



PLANNING COMMISSION MEETING

AGENDA – November 14, 2023

Mason City Hall, 201 W. Ash Street, Mason, MI
Sycamore Room 1st Floor, 6:30 p.m.

1. CALL TO ORDER
2. CONFIRMATION OF MEMBER ATTENDANCE
3. PUBLIC COMMENT
4. APPROVAL OF MINUTES
 - A. Approval of Minutes from the Planning Commission Meeting on October 10, 2023
5. UNFINISHED BUSINESS
6. NEW BUSINESS
 - A. Resolution 2023-16: Request from Rodney Austin, on Behalf of Efficiency Production, for concurrent approval of a Preliminary and Final Site Plan for an 11,250 s.f. addition to the existing manufacturing building, an addition of a paved drive for truck entry/exit to the site, and an addition of 20 parking spaces in an existing paved area, on property located at 685 Hull Rd, Mason MI, parcel number 33-19-10-16-100-017.
7. LIAISON REPORT ([11.03.2023](#))
8. ADJOURNMENT

**CITY OF MASON
PLANNING COMMISSION MEETING
MINUTES OF OCTOBER 10, 2023
DRAFT**

CALL TO ORDER

Sabbadin called the meeting to order at 6:30 p.m.

CONFIRMATION OF ATTENDANCE

			Present	Absent
1	Commissioner	Bliesener	X	
2	Council Liaison	Clark	X	
3	Commissioner	Kirkby		X
4	Commissioner	Malczewski	X	
5	Commissioner	Perrault		X
6	Commissioner	Sabbadin	X	
7	Commissioner	Waxman	X	
8	Commissioner	Wood		X
9	Commissioner	Wren	X	

Also present: Elizabeth A. Hude, AICP, Community Development Director,
Deborah Stuart, City Manager

PUBLIC COMMENT

None.

APPROVAL OF MINUTES

MOTION by Waxman, second by Clark, to approve the Planning Commission meeting minutes from September 12, 2023

MOTION APPROVED UNANIMOUSLY

UNFINISHED BUSINESS

None.

NEW BUSINESS

- A. *Resolution 2023-15: Request from Hubbell, Roth, & Clark, on behalf of the City of Mason, for concurrent approval of a Preliminary and Final Site Plan for the construction of new facilities and buildings, demolition of existing facilities, and other site improvements to the Waste Water Treatment Plant, on property located at 345 N. Jefferson St., Mason MI, parcel numbers 33-19-10-05-427-005, 33-19-10-05-427-003, and 33-19-10-05-427-004.*

MOTION by Waxman, second by Clark, to approve Resolution 2023-15.

DISCUSSION:

Director Hude commented that staff is looking into the fence in front of the WWTP. They are currently proposing a chain link fence and are also looking into the option of bars. Commissioner Waxman commented that either option is fine, but bars may be more aesthetically pleasing. There was discussion of the waiver for landscaping and the buffers.

MOTION APPROVED UNANIMOUSLY**LIAISON REPORT**

Clark reported that the early voting agreement between the City of Mason and Alaieton Township was approved and they authorized the Mayor and the City Clerk to execute that agreement. He reported that the resolution to maintain the 80/20 cost sharing model of Public Act 152 of 2011 was adopted. On September 18, 2023, they approved a new revised purchasing policy that was presented by the administration and also approved the application by Crown Castle Fiber for access to ongoing use of public ways by telecommunication providers. They cleared up some things with Ingham County related to the Kerr Street lift station property and adopted the Master Plan that was recommended by the Planning Commission.

DISCUSSION:

None.

Additional Comments:

Sabbadin commended city staff for a job well done with the City of Mason Open House. Hude added that staff handed out Master Plan flyers at the open house and that the Master Plan is now available on the website.

ADJOURN

The meeting adjourned at approximately 7:03 p.m.

Megan Wren, Secretary



Staff Agenda Report: November 9, 2023 Planning Commission

AGENDA ITEM:	Resolution 2023-16: Request from Rodney Austin, on Behalf of Efficiency Production, for concurrent approval of a Preliminary and Final Site Plan for an 11,250 sq. ft. addition to the existing manufacturing building, an addition of a paved drive for truck entry/exit to the site, and an addition of 20 parking spaces in an existing paved area, on property located at 685 Hull Rd, Mason MI, parcel numbers 33-19-10-16-100-017 and 33-19-10-16-100-025.
RECOMMENDED ACTION:	Motion to approve Resolution 2023-16
PROJECT ADDRESS:	685 Hull Road
APPLICANT:	Rodney Austin, Efficiency Production
OWNER:	Arcosa Inc.

Authority

- [Section 94-225\(a\)](#) All uses of land and structures which are subject to the requirements of this article shall receive preliminary site plan review and approval prior to the submission of a final site plan unless the zoning official determines that concurrent preliminary and final site plan review and approval will promote the general welfare of the city.
- [Section 94-226 \(e\)](#): The planning commission shall have the authority to approve, approve with conditions, or deny an application for final site plan review and approval. Final site plan review shall follow the procedures for preliminary site plan review in subsection [94-225](#) and shall be reviewed in accordance with the standards in section [94-227](#).

Public Notice: The agenda containing the matter was posted on Thursday, November 9, 2023, in accordance with the Open Meetings Act.

Relation to Other Actions: None.

Submittal Criteria: The applicant paid a fee of \$300, and together with the documents listed above, the application appears to satisfy the submittal requirements of [Sec. 94-226\(c\)](#).

Review Criteria: The applicant has submitted a Site Plan that, with the conditions and waivers, appears to meet the requirements for concurrent approval of a Preliminary and Final Site Plan.

ATTACHMENTS:

- Resolution 2023-16
- Application and supporting materials received October 9, 2023
- Site Plan dated October 6, 2023, revised November 8, 2023

An aerial photograph of a property with a yellow rectangle highlighting a building. A red arrow points from the left towards the highlighted building. The map includes various numerical labels and boundary lines. The labels are as follows:

- Top left: 534.2
- Top center: 025
- Top right: 639.96
- Right edge (top to bottom): 476.44, 493.82, 457.14, 498.7
- Bottom right: 170.83
- Bottom center: 975.62, 762.51
- Bottom left: 201.25
- Left edge (top to bottom): 416.4, 417.68, 149.43, 474.71
- Center: 673.73 (above the yellow rectangle), 017 (below the yellow rectangle)
- Bottom center: 011
- Left edge (bottom): 71
- Left edge (bottom): 015

REVIEW CRITERIA:

Per [Sec. 94-224](#), the planning commission may approve, approve with conditions, or deny any site plan when referred and reviewed in accordance with the standards for site plan review and approval as listed in [Sec. 94-227](#) of the Zoning Ordinance. Based upon staff's review, the application appears to meet the standards for approval as noted below.

STATUS/NOTE	REQUIREMENT
MEETS	(1) The site shall be developed so that all elements shall be harmoniously and efficiently organized in relation to the size, shape, type and topography of the site and surrounding property.
The proposed addition, truck entry/exit and parking spaces appear to meet this requirement.	
MEETS	(2) The site shall be developed so as not to impede the normal and orderly development, improvement, and use of surrounding property for uses permitted in this chapter.
Surrounding properties will not be affected in a manner described in this requirement.	
MEETS	(3) All buildings or groups of buildings shall be arranged to permit emergency vehicle access by some practical means to all sites.
Emergency vehicles have access to the site now and the improvements will not restrict emergency vehicle access.	
MEETS	(4) Every structure or dwelling unit shall have direct access to a public street or indirect access to a public street via an approved dedicated private street.
The site is located and fronts on Trillium Drive, a local public roadway connecting the site to Hull Rd, also a public roadway.	
MEETS	(5) Appropriate measures shall be taken to ensure that the addition or removal of surface waters will not adversely affect neighboring properties, that controls are in place to minimize sedimentation and erosion, and that topographic alterations are minimized to accommodate storm water management.
The proposed improvements include the required stormwater management infrastructure and will not adversely affect neighboring properties.	
MEETS	(6) Provisions shall be made for the construction of storm sewer facilities including grading, gutters, piping, on-site storage, and treatment of turf as required to handle stormwater and prevent erosion.
The site is already served by storm sewer facilities and changes are proposed that meet the City's requirements.	
MEETS	(7) Secondary containment for above ground areas where hazardous substances are stored or used shall be provided as required by the city fire chief.
Staff is not aware of any hazardous substances that require secondary containment as required by this section or Ch. 26 Fire Prevention and Protection .	
MEETS	(8) Exterior lighting shall be designed and located so that the source of illumination is directed away from adjacent properties, the intensity of lighting is the minimum necessary, and the direction of lighting is downward as much as is possible and appropriate for the project.
New lighting on the site will be shielded and directed downwards therefore meeting this requirement. Lighting details are shown on plan sheets labeled 1 of 1 (the last 2 pages following sheets 1-4) in the application.	
MEETS	(9) All loading and unloading areas, outside storage areas, and refuse receptacles shall be screened from casual view from the public rights-of-way and adjoining land uses.
There are no new proposed dumpsters on the applicant's site. Existing dumpsters are located behind the principle building and are not visible from the street.	
MEETS	(10) Site plans shall meet the driveway, traffic safety, and parking standards of the city in such manner as necessary to address the following:
	a. Safe and efficient vehicular and non-vehicular circulation, including parking areas, non-motorized linkages to abutting parcels, uses, sidewalks, and trails.
	b. Shared driveways and service drives.
	c. Adequate and properly located utilities.
The proposed improvements generally meet these requirements.	
MEETS	(11) Provisions shall be made for proposed common areas and public features to be reasonably maintained.
There are no common areas or public features located on the applicant's property.	
MEETS	(12) The site plan submittal shall demonstrate compliance with all applicable requirements of this chapter, chapters 58 and 74, the building code, and county, state, and federal law.
The applicant will be responsible for obtaining any necessary permits described here.	

MEETS WITH CONDITION	Chapter 94 – Zoning and Chapter 100 – Dimensional Requirements
<p>With the recommended condition and waivers, the plan appears to meet the building height, setbacks and lot coverage site development standards listed in Section 94-121(c) and Tables 100-1 and 100-2 with the two lots combined into one. The plan notes a Parcel #3 (.06 acres), however, the City's records show this area may already be combined as part of Parcel #2. This will be confirmed as part of the land combination application process.</p> <p>CONDITION: The two parcels numbered 33-19-10-16-100-017 and 33-19-10-16-100-025 will be combined into a single lot.</p>	
MEETS WITH WAIVER	Sec. 94-292 and Table 100-5 Parking
<p>Based upon the Usable Floor Area calculation of 71,225 sq. ft., 235 parking spaces are required. There are currently only 96 spaces proposed, four (4) of which are ADA. The applicant has provided detail on the number of employees in the attached application and on the plan sheet 1. They are proposing an additional 20 spaces, for a total of 96 spaces to meet their needs for 80 employees and customers. Because this is an industrial site, not a retail operation, the frequency for needing customer parking on the site is very rare. <i>Therefore, staff recommends a waiver for the remaining 139 required spaces be granted in accordance with Sec. 94-292(g)(2):</i></p> <p>Parking space deferment. Where the property owner can demonstrate that the required amount of parking is excessive, the site plan approving body may waive the parking requirement and approve a parking area smaller than required. The parking area waived shall be designated as reserved parking area for possible future use. The site plan approving body may subsequently require the applicant to construct additional parking spaces upon a determination by said body that the reduced number of parking spaces is not adequate to meet the parking needs of the use and public safety and welfare is at risk. Upon such a determination, the applicant shall convert the reserved parking area into available parking spaces in compliance with said determination and the requirements of this article within six months of being so directed in writing by the zoning official. The approved site plan shall clearly identify the location of this reserved parking area including dimensions and dotted parking space layout, and no buildings, structures, or similar improvements shall be established in the reserved parking area. A notice clearly identifying the location and number of reserved parking spaces should be recorded with the Ingham County Register of Deeds by the owner as a condition of final site plan approval. This discretion shall be guided by the basis of determination set forth at section 94-191(f). This subsection shall apply only to office, commercial, and industrial uses that are required to provide more than 50 parking spaces.</p> <p>WAIVER: Per Sec. 94-292(g)(2), the construction of 235 total required parking spaces is waived and the site plan will be revised showing a future parking reserve area for the remaining 139 spaces.</p>	
MEETS WITH WAIVER	Sec. 94-241 Landscape, screening and buffer requirements
<p>The site was originally developed in 1992. Landscaping, screening, and buffer requirements for this site do not appear to meet all the requirements of Sec. 94-241. The site was initially developed in 19 The Planning Commission can waive requirements that meet the criteria under Sec. 94-241 (6):</p> <p>“Any of the requirements of this section 94-241 may be waived or otherwise modified through site plan review and approval provided the approving body determines that specific characteristics of the site or site vicinity make such requirements unnecessary, inappropriate, or ineffective, or that such requirements would cause impaired vision at a driveway or street intersection. In addition, any of the requirements of this section 94-241 may be increased or otherwise modified through site plan review and approval provided the approving body determines that specific characteristics of the site or site vicinity justify additional measures to mitigate the impacts of a proposed use.”</p> <p>Please refer to the notes on plan sheet 3 for a full description of what the site requires, what is provided, and the waivers being requested. A summary of the information is as follows:</p> <p>Sec. 96-241(i) Off-street parking landscape development standards: The applicant has demonstrated they will meet the requirements of 4 trees and 9,747 sq. ft. of landscaped area as required for the new parking area containing 20 spaces.</p> <p>Sec. 94-241(c)(8) Landscape design standards: This section requires that in addition to any required buffer area or parking lot landscaping, <u>at least ten percent of the site area shall be landscaped with grasses and other live groundcovers, planting beds, and trees, or combinations thereof, and the site shall include a minimum of one tree per 10,000 square feet of disturbed land,</u></p>	

or fraction thereof. **The applicant has demonstrated it meets the 10% requirement; however, they are requesting a waiver for the requirement to plant additional trees beyond what currently exists on site.**

Sec. 94-241(b.) Buffer zone B required on all sides:

1. Minimum width of ten feet. **There is a 10-foot buffer around the perimeter of the lot with the exception of the curb cut entrance and the northeast corner of the site. The applicant is requesting a waiver.**
2. The buffer zone shall contain one tree for each 30 linear feet of buffer zone length or fraction thereof. At least one-half of the total number of trees required within the buffer zone shall be canopy trees. **There is existing vegetation in the buffer zones; however, they are requesting a waiver for the requirement to plant additional trees beyond what currently exists on site.**
3. If berming is used for all or part of the buffer zone screen, the berm shall contain a minimum of one shrub for each ten linear feet of berm length, or fraction thereof. All required plant material shall be placed on the top and exterior side slope of the berm. **None proposed.**
4. If a screen wall or fence is used for all or part of the buffer zone screen, a minimum of one shrub for each ten linear feet of wall or fence, or fraction thereof, shall be placed on the exterior side of the wall or fence. **None proposed.**
5. If plant material is used for all or part of the required buffer zone screen, the screen shall consist of a minimum of four shrubs for each 20 linear feet of screen length or fraction thereof. **None proposed.**
6. All areas outside of the planting beds shall be covered with grass or other living ground cover. **The area around the new parking spaces will meet this requirement and in areas shaded green on the plan. The applicant is requesting a waiver for additional ground cover beyond what is proposed.**

The adjacent properties are zoned M-1 and M-2 as noted above. Given the nature of the surrounding industrial uses on all sides, staff finds that requiring additional landscaping is excessive and would not provide any additional benefit regarding impacts to neighboring sites. *Staff recommends a waiver for additional landscaping beyond what is proposed as requested..*

WAIVER: Per Sec. 94-241(6): Additional landscaping required in Sec 94-241 beyond what is currently proposed is waived.

MEETS

Chapter 58 - Signs

No new or expanded freestanding sign is proposed. Any proposed signage may require a separate building permit subject to the requirements of [Chapter 58](#) of the Zoning Ordinance, including Division 2 of said chapter.

COMMENTS FROM AGENCIES

None received at this time.

**CITY OF MASON
PLANNING COMMISSION
RESOLUTION NO. 2022-16**

A RESOLUTION GRANTING CONCURRENT APPROVAL OF A JOINT PRELIMINARY AND FINAL SITE PLAN TO RODNEY AUSTIN, ON BEHALF OF EFFICIENCY PRODUCTION, FOR AN 11,250 SQ. FT. ADDITION TO THE EXISTING MANUFACTURING BUILDING, AN ADDITION OF A PAVED DRIVE FOR TRUCK ENTRY/EXIT TO THE SITE, AND AN ADDITION OF 20 PARKING SPACES IN AN EXISTING PAVED AREA, ON PROPERTY LOCATED AT 685 HULL RD, MASON MI, PARCEL NUMBERS 33-19-10-16-100-017 AND 33-19-10-16-100-025. THE PARCELS ARE ZONED M-1 LIGHT MANUFACTURING DISTRICT.

November 14, 2023

WHEREAS, a request has been received from Rodney Austin, on Behalf of Efficiency Production, for concurrent preliminary and final site plan approval for an 11,250 sq. ft. addition to the existing manufacturing building, an addition of a paved drive for truck entry/exit to the site, and an addition of 20 parking spaces in an existing paved area; and,

WHEREAS, the subject property is located at 685 Hull Rd, Mason MI, parcel numbers 33-19-10-16-100-017 and 33-19-10-16-100-025; and,

WHEREAS, the proposal is described on application materials provided on October 9, 2023, with a revised site plan received November 8, 2023; and,

WHEREAS, the parcel is zoned M-1 Light Manufacturing District; and

WHEREAS, Section 94-222 states that any use within the M-1 zoning district requires site plan review; and

WHEREAS, per Section 94-225, the zoning official has determined joint preliminary and final site plan review will promote the general welfare of the city; and

WHEREAS, the Planning Commission has received, reviewed, and accepts the Staff Agenda Report with project analysis dated November 9, 2023, as findings of fact that, with the condition and waivers listed herein, the proposed use will comply with the Preliminary and Final Site Plan Review Standards listed in Section 94-227.

NOW THEREFORE BE IT RESOLVED, that the City of Mason Planning Commission does hereby grant concurrent preliminary and final site plan approval to Rodney Austin, on Behalf of Efficiency Production, for an 11,250 sq. ft. addition to the existing manufacturing building, an addition of a paved drive for truck entry/exit to the site, and an addition of 20 parking spaces in an existing paved area, on property located at 685 Hull Rd, Mason MI, parcel numbers 33-19-10-16-100-017 and 33-19-10-16-100-017 with the following condition and waiver:

1. Parcels 33-19-10-16-100-017 and 33-19-10-16-100-025 will be combined into a single lot.
2. Additional landscaping required in Sec 94-241 beyond what is currently proposed is waived.
3. The construction of 235 total required parking spaces is waived and the site plan will be revised showing a future parking reserve area for the remaining 139 spaces.

The foregoing Resolution was moved for adoption by Planning Commissioner _____ and seconded by Planning Commissioner _____ and declared adopted by the following vote:

Yes (0)

No (0)

Absent (0)

RESOLUTION DECLARED ADOPTED

STATE OF MICHIGAN)

:SS.

COUNTY OF INGHAM)

I, the undersigned, the duly qualified and acting Clerk of the City of Mason, County of Ingham, State of Michigan, do hereby certify that the foregoing is a true and complete copy of a resolutions adopted by the Planning Commission of the City of Mason at a regularly scheduled meeting held on Tuesday, November 14, 2023 pursuant to the Michigan Open Meetings Act, the original of which is on is file in my office as part of the minutes.

IN WITNESS WHEREOF, I have hereunto set my official signature, this ____ day of _____ 2023.

Sarah J. Jarvis, City Clerk
City of Mason, Ingham County, Michigan



KEBS, INC.

PC PACKET 11

October 6, 2023

Elizabeth Hude
City of Mason Community Development
201 W. Ash Street
Mason, Michigan 48854



Re: Arcosa – 685 Hull Road

Dear Ms. Hude:

Please find attached the Site Plans, application and fee check for the Arcosa – 685 Hull Rd project for your review and approval. Also attached are drainage calculations for stormwater treatment and storage.

The project proposes an 11,250 s.f. addition to the existing manufacturing building, construction of a dedicated truck entry/exit drive, and striping 20 additional parking spaces on existing asphalt.

The building addition will extend utilities internally from the existing building and roof drains will be directed north to a proposed stormwater infiltration basin. The truck driveway will be paved and curbed and directed to drain to a 2nd proposed stormwater infiltration basin. New curb islands will be extended into the existing north paved area to allow for additional parking spaces.

The impervious surface area added by the building addition and truck driveway will be compensated for by creating the east infiltration basin and replacing gravel with pervious grass areas south of the office building and east of the building addition.

The proposed infiltration basins will provide stormwater pretreatment and storage of the proposed site additions prior to connecting to the existing on-site storm pipe that discharges upland of Sycamore Creek.

If you should have any questions regarding the plans, please do not hesitate to contact me at (517) 339-1014, or you can email me at ajpatrick@kebs.com.

Sincerely,

Allen J. Patrick, P.E.
KEBS, Inc.



November 8, 2023

Elizabeth Hude
City of Mason Community Development
201 W. Ash Street
Mason, Michigan 48854

Re: Arcosa – 685 Hull Road

Dear Ms. Hude:

Please find attached revised Site Plans per comments received from our November 6th meeting.

Revisions:

Sheet 1

- Plan was revised to include all of the development parcels. The parcels will be combined as part of this project.
- Site data table was updated to include the additional parcels in the site area, lot coverage, and open space calculations.
- Future parking area added in the NW portion of the development to show where parking would be provided to meet ordinance requirements if it is deemed to be necessary in the future.
- Existing sidewalk on north side of cul-de-sac shown and labeled.
- Outdoor gravel storage areas have been labeled to designate the material stored as raw steel product. The raw steel product is used in manufacturing processes inside the building.

Sheet 3

- Plan was revised to include all of the development parcels.
- Landscaping Requirement calculations updated to include parking, buffer, overall landscape, and overall trees.
- Buffer yard planting requirements were calculated and labeled for each property line surrounding the site. A waiver is requested for planting materials based on the location of the property, surrounding zoning, existing public easements, and existing vegetative screening.

If you should have any questions regarding the plans, please do not hesitate to contact me at (517) 339-1014, or you can email me at ajpatrick@kebs.com.

Sincerely,

Allen J. Patrick, P.E.
KEBS, Inc.



PERMIT APPLICATION

ZONING

Applicant– Please check one of the following:

<input type="checkbox"/>	Preliminary Site Plan Review
<input checked="" type="checkbox"/>	Final Site Plan Review
<input type="checkbox"/>	Special Use Permit*
<input type="checkbox"/>	Administrative Review
* includes Preliminary Site Plan Review	

DEPARTMENT USE ONLY

Application Received: _____

Tax ID: _____

Fee: _____

Receipt #: _____

RECEIVED
OCT 09 2023
**CITY OF MASON
PLANNING DEPT.**
Applicant Information:
Name: Rodney G AustinOrganization: Efficiency ProductionAddress: 685 Hull rd Mason MiTelephone Number: 676-8800

Facsimile Number: _____

Interest in Property (owner, tenant, option, etc.): Owner

Note: If applicant is anyone other than owner, request must be accompanied by a signed letter of authorization from the owner.

Property Information:
Owner: ARCOSATelephone Number: 676-8800Property Address: 685 Hull Road

Legal Description: If in a subdivision: Subdivision Name: _____ Lot Number: _____

If Metes and Bounds (can be provided on separate sheet): _____

See attached legal description
APPLICANT CERTIFICATION

By execution of this application, the person signing represents that the information provided and the accompanying documentation is, to the best of his/her knowledge, true and accurate. In addition, the person signing represents that he or she is authorized and does hereby grant a right of entry to City officials for the purpose of inspecting the premises and uses thereon to verify compliance with the terms and conditions of any Special Use Permit and/or Site Plan approval issued as a result of this application.

Signature: [Signature] Date: 6 Oct 23

Requested Description:

Written Description: Please use this section to describe the use or uses proposed. Attach additional pages, if necessary.

The proposed project consists of an 11,250 s.f. addition to the existing manufacturing building,
adding a paved drive for truck entry/exit to the site, and adding 20 parking spaces in an existing
paved area.

Available Services

Public Water ☒ Yes ☐ No

Paved Road (Asphalt or Concrete) ☒ Yes ☐ No

Public Sanitary Sewer ☒ Yes ☐ No

Public Storm Sewer ☒ Yes ☐ No

Estimate the Following

Traffic Generated 5 more vehicles in a 24 hour period

Total Employees 110: 75 day shift, 35 night

Population Increase 5 individual staff

Employees in Peak Shift 75

House of Operation 6 AM to 12 PM

Total Bldg. Area Proposed 11,250 s.f. addition (101,750 s.f., total bldg)

Mon Day through Fri day

Parking Spaces Provided 96

Project Phasing

This project will be completed in: ☒ One Phase ☐ Multiple Phases – Total No. of Phases: _____

Note: The phases of construction for multi-phase projects must be shown on the site plan

Application Materials

The following are checklists of items that generally must be submitted with applications for Preliminary Site Plan Review, Final Site Plan Review, and Special Use Permits. Applicants should review Articles VI and VII of Chapter 94 of the Mason Code for a complete listing of application requirements. All site plan drawings must comply with the requirements of Section 94-226(d) of the Zoning Ordinance. Incomplete applications will not be processed.

- ☐ Completed application form
- ☐ 2 copies of full scale site plan drawings
- ☐ Plans submitted on CD or PDF (email is acceptable)
- ☐ Legal description
- ☐ Proof of ownership/owner authorization
- ☐ Construction schedule for proposed project
- ☐ Construction calculations for utilities
- ☐ Fee (see below)
- ☐ Any other information deemed necessary

**Application Fee**

All requests must be accompanied by a fee, as established by the City Council. The fee schedule for Preliminary Site Plan Reviews, Final Site Plan Reviews, and Special Use Permits is as follows (As of October 16, 2006):

Administrative Reviews	\$70.00
Preliminary Site Plan Reviews	\$200.00
Final Site Plan Review	\$100.00
Special Use Permits (includes preliminary site plan review)	\$275.00



KEBS, INC.

Arcosa – Hull Road – Mason, MI Job E-101718

10-6-2023

Drainage Calculations

Disturbed area = 0.84 acres

Existing Site: Overall $C_{ex} = 0.59$

Pervious Area = 0.43 acres $c = 0.25$

Impervious Area = 0.41 acres $c = 0.95$

Proposed Site: Overall $C_{prop} = 0.86$

Pervious Area = 0.25 acres $c = 0.25$

Impervious Area = 0.59 acres $c = 0.95$

Proposed basins will retain the first flush and the excess for the 2yr/24h storm and the 100-year storm will be detained.

First Flush Volume = $V_{ff} = 1'' \times (1\text{ft}/12'') \times (43,560 \text{ ft}^2/\text{acre}) \times 0.84 \text{ acres} = 3,049 \text{ ft}^3$

2yr/24h storm volume = $V_{bf} = 2\text{yr}-24\text{hr}$ -Use MDNR Spreadsheet for Stormwater Runoff Volume Control:

Existing Bankfull = $V_{bf} = 4,141 \text{ ft}^3$ Proposed Bankfull = $V_{bf} = 5,205 \text{ ft}^3$

Required to retain the difference = $5,205 - 4,141 = 1,063 \text{ ft}^3$

100 yr storm volume (see attached spread sheet) = **5,333 ft³**

Portion to be stored in West Basin & portion to be stored in East Basin

Total volume required to be detained = **5,333 ft³** Total volume required to be retained = **1,063 ft³**

Volume to be split between two separate basins: West & East

Volume Provided: West Basin

Above ground storage: Area top (elev 914.3) = 2429 sft Area bottom (elev 913.3) = 1761 sft Vol = 2,086 cft

Below ground storage: Area bottom = 1761 sft x 20" sand/soil x 40% Vol = 1,174 cft

Total Volume for West Basin = 3,260 cft

Volume Provided: East Basin

Above ground storage: Area top (elev 914.3) = 2457 sft Area bottom (elev 913.3) = 1547 sft Vol = 1,985 cft

Below ground storage: Area bottom = 1547 sft x 34" sand/soil x 40% Vol = 1,753 cft

Total Volume for East Basin = 3,738 cft

Total Volume for both = 6,998 cft > 5333cft





KEBS, INC.

RECEIVED**OCT 09 2023****CITY OF MASON
PLANNING DEPT.*****Disturbed Area:***

New asphalt	= 13,376 sft
New Bldg	= 11,250 sft
Removed gravel	= 5,188 sft
Curb & gutter = 519 lft x 2' wide	= 1,038 sft
Inside island	= <u>5,756 sft</u>
Total	= 36,608 sft = 0.84 acres

Calculate proposed runoff factor

Disturbed Area: 0.84 acres = 36,590 sft

Impervious →

Building	=11,250 sft
Curb & gutter	= 1,038 sft
Asphalt	=13,376 sft
Basin water area	= 5,974 sft
	=31,638 sft

Pervious→

Grassy areas = 36,590 sft – 31,638 sft = 4,952 sft

Weighted runoff coefficient for proposed conditions:

$$C_{prop} = ((31,638 \times 0.95) + (4,952 \times 0.25)) / 36,590 = 0.86$$

Detention Requirement and Discharge Allowance for Small Sites

Storm Outlet: Sycamore Creek Existing "C" Value 0.59
 Job Name: Arcosa - Hull Rd Proposed "C" Value 0.86
 Job Number: 101718 Allowable Outflow (CFS) 0.50
 Drainage Area (Acres) 0.84 Storm Recurrence Interval (Yrs) 100

Duration	A Rainfall	B 100% Runoff	C Runoff "C"	D Runoff (Ac.-Ft.)	E Outflow (Ac.-Ft.)	F Storage (Ac.-Ft.)
10 min.	1.14	0.080	0.86	0.069	0.007	0.062
30 min.	1.99	0.139	0.86	0.120	0.021	0.099
1 hr.	2.72	0.190	0.86	0.164	0.041	0.122
2 hr.	3.03	0.212	0.86	0.182	0.083	0.100
3 hr.	3.43	0.240	0.86	0.206	0.124	0.083
6 hr.	4.56	0.319	0.86	0.275	0.248	0.027
12 hr.	4.91	0.344	0.86	0.296	0.496	-0.200
24 hr.	5.40	0.378	0.86	0.325	0.992	-0.667

- A) Inches of Rainfall: The numbers provided are from the National Weather Service Atlas #14
- B) 100% Runoff for 0.84 Acres: Divide inches of rainfall by 12 and multiply by number of acres.
- C) Proposed % Runoff: Insert selected "C" value. "C" value of the total site can be adjusted as a ratio of impervious area.
- D) Runoff: Multiply 100% runoff value by "C" value.
- E) Outflow: Multiply outflow in cfs by duration in hours, then by 3600 and divide by 43,560
- F) Storage Required: Subtract Outflow from Runoff. Storage value will increase to a peak value and then decrease. The peak (largest) value for storage should be used.

* Maximum allowable Outflow (CFS) $Q = A \times C_{ex}$
 (For existing developed sites)

** $Q(CFS) = 0.5$

KEBS INC. 2116 Haslett Road Haslett, MI 48840 (517) 339-1014	Runoff Detention (cft): 5333	By: Debbie Davis	Date: 10/6/2023
---	-------------------------------------	---------------------	--------------------

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CITY OF MASON
PLANNING DEPT.

Calculations for Stormwater Runoff Volume Control

PC PACKET 18

SITE NAME:

Efficiency Productions - Mason, MI



Total Site Disturbed Area:

0.84 acres

2-Year, 24-Hour Rainfall):

2.42 in

(See Rainfall Tab for regional rainfall value

or site specific rainfall event may be substituted with DNRE approval)

Pre-Development Conditions

Cover Type	Soil Type	Area (sf)	Area (ac)	CN (from TR-55)	S	Q Runoff ¹ (in)	Runoff Volume ² (ft ³)
					$\frac{1000}{CN} - 10$	$\frac{(P - 0.2S)^2}{(P - 0.8S)}$	$Q \times 1 / 12 \times A$
Woods / Meadow	A	0		30	23.3	0.239369797	0
Open Space	A	0		39	15.6	0.033587392	0
Woods	B	0		55	8.2	0.068494681	0
Meadow	B	0		58	7.2	0.114968453	0
Open Space	B	0		61	6.4	0.172877823	0
Woods	C	0		70	4.3	0.41762719	0
Meadow	C	0		71	4.1	0.451846569	0
Open Space	C	18730.8	0.43	74	3.5	0.563795961	880.0291154
Woods	D	0		77	3.0	0.690671598	0
Meadow	D	0		78	2.8	0.736538307	0
Open Space	D	0		80	2.5	0.834027149	0
Impervious	N/A	17859.6	0.41	98	0.20	2.19122478	3261.19984
Other:	N/A	0		65	5.38	0.268123978	0
TOTAL:	N/A	36590.4	0.8	N/A	N/A	N/A	4,141

Post-Development Conditions

Cover Type	Soil Type	Area (sf)	Area (ac)	CN*	S	Q Runoff ¹ (in)	Runoff Volume ² (ft ³)
Impervious	N/A	25700.4	0.59	98	0.2	2.19122478	4692.946111
Open Space	C	10890	0.25	74	3.5	0.563795961	511.6448345
Open Space	D	0		80	2.5	0.834027149	0
Other:		0		64	5.6	0.242344653	0
TOTAL:	N/A		0.8	N/A	N/A	N/A	5,205

Runoff Volume Increase (ft³): 1,063

Runoff Volume Increase = (Post-Dev. Runoff Volume) MINUS (Pre-Dev. Runoff Volume)

1. Runoff (in) = $Q = (P - I_a)^2 / (P - I_a) + S$

$I_a = 0.2S$ therefore;

Runoff (in) = $Q = (P - 0.2S)^2 / (P + 0.8S)$

Where: P = 2-Year, 24-Hour Rainfall (in)

S = $1000 / CN - 10$

CN = Curve Number

Q = Runoff (in)

Area = Area of specific land cover (ft²)

2. Runoff Volume (ft³) = $Q \times 1 / 12 \times \text{Area}$

* Runoff Volume must be calculated separately for pervious and impervious areas (without using a weighted CN)

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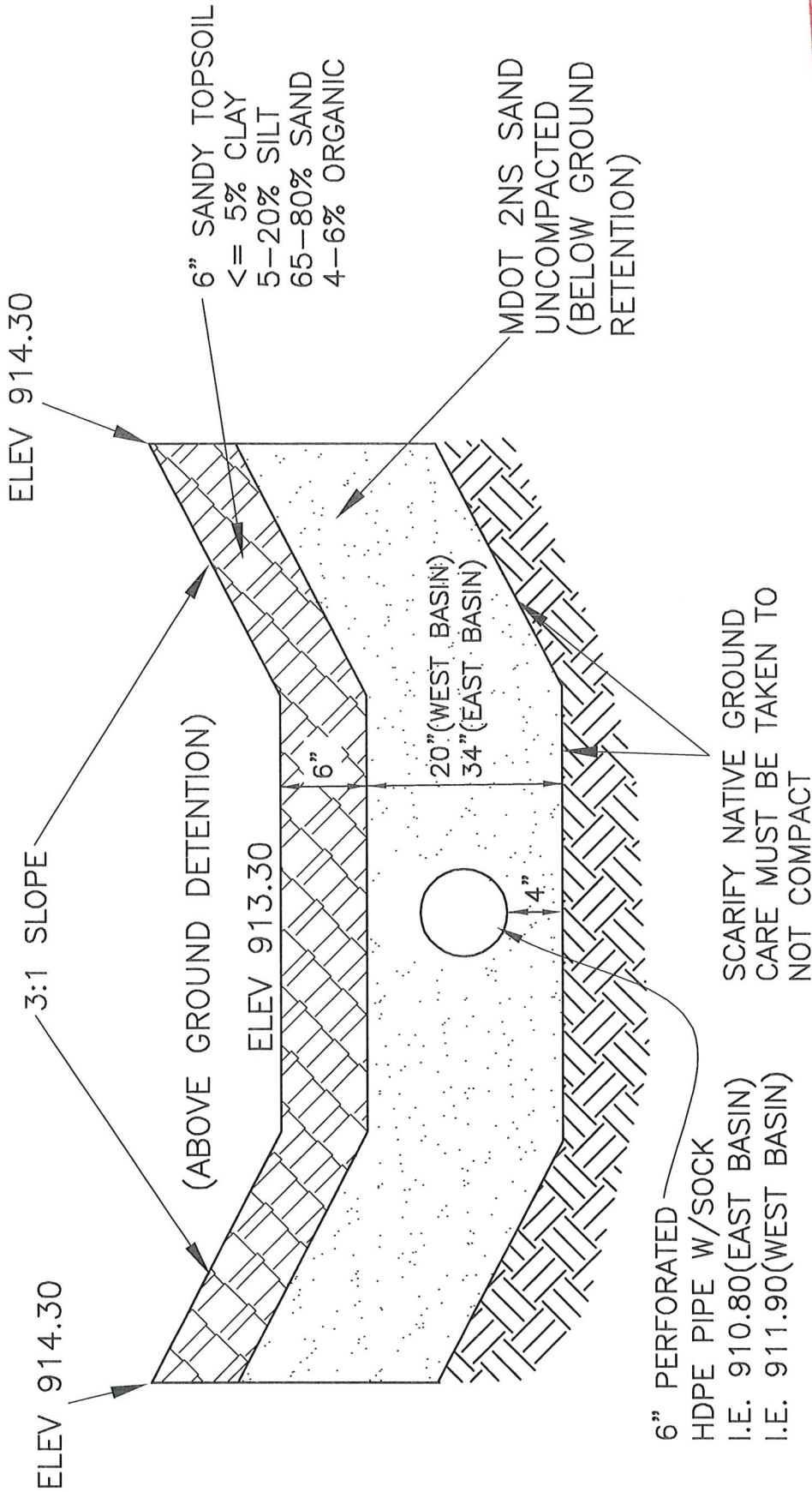
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INFILTRATION/DETENTION BASIN

NO SCALE

INFILTRATION BASIN TO BE SURROUNDED BY SILT FENCE AND PROTECTED FROM SEDIMENT DEPOSITION THROUGHOUT SITE CONSTRUCTION AND UNTIL VEGETATION IS ESTABLISHED IN AND AROUND BASIN

CITY OF MASON

201 WEST ASH

MASON, MI 48854

5176769155

5176761330

Invoice For PlanRevi PSP23-005
PC PACKET 20

Print Date: 10/06/2023

PAID**OCT 06 2023****CITY OF MASON**

Pay by Account In Full



Pay by Account In Full

ARCOSA INC

PO BOX 850

AURORA OH 44202-0850

\$ 300.00

Invoice No	Invoice Date	PlanReview Numbe	Address	Amount Due
	00005376	10/06/23	PSP23-005 685 HULL	\$ 300.00
Fee Details:	Quantity	Description	Amount Cost	Balance
	1.000	Final Site Plan Review Fee	\$100.00	\$ 100.00
	1.000	Preliminary Site Plan Review	\$200.00	\$ 200.00
Total Amount Due			\$ 300.00	

CITY OF MASON
P.O. BOX 370
201 W. ASH ST.
MASON MI 48854-370
Phone : (517) 676-9155
WWW.MASON.MI.US

Received From:
KEBS INC
2116 HASLETT
HASLETT MI 48840

Date: 10/06/2023 Time: 3:17:45 PM
Receipt: 100316254
Cashier: PR

SITE PLAN REVIEW FEES

ITEM REFERENCE	AMOUNT
PMT PERMIT	
00005376	
101-253.00-490.001	\$100.00
101-253.00-490.001	\$200.00
TOTAL	\$300.00
CHECK 25025	\$300.00
Total Tendered:	\$300.00
Change:	\$0.00

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PLANNING DEPT.**



72 HOURS
(3 WORKING DAYS)
BEFORE YOU DIG
CALL MISS DIG
800-482-7171
(TOLL-FREE)

	SCALE: 1"= 50'	DESIGNER: A.J.P.	APPROVED BY: A.J.P.
	DATE: 10-6-23	PROJECT MGR. A.J.P.	SHEET 1 OF
	AUTHORIZED BY: D&K ENGINEERED CONSTRUCTION		JOB #: E-01718

BENCHMARKS

BENCHMARK #1 ELEV. = 913.02 (NAVD88)
CHISELED "X" IN NORTH END OF CATCH BASIN
±35' SOUTH OF SOUTHWEST CORNER OF BUILDING, ±200'
WEST OF SOUTHWEST CORNER OF BUILDING

BENCHMARK #2 ELEV. = 914.21 (NAVD88)
CHISELED "X" IN WEST END OF CATCH BASIN
±64' NORTHEAST OF NORTHWEST CORNER OF BRICK BUILDING,
±71' NORTHWEST OF NORTHEAST CORNER OF BRICK BUILDING,
±32' SOUTH OF BACK OF CURB OF PARKING LOT



EX SEWER INVENTORY

CATCH BASIN #100 RIM - 914.35 12" RCP E - 911.89 NEW 12" E-I.E. 911.90	CATCH BASIN #207 INLET EL. 914.11 36" NORTH 906.79 36" SOUTH 906.61 T/WATER 907.81	LAWN BASIN #3 INLET EL. 916.64 DEPTH 912.76
CATCH BASIN #101 RIM - 915.36 10" HDPE S - 910.82	CATCH BASIN #108 INLET EL. 913.59 8" WEST 909.36	LAWN BASIN #4 INLET EL. 916.62 DEPTH 912.02
CATCH BASIN #102 RIM - 916.30 24" HDPE E - 908.71 24" RCP S - 907.80 24" RCP W - 907.87	CATCH BASIN #109 INLET EL. 913.08 8" WEST 909.30	LAWN BASIN #5 INLET EL. 916.28 DEPTH 911.79
CATCH BASIN #103 RIM - 916.50 6" OPN NE - INACCESSIBLE 12" RCP S - 911.43	CATCH BASIN #110 INLET EL. 912.82 12" WEST 908.02 8" NE N/A T/DEBRIS 908.11	EX. CONFINED SPACE DEMONSTRATION MANHOLE T/CASTING 920.46 BOTTOM 911.06 NO VISIBLE PIPES
CATCH BASIN #104 RIM - 917.28 24" RCP E - 908.87 24" RCP W - 908.80	CATCH BASIN #111 INLET EL. 913.61 12" SW 909.48	
CATCH BASIN #105 RIM - 911.15 NO VISIBLE PIPES	CATCH BASIN #203 INLET EL. 915.07 12" WEST 910.57 8" SE 910.67 6" SE 910.87	
CATCH BASIN #106 RIM - 912.13 12" RCP W - 910.02 10" PVC NE - 910.08	CATCH BASIN #150 INLET EL. 917.86 24" WEST 911.71 30" SE 911.66	
CATCH BASIN #107 RIM - 914.18 12" HDPE E - 909.67 24" HDPE W - 909.55	LAWN BASIN #1 INLET EL. 915.90 DEPTH 912.65	
SANITARY MANHOLE #200 RIM - 916.84 10" PVC S - 894.67 10" PVC NW - 894.53	LAWN BASIN #2 INLET EL. 916.03 DEPTH 911.44	

HISTORICAL EX SEWER INFO

PROPOSED LEGEND

---	PROPOSED STORM SEWER
856	PROPOSED CONTOUR ELEVATION
⊙	PROPOSED STORM M.H.
⊙	PROPOSED CATCHBASIN
F-F 800.00	PROPOSED FIRST FLOOR ELEV.
TC849.66 TP845.16	PROP TOP OF CURB W/PAVT ELEV
ME±849.66	MATCH EXISTING ELEV.
S55	DENOTES S.E.S.C. KEYING SYSTEM
ASPH	PROPOSED ASPHALT
CONC	PROPOSED CONCRETE
CONC CURB & GUTTER	PROPOSED CONC. CURB & GUTTER
→	PROPOSED STORM WATER RUNOFF FLOW
0	PROPOSED NO. OF 9'x18' PARKING SPACES
1	PROPOSED NO. OF BARRIER FREES SPACES
---	PROPOSED SILT FENCE
---	PROPOSED LIMITS OF EARTH DISTURBANCE

EXISTING LEGEND

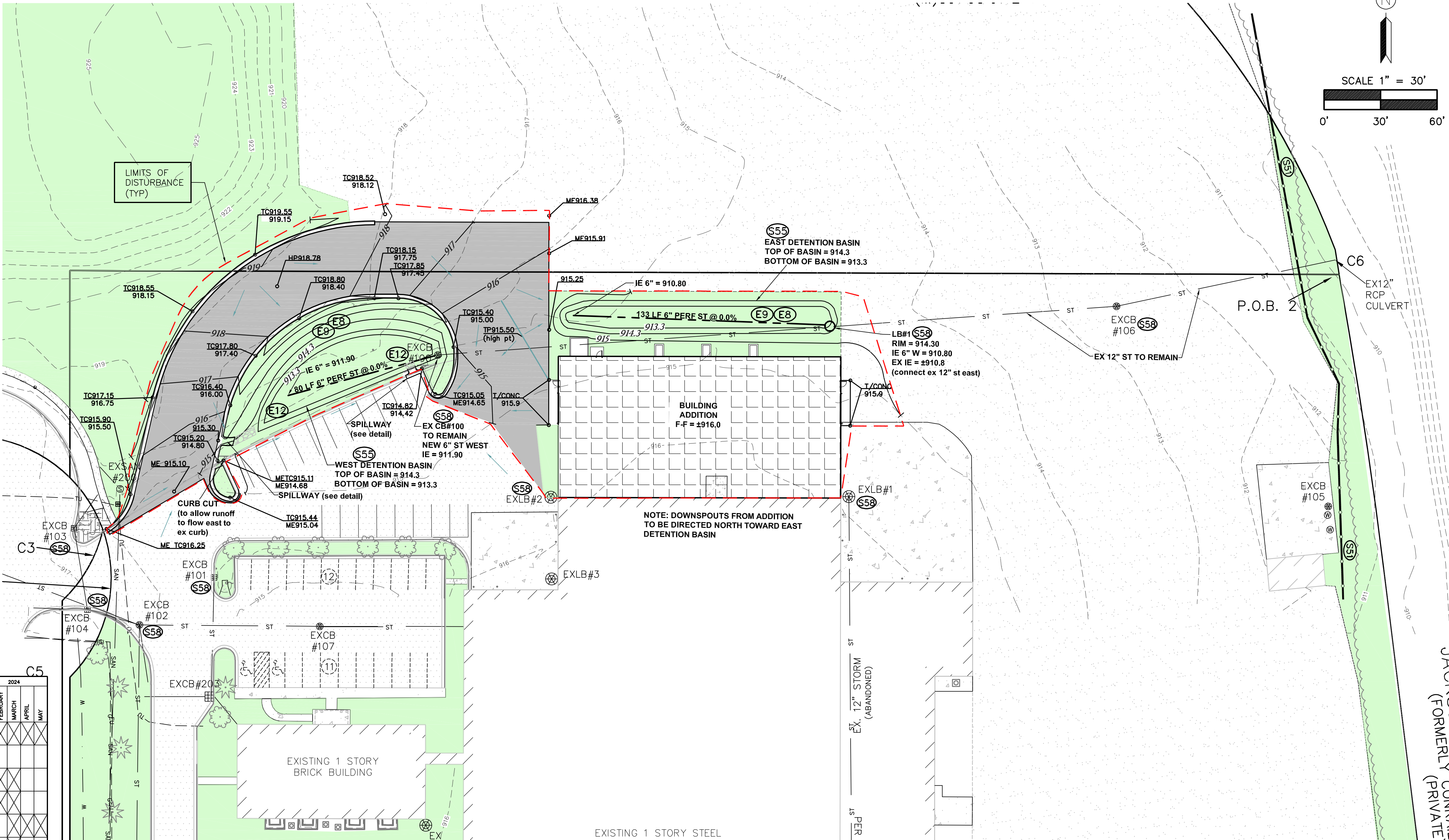
---	EX DEED LINE
---	EX FENCE
ASPH	EX ASPHALT
CONC	EX CONCRETE
LANDSCAPING	EX LANDSCAPING
860	EX CONTOUR ELEVATION
ST	EX STORM SEWER
---	EX GAS LINE
---	EX OVERHEAD WIRES
---	EX UNDERGROUND CABLE
---	EX UNDERGROUND ELECTRIC
SW	EX SANITARY SEWER
S	EX SANITARY MANHOLE
⊙	EX CATCH BASIN
⊙	EX GAS METER
⊙	EX FIRE HYDRANT
---	EX SIGN
---	EX AIR CONDITIONING UNIT
☆	EX LIGHT POLE
W	EX WATER MANHOLE
H	EX HANDHOLE
⊙	EX TRANSFORMER
---	EX BUILDING OVERHANG

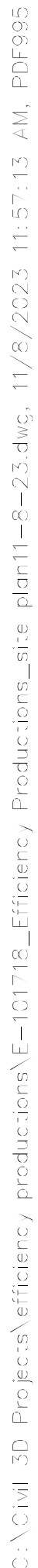
CONSTRUCTION SCHEDULE & SEQUENCING:	2023	2024
	NOVEMBER	DECEMBER
	JANUARY	FEBRUARY
	MARCH	APRIL
	MAY	
PLACE AND MAINTAIN TEMPORARY EROSION CONTROLS		
CLEAR SITE, GRADING & EARTHWORK		
BUILDING CONSTRUCTION		
SITE GRADING & EARTHWORK		
ASPHALT PAVING		
TOPSOIL SPREADING		
PERMANENT SEEDING		
INSPECT & MAINTAIN TEMPORARY & PERMANENT EROSION CONTROLS		
FINAL INSPECTIONS & REMOVE TEMPORARY EROSION CONTROLS		



SOIL MAP

Map Unit	Map Unit Name	Acres in AOT	Percent of AOT
BrB	Boyer sandy loam, 0 to 6 percent slopes	1.9	22.9%
CvraaB	Conover loam, 0 to 4 percent slopes	0.1	1.1%
OwB	Owosso-Marlette sandy loams, 2 to 6 percent slopes	6.2	76.0%
Totals for Area of Interest		8.1	100.0%





E8 PERMANENT SEEDING SPECIFICATIONS

- When
- To finalize stabilization of temporary seeding areas or when an area needs permanent stabilization following completion of construction. Also used when vegetative establishment on correct existing soil erosion or sedimentation problem.
 - Within 5 days of final grade.
- Why
- To stabilize soil and prevent or reduce soil erosion/sedimentation problems from developing.
- Where
- Used on construction and earth change sites which require permanent vegetative stabilization.
- How
1. Review SESO plan and construction phasing to identify areas in need of permanent vegetative stabilization.
 2. Select perennial grass and ground cover for permanent cover.
 3. Seed mixes vary. However, they should contain native species.
 4. Seed mixes should be selected through consultation with a certified seed provider and with consideration of soil type, light, moisture, use applications, and native species content.
 5. Soil tests should be performed to determine the nutrient and pH levels in the soil. The pH may need to be adjusted to between 6.5 and 7.0.
 6. Prepare a 3-5" deep seedbed, with the top 3-4" consisting of topsoil.
 7. Slopes steeper than 1:3 should be roughened.
 8. Apply seed as soon as possible after seedbed preparation. Seed may be broadcast by hand, hydroseeding, or by using mechanical drills.
 9. Mulch immediately after seeding.
 10. Dormant seed mixes are for use after the growing season, using seed which lies dormant in the winter and begins growing as soon as site conditions become favorable.



E8 PERMANENT SEEDING SPECIFICATIONS

- How (cont.)
11. Protect seeded areas from pedestrian or vehicular traffic.
 12. Divert concentrated flows away from the seeded area until vegetation is established.
- Maintenance
- Inspect weekly and within 24 hours following each rain event in the first few months following installation to be sure seed has germinated and permanent vegetative cover is being established.
 - Add supplemental seed as necessary.
- Limitations
- Seeds need adequate time to establish.
 - May not be appropriate in areas with frequent traffic.
 - Seeded areas may require irrigation during dry periods.
 - Seeding success is site specific, consider mulching or sodding when necessary.

PERMANENT SEEDING SPECIFICATION
SEED ALL DISTURBED AREAS WITH THE FOLLOWING SEED MIXTURE OR APPROVED EQUAL:
MICHIGAN GREEN - 15% BLUEGRASS, 40% FESCUE, 45% RYEGRASS
APPLY AT A RATE OF 5 LBS./1000 SF

-APPLY SILT STOP OR APPROVED TACKIFIER TO SEED MIX.

E8 PERMANENT SEEDING

Planting Zones	Lower Peninsula (South of 42°N)	Lower Peninsula (North of 42°N)	Upper Peninsula Zone 1	Upper Peninsula Zone 2
Seeding Window Permanent Seeding	4/15 - 10/10	5/1 - 10/1	5/1 - 8/20	5/1 - 8/20
Seeding Window Dormant Seeding*	11/15 - Freeze	11/01 - Freeze	11/01 - Freeze	11/01 - Freeze

Source: Adapted from MDOT Interim 2003 Standard Specifications for Construction

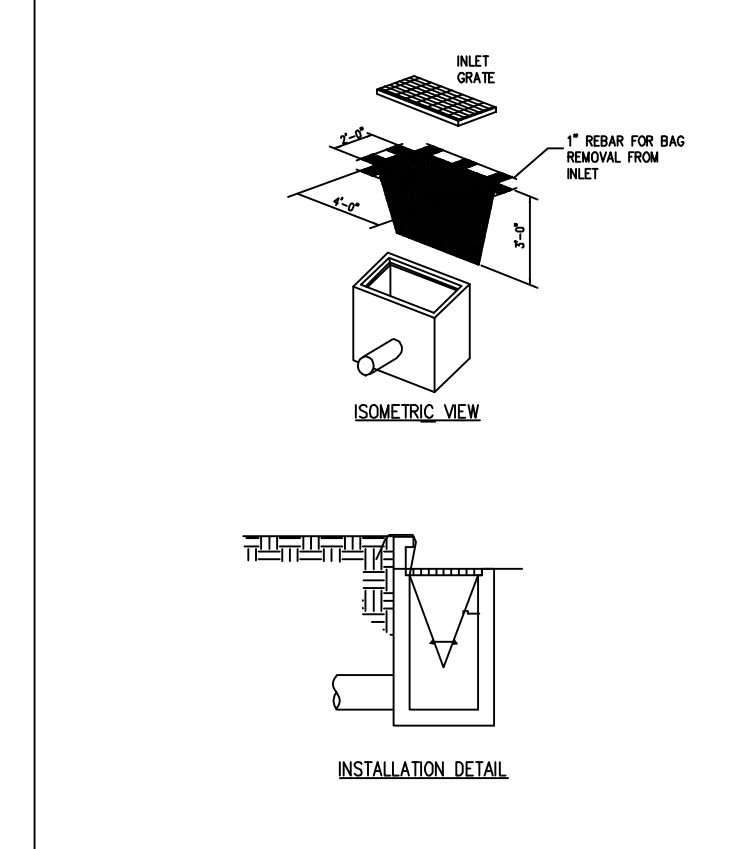
	Zone 1 Lower Peninsula (South of 42°N)	Zone 2 Lower Peninsula (North of 42°N)	Zone 3 Upper Peninsula
Seeding Dates (with Irrigation or Muck)	4/1 - 8/1	5/1 - 8/20	5/1 - 8/10
Seeding Dates (w/o Irrigation or Muck)	4/1 - 5/20 or 8/10 - 10/1	5/1 - 6/10 or 8/1 - 9/20	5/1 - 6/15 or 8/1 - 9/20
Dormant Seeding Dates	11/1 - Freeze	10/25 - Freeze	10/25 - Freeze

Source: Adapted from USDA NRCS Technical Guide #342 (1999)

* Dormant seeding is for use in the late fall after the soil temperature remains consistently below 50°F, prior to the ground freezing. This practice is appropriate if construction on a site is completed in the fall but the seed was not planted prior to recommended seeding dates. No seed germination will take place until spring. A cool season annual grass may be added in an attempt to have some fall growth.

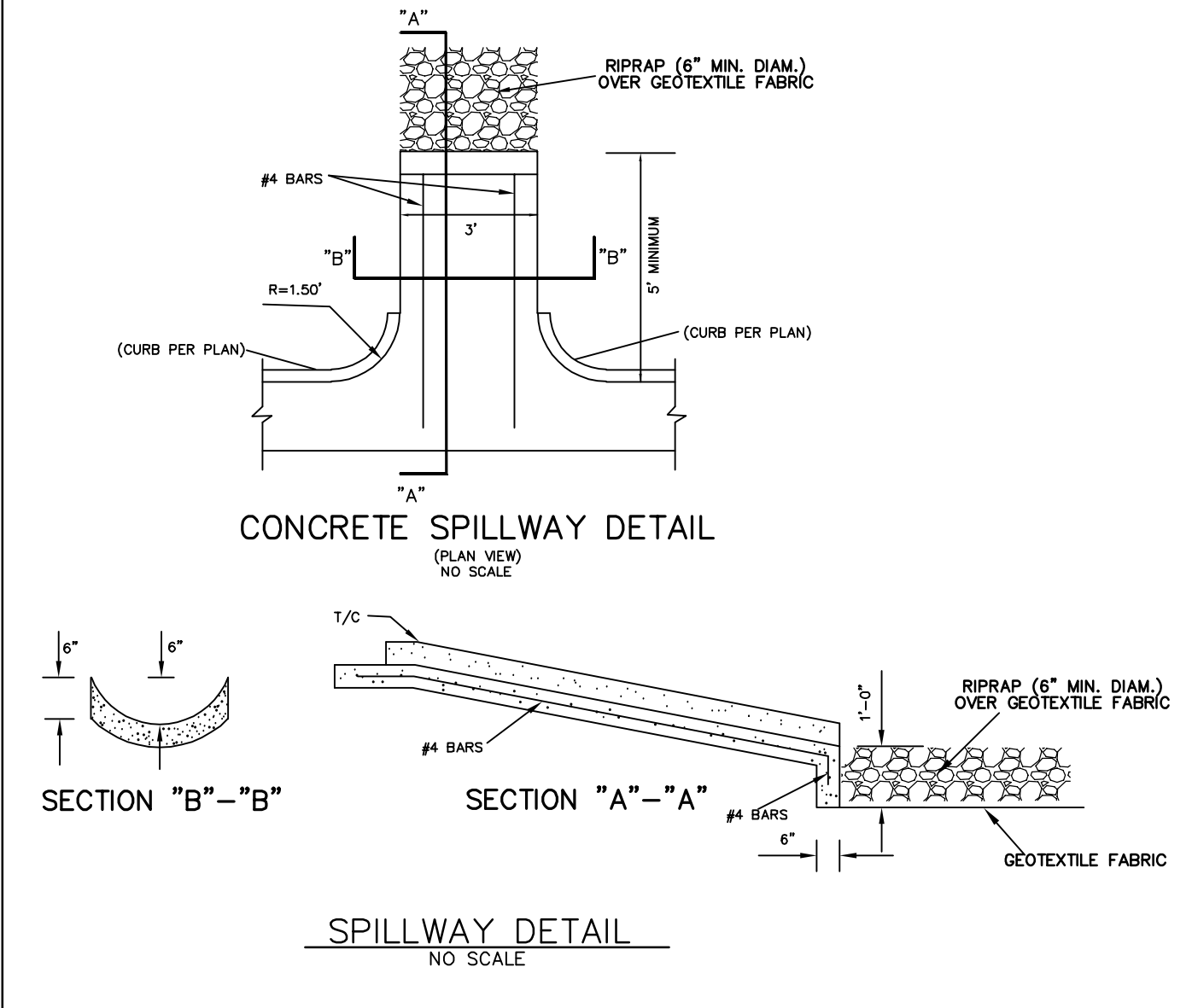
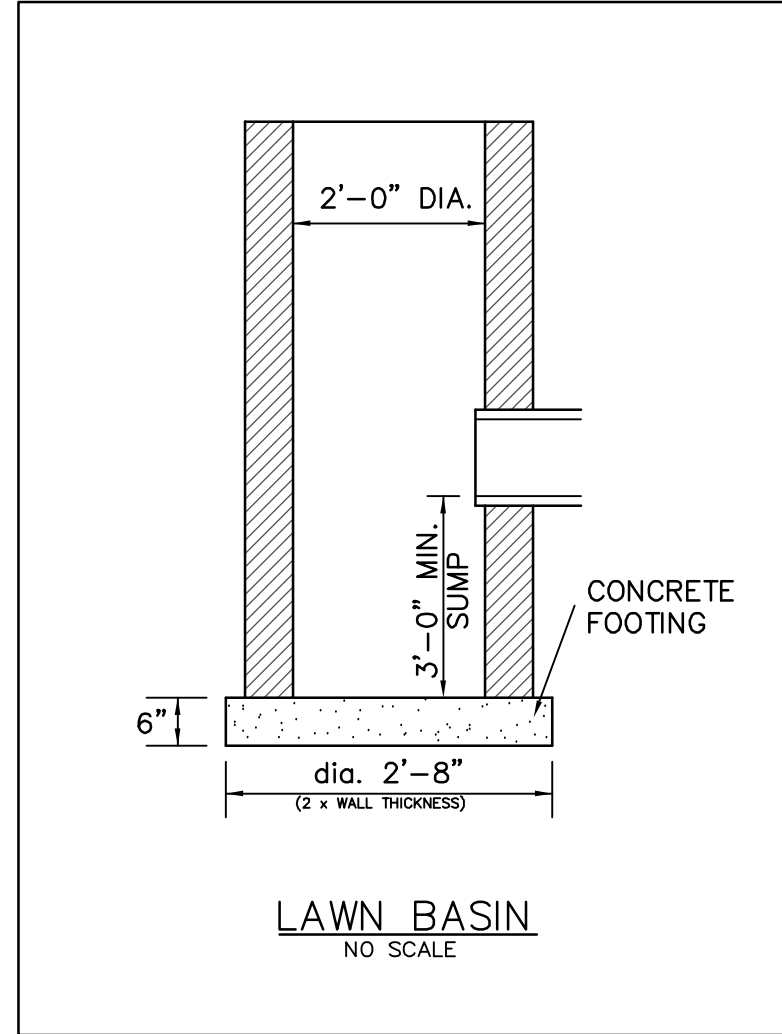
- Mulch must be used with dormant seed.
- Do not seed when the ground is frozen or snow covered.
- Do not use a dormant seed mix on grassed waterways.

S58 INLET PROTECTION - FABRIC DROP

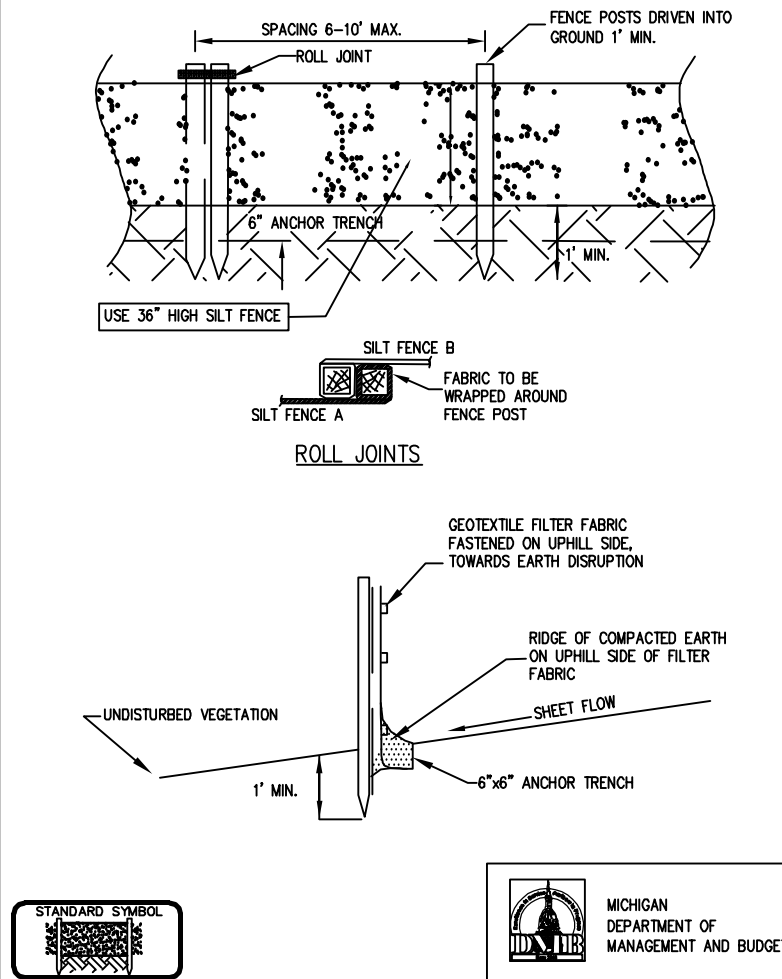


S58 INLET PROTECTION - FABRIC DROP SPECIFICATIONS

- When
- When sediment laden stormwater requires treatment before entering a stormwater drainage system.
- Why
- To prevent sediment from entering stormwater systems.
- Where
- Use in or at stormwater inlets, especially at construction sites or in streets.
- How
1. A filter fabric bag is hung inside the inlet, beneath the grate.
 2. Replace grate, which will hold bag in place.
 3. Anchor filter bag with 1" rebar for removal from inlet.
 4. Flaps of bag that extend beyond the bag can be buried in soil in earth areas.
- Maintenance
- Drop inlet filters should be inspected routinely and after each major rain event.
 - Damaged filter bags should be replaced.
 - Clean and/or replace filter bag when 1/2 full.
 - Replace clogged fabric immediately.
 - If needed, initiate repairs immediately upon inspection.
 - Remove entire protective mechanism when upgradient areas are stabilized and streets have been swept.
- Limitations
- Can only accommodate small flow quantities.
 - Requires frequent maintenance.
 - Ponding may occur around storm drains if filter is clogged.
-



S51 SILT FENCE



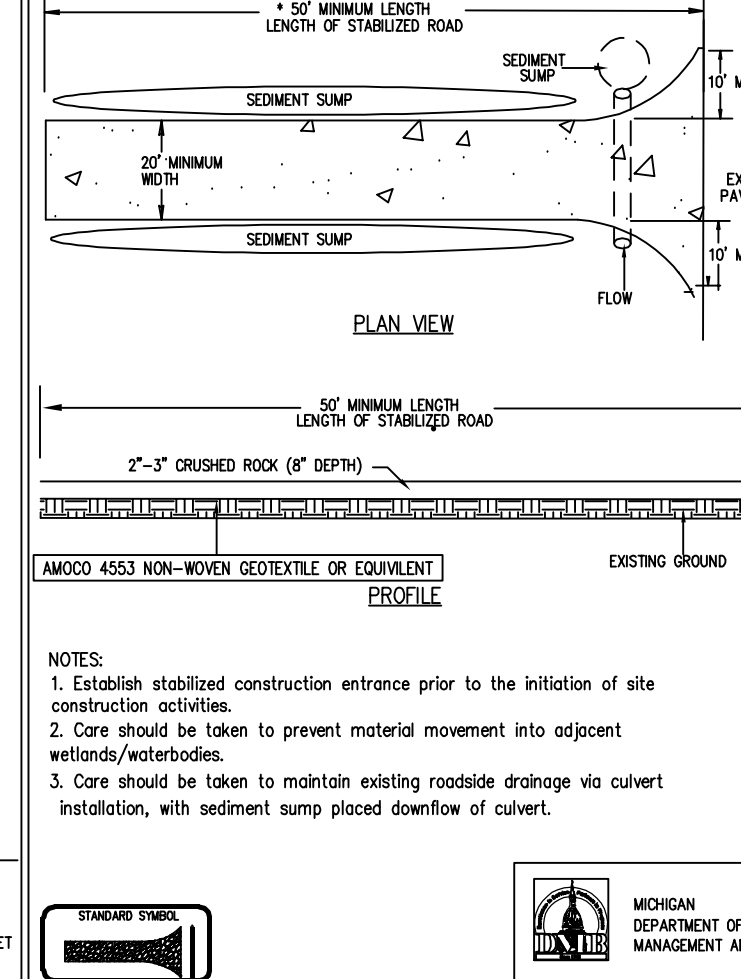
S51 SILT FENCE SPECIFICATIONS

- When
- A temporary measure for preventing sediment movement.
- Why
- Used to prevent sediment suspended in runoff from leaving an earth change area.
- Where
- Use adjacent to critical areas, wetlands, base of slopes, and watercourses.
- How
1. Install parallel to a contour.
 2. The silt fence should be made of woven geotextile fabric.
 3. Silt fence should accommodate no more than 1/2 to 1 acre of drainage per 100' of fence and on slopes less than 1:2 (v:h).
 4. Dig a 6" trench along the area where the fence is to be installed.
 5. Place 6" of the silt fence bottom flap into the trench.
 6. Backfill the trench with soil and compact the soil on both sides. Create a small ridge on the up-slope side of the fence.
 7. Install wooden stakes 6 - 10' apart and drive into the ground a minimum of 12".
 8. Staple the geotextile fabric to the wooden stakes.
 9. Join sections of silt fence by wrapping ends together (See drawing).
- Maintenance
- Inspect frequently and immediately after each storm event. Check several times during prolonged storm events. If necessary, repair immediately.
 - If the sediment has reached 1/3 the height of the fence, the soil should be removed and disposed of in a stable upland site.
 - The fence should be re-installed if water is seeping underneath it or if the fence has become ineffective.
 - Silt fence should be removed once vegetation is established and up-slope area has stabilized.
- Limitations
- Silt fence may cause temporary ponding and could fail if too much water flows through the area.
 - Do not use in areas with concentrated flows.
 - Chance of failure increases if fence installed incorrectly or if sediment accumulation is not removed.
-

S51 SILT FENCE SPECIFICATIONS

- When
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- Why
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-

S53 STABILIZED CONSTRUCTION ACCESS

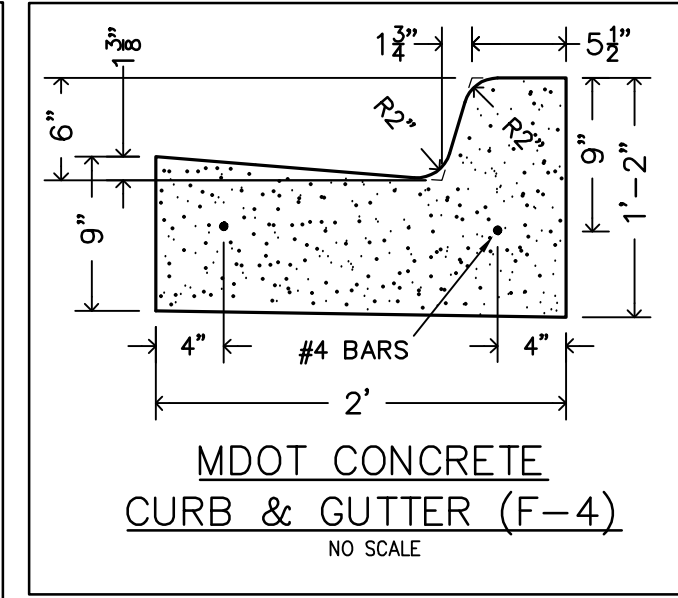
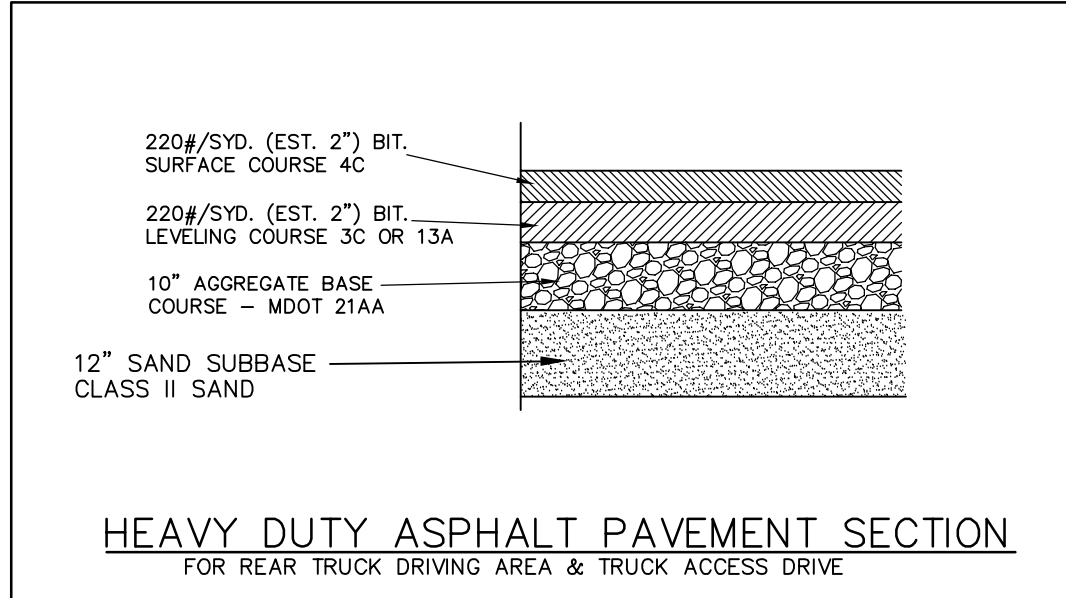
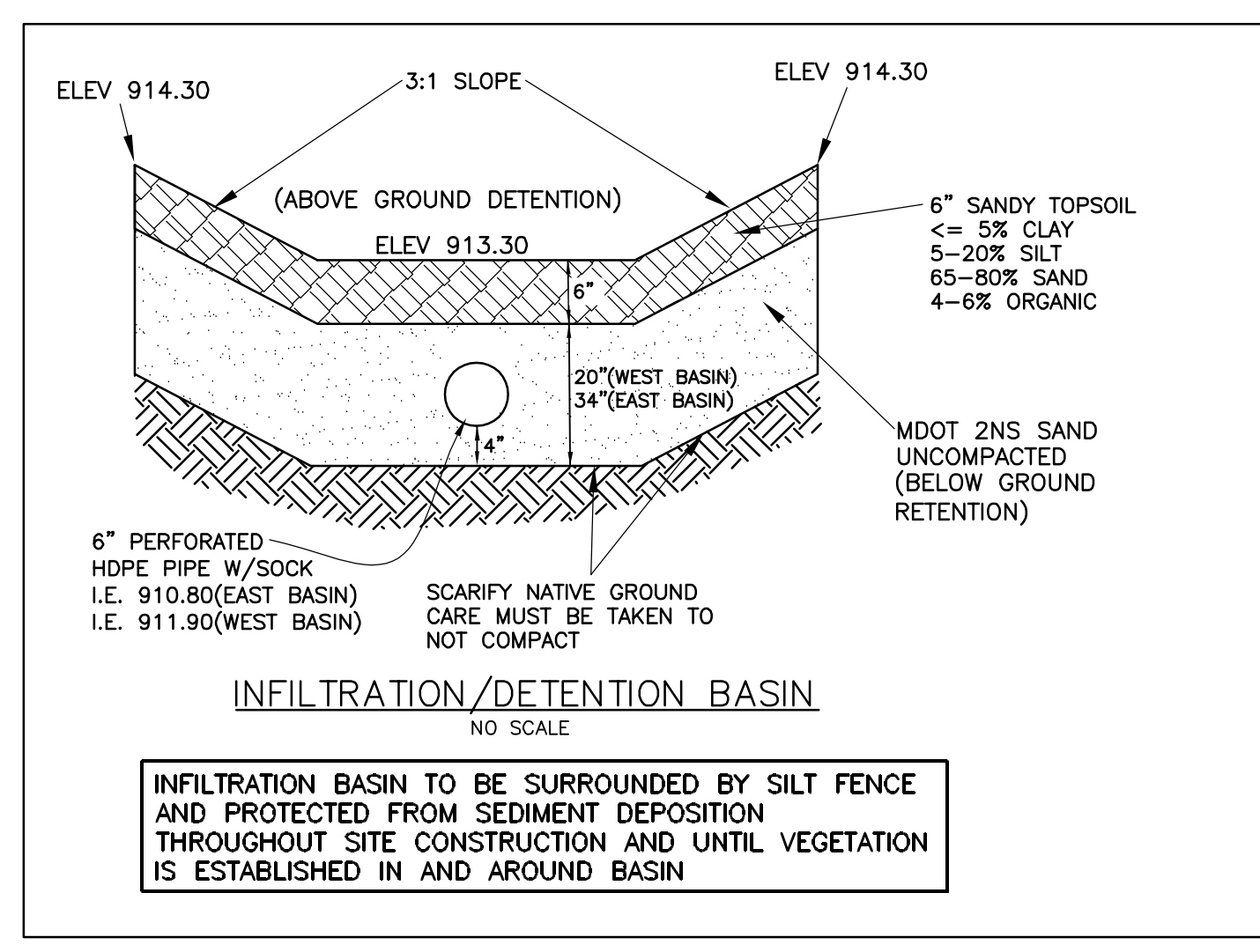


S53 STABILIZED CONSTRUCTION ACCESS

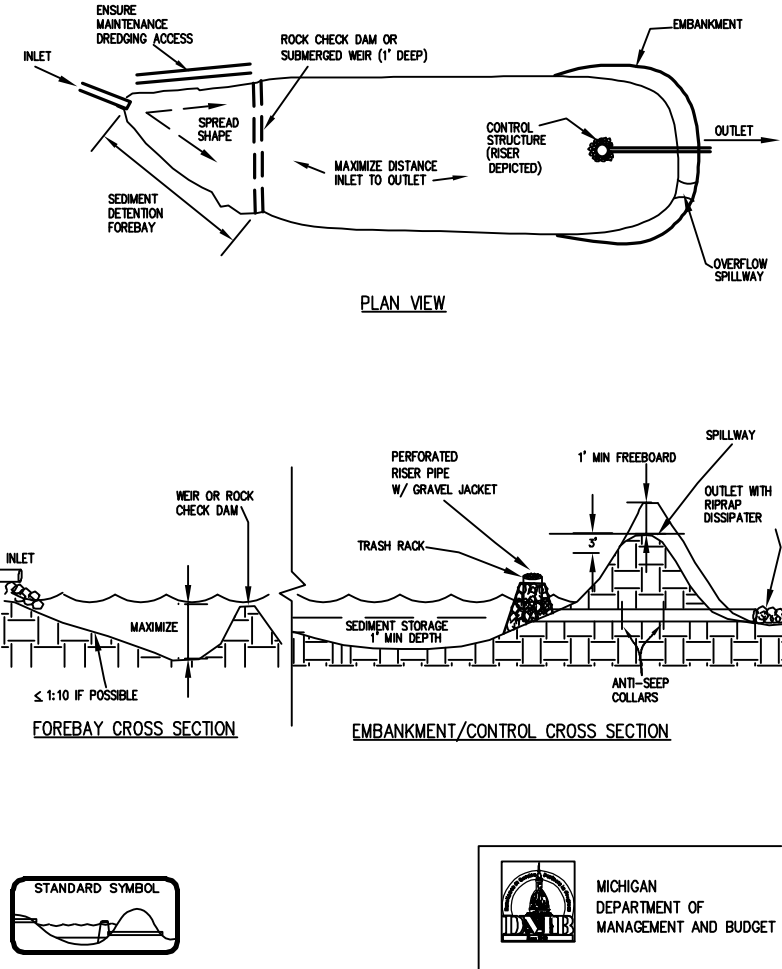
- When
- Construction traffic is expected to leave a construction site.
- Why
- Stabilization of interior construction roads is desired.
- Where
- To minimize tracking of sediment onto public roadways and to minimize disturbance of vegetation.
- How
1. Stabilized construction entrances shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must be routed away from rock layers/grades, erosion.
 2. Installation of this practice should be the responsibility of the site clearing or excavating contractor.
 3. Access location should be cleared of woody vegetation.
 4. Non-woven geotextile fabric shall be placed over the existing ground prior to placing stone.
 5. Access size should be a minimum of 50', (30' for single residence lot).
 6. Access width should be 12" minimum, flared at the existing road to provide a turning radius.
 7. Crushed aggregate (2" to 3"), or reclaimed or recycled concrete equivalent, shall be placed at least 8" deep over the length and width of the ingress/egress corridor.
- Maintenance
- Periodic inspection and needed maintenance shall be provided after each rain event.
- Limitations
- Stabilized entrances shall be repaired and rock added as necessary.
 - Sediment deposited on public rights-of-way shall be removed immediately and returned to the construction site.
 - If soils are such that washing of tires is required, it shall be done in a wash rack area, stabilized with stone, immediately prior to the construction access stabilized corridor.
 - At the project completion, rock access road should be removed and disposed of unless utilized as subgrade for final paving.
 - Effectiveness limited, sediment may be tracked onto roads requiring additional action.
-

S53 STABILIZED CONSTRUCTION ACCESS

- When
- Construction traffic is expected to leave a construction site.
- Why
- Stabilization of interior construction roads is desired.
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 - Sediment deposited on public rights-of-way shall be removed immediately and returned to the construction site.
 - If soils are such that washing of tires is required, it shall be done in a wash rack area, stabilized with stone, immediately prior to the construction access stabilized corridor.
 - At the project completion, rock access road should be removed and disposed of unless utilized as subgrade for final paving.
 - Effectiveness limited, sediment may be tracked onto roads requiring additional action.
-



S55 SEDIMENT BASIN



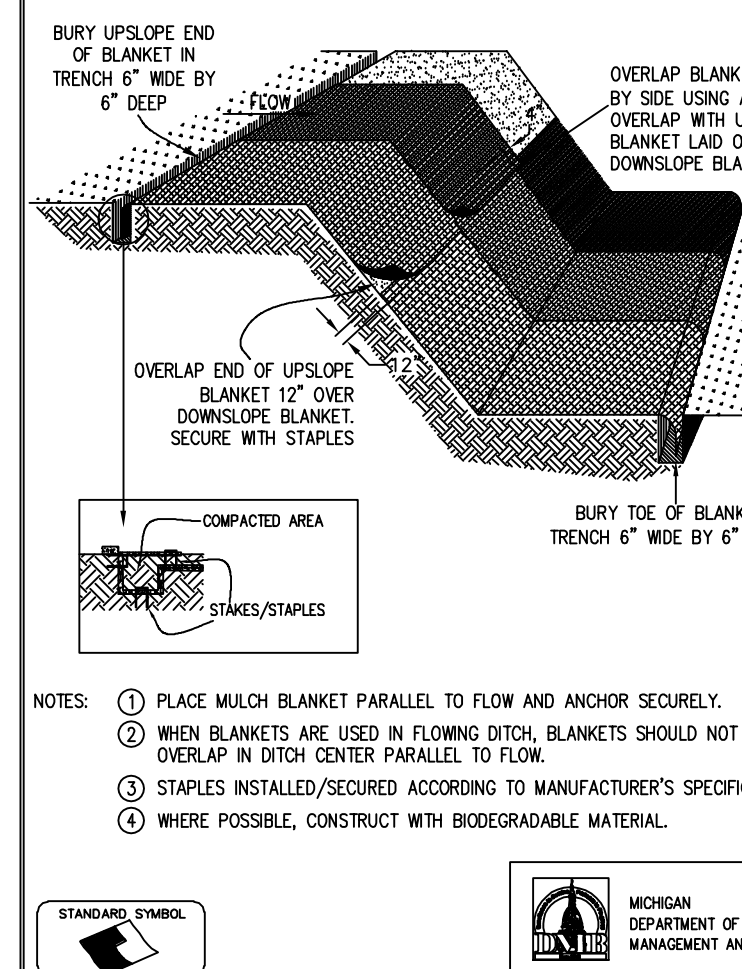
S55 SEDIMENT BASIN SPECIFICATIONS

- When
- When site runoff is sediment-laden and/or runoff release rate is required.
- Why
- To detain runoff sufficiently to allow excessive sediment to settle out before stormwater leaves construction site.
- Where
- At the outlet of any disturbed area or at the ultimate site outlet.
- How
1. Basin to be designed by engineer or CPESC to ensure adequate storage volume from the contributing drainage area.
 2. Basins should be constructed before clearing and grading work begins.
 3. Basins should be located at the stormwater outlet for the site and multiple basins may be located throughout the site.
 4. Basin location should ensure suitable access for maintenance and cleanup.
 5. Do not locate in a stream.
 6. All basin sites should be located where embankment failure will not compromise safety or result in property damage.
 7. The basin volume should be designed to handle the volume of stormwater expected from the disturbed acreage for a minimum 10-year storm event.
 8. The basin volume consists of two zones
 - A sediment storage zone to a 1' minimum depth.
 - A settling zone at least 2 feet deep.

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E9 MULCH BLANKETS



E9 MULCH BLANKETS SPECIFICATIONS

- When
- When seeded areas are subject to erosive surface flows, severe wind, or to protect non-vegetated slopes or areas during the winter.
- Why
- Protects seeded areas and slopes against erosion from rain or wind. Holds soil moisture to allow for seed germination and reduces wind desiccation of germinated seeds.
- Where
- Use on exposed slopes, newly seeded areas, new ditch bottoms, and other areas subject to erosion.
- How
1. Prepare subgrade to proper grade and compaction requirements.
 2. Remove ruts, roots, soil clods, or other debris from surface subject to mulch blanket installation.
 3. Spread or drill seed.
 4. Consult with erosion control material supplier to select mulch blanket based on slope gradient, expected surface run-off, and protection term necessary (long or short term).
 5. Position selected mulch blanket as close as possible to intended use location.
 6. Install blanket at top of slope, first anchoring toe in trench 6" wide x 6" deep, progressing down-slope or down-gradient with approximately 12" of blanket extended beyond the up-slope portion of the trench.
 7. Anchor the blanket with staples/stakes placed approximately 12" apart in the bottom of the trench. Backfill and compact the trench after securing.
 8. Apply seed to compacted soil and fold the 12" portion of the blanket over compacted area and secure with a row of staples/stakes placed 12" apart across the width of the blanket.
 9. Unroll the blankets down or horizontally across the slope.
 10. Overlap blanket edges by a minimum of 4" and blanket ends by a minimum of 12". Overlaps should be in the direction of expected flow with the up-slope blanket placed over the down-slope blanket edge.
 11. Secure down-slope end of blanket with staples/stakes and trench in.
- Maintenance
- Check after a rain event to ensure the blanket is still in place.
 - Keep eroded soil, vehicular and pedestrian traffic, and concentrated runoff away from the blanketed area.
- Limitations
- Mulch blankets and anchors may inhibit mowing.
-

REVISIONS

REVI: 11-8-23
PER CITY REVIEW

KEBS, INC. KYES ENGINEERING
BRYAN LAND SURVEYS

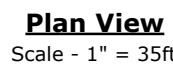
2116 HASLETT ROAD, HASLETT, MI 48840
PH. 517-339-1014 FAX. 517-339-8047

Marshall Office
Ph. 269-781-9800

ARCOSA - HULL ROAD

DETAIL SHEET

DESIGNER: A.J.P.	APPROVED BY: A.J.P.
PROJECT MGR. A.J.P.	SHEET 4 OF 4
DATE: 10-6-23	JOB #:
AUTHORIZED BY: D&K ENGINEERED CONSTRUCTION	E-101718



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #2	+	3.6 fc	13.5 fc	0.1 fc	135.0:1	36.0:1

DISTURBANCE (TYP)

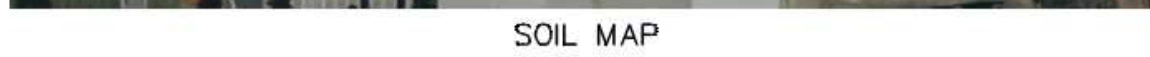
918.12

ME016 39



72 HOURS
(3 WORKING DAYS)
BEFORE YOU DIG
CALL MISS DIG
800-482-7171
(TOLL-FREE)

TRANSFORMER
BUILDING OVERHANG



3. ALL SOIL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE INGHAM COUNTY DRAIN OFFICE STANDARDS AND SPECIFICATIONS.
4. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS, OR IN WATERWAYS; WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE CHANNELS, CREEKS, RIVERS, AND LAKES.
5. SEE DETAIL SHEET FOR DOCUMENTATION & EROSION CONTROL DETAILS. ALL CONSTRUCTION TRAFFIC SHALL USE THE CLEAN SHOE EXIT.
6. DUST CONTROL SHALL BE EXERCISED AT ALL TIMES WITHIN THE PROJECT BY THE CONTRACTORS. SPRINKLING TANK TRUCKS SHALL BE AVAILABLE AT ALL TIMES TO BE USED ON LAUL ROUTES OR OTHER PLACES WHERE DUST CONTROL IS REQUIRED.
7. SEDIMENT OR C.B.'S SHALL BE REMOVED AFTER EVERY STORM. SEEDING OF EXPOSED AREAS SHALL BE COMPLETED WITHIN 5 DAYS OF FINAL GRADING.
8. ALL DISTURBED AREAS SHALL BE RECOVERED TO ORIGINAL EROSION CONTROL WITHIN 5 DAYS OF FINAL GRADING. AREAS NOT STABILIZED SHALL BE DIVERTED TOWARD TEMPORARY SEDIMENT BASINS.
9. ANY CONSTRUCTION ACCESS ROAD WILL BE PROTECTED WITH PULVERIZED ASPHALT, CRUSHED STONE OR CRUSHED CURB.
10. WEATHER AND UNFORESEEN DELAYS MAY RESULT IN EXTENSION OF CONSTRUCTION SCHEDULE.
11. SITE DEVELOPMENT CONTRACTOR SHALL INSPECT SOIL EROSION CONTROL MEASURES ON A DAILY BASIS, MORE FREQUENTLY AS REQUIRED BY WEATHER OR NECESSARY SCHEDULING.
12. SITE DEVELOPMENT CONTRACTOR SHALL MEET WITH SOIL EROSION ENFORCEMENT OFFICER PRIOR TO START OF CONSTRUCTION.
13. ALL TEMPORARY SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO EARTH DISTURBANCE ACTIVITY. CHECK DAILY FOR EFFECTIVENESS AND REPAIR AS NEEDED. A COUNTY DRAIN OFFICE INSPECTOR IS TO VERIFY PROPERLY INSTALLED SEDIMENT CONTROL MEASURES AND REPAIR AS NEEDED IN CASE OF EARTH DISTURBANCE OR EROSION.
14. REMOVE EROSION CONTROL MATING SHALL BE INSTALLED AS THE MUDCH.
15. DETENTION BASINS TO BE SEEDED WITH NATIVE SPECIES, UNLESS OTHERWISE NOTED.
16. STORED STORM RUNOFF FROM THIS SITE WILL NOT ADVERSELY AFFECT ADJACENT PROPERTIES.
17. ANY STOCKPILING OF MATERIALS SHALL BE COVERED WITHIN 10 DAYS.

SEQUENCE OF CONSTRUCTION

SEQUENCE OF CONSTRUCTION

1. INSTALL ALL TEMPORARY SILT FENCE PER PLAN

3. INSTALL INLET PROTECTION FABRIC DROPS BETWEEN THE FRAME AND COVER OF ALL EXISTING YARD BASINS OR INLETS WHICH MAY BE SUSCEPTIBLE TO SEDIMENT PROBLEMS FROM THE PROPOSED DRIVEWAY.
4. WHILE MAINTAINING A VEGETATIVE BUFFER WHEREVER POSSIBLE STRIP AND STOCKPILE TOPSOIL ABOVE AREAS OF PROPOSED EXCAVATION OR GRADING FOR LATER USE ON SITE TO REVEGETATE. TOPSOIL SHOULD BE STORED TO A MINIMUM OF 12" DEPTH AND NOT ALONG STEEP SLOPES SEED AND MULCH STOCKPILES IMMEDIATELY TO PREVENT EROSION.
5. EXCAVATE FOR PROPOSED ROADWAYS AND UTILITY CONSTRUCTION AS NECESSARY. DO NOT EXPOSE AREAS FAR IN ADVANCE OF THE PROPOSED CONSTRUCTION FOR THAT AREA. BURY ROOTS AND SCRAPES TO A MINIMUM OF 12" DEPTH TO PREVENT EROSION AND SEDIMENTATION. MAINTAIN VEGETATION WHEREVER POSSIBLE TO PROVIDE A NATURAL BUFFER.
6. AFTER COMPLETION OF THE PROPOSED UTILITIES, INSTALL INLET PROTECTION FABRIC DROPS IN ALL EXISTING DRIVEWAYS AND DRIVEWAYS TO BE CONSTRUCTED.
7. INSTALL TEMPORARY STONE FILTER BARS PERPENDICULAR TO EXPOSED STEEP SLOPES AS NECESSARY ALONG THE PROPOSED STREETS TO REDUCE RUNOFF VELOCITY AND SEDIMENTATION.
8. TOPSOIL, SEED, SPLS SILT, TOP, FERTILIZE AND MULCH ALL EXPOSED AREAS AS SOON AS FEASIBLE TO PROTECT AND RESTORE PERMANENT VEGETATION, ESPECIALLY HERNS/SLOPES.
9. WEEDS SHOULD BE CONTROLLED TO GROW TO A MINIMUM OF 12" DEPTH.
10. THE SITE WILL BE PERIODICALLY INSPECTED BY THE INDIAN COUNTY DRAIN OFFICE. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE RULES AND REGULATIONS OF THAT OFFICE.
11. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND RESTORE THE SITE TO ORIGINAL OR BETTER CONDITION.



City Manager's Report: November 3, 2023

OPERATIONS

- **General:**

- The City has finalized negotiations with the MMR and the Mason Area participants for Ambulance Services. A contract will be presented at the next meeting that includes a two-year extension with no cost to residents or the City.

- **Financial:**

- The City applied for and has been selected for a Transportation Economic Development Fund (TEDF) Category B grant for up to \$250,000, not to exceed 27% of the total eligible construction cost for fiscal year 2024-2025 for the eligible streets for this year.
- The City applied for and has been selected for reimbursement of purchased firefighter turnout gear in the amount of \$10,712. The MI Fire Equipment Grant has been established to provide funding for the purchase of fire equipment for Michigan's part time, on call, or volunteer firefighters.
- The City was notified that next year's inflation rate multiplier that assessors will use for property values is 5%. The inflation rate is 5.1% but 5% is the max they can use.

- **Storm Recovery Update:**

- All City clean-up is completed. 42 trees need to be removed by the contractor and about a quarter have been completed. Of the \$197,723.24 approved in emergency expenditures, we have spent \$112,580 for overtime, equipment rental, tree removals, dumpsters, and disposal. This does not include regular hours that will also be sent for FEMA reimbursement.

- **Personnel:**

- The Police Department is participating in No Shave November beginning November 1 – December 31, 2023. The proceeds raised will benefit the Mason Food Bank.

Trainings:

- Michigan Municipal League Convention- The City Manager attended with the Mayor and Mayor Pro Tem on October 17-19, 2023. Some of the most beneficial sessions that I would be happy to expand on included "From Conflict to Conversation" and "Reconnecting to Our Sense of Place."
- Officer Michele attended Professional Policing training on October 13, 2023.
- Officers Washington, Chick, Bradley, and Sergeant Fairbotham attended Capital Region Integrated Critical Skills (CRICS) on October 24, 2023.
- Sergeant Fairbotham attended Supervision/Management of the FTO Program, November 1-3, 2023.

Staffing Updates: Current Open Positions (3)

NEW HIRES:

- Full-Time Police Officer – Matthew Birr will be starting Monday, November 27, 2023.

OPEN POSITIONS:

- DPW Director (1) – Not posted, restructuring area prior to posting.
- Utility Supervisor (1) – Not posted, restructuring area prior to posting.
- Seasonal Part-time Crossing Guard (1) - Open until filled.

- **Traffic Complaints:**

- A speed complaint was received for the E Cherry/Rogers-E Cherry/Barnes area. Officers have been assigned to the area. Open until November 30, 2023.

CAPITAL IMPROVEMENT PROGRAM PROJECTS

Removed after one notice of complete.

FY 2023-2024				
Project	Project Name/Description		Status	Completed
STREETS, BRIDGES, SIGNALS(S)				
2017-S14/ 2017-U27	E Cherry St: S Rogers St to End		Complete, pending final restoration	October
2017-S16	Maple Street Bridge: Replacement		3Q project (rebiting)	
2023-S1	E Cherry St South Alley: S Jefferson St to S Rogers St		Complete, pending final restoration	October
UTILITIES: SANITARY SEWER, STORM WATER, AND WATER DISTRIBUTION (U)				
2019-U3b	WWTP Plant Construction		First phase demolition is almost complete. Bi-weekly construction meetings are occurring with staff and project is anticipated to slow during winter months.	
2022-U1	WWTP Headworks Huber Screen		3Q Project	
2023-U2	Water Service Line Replacement		Contractor anticipates starting replacements of 13 on Nov 13	
2023-U3	Hunting Meadows/ Stag Thicket Valve		Complete, pending final restoration	October
2023-U4	South Water Tower Chlorine Analyzer		On order, anticipate 4–6-month lead time (December – February).	
2023-U40	WWTP: Curtis Street Lift Station Replacement		Negotiating necessary easements for gravity line. Finalizing License Agreement, County has not closed on property yet.	
PARKS/ CEMETERY/ FORESTRY/ NONMOTORIZED (P)				
2020-P1	Columbia Bridge: Non-Motorized		Completed, pending additional delineators being added.	October
2020-P3	Hayhoe Riverwalk Trail – Eval. & Repair		Under construction.	
2020-P4	Hayhoe Riverwalk Trail: Trail Wayfinding		3Q Project	
2020- P6/ 8/12/13/14	Plan/ Design-Rayner, Lee Austin, Bond, Hayes Parks		Updating plans per Council direction.	
2020-P9	DDA: Downtown Wayfinding Signage		DDA established a sub-committee that is meeting to prepare RFP.	
2020-P11	Rayner Park- Phase 1 Construction		Site plan and play equipment options are available for review - here . Documents are being prepared for winter bidding, requires DNR approval	
2020-P15	Jefferson Trailhead/ Comm Garden		Under construction.	
2020-P21	Hayes Park: Capital Improvements		3Q Project, will need Council on prioritization.	
2022-P1	Maple Grove Cemetery: Columbarium		Complete	October
2022-P2	Maple Grove Cemetery: Trash Receptacles/ Section Signs		3Q Project, in coordination with cemetery board, selecting signs for trash receptacles.	
2023-P3	DDA: Tree Replacement		Awarded, Spring installation.	
MOTOR VEHICLE POOL (MVP)				
2017-MVP18	Vehicle No. 24	Dump/Plow Truck	Ordered, receipt anticipated in 2024	
2018-MVP3	Vehicle No. 84	Police Patrol	Anticipate being able to order in November	
2019-MVP6	Vehicle No. 802	Fire Expedition	Ordered	
2022-MVP5	Equip. No. 37	Public Works Gator	Ordered; anticipated arrival in November	
2022-MVP7	Equip. No. 82	Chipper	Anticipate bringing payoff purchase of rental to November 20 th Meeting	

2023-MVP1	Vehicle No. 88	New Police Patrol	Anticipate being able to order by November	
BUILDING, PROPERTY, EQUIPMENT (B)				
2017-B5b	Building: Library Phase 1, Part 1	Interior work expected to be finished by March. Updated estimates were received, and exterior work has a funding gap that is currently over \$220,000. CADL/City are continuing to apply for a grant to fill the gap and plan to launch a local fundraising campaign in Nov. Meeting with MEDC for potential crowd funding grant opportunity.		
2018-B23	Planning: Master Plan/Zoning Update	Zoning updates are in progress, Zoning Ordinance Review Committee mtg has been scheduled for Tuesday, November 7 at 5 pm.		
2018-B23a	Cedar/127 Corridor Sub-area Plan	Bids expected to be released by January.		
2019-B2b	City Hall Renovations: Phase 1 /Carpet	3Q Project		
2019-B8	Police: Car Port (7-Car Unit)	3Q Project		
2020-B4	DPW: Facility Design Build	Preparing bid package, staff anticipates bidding Nov/Dec.		
2022-B1	Ordinance Update: Planning, Subdivision, Signs, STR	3Q Project		
2023-B1	City Hall: HVAC Controls Replacement	In progress		
2023-B3	Police: Taser Replacement	Complete		October
2023-B4	Planning: Public Participation Plan & Communication Strategy	3Q Project		

ACTIVE PROJECTS STATUS UPDATES (PROJECTS NOT COORDINATED BY THE CITY)

Project Name	Status
685 Hull Rd PENDING	At their regular meeting on Tuesday, November 14, 2023, the Planning Commission will hear a request from Rodney Austin, on Behalf of Efficiency Production, for concurrent approval of a Preliminary and Final Site Plan for an 11,250 sq. ft. addition to the existing manufacturing building, an addition of a paved drive for truck entry/exit to the site, and an addition of 20 parking spaces in an existing paved area.