City of Boyne City
Founded 1856

319 N. Lake Street Boyne City, Michigan 49712 Phone 231-582-6597
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AGENDA

BOYNE CITY PLANNING COMMISSION

Monday September 16, 2019 5:00 p.m.

Boyne City Hall

Scan QR code or go to
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1. Call to Order
2. Roll Call - Excused Absences
3. Consent Agenda

   The purpose of the consent agenda is to expedite business by grouping non-controversial items together to be acted upon by one Commission motion without discussion. Any member of the Commission, staff, or the public may ask that any item(s) on the consent agenda be removed to be addressed immediately following action on the remaining consent agenda items. Such requests will be respected.

   Approval of minutes from the August 19, 2019 Boyne City Planning Commission meeting.

4. Hearing Citizens Present *(Non-Agenda Items)*
5. Reports of Officers, Boards, Standing Committees
6. Unfinished Business
7. New Business
   A. Proposed Zoning Ordinance Amendments to Reduce Housing Barriers
   B. Proposed Zoning Ordinance Amendment to Parking Requirements
   C. Proposed Storm Water Control Ordinance.
8. Staff Report
9. Good of the Order
10. Adjournment – Next Meeting <u>October 21, 2019</u>

Individuals with disabilities requiring auxiliary aids or services in order to participate in municipal meetings may contact Boyne City Hall for assistance: Cindy Grice, City Clerk/Treasurer, 319 North Lake Street, Boyne City, MI 49712; phone (231) 582-0334

Approved:

Meeting of August 19, 2019

Record of the proceedings of the Boyne City Planning Commission meeting held at Boyne City Hall, 319 North Lake Street, on Monday August 19, 2019 at 5:00 pm.

Call to Order

Chair Place called the meeting to order at 5:00 p.m.

Roll Call

Present: George Ellwanger, Skylar MacNaughton, Tom Neidhamer, Rose Newton, Aaron Place and Jeff Ross
Absent: Larry Chute, Joe St. Dennis
Vacancy: One

2019-8-19-02
Neidhamer moved, Ross seconded, PASSED UNANIMOUSLY, a motion to excuse the absence of Chute and St. Dennis

Meeting Attendance

City Officials/Staff: Planning and Zoning Administrator Scott McPherson and Recording Secretary Jane Halstead
Public Present: Seven

Consent Agenda **Motion

2019-8-19-03
Ross moved, Neidhamer seconded, PASSED UNANIMOUSLY, a motion to approve the consent agenda, the Planning Commission minutes from July 15, 2019 as presented.

Citizen comments on Non-Agenda Items

None

Reports of Officers, Boards and Standing Committees

Unfinished Business

New Business

Lakeview Village Development Plan Review

Northern Properties Mobile Home Park is planning an expansion of Lakeview Village located at 526 N Lake. In May the Planning Commission did a preliminary review of the project. Planning Director Scott McPherson summarized the plans which will increase the park by 22 units. There will be an additional 11 double wide sites off of Lake Street and an additional 11 single wide sites off of Park Street. These sites will be accessed by interior roads. This property is zoned for this use. The Planning Commission needs to review the design criteria. Kathy Johnson and Jennifer Wilcox of Northern Properties and Bryan Nolan of Benchmark Engineering were on hand to answer questions. Kathy Johnson wants feedback and if there are any concerns they would like to address them.

Chair Aaron Place opened up the meeting to public comments.

Terry Rosch and Lee Snyder of Lakeview Village #106 - Terry was disappointed about the lack of communication regarding the project. She learned of the project when a contractor began digging on the property near her home. The management at the park indicated to her that they did not know what the plan was. This is not the way to deal with a community. It is a meticulous community and she and her husband take care or their property. What will their sight line be? They want to know the delineation of their lot line – will they lose trees? This project will impact some people more than others. They want better communication on what is happening.

Steve Roote of 214 State Street - Steve asked if there should be a public hearing so people can voice their opinions. .
McPherson – The ordinance identifies this as a principle permitted use by right. A public hearing is not required.
Rosch – So the project can proceed without any response to my concerns?
McPherson – If the applicant submits a plan that meets all ordinance criteria the Planning Commission has no choice other than to approve it. Concerns need to be addressed with the property owner.
Rosch – This is the first we've seen of the property owner. There has been nothing in writing.
Place – We don't have control of the property in that sense. This meets all zoning requirements.
Jane MacKenzie of 847 W Division St - It looks like the developer responded to the input at the preliminary review. I appreciate the developer doing this – the community needs housing. I also appreciate that there are different price ranges.
Kathy Johnson – In April we sent out a letter for annual rent review and notified residents of our project plans. There were also signs that were posted on the property prior to the last meeting. We want to address her concerns (Mrs. Rosch). We are not going to change site 106. We are not going to change your lawn or your trees. You will have a few homes to look at – that will be true.
Bryan Nolan –We are not touching anything on site 106. Your lake view will not be there anymore essentially.

Board Discussion

MacNaughton – will they be adding landscaping between houses and the roads?
McPherson – Plans did show minimal street trees which could be added to. The ordinance requires 1 per 40 feet. They don't quite have that on Lake Street side. What are the plans for the well? Any opportunity to make that a water feature?
Bryan Nolan - We plan on leaving it – let the storm drain run into the retention area.
Kathy Johnson – I want to do that – perhaps make it a drinking fountain, I'm not sure exactly. We don't want to disturb it. If the Board wants us to do something with it we will.
McPherson – the intent would be to enhance it and make it visually attractive and useful in some way.
Place – so that would be an option in the future not necessarily right away.
Kathy Johnson – that would be at your discretion.
McPherson – they are required to have a greenbelt and maybe that could be incorporated as a feature in the greenbelt.
Newton - I want to reinforce that this is a very visual space on the road for pedestrians and other traffic and I would like to see an expansion of landscaping. I would like to see shrubs and deciduous trees - particularly on Lake Street.
Neidhamer – does the well flow all winter? Yes.

The Planning Commission reviewed the development requirements of BCZO section 7.40 point by point to determine if the development plan meets the set standards. To meet the requirements of a safe sight distance for D.4.a.4 the landscaping will need to be reduced at the Meadow Lane intersection to prove an adequate sight distance.
Streets will also need to be identified and the road names will need to be approved by the Boyne City Planning Director Scott McPherson to avoid duplicates.
The Board feels that more landscaping is needed on Lake Street – a mixture of shrubs and deciduous trees. McPherson stated that there are greenbelt guideline specifications

the developer should follow. Kathy Johnson stated that they want it to look attractive as well.
Ross asked what kind of fencing the developer was planning on using on the Southeast section. Johnson and Nolan stated the fence would be a 6 foot white vinyl/composite material.
Neidhamer did not see the value of requiring the developer to add a basketball court just to meet the 10,000 square for active recreation facilities requirement. It was decided there is adequate recreational options in close proximity to the park and that this requirement could be waived. The community also allows residents to have a basketball courts in their driveway.

Motion by Newton, seconded by Ross to approve the development plan for Lakeview Village as submitted by Northern Properties Mobile Home Park LLC with the following conditions identified in the fact finding provided by 7.40: reduce landscaping on Meadow Lane to provide adequate sight distance, increase screening and landscaping on Lake Street per the greenbelt ordinance requirements, utilize the existing artisan well in an attractive manner and in addition waive the requirement for the 10,000 square foot active recreation facility.

****Motion**

2019-8-19-7A
Roll Call:
Aye: Ellwanger, MacNaughton, Neidhamer, Newton, Place and Ross
Nay: None
Absent: Chute and St. Dennis
Vacancy: One
Motion Carries

The Planning Commission reviewed the plan to see if it meets all standards indicated in the 19.40 Development Plan Approval Criteria. The plan still must meet approval from the State.

Board Discussion

Neidhamer – Housing is much needed and this addresses that issue. It is a well-run community and loved by the people who live there.

Motion by Neidhamer, seconded by MacNaughton to find that the development plan for Lakeview Village meets the standards as identified in article 19.40 Development Plan Approval Criteria with the following conditions as stated: reduce landscaping on Meadow Lane to provide adequate sight distance, increase screening and landscaping on Lake Street per the greenbelt ordinance requirements and obtain required approval and permits from the State of Michigan.

****Motion**

2019-8-19-7A1
Roll Call:
Aye: Ellwanger, MacNaughton, Neidhamer, Newton, Place and Ross
Nay: None
Absent: Chute and St. Dennis
Vacancy: One
Motion Carries

Parking Ordinance Review Recommendations

The City contracted with Annaka Norris of Cambourne Consulting to provide professional services which included refresher training for the 2018 parking study performed by Rich & Associates, a review of the Lofts on Lake Street site plan and an assessment and recommendation on the Boyne City Zoning Ordinance parking standards. It is recommended that the parking generation ratio be adopted for the downtown core area which will lessen the amount of required parking in the downtown and determine what exactly the downtown core is. It was also recommended that the City implement a plan which will give a developer the ability to purchase parking if they cannot meet the minimum standard at a cost of $4,000 per space.
McPherson noted that if we do collect funds we will need to implement a plan on how we use them. The initial parking study did include recommendations that we have not implemented as of yet. The funds could be used for some of those items. A more specific plan may be necessary.

McPherson reviewed and explained the parking ratio table provided. In general the ratios provide for a reduction in the required spaces. There is walkability and proximity to public parking in the downtown core. There is the opportunity to share parking with multiple users.

Board Discussion

Neidhamer – so generally speaking it is an across the board reduction for the core area.
McPherson - Yes, a 30 to 40% reduction in required parking in the downtown core area.
Neidhamer – would we still have the right to waiver?
McPherson - Yes, that is still a tool you have but with these more realistic numbers you probably won't have to consider waivers as often.
Newton – We need another option like the in lieu parking fee – should that be renewed every 5 years? That space will become more valuable.
McPherson - Typically any value included in an ordinance is reviewed and renewed annually in the budget by the City Commission. It could be changed at that time.
Place – In the ordinance it there already an established parking fund?
McPherson - There is a parking improvement fund tied to a specific district which has never been identified. This is a different tool to allow the City to take that money and develop parking.
Ross - According to the consultant, the more the city has control of parking downtown, the better.
Neidhamer - There are a lot of recommendations we haven't implemented like better signage, better lighting and enforcement. There are more things we can do.
Place – There is the question of where does downtown start and end?
McPherson - It has always been the vision to expand the downtown core along Lake Street. It makes sense to include it in part of the core district.
Place – I think including the transitional district would be smart.
Neidhamer - would it be advantageous to include Family Fare?
McPherson - That is the general business district.
McPherson - If you endorse moving forward, I will draft language to implement the recommendations for review.
Place – I think we need to have a public hearing regarding parking specifically because people are so passionate about it.
Neidhamer - We have had three or four meetings.
Place – We have to keep on trying.
McPherson – The study was done through the MML with no cost to us. They would like feedback.

MacNaughton – Would the City need to find someone to enforce the parking rules?
McPherson - That was one of the recommendations. Right now the police department does enforcement – it works pretty well.
Place – will in lieu parking be included?
McPherson – I can include it in the language and bring back a draft map for our next discussion.
Ross - The in-lieu feature gives developer an alternative. Are there plans for developing parking at the Open space?
McPherson – That is not an option. There are restrictions on that property put on by the seller of the property. There is limited parking allowed.
Place - There should be a cap on the number of in lieu parking.
Newton – Anika did a great job –she tailored a recommendation for our community and made it tangible.
Ross – City needs to have more signage and way finding. It should be a high priority.
Place – Where does it fit in our budget? I agree signage is good.

Scott McPherson will work on a draft to implement the changes.

Recommendation for Planning Commission Appointment

Monica Kroondyk has applied for the vacant position on the Planning Commission Board. She has served on the Evangeline Township Planning Board and is currently the Director of the Boyne District Library. Scott McPherson recommends her appointment.

Board Discussion

Place – Monica will be an asset to the Board.

****Motion**

Motion by Ross, seconded by Ellwanger to recommend to the City Commission the appointment of Monica Kroondyk to the Planning Commission.

2019-8-19-7C
Roll Call:
Aye: Ellwanger, MacNaughton, Neidhamer, Place and Ross
Nay: None
Abstain: Newton
Absent: Chute and St. Dennis
Vacancy: One
Motion Carries

Staff Report

- Scott McPherson suggested members of the Planning Commission attend the free training provided by MEDC/RRC scheduled for September 30th in Petoskey. The deadline for signing up is September 6th.

Good of the Order

None.

The next regular meeting of the Boyne City Planning Commission is scheduled for Monday, September 16, 2019 at 5:00 p.m.

Adjournment
****Motion**

2019-8-19-10
Ross moved, Newton seconded, PASSED UNANIMOUSLY a motion to adjourn the August 19, 2019 meeting at 6:24 pm

Chair Aaron Place

Recording Secretary Jane Halstead

Draft

CITY OF BOYNE CITY

To: Chair Aaron Place, and fellow Planning Commissioners

From: Scott McPherson Planning Director

Date: September 16, 2019

Subject: Draft Ordinance Amendments to Reduce Housing Barriers

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Background

In June the Planning Commission review an number of proposed amendments drafted to reduce or eliminate barriers to the development of housing. As not all Planning Commissions attended the meeting and a new member has been appointed since that review, the draft language is being brought back to the commission for a final review prior to scheduling a public hearing.

Discussion

Contained in the priority action items is the task of reviewing the zoning ordinance and master plan with the intention of eliminating unnecessary barriers to developing housing options. To begin this task staff has reviewed the zoning ordinance and identified barriers to housing with potential amendments. This list is not intended to be comprehensive or indicate that the various potential amendments should be adopted. The purpose was to start the discussion and focus in on and refine potential amendments that should be brought forward. I have also attached the goals from the master plan and the future land use map to review.

As discussed at the June meeting, possible amendments to eliminate potential housing barriers have been drafted for review by the planning commission. For the following proposed ordinance amendments deleted text is shown with a ~~strikeout~~ and new text is shown in *italics*.

Proposed Amendments to Article I Definitions

Several amendments to the definitions in Article I are being proposed. The amendments are intended to make the language consistent and eliminate unnecessary and duplicate definitions. The proposed amendments are as follows:

Dwelling, Manufactured *Home*: A building or portion of a building designed for long-term residential use and characterized by all of the following:

1. The structure is produced in a factory ~~in accordance with the National Manufactured Housing Construction and Safety Standards Act, as amended~~ *and is in compliance with all applicable codes to be classified and used as a dwelling;*

2. The structure is designed to be transported to the site in a nearly complete form, where it is placed on a foundation and connected to utilities;

3. The structure is designed to be used as either an independent building or as a module to be combined with other elements to form a complete building on the site.

A mobile home *and modular home* ~~is~~ *are considered* ~~a type of~~ manufactured ~~dwelling~~ *home*s.

Dwelling, Mobile Home: A structure, transportable in one (1) or more sections, which is built upon a chassis and designed to be used as a dwelling with or without permanent foundation, when connected to the required utilities, and includes the plumbing, heating, air-conditioning, and electrical systems contained in the structure. Recreational vehicles as described and regulated herein shall not be considered "mobile homes" for the purposes of this Ordinance. ~~(See Mobile Home (Manufactured Housing Unit).~~

Dwelling, Modular Home: A dwelling which consists of prefabricated units transported to the site in two (2) or more sections on a removable undercarriage or flat-bed and assembled for permanent location upon a permanent foundation on the lot, and to which such major elements as the heating system or a substantial portion of the siding are installed after transport, and which shall not be considered a mobile home.

~~**Mobile Home (Manufactured Housing Unit):** A structure, transportable in one (1) or more sections, which is built on a chassis and designed to be used as a dwelling with or without permanent foundation, when connected to the required utilities, and includes the plumbing, heating, air-conditioning, and electrical systems contained in the structure. Mobile home does not include a recreational vehicle as described and regulated herein for the purposes of this Ordinance. (See Dwelling, Manufactured, and Dwelling, Mobile Home.)~~

~~**Mobile Home Park (**~~**Manufactured Housing Development~~**):** A parcel or tract of land under the control of a person upon which three (3) or more ~~mobile~~ *manufactured* homes are located on a continual non-recreational basis and which is offered to the public for that purpose regardless of whether a charge is made therefore, together with any building, structure, enclosure, street, equipment, or facility used or intended for use incident to the occupancy of a ~~mobile~~ *manufactured* home ~~and which is not intended for use as a temporary trailer park~~, subject to conditions set forth in the Michigan Manufactured Housing Commission Rules and Michigan Public Act ~~419 of 1976,~~ *96 of 1987* as amended. *Seasonal mobile home parks as defined by the Act are not Manufactured Housing Developments.*

~~**Modular Home:** A dwelling which consists of prefabricated units transported to the site in two (2) or more sections on a removable undercarriage or flat bed and assembled for permanent location upon a permanent foundation on the lot, and to which such major elements as the heating system or a substantial portion of the siding are installed after transport, and which shall not be considered a mobile home.~~

Proposed Amendments to Article IV

The amendment proposed to Article VI would allow accessory dwellings and duplex's as a use by right and permit multiple family units with a maximum of 4 units as a conditional use. The proposed amendments are as follows:

Section 4.20 Principal Permitted Uses.

No building or land shall be used and no building shall be erected except for one (1) or more of the following specified uses, unless otherwise provided in this Ordinance.

A. Single family detached dwellings.

B. *Attached or detached accessory apartments, provided the site contains an owner occupied single family dwelling, limited to one (1) accessory apartment per site. Accessory apartments can be attached to either a single family dwelling or a detached garage. Detached accessory apartments shall have a minimum side yard and rear yard setback of ten (10) feet. Off-street parking shall be in accordance with D.1.a of this subsection.*

C. *Two-family dwellings.*

Section 4.30 Conditional Uses.

The following uses shall be considered conditional and shall require conditional use approval, and shall comply with any applicable conditional use requirements of Article XXV:

A. ~~Attached or detached accessory apartments, provided the site contains an owner occupied single family dwelling, limited to one (1) accessory apartment per site. Accessory apartments can be attached to either a single family dwelling or a detached garage. Detached accessory apartments shall have a minimum side yard and rear yard setback of~~

~~ten (10) feet. Off street parking shall be in accordance with D.1.a of this subsection.~~
Multiple dwelling with a maximum of 4 units.

B. Private recreation areas, uses and facilities including, marinas, and swimming pools subject to the following:

1. No building shall be located within one-hundred (100) feet of a dwelling.

2. Facilities such as licensed restaurants and bars may be permitted when occupying an integral part of the main structure, provided there is no exterior display or advertising of said facilities.

3. Swimming pools, tennis courts, boat docks, and similar uses shall be located not less than thirty-five (35) feet from any property line.

C. Home occupations in which customers or patrons visit the site for the delivery of goods and/or services.

~~D. Two family dwellings.~~

~~1. Criteria for granting conditional uses for two family dwellings in a Traditional Residential District (TRD).~~

~~a. A parking area shall be provided for the occupant of both units which shall be hard surfaced, preferably asphalt, brick or concrete, and shall have at least two (2) parking spaces for each dwelling unit (not less than four (4) spaces).~~

~~b. The applicant shall submit a site plan (drawn to scale and indicating the setbacks) and a floor plan of both units showing the present use and the proposed use of each room in the structure. Any permit granted allowing the conditional use shall designate the number of bedrooms allowed in each unit and such number shall not thereafter be increased.~~

~~c. The size and architecture shall be in harmony with the existing neighborhood in which it is located and will not be detrimental to the future orderly development of the nearby properties.~~

~~d. Any refuse and garbage collection area or devices shall comply with 35.052, Section 2, Containers, of the City of Boyne City General Ordinances.~~

~~e. The applicant shall compile a list and provide a map of existing duplex units, multiple family units, rooming houses, and care facilities within three hundred (300) feet of the proposed structure. The Planning Commission shall be entitled to consider the density of such units and limit the density within that area.~~

Proposed Amendments to Article VII
The amendments to Article VII would change the terminology from mobile home to manufactured home and park to development, increase the density to 10 units per acre and allow the 25,000 square feet open space requirement to be met by more than 1 area. The proposed amendments are as follows:

ARTICLE VII
MANUFACTURED HOUSING ~~PARK~~ *DEVELOPMENT* DISTRICT (~~MHPD~~ *MHDD*)

Section 7.10 Purpose.

The purpose of this district is to provide sites for ~~mobile homes and~~ manufactured housing units at appropriate locations in relationship to the existing and potential development of the surroundings while establishing an attractive residential environment.

Section 7.20 Principal Permitted Uses.

A. Manufactured housing ~~units~~ *development*.

B. Accessory structures and uses customarily incidental to the above permitted uses.

Section 7.30 Conditional Uses.

The following uses shall be considered conditional and shall require conditional use approval, and shall comply with any applicable conditional use requirements of Article XXV.

A. Public, parochial and private schools including nursery schools, churches, temples, or similar places of worship, libraries, community buildings, hospitals, convalescent homes, and funeral homes. (amended: October 24, 2007)

B. Private recreation areas, uses and facilities including country clubs, marinas, golf courses and swimming pools subject to the following:

   1. No building shall be located within one-hundred (100) feet of a dwelling.

   2. Facilities such as licensed restaurants and bars may be permitted when occupying an integral part of the main structure provided there is no exterior display or advertising of said facilities.

   3. Golf fairways, swimming pools, tennis courts, boat docks, and similar uses shall be located not less than thirty-five (35) feet from any property line.

C. Public utility transformer stations, substations and gas regulator stations without service or storage yards shall comply with the requirements of this Ordinance and shall be subject to the following:

   A front yard setback of not less than fifty (50) feet shall be provided (irrespective of the

yard requirement of the district in which it is located) and two (2) side yards and a rear yard shall be provided, each shall not be less than twenty-five (25) feet in width. The previously mentioned conditional uses shall be landscaped with a buffer of plant materials that effectively screens the view of the use from property used for residences. The standard buffer shall consist of a landscaped strip at least six feet (6) wide outside the perimeter of the compound. The buffer shall contain a variety of species of plants.

Section 7.40 Development Requirements.

The following requirements shall be met within a Manufactured Housing Park District (MHPD):

A. Preliminary development plan approval shall be required as set forth in Article XIX of this Ordinance. Following review of preliminary requirements and written notice of approval by the County Drain Commission, Road Commission, and the local health agency, the Planning Commission shall notify the developer of its action within sixty (60) days of filing a complete application. Review of a final development plan shall occur as set forth in the State of Michigan Public Act 96 of 1987.

B. Off-street parking for manufactured homes as specified in Article XXIV of this Ordinance together with the following:

1. All ~~mobile~~ *manufactured* home sites shall be provided with two (2) parking spaces.

2. If on-site vehicle parking is provided, it shall be in compliance with both of the following:

   a. The parking spaces may be either in tandem or side-by-side. If in tandem, the width shall not be less than ten (10) feet and the combined length shall not be less than forty (40) feet. If side-by-side, the combined width of the two (2) parking spaces shall not be less than nineteen (19) feet and the length shall not be less than twenty (20) feet. In either method, the length shall be measured from the curb or inner walkway edge.

   b. A parking space shall be hard-surfaced and shall be constructed in compliance with Act No. 8 of the Public Acts of 1973, being S 125.1361 of the Michigan Compiled Laws.

3. If off-site vehicle parking is provided, the parking spaces shall be adjacent to the ~~mobile~~ *manufactured* home site and shall comply with the following:

   a. Parking facilities shall be provided for the storage of ~~mobile~~ *manufactured* homes if a sales office is part of the ~~park~~ *development* operation.

   b. Parking facilities shall be provided for the storage of maintenance vehicles.

   c. Parking facilities shall be provided at the office location for office visitors.

d. A minimum of one (1) parking space for every (3) ~~mobile~~ *manufactured* home sites shall be provided for visitor parking located convenient to the area served.

e. If off-site parking facilities are provided in bays and at office or other facilities, they shall be in compliance with R 408.30427 of the Michigan Administrative Code.

f. If not provided for on-site or in parking bays, a separate parking area may be provided for vehicles that cannot be accommodated within the standards set forth in these rules, and for recreational vehicles, such as motor homes, travel trailers, and snowmobiles.

C. Signs for all uses as specified in the Boyne City Sign Ordinance.

D. In a ~~mobile~~ *manufactured* home ~~park~~ *development*, the following specific standards shall apply:

1. Lot Area and Density.

a. The tract to be developed shall contain a minimum of ten (10) acres.

b. The ~~mobile~~ *manufactured* home ~~park~~ *development may have a maximum density of 10 units per acre.* ~~shall be developed with sites averaging five-thousand-five-hundred (5,500) square feet per manufactured home unit. This 5,500 square feet for any one site may be reduced by twenty percent (20%) provided that the individual site shall be equal to at least four-thousand-four-hundred (4,400) square feet. For each square foot of land gained through the reduction of a site below 5,500 square feet, at least an equal amount of land shall be dedicated as open space, but in no case shall the open and distance requirements be less than that required under R 125,1946, Rule 946 and R 125.1941 and R 125.1944, Rules 941 and 944 of the Michigan Administrative Code.~~

2. Yard Requirements.

a. A ~~mobile~~ *manufactured* home shall be in compliance with the following minimum distances:

1). Twenty (20) feet from any part or attached structure of another manufactured home which is used for living purposes.

2). Ten (10) feet from either an on-site parking space of an adjacent manufactured home site or an attached or detached structure or accessory which is not used for living purposes.

3). Fifty (50) feet from a permanent building.

4). One-hundred (100) feet from a sports field.

b. Any part or structure that belongs to a ~~mobile~~ *manufactured* home shall be set back the following minimum distances:

1). Ten (10) feet from the edge of an internal road and seven (7) feet from a parking bay.

2). Seven (7) feet from a common pedestrian walkway.

3). Ten (10) feet from a natural or man-made lake, object, or waterway.

c. A ~~mobile~~ *manufactured* home site length may vary depending on park design and layout and the manufactured home to be installed; however the minimum standards pertaining to distance between manufactured homes shall be complied with.

d. Site dimensions may be computed to include the space requirements for manufactured homes which may contain expandable rooms, or in anticipation of the attachment of expansions such as add-a-rooms.

3. Setbacks from Property Boundary Lines.

a. ~~Mobile~~ *Manufactured* homes, permanent ~~park~~ *development* buildings and facilities, and other structures shall not be located closer than ten (10) feet from the property boundary line of the ~~park~~ *development*.

b. If ~~mobile~~ *manufactured* homes, permanent ~~park~~ *development* buildings and facilities, and other structures abut a public right-of-way, they shall not be located closer than twenty-five (25) feet from the park boundary line. This rule does not apply to internal ~~park~~ roads if dedicated for public use, providing the roads do not present a nuisance or safety hazard to the ~~park~~ *development* tenants.

4. Streets.

a. An internal road is subject to approval by the Michigan Department of Commerce and shall be in compliance with all of the following general requirements:

1). The road shall be hard-surfaced.

2). The road shall have access to a public thoroughfare by a permanent

easement which shall be recorded prior to approval. Sole access by an alley is prohibited.

3). A dead-end road shall terminate with an adequate turning area. A blunt-end road is prohibited.

4). An adequate safe-sight distance shall be provided at intersections.

5). An offset at an intersection or an intersection of more than two (2) streets is prohibited.

6). All roads shall be clearly marked with appropriate traffic signs, subject to the provisions of Rule 701(2) as set forth by the Michigan Department of Commerce.

7). A road shall be named and so identified by street signs located at all road intersections.

8). A name for an internal road shall be approved by the municipality.

b. A road shall have a driving surface of not less than the following:

1). One way, with no parking - thirteen (13) feet.

2). Two way, with no parking - twenty-one (21) feet

c. At access points where general traffic enters or leaves the park, the width shall be sufficient to permit free movement from or to the stream of traffic on the public roads.

5. Open Space Requirements.

a. ~~A mobile home park that contains fifty (50) or more mobile home sites shall have at least one (1) easily accessible open space area continuing not less than twenty-five thousand (25,000) square feet including a minimum of ten thousand (10,000) square feet of open space developed for active recreation facilities.~~ *A manufactured home development that contains 50 or more home sites which are constructed according to a permit to construct issued under the act shall have not less than 2% of the development's gross acreage dedicated to designated open space, but not less than 25,000 square feet.*

~~b. The total of the land dedicated for open space shall not be less than two percent (2%) of the park's acreage but not less than twenty-five thousand (25,000) square feet.~~

6. A hard-surfaced walkway or patio connecting the dwelling with its off-street parking area shall be provided.

7. Each lot shall contain an area reserved for the placement of a living unit, the base construction (i.e., foundation, pads, ribbons, etc.) of which shall meet or exceed State specifications.

8. Each living unit shall be skirted, entirely enclosing the bottom, within thirty (30) days after its placement. In the event of inclement weather and upon demonstration of extenuating circumstances, an extension may be granted beyond thirty (30) days.

9. Each living unit lot shall be provided with anchors, tie downs or other devices as provided for under Rules 601-609 of the Michigan Department of Commerce Manufactured Home Commission General Rules.

10. ~~Mobile~~ *Manufactured* home ~~parks~~ *development*, when adjacent to a developed residential zoning district, shall be completely screened by fencing or natural growth along the entire property boundary line abutting the district. If planting material is used for the development of a natural edge, the recommendations of Article XXIII of this Ordinance shall be followed. These requirements may be waived when, in the Planning Commission's opinion, the intent of this requirement has been satisfied.

Proposed Amendments to Article X

The proposed amendments for Article X would eliminate the setback requirements for apartment buildings in the CBD district and would permit dwellings on the ground floor of mixed use developments:

Section 10.20 Principal Permitted Uses.

In the CBD, no use shall be permitted, unless otherwise provided in this Ordinance, except for the following:

A. Apartment buildings, up to a maximum of eight (8) units per building, ~~subject to the following standards:~~

~~1. All public utilities are available.~~

~~2. All units shall have at least one (1) living room and one (1) bedroom, except that two (2) units may be of an efficiency apartment type.~~

~~3. Buildings shall have a ten (10) foot front yard setback, five (5) foot side yard setbacks, and a fifteen (15) foot rear yard setback.~~

B. Art galleries.

C. Bus passenger stations.

D. Business schools and colleges.

E. Business establishments which perform services on premises such as, but not limited to: banks, savings and loans and credit unions (excluding drive-through branches and drive-through lanes); brokerage houses; insurance, real estate, and travel agencies; pedestrian-oriented automated teller machine facilities.

F. Churches, temples, and similar places of worship, limited to a capacity of five-hundred (500) worshipers.

G. Clubs, fraternal organizations, and lodge halls.

H. Dry cleaning establishments, or pick-up stations, dealing directly with the consumer, limited to two-thousand (2,000) square feet of floor area. Central dry cleaning plants serving more than two (2) retail outlets shall be prohibited.

I. Essential public services, telephone exchanges, public utility offices, substations and uses when conducted within a completely enclosed building, excluding storage yards, provided the use and building are consistent with the appearance and character of the downtown as determined by the Planning Commission.

J. Hotels, motels, bed and breakfast inns, and bed and breakfast houses.

K. Laundromats (self-service or coin-operated).

L. Medical offices including offices of doctors, dentists and similar or allied professions, with up to ten-thousand (10,000) square feet gross floor area.

M. ~~Mixed use buildings, with business, commercial, or service uses on the ground floor, and residential, office, or warehouse uses on upper floors, subject to the conditions of contained herein. Business and office uses may occupy a building used for residential uses provided that no such business or office use may be located on the same floor as used for residential purposes, and no floor may be used for business or office use on a floor located above a floor used for residential purposes. Further, where there is mixed business/office and residential use in a building there shall be provided a separate, private pedestrian entranceway for the residential uses.~~
Mixed-use buildings, with residential and all principle permitted uses as specified by this section subject to the following conditions: Residential units located on the first floor shall be located to the rear of the commercial uses, the units shall not have frontage on any adjacent street and shall be provided a separate, private pedestrian entranceway.

Proposed Amendments to Article XI

The proposed amendments for Article XI would eliminate the setback requirements for apartment buildings in the TCD district and would permit dwellings on the ground floor of mixed use developments:

Section 11.02 Principal Permitted Uses.

In a TCD, no building, structure or premise shall be erected, altered, or used, except for one (1) or more of the following uses, unless otherwise provided in this Ordinance (except that conversions of warehouse or industrial facilities to loft type dwelling units may increase the total number to a maximum of sixteen (16)).

A. Apartments, up to a maximum of eight (8) units per building, ~~subject to the following standards:~~

~~1. All public utilities are available.~~

~~2. All units shall have at least one (1) living room and one (1) bedroom, except that two (2) units may be of an efficiency apartment type.~~

~~3. Buildings shall have a ten (10) foot front yard setback, a minimum of one five (5) foot side yard setback and a total of two (2) not less than fifteen (15) feet, and a fifteen (15) foot rear yard setback.~~

B. Art galleries.

C. Bed and breakfast inns and homes.

D. Business establishments which perform services on premises such as, but not limited to: banks, savings and loans and credit unions (excluding drive-through branches); brokerage houses; insurance, real estate, and travel agencies; pedestrian-oriented automated teller machine facilities.

E. Dry cleaning establishments, or pick-up stations, dealing directly with the consumer. Central dry cleaning plants shall be prohibited.

F. Essential public services, telephone exchanges, public utility offices, substations and uses when conducted within a completely enclosed building, excluding storage yards, provided the use and building are consistent with the appearance and character of the downtown as determined by the Planning Commission.

G. Medical offices including offices of doctors, dentists and similar or allied professions, with up to ten-thousand (10,000) square feet gross floor area.

H. ~~Mixed-use buildings, with business, commercial, or service uses on the ground floor, and residential, office, or warehouse uses on upper floors, subject to the conditions of contained~~

~~herein. Business and office uses may occupy a building used for residential uses provided that no such business or office use may be located on the same floor as used for residential purposes, and no floor may be used for business or office use on a floor located above a floor used for residential purposes. Further, where there is mixed business/office and residential use in a building there shall be provided a separate, private pedestrian entranceway for the residential uses~~.

Mixed-use buildings, with residential and all principle permitted uses as specified by this section subject to the following conditions: Residential units located on the first floor shall be located to the rear of the commercial uses, the units shall not have frontage on any adjacent street and shall be provided a separate, private pedestrian entranceway.

CITY OF BOYNE CITY

To: Chair Aaron Place, and fellow Planning Commissioners

From: Scott McPherson Planning Director

Date: September 16, 2019

Subject: Draft Ordinance Amendments to Parking Requirements

Background

In August the Planning Commission reviewed the parking requirements assessment report from Annaka Norris of Cambourne Consultants. The Planning Commission agreed with the recommendations and directed staff to develop draft ordinance amendment to incorporate the recommendations into the zoning ordinance.

Discussion

The proposed amendments have been incorporated into the attached Article 24 Parking Loading, and Access Management Requirements. The proposed amendments are shown in *italics* for proposed new text and ~~strikeout~~ for text proposed to be deleted. Amendments are proposed for two sections of the ordinance which are the existing section 24.20 and the addition of a new section 24.85. The proposed amendment 24.20 would provide the opportunity for properties in the Downtown Core, which is defined as all properties in the Central Business District and the Transitional Commercial District, to pay in the Parking Improvement Fund in lieu of providing required off street parking. The new section 24.85 would create new minimum parking requirements for properties in the downtown core. These new parking minimums are the parking demand generation values that were provided in the 2018 Boyne City Parking Study.

Michigan Municipal League contracted with Cambourne Consulting to conduct three tasks related to parking in Boyne City. The first was a review of a development plan to determine the projected demand for parking, compared to the current parking requirements and then the 2008 Rich & Associates Parking Study. The second task was a to provide an overview and refresher of the Rich & Associates Parking Study to the Planning Commission and Council to answer questions and ensure an understanding of the study. The third task is a review of downtown Boyne City current parking requirements, specifically, requesting a review of the current zoning code as it relates to the parking requirements in the downtown area. A review of the zoning was conducted and is provided.

This assessment provides a review and discussion of the effects of updating and revising the parking requirements for the downtown area. The core area defined by Rich & Associates, as shown within the yellow boundaries is where the main downtown core and overall density is occurring. Since the study was done development is changing and the area to the north along Lake Street could become more like the downtown with proposed developments. If the proposed development occurs along Lake Street the core boundaries will need to include blocks 3 and 4.

This new core downtown area is the area of focus for changes to zoning. The entire DDA is shown on the map on the next page. This larger boundary has commercial strip development and some light industry that do not match the pedestrian friendly and walkable types of development occurring in the downtown core. Because of this, it would not make sense to include the entire DDA area in the proposed zoning changes. If it is decided to use the entire DDA boundary, the City will need to state that only specific types of development that continue to make the downtown more pedestrian friendly and walkable can benefit from the parking zoning for this area.

In Lieu of Fee Benchmarking

Miami's Coconut Grove, FL - $10,000/stall or $50/month/space
Lake Forest, IL - $22,000/space
Jackson, WY – fee ranges $1,000 (up to 4 stalls) to $10,000 (more than 41 space)
Bend, OR - $510/space
Skokie, IL - $3,500/space
Kirkland, WA - $6,000/space
Dania Beach, FL - $3,250/space
Westport, CT - $2,000/space
Naperville, IL - $Weighted average of historical deck cost per space
Grosse Pointe, MI - $9,000/ space
Plymouth, MI - $10,000/space
Northville, MI - $5,440/space
Rochester, MI - $13,000/space

City of Boyne City
Main Street \ DDA District
N
W
E
S
Lakeview
Meadow
Highcrest
Park
East
Vogel
Bailey
North
Jefferson
State
Lake
River
Water
Front
Ray
Pearl
Main
Grant
Boyne
Spring
Poplar

Discussion on Zoning:

Shared use parking is typically allowed in areas with multiple forms of public transportation or in a dense downtown setting where a user of the downtown will park once and visit multiple settings. The current zoning in Boyne City allows for a 20% reduction for shared use parking and allows public parking to help met the required parking spaces for development. This is a best practice and should be continued. It is not necessary to change the zoning to reduce the number of parking spaces required, instead many communities leave it to the discretion of the planning board and or planning director. This can ensure the right number of parking spaces are being provided, if the city is monitoring the utilization and number of parking spaces in the downtown.

It is difficult to determine the exact number of parking spaces needed due to changes in intensity of land use and changes in the economy especially in a tourist and resort area. It is especially important to continually monitor and update the parking supply and overall utilization. Too much parking can have just as much of an effect on the overall use of the downtown than not enough parking. People do not like to walk past empty parking lots and often feel that there is not much interest in a downtown with too much parking. On the other hand, customers and visitors can stop frequenting a downtown when they can no longer find parking. This balancing act can become frustrating not only to the downtown but to developers, landlords and business owners.

Many communities will not require any parking within a downtown district and will provide all parking needed for development. This tactic encourages a dense multi-story and walkable downtown. In this case residential, hotel and large commercial will still need to provide parking or pay into an in-lieu of parking system for these land uses. This system puts the parking burden on the city and needs close management of the parking system. Typically, this works best if there is a paid parking system and or if there is a business assessment district to help cover the cost of providing the parking and the management of the system.

It is not realistic to recommend a drastic change to zoning for the core downtown area if parking will not be enforced. Without parking enforcement, it is extremely difficult if not impossible to manage parking. It is also important to note that June, July and August are the peak season in Boyne City. There are additional peak days throughout the year such as the color season, special events, Christmas season, Presidents weekend and Martin Luther King weekend for the ski areas. This lends to the question of how much parking the City is willing build and have developers build when it will remain underutilized at some times of the year.

Recommendations:

The current zoning code related to parking follows best practices, such as shared use parking reductions and more realistic parking generation ratios. The zoning could offer specific requirements for the core downtown area that would be slightly less restrictive to encourage in-fill and re-development of the downtown. These changes to the zoning will help keep the downtown pedestrian friendly and walkable.

At this point in time it is recommended that Boyne City use Rich & Associates parking generation ratios for the downtown core area only. This model should be used when there is a change of land use or new development. The Rich & Associates model already accounts for shared use parking and the numbers should not be adjusted further for shared use due to this.

The City should allow (in the core downtown area) for an in-lieu of parking fee of $4,000/space ($3,500-$5,000 is the typical per space cost to develop a surface parking lot not including land cost) when a developer, landlord or business owner cannot supply the parking due to site limitations and or the overall density of the downtown. This will help facilitate in-fill and redevelopment by allowing the developer to use the entire property without having to provide parking on-site. In this instance the City would then be the provider of the parking spaces in the on-street and off-street parking areas. The $4,000 would cover the cost of a typical surface lot parking space (this cost will need to be revisited every 4-5 years and adjusted based on inflation). The additional benefit besides density is that the City, by offering an in-lieu of parking fee, can determine where parking lots are developed, keeping the downtown walkable.

ARTICLE XXIV
PARKING, LOADING, AND ACCESS MANAGEMENT REQUIREMENTS

Section 24.10 General Regulations and Definitions.

A. The purpose of this section is to regulate the parking, loading, and access of automotive vehicles in all zones. The number of automobiles presently used in the City of Boyne City, by both residents and tourists, and the probability of increase in the number thereof make it necessary for the safety, health and convenience of the people of Boyne City that the public streets be usable, and to their maximum capacity, for the movement of vehicles; and that the parking of vehicles thereon for long periods of time subordinates the good of the public as a whole to the convenience of the few.

B. The following regulations and definitions shall apply in all zoning districts.

1. Plan Required. A plan of the proposed parking and loading areas shall be submitted with any development plan.

2. Area Requirements. A minimum of three-hundred (300) square feet of lot area shall be provided for a parking space for each vehicle, including access aisle, except that the standard shall be three-hundred-twenty-five (325) square feet where parking is perpendicular (ninety (90) degrees) to the access aisle, and except that two-hundred (200) square feet of lot area which has direct means of ingress and egress from an alley or street may also be deemed a parking space.

3. Variance and Deferment. The Planning Commission may, without proof of unnecessary hardship, waive the requirements of this Article if the Planning Commission finds from the evidence presented that the intended use of a proposed building does not require parking or loading facilities to the degree specified herein. However, the Planning Commission shall require that adequate open areas be retained around such a building to permit development of the required parking or loading areas should the use of the building change at a later date. The site plan shall note the area where parking is being deferred, including dimensions and a dotted parking lot layout.

Section 24.20 Off-Street Parking Requirement.

With the exception of areas *in the Downtown Core which are* designated *as all properties within the Central Business District and Transitional Commercial District* on the official Zoning Map ~~as being parking exempt~~, there shall be provided in all districts at the time of erection or enlargement of any main building or structure, automobile off-street parking space with adequate access to all spaces. The number of off-street parking spaces, in conjunction with all land or building uses shall be provided, prior to occupancy, as hereinafter prescribed. Uses located in areas designated as

Downtown Core ~~parking exempt~~ may ~~be asked to~~ pay into the Parking Improvement fund the fee required by the City of Boyne City schedule of fees as adopted by the City Commission in lieu of providing off-street parking.

A. Location of Spaces. Off-street parking for other than single-family or two-family residential uses shall be either on the same lot or within three hundred (300) feet of the building it is intended to serve, measured from the nearest point of the building to the nearest point of the off-street parking lot. Ownership shall be shown of all lots or parcels intended for use as parking by the applicant during development plan review. Permission to use such spaces shall also be secured.

B. Location of Spaces for Residential Uses. Required residential off-street parking spaces shall consist of parking strip, parking bay, driveway, garage, or combination thereof and shall be located on the premises they are intended to serve.

C. Irrevocable Use of Spaces. All required off-street parking spaces shall be stated in an application for development plan review and shall be reserved irrevocably for such use, unless otherwise provided in this ordinance. Minimum required off-street parking spaces shall not be displaced by any other use unless and/or until equal parking facilities are provided elsewhere, or the parking requirements of the site change.

D. Reduction of Space Area. Off-street parking existing at the effective date of this Ordinance, in connection with the operation of an existing building or use shall not be reduced to an amount less than hereinafter required for a similar new building or new use.

E. Collective Use of Spaces. Two (2) or more buildings or uses may collectively provide the required off-street parking in which case the required number of parking spaces shall not be less than the sum of the requirements for the several individual uses computed separately.

F. Variance for Collective Uses. In the instance of dual function of off-street parking spaces where operating hours of buildings do not overlap and there is an opportunity for a patron to visit more than one use, the Planning Commission may grant a reduction to the required number of spaces of up to twenty percent (20%) provided a signed agreement is provided by the property owners.

G. Prohibited Activities. The storage of merchandise, refuse storage and receptacles, or other materials, and the storage or repair of vehicles or other machinery is prohibited in areas serving as parking spaces.

H. Similar Use. For those uses not specifically mentioned, the requirements for off-street parking facilities shall be in accord with a use which the Planning Commission considers is similar in type.

I. Fractional Units. When units or measurements determining the number of required parking spaces result in the requirement of a fractional space, any fraction up to and including one

half (1/2) shall be disregarded and fractions over one half (1/2) shall require one (1) parking space.

J. Municipal and Community Parking Areas. The provisions of this section may be met by participation in a municipal or community parking program designed to serve a larger area, provided plans for such community parking have been approved by the Planning Commission.

K. Screening. Off-street parking areas and related service drives shall be effectively screened on any side which adjoins or faces premises situated in any residential zone district or institutional premises by an opaque screening of evergreen hedge, natural landscaping opaque in nature, or a solid, uniformly constructed fence, not less than four (4) or more than six (6) feet in height, maintained in good condition, neat and orderly in appearance. Recommended plant materials can be found in Article XXIII of this Ordinance.

L. Setbacks. No part of any off-street parking area shall be closer than ten (10) feet to any school, hospital, or other institutional property line.

M. Loading Spaces. Loading spaces shall not be construed as supplying off-street parking space.

N. Seating Allocation. In sports arenas, churches, temples or other places of worship, or other places of assembly in which patrons or spectators occupy benches, pews or similar seating facilities, each twenty-four (24) inches of such seating facilities shall be counted as one seat for the purpose of determining requirements for off-street parking facilities under this Ordinance.

O. Use of Spaces by Churches, Temples, and Similar Places of Worship. Parking spaces already provided to meet off-street parking requirements for theaters, stadiums, auditoriums and other places of public assembly, stores, office buildings and industrial establishments lying within five-hundred (500) feet of a church, temple, or similar place of worship, measured along lines of public access, which theaters, stadiums, etc. are not normally used between 6:00 a.m. and 6:00 p.m. on respective days of worship and are made available for other parking, may be used to meet not more than seventy-five percent (75%) of the off-street parking requirements of a church, temple, or similar place of worship. There shall be a written agreement between all parties concerned where this arrangement is permitted.

P. General Conditions. Except when land is used as storage space in connection with the business of an automotive service center/station or automotive repair center, the time limits for parking in off-street parking areas shall prevail as specified under this Ordinance. It is the purpose and intention of this subsection that the requirement of maintaining vehicle storage or parking space is to provide for the public safety in keeping parked cars off the streets, but such requirement is not designed or intended to provide, and no person shall permit, the storage or parking on open land of unregistered or unlicensed cars, wrecked or junked cars, or the creation of a junkyard or a nuisance in such area.

Q. Restriction of Parking on Private Property. No person shall park any motor vehicle on any private property, or use such private property as parking space, without the express or implied consent, authorization or ratification of the owner, holder, occupant, lessee, agent or trustee of such property. A complaint for a violation of this subsection shall be made by the owner, holder, occupant, lessee, agent or trustee of such property.

R. Exceeding Number of Spaces Required. In order to minimize excessive areas of pavement which depreciate aesthetic standards and contribute to high rates of stormwater runoff, exceeding the minimum parking space requirements by greater than twenty percent (20%) shall not be allowed, except as approved by the Planning Commission. In granting such additional space, the Planning Commission shall determine that such parking will be required, based on documented evidence, to accommodate the use on a typical day.

S. Units of Measurement.

1. Where floor area is the unit for determining the required number of off-street parking and loading spaces, such unit shall mean the gross floor area (GFA), unless otherwise noted.

2. Where the floor area measurement is specified as gross leaseable floor area (GLA), parking requirements shall apply to all internal building areas excluding the floor area used for incidental service, storage, mechanical equipment rooms, heating/cooling systems, lavatories, and similar uses, and other areas not intended for use by the general public. Where these areas are not yet defined, leaseable floor area shall be considered to be eighty-five percent (85%) of the gross floor area.

3. Where the number of spaces required is based on the number of employees, calculations shall be based upon the maximum number of employees likely to be on the premises during the peak shift.

T. Use of Parking Areas.

1. No repairs or service to vehicles and no display of vehicles for purposes of sale shall be carried on or permitted upon such premises.

2. No advertising signs shall be erected on the premises.

3. No person shall leave, park or store, or permit to be left, parked or stored, any motor vehicle longer than forty-eight (48) hours. It is the purpose and intent of this paragraph that the requirement is to provide for keeping parked motor vehicles off the streets, but such requirement is not designed to permit the storage of unregistered or unlicenced, wrecked or junked cars or vehicles.

4. Such parking facility may not be used for the storage or parking of unregistered or unlicenced, junked or wrecked vehicles of any type, as a storage area for industrial equipment or material, or as a dump for refuse of any description.

Section 24.30 Minimum Number of Spaces Required.

The minimum number of off-street parking spaces by type of use shall be determined in accordance with the following schedule:

USE	MINIMUM SPACES REQUIRED
A. Residential	
Housing for the Elderly	One (1) for each two units, and one (1) for each employee. Should units revert to general occupancy, then two (2) spaces per unit shall be provided.
Mobile Homes	Two (2) for each mobile home site
Residential, One-family and Two-family	Two (2) for each dwelling unit.
Residential, Multiple family.	One and one-half (1/2) per each efficiency or one-bedroom dwelling unit, and two (2) per each unit with two (2) or more bedrooms.
B. Institutional	
Churches, Temples, or Similar Places of Worship	One (1) for each three (3) seats or six (6) feet of pews in the main unit of worship based upon maximum seating capacity.
Elementary and Junior High School	One (1) for each one (1) teacher, employee, or administrator, in addition to the requirements of auditorium.
Government Offices	One (1) space for every one-thousand (1,000) square feet of gross floor area.
Hospitals	One (1) for each one (1) bed, and one (1) for each employee on duty based upon maximum employment shift.
Homes for the Aged and Convalescent Homes	One (1) for each two three (3) beds or two (2) rooms, whichever is less, and one (1) for each employee on duty based upon maximum employment shift.
Libraries, Museums and Noncommercial Art Galleries	One (1) for every two-hundred (200) square feet of gross floor area, less the area devoted to book and art storage, utility rooms and lavatories.
Private Clubs, Union Halls, Fraternal Orders, Civic Clubs, or Lodge Halls	One (1) for each three (3) persons allowed within the maximum occupancy load as established by City, County, or State fire, building, or health codes.
Public Recreation Centers	Five (5) for every one-thousand (1,000) square feet of gross floor area.
Senior High School	One (1) for each one (1) teacher, employee, administrator, and one for each five (5) students, in addition to the requirements of theaters and auditoriums.

USE	MINIMUM SPACES REQUIRED
C. Business and Commercial	
Automobile Wash (Automatic)	One (1) for each one (1) employee, plus a minimum of sixteen (16) for cars waiting to be washed for each conveyor system, plus one (1) upon exiting each conveyor system, plus two (2) for post-wash detailing.
Automobile Wash (Self Service or Coin Operated)	Three (3) for each washing stall in addition to the stall itself, plus one (1) upon exiting each stall.
Automotive Service Stations	Two (2) for each lubrication stall, rack, pit, or service bay; and one (1) for each employee.
Beauty Parlor or Barber Shop	Three (3) spaces for each of the first two (2) beauty or barber chairs, and one and one-half (1 2) spaces for each additional chair.
Beauty Schools	One (1) for every forty (40) square feet of gross floor area, less the area devoted to storage, utility rooms or lavatories.
Carry-out Restaurants	One (1) for each one-hundred-fifty (150) square feet of gross floor area, with a minimum of six (6).
Convenience Store, with or without Automotive Fuel Service	Four (4) spaces for every 1,000 square feet of gross floor area, plus spaces required for automotive fuel service. The Planning Commission may permit each fuel pump space to count as one-half (2) of a required parking space.
Drive-In and Drive-Through Restaurants	One (1) for each thirty (30) square feet of usable floor area, with a minimum of twenty-five (25) parking spaces, plus eight (8) stacking spaces for each drive-in or drive-through transaction station.
Dry Cleaners	Two (2) for every one-thousand (1,000) square feet of gross leaseable floor area.
Establishment for Sale and Consumption on the Premises of Beverages, Food or Refreshments, Except as Otherwise Specified Herein.	One (1) for each one hundred (100) square feet of gross floor space or one (1) for each two (2) persons allowed within the maximum occupancy load as established by City, County, or State fire, building or health codes.
Equipment Repair	One (1) for every one-thousand (1,000) square feet of gross leaseable floor area.
Fast-food Restaurants Without Drive-in or Drive-through Service	One (1) for each one-hundred (100) square feet of gross floor area, with a minimum of twenty-five (25).
Furniture and Appliance, Household Equipment, Repair Shops, Showroom of a Plumber, Decorator, Electrician, or Similar Trade, Shoe Repair and Other Similar Uses.	One (1) for each eight hundred (800) square feet of gross floor area. For that floor area used in processing, on (1) additional space shall be provided for each two (2) persons employed therein.
Hypermarket	Five (5) for every one-thousand (1,000) square feet of gross leaseable floor area.
Laundromats and Coin operated Dry cleaners	One (1) for each four (4) washing and/or dry-cleaning machines.
Mortuary Establishments and Funeral Homes	One (1) for each fifty (50) square feet of gross floor

USE	MINIMUM SPACES REQUIRED
	space in the slumber rooms, parlors or individual funeral service rooms.
Motel, Hotel or other Commercial Lodging Establishments	One (1) for each (1) occupancy unit plus one (1) for each one (1) employee, plus spaces for any dining rooms, restaurants, cocktail lounges, ballrooms or meeting rooms, based upon maximum occupancy code.
Motor Vehicle Sales and Service Establishments	One (1) for each two hundred (200) square feet of gross floor space of sales room and one (1) for each one (1) service stall in the service room.
Nursery school, day nurseries, or child day care centers	Two (2) for each employee plus one (1) space for each eight (8) children of licensed authorized capacity.
Open Air Business Establishments, Except as Listed in Paragraph (C)(16) Hereof	One (1) for every five-hundred (500) square feet of lot area for retail sales and retail uses.
Recreational Vehicle Sales and Service Establishments, Trailer Sales and Rentals, Boat Showrooms	One (1) for every four hundred (400) square feet of gross floor area of the sales room.
Retail Stores, Except as Otherwise Specified Herein	One (1) for every two-hundred-fifty (250) square feet of gross floor area.
Service Establishments, Except as Otherwise Specified Herein	Two (2) for every one-thousand (1,000) square feet of gross leaseable floor area.
Shopping Center	Four (4) for each one thousand (1,000) square feet of gross floor area, plus spaces for a supermarket or hypermarket, if included.
Studios, Dances, Health, Music and Other Similar Places of Instruction and Recreation	One (1) for every forty (40) square feet of gross floor area, less the area devoted to storage, utility rooms and lavatories.
Supermarket	One (1) for each two hundred (200) square feet of gross floor area.
Video Rental Establishments	Fifteen (15) for every one-thousand (1,000) square feet of gross floor area, with a minimum of eight (8).
D. Offices	
Banks and Other Financial Institutions without Drive-Through Lanes	One (1) for each two hundred (200) square feet of gross floor space, plus two (2) for every automated teller machine.
Banks and Other Financial Institutions with Drive-Through Lanes	Five (5) for every one-thousand (1,000) square feet of gross floor area, plus two (2) for every automated teller machine and waiting space equivalent to four (4) for each drive-through window.
Business Offices or Professional Offices except as Otherwise Specified Herein.	One (1) for each three hundred fifty (350) square feet of gross floor space.
Immediate Care Medical Facility	Two (2) for each examination room, plus one (1) space for each laboratory or recovery room, plus one (1) space for each employee on duty based upon maximum employment shift.
Professional Offices of Doctors, Dentists, or similar	Seven (7) for every one-thousand (1,000) square feet of

USE	MINIMUM SPACES REQUIRED
professions.	gross floor area.
Veterinary Clinics or Hospitals	Four (4) for every one-thousand (1,000) square feet of gross floor area.
E. Recreation and Entertainment	
Banquet Centers and Halls	One (1) for every three (3) persons allowed within the maximum occupancy load as established by City, County or State, Fire, Building or Health Codes.
Batting Cages	One (1) for every cage, plus one (1) for each employee.
Bowling Alleys	Four (4) for each one (1) bowling lane plus accessory uses.
Dance Halls, Pool or Billiard Parlors, Roller Skating Rinks, Exhibition Halls, and Assembly Halls without Fixed Seats.	One (1) for each two (2) persons allowed within the maximum occupancy load as established by local, county, or state fire, building or health codes.
Driving Ranges	One (1) for every four (4) tees, plus one (1) for each employee.
Golf Courses Open to the General Public, Except Miniature or APar 3" Courses	Four (4) for each one (1) golf hole and one (1) for each (1) employee, plus spaces required for each accessory use, such as a restaurant or bar.
Health, Fitness, and Exercise Centers	Five (5) for every one-thousand (1,000) feet of gross leaseable floor area, plus spaces required for any pools, tennis courts, etc.
Marinas, Public or Private	One and one-half (1 2) for each boat or ship.
Miniature or APar-3" Golf Courses	Two (2) for each one (1) hole plus one (1) for each one (1) employee.
Private Golf Clubs, Swimming Pool Clubs, Tennis Clubs, or Other Similar Uses	One (1) for each two (2) member families or individuals plus spaces required for each accessory use, such as a restaurant or bar.
Place of Outdoor Assembly	One (1) for each three (3) seats or six (6) feet of benches.
Stadium Sports Arenas or Similar Places of Assembly	One (1) for every three (3) seats or six (6) feet of bench.
Swimming Pools	One (1) for every four (4) persons of maximum occupancy.
Tennis or Racquet Clubs	Four (4) for each court, plus one (1) for each employee. If a spectator area is provided, one (1) space for every three (3) seats shall be required.
Theaters and Auditoriums	One (1) for each four (4) seats, plus one (1) for each two (2) employees.
F. Industrial	
Industrial or Research establishments, and related accessory offices.	Five (5) plus one (1) for every one and one-half (12) employees in the largest working shift. Space on site shall also be provided for all construction workers during periods of plant construction.
Warehouses and wholesale establishments and	Five (5) plus one (1) for every one (1) employee in the

USE	MINIMUM SPACES REQUIRED
related accessory offices.	largest working shift, or one (1) for every seventeen hundred (1,700) square feet of gross floor space, whichever is greater.

Section 24.40 Barrier-Free Parking Requirements.

Within each parking lot, signed and marked barrier-free spaces measuring twelve (12) feet in width shall be provided at a convenient location, in accordance with the following table. Barrier-free parking space requirements shall be in accordance with the Michigan Department of Labor, Construction Code Commission, Barrier Free Design Division.

Total Spaces	Barrier-Free Spaces Required
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	8
301 to 400	12
over 400	12, plus 2 for every 250 or fraction thereof over 400

Section 24.50 Waiting Areas for Drive-Through Facilities.

A. As used in this section, Aoff-street waiting space or Astacking spaces≅ means an area ten (10) feet wide by twenty-four (24) feet long that does not include the use of any public space, street, alley, sidewalk or right-of-way. Such area shall be located entirely within a non-residential zoning district.

B. On the same premises with every building or structure, or part thereof, erected and occupied for the purpose of serving customers in their automobiles by means of a service window or similar arrangement where the automobile engine is not turned off, there shall be provided, unless otherwise specified within this Ordinance, off-street waiting spaces or stacking spaces in accordance with the following table:

Automotive repair or service station	=	One (1) per service bay
Automotive fueling station	=	Two (2) per fuel pump island
Convenience store drive-through	=	Two (2) per service window
Drive-through financial institution	=	Four (4) per service window
Drive-through food service	=	Ten (10) per service window

Dry cleaning drop-off station	=	Two (2) per service window
Automatic car wash	=	Sixteen (16) per wash line, plus one (1) upon exit
Self-service car wash	=	Two (2) per wash bay, plus one (1) upon exit

Section 24.60 Off-Street Parking, Space Layout, Standards, Construction and Maintenance.

A. Plans for the layout of off-street parking facilities shall be in accord with the following minimum requirements:

Parking Pattern	Maneuvering Lane Width	Parking Space Width	Parking Space Length	Total Width of One Tier of Spaces Plus Maneuvering Lane	Total Width of Two Tiers of Spaces Plus Maneuvering Lane
0° (parallel parking)	12 ft.	8 ft.	23 ft.	20 ft.	28 ft.
30° to 53°	12 ft.	8 ft.	20 ft.	32 ft.	52 ft.
54° to 74°	15 ft.	9 ft.	20 ft.	35 ft.	55 ft.
75° to 90°	20 ft.	9 ft.	20 ft.	42 ft.	62 ft.

B. All spaces shall be provided adequate access by means of maneuvering lanes according to the terms of this Section. Backing directly onto a street, backing into an access drive, or requiring the use of the street for maneuvering between parking rows shall be prohibited.

C. Adequate ingress and egress to the parking lot by means of clearly limited and defined drive shall be provided for all vehicles. Entrance to such area shall be only from a public street, an adjoining principal use, or an adjoining alley.

D. Ingress and egress to a parking lot lying in an area zoned for other than single family residential use shall not be across land zoned for single family residential use.

E. All maneuvering lane widths shall permit one-way traffic movement, except that the ninety degree (90°) pattern may permit two-way movement.

F. Each entrance and exit to and from any off-street parking lot located in an area zoned for other than single family residential use shall be at least twenty five (25) feet distant from adjacent property located in any single family residential district.

G. The entire parking area, including parking spaces and maneuvering lanes, required under this Ordinance shall be provided with a dust-free surfacing of concrete and/or plant-mixed bituminous material according to the requirements of this Ordinance and the City's Code of Ordinances. Necessary curbs or other protection for the public and for the protection of adjoining properties, streets and sidewalks shall be provided and maintained. Where deemed necessary, the Planning Commission may require that parking areas be curbed with concrete curbs and gutters six (6) inches in height. The parking area shall be surfaced within six (6)

months of the date of occupancy. In all cases where such parking areas abut public sidewalks, a curb at least six (6) inches high shall be placed thereon so that a motor vehicle cannot be driven or parked with any part thereof extending within two (2) feet of a public sidewalk.

H. Off-street parking areas shall be drained so as to dispose of all surface water accumulated in the parking area in such a way as to preclude drainage of water onto adjacent property or toward buildings.

I. All lighting used to illuminate any off-street parking area shall be so designed, located, installed and shielded as to be confined within and directed onto the parking area only, and to prevent glare onto adjacent properties, and shall be arranged to prevent adverse affects on motorist visibility on adjacent rights-of-way. Reflectors shall be installed to reflect the light away from adjacent residential areas and shall be installed in such manner as to allow the reduction of the amount of light after normal parking hours each day.

The source of illumination shall not be more than fifteen feet (15) above the parking surface in any Central Business District (CBD), or Community Service District (CSD), and twenty (20) feet above the parking surface in any Professional Office District (POD), Waterfront Marina District (WMD), General Commercial District (GCD), Regional Commercial / Industrial District (RC/ID), or Planned Industrial District (PID).

All illumination for such parking facilities shall not exceed one (1) foot-candle at any lot or property line, nor ten (10) foot-candles at any point on the site.

Section 24.70 Loading Space Requirements.

A. For every building, or addition to an existing building, hereafter erected to be occupied by a use allowed in any commercial or industrial zone district or other similar use requiring the receipt or distribution of materials or merchandise, there shall be provided and maintained on the same premises with such building additional off-street loading spaces in relation to floor area as follows:

Gross Floor Area (In Square Feet)	Minimum Loading and Unloading Space Required
10,000 - 20,000	One (1) space
20,001 - 50,000	Two (2) spaces
50,001 - 100,000	Three (3) spaces
100,001 +	One (1) additional space for each additional one hundred thousand (100,000) square feet or fraction thereof.

B. Each such loading space shall be at least ten (10) feet in width, fifty (50) feet in length, and fourteen (14) feet in height. No such space shall be located closer than fifty (50) feet to any lot in any residential district unless wholly within a completely enclosed building or enclosed on all sides by a wall, or a greenbelt, berm, or buffer strip.

C. Lights used to illuminate loading areas shall be arranged so as to reflect away from adjacent properties.

D. Loading spaces shall not be provided in the front yard, the front side of any building, or on any building side facing and directly visible to a public street, unless the Planning Commission determines such a location is necessary due to the building=s location or placement, the existing street patterns, or other factors.

E. Loading spaces shall be covered with a pavement of concrete or plant-mixed bituminous material and shall be graded and drained to a storm sewer so as to dispose of surface water in accordance and conformity with the requirements of the City.

F. The Planning Commission may waive the requirement for off-street loading spaces for existing buildings within a Central Business District (CBD) under the following circumstances:

1. The rear of the building is built to the rear lot line and directly abuts a public alley.

2. The layout and size of the existing building and parking area preclude the placement of a designated loading space within the site.

Section 24.80 Parking in Residential Districts.

Off-street parking for permitted principal uses in residential districts shall conform to the following regulations:

A. For any Development in the Residential Districts, the parking surface on the property and access driveways shall be covered with Pavement or Hard Surface material (plant-mixed bituminous material, concrete, and brick or masonry pavers). The portion of the driveway within the Right-of-Way shall meet the then current City specifications.

B. When lighting facilities are used, reflectors shall be installed to reflect the light away from adjacent residence areas, and the source of illumination shall not be more than thirteen (13) feet above the parking surface.

C. All open parking areas in a Multiple Family Residential District (MFRD) shall be screened from adjacent properties by means of a brick wall, screen fencing, evergreens and/or other barriers deemed suitable by the Planning Commission to minimize noise from motor vehicles and to prevent the direct glare of headlights from falling on adjacent properties.

Section 24.85 Downtown Core Parking Requirements.

Statement of Purpose.
The purpose of this section is to provide parking standards which reflect the unique nature of the Downtowns Core Area to encourage a more efficient use of land and public assets. These

standards recognize the various factors that reduce the parking generation demand for users in the Downtown Core Area. These factors include the availability of on-street parking spaces, off-site parking lots, or municipal parking lots and the ability for patrons to walk to the Downtown Core Area from nearby neighborhoods, or park at other sites and visit several uses at one time. The Downtown Core Area includes all properties within the Central Business District and the Transitional Commercial District.

Use	*Minimum Spaces Required*
Professional Office	*1.85 Spaces per 1000 sqft GFA*
Medical Office	*2.15 Spaces per 1000 sqft GFA*
Retail	*1.65 Spaces per 1000 sqft GFA*
Mixed Use	*2.00 Spaces per 1000 sqft GFA*
Restaurant/Bar	*4.00 Spaces per 1000 sqft GFA*
Hotel	*1.75 Spaces per room*
Residential	*1.00 Space per Unit*
Library	*1.50 Spaces per 1000 sqft GFA*
Park	*1.50 Spaces per acre*
Marina	*0.59 Spaces per berth*
Warehouse	*0.75 Space per 1000 sqft GFA*
Church	*0.35 Space per 1000 sqft GFA*

For those uses not specifically mentioned, the minimum required parking spaces shall be in accord with a use which the Planning Commission considers is similar in type.

Section 24.90 Access Management Requirements.

A. Statement of Purpose.

The purpose of this section is to provide access standards which will facilitate through-traffic operations, ensure public safety along roadways, and protect the public investment in the street system, while providing property owners with reasonable, though not always direct, access. The standards are specifically designed for streets whose primary function is the movement of through traffic, as opposed to local streets whose primary function is access to adjacent properties.

B. Application of Standards.

1. The standards of this section shall be applied to the following major traffic routes (arterials) identified in the City of Boyne City Comprehensive Plan: Lake Street, Lakeshore; Division; Front; West Michigan; Boyne City/Charlevoix; Pleasant; Park; M-75, Boyne City/East Jordan, Boyne Avenue/State Street.

2. The access standards contained herein shall be required in addition to, and where permissible shall supersede, the requirements of the Michigan Department of Transportation and/or Charlevoix County.

3. The standards contained in this section shall apply to all uses, except permitted single-family and two-family dwelling units.

4. For expansion and/or redevelopment of existing sites where the Planning Commission determines that compliance with all the standards of this section is unreasonable, the standards shall be applied to the maximum extent possible. In such situations, suitable alternatives which substantially achieve the purpose of this section may be accepted by the Planning Commission, provided that the applicant demonstrates all of the following apply:

   a. The size of the parcel is insufficient to meet the dimensional standards.

   b. The spacing of existing, adjacent driveways or environmental constraints prohibit adherence to the access standards at a reasonable cost.

   c. The use will generate less than five hundred (500) total vehicle trips per day or less than seventy-five (75) total vehicle trips in the peak hour of travel on the adjacent street, based on rates developed by the Institute of Transportation Engineers (ITE).

   d. There is no other reasonable means of access.

C. Number of Driveways.

1. Access to a parcel shall consist of either a single two-way driveway or a pair of one-way driveways wherein one (1) driveway is designed and appropriately signed to accommodate ingress movements and the other egress movements.

2. Where parcel frontage is insufficient to provide a driveway meeting the minimum driveway width and radii, a shared driveway or other means of access may be required.

3. Where the parcel is situated on a corner lot, one (1) access point on each street frontage may be permitted, provided there is a minimum of one-hundred (100) feet of frontage per side. No more than one (1) access point shall be permitted per side for parcels located on corner lots unless otherwise provided for within this Ordinance.

4. Where the property has continuous frontage of over three hundred (300) feet and the applicant can demonstrate, using the Institute of Transportation Engineer=s Trip Generation Manual or another accepted reference, that a second access is warranted, the Planning Commission may allow an additional access point. Where possible, this access should be spaced accordingly to the standards contained herein, located on a side street, shared with an adjacent property, and/or be designed to restrict one (1) or both left turn movements.

5. Where the property has continuous frontage of over six hundred (600) feet, a maximum of three (3) driveways may be allowed, with at least one (1) such driveway being designed, constructed, and signed for right-turns-in and right-turns-out only.

D. Shared Access, Joint Driveways, Parking Lot Connections and Rear Service Drives.

1. Shared use of access between two (2) or more property owners should be encouraged through use of driveways constructed along property lines, connecting parking lots, and rear service drives, particularly for the following: a) sites within one-quarter (1/4) mile of major intersections; b) sites having dual frontage; c) sites where frontage dimensions are less than three hundred (300) feet; d) locations with sight distance problems; and/or e) along roadway segments experiencing congestion or accidents. In such cases, shared access of some type may be the only access design allowed.

2. In cases where a site is adjacent to a parking lot of a compatible use, or a rear service drive, a connection to the adjacent facility may be required by the Planning Commission.

3. In cases where a site is adjacent to undeveloped property, the site must be designed and constructed to accommodate a future parking lot connection, rear service drive, or other means of shared access as determined by the Planning Commission.

4. The applicant shall provide Boyne City with letters of agreement or access easements from all affected property owners.

E. Adequate Sight Distance.

1. Requirements for minimum intersection or corner sight distance for driveways shall be in accordance with the American Association of State Highway and Transportation Officials (AASHTO) guidelines defined in Chapter 9 of A Policy on Geometric Design of Highways and Streets, 1984, or its latest edition.

2. The Planning Commission may adjust driveway location where there is a concern regarding adequate sight distance.

F. Driveway Spacing from Intersections.

1. Driveway spacing from intersections shall be measured from the centerline of the driveway to the extended edge of the intersecting street's right-of-way line.

2. In order to preserve intersection operations and safety, the minimum distance between a driveway and an intersecting street right-of-way shall be based on the following:

   a. For locations in the vicinity of intersections experiencing congestion (peak hour operations below level of service C for one (1) or more movements) and/or a significant number of traffic accidents (five (5) or more annually), the Planning Commission may require that access be constructed along the property line furthest from the intersection.

   b. For locations within two hundred (200) feet of any signalized or four-way stop intersection, driveways shall be spaced a minimum of one-hundred (100) feet from the intersection. Where this spacing cannot be provided, driveways designed for right-turn in/right-turn out only movements may be allowed, with a minimum spacing of fifty (50) feet from the intersecting street right-of-way.

G. Driveway Spacing from Other Driveways.

1. Driveway spacing from other driveways shall be measured from the centerline of each driveway at the point where it crosses the street right-of-way line.

2. Minimum driveway spacing from other driveways along the same side of the street shall be determined based on posted speed limits along the parcel for each particular frontage, as follows:

Posted Speed Limit (mph)	Minimum Driveway Spacing
25 mph	50 feet
30 mph	50 feet
35 mph	75 feet
40 mph	75 feet
45 mph	100 feet
50 mph	125 feet
55 mph	150 feet

3. Driveways shall be directly aligned with those across the street or, where offset, the minimum driveway spacing from driveways across the street shall be one-hundred (100) feet, excluding when one (1) or both driveways are designed and signed for right-turn-in/ right-turn-out only.

H. Driveway Design, Channelized Driveways, Deceleration Lanes and Tapers, Bypass Lanes.

1. Driveways shall be designed to the standards of Charlevoix County, except where stricter standards are included herein or by the City=s driveway construction standards.

2. Driveway Width and Radii, for Non-Residential and Multiple Family Developments.

a. The typical driveway design shall include one (1) ingress and one (1) egress lane, with a combined minimum throat width of twenty-five (25) feet and a maximum throat width of thirty-five (35) feet, measured from face to face of curb.

b. Wherever the Planning Commission determines that traffic volumes or conditions may cause significant delays for traffic exiting left, two (2) exit lanes may be required.

c. For one-way paired driveway systems, each driveway shall be twenty (20) feet wide, measured perpendicularly.

d. In areas with pedestrian traffic, the exit and enter lanes may be separated by a median with a maximum width of ten (10) feet. Concrete sidewalks shall be continued and/or maintained across driveways.

e. Driveways shall be designed with a twenty-five (25) foot radii; thirty (30) foot radii shall be required where daily truck traffic is expected.

3. Directional Driveways, Divided Driveways and Deceleration Tapers. Directional driveways, divided driveways, and deceleration tapers and/or by-pass lanes may be required by the Planning Commission where they will reduce congestion and accident potential for vehicles accessing the proposed use or site. Right-turn tapers shall be a minimum of seventy-five (75) feet in length and at least eleven (11) feet wide.

Section 24.95 Private Road Standards.

A. The City discourages the use of private roads, but may allow private roads as a special land use when meeting the standards of this section. The regulations for private roads contained herein shall not apply to approved private roads within platted subdivisions regulated by this Ordinance or the City's Code of Ordinances, or internal access drives to parking within approved site plans for multiple-family developments.

B. The use of private roads must be supported by documentation accepted by the Planning Commission that the property possesses unusual configuration and/or topography which would render construction of streets under City standards for grades, radii, width and/or materials impractical.

C. An easement shall be provided of not less than fifty (50) feet in width for roads and utilities. This easement shall be recorded with the Register of Deeds office and a copy of the recorded easement provided to the City Clerk.

D. Any lot accessed via a private road shall have frontage on the private road which is at least equal to the minimum lot frontage required herein for the zoning district in which the lot is located. The frontage for the lot shall be measured at the point of the beginning of the lot line designated by the City as the side lot line.

E. Any lot created on a private road, along with accompanying buildings, shall comply with all site development standards applicable to the zoning district in which it is located.

F. The maximum length of any private road cul-de-sac shall not exceed the City standard for public roads.

G. The surface and base material of any private road shall be approved by the City as being sufficient to accommodate emergency vehicles.

H. Issuance of a zoning permit for the placement of buildings/structures on lots and/or parcels on a private road shall not be considered a guarantee or warranty that adequate access exists to the lot for emergency vehicles. The City assumes no responsibility for the maintenance of or improvements to private roads.

I. The applicant shall submit a joint maintenance agreement or master deed in recordable form that runs with the land, binds benefitting parcels, and allows the City to make any repairs or conduct any maintenance it deems necessary, and charge the property owners or homeowners association served by the private road for such service.

J. The applicant shall provide a recorded statement running with the land informing purchasers that the access road is private.

Additional Notes:

Pages 8a, 8b, 10a, and 12a, need to be added for complete section. These pages can be found in the permanent/original copy of the zoning ordinance that is stored in the vault.

CITY OF BOYNE CITY

To: Chair Aaron Place, and fellow Planning Commissioners

From: Scott McPherson Planning Director

Date: September 16, 2019

Subject: Draft Storm Water Control Ordinance

Background

The Cities of Boyne City, East Jordan and Charlevoix have been working together to develop a common storm water control ordinance that could be adopted by each municipality. Similar to agreements between the Charlevoix County and multiple townships, the three cities could each enter into an agreement with Charlevoix County to administer and enforce the ordinance.

Discussion

The proposed Storm Water Control Ordinance was developed from the exiting storm water control ordinance adopted by the townships with some adjustments to better suit the specific needs of the cities. The proposed ordinance has been reviewed and is supported by Tipp Watershed Council and is currently being reviewed by Charlevoix County legal counsel. The proposed ordinance is being brought to the Planning Commission for review and comment. While no formal action is required by the planning commission is required, the planning commission can provide a recommendation on the proposed ordinance if so desired.

Tip of the Mitt Watershed Council
426 Bay St., Petoskey, MI 49770
231.347.1181

CHARLEVOIX COUNTY
STORM WATER CONTROL ORDINANCE (SWCO)

3 CITIES: BOYNE CITY, CHARLEVOIX, EAST JORDAN

FREQUENTLY ASKED QUESTIONS

To help local officials, we have compiled the following Frequently Asked Questions:

WHY IS THIS NECESSARY?

- In 2006, the Grand Traverse County Prosecutor queried the State Attorney General (AG) about storm water management because of pressure during a controversial project.
- In response, a letter from the AG stated that counties can't regulate storm water runoff beyond what is needed for soil erosion and sediment control, and said that only townships, cities and villages have authority to control flooding.
- Tip of the Mitt Watershed Council and local officials disagreed strongly with conclusions by the AG's office on this matter. We formally registered complaints. However, because of AG Office priorities and constraints, we were unable to get the opinion reviewed.
- As a result, the decision stands to this day, and the county is limited in terms of authority to manage storm water in your city.

WHAT DID WE DO BEFORE THIS HAPPENED?

- Prior to the AG letter, Charlevoix County had an ordinance in place for all jurisdictions that was administered and enforced at the county level.

WHAT ARE WE DOING NOW?

- To their great credit, as a stopgap measure, the county requested that developers adhere to the old ordinance on a voluntary basis. So far, all have done so.
- This worked OK during the economic downturn. However, as things continue to improve and development pressures increase, this will not be adequate.
- To address this issue, 14 out of 16 townships and the Village of Boyne Falls passed the SWCO; it was adopted by the County on October 24, 2012 and is now in force. Only Chandler, with no surface water features and Peaine on Beaver Island did not participate. St. James, the more populated township on BI, did participate.

WHAT ARE YOU ASKING US TO DO?

- If a developer did not voluntarily comply, the city would be responsible for ensuring the development proceeds in a legal manner, regarding storm water management.
- The solution we are asking you to implement is the successful approach taken by our townships, in the wake of the AG letter.
- Each municipality passes identical language that puts storm water oversight policies in place, and also authorizes the county to administer and enforce it for you, as you see fit.
- This is completely voluntary on your part, and if you are not happy with it for any reason, you can repeal it and assume all responsibility.
- One of our biggest objections to the AG letter was the burden it placed on jurisdictions with limited resources and expertise on this subject. Another was the checkerboard effect that could be created, causing more confusion for the regulated community.
- This approach addresses both concerns. It creates a county-wide program that provides certainty for developers, and also gives the city expertise to help with implementation.
- We also suggest that each city create its own Appeals Board, which is different from the township agreement but better suited to city needs.

City of _____

Storm Water Management Ordinance

THE CITY OF _____ ORDAINS:

ARTICLE I PURPOSE, OBJECTIVES, & ADMINISTRATION

Section 1.1 Purpose

The purpose of this Ordinance is to supplement Michigan Public Act 451 of 1994, as amended, for the more stringent regulation of storm water discharges originating within the City; to provide a set of regulations for storm water management; and to provide rules and guidelines to facilitate enforcement thereof.

Section 1.2 Objectives

The objective of this Ordinance is to accomplish, among other things, the following:

1. To manage storm water runoff resulting from earth changes occurring within the City of _____, both during and after development.

2. To ensure that future development provides measures to manage the quantity and quality of storm water runoff originating from the property so that surface water and groundwater quality is protected and flooding potential is reduced.

3. To preserve and use the natural drainage system for receiving and conveying storm water runoff and to minimize the need to construct enclosed, below grade storm drain systems.

4. To preserve natural infiltration and the recharge of groundwater and to maintain subsurface flows which replenish lakes, streams and wetlands.

5. To ensure that storm water management systems are incorporated into site planning at an early stage of the planning and design process.

6. To minimize the need for costly maintenance and repairs to roads, embankments, ditches, streams, lakes, wetlands and storm water management facilities which are the result of inadequate storm water control.

7. To reduce long-term expenses and remedial projects which are caused by uncontrolled storm water runoff.

8. To encourage the design and construction of storm water management systems which serve multiple purposes, including but not limited to flood prevention, water quality protection, wildlife habitat preservation, education, recreation and wetlands protection.

9. To minimize the impact of development on downstream properties and to preserve the biological and structural integrity of existing watercourses.

10. To allow for off-site storm water management facilities and measures if such proposals meet the requirements of these regulations.

11. To assure that all storm water management facilities will be properly designed, constructed and maintained in accordance with a uniform set of standards.

12. To provide for enforcement of this Ordinance and penalties for violations.

Section 1.3 Ordinance Administration

The City of _____ shall designate an Enforcing Agent ("Agent") to administer and enforce the Ordinance. The City may enter into an inter-local agreement with Charlevoix County which will permit the Charlevoix County Soil Erosion and Sedimentation Control Officer to be the Agent for this Ordinance.

Section 1.4 Exclusive Storm Water Regulation Provision

To the extent that this storm water ordinance is in conflict with any previously adopted ordinance within the City, the intent is to have this storm water ordinance supersede any other storm water regulations that may have been previously adopted or included as a portion of other local ordinances or zoning provisions. If any conflicts arise, the City shall either repeal or amend such other ordinances to make this Ordinance the exclusive regulation.

Section 1.5 Repeal

Any non-zoning regulation inconsistent with the storm water regulations contained in this Ordinance is hereby repealed to the extent of such inconsistency.

Section 1.6 Rules Applying to Text in this Ordinance

When not inconsistent with the context, the present tense includes the future; words used in the singular include the plural. The word "shall" is understood to be mandatory, and the word "may" is merely suggestive.

ARTICLE II DEFINITIONS Section 2.1

General

This Article sets forth the definitions of certain terms used within the Ordinance which have a meaning specific to the interpretation of the text of the Ordinance.

Section 2.2 Undefined Words

Any word not defined herein shall first be interpreted as defined within Part 91, Public Act 451 of 1994, as amended, and where not defined there, shall be interpreted within its common and approved usage.

Section 2.3 Definitions

The following terms and phrases shall have the meaning given herein, unless the context otherwise requires:

AGENT: Person designated by the City of _____ for administration and enforcement of the Ordinance.

APPEALS BOARD: The public body which is charged with the responsibility to consider and decide appeals from decisions made by the Agent in administering and enforcing this Ordinance.

APPEALS BOARD CLERK: The individual who is charged with the responsibility to process appeals to the Appeals Board pursuant to Article VIII of this Ordinance.

APPLICANT: The landowner, or his duly authorized agent, for the property upon which a regulated earth change is proposed, and who has submitted an application for a Storm Water Management Permit.

CHANNEL: The portion of a stream which conveys normal flows of water, or a ditch or other conveyance structure excavated for the flow of water.

COMMERCIAL DEVELOPMENT: An activity, action or alteration of property that is proposed for the purpose of a commercial activity, such as retail sales, professional offices, multi-family residential structures of three or more units, or any other purpose which includes access by the public for conducting business. Activity, action or alteration of property by the City is not commercial development.

CONVEYANCE FACILITY (STRUCTURE): A surface or subsurface structure, pipe or channel which transports storm water from one location to another.

COUNTY DRAIN: Drains established and/or constructed pursuant to the Michigan Drain Code (Act 40 of 1956, as amended).

DESIGN STANDARD (OR ENGINEERING DESIGN STANDARD): A specification or set of specifications that prescribes the methodology for developing storm water management facilities based upon a uniform set of standards, calculations, and procedures.

DESIGN STORM: A hypothetical rainfall event that is developed as a statistical relationship between actual rainfall intensity-duration-frequency data for the purpose of modeling the effectiveness of a given drainage system.

DETENTION BASIN (POND): A structure or facility, natural or artificial, which stores storm water on a temporary basis and releases it at a controlled rate to another water course, wetland, conduit or drain. A detention basin may drain completely after a storm event (dry detention basin) or it may be a body of water with a fixed minimum and maximum water elevation between runoff events (wet detention basin).

DISCHARGE: The rate of flow of water through an outlet structure at a given point and time, typically measured in cubic feet per second (cfs) or gallons per minute (gpm).

DISTURBED AREA: An area of land subjected to erosion due to the removal of vegetative cover and/or earthmoving activities, including filling.

DRAINAGE: The interception and removal of water (groundwater or surface water) by natural or artificial means.

DOWNSTREAM PROPERTIES: Down gradient lands and waters which receive storm water runoff and other surface water flows from the applicant's property and are often subjected to the cumulative impact of upstream development.

DRAINAGE SYSTEM: All facilities, channels and areas which serve to convey, filter, store and/or receive storm water, either on a temporary or permanent basis.

EARTH CHANGE: A human-made change in the natural cover or topography of land, including cut and fill activities, which may result in or contribute to soil erosion or sedimentation of the waters of the state. The term "earth change" as used in this Ordinance shall not apply to the practice of plowing and tilling soil for the purpose of crop production.

FLOOD: An overflow of surface water onto lands not normally covered by water. Floods have these essential characteristics: the inundation of land is temporary and results from unusually heavy precipitation and the land is inundated by overflow from a lake, pond, stream and/or wetland, or is flooded by natural runoff.

FLOODPLAIN: The area of land adjoining a lake or stream which is inundated when the flow exceeds the capacity of the normal watercourse. For mapping purposes, floodplains are as designated in the National Flood Insurance Program Flood Insurance Rate Maps for the City of _____ effective May 16, 2019 (as amended).

GRADING: Any stripping, clearing, stumping, excavating, filling, stockpiling or any combination thereof, including the land in its excavated or filled condition.

GRUBBING: To clear (ground) of roots and/or stumps.

IMPERVIOUS AREA: Surfaces that do not readily allow rainfall to infiltrate into the soil; examples include but are not limited to: roof area, paved or gravel driveways, parking areas, roads (both asphalt and gravel), or areas of heavy clay soils.

INDUSTRIAL USE: Any manufacturing, processing, fabrication, maintenance assembly, printing or improvement of articles or merchandise, warehousing, wholesaling, storage, or activities related to mineral extraction and processing; and other business enterprises not classified as commercial.

INFILTRATION: The downward movement or seepage of water from the surface into the subsoil and/or groundwater. The infiltration rate is expressed in terms of inches per hour.

MAINTENANCE AGREEMENT: A binding agreement between the landowner and the City, which sets forth the location and design of best management practices as well as terms and requirements for storm water and erosion management facility maintenance, recorded with the Charlevoix County Register of Deeds.

OFF-SITE FACILITY: Storm water management facility which is located partially or completely off the applicant's subject property.

ORDINARY HIGH WATER MARK: The line between upland and bottomland which persists through successive changes in water levels, below which the presence and action of the water is so common or recurrent that the character of the land is marked distinctly from the upland and is apparent in the soil itself, the configuration of the surface of the soil and the vegetation. On an inland lake which has a level established by law, it means the ordinary high established level. Where water returns to its natural level as the result of the permanent removal or abandonment of a dam, it means the natural ordinary high water mark.

OUTFALL: The point where storm water flows out from a conduit, drain or stream.

PEAK DISCHARGE RATE (PEAK FLOW): The maximum calculated rate of storm water flow at a given point in a channel, watercourse, or conduit resulting from a predetermined frequency storm or flood, measured in cubic feet per second (cfs).

PERSON: Any individual, firm, partnership, association, public or private corporation, company, organization or legal entity of any kind, including governmental agencies.

REGISTERED PROFESSIONAL: One following licensed professionals: State of Michigan Licensed Engineer, Land Surveyor, Architect and/or Landscape Architect.

RETENTION BASIN: A wet or dry storm water holding area, either natural or manmade, which does not have any outlet to adjoining watercourses or wetlands other than an emergency spillway.

SITE: Any tract, lot, or parcel of land or combination of tracts, lots or parcels of land proposed for development.

STOP WORK ORDER: A notice for cessation of activity issued by the Agent to any person engaged in an activity in violation of this Ordinance including, but not limited to, grading and development activities.

STORM WATER MANAGEMENT FACILITIES: Any structure, ditch, swale, facility, barrier, berm, vegetative cover, basin or other measure which serves to manage storm water.

Temporary Measures: Installations designed to manage storm water runoff during development or until soils in the contributing drainage area are stabilized.

Permanent Measures: Installations designed to manage storm water runoff after development is completed.

STORM WATER MANAGEMENT PERMIT: Written approval along with supporting documentation and storm water management plan that is executed by the Agent and issued under the provisions of this Ordinance authorizing the applicant to engage in specified earth changes.

STORM WATER MANAGEMENT PLAN: Maps and written information prepared in accordance with specific standards identified within the Ordinance for a proposed land use or earth change. The storm water management plan describes the way in which storm water runoff will be managed during and after completion of the proposed development.

STORM WATER RUNOFF: Excess water that does not infiltrate the soil, but instead flows over the surface of the ground or is collected in channels, watercourses or conduits and transported over a given drainage area.

STREAM: A moving body of water that has definite banks, a bed and visible evidence of a continued flow or continued occurrence of water. See Public Act 451 of 1994, as amended, Part 301, Inland Lakes and Streams Section 324.30101, Subparagraph E, as amended.

SWALE: Low lying grassed area with gradual slopes which transports storm water, either on site or off site.

WATERSHED: A land area, also known as a drainage area, which collects precipitation and contributes runoff to a receiving body of water or point along a watercourse.

ARTICLE III REGULATED ACTIVITIES & PERMIT REQUIREMENTS

Section 3.1 Regulated Activities

Except as otherwise provided in this Ordinance, all earth changes described below shall be regulated activities and shall require a Storm Water Management Permit from the Agent, pursuant to Section 3.2 of this Ordinance:

1. Industrial and commercial development regardless of the size or location, with the following exception:

   A proposal for redevelopment or alteration of an existing commercial or industrial site with a maximum total increase of ten percent (10%) of the impervious surface in existence on May 8, 2018, or 4,356 square feet, whichever is less, shall not be required to meet the

design standards of this Ordinance. Greater than a ten percent (10%) increase in the impervious surface in existence on May 8, 2018, or more than 4,356 square feet of additional impervious surface shall require storm water management measures in accordance with the design standards of this Ordinance for the entire increase.

2. All subdivision developments as defined by Section 102 of Public Act 288 of 1967, as amended, regardless of size, location or environmental sensitivity.

3. All site condominium developments or condominium developments as defined by Public Act 59 of 1978, as amended, Section 559.101 et seq. of the Michigan Compiled Laws regardless of size, location or environmental sensitivity.

4. A mobile home park, manufactured housing development, or campground.

5. Private roads which either provide access to five (5) or more parcels, are more than five hundred (500) feet in length, and/or have a grade of ten percent (10%) or greater.

6. A private driveway that is at a ten percent (10%) grade or greater, sloping down toward the intersecting road.

7. Public road and facility projects of the City are not classified as regulated activities and are exempt from the permitting requirements of this Ordinance.

Section 3.2 Permit Requirements

For purposes of this Ordinance, a Storm Water Management (SWM) Permit for regulated activities as identified in Section 3.1 is required before any earth changes commence. The SWM Permit requirements are independent of any other regulations governing the proposed earth change, such as soil erosion regulations or zoning requirements, which may require additional permitting through other enforcing agencies. The granting of a SWM Permit shall authorize only such earth changes for which the permit has been issued, and shall not be deemed to approve any development as a whole, or any other land use activities.

Section 3.3 Permit Application Submittal

1. An application for a SWM Permit shall be submitted on the form provided by the Agent, signed by the landowner or his/her duly authorized agent, and shall include a storm water management plan, prepared in accordance with Article IV, along with the appropriate permit and review fees, prior to being considered by the Agent as an administratively complete application. The Agent may request additional storm water management plans or supporting documentation at his/her discretion during the permit review process.

2. The application for a SWM Permit shall be made, reviewed and approved prior to the start of any earth change including construction of access roads, driveways, grubbing or grading. Permit approval shall be given prior to the initiation of any work activity. Any unauthorized work shall be considered a violation of this Ordinance subject to enforcement actions under Article VII regardless of any later actions taken toward compliance. Soil test borings including those utilizing reasonable

backhoe test excavation, vegetative cutting for land surveys, percolation tests and normal maintenance shall not be considered a start of work under these regulations.

Section 3.4 Plan Preparation by a Registered Professional

Following the calculation of pre- and post-development (or increase in development) stormwater runoff, if 100% of this increased storm water will not be retained on-site in a stormwater retention basin, the storm water management plan shall be prepared by a registered professional as defined by this ordinance. The agent may waive this requirement for regulated activities on a single family dwelling site.

Section 3.5 Sequential Applications

1. On development proposals which are so large or complex that a storm water management plan encompassing all phases of the project cannot reasonably be prepared prior to initial ground breaking, an application for a sequential SWM Permit, based on successive major incremental earth change activities may be allowed. Requests for sequential applications shall be approved by the Agent prior to submittal of the initial SWM Permit application.

2. Approval of sequential applications shall take place in two phases. First, the overall conceptual plan for the entire development shall be submitted for review and approval. Second, detailed plans for each phase of the total project shall be submitted for review and approval.

3. All permits processed and issued for phases of a project shall be clearly defined as to the nature and extent of work covered for that phase. Each phase of the project must be reviewed and permitted individually prior to construction.

Section 3.6 Permit Application Review

The application review period begins upon receipt of an administratively complete application submittal. The Agent shall act upon an application for an earth change permit involving five (5) acres or less of disturbed area within fifteen (15) calendar days. An application for all other regulated projects shall be acted upon within thirty (30) calendar days.

Section 3.7 Permit Approval or Disapproval

1. If the Agent determines that the proposed storm water management plan complies with the standards in this Ordinance, a permit shall be issued specifying the work approved, along with any supplemental conditions. If the proposed storm water management plan does not comply with these standards, the permit request shall be modified by the applicant or denied. When necessary, the Agent may request additional information from the applicant upon which to base the permit decision.

2. The Agent shall notify the applicant in writing if the application is denied, citing the reasons for the denial.

3. The Agent shall notify the City after a permit decision has been made.

4. Upon written request, the Agent shall furnish any interested party with a statement in writing, detailing the reasons for permit denial or approval.

Section 3.8 Permit Expiration or Revocation

1. SWM Permits shall terminate automatically upon completion of the project or one (1) year from the date of issuance, whichever occurs first. The applicant may request a one-year extension, which shall be reviewed and shall be granted by the Agent if he/she finds good cause for the extension and that the SWM regulations governing the proposed development have not changed since the date the SWM Permit was first approved.

2. A SWM Permit issued by the Agent under this Ordinance may be revoked or suspended, subject to the provisions of Article VII, for any of the following causes:

    a. A violation of a condition of the permit.

    b. Obtaining a permit by misrepresentation or failure to fully disclose relevant facts in the application or storm water management plan.

    c. A change in a condition that requires a temporary or permanent change in the activity.

Section 3.9 Permit Revisions

Revisions to an approved SWM Permit, permit condition, or approved storm water management plan must first be approved by the Agent. The applicant shall make a written request for the proposed revision(s) to the Agent, including any supporting documentation that the Agent may require as a basis for making a decision regarding the proposed revision. Proposed revisions do not take effect until approved by the Agent, and construction of unapproved plan revisions may be subject to enforcement action.

Section 3.10 Administrative Fee Schedule

1. All fees applicable under this Ordinance shall be specified in a fee schedule determined from time to time by resolution of the legislative body of the City and maintained in the Agent's office.

2. Permit fees shall be directly related to the actual costs of administering the SWM Permit program, including design review, site inspection, enforcement and permit administration.

3. A printed fee schedule shall be made available by the Agent.

4. If the Agent determines that the basic fees will not cover the actual costs of the application review, or if the Agent determines that review of the application and/or participation in the review process by qualified professional planners, engineers, attorneys, or other professionals is necessary or advisable, then the applicant shall deposit with the Agent such additional fees in an amount determined by the Agent equal to the estimated additional costs. The additional fees shall be held in escrow in the applicant's name and shall be used solely to pay these additional costs. If the amount held in escrow becomes less than ten percent (10%) of the initial escrow deposit or less than ten percent (10%) of the latest additional escrow deposit and review of the

application is not completed, then the Agent may require the applicant to deposit additional fees into escrow in an amount determined by the Agent to be equal to the estimated costs to complete the review. Failure of the applicant to make any escrow deposit required under this Ordinance shall be deemed to make the application incomplete thereby justifying the denial of the application. Any unexpended funds held in escrow shall be returned to the applicant following final action on the application. Any actual costs incurred by the Agent in excess of the amount held in escrow shall be billed to the applicant and shall be paid by the applicant prior to the release of a final decision on the application.

Section 3.11 Penalties for Initiating Earth Change Activities without a Permit

Any earth change activity, subject to regulation under this Ordinance, which has commenced without a valid permit, is not proceeding in accordance with an issued SWM Permit, or is in violation of a permit condition shall be considered a violation of this Ordinance and subject to the provisions of Article VII of this Ordinance.

ARTICLE IV STORM WATER MANAGEMENT PLAN REQUIREMENTS

Section 4.1 Storm Water Management Plan Requirements

A storm water management plan shall be prepared for any regulated earth change subject to SWM Permit requirements. The plan shall be designed to effectively manage the runoff from the site to not more than the rate and volume prior to development. Pretreatment of runoff shall be required if deemed necessary by the Agent. Administratively complete plans shall include the following:

1. A map or maps at a scale of not more than two hundred (200) feet to the inch or as otherwise determined by the Agent, including the following:

    a. A legal description

    b. Site location sketch which includes the proximity of any proposed earth change to lakes, streams, and wetlands

    c. Predominant land features

    d. Contours at not more than 2-foot intervals, or slope description.

2. A written description of the soil types of the exposed land area contemplated for the earth change.

3. A description and the location of the physical limits of each proposed earth change.

4. Location of all lakes, streams, and wetlands partially or completely contained within the boundaries of the site or within fifty (50) feet of the site boundary to the extent that the property owner has the ability of depicting the same.

5. A description and the location of all existing and proposed on-site storm water management facilities and measures.

6. The timing and sequence of each proposed regulated earth change.

7. A description and the location of all proposed temporary storm water facilities and measures.

8. A description and the location of all proposed permanent storm water facilities and measures.

9. Pre and post development storm water calculations.

10. A program for the continued maintenance of all permanent storm water facilities and measures.

11. Other information which the Agent requires to review the impact of the proposed earth change in relationship to the standards and requirements of this Ordinance.

Section 4.2 Site Condominium & Subdivision Requirements

Applicants for site condominium or subdivision plat approval shall submit the same information as in Section 4.1 of this Ordinance and may need to submit additional relevant information including but not limited to the following: off-site watershed boundaries, existing and proposed easements, and proposed drainage system including water movement onto and out of the proposed development.

Section 4.3 General Standards for Approval of Storm Water Management Plans

Approval of a storm water management plan shall be based upon the following general provisions:

1. The Agent shall approve or disapprove storm water management permit applications and plans in accordance with the provisions of this Ordinance and the design standards included and/or referenced in Appendix A.

2. All regulated earth changes subject to review under the requirements of this Ordinance shall be designed, constructed and maintained to provide for the retention/detention of storm water runoff and to protect water quality.

3. Measures required for storm water shall take into consideration natural features, proximity of the site to lakes, streams and wetlands, extent of impervious surfaces, potential for flooding, and the size of the site.

4. Alteration to natural drainage patterns shall not create downstream or off-site flooding.

5. Storm water management plans shall be designed in accordance with the specific design criteria included as "Design Standards", attached and made a part of this Ordinance as Appendix A.

6. All storm water management plans and maintenance agreements shall be recorded with the Charlevoix County Register of Deeds by the Agent, at the expense of the applicant.

7. Storm water management facilities shall be constructed, operated and maintained on the applicant's property, without impact or degradation to downstream conveyance structures or properties. However, the applicant may request a waiver from the requirements for on-site storm water management by written petition to the Agent with the SWM Permit application. Where a request is made for off-site storm water management, the request shall comply with the following general criteria:

    a. Off-site storm water management areas may be shared between two or more property owners or developments, provided that maintenance agreements have been approved by the Agent and storm water management easements have been obtained and recorded with the Charlevoix County Register of Deeds by the Agent, at the expense of the applicant.

    b. The storm water management easement shall contain language stating that the easement shall exist as long as said development exists and shall not be modified or terminated without the prior written authorization of the Agent. The Agent may only approve a modification or termination of this easement upon a determination that alternative means are available and will be used to improve the handling and disposition of storm water generated from the development or redevelopment of the site.

    c. Easements within drainage districts shall require prior approval of the Drain Commissioner.

    d. Storm water management plan requirements specified in Section 4.3 and the Design Standards included as Appendix A of this Ordinance shall be used as the basis for reviewing off-site storm water management proposals.

ARTICLE V MAINTENANCE, INSPECTION & ACCESS

Section 5.1 Applicability

All temporary storm water management facilities shall be maintained and inspected during the life of the facility to provide adequate protection against adverse impacts from storm water runoff. Permanently installed storm water management facilities shall be routinely inspected and maintained by the property owner or designated qualified party to ensure the continued and proper operation of the facility for the protection of downstream properties.

Section 5.2 Maintenance Requirements

Where maintenance is required, it shall be performed in accordance with the following general provisions, as well as any specific conditions that may be included with the SWM Permit.

1. All storm water management facilities and measures shall be maintained in accordance with permit conditions.

2. The person(s) or organization(s) responsible for maintenance shall be designated in the storm water management plan or the permit application submitted to the Agent. Options may include:

    a. The owner(s) of the property.

    b. Property owners association or other designated qualified party as determined by the Agent, provided that provisions for financing necessary maintenance are included in deed restrictions or other contractual agreements.

3. Maintenance agreements may be required by the Agent when the average annual cost of maintenance is reasonably expected to exceed $500 per year and shall be required for all site condominium and subdivision plat proposals. When required, maintenance agreements shall specify responsibilities for financing maintenance and emergency repairs, including but not limited to the procedures specified in Sections 5.3 and 5.4 and Article VI of this Ordinance.

4. The Agent is not required to accept the applicant's desired responsible party for maintenance purposes in a given situation. Natural features, proximity of site to lakes, streams and regulated wetlands, extent of impervious surfaces, size of the site and potential need for ongoing maintenance activities will be considered when making this decision, as well as the overall complexity of the storm water management facilities. Where deemed necessary by the Agent, third party maintenance may be required for the adequate protection of sensitive sites, or complex storm water management facilities.

Section 5.3 Inspections

1. The Agent, or his/her authorized agent, shall have the right to conduct on-site inspections of the storm water management facilities to verify compliance with the requirements of this Ordinance, including that maintenance is being performed as required by this Ordinance. Any such inspections may take place before, during, and after any earth change activity has occurred for which a permit has been issued. The Agent or his/her authorized agent shall exercise this right to inspection by written consent of the person having the right to possession of the property, or by administrative search warrant issued by a court of competent jurisdiction. Submission of an application for a permit under this Ordinance shall be deemed as providing written consent for the Agent to conduct on-site inspections of the storm water management facilities.

2. If upon inspection, existing site conditions are found not to be as stated in the permit or approved storm water management plan, the permit may be revoked. No earth disrupting work shall be undertaken or continued, except preventative storm water measures as authorized by the Agent, until revised plans have been submitted and a valid permit issued.

3. Requests for revisions must be submitted to and approved by the Agent in writing before being effective unless approved by the Agent on site. If a change is approved on site, the following shall occur:

    a. The Agent shall provide written verification of a change and/or revision.

    b. The permit holder shall provide updated drawings, calculations, etc. to reflect the changes and/or revisions.

Section 5.4 Storm Water Management Easements

1. If any portion of the storm water management facilities will be located on property other than the property on which the storm water will originate, then the owner of the property on which the storm water will originate shall obtain a storm water management easement from the owner of the property on which all or a portion of the storm water management facilities will be located. The storm water management easement shall define the scope of the easement to include at a minimum the legal right of the owner of the property on which the storm water will originate to access the property on which the storm water management facilities will be located for the purpose of installing, inspecting, and maintaining the storm water management facilities; shall run in perpetuity with the land benefitted by the easement, or until the storm water management facilities are removed, whichever is sooner; and shall be recorded in the office of the Charlevoix County Register of Deeds.

2. A recorded copy of the storm water management easement shall be filed with the Agent prior to the issuance of a SWM Permit.

3. The recorded storm water management easement shall not be revoked, terminated, reconveyed, or amended without the prior written authorization of the Agent. Any such extinguished or revised storm water management easement shall be recorded in the office of the Charlevoix County Register of Deeds, and a recorded copy shall be filed with the Agent.

ARTICLE VI COMPLIANCE ASSURANCE

Section 6.1 Performance Guarantees

1. Applicants proposing subdivision plats, site condominiums, private road construction projects, or other developments identified by the Agent with a high potential for storm water management problems may be required to post a cash escrow, letter of credit, or other acceptable form of performance security in an amount sufficient to assure the installation and completion of the storm water management plan.

2. Letters of credit shall extend for a minimum of one (1) year with the option of renewal. Money held in escrow, cash deposits, and/or certified checks will be returned to the applicant when the site is completely stabilized to meet requirements set forth by the Agent, and as-built plans of the site, sealed by a State of Michigan Licensed Professional Engineer, are submitted to the Agent.

Section 6.2 Construction Certification by a Registered Professional

1. For any sites that require a professionally prepared site plan in accordance with Section 3.4, a certification letter shall be submitted after any storm water management facilities have been installed to affirm that construction has been completed in accordance with the approved storm water management plan. Unless this Ordinance requires certification by a State of Michigan Licensed Engineer as provided later in this section, the certification letter can be prepared by a registered professional as defined by this ordinance.

2. If there are changes during the course of construction, the Agent may require final "as-built" drawings for final approval of the site work.

3. "Changes during construction", as used in this Section, includes, but is not limited to: unanticipated soil conditions, elevation, acts of God, or other changes in circumstances not anticipated during the initial application process.

4. Sites Where Certification by a State of Michigan Licensed Engineer is Mandatory

    a. Certain activities listed under the Michigan Natural Resources and Environmental Protection Act (Public Act 451 of 1994, as amended).

        i. Part 23, Pretreatment

        ii. Part 31, Floodplain iii. Part 41, Sewage Systems iv. Part 111,

        Solid Waste

        v. Part 115, Hazardous Waste

        vi. Part 307, Inland Lake Levels

        vii. Part 309, Inland Lake Improvements viii. Part 315, Dams

    b. Certain activities listed under the U.S. Environmental Protection Agency, Title 40 of the Code of Federal Regulations.

        i. Part 112, Spill Prevention, Control and Counter Measures

        ii. Part 122, Storm Water Pollution Prevention Plan (SWPS)

Section 6.3 Letter of Compliance

Upon receipt and approval of the certification letter, the Agent shall issue a letter of compliance to the property owner.

ARTICLE VII STOP WORK ORDERS & ENFORCEMENT ACTION

Section 7.1 Stop Work Orders

1. If necessary to assure compliance with the permit requirements, standards, and other provisions of this Ordinance or to protect public health, safety and/or welfare, the Agent may issue a stop work order for the purpose of preventing uncontrolled storm water, or other conditions posing imminent and substantial danger to public health, safety, welfare or natural resources.

2. The stop work order, when issued, shall require all specified storm water activities to be stopped. A copy of the stop work order shall immediately be submitted to other state and local agencies with regulatory jurisdiction. Said order shall describe the specific alleged violation and the steps deemed necessary to bring the project back into compliance.

3. If the Agent determines that storm water violations have or will reasonably occur from a parcel of land in violation of this Ordinance, it may seek to enforce the Ordinance by notifying the person who owns the land by mail, with return receipt requested, of its determination. The notice shall contain a description of specific storm water measures which, if implemented by the property owner, would bring the property owner into compliance.

Section 7.2 Enforcement

1. Any person who violates any provision of this Ordinance shall be responsible for a municipal civil infraction as defined in Public Act 12 of 1994, amending Public Act 236 of 1961, being Sections 600.101-600.9939 of Michigan Compiled Laws and shall be subject to a fine of not more than Five Hundred and 00/100 Dollars ($500.00). In addition, any person found responsible for a municipal civil infraction may be subject to an enforcement order issued by the District Court Judge requiring remedial action to bring the property into compliance with this Ordinance.
   Each day this Ordinance is violated shall be considered as a separate violation.

2. The Agent and any other person designated by the legislative body of the City are hereby designated as the authorized officials to issue municipal civil infraction citations directing alleged violators of this Ordinance to appear in court.

3. A violation of this Ordinance is hereby declared to be a public nuisance or a nuisance per se and is declared to be offensive to the public health, safety and welfare.

4. In addition to enforcing this Ordinance through the use of a municipal civil infraction proceeding, the Agent may initiate proceedings in the Circuit Court on behalf of the City, to abate or eliminate the nuisance per se or any other violation of this Ordinance.

Section 7.3 Emergency Action

1. Where necessary to protect public safety or water resources, including lakes, streams, regulated wetlands, and other receiving bodies of water, the Agent, through a Circuit Court abatement proceeding, may seek a temporary restraining order or preliminary injunction from the court authorizing entry onto private property for the purpose of initiating emergency action to abate imminent and substantial danger and risk.

2. Except as otherwise provided through maintenance agreements, the property owner shall reimburse the City and/or Charlevoix County for all expenses incurred as a result of the emergency action, including but not limited to reasonable attorneys fees, administrative costs, and the costs of any remedial action taken to abate the emergency condition.

ARTICLE VIII APPEALS

Section 8.1 Creation of Appeals Board

An Appeals Board is hereby created which shall consist of five (5) members. The membership and organizational structure of the Appeals Board shall be determined by the City. When discharging its duties under this Ordinance, the Appeals Board shall comply with all requirements of the Open Meetings Act, being Act 267 of the Public Acts of 1976, as amended. The Appeals Board Clerk shall be responsible for providing all required notices for Appeals Board hearings and for taking the minutes of the Appeals Board hearings.

Section 8.2 Right of Appeal

Any person aggrieved by the action or inaction of the Agent related to this Ordinance may appeal to the Appeals Board. Such appeal shall be made in writing and shall be filed with the Appeals Board Clerk within thirty (30) calendar days of the decision that is being appealed. Any appeal that is not filed in a timely manner shall be dismissed by the Appeals Board. The written appeal shall state the order, requirement, decision, or determination that is being appealed, the sections of this Ordinance that relate to the appeal, and those facts relevant to the appeal, which support the basis for the appellant's claim.

Section 8.3 Appeals Process

Upon receipt of an appeal, the Appeals Board Clerk shall direct the Agent to transmit to the Appeals Board a summary report of all previous action taken on the subject of the appeal, a copy of any permits issued, and the appellant's written statement. The Appeals Board will then adhere to the following general process:

1. Within fifteen (15) calendar days of receiving a completed application, the Appeals Board Clerk shall schedule a hearing date before the Appeals Board. The Appeals Board Clerk shall send a written notice specifying the time, date, and place of the Appeals Board hearing to the appellant and to all land owners within three hundred (300) feet of the subject parcel and shall publish a copy of the hearing notice in a newspaper of general circulation within the City where the subject property is located. The notice shall be mailed and published no less than fifteen (15) days before the scheduled hearing. The Appeals Board shall hold the hearing within sixty (60) calendar days from receipt of a completed application.

2. The appellant shall deposit with the Appeals Board Clerk when the appeal is filed the required fee, as specified in the fee schedule adopted under Section 3.10.1 of this Ordinance. The fee shall be used to cover the cost of handling said appeal including compensation for Appeals Board members and associated administrative costs.

3. If the Appeals Board Clerk determines that the basic fee will not cover the actual costs of the appeal, then the appellant shall deposit with the Appeals Board Clerk such additional fees in an amount determined to be equal to the estimated additional costs, including costs which may be incurred by the Agent. The additional fees shall be held in escrow in the appellant's name and shall be used solely to pay these additional costs. If the amount held in escrow becomes less than ten percent (10%) of the initial escrow deposit or less than ten percent (10%) of the latest additional

escrow deposit and the appeal is not completed, the Appeals Board Clerk may require the appellant to deposit additional fees into escrow in an amount determined to be equal to the estimated costs to complete the appeal. Failure of the appellant to make any required deposits shall be deemed to make the appeal incomplete thereby justifying denial of the appeal. Any unexpended funds held in escrow shall be returned to the appellant following final action on the appeal. Any actual costs incurred in excess of the amount held in escrow shall be billed to the appellant and shall be paid by the applicant prior to the release of a final decision on the appeal.

4. The Appeals Board may affirm or reverse, wholly or in part, a decision of the Agent. In deciding an appeal, the Appeals Board shall determine:

    a. Whether the Agent properly interpreted and applied this Ordinance in making the decision.

    b. Whether the specific situation has circumstances that warrant a variance from the standards of this Ordinance. Where the Appeals Board has determined that a variance from the standards of this Ordinance may be warranted, the Board may grant the appellant a variance from any design standard, setback, or other provision contained within this Ordinance, provided that such variance complies with the following general standards:

        i. The variance will not adversely impact adjacent property owners or downstream properties in any material way.

        ii. The variance is necessary to grant the appellant substantial relief from a hardship that would otherwise be imposed by strict enforcement of this Ordinance.

        iii. The variance granted is the minimum deviation from the requirements of this Ordinance necessary to do substantial justice to the appellant. The Appeals Board may include such conditions or limitations on any variance issued to ensure that granting the relief requested will not substantially prevent, nor result in less, effective management of storm water runoff.

        iv. Granting of the variance would not knowingly be in conflict with other regulatory requirements.

        v. The need for the variance is due to circumstances that are unique to the property in question and not due to any act or omission of the property owner, a prior property owner, or a past or present occupant of the property.

5. The decisions of the Appeals Board shall in all instances be final administrative decisions, shall be in writing, and shall include specific findings of fact by the Board, and further, shall be subject to such judicial review as by law may be provided.

ARTICLE IX SEVERABILITY

If any section, clause, provision, or portion of this Ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the Ordinance shall not be affected.

ARTICLE X EFFECTIVE DATE

This Ordinance shall become effective thirty (30) days after its enactment.

ARTICLE XI REVISIONS

The Agent shall review this Ordinance at least biannually, and make recommendations for amendments if needed. The recommendations of the Agent shall be transmitted to the legislative body of the City of _____.

APPENDIX A

City of _____ Storm Water Ordinance Design Standards

Temporary Storm Water Management Standards

1. Temporary storm water management facilities shall be installed by the applicant and inspected by the Agent before grading, filling or grubbing is initiated.

2. Where permanent storm water management facilities, such as detention or retention basins are proposed for use during construction as a temporary storm water management measure, the construction sequence and grading plan shall be designed for the proper and effective implementation of these facilities.

3. Temporary storm water management measures shall be maintained throughout the duration of the earth change, including the later stages of development. Maintenance activities may include, but are not limited to removal of accumulated sediment, structural repairs, and reseeding or replacement of temporary vegetative covers.

4. Temporary storm water management facilities shall be designed in accordance with the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Best Management Practices (BMP) Guide Book for Michigan Watersheds.

5. At a minimum, during construction all regulated earth changes shall be required to provide temporary storm water management that either contains the volume of runoff generated from a 10-year, 24-hour design storm on-site for all disturbed area, or to provide silt fencing or other permeable barriers that will manage the flow of storm water discharging off-site, diffusing it and releasing it at reduced velocities, where such discharge will not adversely impact downstream properties.

Permanent Storm Water Management Standards – General

1. Storm Water Management Plan Preparation

a. For regulated activities on sites that exceed 1 acre, the Agent may require the Storm Water Management Plan is prepared by a registered professional as defined by this ordinance.

b. For regulated activities on sites that exceed 1 acre, the Agent may request that the submitted site plan be reviewed by one or more registered professionals contracted by the Agent. The costs incurred for such review(s) shall be the responsibility of the applicant. The applicant shall deposit with the Agent such fees in an amount determined by the Agent equal to the estimated costs. The fees shall be held in escrow in the applicant's name and shall be used solely to pay these costs. If the amount held in escrow becomes less than ten percent (10%) of the initial escrow deposit or less than ten percent (10%) of the latest additional escrow deposit and review of the application is not completed, then the Agent may require the applicant to deposit additional fees into escrow in an amount determined by the Agent to be equal to the estimated costs to complete the review. Failure of the applicant to make any escrow deposit required under this Ordinance shall be deemed to make the application incomplete, thereby justifying denial of the application. Any unexpended funds held in escrow shall be returned to the applicant following final action on the application. Any actual costs incurred in excess of the amount held in escrow shall be billed to the applicant and shall be paid by the applicant prior to the release of a final decision on the application.

c. If the applicant disputes the Agent's need for outside professional assistance in the review of the submitted plans, or the professional(s) selected, the applicant has the right to appeal the Agent's decision to the Appeals Board, who shall be responsible for making the final decision.

2. On-site storm water management facilities which minimize adverse impact to downstream properties shall be required for all sites unless a proposal for off-site storm water management has been approved. Storm water management facilities may include, but are not limited to: retention basins/ponds, detention basins/ponds, wet basins, storm water treatment units, controlled outfall structures, and rain gardens or other bio-filtration systems.

3. The Michigan Department of Environmental Quality "Urban Stormwater Best Management Practices Manual" will be used as a reference as well as the following manuals: "Controlling Urban Runoff" by the Metropolitan Washington Council of Governments; "Designing Stormwater Quality Management Practices" by the University of Wisconsin, Madison; and the "Design of Stormwater Filtering Systems" by the Center for Watershed Protection.

4. Retention and detention basins shall have an emergency overflow system. The overflow system shall be designed to accommodate flow from a 100-year storm event, or as otherwise required by the appropriate State of Michigan agency.

5. If the storm water facilities for a 50-year storm cannot discharge to a stream, lake or wetland without causing scouring, flooding or pollution on site or downstream, then the basin shall be designed to hold or infiltrate storm water from a 100-year, 24-hour frequency storm event.

6. Sites that are located in areas serviced with a municipal storm system, and that have the prior approval of the municipal system owner, may discharge storm water to that system after it has been treated with an approved separator system that removes sixty percent (60%) of sediments. The

applicant shall be responsible for all costs incurred to the municipal system to accommodate any storm water discharged to the system from the site.

7. The rainfall amounts for Charlevoix County shall be the numbers given by the Natural Resources Conservation Service for a 24-hour duration and are as follows: 1-year storm equals 1.8 inches; 2-year storm equals 2.2 inches; 5-year storm equals 2.7 inches; 10-year storm equals 3.0 inches; 25-year storm equals 3.5 inches; 50-year storm equals 3.9 inches; 100-year storm equals 4.2 inches.

8. The maximum grade for the side slopes of any storm water retention or detention basin shall be no greater than 3:1 (horizontal to vertical) for vegetated basins. Where, due to site limitations, this maximum side slope grade cannot be met, the Agent may grant an increase in the slope, provided additional stabilization (beyond seed and mulch) is proposed.

9. Storm water basins with permanent pools of water of three (3) foot depth or greater with side slopes steeper than one (1) on six (6) shall have one or more of the following safety features:

    a. Safety ledges at the basin perimeter which are at least ten (10) feet wide

    b. Aquatic vegetation surrounding the basin which discourages wading

    c. Fencing to prevent unauthorized access to the basin.

10. Storm water detention basins shall not be constructed in regulated wetlands unless approved by the appropriate State of Michigan agency and/or the Army Corps of Engineers.

11. Storm water detention basins which impound five (5) acres or more and have a head of six (6) feet or more shall meet dam construction permit requirements in Part 315 of Act 451 of 1994, as amended, administered by the Michigan Department of Environmental Quality.

12. Whenever possible, a created wetland or other bio-filtration area shall be incorporated into storm water management facilities to assist removal of soluble pollutants that cannot be removed by conventional settling. Sediment carried off by runoff shall be required to settle out prior to discharge into the created wetland or other bio-filtration area.

13. Storm water management basins designed for retention, detention or infiltration shall be isolated from septic systems and water wells by fifty (50) feet or more. Variations in the required setback may be granted by the Health Department of Northwest Michigan prior to the issuance of a Charlevoix County Storm Water Management Permit.

14. New fueling stations will be required to install an approved separator system for sites that discharge storm water off-site. Existing fueling stations that are modifying more than twenty five percent (25%) of their existing impervious surfaces will be required to install an approved separator system if they discharge storm water off-site.

Retention Basin Design

1. Small projects in areas that have less than one-half (0.5) acre of impervious surface shall be allowed to have runoff retention stored at two inches (2") of runoff from all impervious surface areas in lieu of detailed hydrologic calculations.

2. At a minimum, retention basins created in soils with permeability greater than 1.3 inch per hour shall have the storage capacity to hold the increase in runoff volume generated by the earth change.

    a. The required volume shall be calculated by comparing the undeveloped conditions for a 2-year, 24-hour frequency storm event to the developed condition for a 25-year, 24-hour frequency storm event. Soil permeability rates are listed in the following table:

Soil Texture & Structure	**Permeability** (Inches/Hour)
Coarse Sand and Medium Sand	6 or more
Fine Sand and Loamy Sand	3 – 6
Sandy Loam	2 – 3
Loam, Sandy Clay Loam	1.3 – 2
Clay Loam, Silt Loam, Clays, Silts, Muck, Peat, Marl	Less than 1.3

    b. The retention basin shall be designed to drain within seventy two (72) hours.

3. At a minimum, retention basins, which are created in soils with permeability less than 1.3 inch per hour, shall be designed to store runoff from back-to-back 50-year, 24-hour rainfall events.

Detention Basin Design Standards

1. When using the Natural Resource Conservation Service Method, the volume of a detention pond is to be calculated based upon a 50-year, 24-hour storm with the developed site conditions and with an allowable outflow of a 10-year, 24-hour storm based upon the pre-existing site conditions or 10% of the flow rate calculated by the 50-year developed site conditions analysis. [The TR-55 program does not accept lower values than ten percent (10%) of the developed rate.]

2. The allowable peak discharge rate from a permanent storm water management measure may be a staged rate. The maximum allowable peak discharge rate shall not exceed the peak discharge rate from the project site prior to the proposed development for all of the following 24-hour storm

events: 2-year, 5-year, 10-year, 25-year, and 50-year. In no event shall the discharge exceed the ability of the downstream condition to convey the flow without damage to abutting properties.

3. All sites with greater than one (1) acre of impervious surface will require the detention outflow to be directed to approved storm systems or have the approval of adjacent property owners, with documented easements, or one can release at a 2-year before construction rate if it can be determined that there is not a flooding hazard on the adjacent property. Low porosity in the soils in the area of discharge and depressions in the land would be examples of reasons to deny detention out-flowing at a 2-year rate. Sites that have three (3) acres or more of parking area must in addition have an approved separator system to remove impurities before discharging to the detention/retention pond or install an approved treatment forebay.

Storm Water Separator Design Standards

1. Approved separators are to remove a minimum of sixty percent (60%) of sediments.

2. Treatment forebay criteria – The treatment forebay is designed to store the "first flush" of pollutants typically found in urban storm water runoff, and to capture initial flush pollutant loads.

    a. The treatment forebay shall be a wet basin or approved structure with an impermeable bottom and sides to the design high water level.

    b. Sizing – The treatment forebay shall be sized to store the water quality volume (V^{wq}) defined as one-half (0.5) inch of runoff from the directly connected impervious area. This volume can be included in the overall flood control volume.

    c. The minimum required water quality volume is given by the equation:

    $V^{wq} = 1815\ A\ 1$

    Where: V^{wq} = Water quality volume (cft)

    1815 = 0.5 inch of runoff x 3,630 to convert ac-in to cft

    A = Contributing drainage area (ac)

    1 = Percent impervious expressed as a ration

    d. Capacity for the water quality volume shall be provided above the normal water level.

    e. The overflow structure from the treatment forebay shall be sized for the peak inflow from the design rainfall event.

    f. The top-of-berm elevation between the treatment forebay and the infiltration basin shall be a minimum of one (1) foot below the outer berm elevation.

    g. The treatment forebay shall have a minimum 1-foot-deep sump below the inlet pipe for sediment accumulation.

h. The outlet structure from the treatment forebay shall be designed to draw water from the central portion of the water column with the forebay to trap floatables and contain sediments. The top of the inlet structure shall be located a minimum of one (1) foot below the normal water level, and the invert shall be a minimum of one and one-half (1.5) feet above the bottom of the treatment forebay.

i. Material – Treatment forebays shall be lined with impermeable materials extending up to the design high water elevation. A minimum 18-inch-thick clay layer, or an impermeable liner protected with a minimum of twelve (12) inches of soil cover are acceptable alternatives. Maximum allowable permeability shall be 0.0001417 inch/hour as determined by a geotechnical engineer for clay placement, or manufacturer's certificate for line products.

Underground Storm Water Management Facilities

1. If the use of storm water retention or detention basins, either on-site or off-site is not feasible and the permeability of the soils is greater than 1.3 inch per hour, the installation of underground drainage systems (catch basins / manholes with open bottoms with stone and/or run(s) of perforated piping) may be allowed if they provide for detention or retention volumes as stated in these Charlevoix County Storm Water Ordinance guidelines. The perforated piping and dry basin structure(s) cannot be considered to provide for any outflow when calculating volumes for the detention system design. All underground drainage systems must provide the following:

    a. Catch basins or separator systems, sediment basins, silt traps for storm water flowing to the underground drainage system

    b. An approved overflow system

    c. Adequate provisions for maintenance

2. The required detention volume may be reduced by the Agent by an amount not to exceed fifty percent (50%) if rain gardens are implemented and demonstrate the ability to accommodate an equivalent amount of storm water.