2-3"
8152722	EACH	PO	4	Physocarpus opulifolius Seward	#3	CONTNR	H:5-6" S:5-6"

PROPOSED LEGEND

- KEY
- QUANTITY
- MULCH, SHREADED BARK
- LANDSCAPE EDGING, STEEL
- RIVER ROCK, 2 INCH
- LANDSCAPE EDGING, STEEL
- DECIDUOUS TREE CANOPY
- DECIDUOUS TREE ORNAMENTAL
- EVERGREEN TREE
- EVERGREEN SHRUB
- DECIDUOUS SHRUB

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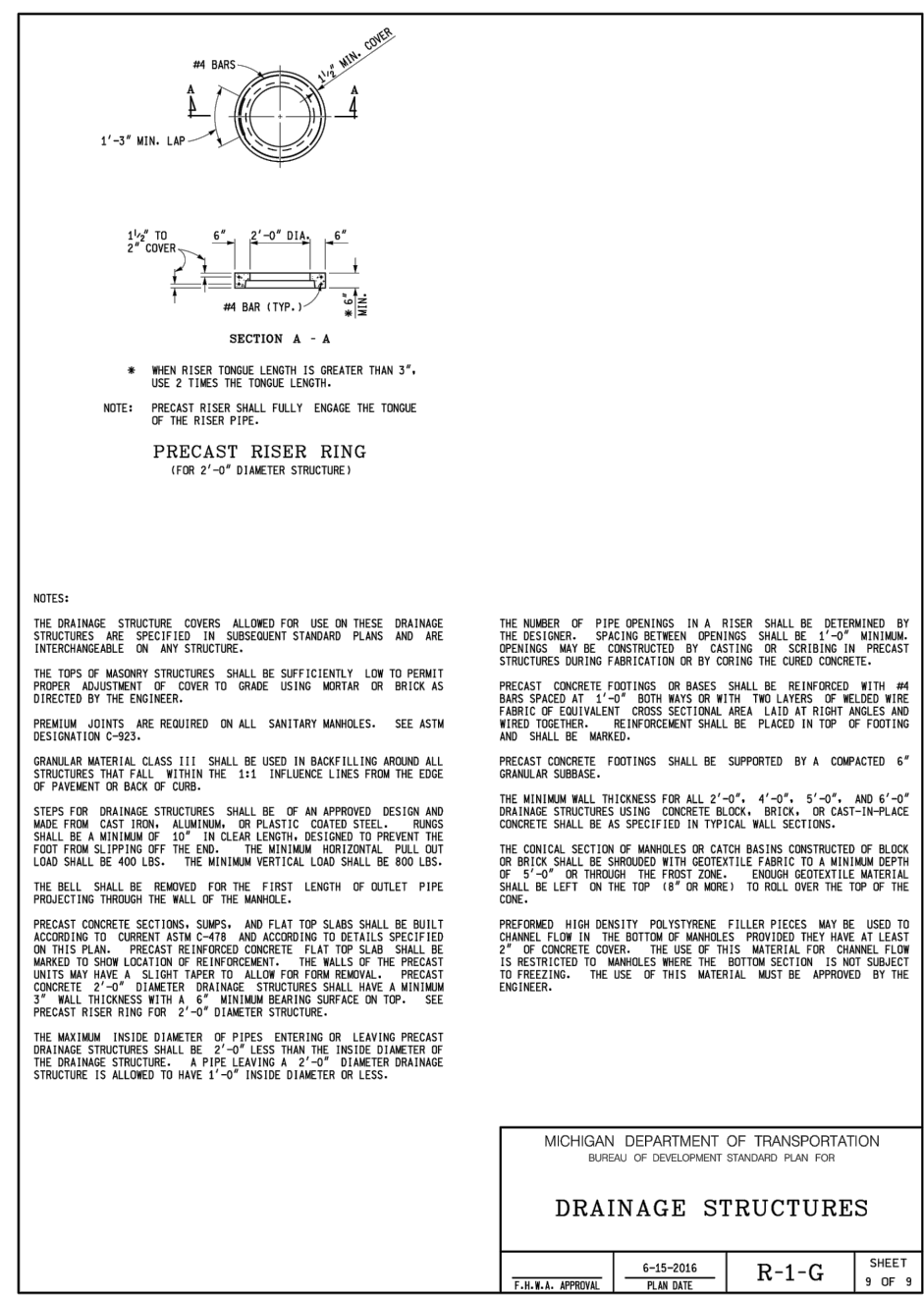
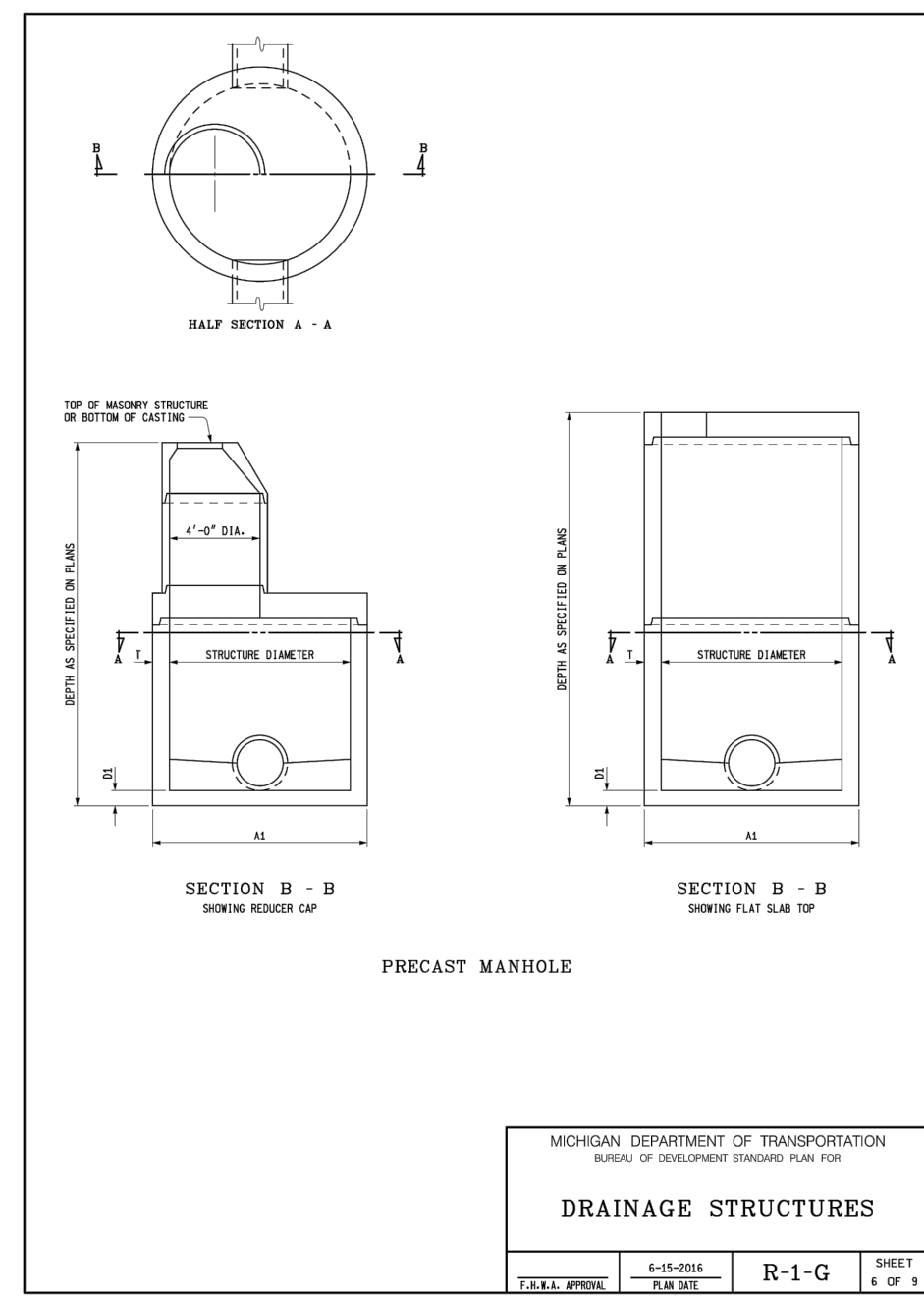
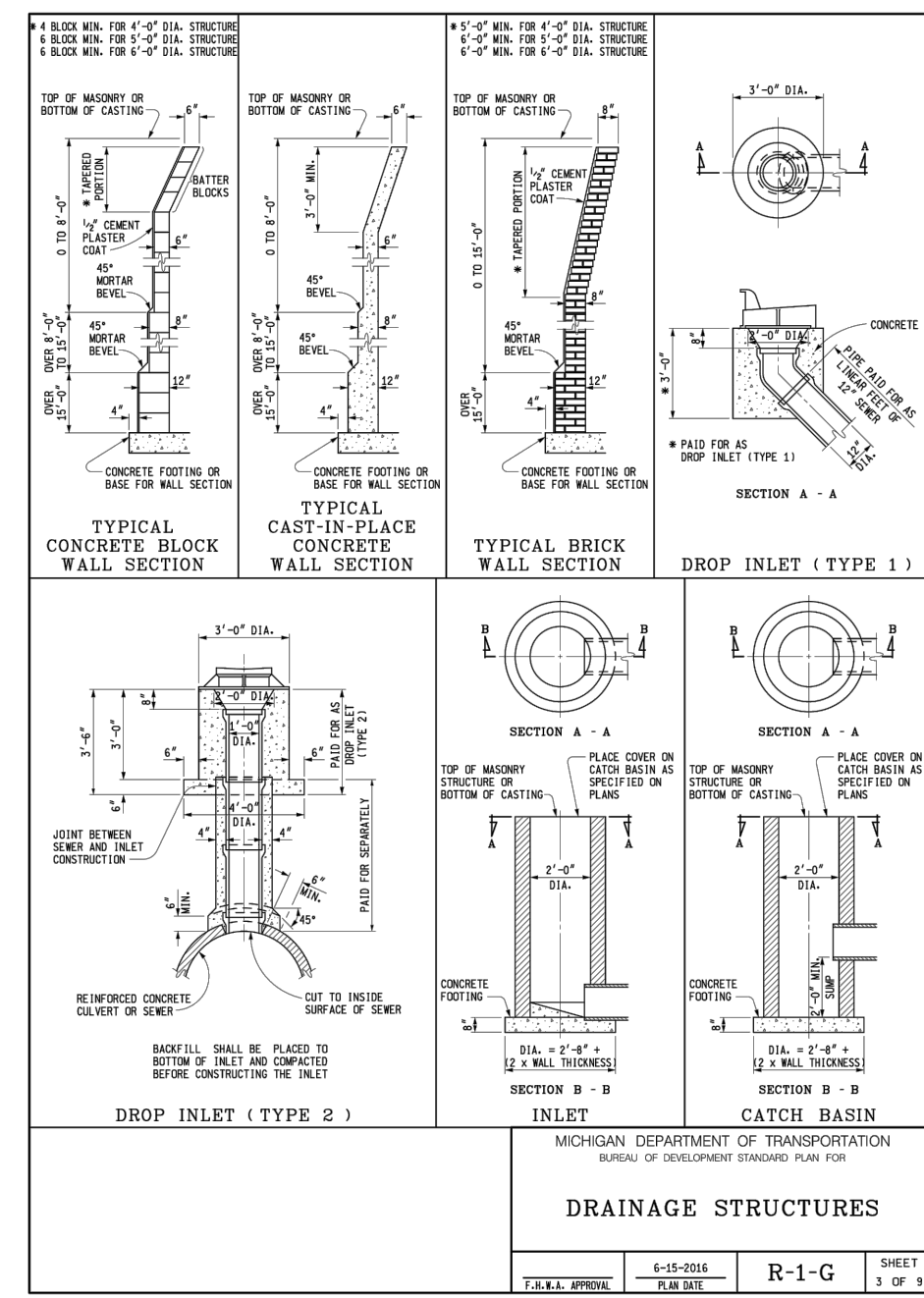
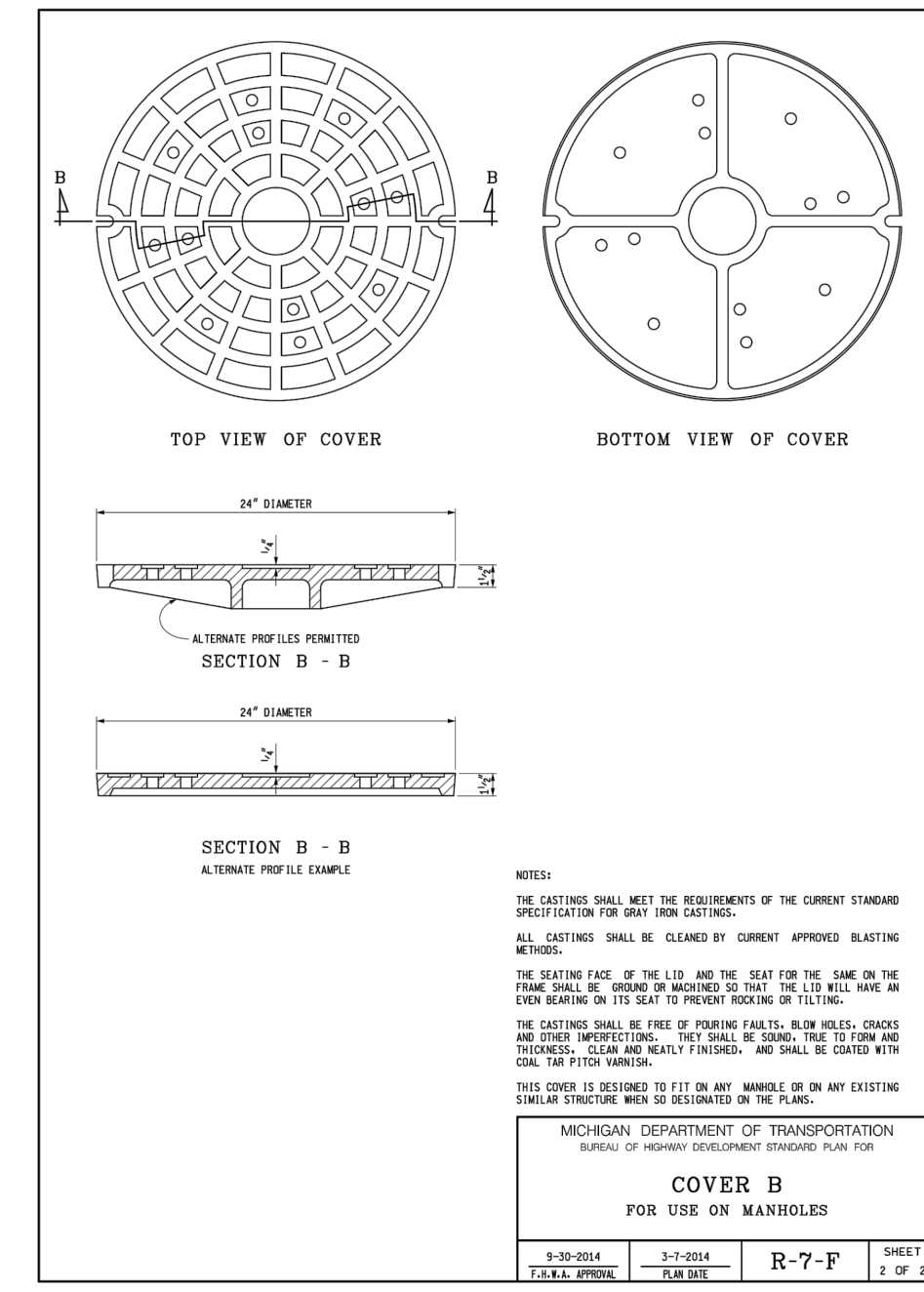
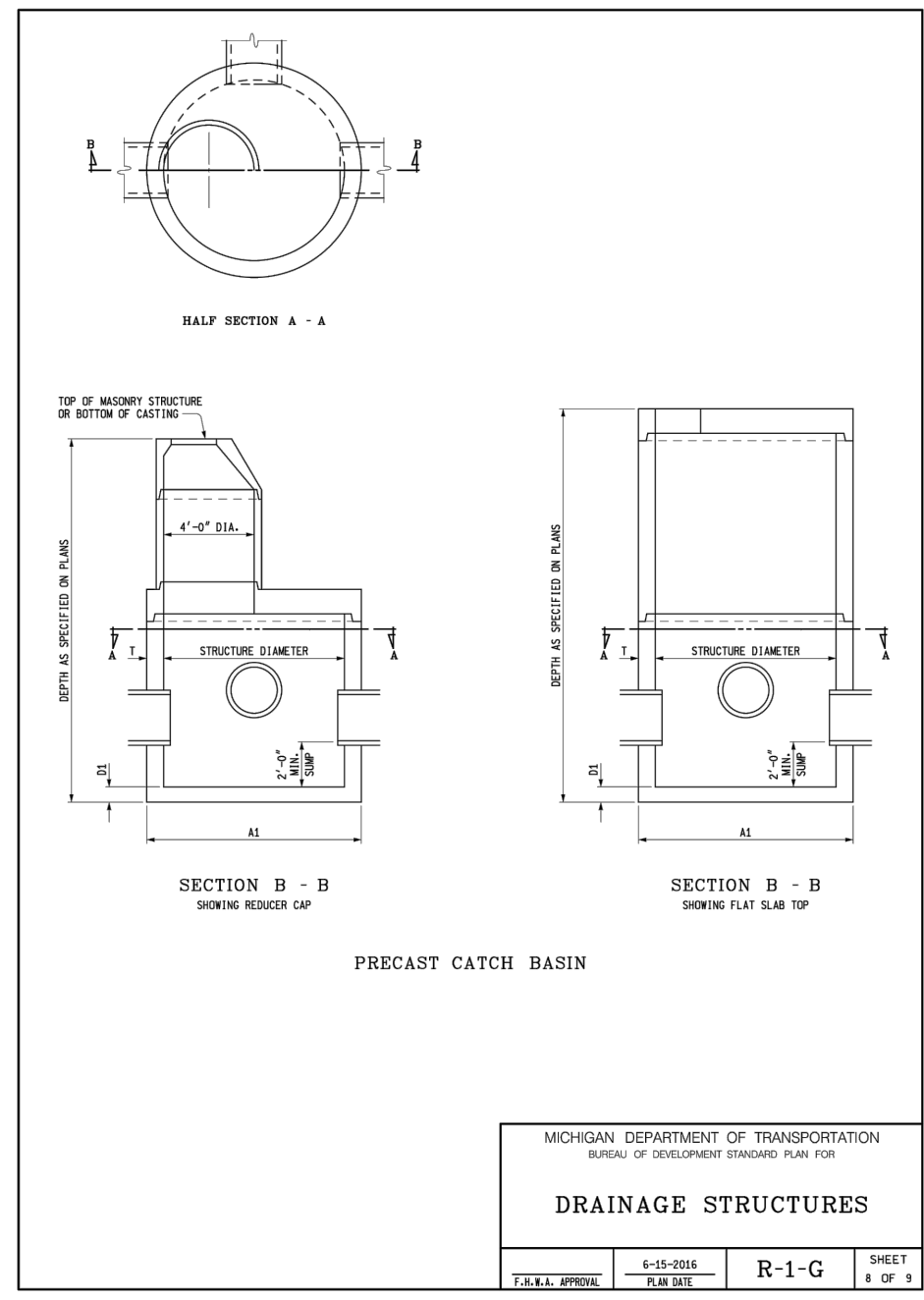
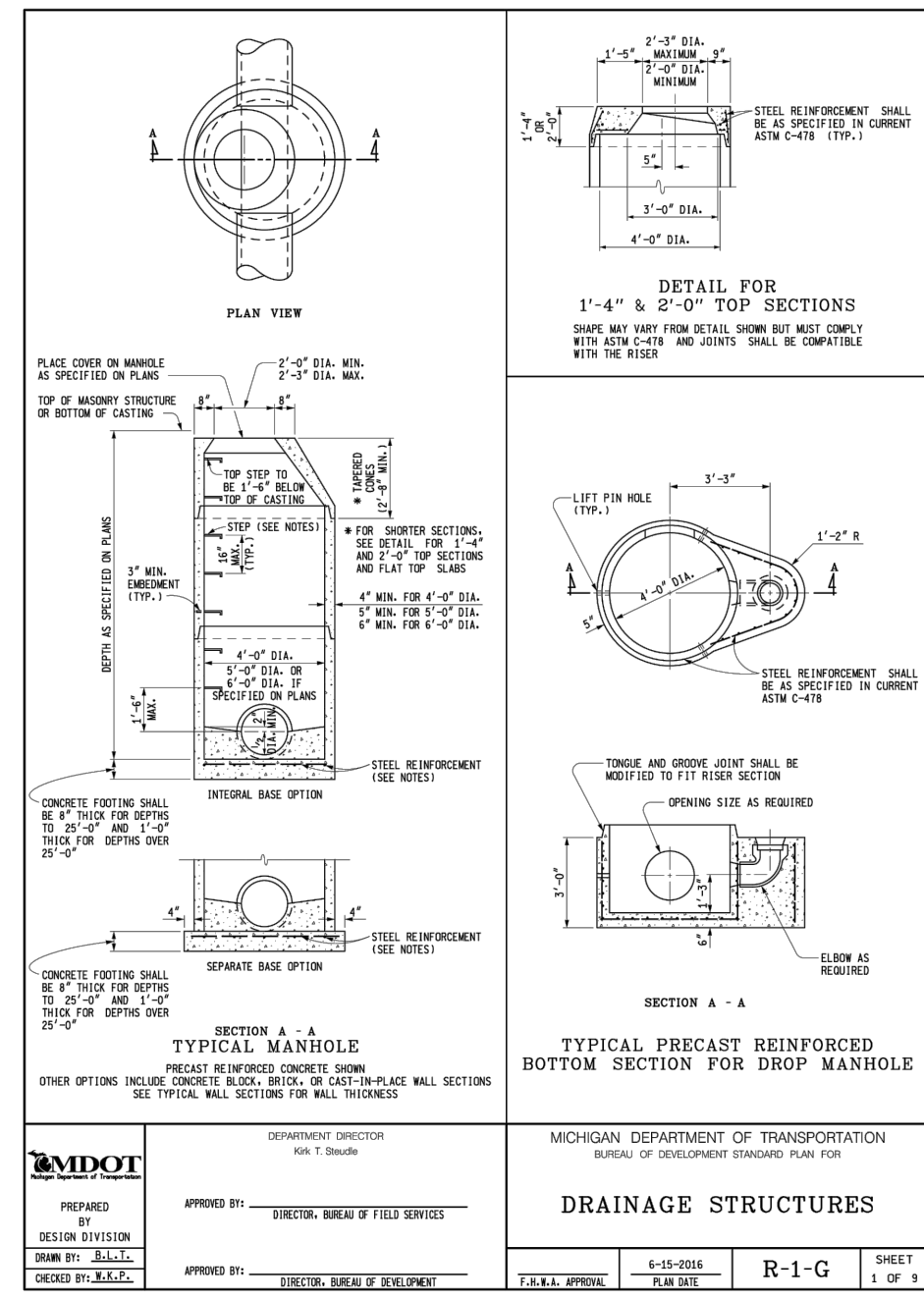
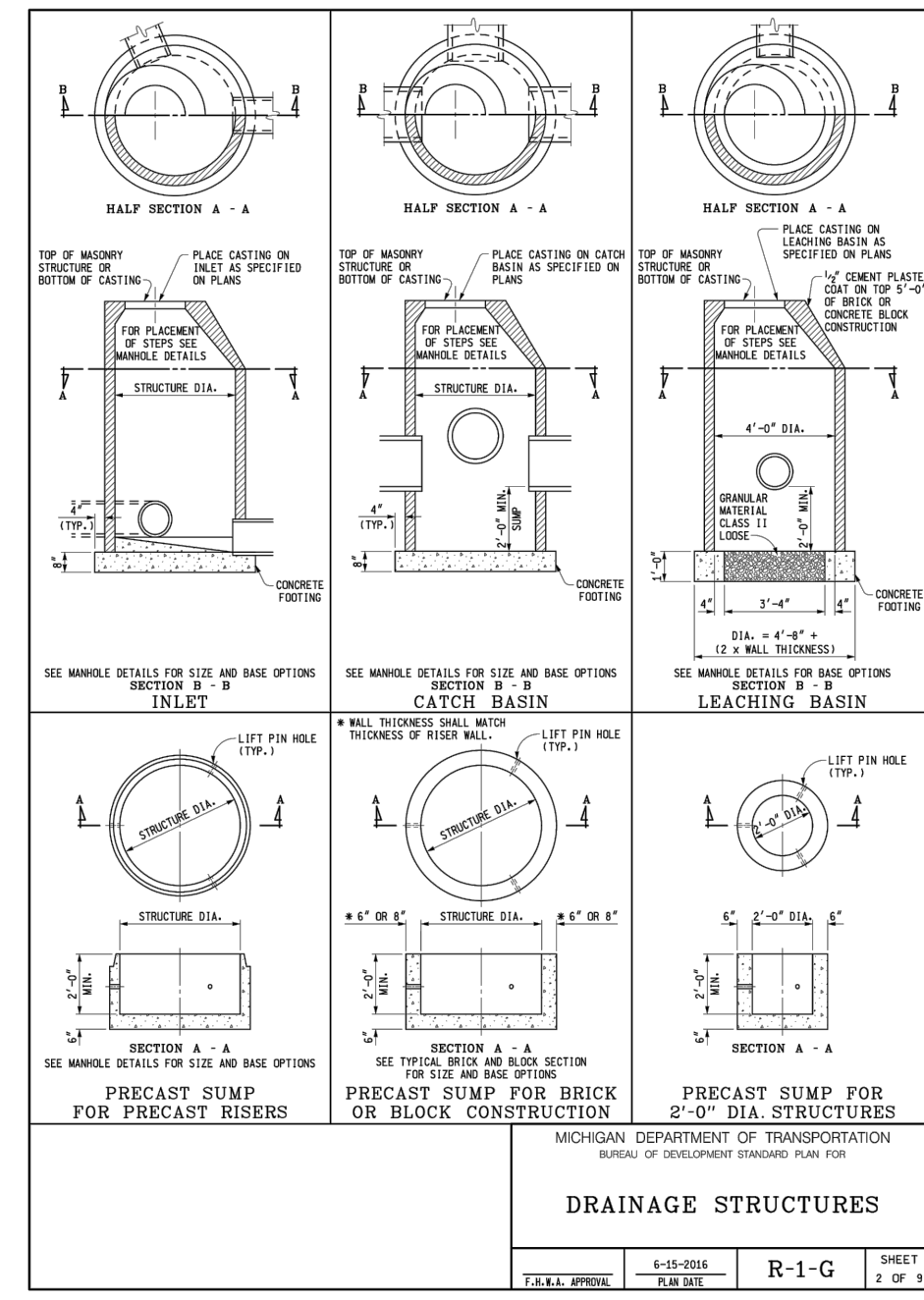
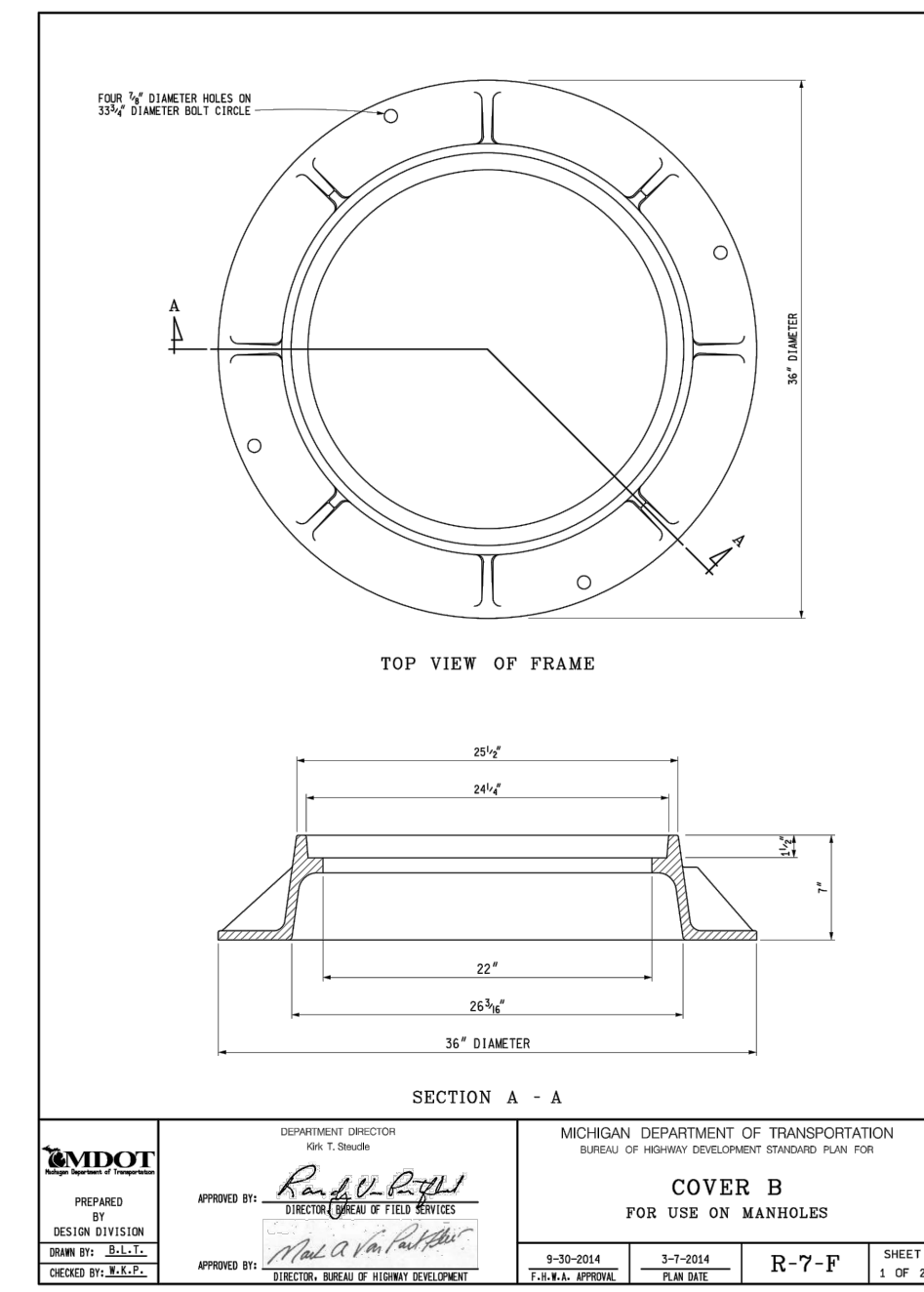
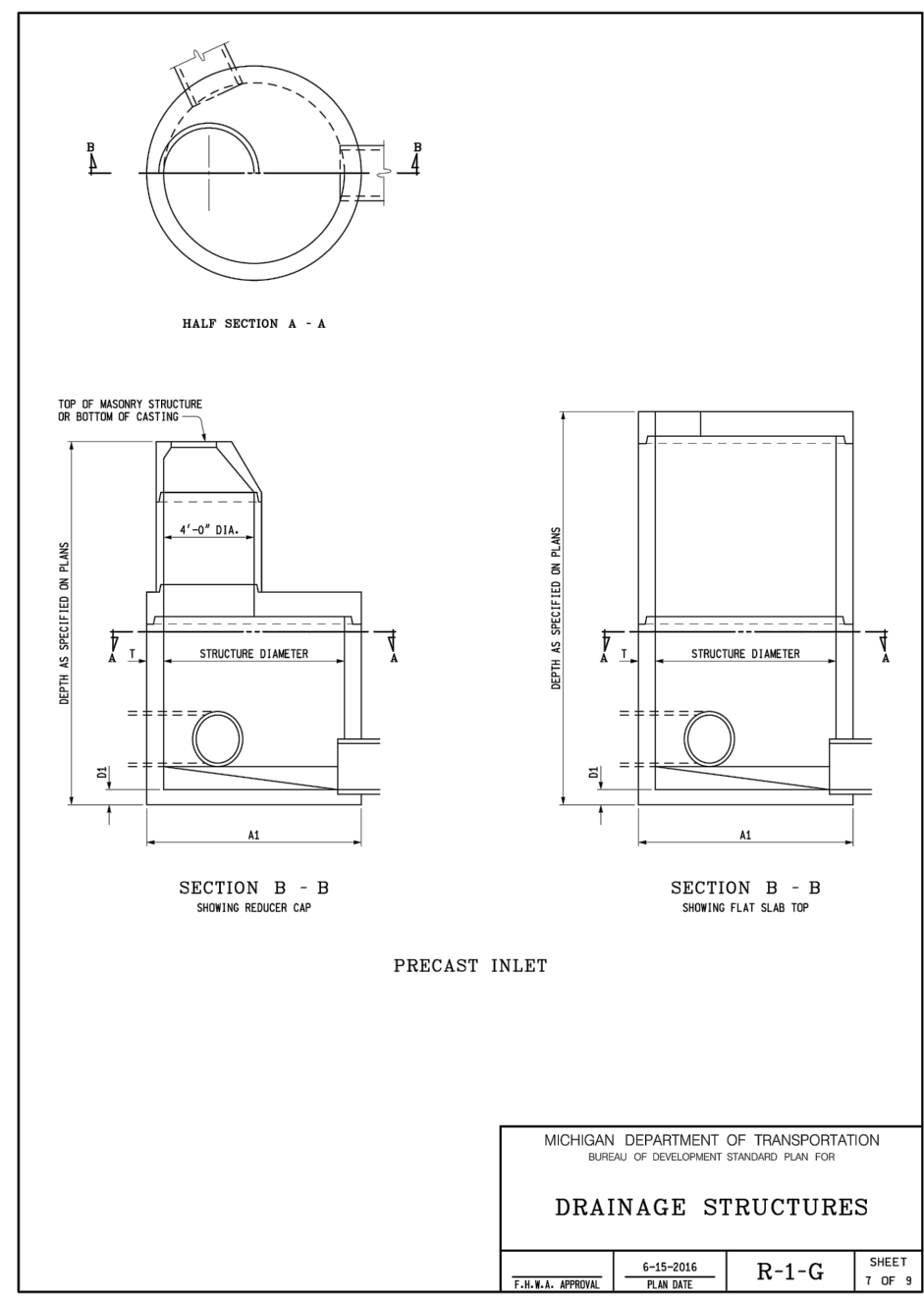
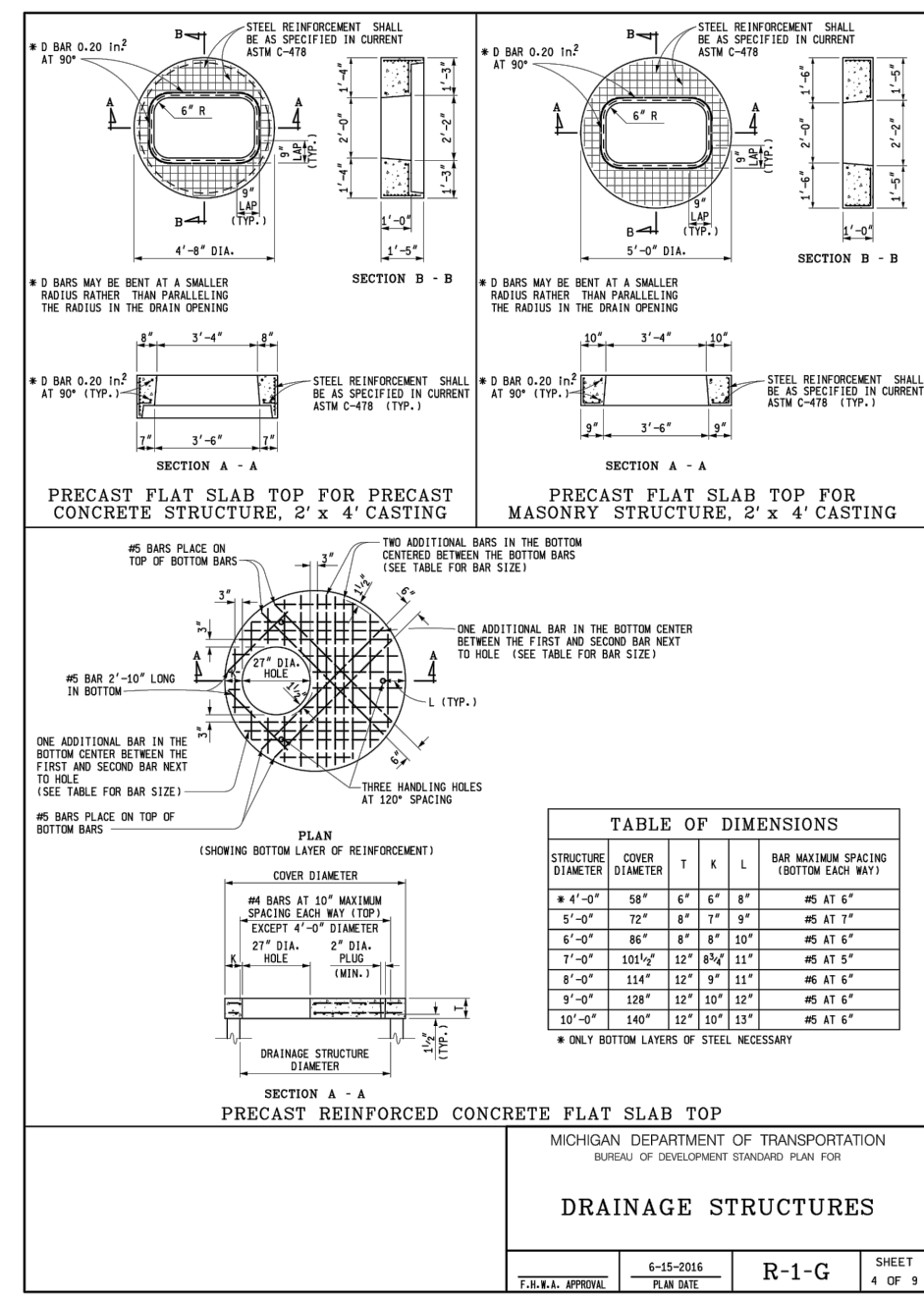
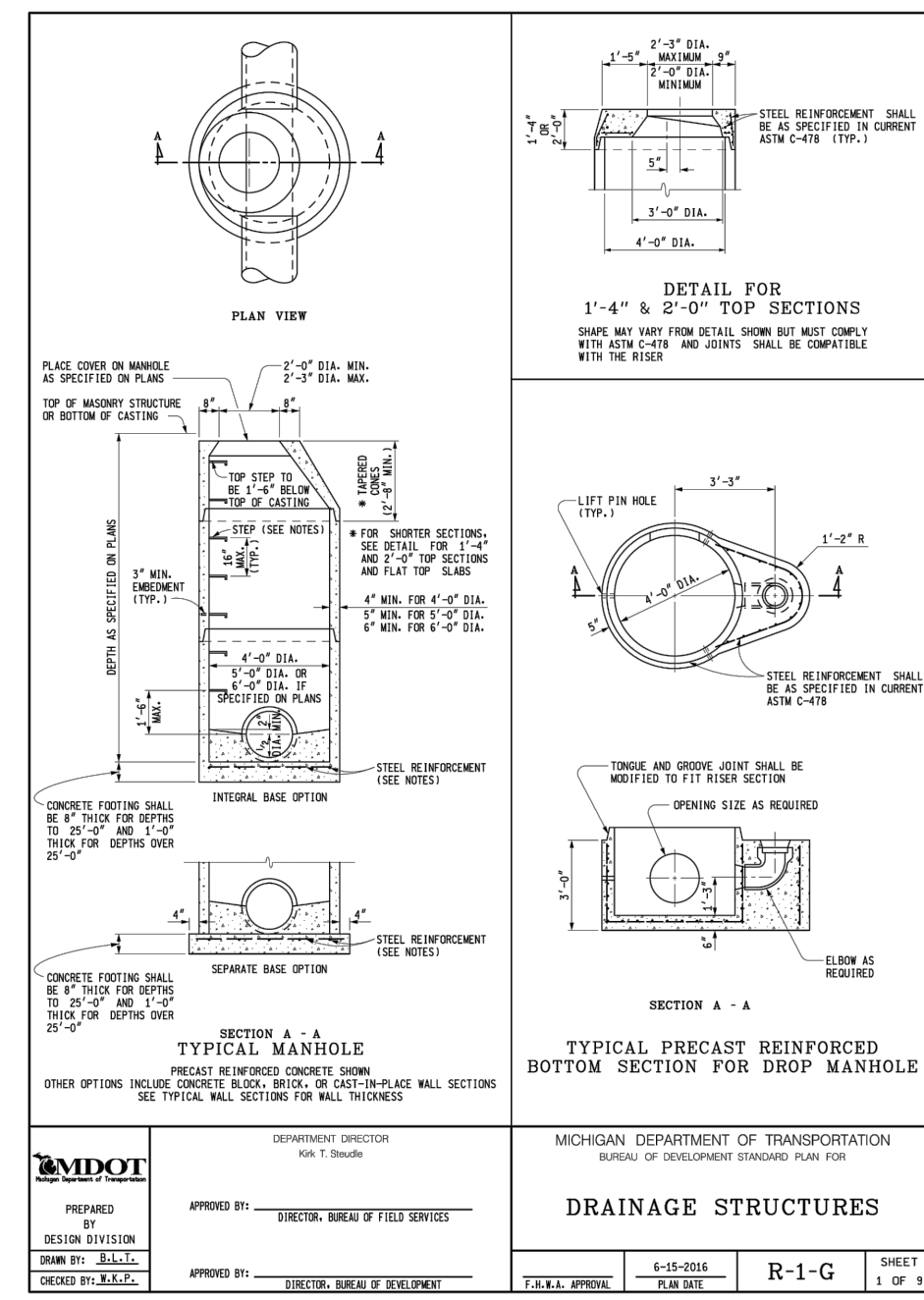
REVISION	DATE	DRAWN	DESCRIPTION

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 317.676.9200
F: 317.676.9396
<http://www.wolven.com>

**ISABELLA COUNTY ROAD COMMISSION
CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN**

LANDSCAPE PLAN

PROJECT	APPROVED	JCW
	CHECKED	JCW
	DRAWN	DPF
JOB NO.	18-0014	
DATE	12/9/2019	
SCALE	1" = 30'	
SHEET NO.	18	



1

DETAIL R-1-G
NOT TO SCALE

2

DETAIL R-7-F
NOT TO SCALE

REVISION DATE DESCRIPTION

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 317 676 9200
Fax: 317 676 9396
http://www.woleng.com

ISABELLA COUNTY ROAD COMMISSION
CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN

PROJECT: ISABELLA COUNTY ROAD COMMISSION CITY OF M.T. PLEASANT ISABELLA COUNTY, MICHIGAN MDOT STANDARD PLANS & SPECIAL DETAILS

SHEET TITLE: 19

APPROVED: JCW

CHECKED: JCW

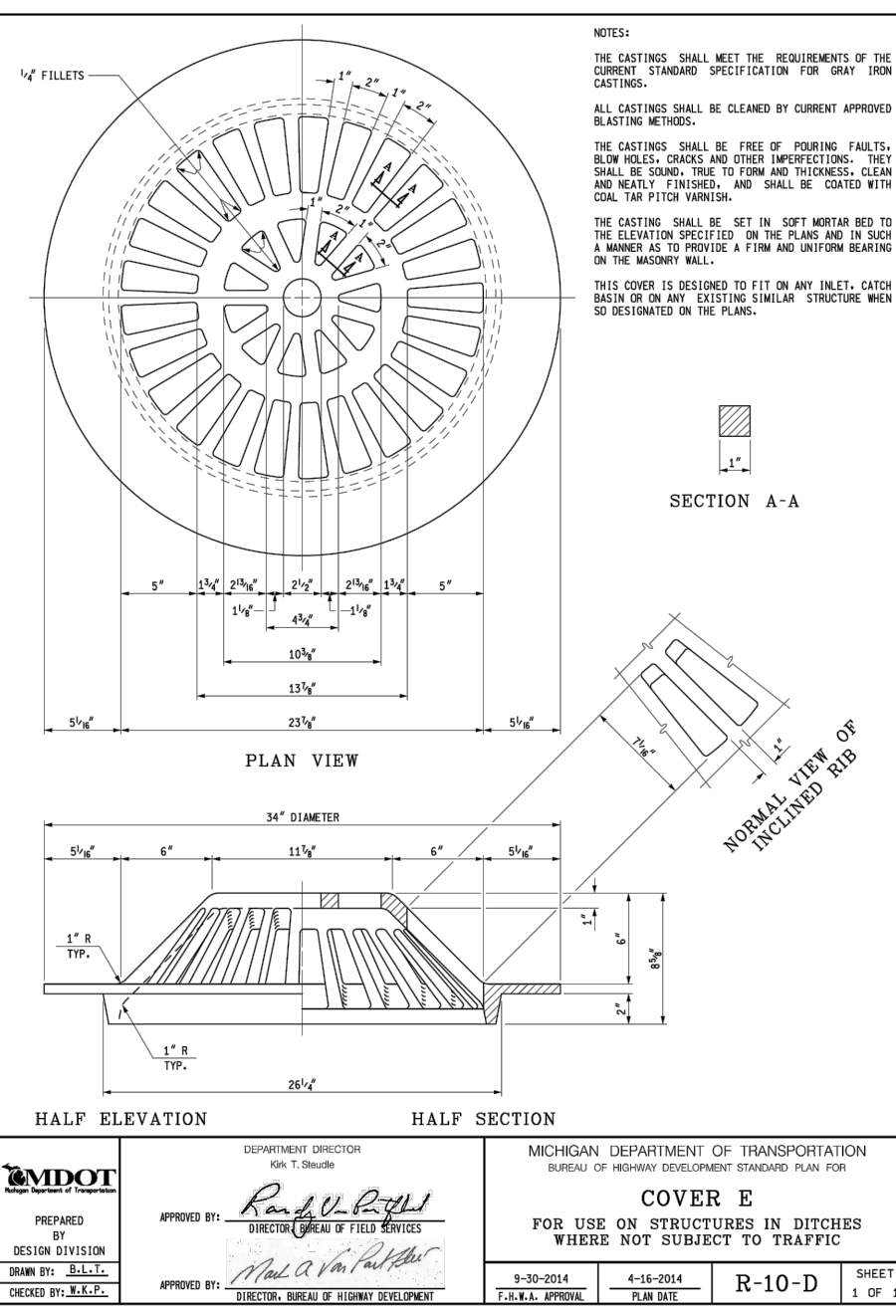
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JOB NO.: 18-0014

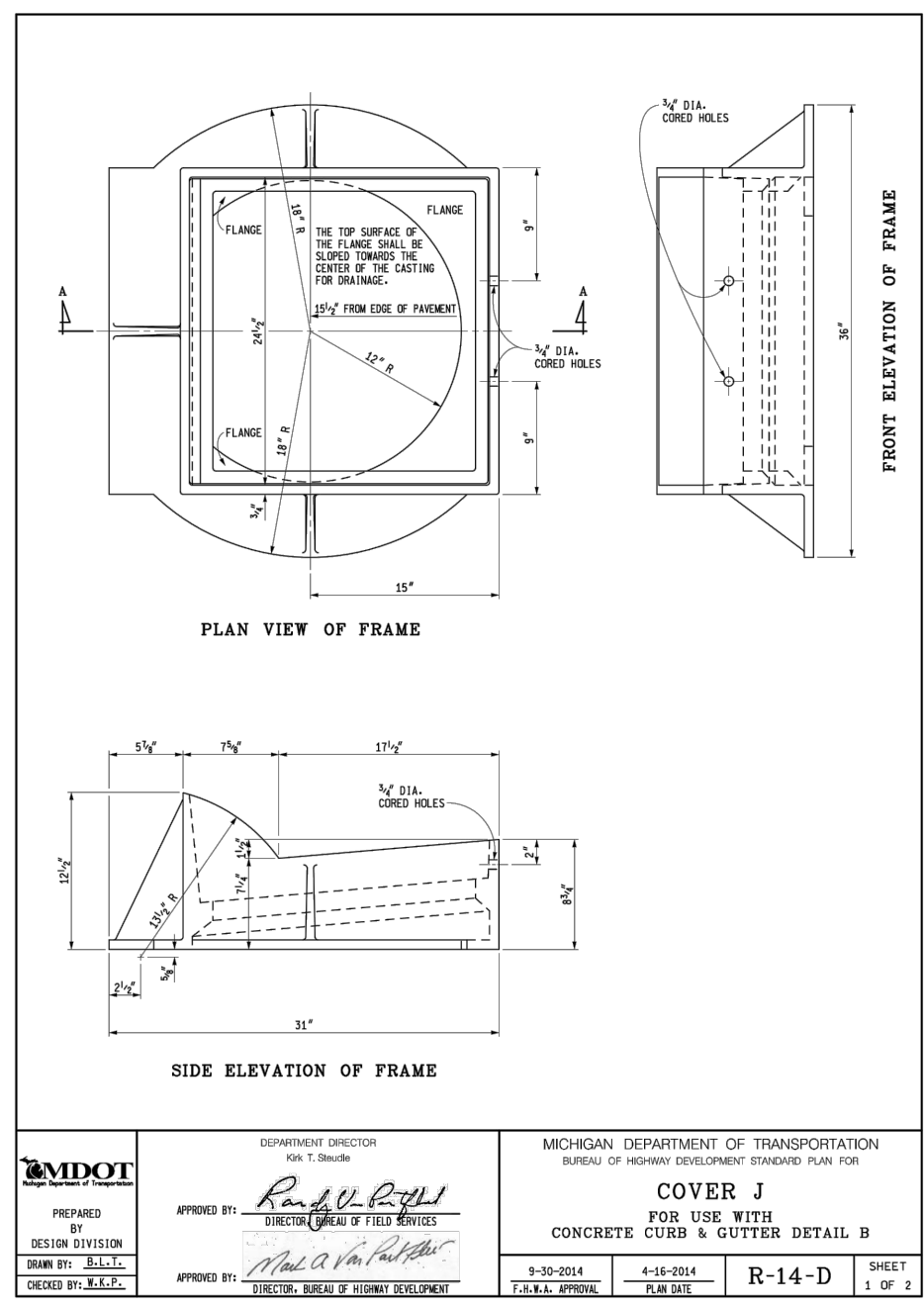
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SCALE: NO SCALE

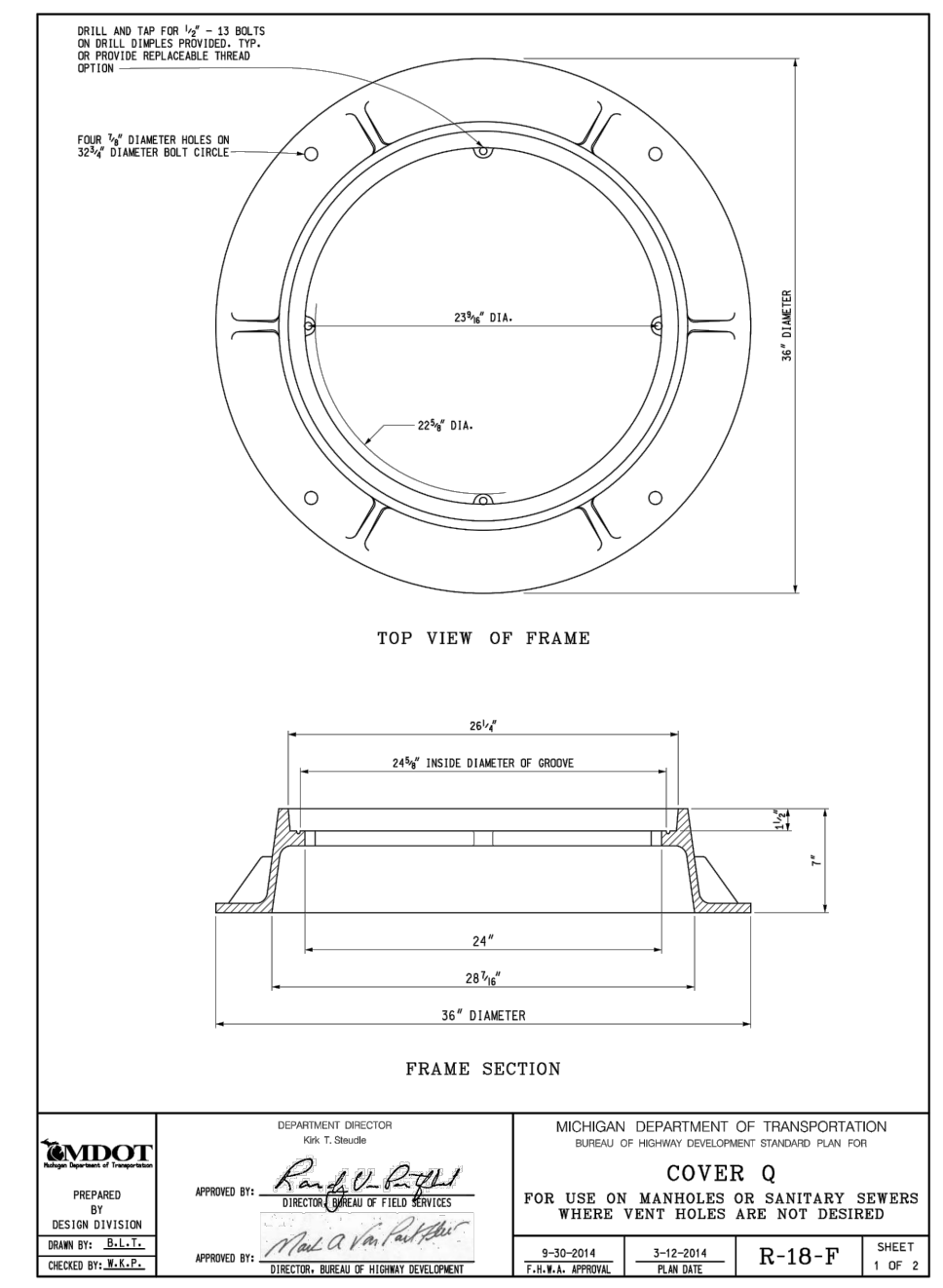
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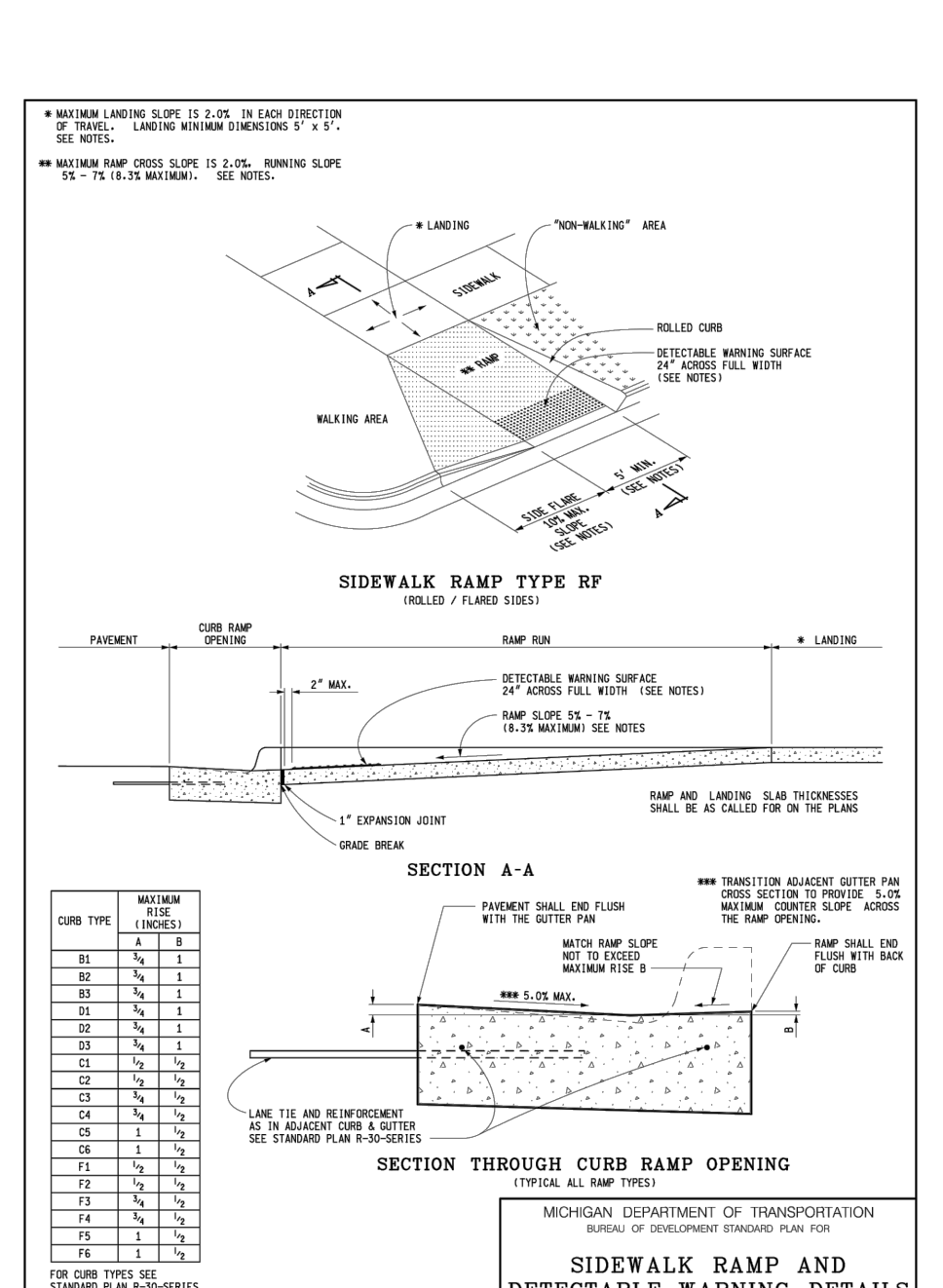
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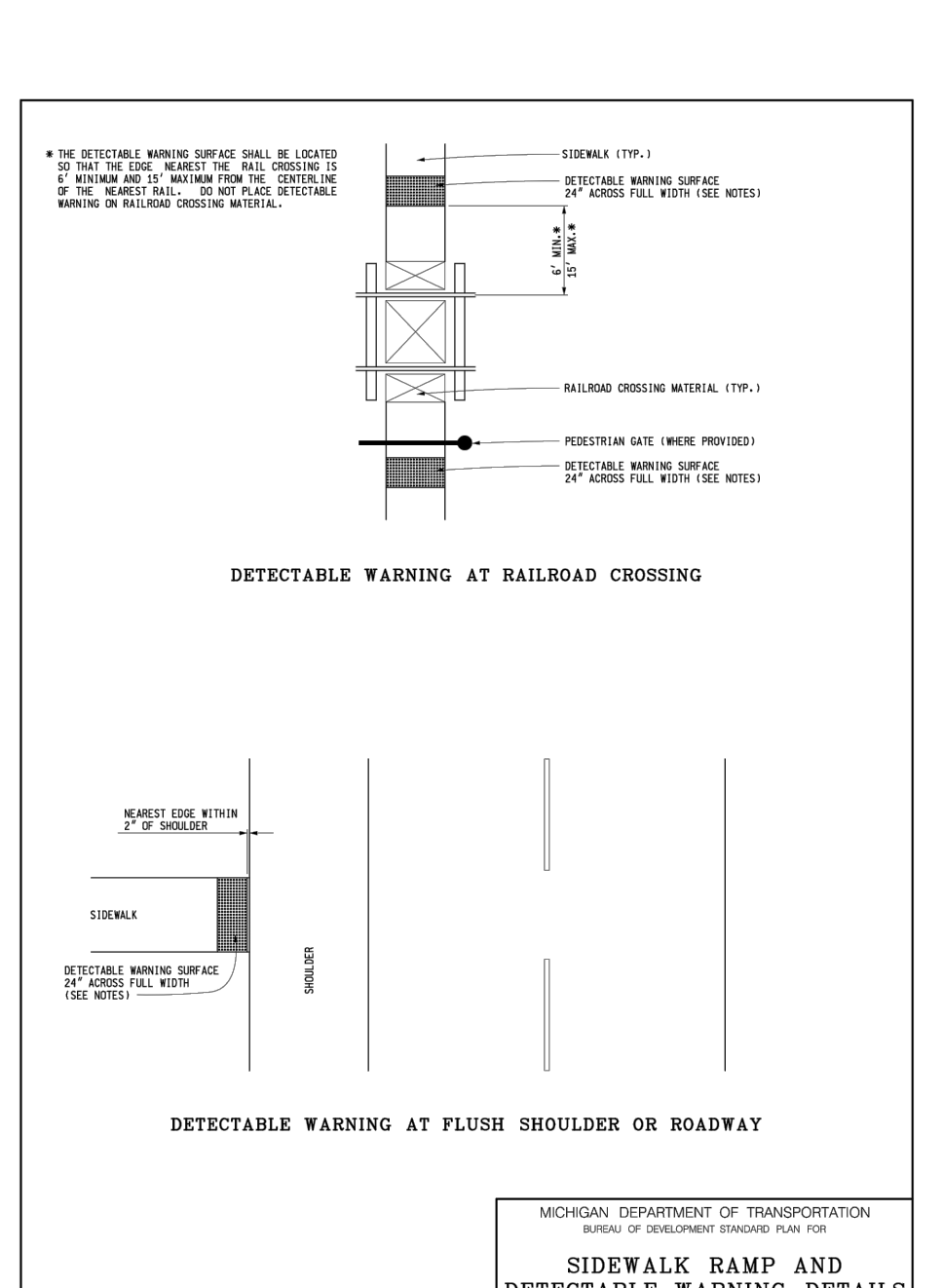
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MDOT PREPARED BY: [Signature] DESIGN DIVISION: [Signature] CHECKED BY: [Signature]	MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARDS PLAN FOR COVER G FOR USE ON MANHOLES OR SANITARY SEWERS WHERE VENT HOLES ARE NOT DESIRED R-18-F SHEET 1 OF 1
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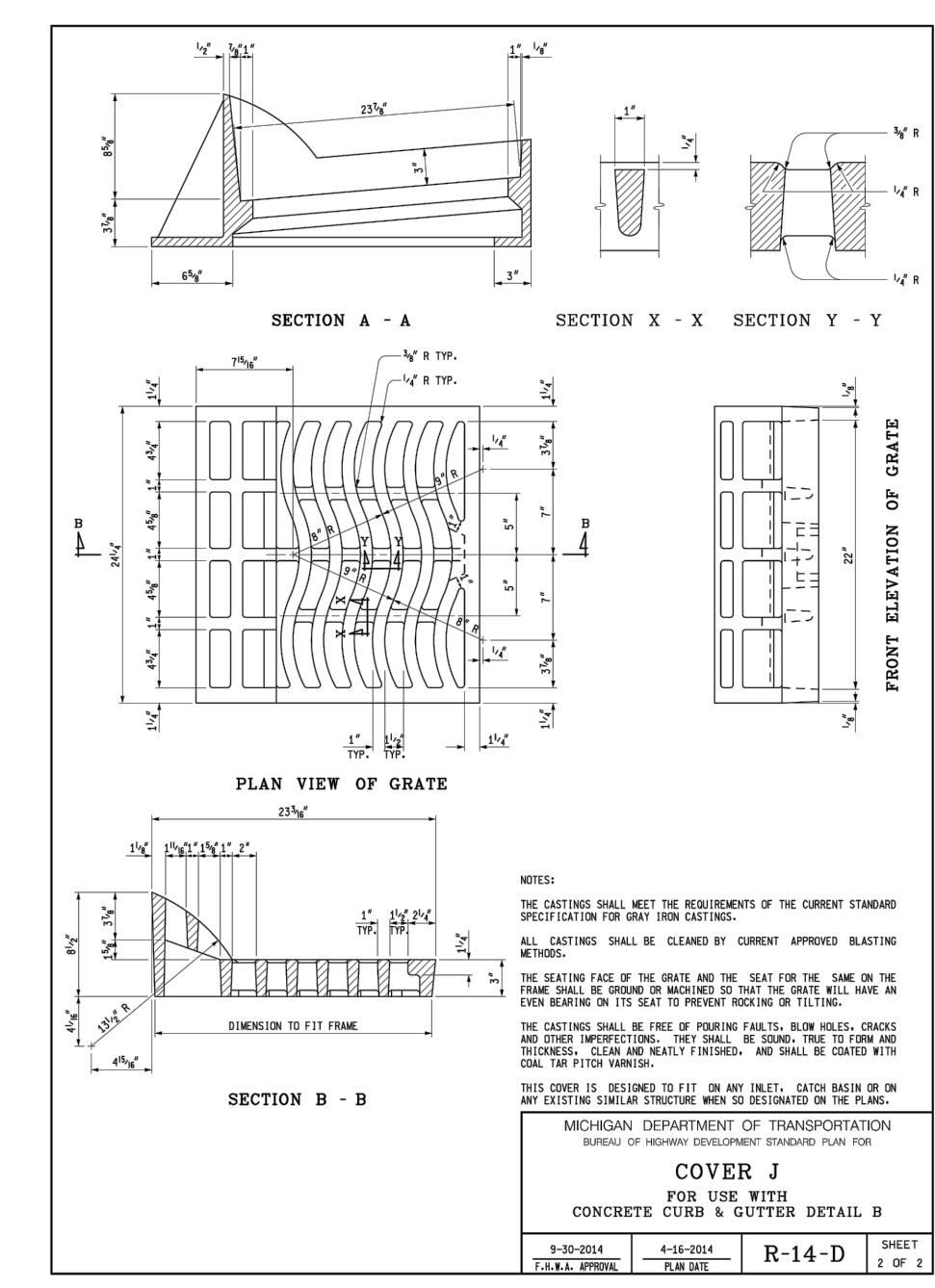


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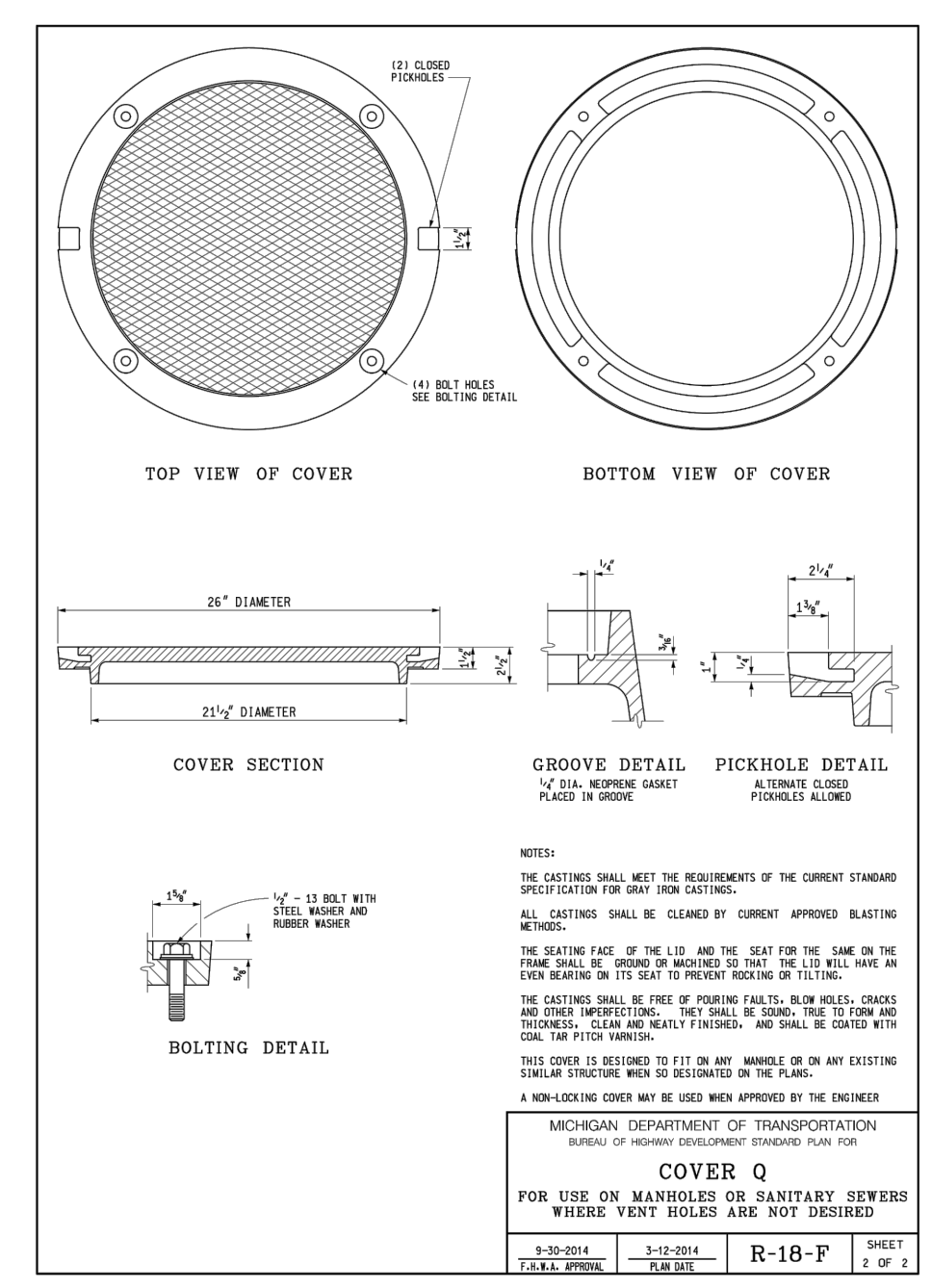


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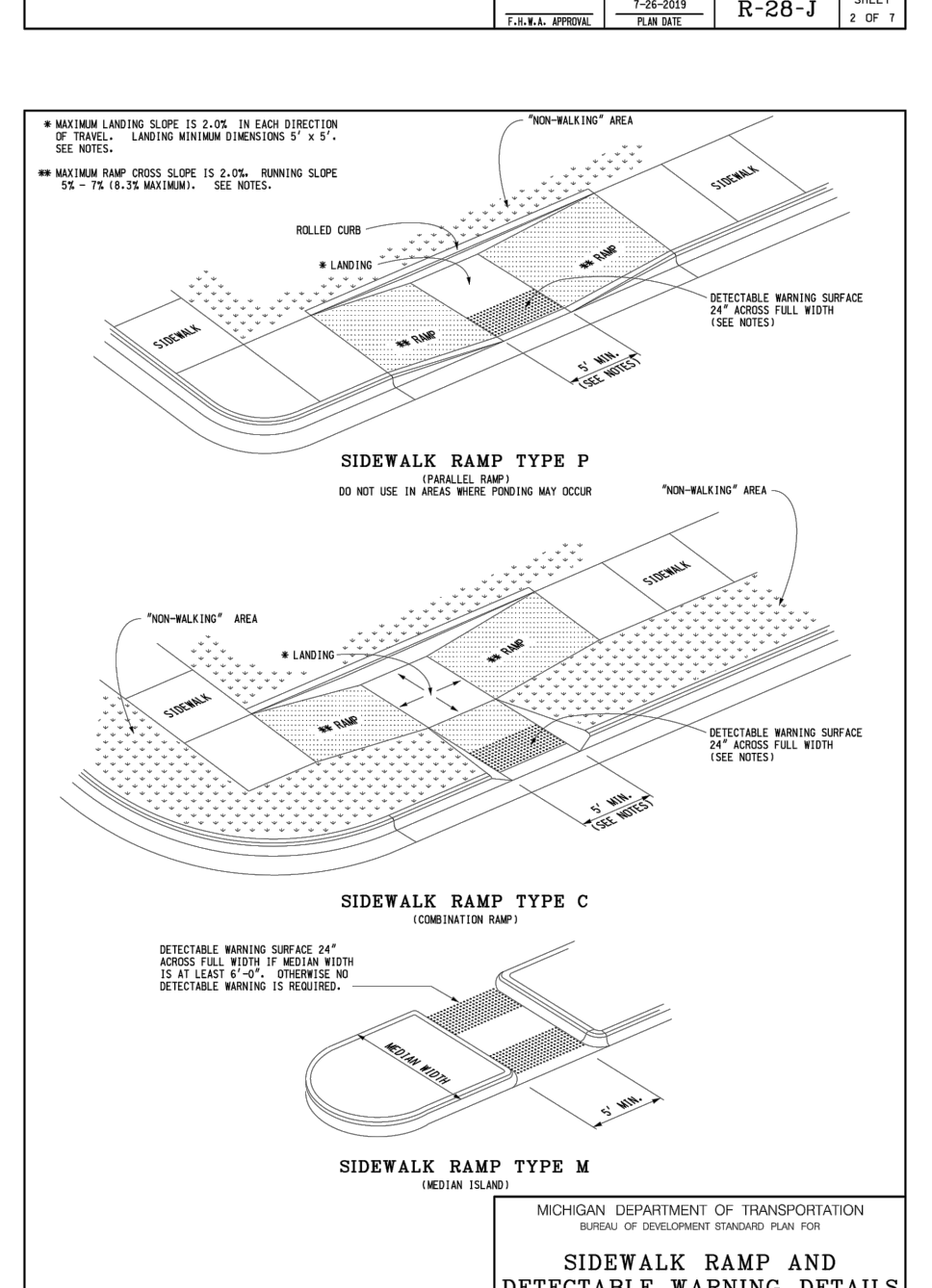
3 **DETAIL R-10-D**
NOT TO SCALE



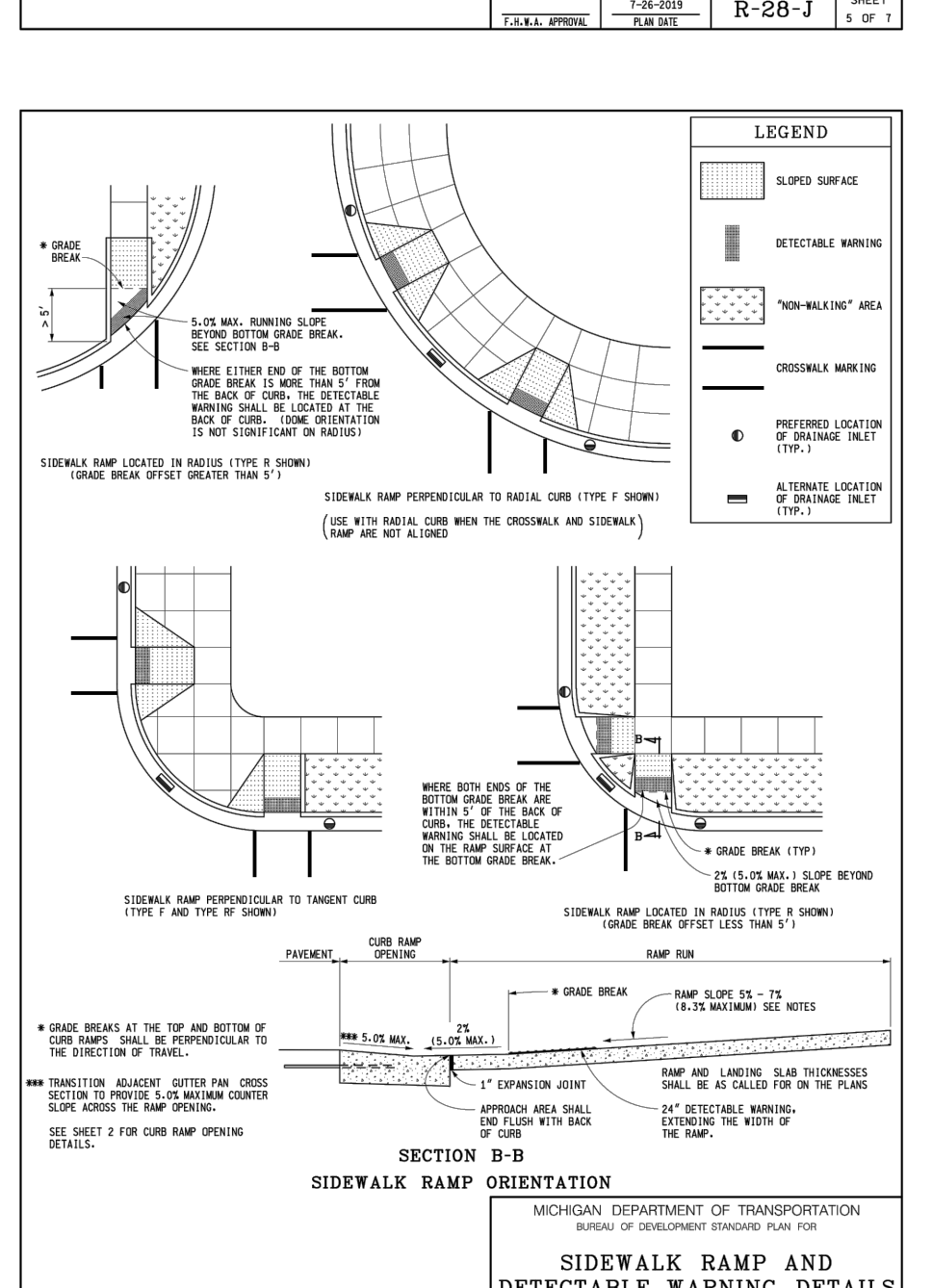
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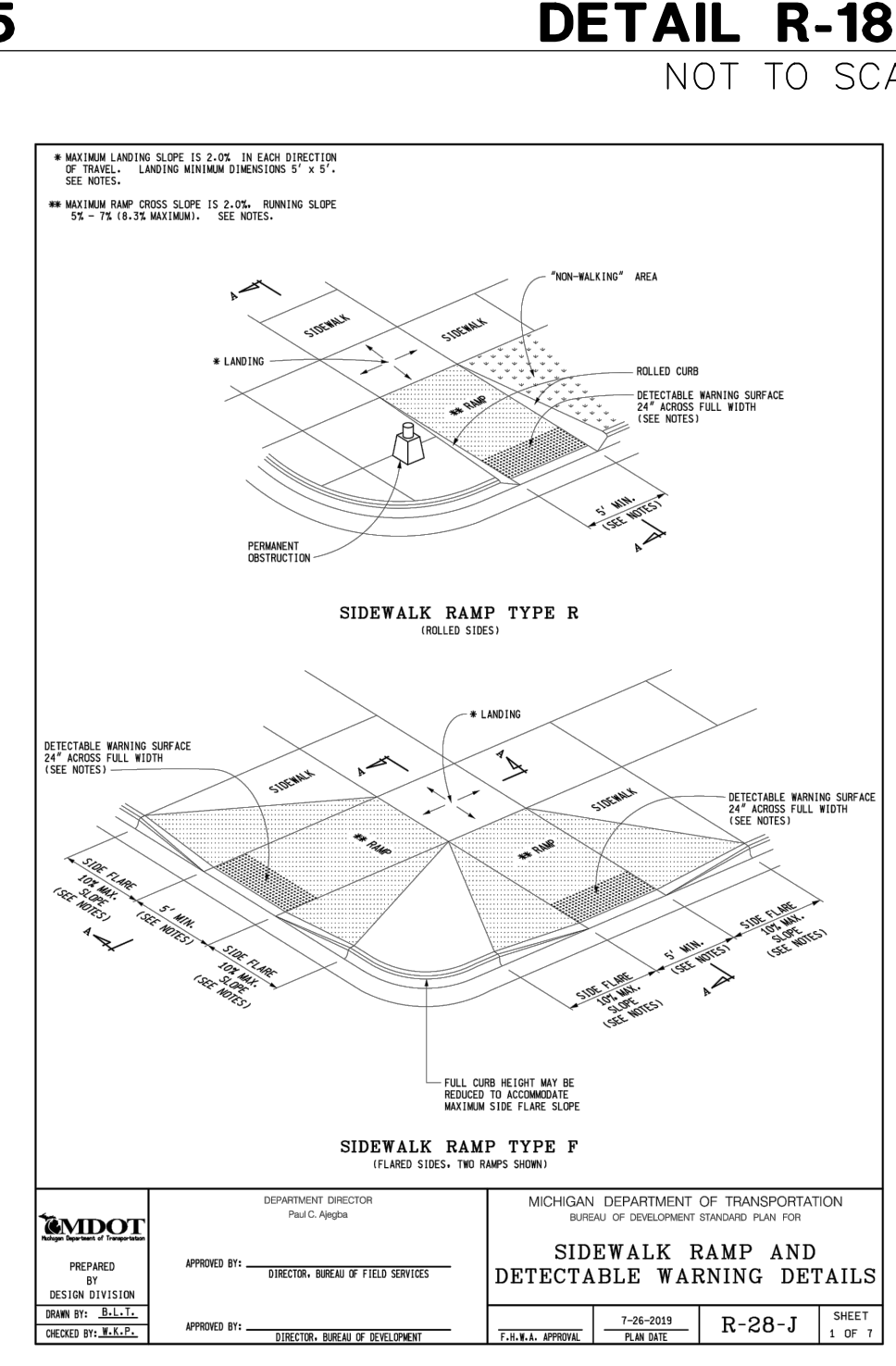
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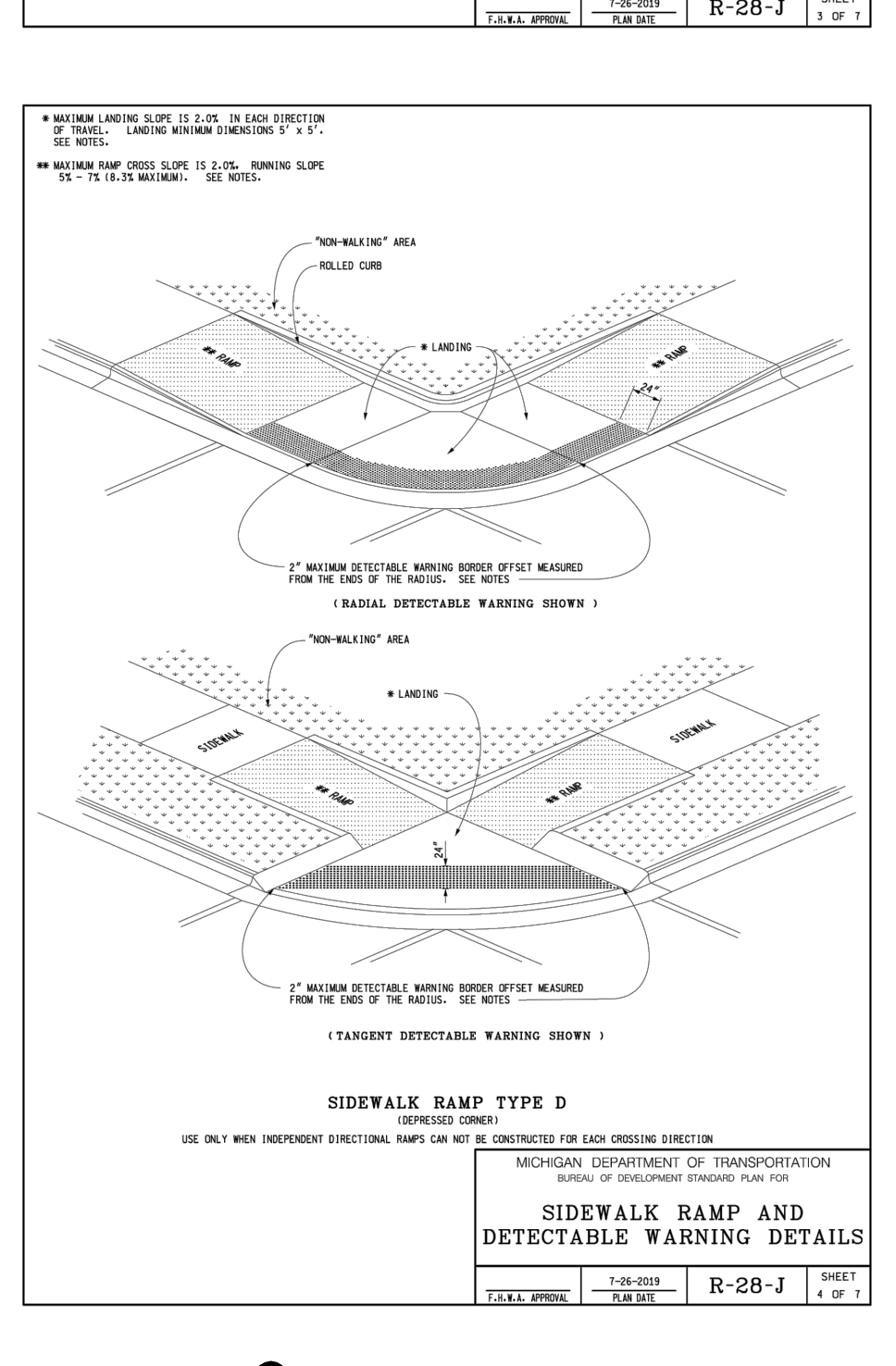
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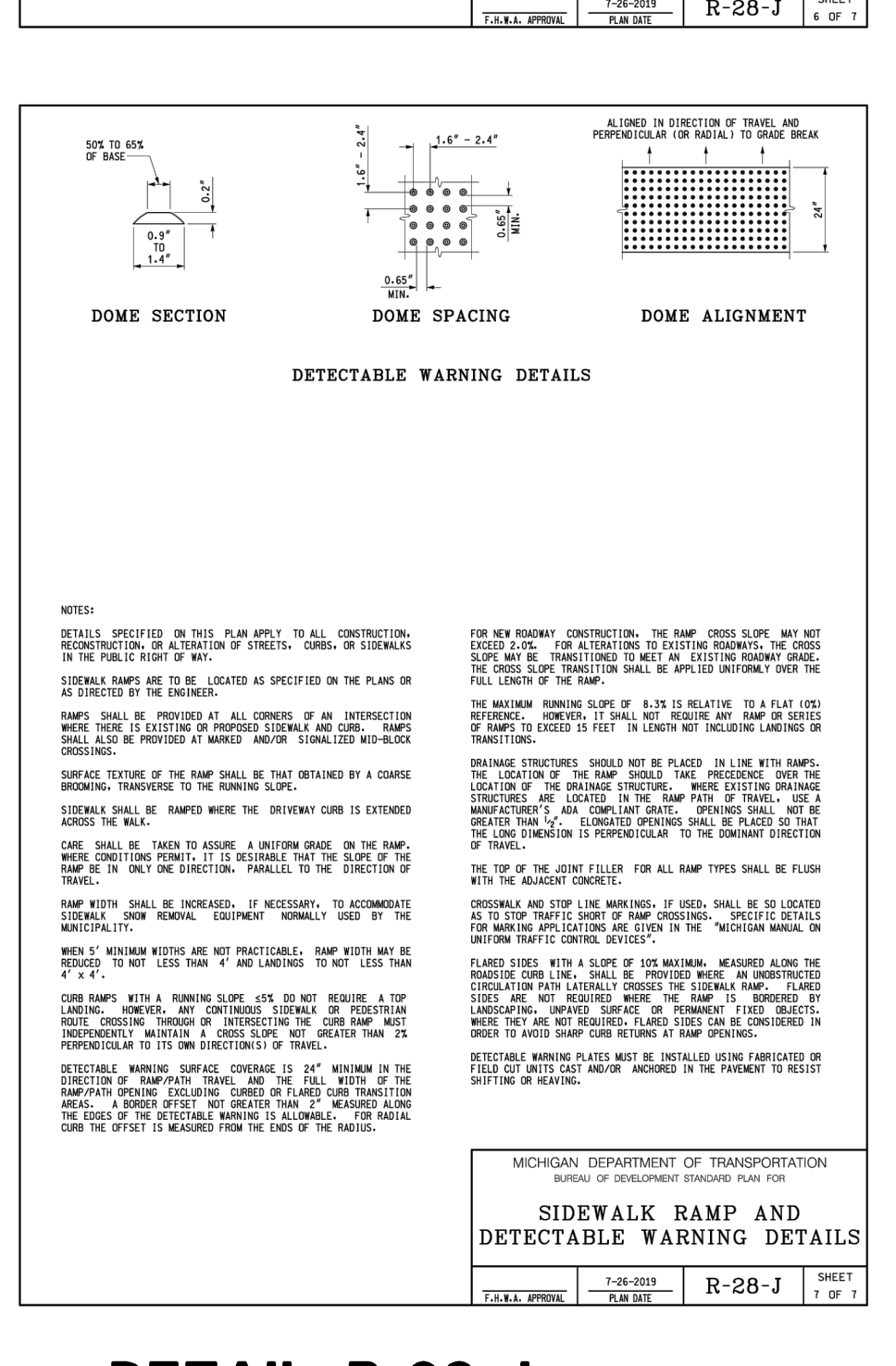
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MDOT PREPARED BY: [Signature] DESIGN DIVISION: [Signature] CHECKED BY: [Signature]	MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARDS PLAN FOR COVER K FOR USE ON MANHOLES OR SANITARY SEWERS WHERE VENT HOLES ARE NOT DESIRED R-28-J SHEET 4 OF 4
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MDOT PREPARED BY: [Signature] DESIGN DIVISION: [Signature] CHECKED BY: [Signature]	MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARDS PLAN FOR COVER L FOR USE ON MANHOLES OR SANITARY SEWERS WHERE VENT HOLES ARE NOT DESIRED R-28-J SHEET 5 OF 5
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MDOT PREPARED BY: [Signature] DESIGN DIVISION: [Signature] CHECKED BY: [Signature]	MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARDS PLAN FOR COVER L FOR USE ON MANHOLES OR SANITARY SEWERS WHERE VENT HOLES ARE NOT DESIRED R-28-J SHEET 6 OF 6
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4 **DETAIL R-14-D**
NOT TO SCALE

5 **DETAIL R-18-F**
NOT TO SCALE

6 **DETAIL R-28-J**
NOT TO SCALE

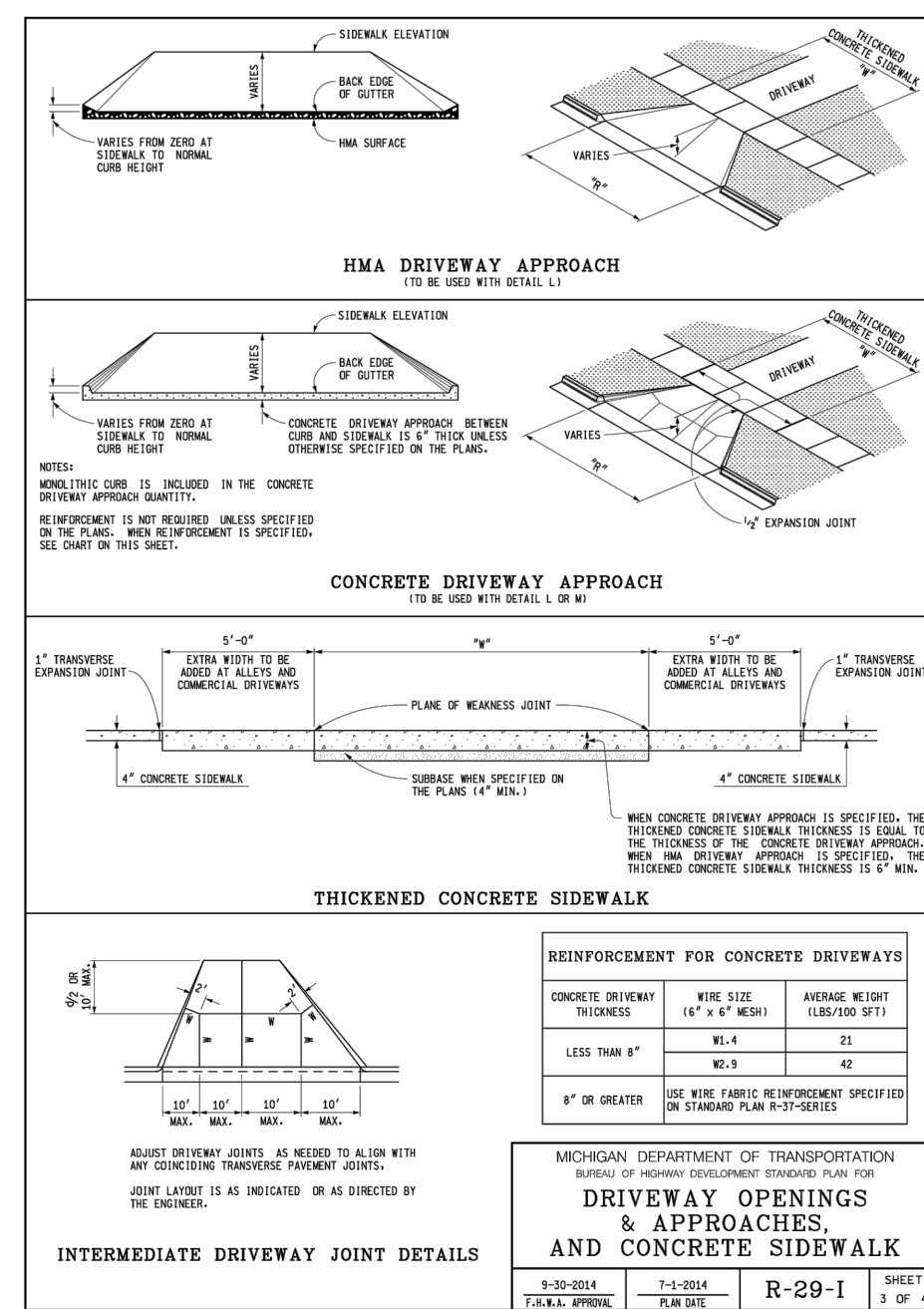
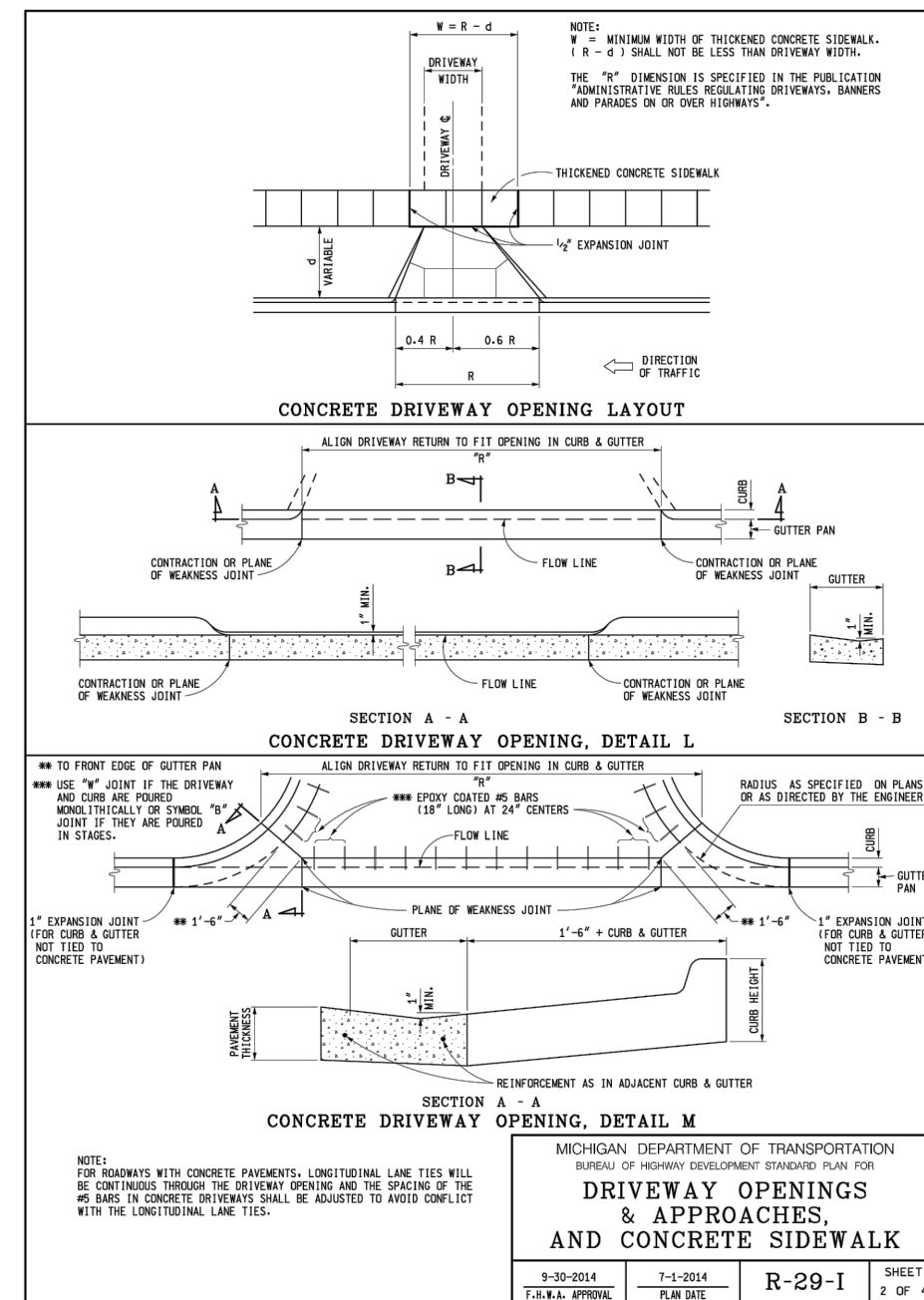
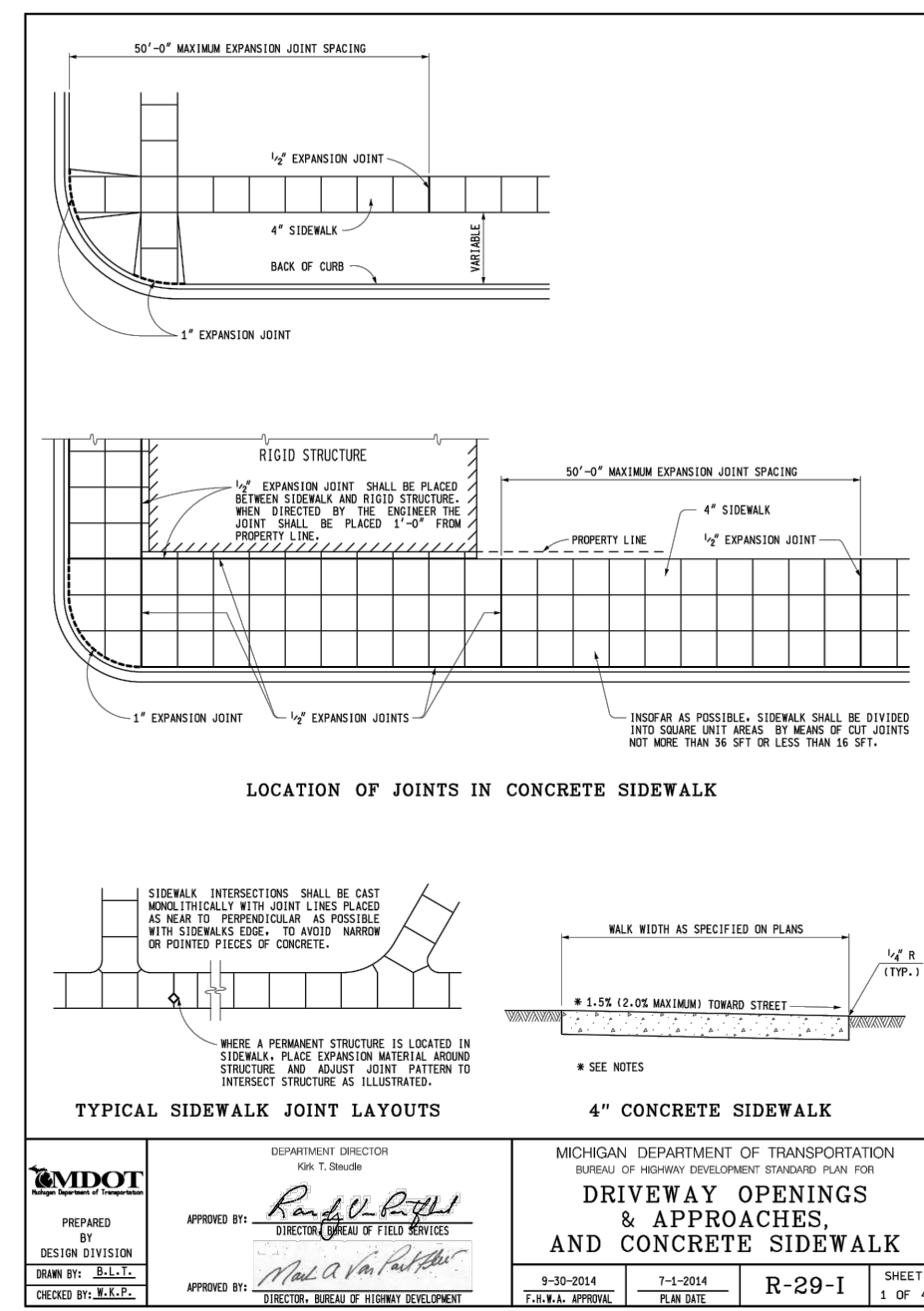
6 **DETAIL R-28-J**
NOT TO SCALE

REVISION	DATE	DESCRIPTION

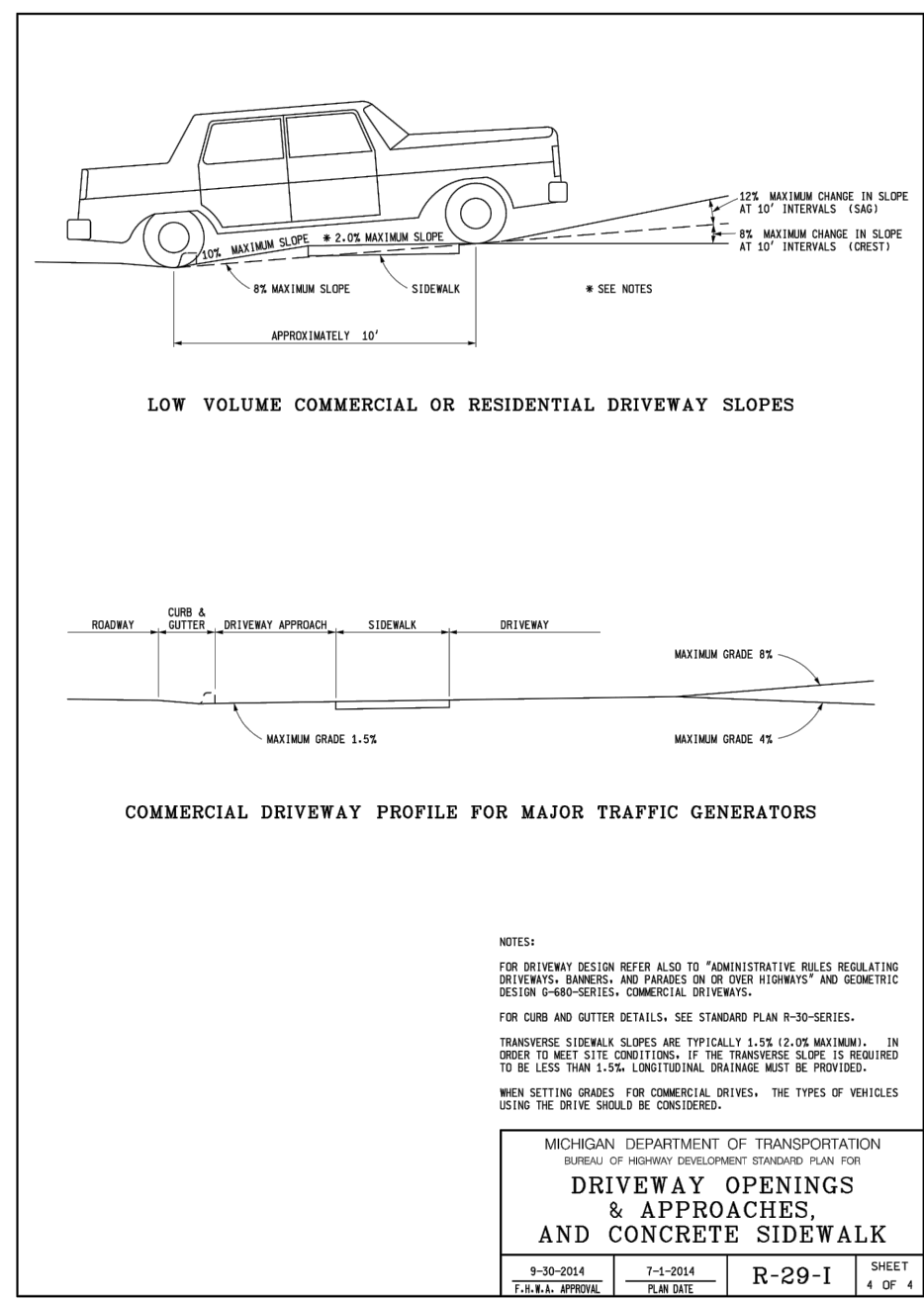
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<http://www.wolinc.com>

PROJECT: ISABELLA COUNTY ROAD COMMISSION CITY OF M.T. PLEASANT ISABELLA COUNTY, MICHIGAN	SHEET TITLE: MDOT STANDARD PLANS & SPECIAL DETAILS
APPROVED: JCW	JOB NO.: 18-0014
CHECKED: JCW	DATE: 12/9/2019
DRAWN: RTW	SCALE: NO SCALE
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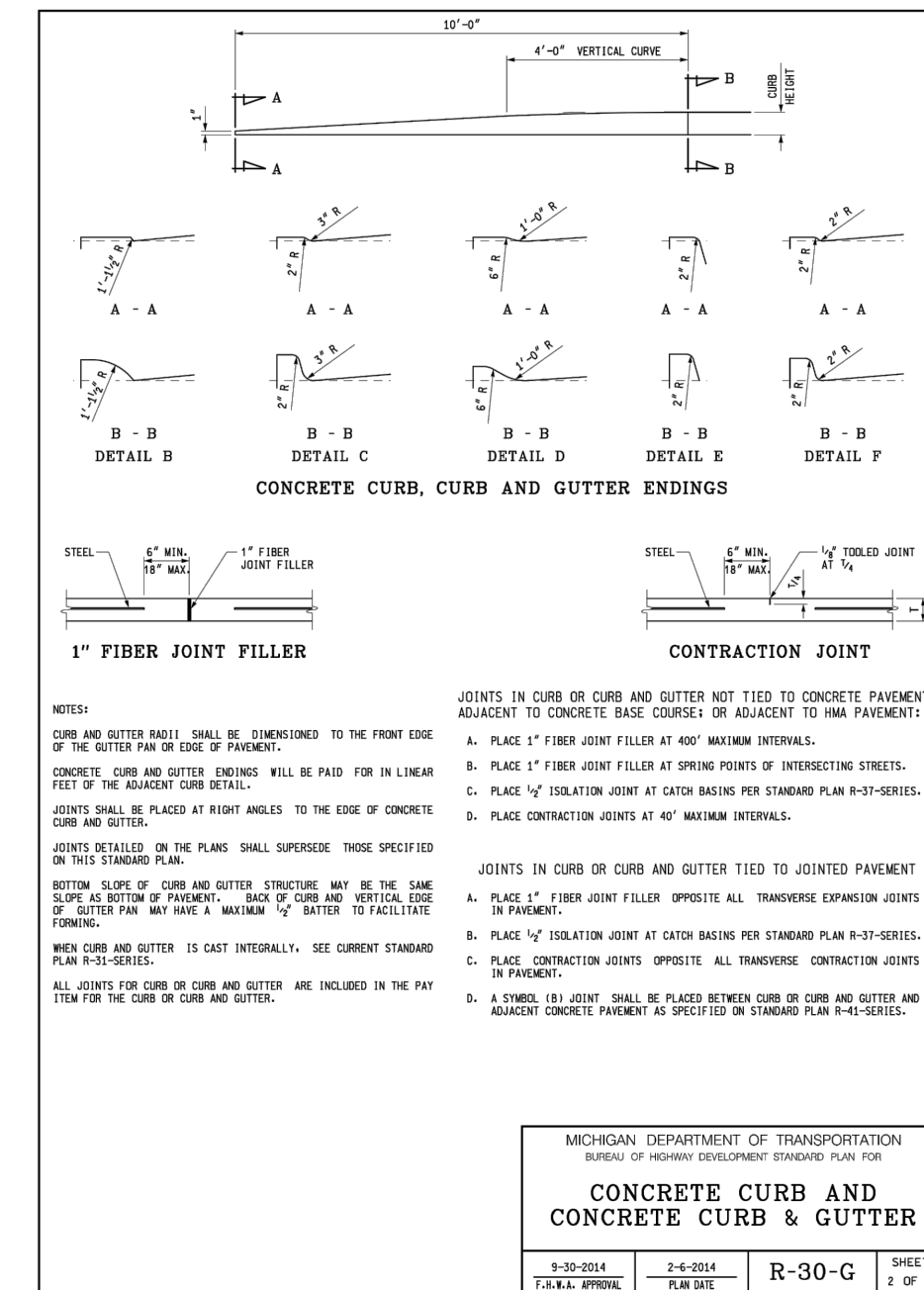
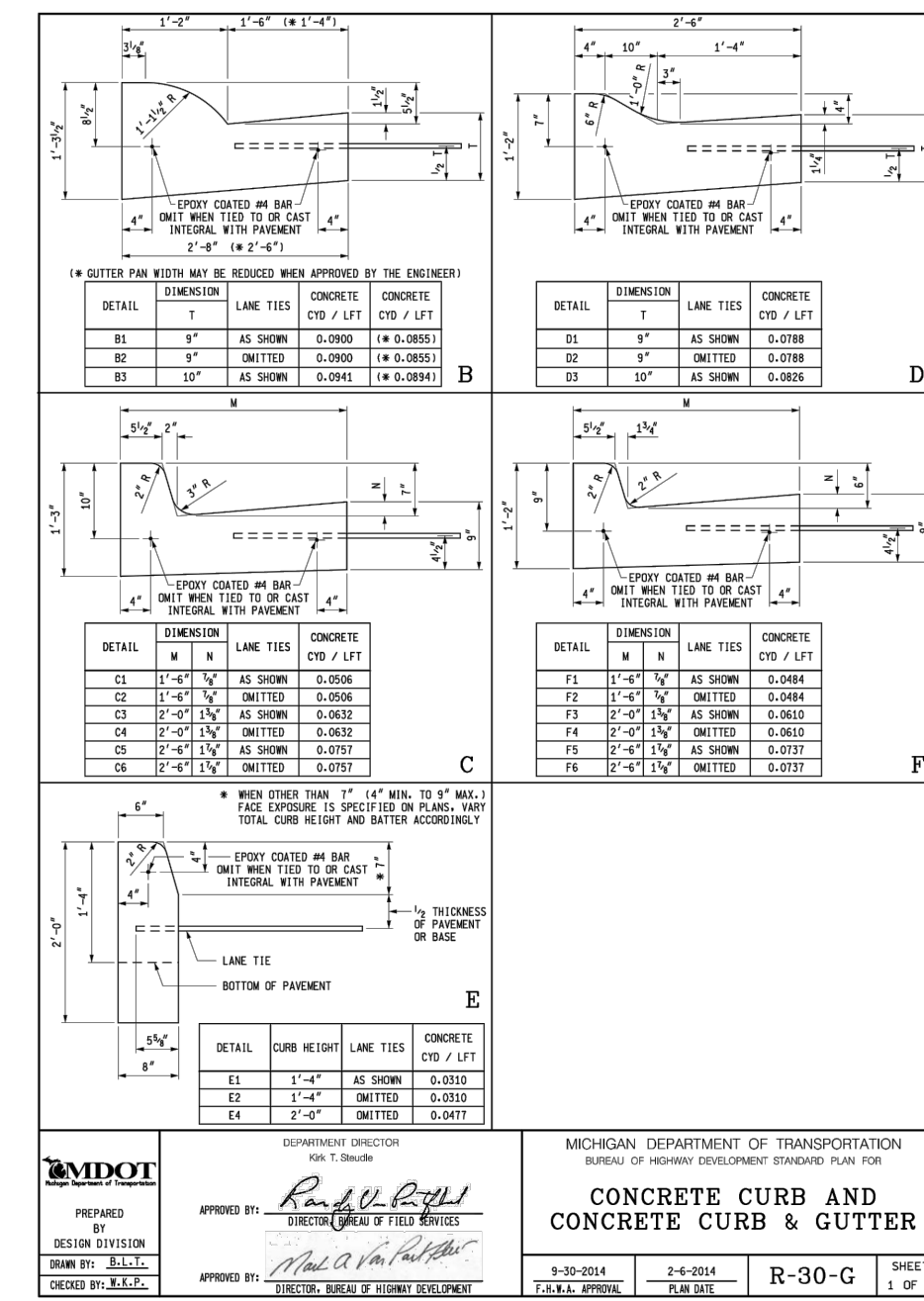
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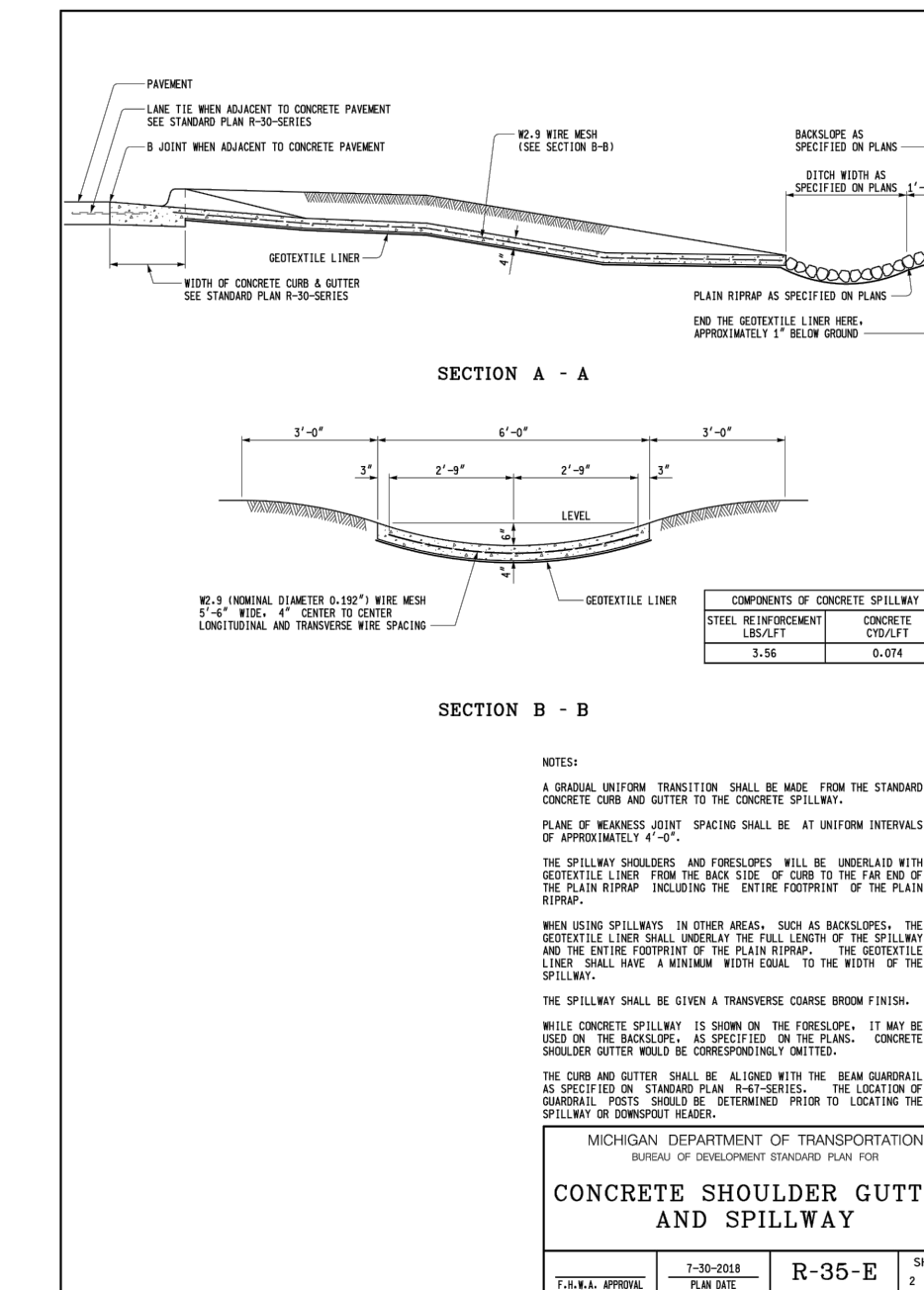
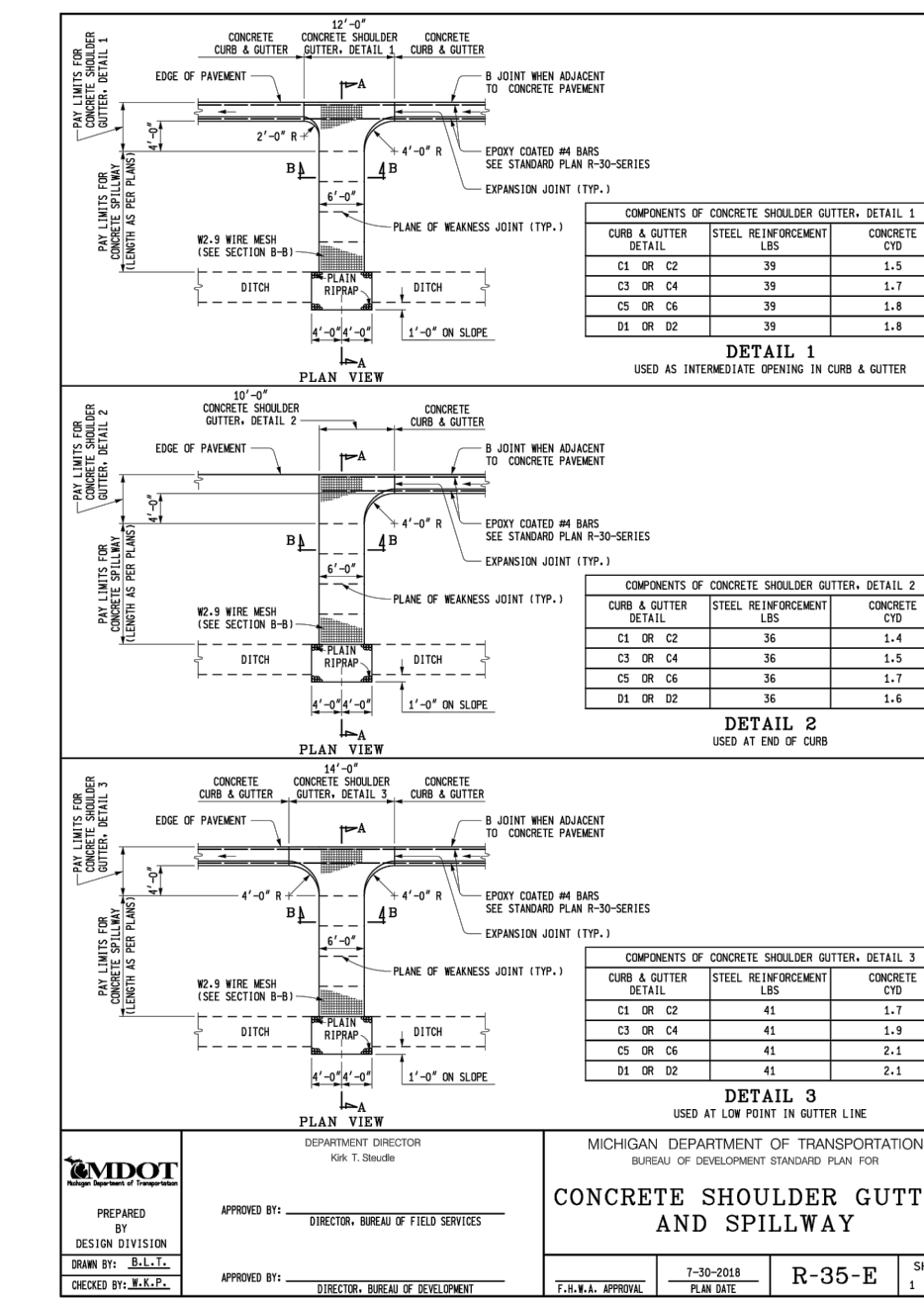
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8 **DETAIL R-30-G**
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9 **DETAIL R-35-E**
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9 **DETAIL R-35-E**
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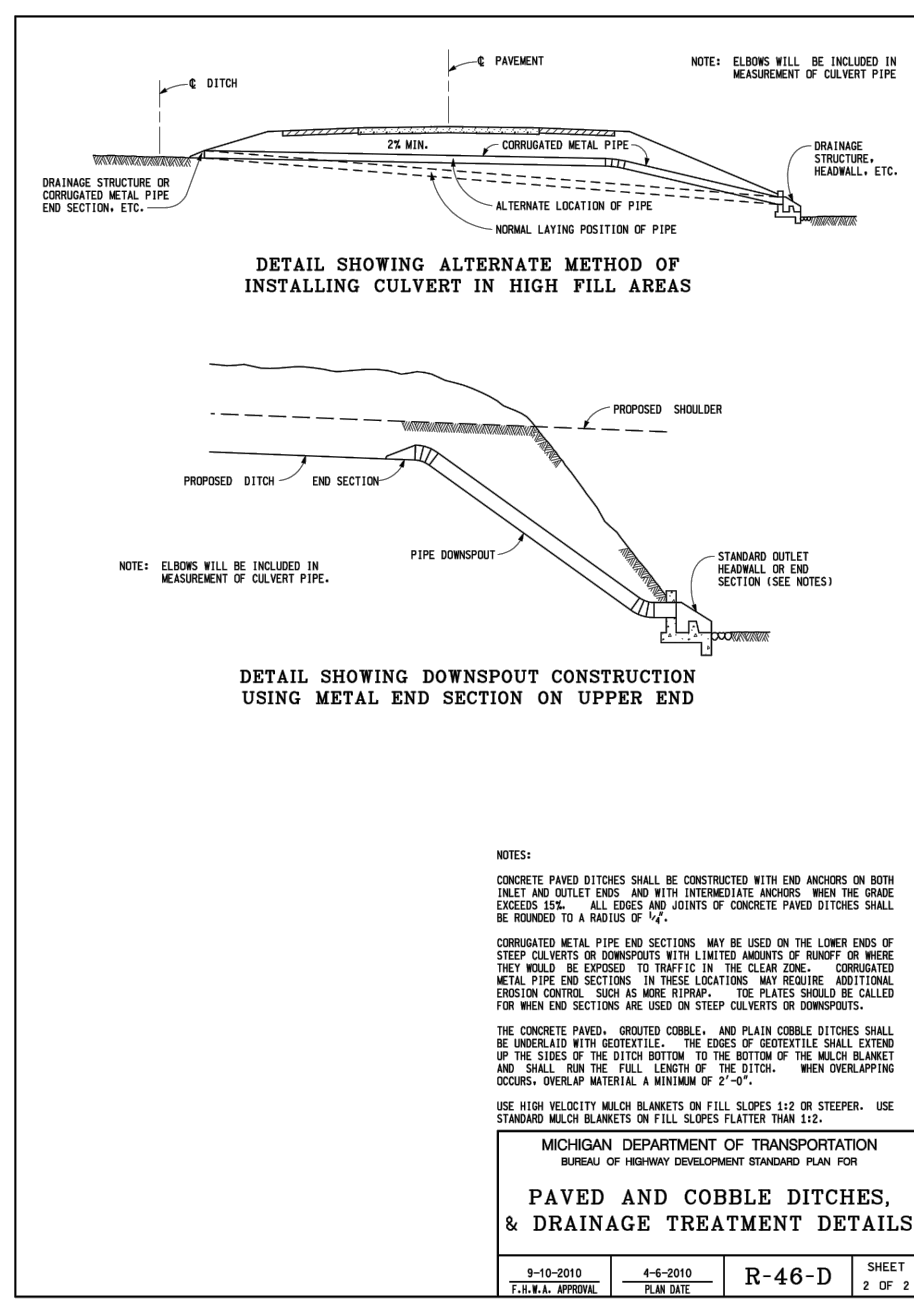
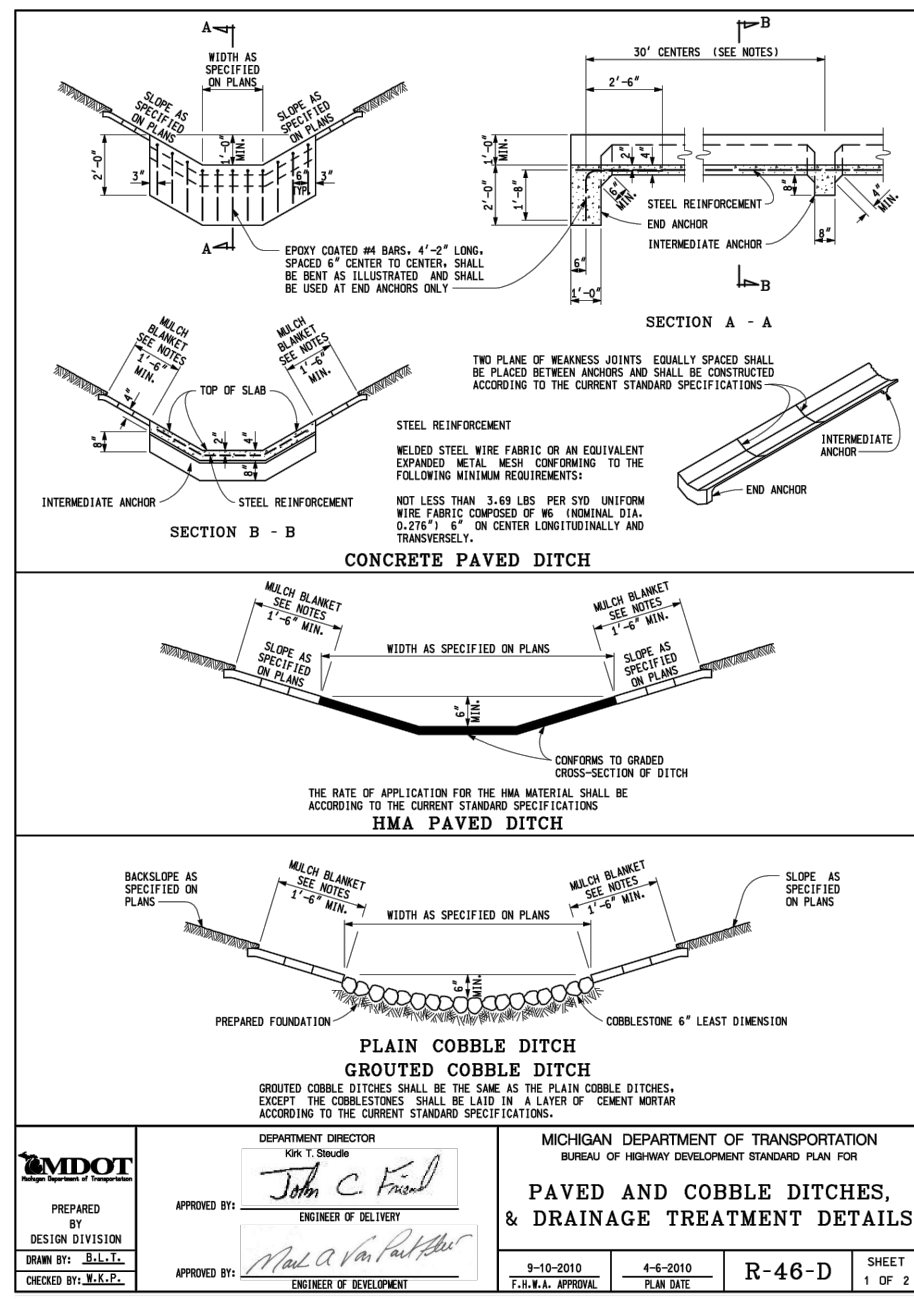
REVISION	DATE	DESCRIPTION

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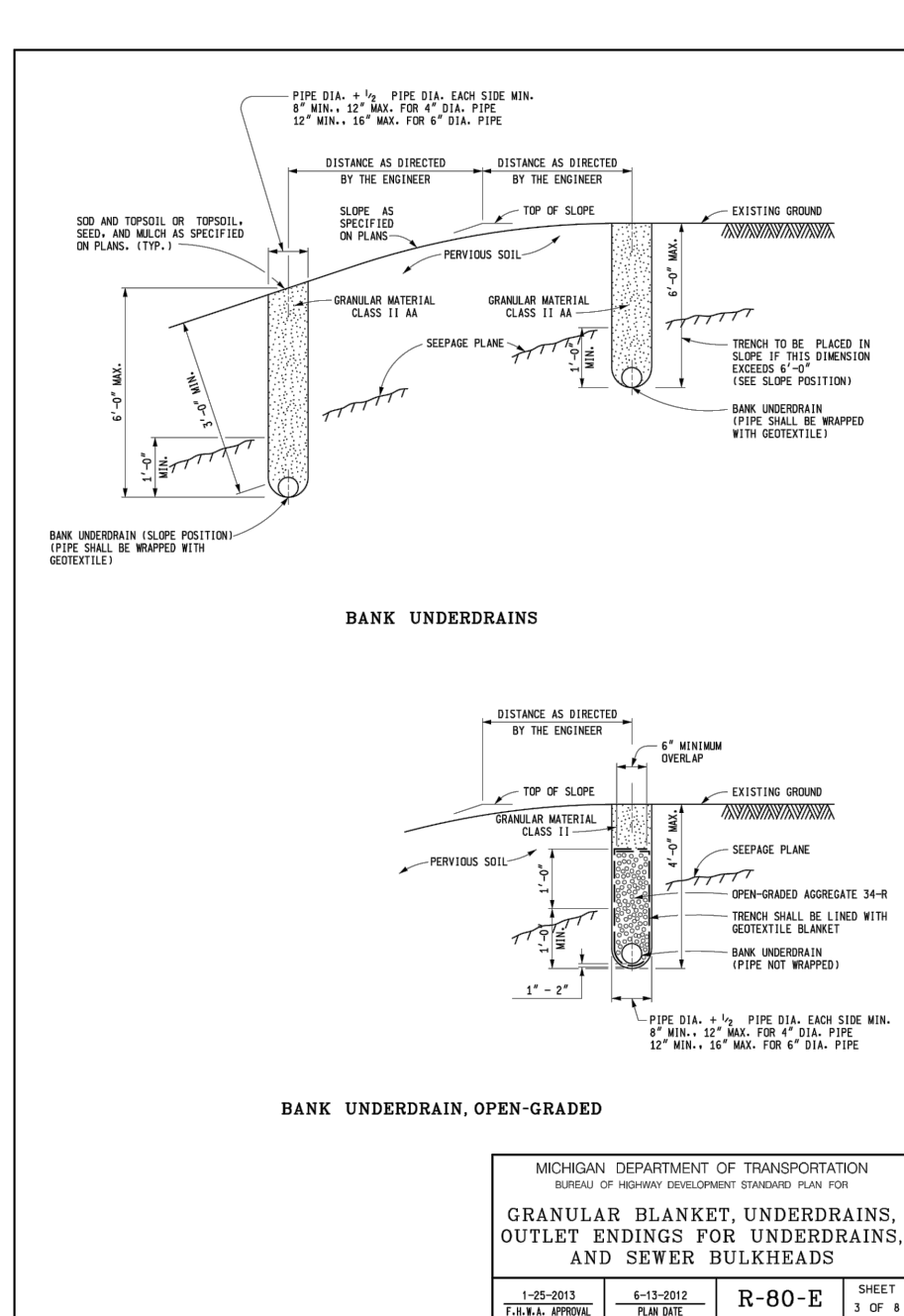
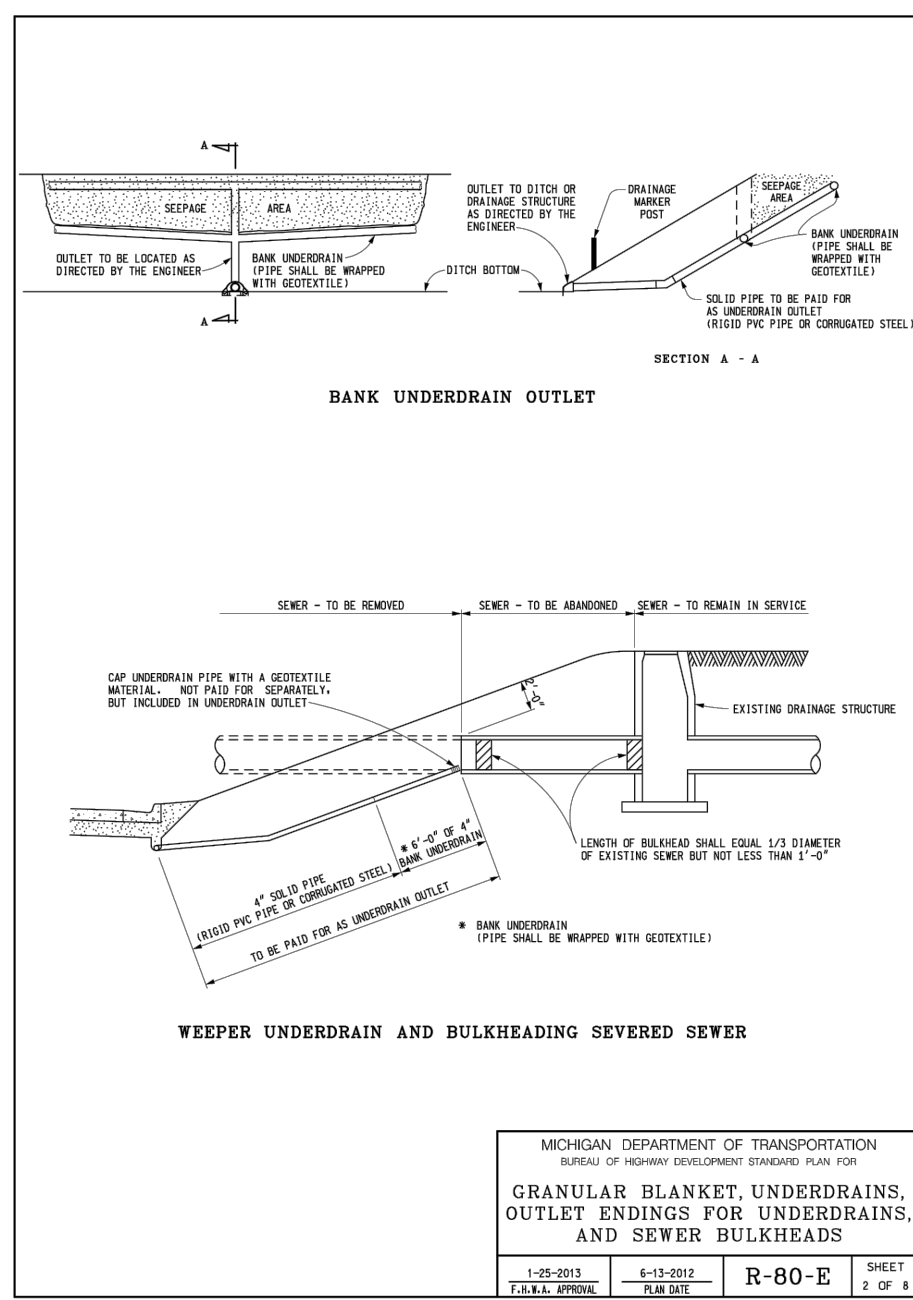
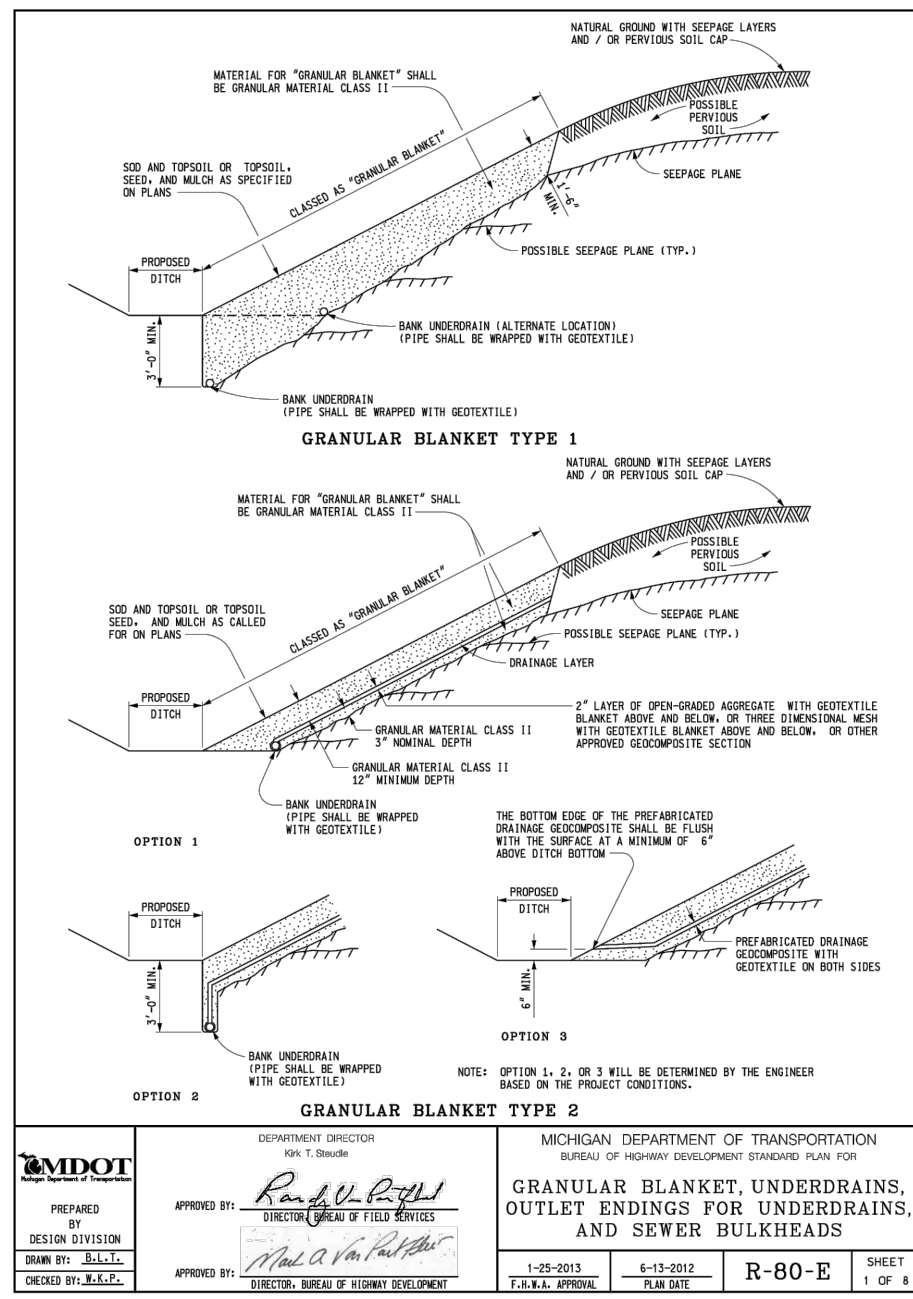
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CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN

MDOT STANDARD PLANS & SPECIAL DETAILS

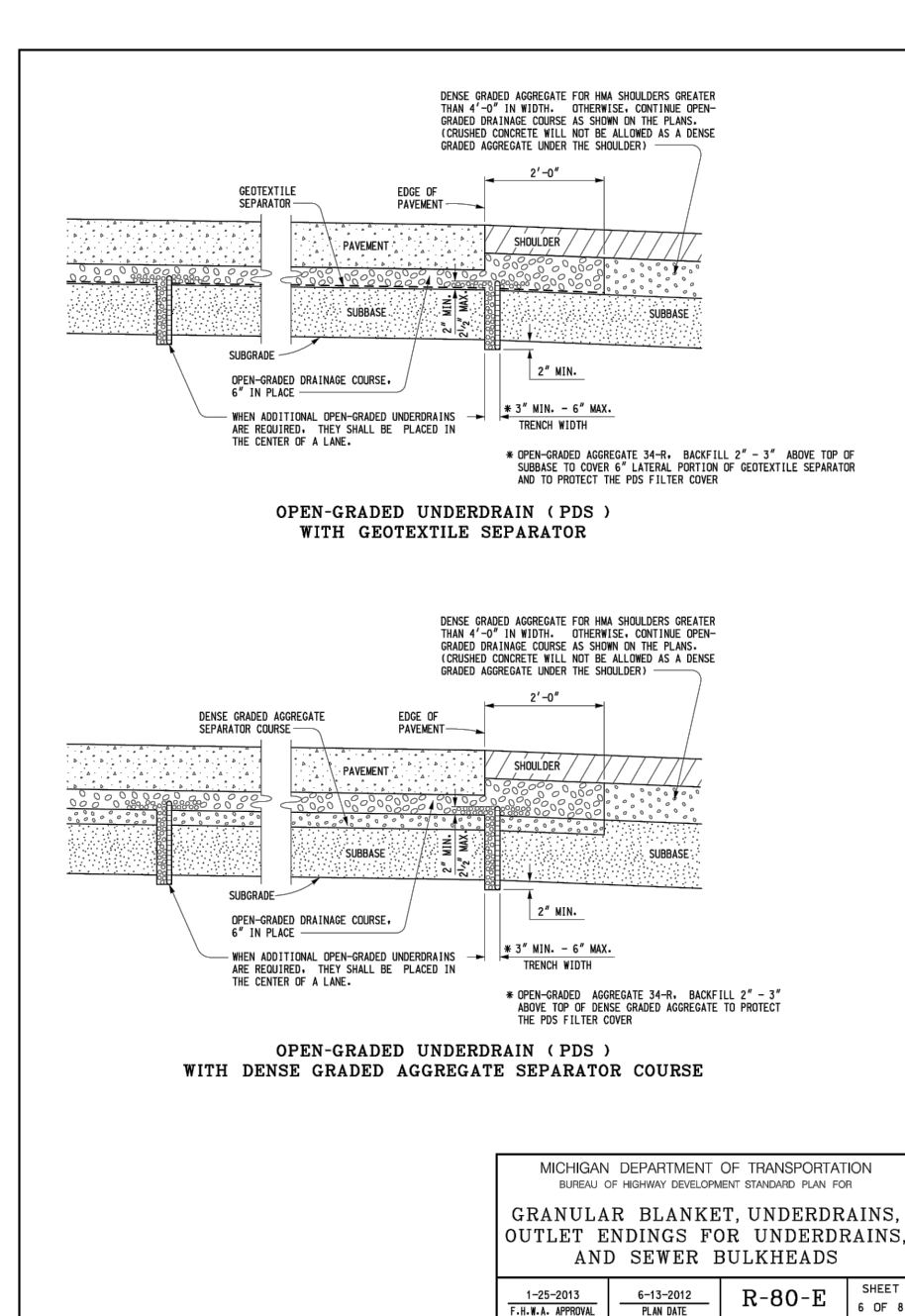
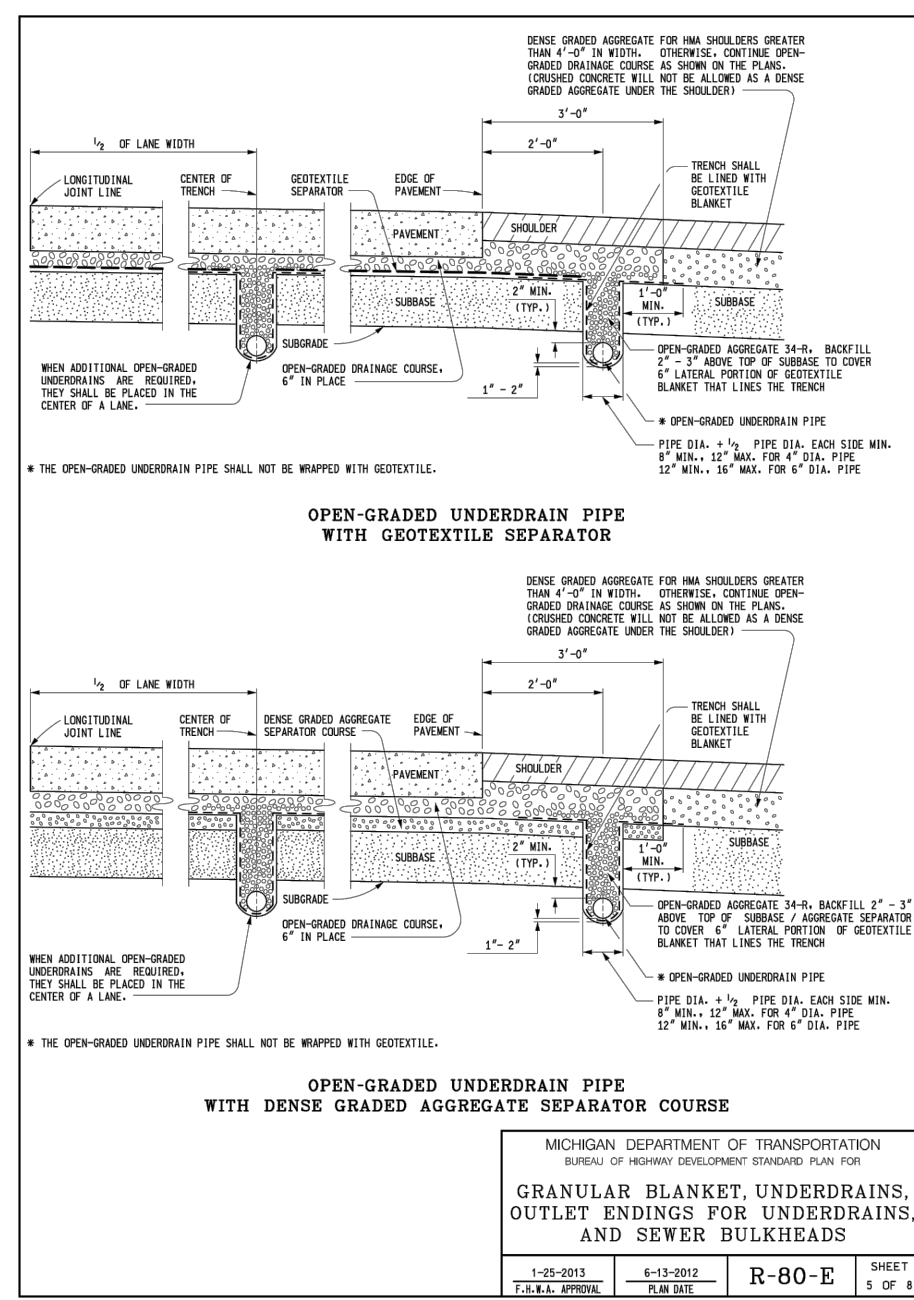
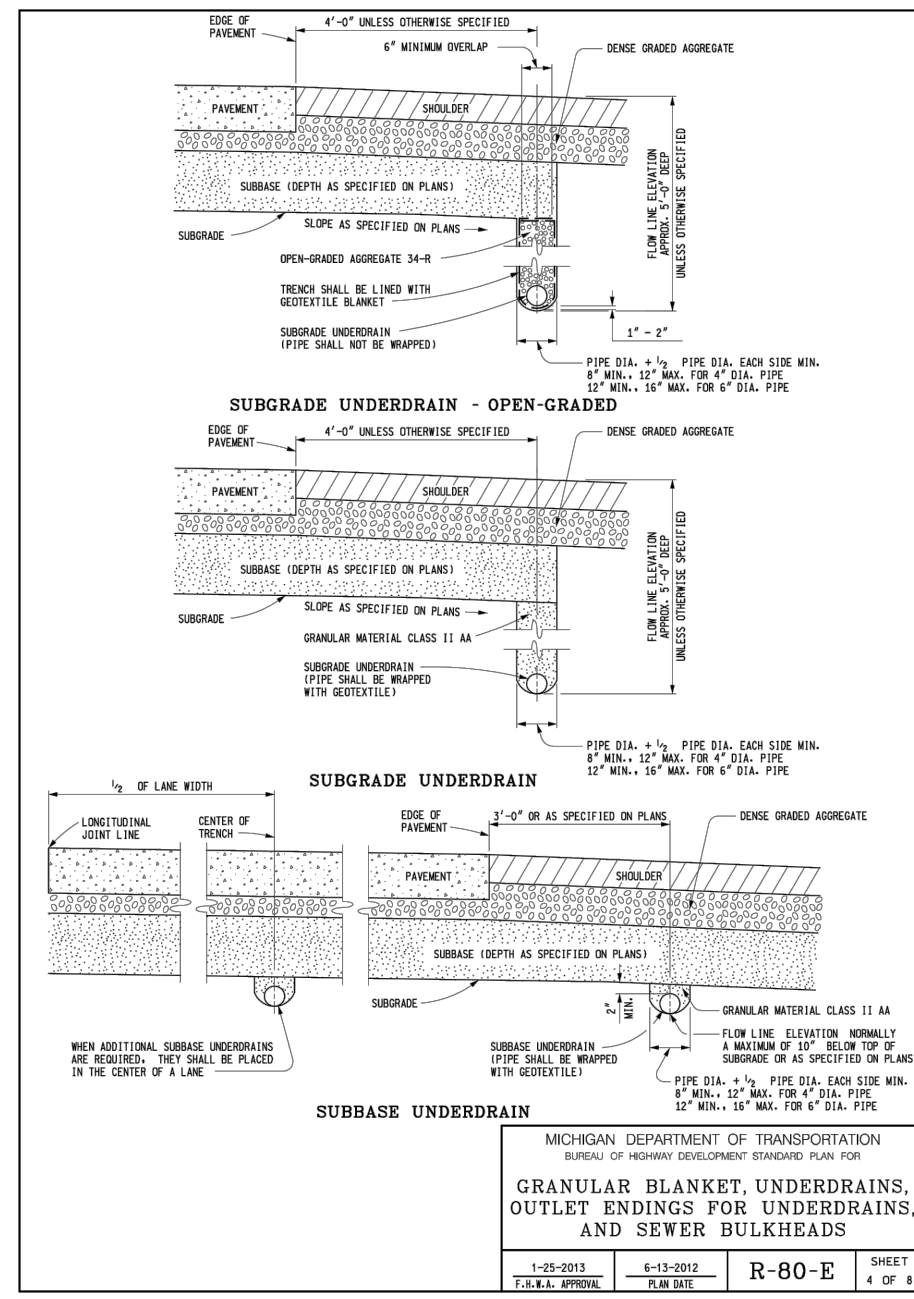
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ISABELLA COUNTY ROAD COMMISSION	JCW
CHECKED	JCW
DRAWN	RTW
JOB NO.	18-0014
DATE	12/9/2019
SCALE	NO SCALE
SHEET NO.	21



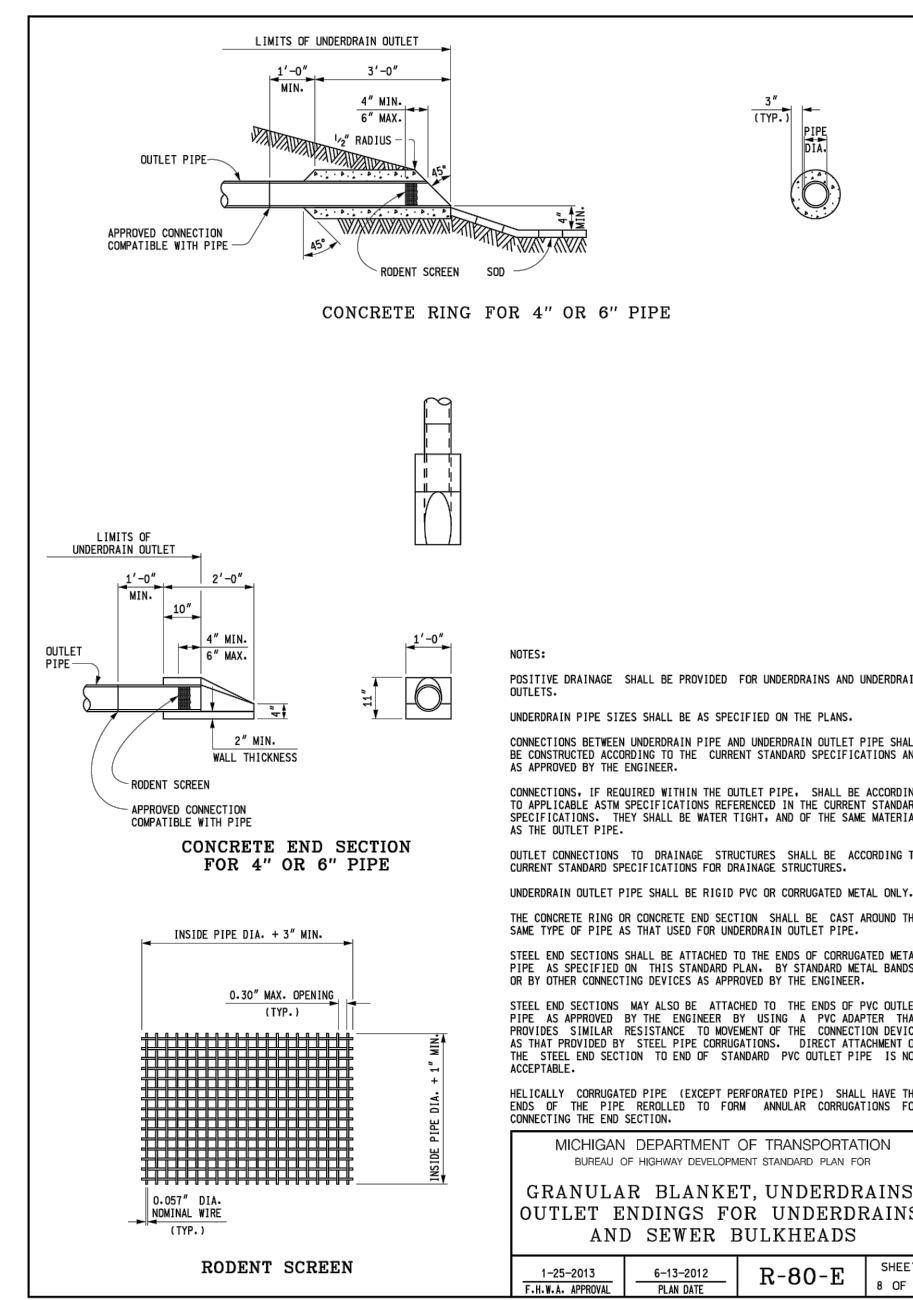
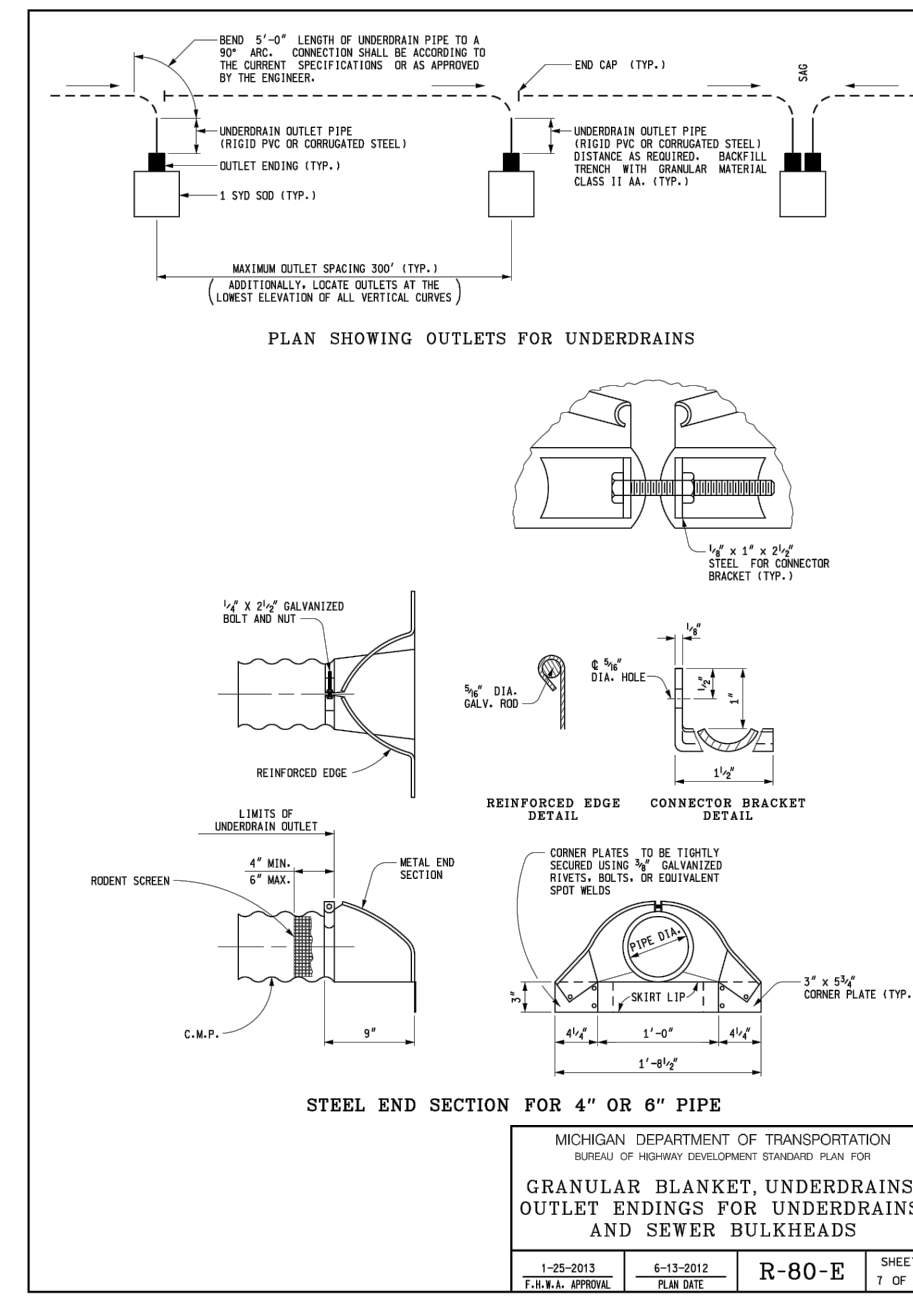
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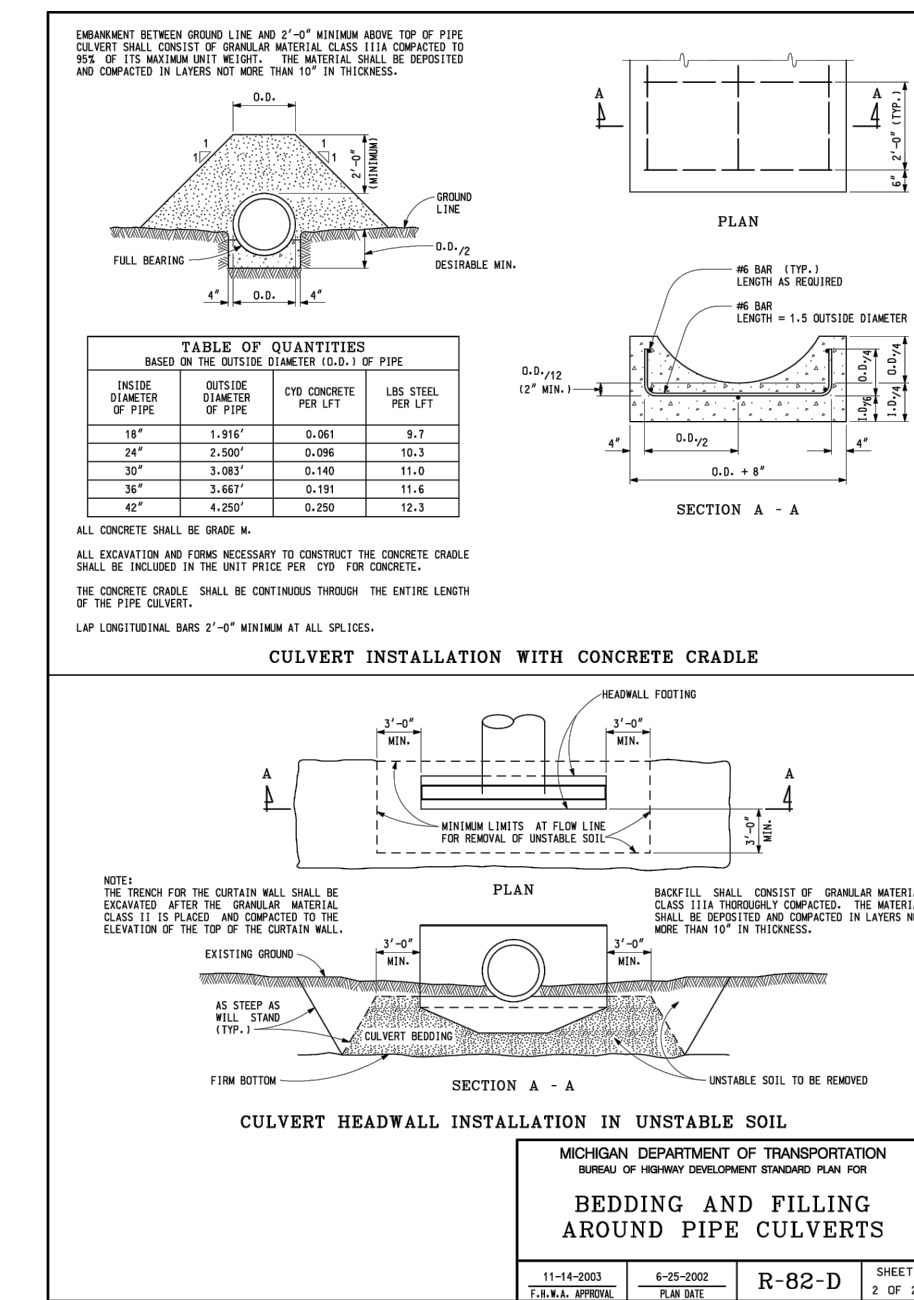
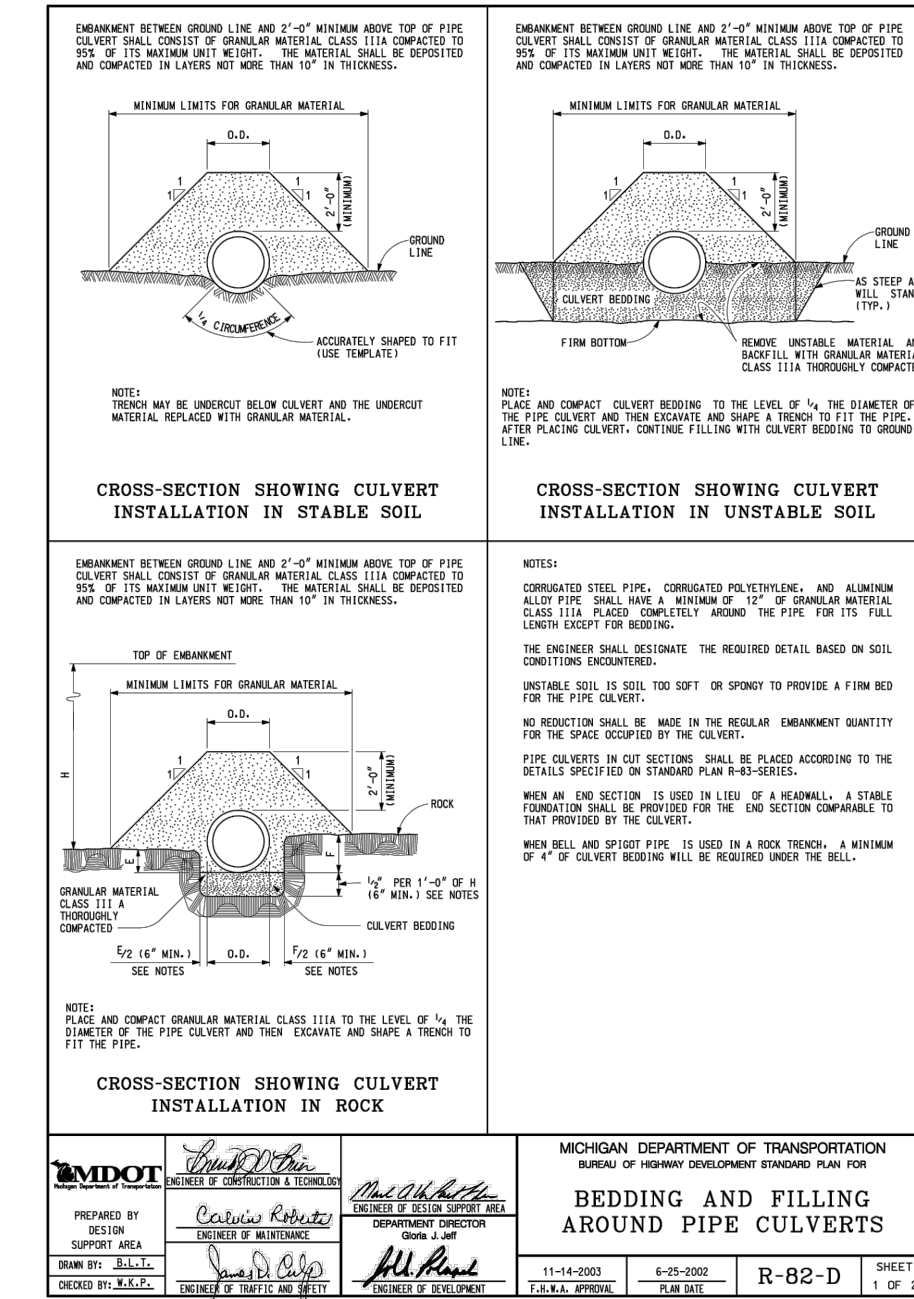
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11 **DETAIL R-80-E**
NOT TO SCALE



12 **DETAIL R-82-D**
NOT TO SCALE



12 **DETAIL R-82-D**
NOT TO SCALE

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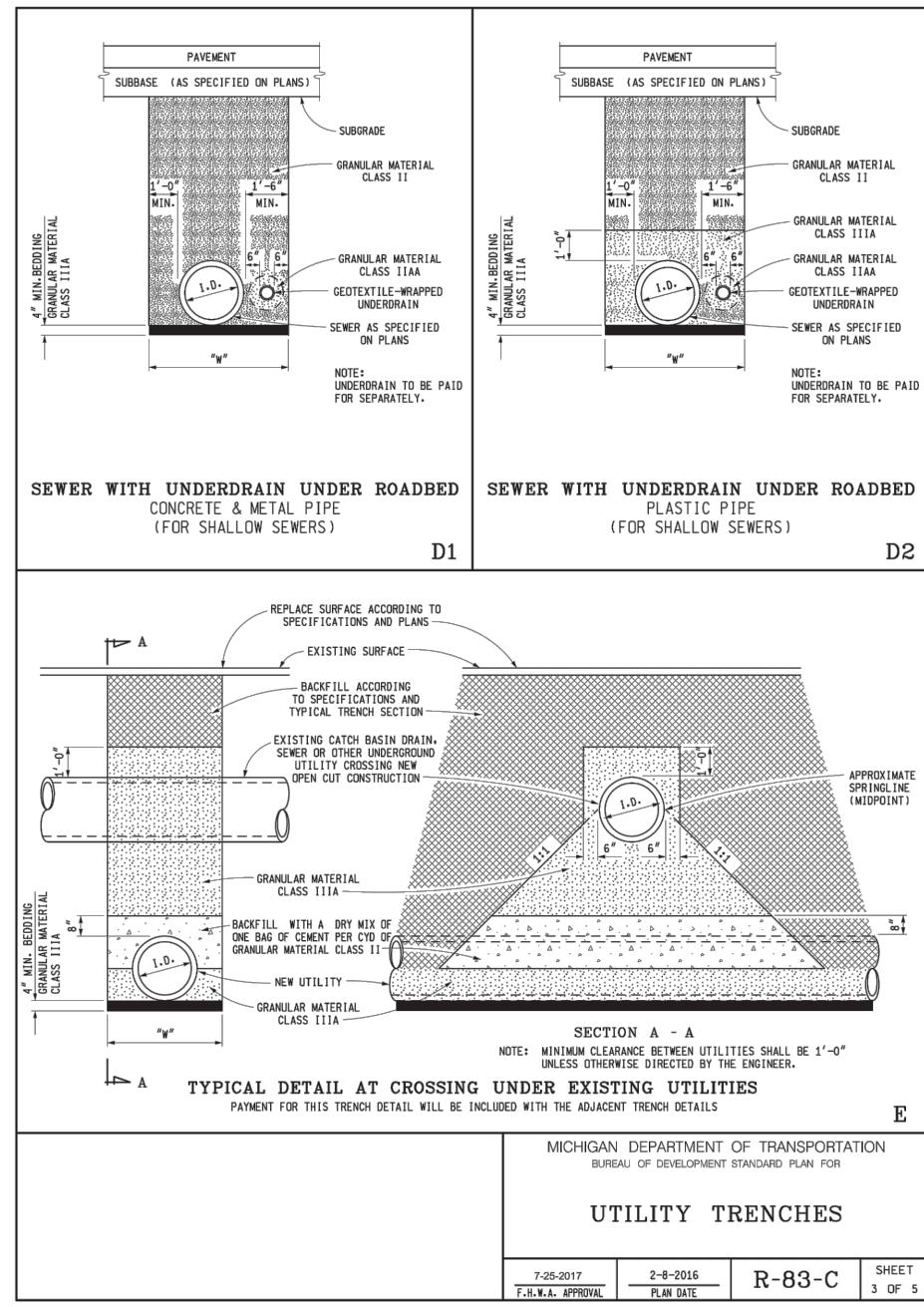
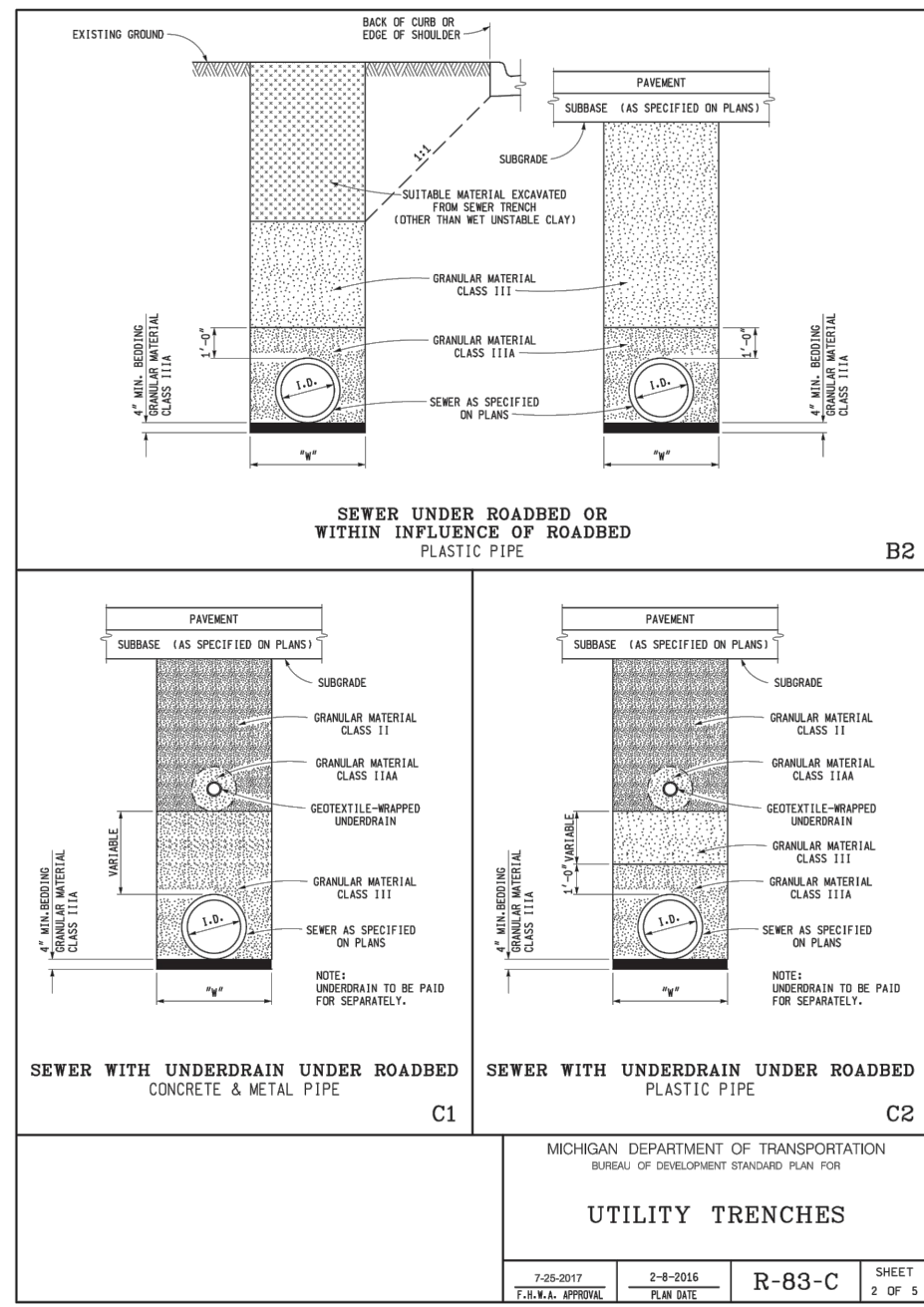
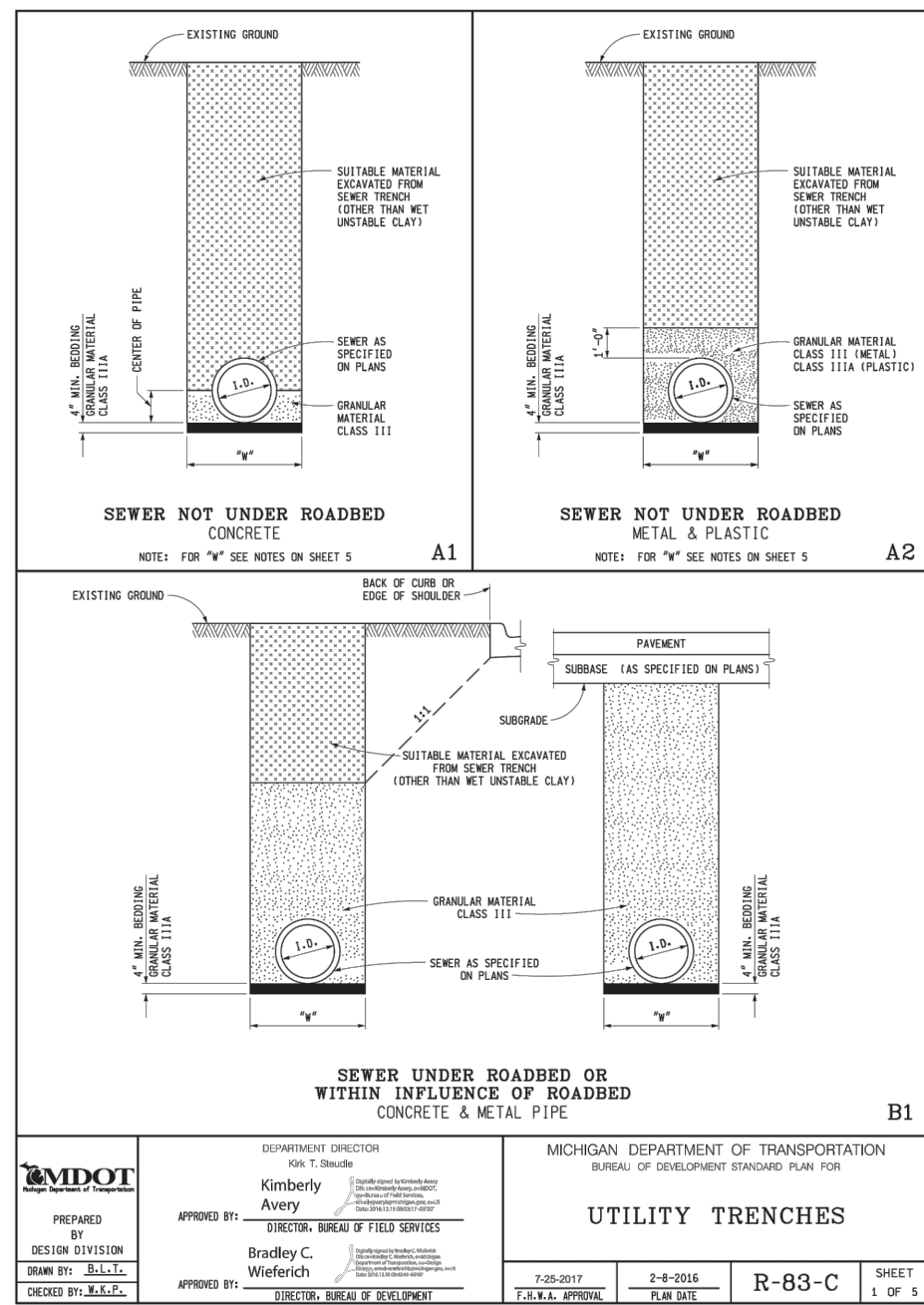
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CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN

MDOT STANDARD PLANS & SPECIAL DETAILS

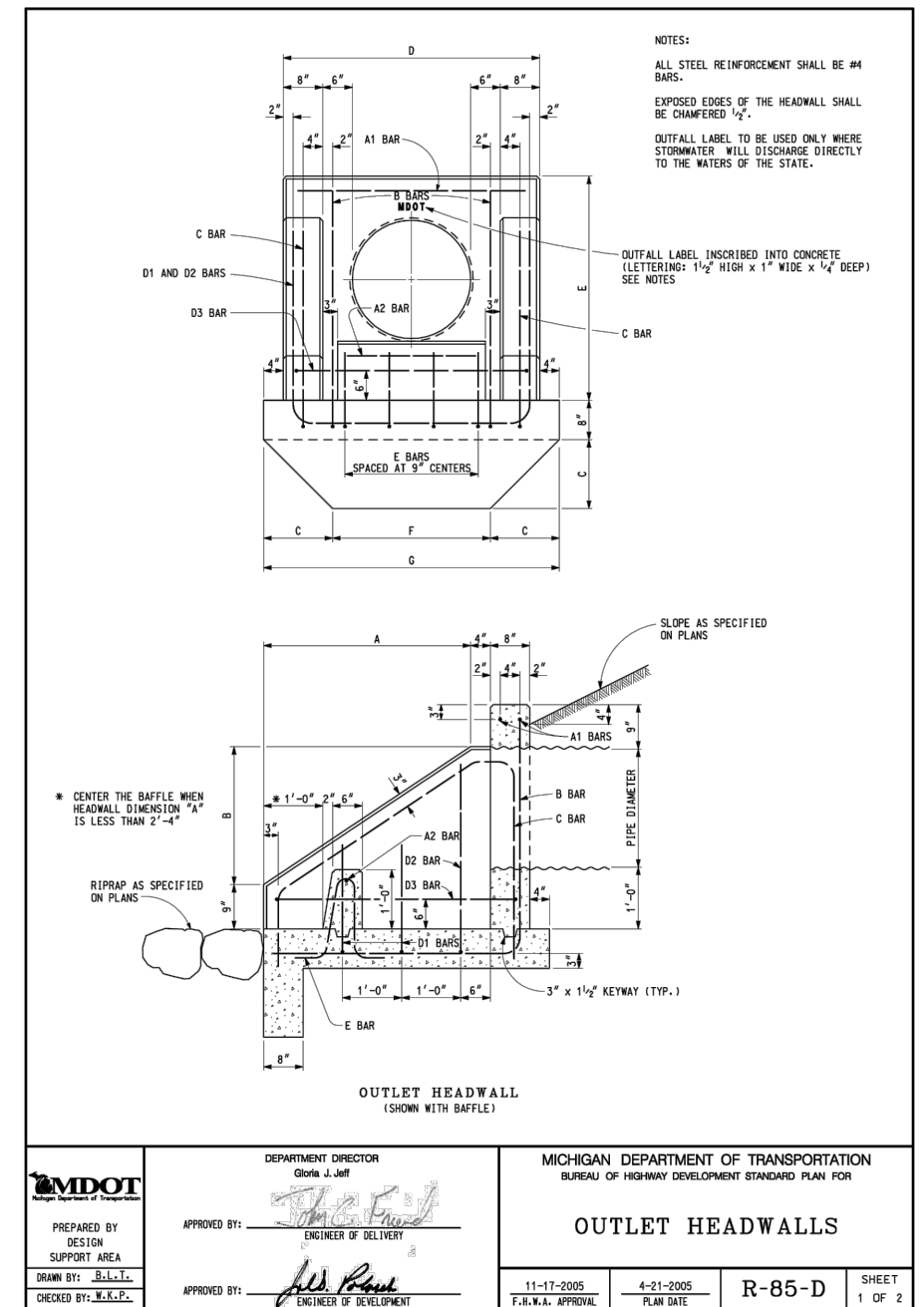
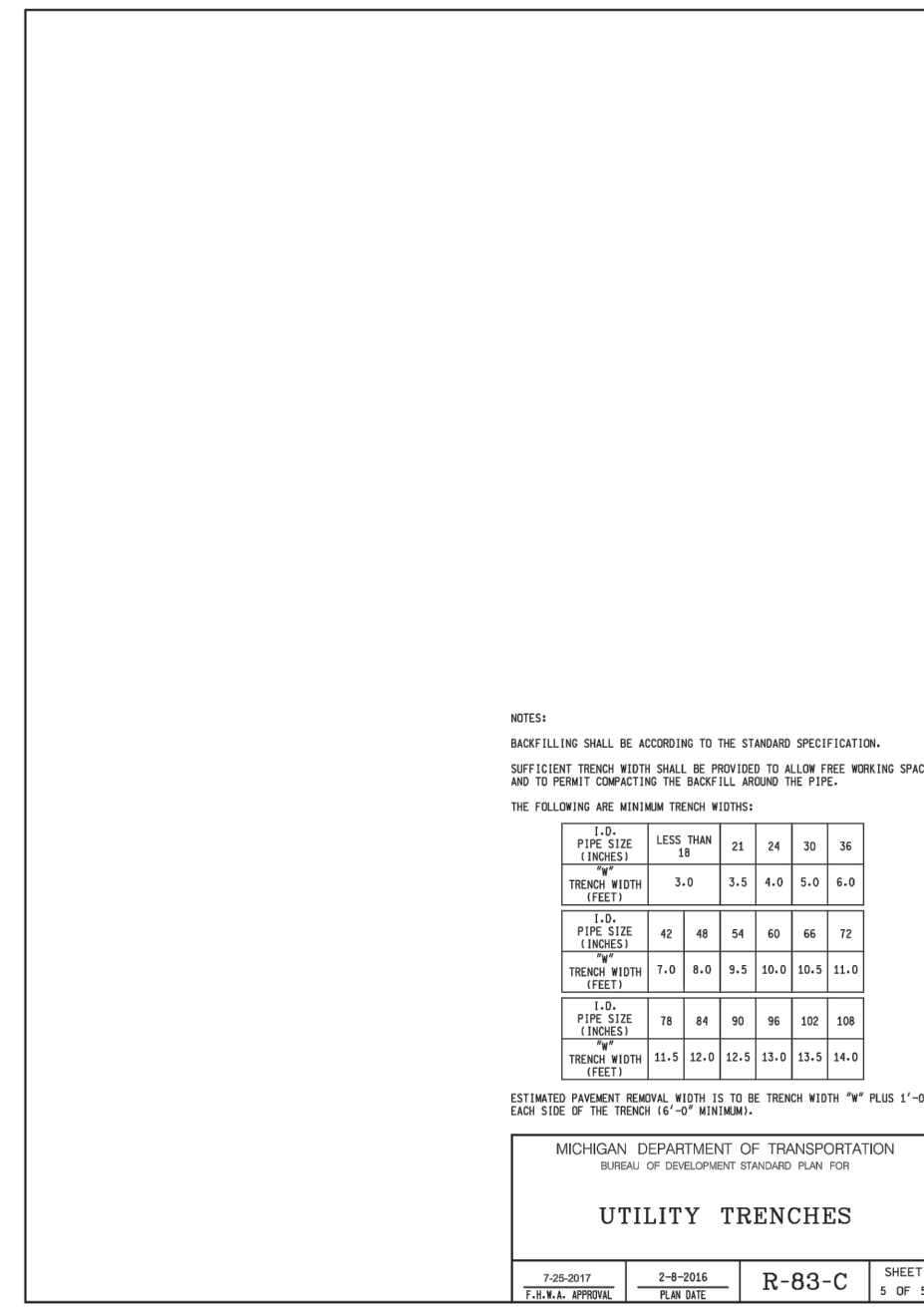
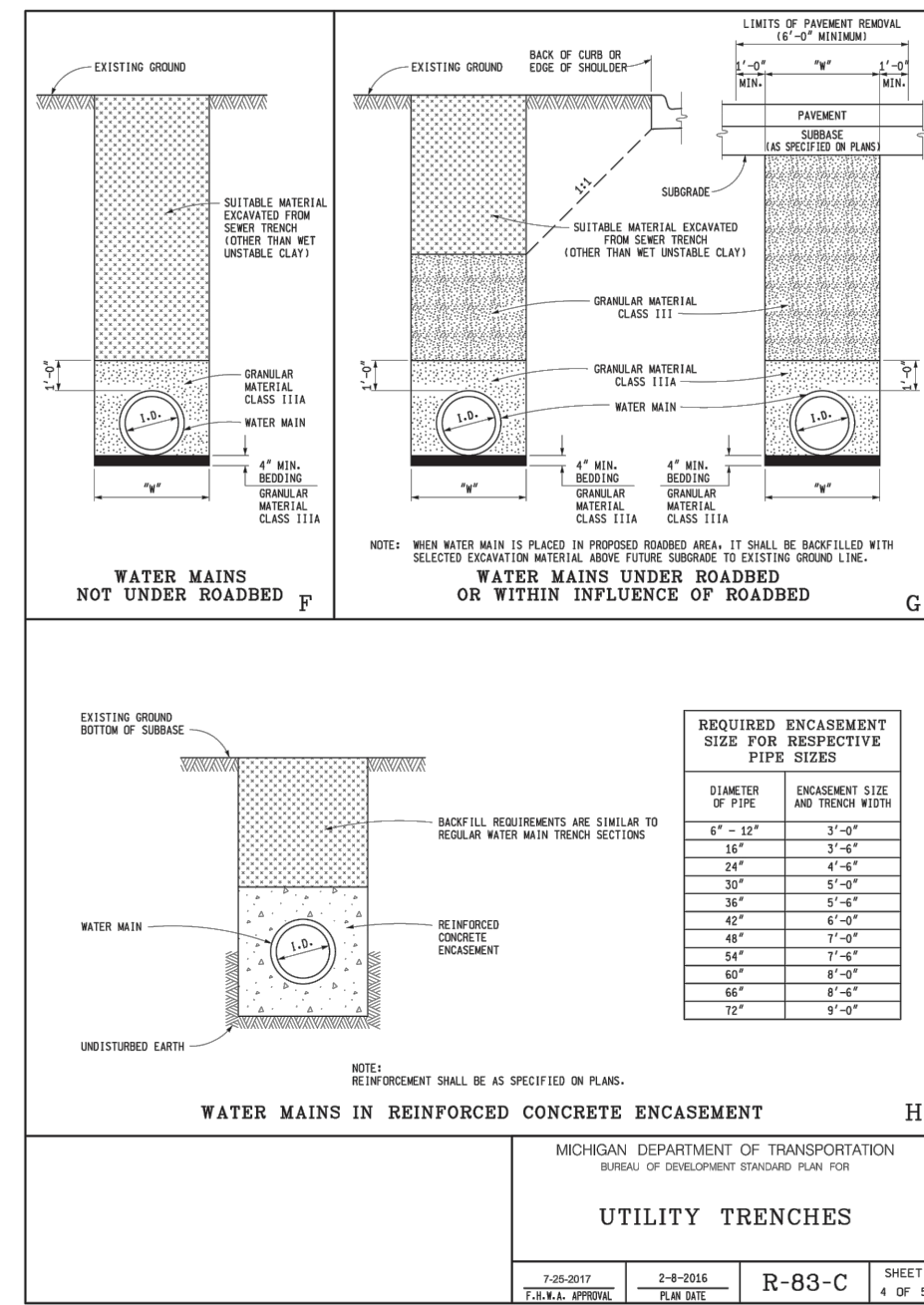
PROJECT: ISABELLA COUNTY ROAD COMMISSION
CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN

APPROVED: JCW
CHECKED: JCW
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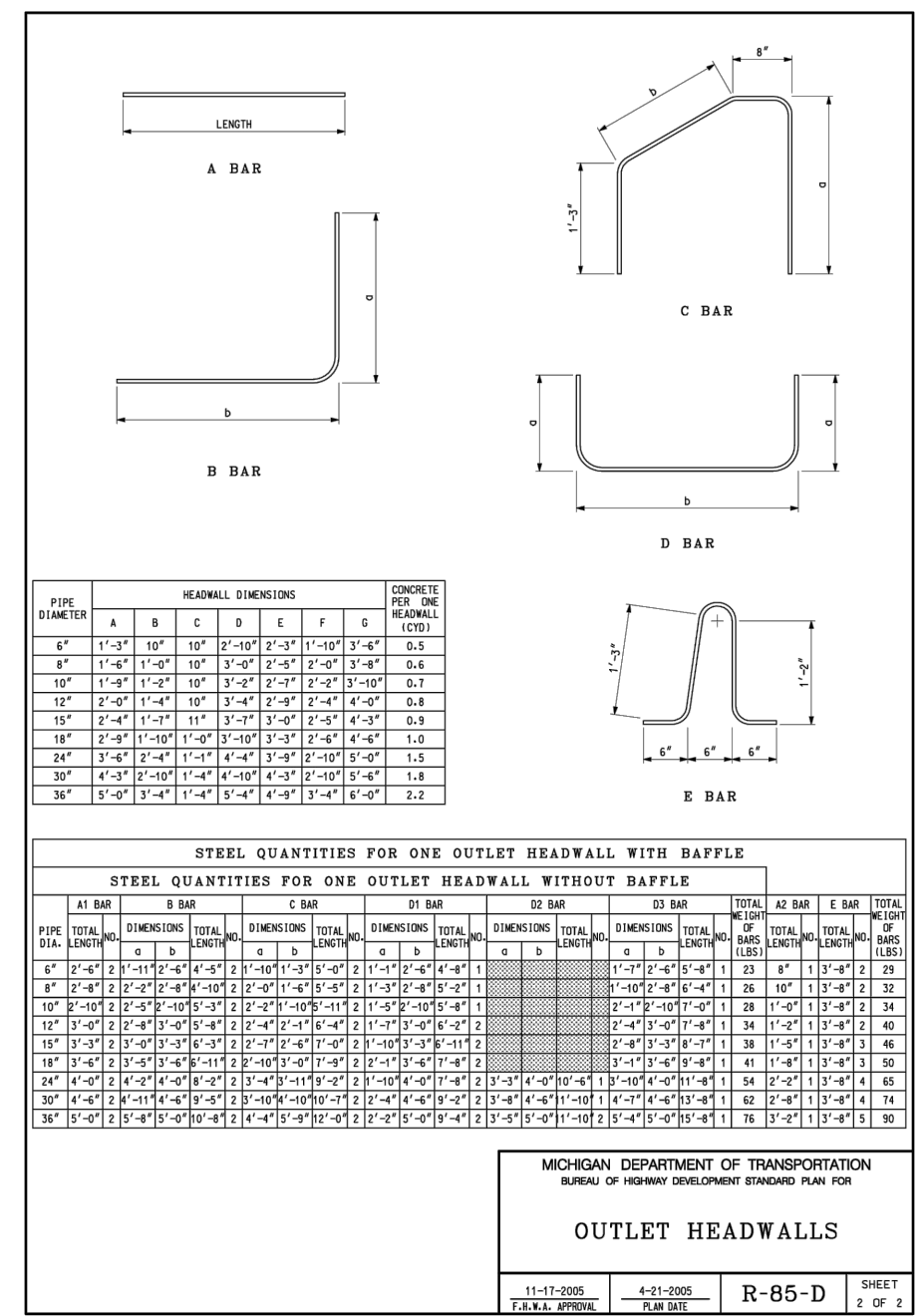
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DATE: 12/9/2019
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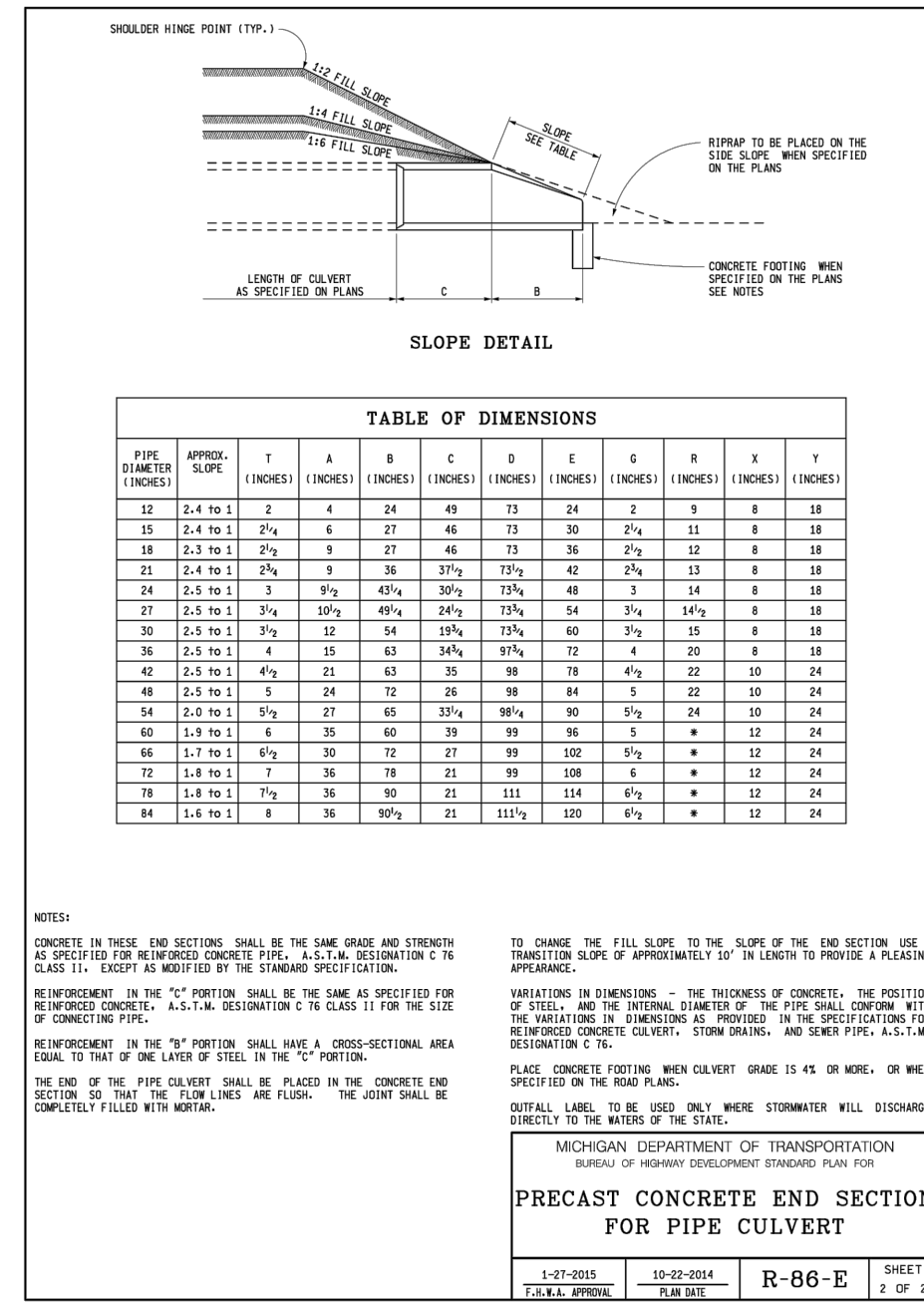
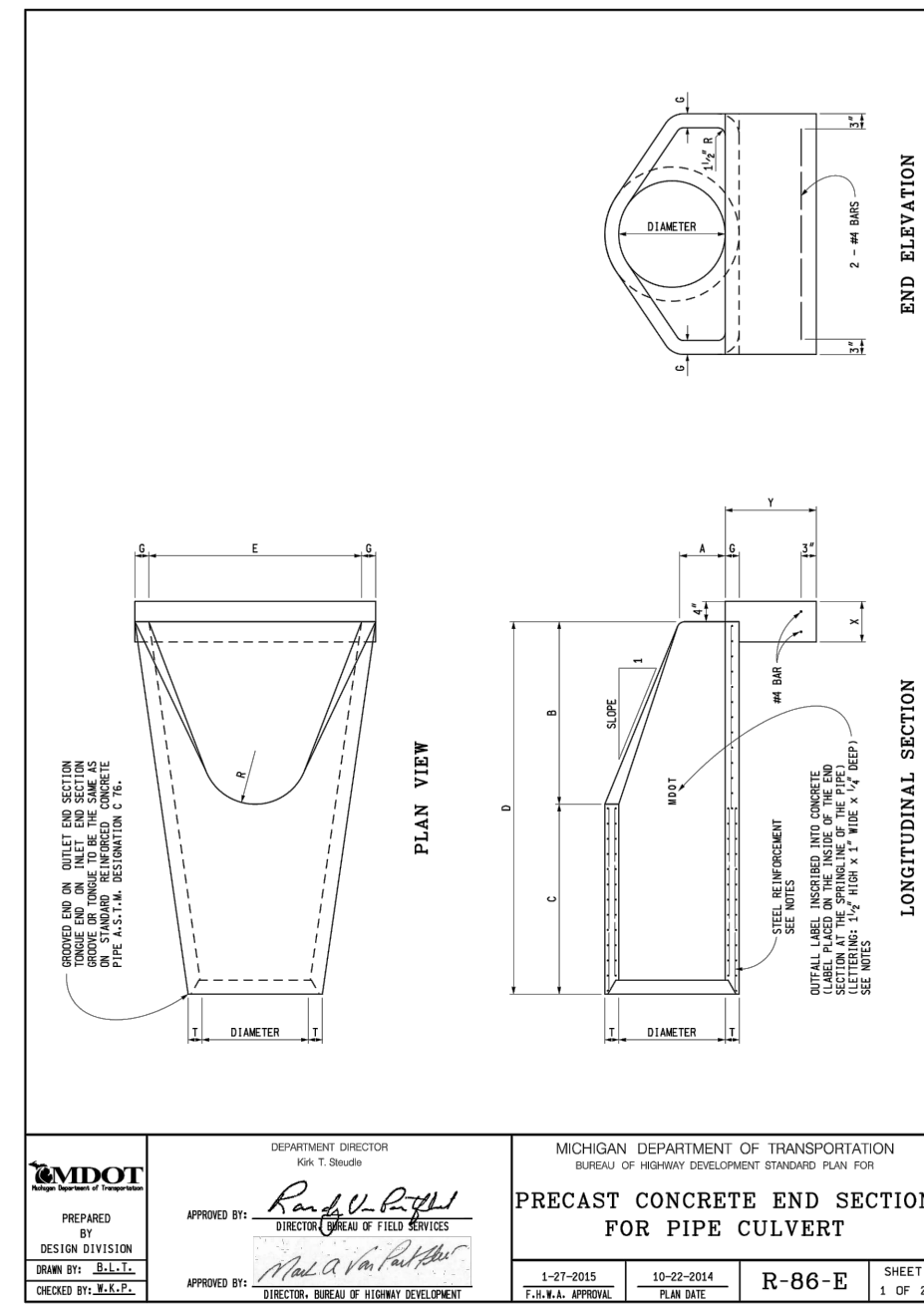
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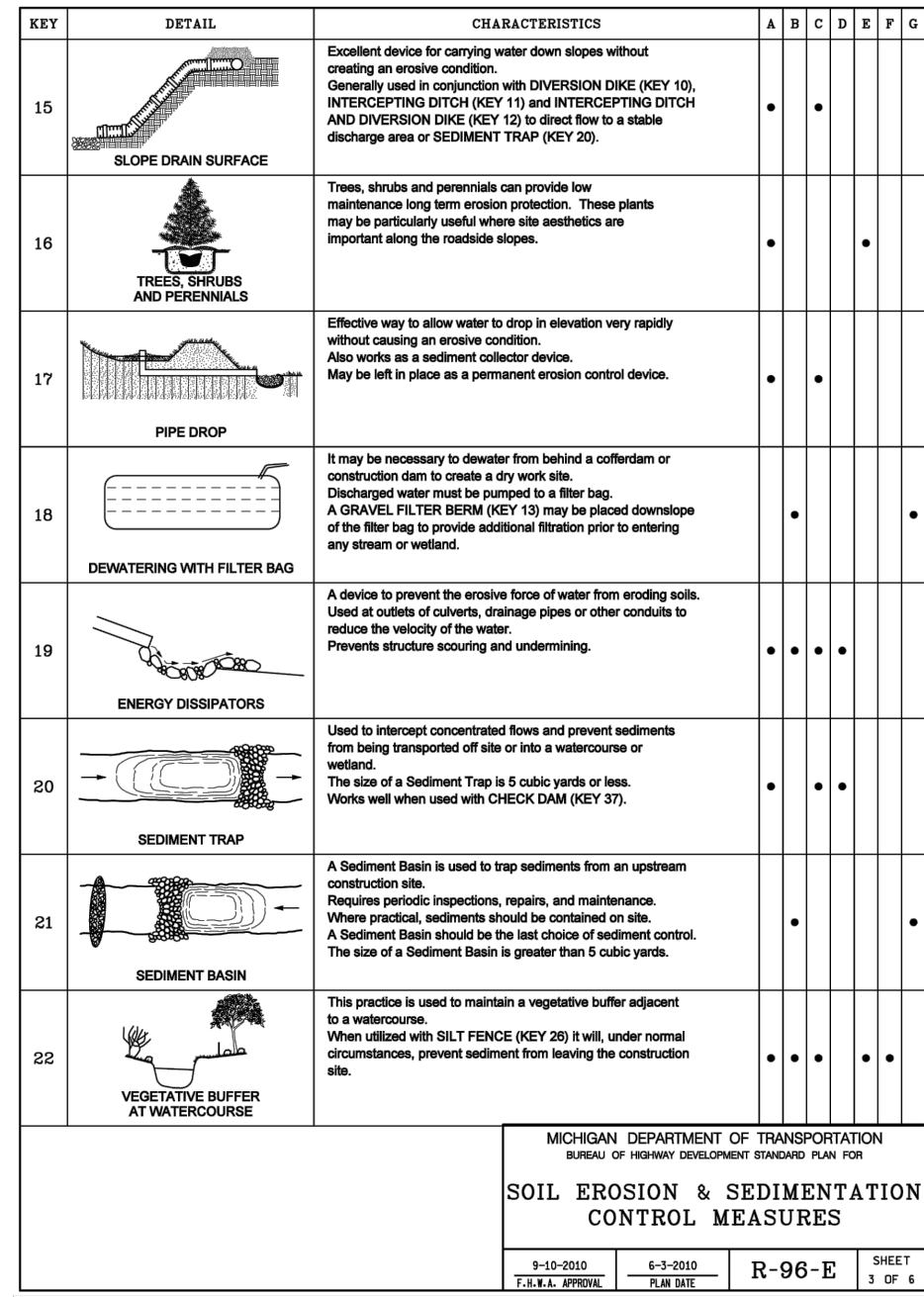
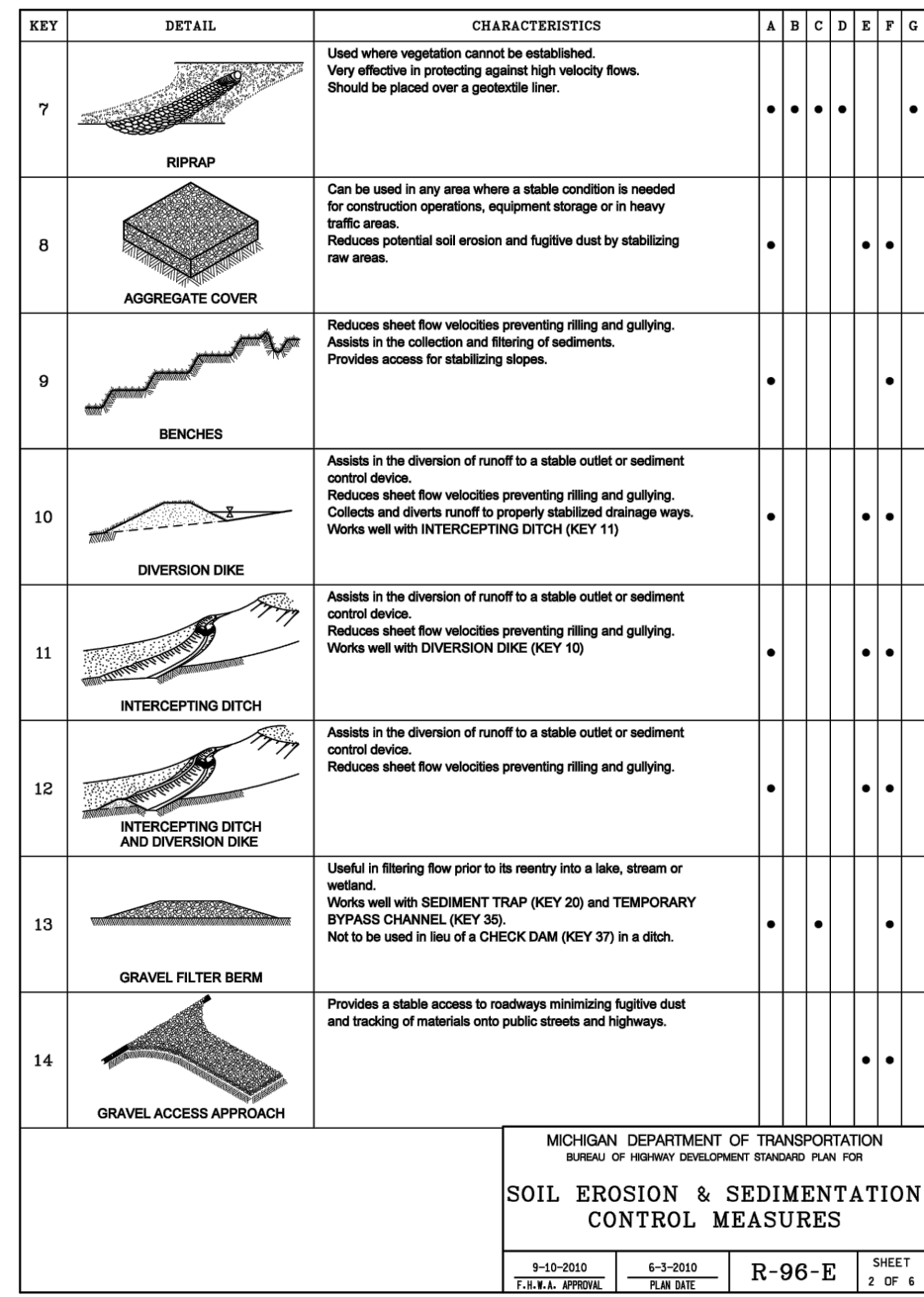
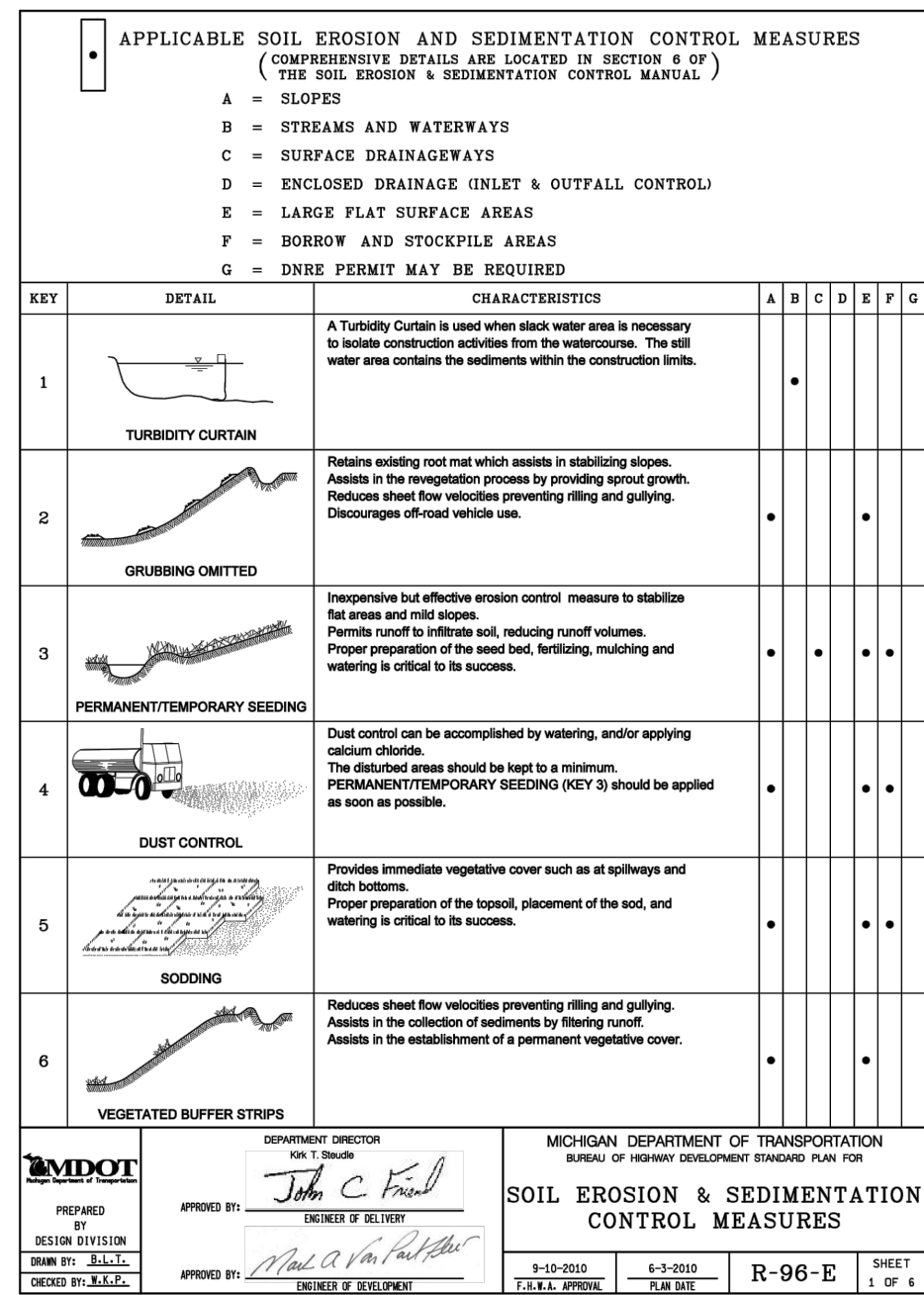
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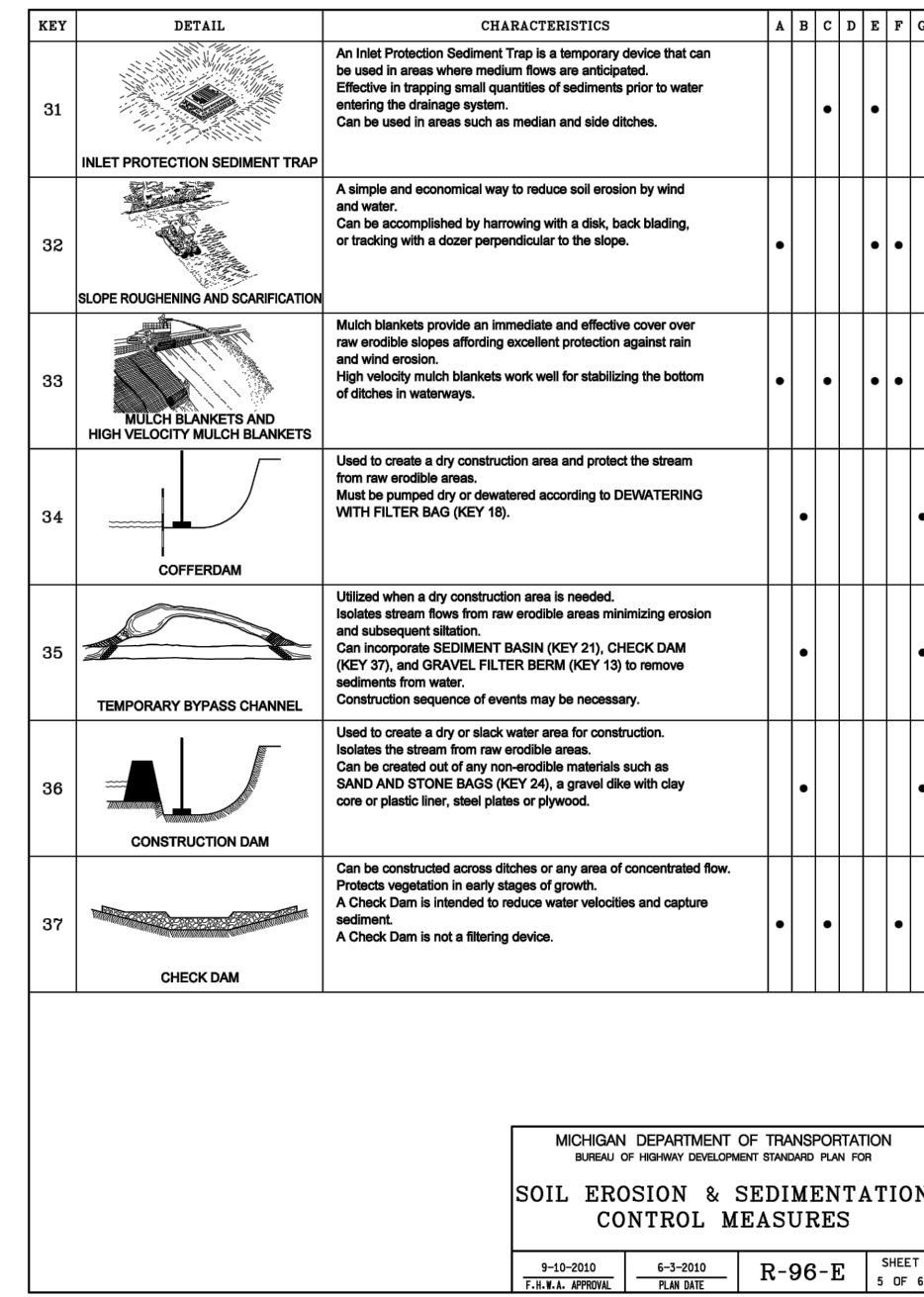
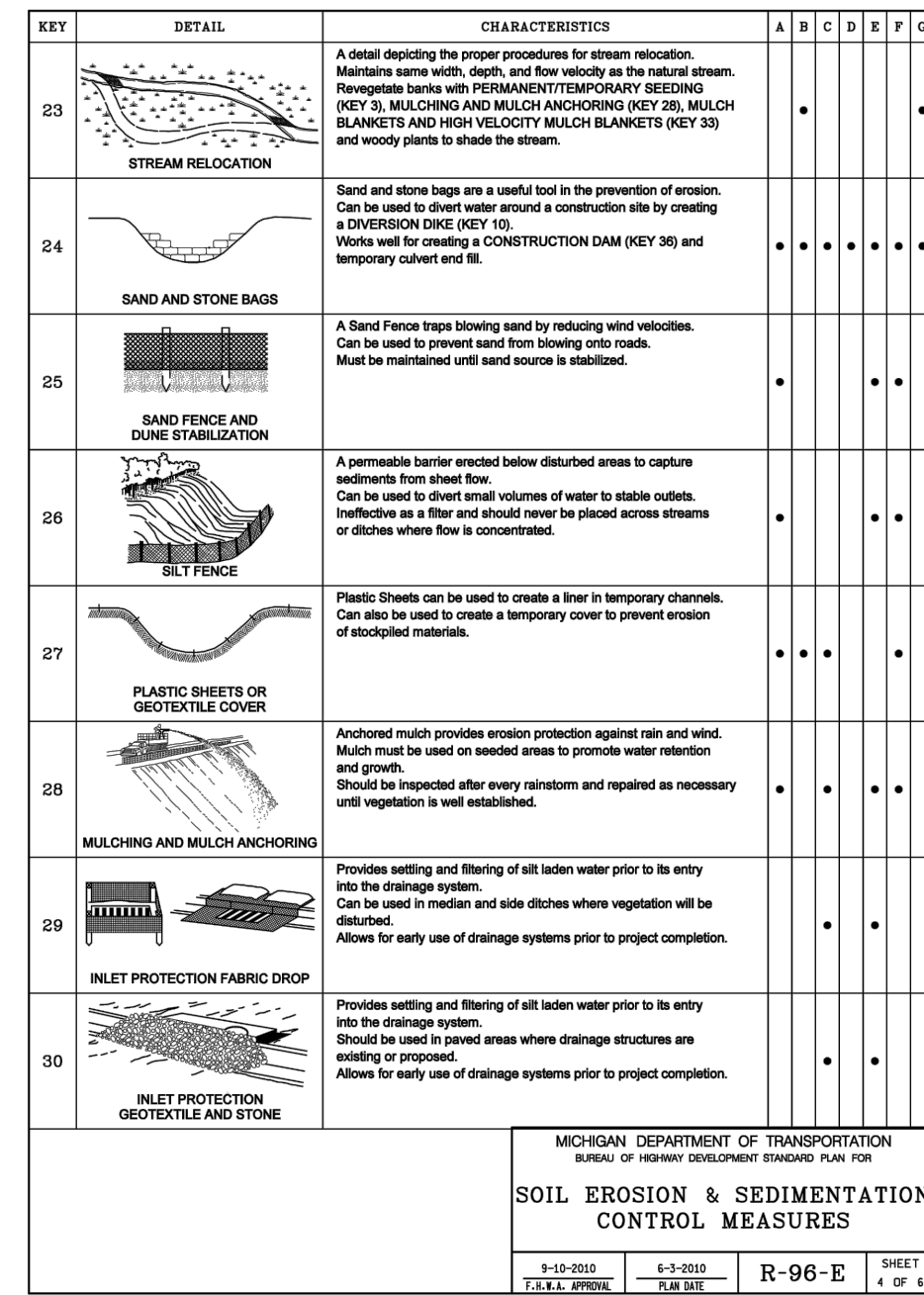
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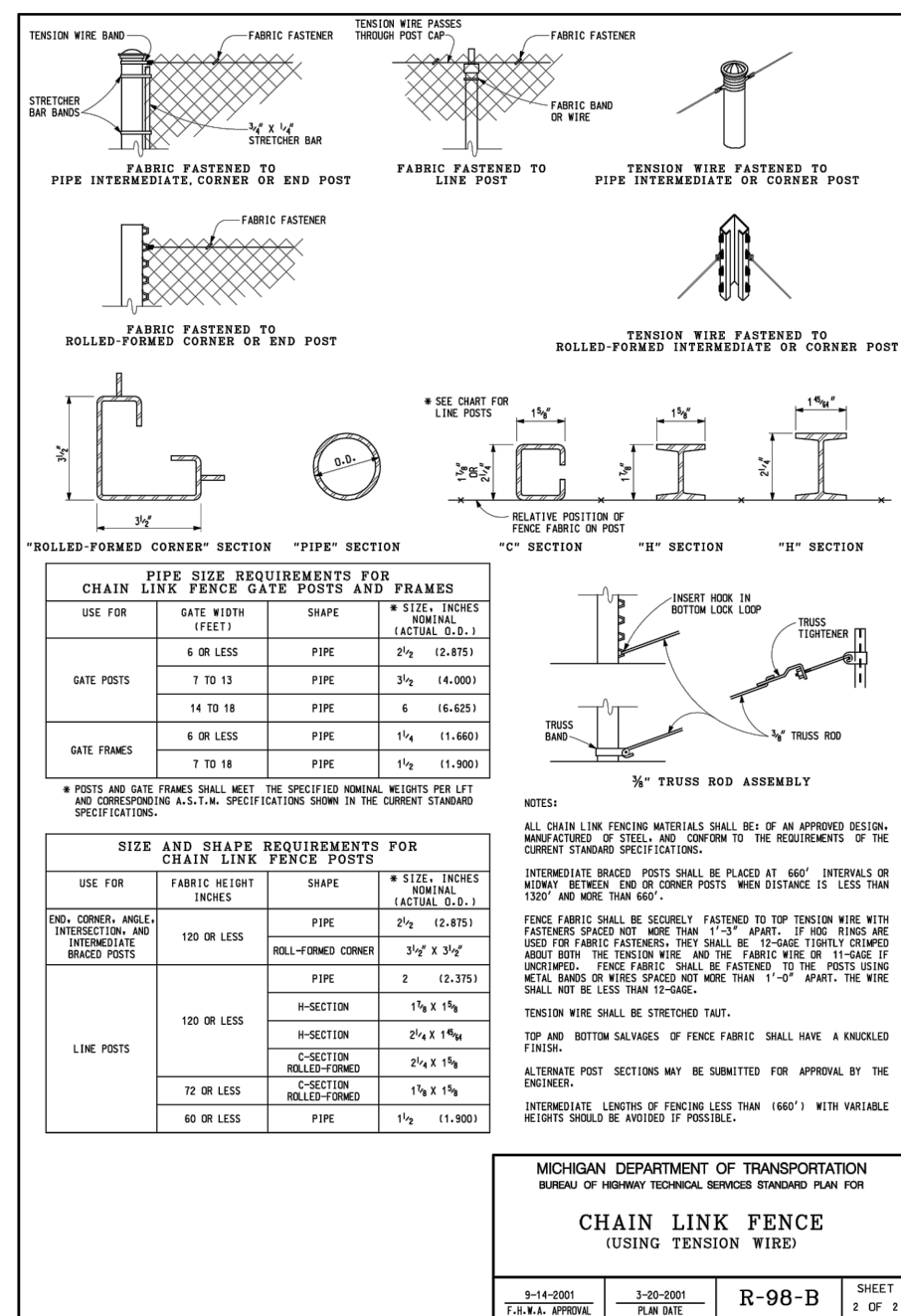
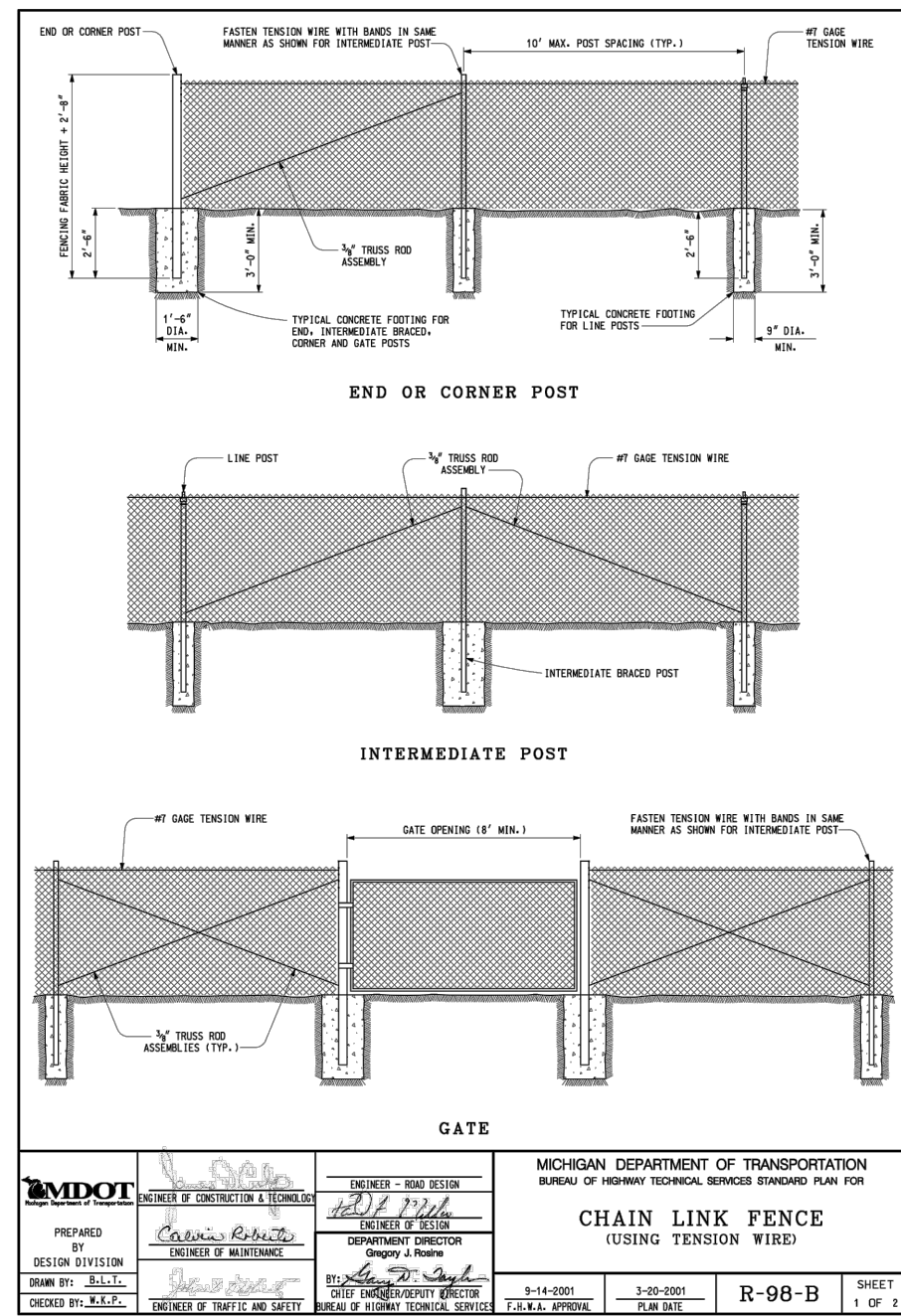


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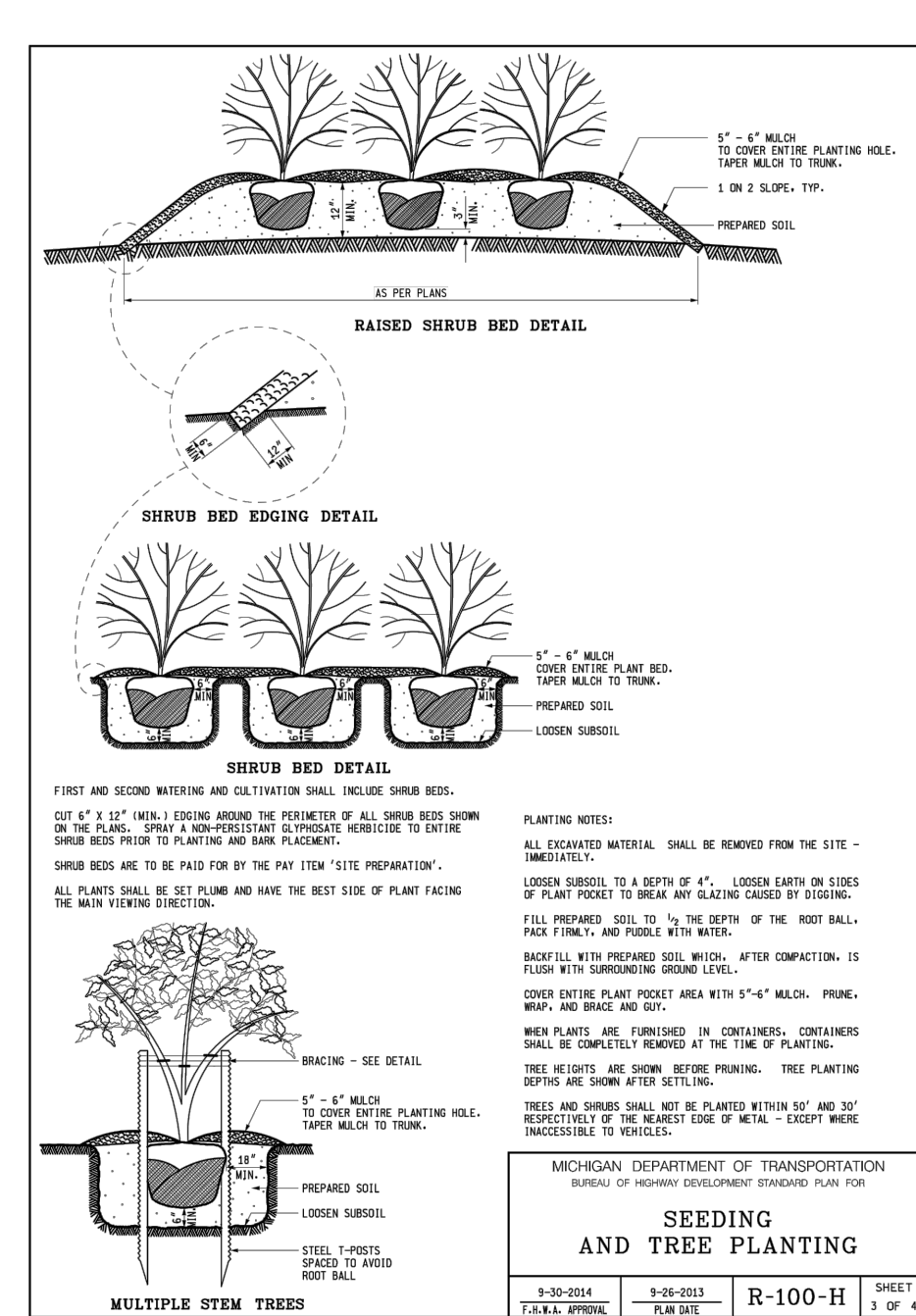
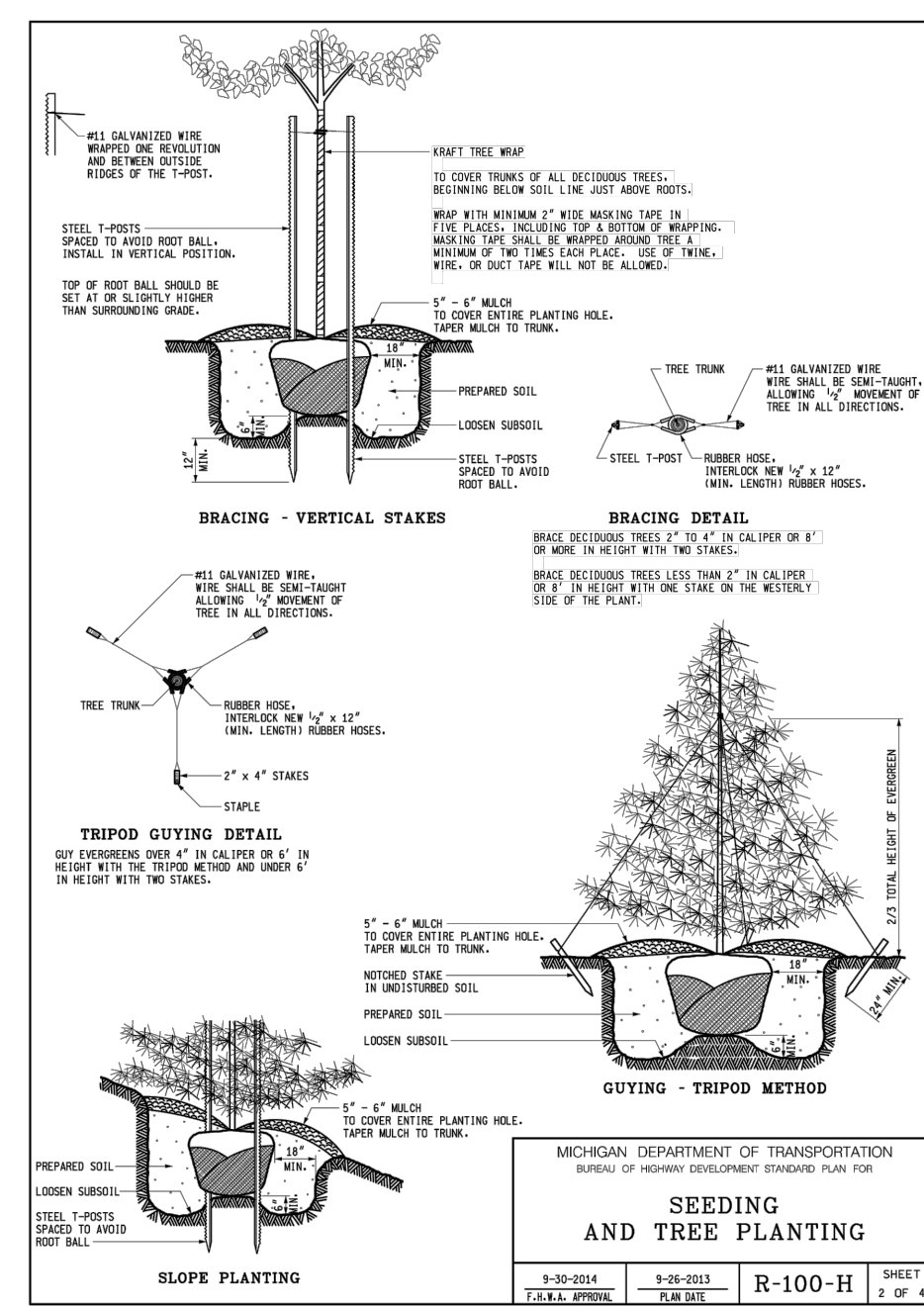
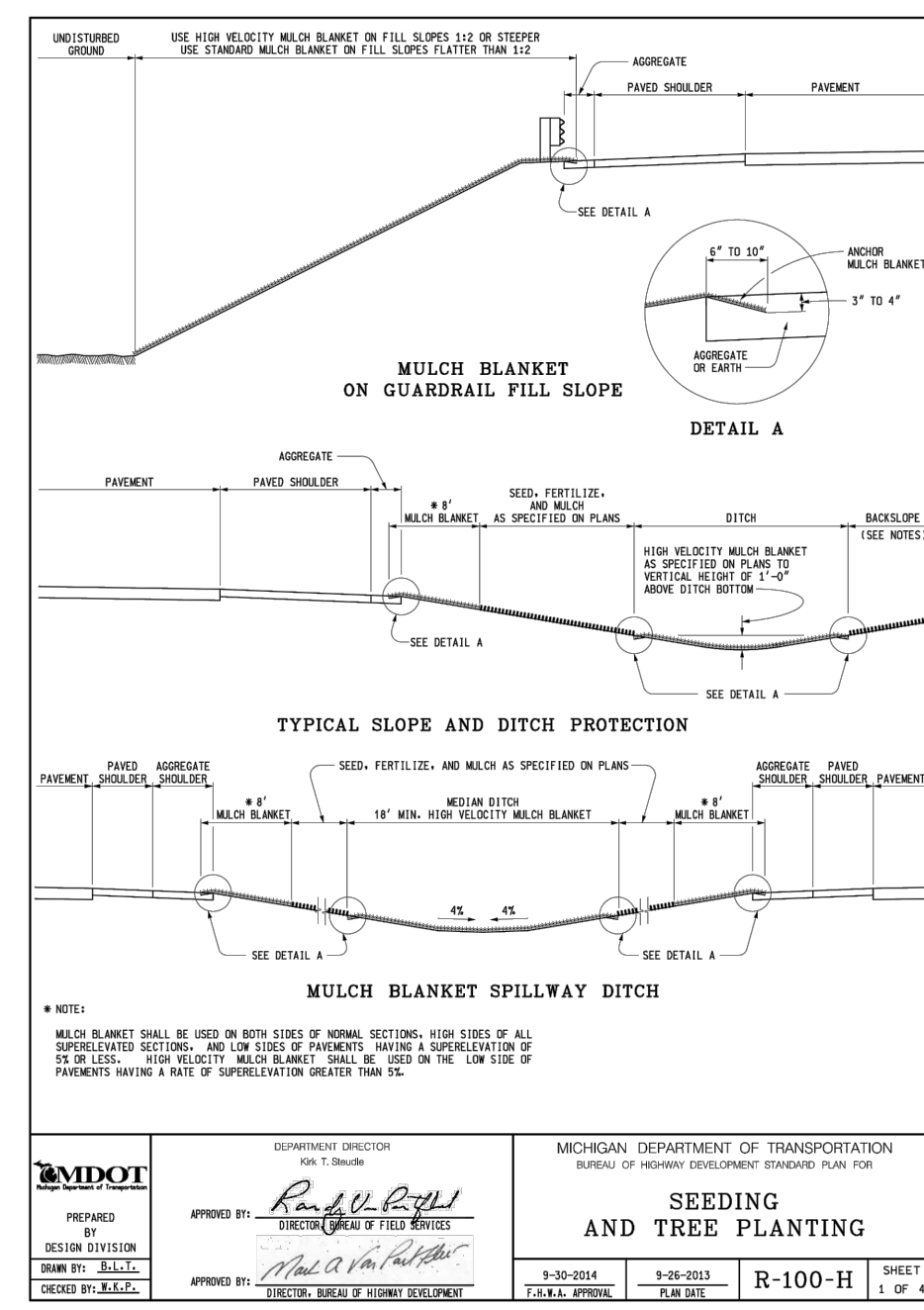
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DRAWN: RTW
JOB NO: 18-0014
DATE: 12/9/2019
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SHEET NO: 23

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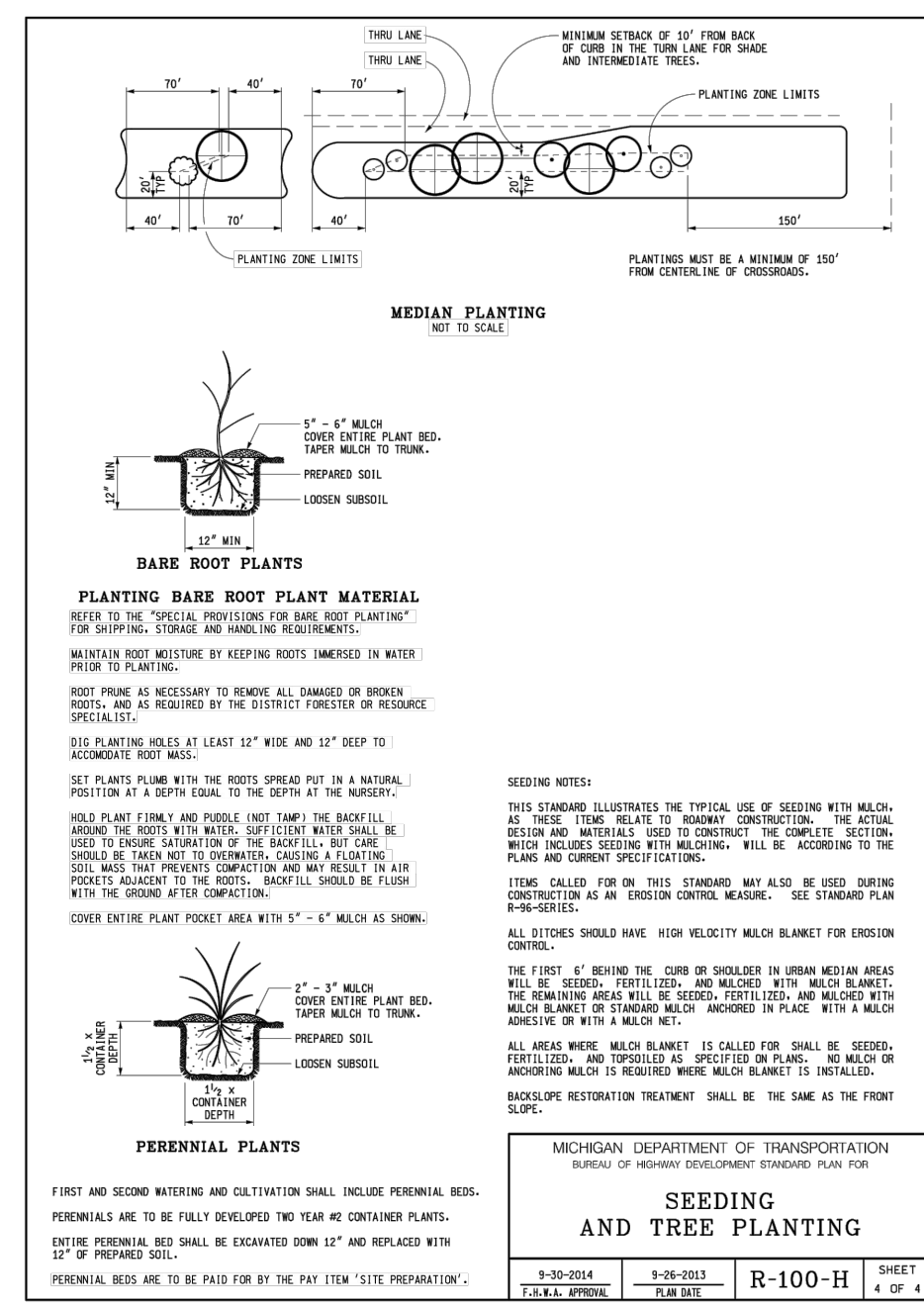
ISABELLA COUNTY ROAD COMMISSION
CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN
MDOT STANDARD PLANS & SPECIAL DETAILS



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NOT TO SCALE



18 **DETAIL R-100-H**
NOT TO SCALE

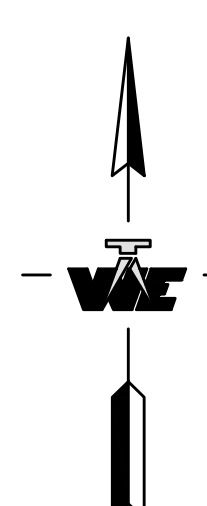
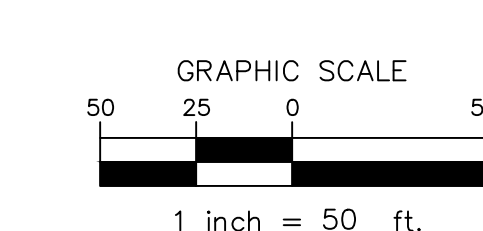
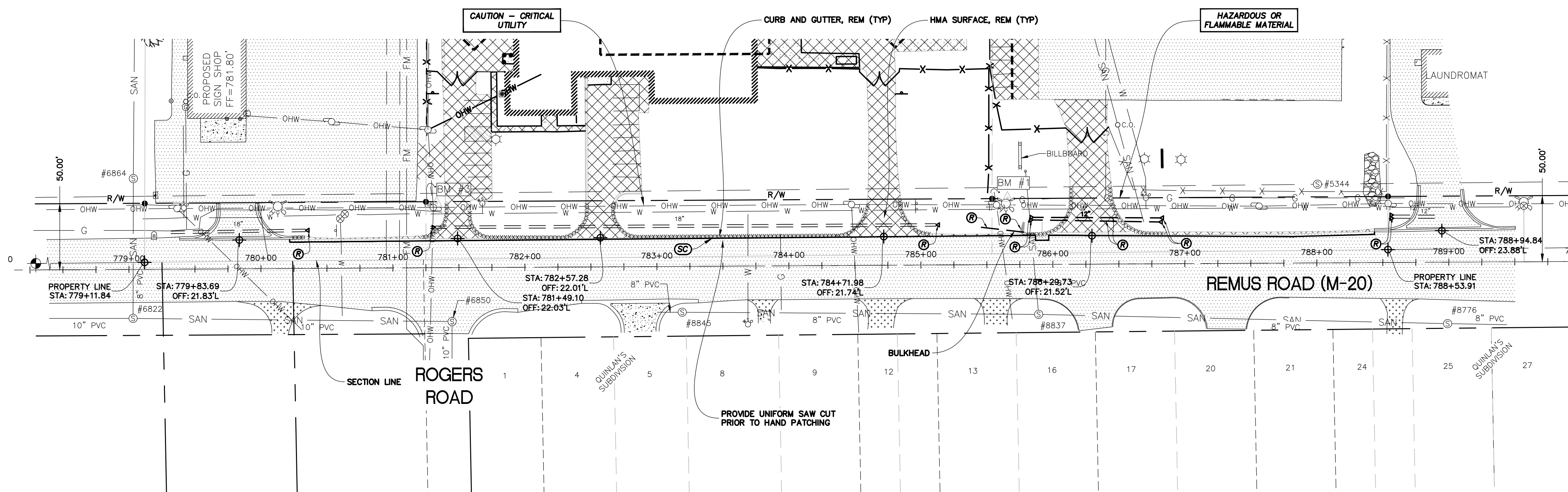


REVISION	DATE	DESCRIPTION

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APPROVED	JCW
CHECKED	JCW
DRAWN	RTW
JOB NO.	18-0014
DATE	12/3/2019
SCALE	NO SCALE
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MDOT STANDARD PLANS & SPECIAL DETAILS

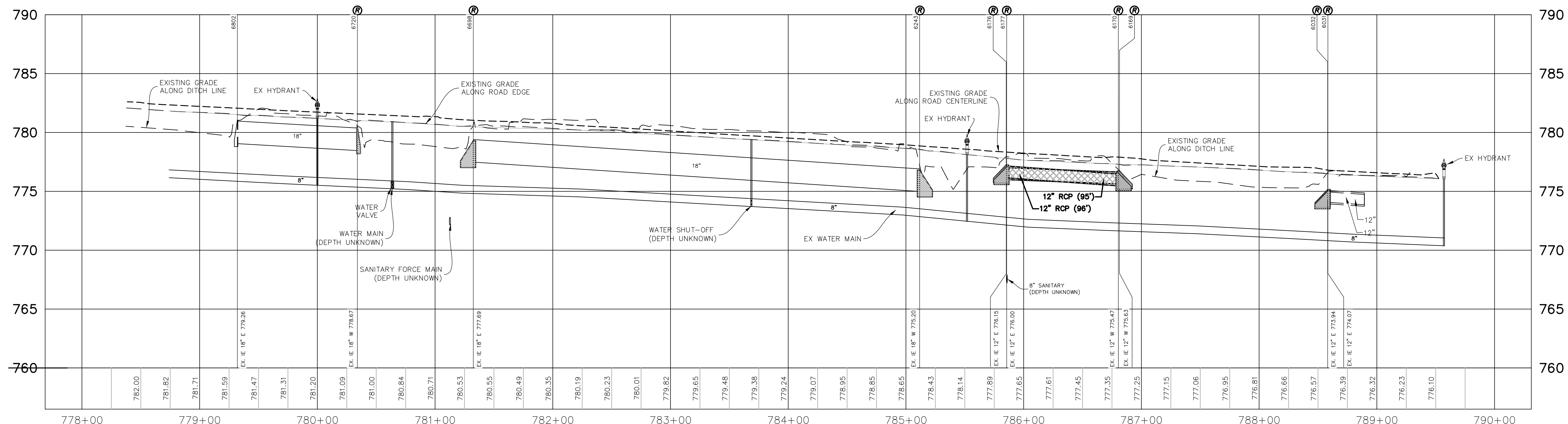


DEMOLITION LEGEND

- SAW CUT, INTERMEDIATE
- CURB AND GUTTER, REM
- PAVT, REM, MODIFIED
- REMOVAL
- SAWCUT
- SAVE
- RELOCATE BY OTHERS
- PROTECT

REVISION	DATE	DESCRIPTION

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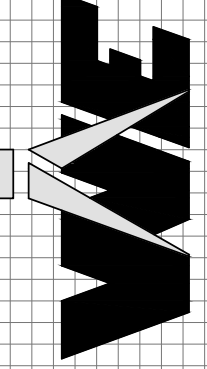
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PROJECT	ISABELLA COUNTY ROAD COMMISSION CITY OF M.T. PLEASANT ISABELLA COUNTY, MICHIGAN
APPROVED	JCW
CHECKED	JCW
DRAWN	TAP
JOB NO.	18-0014
DATE	12/9/2019
SCALE	1" = 50'
SHEET NO.	25

M-20 REMOVAL PLAN

REVISION	DATE	DESCRIPTION

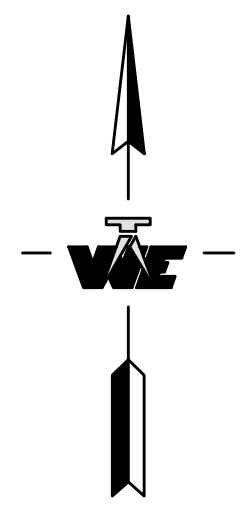
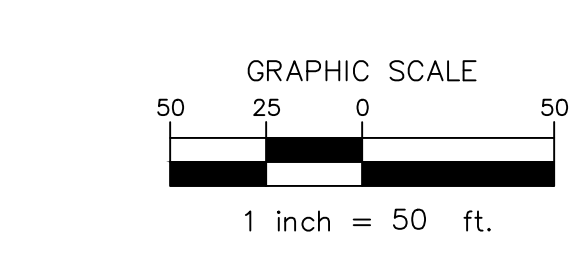
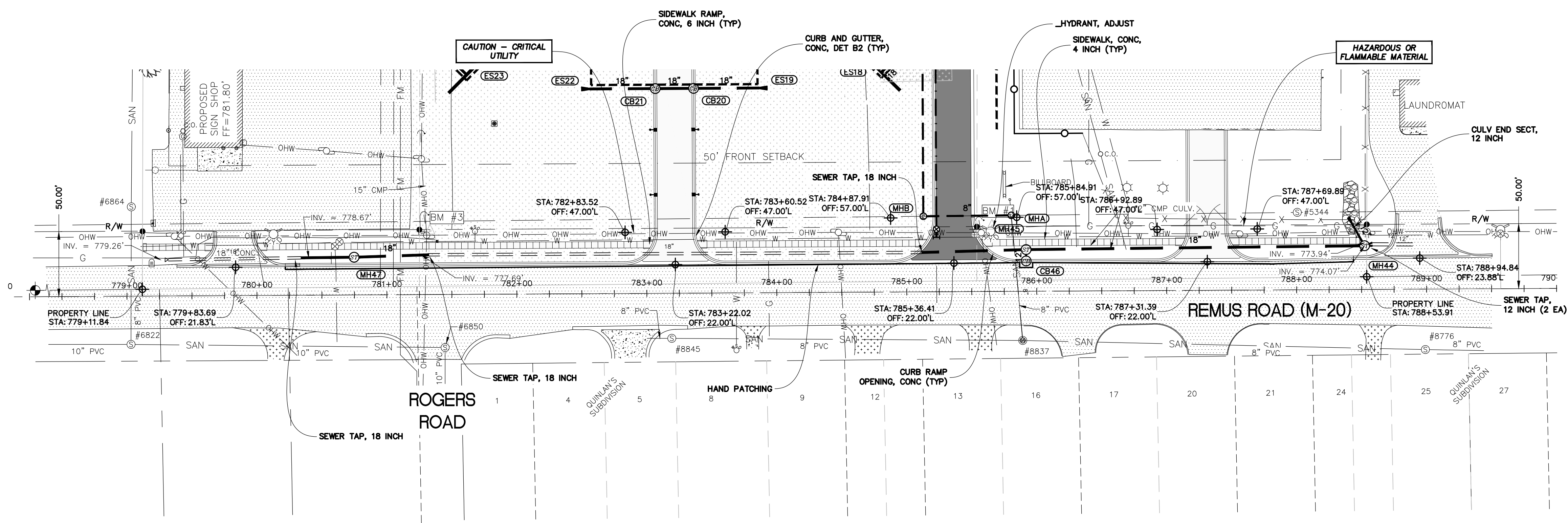
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ISABELLA COUNTY ROAD COMMISSION
CITY OF M.T. PLEASANT
ISABELLA COUNTY, MICHIGAN

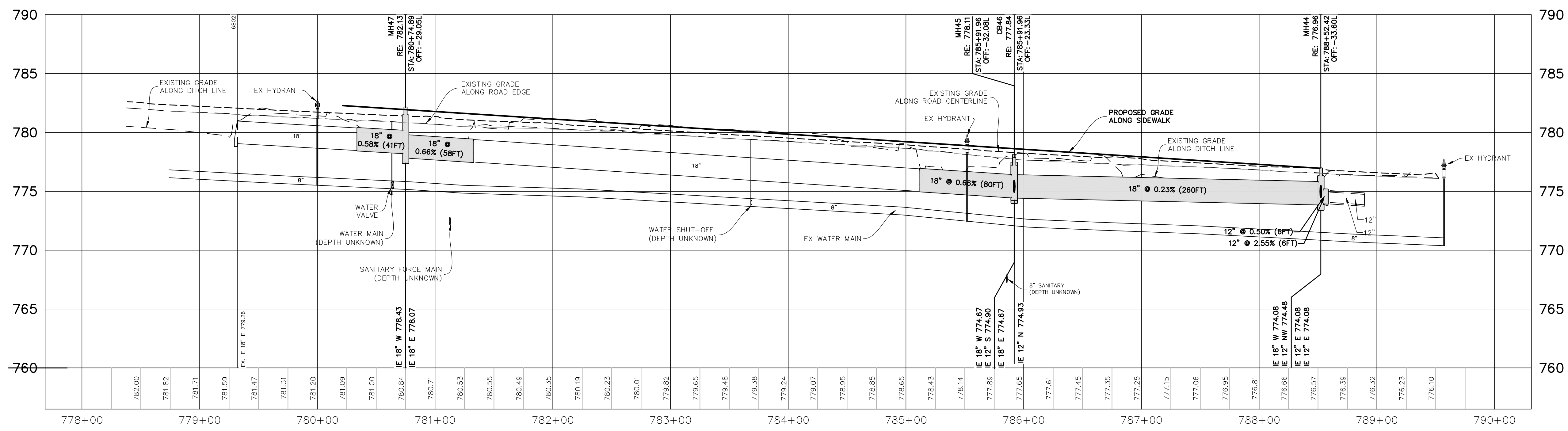
M-20 CONSTRUCTION PLAN

PROJECT	APPROVED
	JCW
CHECKED	JCW
DRAWN	TAP
JOB NO.	18-0014
DATE	12/9/2019
SCALE	1" = 50'
SHEET NO.	26

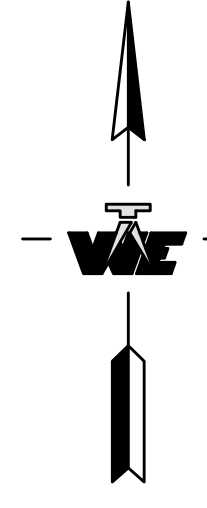
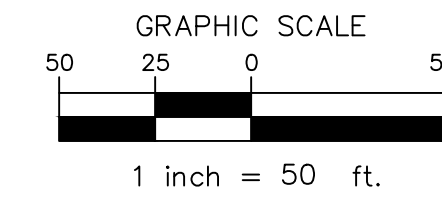
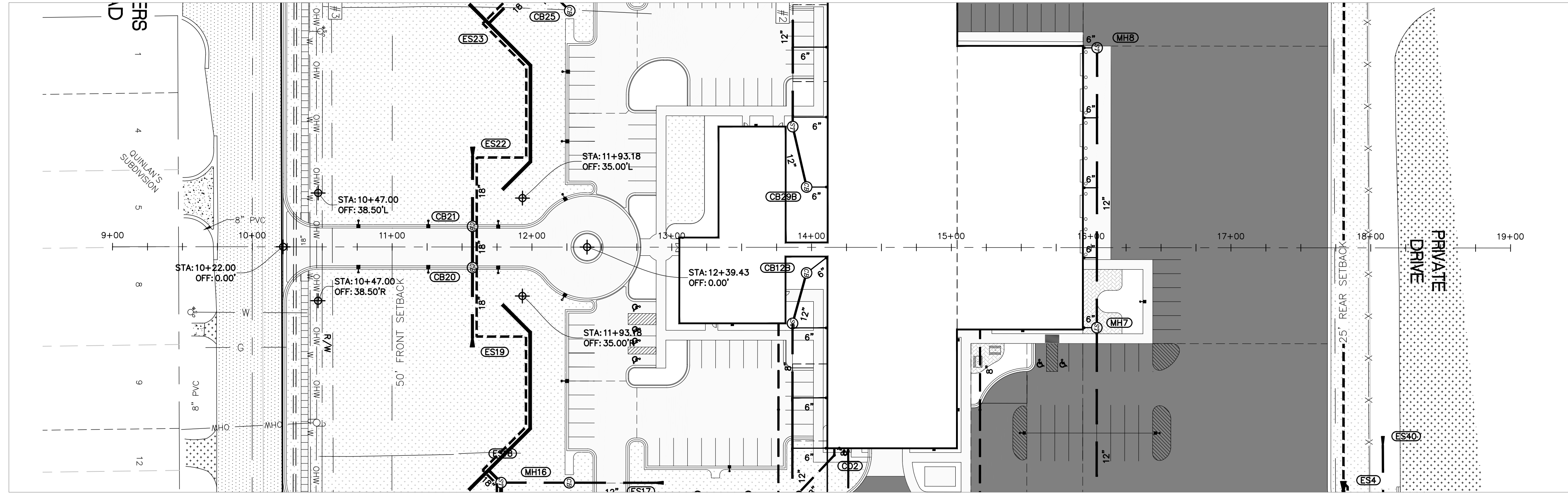


PROPOSED LEGEND

- ⊙ SANITARY MANHOLE
- ⊙ STORM MANHOLE
- ⊙ STORM CATCH BASIN

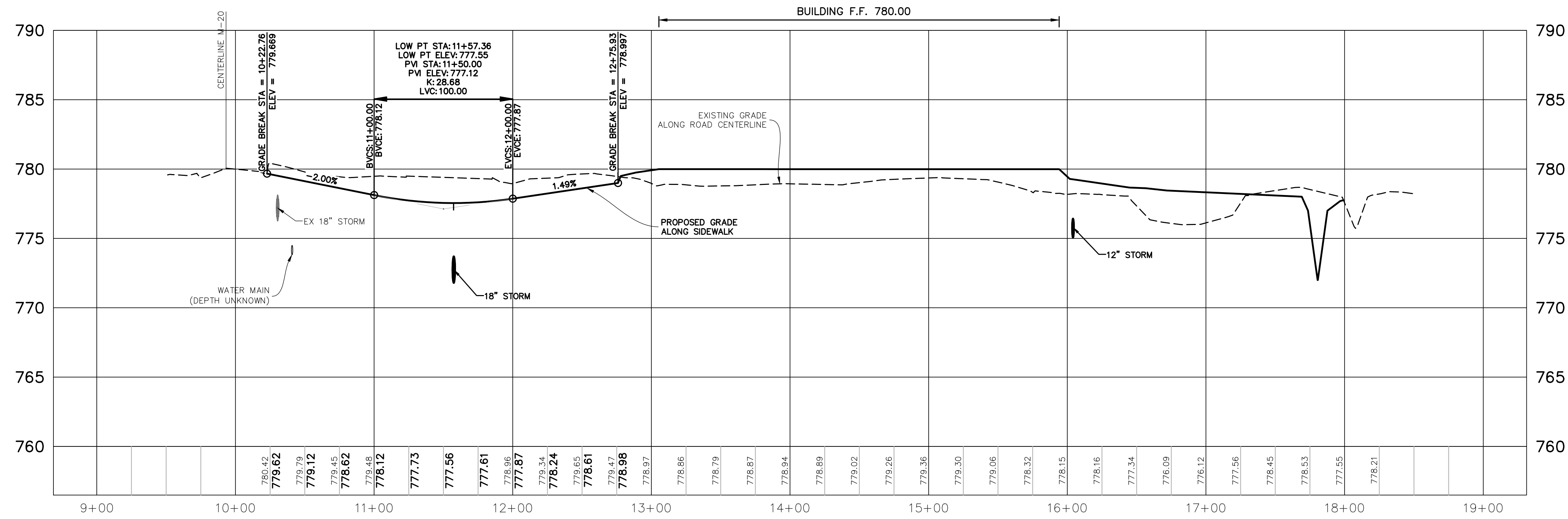


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PROPOSED LEGEND

- ⊙ SANITARY MANHOLE
- ⊙ STORM MANHOLE
- ⊙ STORM CATCH BASIN



REVISION	DATE	DRAWN	DESCRIPTION

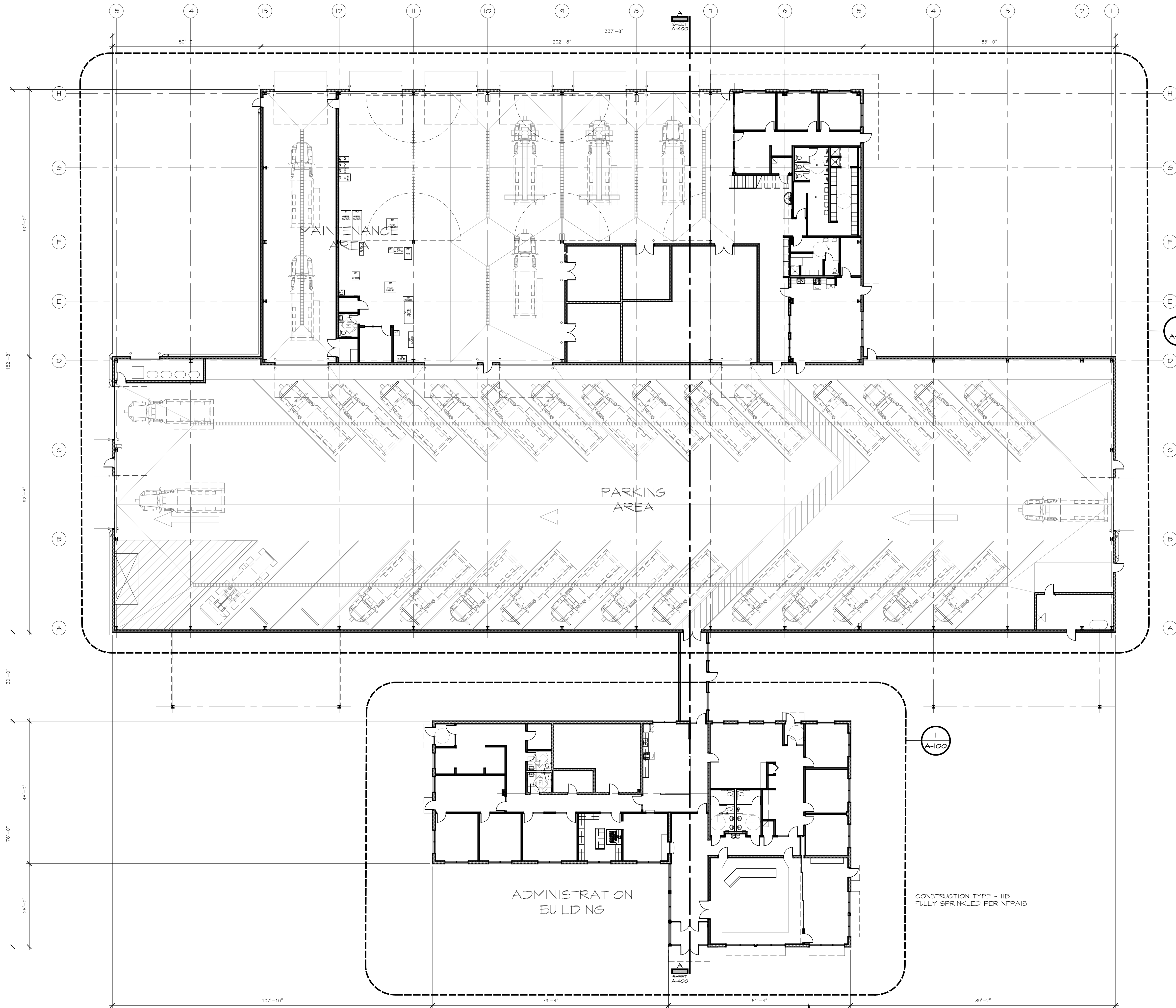
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ISABELLA COUNTY ROAD COMMISSION
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PROJECT	ISABELLA COUNTY ROAD COMMISSION
APPROVED	JCW
CHECKED	JCW
DRAWN	TAP
JOB NO.	18-0014
DATE	12/9/2019
SCALE	1" = 50'
SHEET NO.	27

MAIN ENTRANCE DRIVE CONSTRUCTION PLAN



COMPOSITE FLOOR PLAN
1/16 = 1'-0"

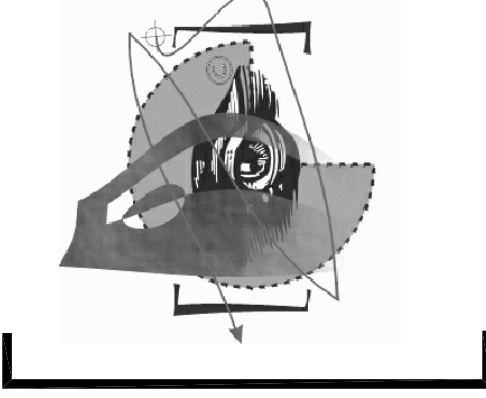
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SITE PLAN REVIEW
12/03/19

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Project Type
NEW CONSTRUCTION

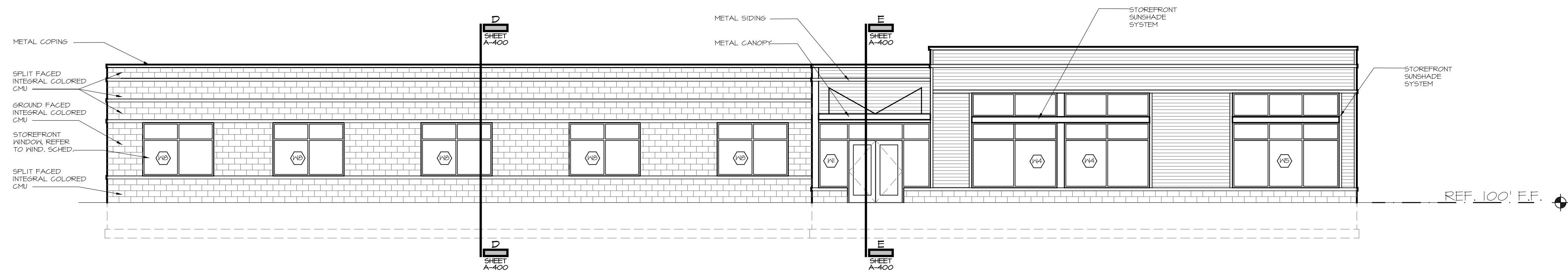
Project
ISABELLA COUNTY ROAD COMMISSION
NEW FACILITY & SITE IMPROVEMENT

Client
ISABELLA COUNTY

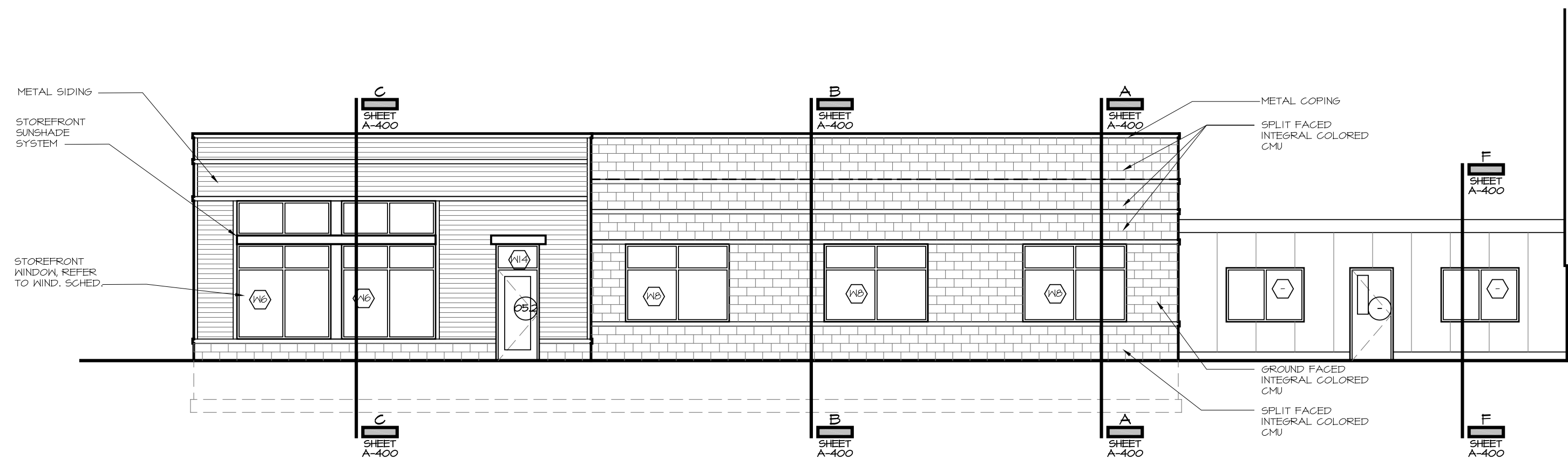
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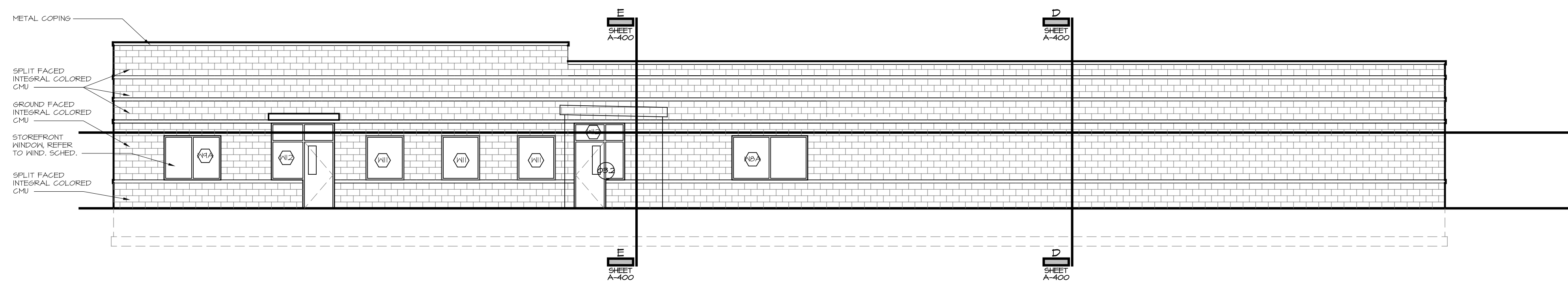
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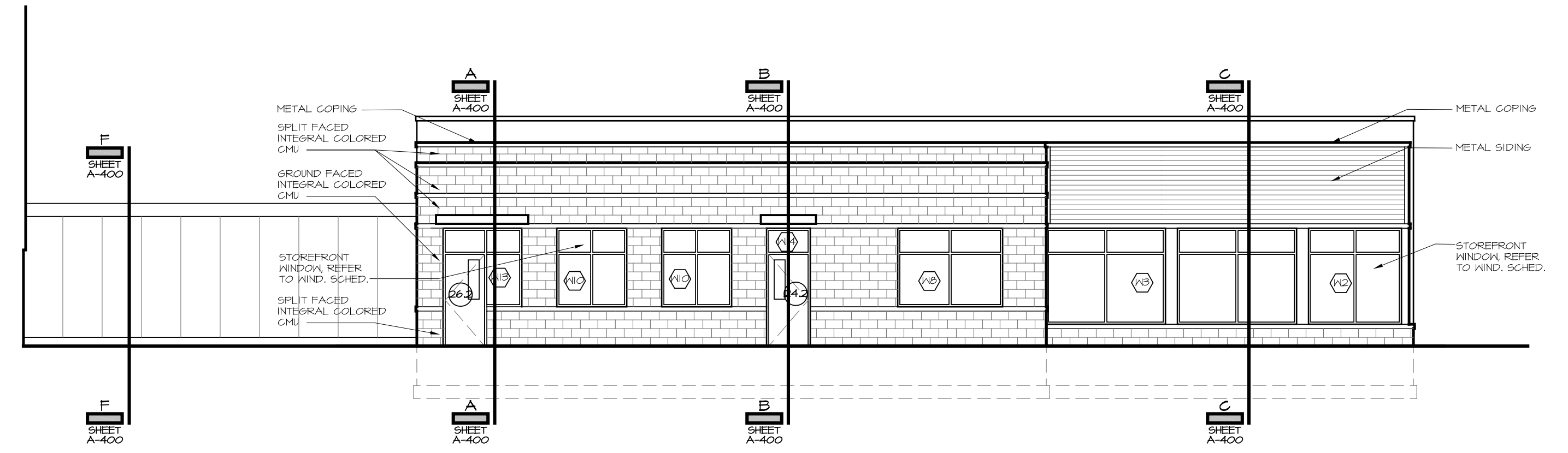
ADMN. BLDG SOUTH ELEVATION
 1/8" = 1'-0"



ADMN. BLDG EAST ELEVATION
 1/8" = 1'-0"



ADMN. BLDG NORTH ELEVATION
 1/8" = 1'-0"



ADMN. BLDG WEST ELEVATION
 1/8" = 1'-0"

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Project Type
NEW CONSTRUCTION

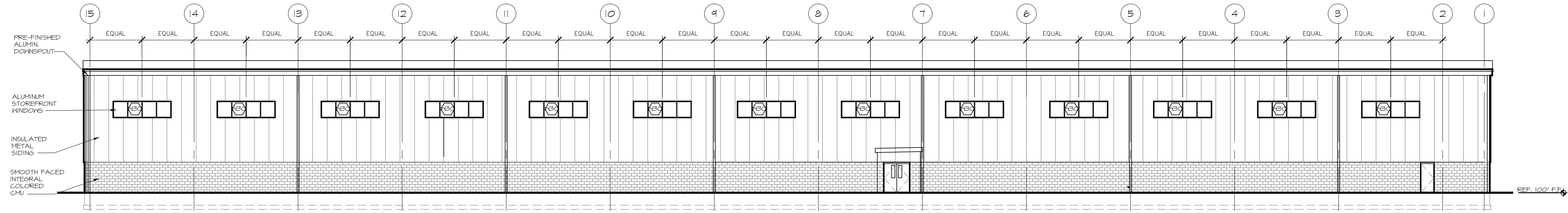
Project
ISABELLA COUNTY ROAD COMMISSION
 NEW FACILITY & SITE IMPROVEMENT

Client
ISABELLA COUNTY

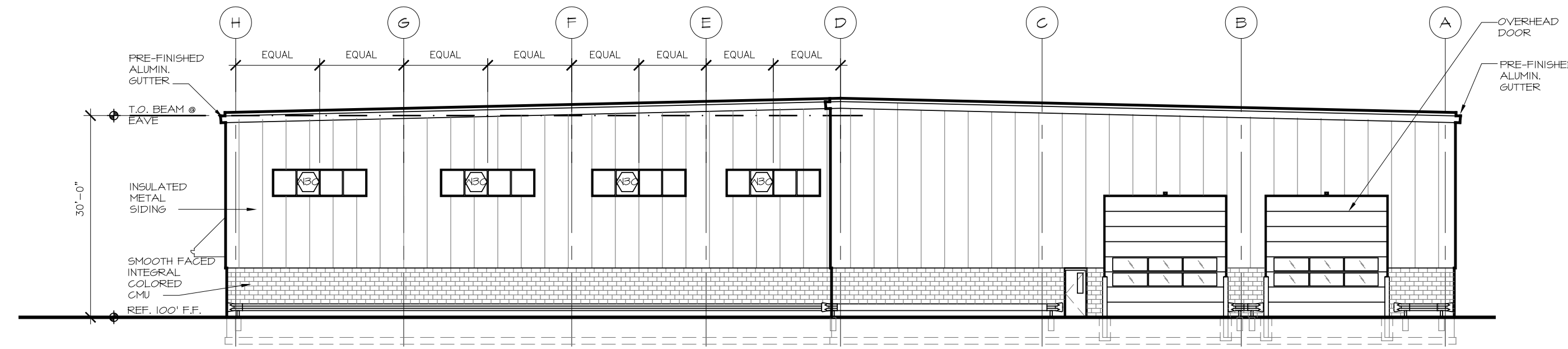
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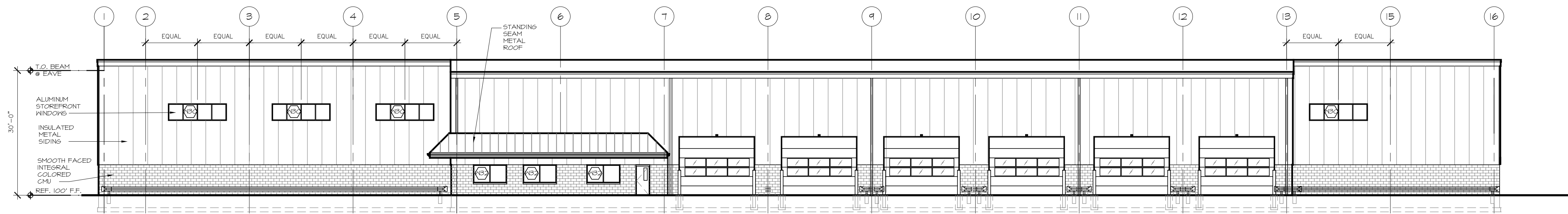
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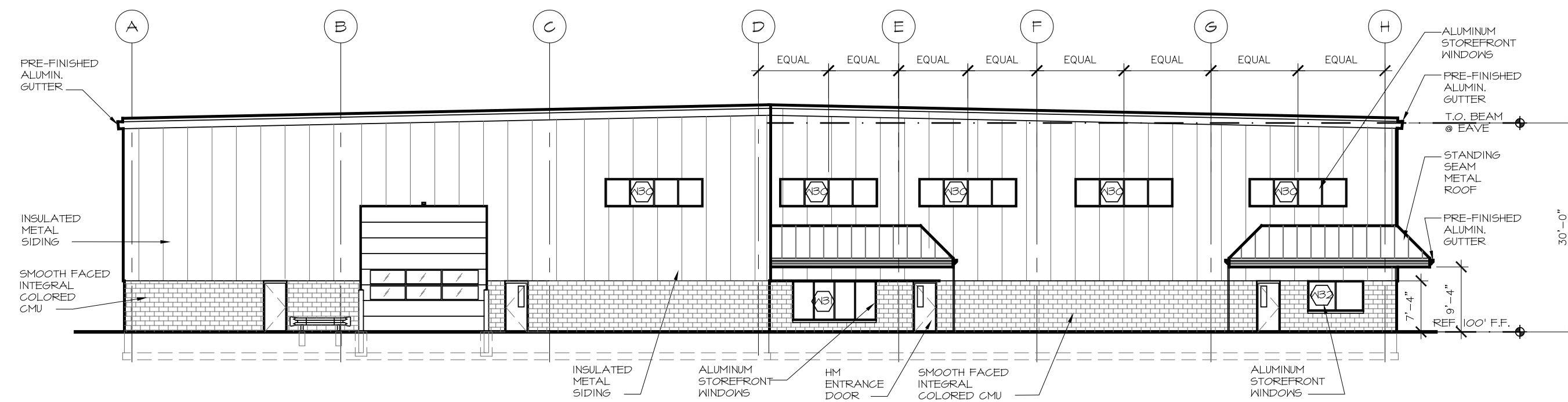
PARKING/MAINTENANCE BLDG SOUTH ELEVATION
 ■ ■ ■
 1/16" = 1'-0"



PARKING/MAINTENANCE BLDG WEST ELEVATION
 ■ ■ ■
 1/16" = 1'-0"



PARKING/MAINTENANCE BLDG NORTH ELEVATION
 ■ ■ ■
 1/16" = 1'-0"



PARKING/MAINTENANCE BLDG EAST ELEVATION
 ■ ■ ■
 1/16" = 1'-0"

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

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SITE PLAN REVIEW
 12/03/19

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

Project Type
NEW CONSTRUCTION

Project
ISABELLA COUNTY ROAD COMMISSION
 NEW FACILITY & SITE IMPROVEMENT

Client
ISABELLA COUNTY

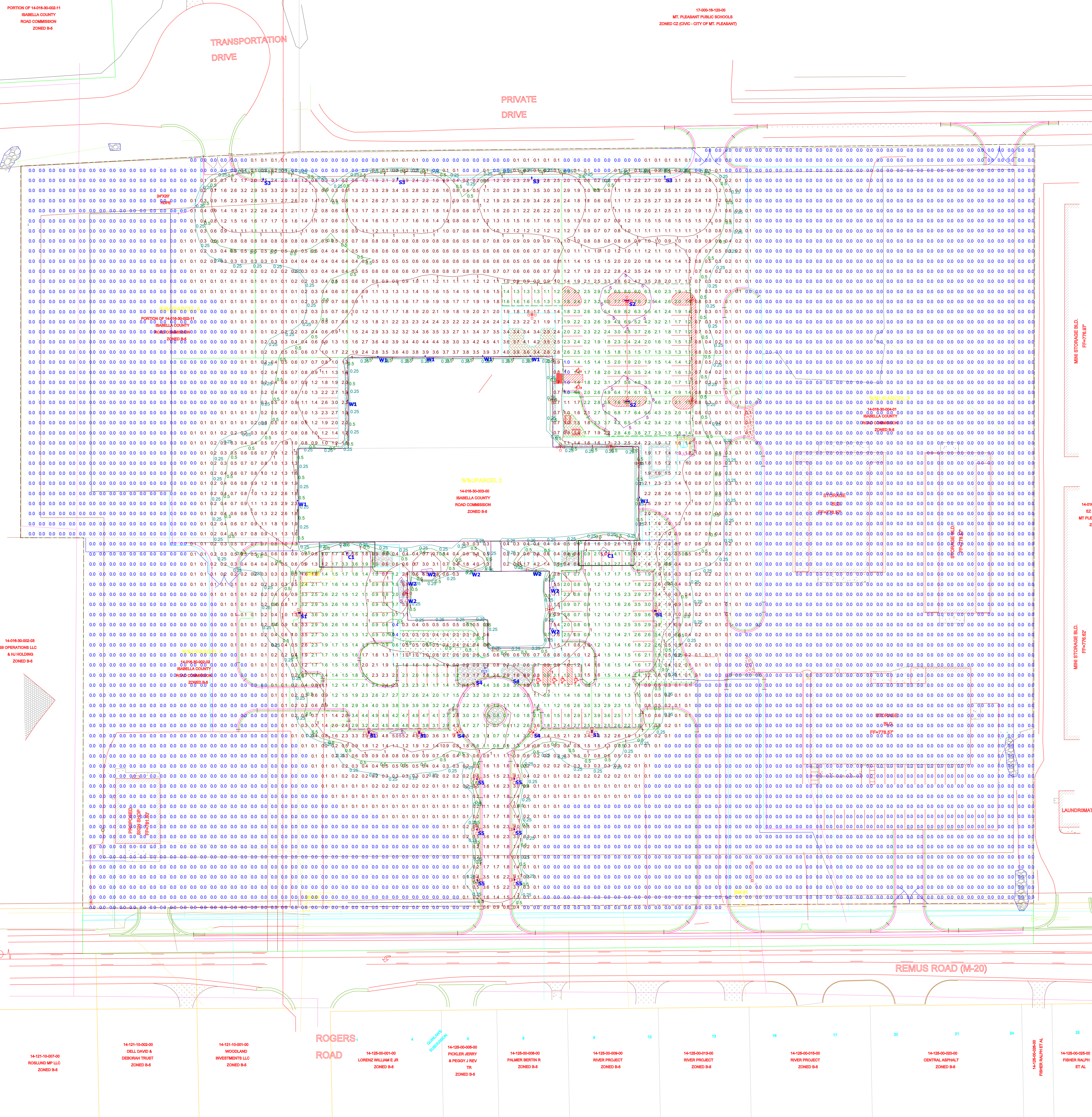
Project Number
18.007

Sheet
A-301

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ISABELLA COUNTY ROAD COMMISSION
SITE PT BY PT PHOTOMETRICS



Symbol	Label	Manufacturer	Catalog Number	Lamp	Filename	Number Lamps	Lumens per Lamp	LLF	Wattage	Description
C1	2	EATON - MCGRAW-EDISON (FORMER COOPER LIGHTING)	TT-C1-LED-E1-MQ-CG	(168) 4000K CCT, 70 CRI LEDES	TT-C1-LED-E1-MQ-CG.ies	168	20,732.78	1	28	TOPIER LED PARKING GARAGE LUMINAIRE MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS
W1	7	EATON - MCGRAW-EDISON (FORMER COOPER LIGHTING)	GWC-AF-02-LED-E1-T4FT		GWC-AF-02-LED-E1-T4FT.ies	32	398.6763	1	113	GALLEON WALL LUMINAIRE (2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDES EACH AND TYPE IV FORWARD THROW OPTICS Industrial, Landscape, Library, Office, Parking, Parks, Pathway, Pedestrian, Prison, Recreation, Residential Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET
W2	7	EATON - LUMARK (FORMER COOPER LIGHTING)	XTOR2B-W	EATON LED 4000K	XTOR2B-W.ies	1	2101.709	1	18.2	CROSSTOUR 18W WALL MOUNT LED
S1	5	EATON - MCGRAW-EDISON (FORMER COOPER LIGHTING)	GLEON-AF-03-LED-E1-T4FT		GLEON-AF-03-LED-E1-T4FT.ies	48	388.8194	1	166	GALLEON AREA AND ROADWAY LUMINAIRE (3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDES EACH AND TYPE IV FORWARD THROW OPTICS Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET
S2	2	EATON - MCGRAW-EDISON (FORMER COOPER LIGHTING)	GLEON-AF-03-LED-E1-T4FT		GLEON-AF-03-LED-E1-T4FT.ies	48	388.8194	1	332	GALLEON AREA AND ROADWAY LUMINAIRE (3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDES EACH AND TYPE IV FORWARD THROW OPTICS Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET
S3	4	EATON - MCGRAW-EDISON (FORMER COOPER LIGHTING)	GLEON-AF-03-LED-E1-SL4-HSS		GLEON-AF-03-LED-E1-SL4-HSS.ies	48	313.9884	1	166	GALLEON AREA AND ROADWAY LUMINAIRE (3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDES EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET
S4	4	PHILIPS LUMEC	L80-48W16LED3K-T-LE4	(1) LEDGINE 16 LED	L80-48W16LED3K-T-LE4.ies	1	3104.979	1	55	L80 POST TOP LUMINAIRE
S5	6	PHILIPS LUMEC	L80-35W32LED3K-T-LE3-HS.ies	(2) LEDGINE 16 LED	L80-35W32LED3K-T-LE3-HS.ies	1	2206.542	1	37	L80 POST TOP LUMINAIRE

No.	Label	MH	Tilt
1	C1	10.00	0.00
2	C1	10.00	0.00
1	S1	25.00	0.00
2	S1	25.00	0.00
3	S1	25.00	0.00
4	S1	25.00	0.00
5	S1	25.00	0.00
1	S2	20.00	0.00
2	S2	20.00	0.00
1	S3	25.00	0.00
2	S3	25.00	0.00
4	S3	25.00	0.00
5	S3	25.00	0.00
1	S4	10.00	0.00
2	S4	10.00	0.00
3	S4	10.00	0.00
4	S4	10.00	0.00
1	S5	10.00	0.00
2	S5	10.00	0.00
3	S5	10.00	0.00
4	S5	10.00	0.00
5	S5	10.00	0.00
6	S5	10.00	0.00
1	W1	25.00	0.00
2	W1	25.00	0.00
3	W1	25.00	0.00
4	W1	25.00	0.00
5	W1	25.00	0.00
6	W1	25.00	0.00
7	W1	25.00	0.00
1	W2	10.00	0.00
2	W2	10.00	0.00
3	W2	10.00	0.00
4	W2	10.00	0.00
5	W2	10.00	0.00
6	W2	10.00	0.00
7	W2	10.00	0.00

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
FRONT PARKING AREA	+	2.0 fc	6.6 fc	0.4 fc	16.5:1	5.0:1
Property Boundries	+	0.5 fc	10.0 fc	0.0 fc	N/A	N/A
REAR PARKING AREA	x	3.0 fc	10.0 fc	1.0 fc	10.0:1	3.0:1



Plan View
Scale - 1" = 50'

Designer
J. SULLIVAN
Date
12/11/2019
Scale
AS SHOWN
Drawing No.
Summary