



**CITY OF MAPLE GROVE**  
 12800 ARBOR LAKES PARKWAY  
 P. O. BOX 1180  
 MAPLE GROVE MN 55311-6180  
 763-494-6040

Office Use Only:
CASE # _____
PLANNER: _____

**SITE PLAN REVIEW APPLICATION (in-house)**

Name of Project: \_\_\_\_\_

Application is hereby made for a Site Plan Review for the construction of a(n) \_\_\_\_\_  
 \_\_\_\_\_ s.f. building in a(n) \_\_\_\_\_ zoning district.

Address of Property: \_\_\_\_\_

PID#'s: \_\_\_\_\_

OWNER: \_\_\_\_\_

CONTACT NAME (PRINT): \_\_\_\_\_

PHONE: \_\_\_\_\_

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

FAX: \_\_\_\_\_

CITY/ZIP: \_\_\_\_\_

E-MAIL: \_\_\_\_\_

APPLICANT: \_\_\_\_\_

CONTACT NAME (PRINT): \_\_\_\_\_

PHONE: \_\_\_\_\_

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

FAX: \_\_\_\_\_

CITY/ZIP: \_\_\_\_\_

E-MAIL: \_\_\_\_\_

The following information is submitted in support of the application as described on the attached "Site Plan Review Requirements".

- \_\_\_\_ 1) Completed Application for Site Plan Review (Submission Deadline Dates FIRM)
- \_\_\_\_ 2) Application Fee of **\$350**
- \_\_\_\_ 3) Completed Acknowledgement of Responsibility form
- \_\_\_\_ 4) Completed Affirmation of Sufficient Interest form
- \_\_\_\_ 5) Narrative describing project
- \_\_\_\_ 6) Completed Application to appropriate Watershed District
- \_\_\_\_ 7) 15 folded copies **AND** 1 (8½" × 11") paper copy of the following (check w/staff to see if less than 15):
  - \_\_\_\_ a) Site Plan
  - \_\_\_\_ b) Map of Existing Conditions
  - \_\_\_\_ c) Landscape Plan
  - \_\_\_\_ d) Grading/Drainage Plan
  - \_\_\_\_ e) Building Elevations of all sides
- \_\_\_\_ 8) One Colored Rendering of Building Elevations
- \_\_\_\_ 9) Also after staff review of the initial project, we will need the following updated maps of all items in #7 (a-e):  
 3 folded copies **AND** 1 set of (8½" × 11") paper copies
- \_\_\_\_ 10) One USB Flash Drive in .DXF **AND** .PDF format using the Hennepin County coordinate system for ALL MAPS listed in #7 above.
- \_\_\_\_ 11) Information required on attached Hennepin County Preliminary Plat/Development Review Process pamphlet dated January 2016.

**\*The 2016 rate for City sewer and water connection charges for commercial, industrial and institutional properties are \$11,580 per acre (\$2,640 sewer / \$8,940 water). SAC - \$2,485/unit. These fees must be paid at the time building permit is issued. Please contact Becky Roy at 763-494-6062 if you have questions.**

\_\_\_\_\_  
**Applicant's Signature**

\_\_\_\_\_  
**Printed Name**

\_\_\_\_\_  
**Date**

**ACKNOWLEDGEMENT OF RESPONSIBILITY**

This is to certify that I am making application for the described action by the City and that I am responsible for complying with all City requirements with regard to this request. This application should be processed in my name and I am the party whom the City should contact regarding any matter pertaining to this application.

I have read and understand the instructions supplied for processing this application. The documents and/or information I have submitted are true and correct to the best of my knowledge. I will keep myself informed of the deadlines for submission of material and of the progress of this application.

I understand that this application may be reviewed by City staff and consultants. I further understand that additional information, including, but not limited to, traffic analysis and expert testimony may be required for review of this application. I agree to pay to the City upon demand, expenses, determined by the City, that the City incurs in reviewing this application and shall provide an escrow deposit to the City in an amount to be determined by the City. Said expenses shall include, but are not limited to, staff time, engineering, legal expenses and other consultant expenses.

I agree to allow access by City personnel to the property for purposed of review of my application and to erect a temporary sign indicating the application proposed.

Signature of applicant \_\_\_\_\_ Date \_\_\_\_\_

Name of applicant \_\_\_\_\_ Phone \_\_\_\_\_  
(Please Print)

Name and address of Contact (if other than applicant) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
**Phone Number**

\_\_\_\_\_  
**Date**

**AFFIRMATION OF SUFFICIENT INTEREST**

I hereby affirm that **I am the fee title owner** of the below described property or that I have written authorization from the owner to pursue the described action.

Name of applicant \_\_\_\_\_  
(Please Print)

Street address/legal description of subject property \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**

**If you are not the fee owner**, attach another copy of this form which has been completed by the fee owner or a copy of your authorization to pursue this action.

**If a corporation is fee title holder**, attach a copy of the resolution of the Board of Directors authorizing this action.

**If a joint venture or partnership is the fee owner**, attach a copy of agreement authorizing this action on behalf of the joint venture or partnership.

## SITE PLAN REVIEW REQUIREMENTS

The following information is required for requesting site plan review approval. Please refer to Zoning Ordinance Section 36-81 through 36-85 for specific information.

1. **Map** indicating existing conditions on the site and all property and all property within 200 feet. This scaled drawing should show:
  - a) Property boundaries and dimensions.
  - b) Adjacent roadways and access points.
  - c) Existing topographical contours.
  - d) Existing structures
  - e) Existing parking areas and other man-made features.
  - f) Existing significant vegetation
  
2. **Site Plan** - this shall be a scaled drawing indicating:
  - a) Building footprints, size and dimensions.
  - b) Parking areas including location of handicapped.
  - c) Setback lines.
  - d) Wetlands or floodplains
  - e) Ingress and egress points
  - f) Sign locations and details. (optional)
  - g) Light fixture details and placement.
  - h) On this plan, a summary should be provided indicating building square footage, lot areas, parking spaces (also indicating number of handicapped spaces), lot coverage, type and height of light fixtures, and green space.
  - i) Details of curbed gutter, concrete entrance aprons, parking lot/driveway sections, other site improvement details.
  
3. **Landscape Plan** - This shall be a scaled drawing indicating:
  - a) Any existing trees to remain by size and species.
  - b) Proposed plantings by size, species, and planting mode (B/R, B/B).
  - c) Any berms or other buffers provided.
  - d) Location and type of underground sprinkling system.
  - e) Retaining walls or other improvements considered part of the landscape plan.
  
4. **Grading and Drainage Plans** (can be combined with landscape plan) indicating:
  - a) Existing contours and final land contours
  - b) Method of drainage proposed (catch basins, culverts, ponding areas)
  
5. **Utility Plan** (can be combined with Drainage Plan)
  - a) Sanitary sewer
  - b) Water
  - c) Hydrant location
  - d) Miscellaneous external mechanical
  
6. **Building Elevations** indicating:

- a) Building heights
  - b) Building material of roof and facade
  - c) The relationship of the building to the site and surrounding area
  - d) Colored renderings of elevations and perspective drawings
7. **Written narrative** explaining the type of use, operational information, design parameters, development concept, and time schedule of the facility being proposed.
8. One Set of **8½ X 11 Paper Copies** of 1 - 6 above.

## **Sec. 36-65. Growth management plan; project point system.**

- (a) Project point system. All applications, subject to this division with a residential component guided low-medium density residential, over ten acres in size and outside the gravel mining area, or guided medium density residential or high density residential, regardless of size, and outside of the gravel mining area, for development stage plan shall be assessed and reviewed simultaneously against the project points system, which is on file at city offices and is hereby made a part of this section. In such case, the applicant shall comply with all provisions of this chapter applicable to the application. The subject application shall be reviewed and assessment of points shall be completed by city staff and a written report shall be submitted to the planning commission and the city council for their consideration. The planning commission and the city council shall consider said application and shall grant or deny development stage plan approval in accordance with the provisions of subsection 36-64(b) and this section.
- (b) Submission requirements. In addition to the submission requirements of section 36-63, applicants must submit any information to satisfy the categories in the project point system and such other information as the planning commission, city staff or city council shall find necessary to allow a full consideration of the enter proposed PUD.
- (c) Utilization of specific categories. Only categories in the project point system that have the opportunity to be utilized and actually exist from the proposed PUD shall be considered in the assessment of the PUD under the project point system. Applicant must provide evidence sufficient to the city that a specific category should not be considered. Categories that are determined by the city not to have the opportunity to be utilized nor actually exist shall not be considered in the determination of points.
- (d) Minimum points required. A PUD subject to this section must achieve at a minimum 75 percent of the total points possible under the project point system. Any PUD not achieving the above minimum percentage of points shall not be granted approval.

(Ord. No. 04-16, § 1, 7-19-2004; Ord. No. 05-08, § 1, 3-7-2005; Ord. No. 15-01, § 2, 1-5-2015)

## **DIVISION 3. SITE PLANS**

### **Sec. 36-81. Purpose.**

This division is established to provide comprehensive procedures and standards designed to ensure city review procedure for developments (other than single-family detached dwellings, two-family dwellings, planned unit developments, and public trails, playlots, neighborhood parks, and playfields) seeking to locate or expand within the city. This procedure will provide the city with the opportunity to ensure a development's conformance with the city development regulations and to provide the city with a reasonable degree of discretion in determining the suitability of development proposal impacts upon the general welfare, public health, and safety. In making this determination, whether or not the site plan is to be approved, the city will consider all applicable ordinance development standards, the nature of the land and/or buildings, whether or not any use is already in existence and located on the same premises, or on any adjoining roads, and all other or further factors as the city shall deem prerequisites of consideration in determining the effect of the development on the general welfare, public health and safety. The site plan review procedure is also intended to ensure the development of capable and quality site systems in the areas of:

- (1) Utilities.
- (2) Transportation.
- (3) Site drainage.
- (4) Open spaces.
- (5) Site environment and landscaping.
- (6) Structure/lot area relationships.

(Code 1984, § 375:117(1))

### **Sec. 36-82. General requirements.**

- (a) Application for approval. An application for site plan approval must be filed with the city for all developments (except for single-family detached and two-family dwellings, development within a PUD, and public trails, playlots,

neighborhood parks, and playfields) within the city. Such application shall be filed with the director of community development on an official application form and shall be accompanied by a nonrefundable fee and any surety, escrow, or deposit as provided for by the city council as set forth in chapter 16, article XI. Formal review and approval of the plans must be given by the city staff before any related site development can be pursued.

- (b) Ownership of property. An application for a site plan approval must be filed by the landowner or jointly by all landowners of the property included in a project. The application and all submissions must be directed to the development of the property as a whole. In the case of multiple ownership, the approved final plan shall be binding on all owners.
- (c) Consistency with comprehensive plan and zoning regulations. The proposed site plan shall be consistent with the city's comprehensive plan and this chapter.
- (d) Plan submission. Ten sets of all site plans and 8½-inch by 11-inch transparencies thereof shall be submitted to the community development department with all required information. The plan shall be considered as officially submitted only when all of the information and fee requirements are met.
- (e) Contents. All site plan submissions shall be drawn to a scale of one inch equals 50 feet or less (engineering scale only) and be produced in a fashion which ensures legibility and clarity. In addition to the full-scale plan, an additional reduction of the plan on an 8½-inch by 11-inch sheet shall be required as part of the submission. The site plan shall contain at least the following information, and all additional information as required by city staff:
  - (1) General information.
    - a. The landowner's name, address and phone number.
    - b. The applicant's name, address and phone number, if different from the landowner, and his interest in the subject property.
    - c. The names, addresses, and phone numbers of all professional consultants who have contributed to the development of the plan being submitted, including the architect, land planner, engineer, surveyor, and attorney.
    - d. Evidence that the applicant has sufficient control over the subject property to effectuate the proposed site plan.
    - e. Date of plan preparation.
    - f. Dates and descriptions of all revisions.
    - g. North point indication.
    - h. The statement that construction shall be in accordance with the city's Standard Specifications for Utility and Street Construction, 1979, as amended.
  - (2) Present surrounding area status.
    - a. The address and legal description of the subject property.
    - b. The existing zoning classification and present use of the subject property and all lands within 200 feet of the subject property.
    - c. A map depicting the existing development of the property and all land within 200 feet.
    - d. A plan showing the precise location of existing streets, property lines, easements, water mains, and storm and sanitary sewers with invert elevations on and within 100 feet of the subject property.
  - (3) Present on-site status. All of the graphics should be the same scale to allow easy cross-reference.
    - a. Contours at minimum two-foot intervals on and within 20 feet of the subject property.
    - b. Location, type, and extent of tree cover.
    - c. Sufficient spot elevations and/or contours to indicate changes in slope on and within 20 feet of the subject property. Elevations of the centerline and gutter line of existing streets at each proposed access must be shown.
    - d. Location and extent of water bodies, wetlands and streams, and floodplains within 300 feet of the subject property.
    - e. Significant rock outcroppings.
    - f. Existing drainage patterns.
    - g. Vistas and significant views.

- h. Soil conditions as they affect development.
- (4) Utility plan. Plans indicating the location of water and sanitary sewer lateral and service locations. Also indicated shall be the size and type of pipe and all other information, such as hydrants and cleanouts, as may be required by the city engineer.
- (5) Property dimension plan. Plans showing property lines, dimensions, lot area, required yard setbacks, easements and rights-of-way of the property and any significant topographical or physical features of the property based upon a certified survey.
- (6) Structure information plan. Plans showing the location, size, use and arrangement, including height in stories and feet and total square feet of ground area coverage and floor area, of proposed buildings. Also provided shall be architectural plans showing building elevations and exterior wall finishes of proposed buildings.
- (7) Internal circulation plan. Plans showing the location, dimensions and number of driveways, entrances, fire lanes, concrete entrance aprons, curb cuts, concrete curbing and gutter, parking stalls, parking lot islands, loading spaces, access aisles, concrete sidewalks, and all other circulation elements of the site.
  - a. All site elements as listed in this subsection shall have noted on the plan a related cross section of element composition and construction design.
  - b. All material compositions, i.e., bituminous, gravel, concrete, sod, etc., shall be noted on the plan.
  - c. Spot elevations, including high points, corners of parking lots, and existing street elevations, shall also be shown on the plan.
- (8) Landscaping, screening and berming plan. Plans showing detailed locations, sketches, and provisions of existing and required landscaping, berming, and screening elements of the site.
  - a. All those related elements which will be removed shall be properly noted on the plan.
  - b. All plant screening and landscaping elements shall be broken out into types, sizes, and total numbers proposed in the plan.
  - c. All fences shall be shown and related elevations and cross sections provided.
- (9) Grading and drainage plans. Plans showing all existing and proposed site contours in no more than two-foot contours.
  - a. Also provided shall be detailed site drainage plans, including the detailing of the site's storm sewer system with catchbasins and invert elevations.
  - b. Casting types must be shown for all catchbasins.
- (10) Erosion control plan. Plans for site erosion control as required by the city engineer.
- (11) Lighting plan. Plans showing location, height, and candlepower of all luminaries on the site. All parking lot lighting standards located within the parking lot area must be located within parking lot islands.
- (12) Staging plan. If the project is to be constructed in several stages, all stages shall be clearly detailed out on the plan. This shall also include future expansion elements of a proposal.
- (13) Sign plan. Plans showing all proposed signage for the site in accordance with chapter 24.
- (14) Planned improvements summary. Calculation of the area, length, amount or other summary dimensions or inventory for each improvement contemplated pursuant to this subsection (e), which calculation shall be useful to the city planning department in determining the amount of the surety to be provided pursuant to section 36-84.

(Code 1984, § 375:117(2))

### **Sec. 36-83. Procedure for review and approval.**

- (a) Generally. Except as otherwise provided in this section, all plans for site development within the city as described in this chapter shall be subject to formal review and approval proceedings.
  - (1) Upon submission of the site plan as specified in section 36-82 the city staff shall circulate the plan to all appropriate city, county, state, and federal agencies for their review and comment.
  - (2) Upon receipt of all agency reviews, a meeting between the applicant and all involved reviewers to discuss any necessary plan amendments will be held. After the meeting, the applicant shall make any necessary revisions and submit a final site plan.

(b) Final site plan.

- (1) Purpose. The final site plan is to serve as a complete, thorough, and permanent public record of the manner in which the subject site is to be developed. It shall incorporate all revisions and conditions resulting from the site plan review process.
- (2) Submission. Three copies of the final site plan shall be submitted to the director of community development for review and approval. Subsequent to receiving approval of the final plan, the applicant may apply for a building permit.
- (3) Preconstruction meeting. After a building permit has been applied for, and before issuance thereof, a preconstruction meeting shall be required to take place. It shall be the developer's responsibility to arrange the preconstruction meeting with the city staff. At this meeting, the building construction plans will be reviewed and compared with the approved final plan. If the building construction plans are not in substantial conformance with the final plan, the building construction plans shall be revised to achieve such conformance.
- (4) Limitation on final site plan approval. Within one year after the approval of a final site plan, or such shorter time as may be established by the approved development schedule, construction shall commence with the approved plan.
  - a. If, after one year from being granted site plan approval, the plan as permitted by the approval shall not have been initiated, then such approval shall be null and void.
  - b. A request for extension may be made within 30 days before such deadline and shall state facts showing a good faith attempt to complete or utilize the use permitted in the site plan approval.
  - c. The zoning administrator shall place the subdivider's request on the agenda of a regularly scheduled council meeting to be held within 30 days of such filing.
  - d. The council at its discretion may grant the extension, for not more than one year, for, when good cause shown, such extension is necessary.
  - e. Only one such extension may be made.

(Code 1984, § 375:117(3); Ord. No. 04-09, § 4, 4-19-2004)

**Sec. 36-84. Site improvement performance agreement and surety.**

- (a) Upon approval of a final site plan and prior to the issuance of building permits or initiation of work on the proposed improvement or development, the developer shall execute a performance agreement setting out site improvement items and terms of completion of such items. The performance agreement and any surety required therein must be approved by the city attorney.
- (b) Any surety required by the performance agreement shall be noncancellable and shall guarantee conformance and compliance with the conditions of the site plan approval, the performance agreement and the ordinances of the city.
- (c) The city shall hold the surety for such period of time as set forth in the performance agreement.
  - (1) The surety may only be released by the city council.
  - (2) Periodically, the amount of the surety may be reduced by the city council.
  - (3) Reduction and release actions will only be initiated after proper request has been made by the developer.
- (d) Failure to comply with the conditions of the site plan approval, the performance agreement or the ordinances of the city shall result in forfeiture of the surety to the extent necessary to achieve the project's total compliance with the approved site plan.

(Code 1984, § 375:117(4))

**Sec. 36-85. Issuance of building permits and other permits.**

Except as otherwise expressly provided in this division, upon receiving notice from the director of community development that the final site plan has been approved and a properly executed performance agreement has been received, and upon application of the applicant pursuant to the applicable ordinances of the city, all appropriate officials of the city may issue building and other permits to the applicant for development, construction, and other work in the area encompassed by the final site plan; provided, however, that no such permit shall be issued unless the appropriate official is

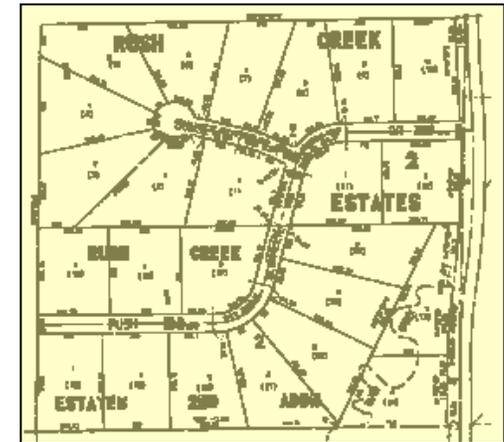
first satisfied that the requirements of all codes and ordinances which are applicable to the permit sought have been satisfied.

(Code 1984, § 375:117(5))

## Key Steps in the County Plat Review Process

- Preliminary Plat is submitted to the county by the city
- County acknowledges receipt and notes any missing items via mail-back card
- Once the submittal is deemed complete – the 30-day review period begins.
- The county Plat Review Committee meets to discuss the plat. Follow-up meetings may occur if further information or analysis is needed.
- The county submits a comment letter to the city noting any issues, concerns or requirements.
- The city responds back to the county via letter regarding how the county comments will be addressed. If any unresolved issues remain – the city schedules a meeting with county staff to discuss.
- The city council approves the preliminary and final plats.
- The property owner / developer submits the plat to the county surveyor's office for registration. ***Submittal items must include:***
  - ***Evidence of the submission of the preliminary plat to the county.***
  - ***Copy of the county comment letter on the preliminary plat.***
  - ***Copy of the city response to the county comment letter and evidence of any follow-up meetings held with the county to resolve remaining issues.***

## Information on the Hennepin County Preliminary Plat / Development Review Process



January 2016



**Hennepin County**

*Transportation Planning*

## Purpose of this Brochure

This brochure was developed to clarify how the county plat review process works, who is responsible for submittals to the county, and what type of response schedule can be anticipated.

Minnesota State Statutes MS 505.02, 505.03 and 462.358 stipulate that cities need to submit plats to the county for review and comments. These statutes also specify what items of information must be submitted and what time schedules apply.

## Who Should Submit Plats ?

*For formal plat reviews, the county does not accept plat submissions from third parties – the submissions must come from the city directly.* City submission is important to ensure completeness of the submission, provide consistency in the process, and to assure good communication.

Prior to a formal submittal, county staff is very willing to examine concept layouts, preliminary site plans, or sketch plans. Cities, developers, project consultants, or property owners can submit this type of draft information. The benefit of an early review is that many issues can be identified and possibly resolved prior to the formal plat review process (often speeding up all subsequent reviews).

## Where to Submit Plats

*Preliminary Plats should be submitted to:*

**Hennepin County  
Transportation Planning Division  
1600 Prairie Drive  
Medina, MN 55340-5421**

*Questions or comments can be directed to:*

Jason Gottfried at (612) 596-0394 or  
[jason.gottfried@hennepin.us](mailto:jason.gottfried@hennepin.us)  
Bob Byers at (612) 596-0354 or  
[robert.byers@hennepin.us](mailto:robert.byers@hennepin.us);

## Plat Submittal Checklist

Plat submittals to the county should include a transmittal letter and a set of legible plans that include the following information:

- The transmittal letter should include the city contact person, the dates of upcoming city actions such as Planning Commission or City Council meetings, and when a response is needed from the county.
- A location map of the site relative to area roadways and local streets.
- A site plan map with scaled dimensions authenticated by a registered engineer or land surveyor showing:
  - Date, title, scale, and north arrow
  - All existing and proposed property lines
  - Lot dimensions, right-of-ways, & easements
  - Existing centerline and paved area of the county roadway (which is not always centered in the right-of-way)
  - Proposed development building footprints
  - Parking lot layouts, aisle configuration
  - Locations of ingress and egress to the proposed platted area including existing and proposed driveway locations.
  - Locations of other nearby driveways, street intersections and access points on the county roadway in the vicinity of the proposed plat. This would include driveways immediately adjacent to or across from the proposed plat.
  - The outlet for and means of disposal of surface waters from the proposed platted area
- A written description of the current and proposed use of the property including land use type (commercial, industrial, residential, etc.) and specific uses (discount store, convenience center, etc.) if known.
- If the plat is for non-residential uses, include an estimate of the amount of daily traffic the development is expected to generate.

## How are Plats Evaluated ?

County staff evaluates proposed plats for a number of items that affect county roadways. Some examples of review items include;

### *Safety Issues*

- Conformance with entering sight distance guidelines
- Unusual weaving & merging maneuver conflicts
- Turn lane / auxiliary lane needs

### *Access Management*

- Proposed driveway and street entrance compliance with county access spacing guidelines
- Opportunities for access reorientation and / or consolidation
- Driveway design, throat lengths

### *Right-of-Way Needs*

- Anticipated future roadway section
- Right-of-way needs for turn lanes / auxiliary lanes
- Other needs (pedestrian / bike accommodations)

### *Operational Elements*

- Intersection capacity analysis
- Turn lane / auxiliary lane design configurations
- Traffic control needs
- Potential on-site circulation impacts ?

### *Pedestrian and Bicycle Accommodations*

- Is roadway designated as part of a city bike plan or the County Bicycle System Plan ?

### *Miscellaneous Items*

- Drainage needs (road and / or site ?). Any encroachments within roadway right-of-way ?
- Proposed grading impacts

## Review Schedule

State Statutes provide the county up to **30 calendar days** for review after receipt of the plat. This review period only starts when the county receives a **complete** plat submittal.

***As part of the plat review process, the county will confirm the receipt of the plat with the city and provide notification of any missing information.***

The back page of this brochure illustrates the key time points for the county review process.

SPECIFICATIONS FOR  
COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL  
SITE IMPROVEMENTS

1. MECHANICAL EQUIPMENT

All rooftop mechanicals shall be screened with materials that are architecturally compatible with the building. All ground level mechanicals (air conditioning units, Xcel boxes, etc.) shall be screened with shrubs or an approved fence.

2. TRASH CONTAINERS

All exterior trash containers shall be screened by an enclosure of masonry or brick construction. Screening enclosure gates may be constructed of wood.

3. LANDSCAPING

Landscape plans shall be prepared by a landscape architect or other qualified individual acceptable to the City's Department of Community Development.

4. LIGHTING

Off-street parking shall be illuminated to an average level of one (1) foot candle (not to exceed 8 feet) at ground level over the entire surface of the parking area. All light fixtures, whether wall-mounted or attached to poles, shall be hooded and shall shine directly downward to prevent glare onto adjoining properties.

5. SIGNAGE

All signage shall be in conformity with the Maple Grove Sign Ordinance. See Barb Bogen about ordinance regulations.

6. PERFORMANCE AGREEMENT

Upon City Council approval of a Site Plan and prior to the issuance of building permits or initiation of work on the proposed improvement or development, the developer shall execute a Performance Agreement setting out site improvement items and terms of completion of said items.

7. SURETY

- A. The posting of surety shall be required at the time a certificate of occupancy is to be issued. The owner shall provide the City with cash, corporate surety bond, approved Letter of Credit or other surety satisfactory to the City in the amount equal to 110% of the estimated cost for completion of uncompleted

site improvements, if the surety submitted is in the form of cash or Letter of Credit, or 150% of such estimated cost, if the surety submitted is in the form of a bond (contact Karen Kramer for sample forms). Landscaping surety is held at 100%.

- B. The City shall hold the surety for such period of time as set forth in the Performance Agreement.
  - 1. The surety may only be released by the City Council.
  - 2. Periodically, the amount of surety may be reduced by the City Council.
  - 3. Reductions and release actions will only be initiated after proper request has been made by the developer.
  - 4. Failure to comply with the conditions of the site plan approval, the Performance Agreement or the Ordinances of the City shall result in forfeiture of the surety to the extent necessary to achieve the project's total compliance with the approved site plan.
- C. Surety posted to guarantee the proper installation and vigorous growth of all landscape elements and screening required herein shall remain in effect for two (2) full growing seasons.
  - 1. A growing season shall include the period May 1 through October 31.
  - 2. The two-year guarantee period for plant material installed after June 1 shall commence the following year.
  - 3. Lots provided with an irrigation system covering one hundred percent (100%) of the area improved with landscaping need only provide a surety for one (1) growing season.

## 8. REQUIRED INSPECTIONS

- A. After site is graded but prior to laying bituminous.
- B. After first lift of bituminous is laid.
- C. While pouring concrete curbs and gutters.
- D. Call for final site inspection two weeks before you wish to occupy the building. A final calculation of uncompleted site improvements must be made and wording on the surety (bond or letter of credit) must be reviewed by the City Attorney.

ENGINEERING REQUIREMENTS  
FOR  
INDUSTRIAL/COMMERCIAL DEVELOPMENT

1. STREETS AND PARKING LOTS

- A. All parking lots and driveways shall be constructed to a 7-ton pavement design, unless the pavement is subjected to truck traffic, and then shall be constructed to a 9-ton design. The minimum bituminous surfacing thickness shall be 3 inches for a 7-ton design and 4 ½ inches for a 9-ton design. The pavement shall be placed in 2 lifts minimum. The first lift shall be SPNWB230B base course. The final lift shall be SPWEA230B wear course.
- B. Aggregate base shall be Class 5 or an approved equal. The thickness required for a 7-ton design shall be 6 inches, and 8 inches for a 9-ton design. This is based on A-6 soils with a R-value of 15. The aggregate base may be modified with the City Engineer's approval, if an acceptable soils report is provided by the developer certifying a higher R-value.
- C. Poured in place concrete curb and gutter shall bound all parking lot and driveway areas (pin curb not allowed). Bituminous curb will only be allowed where a parking lot or driveway is temporary or will be expanded in the near future. A minimum of 2 inches of gravel or sand shall be installed below curb and gutter.
- D. All driveways shall be constructed with a concrete apron pursuant to Plate Conc-10.
- E. Safety islands shall be constructed at the end of all parking lot tiers and be bound by concrete curb and gutter. The minimum island width shall be 4 feet, measured from face-to-face of curb.
- F. The parking lot and driveways should be detailed in regard to drainage patterns, and should show specific spot elevations along the gutter lines and other areas where appropriate.
- G. Sidewalk abutting the parking lot or driveway shall be separated by concrete curb and gutter with an expansion joint.

2. STORM SEWER

- A. All parking lot and driveway areas must have internal storm drainage collected by a catch basin-pipe system, unless unable to do so, as determined by the City Engineer.

- B. There are three types of storm sewer pipe allowed in the City of Maple Grove and they are reinforced concrete, smooth bore H.D.P.E. PVC and dual-wall polyethylene pipe with a smooth interior surface. The minimum concrete pipe size allowed is 15 inches in diameter. The minimum PVC pipe size for parking lot drainage shall be 12 inches in diameter. If PVC pipe is used, a rubber gasket push-on type or approved boot shall be located where the pipe connects to the manhole. The storm sewer pipe must be installed to the current Standard Specifications for Utility and Street Construction.
- C. Catch basins should be constructed such that the casting is installed integral with the concrete curb and gutter, unless otherwise approved by the City. The castings used shall be Neenah R-3067V or R-3501, with surmountable curb and gutter and Neenah R-4342 for off road locations. Catch basin manholes shall be constructed per Plat STS-1, and standard catch basins per Plate STS-2.
- D. Storm sewer pipe discharging into ditches, storm ponds, lakes, wetlands, etc. should have flared end sections placed at the end of pipe with trash guards and grouted rip-rap per Plate STS-7.

### 3. GRADING

- A. Erosion control measures should be shown on the site plan and be approved by the Engineering Department prior to beginning grading operations. If grading is to take place prior to building permit issuance, a permit is required from the Engineering Department.
- B. Geotextile fabric shall be used on steep grades, around catch basins, etc. The type and location of the fabric should be shown on the site plan.
- C. The developer/builder will be responsible to protect existing waters and/or storm systems from sedimentation. Failure to do so will require the developer/builder to clean up the sediment or the City may draw upon the surety to correct the situation.
- D. An on-site temporary or permanent sedimentation pond will be required where deemed necessary by the City Engineer.

### 4. SANITARY SEWER AND WATER SERVICES

- A. All utility connection charges must be paid prior to issuance of the water meter. The connection charge amount will be given to the builder at the time of building permit issuance.

- B. Sanitary sewer and water services should be shown on the site plan in detail. Information such as the size and type of service, invert and riser elevations, type of castings, etc. should be shown on the site plan.
- C. Watermain can be constructed using ductile iron pipe, PVC pressure pipe conforming to AWWA C900, or H.D.P.E. pipe. Ductile iron pipe shall be encased with a polyethylene film conforming to ASTM D1248-889.
- D. All utility construction shall be done in accordance with Maple Grove's Standard Specifications for Street and Utility Construction.
- E. It will be the site plan preparer's responsibility to obtain information on existing utility locations from the City and relate this information to the bidders of the project and/or contractor constructing said services.
- F. Post indicator valves should only be used on fire services, or placed after the connection for domestic water usage.

5. GENERAL REQUIREMENTS

- A. If public streets and utilities are required to serve the proposed site, the improvements must be installed by the City of Maple Grove. A surety in the amount of 40% of the estimated construction costs will be necessary to guarantee the payment of special assessments.
- B. The developer will be required to enter into a performance agreement (and/or a development agreement if City improvements are necessary) prior to issuance of the building permit.
- C. If there are conditions of approval when the site plan is approved by City Council, the appropriate changes must be made to the site plan prior to building permit issuance.

**NOTES:**

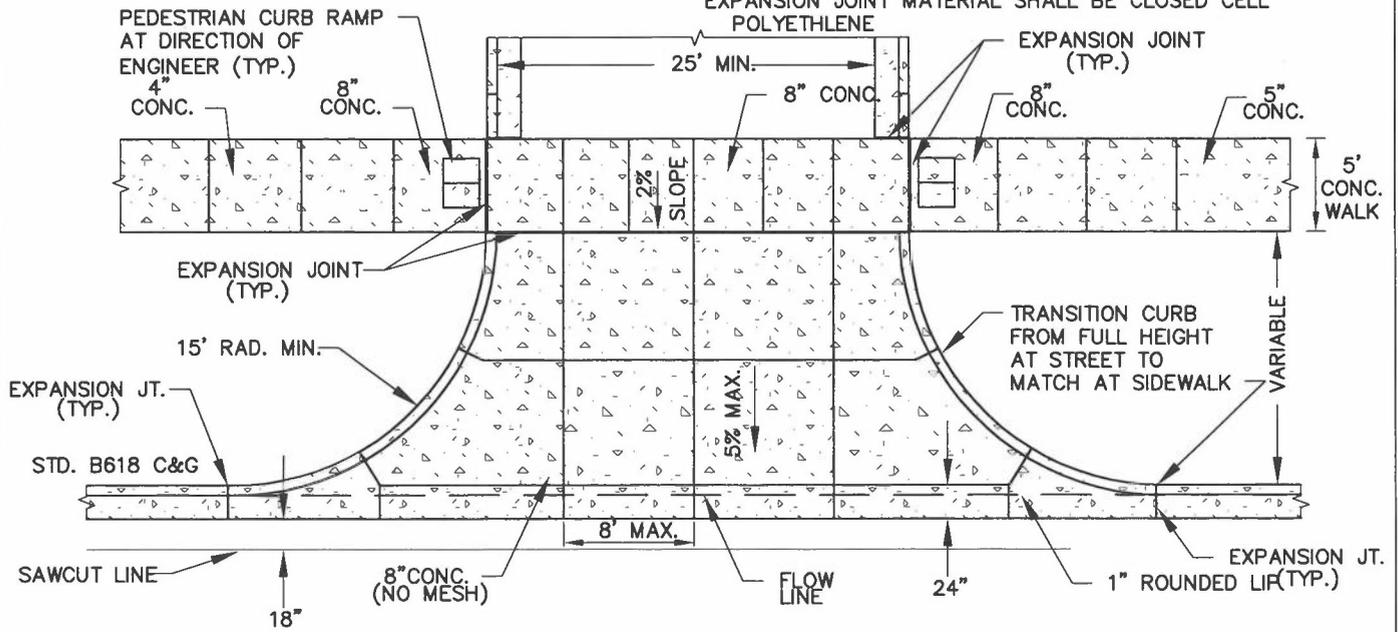
FORM CONTRACTION JOINT AS NEEDED TO PRODUCE APPROXIMATELY SQUARE PANELS (MAX. AREA OF 64 S.F.)

8" CLASS 5 BASE

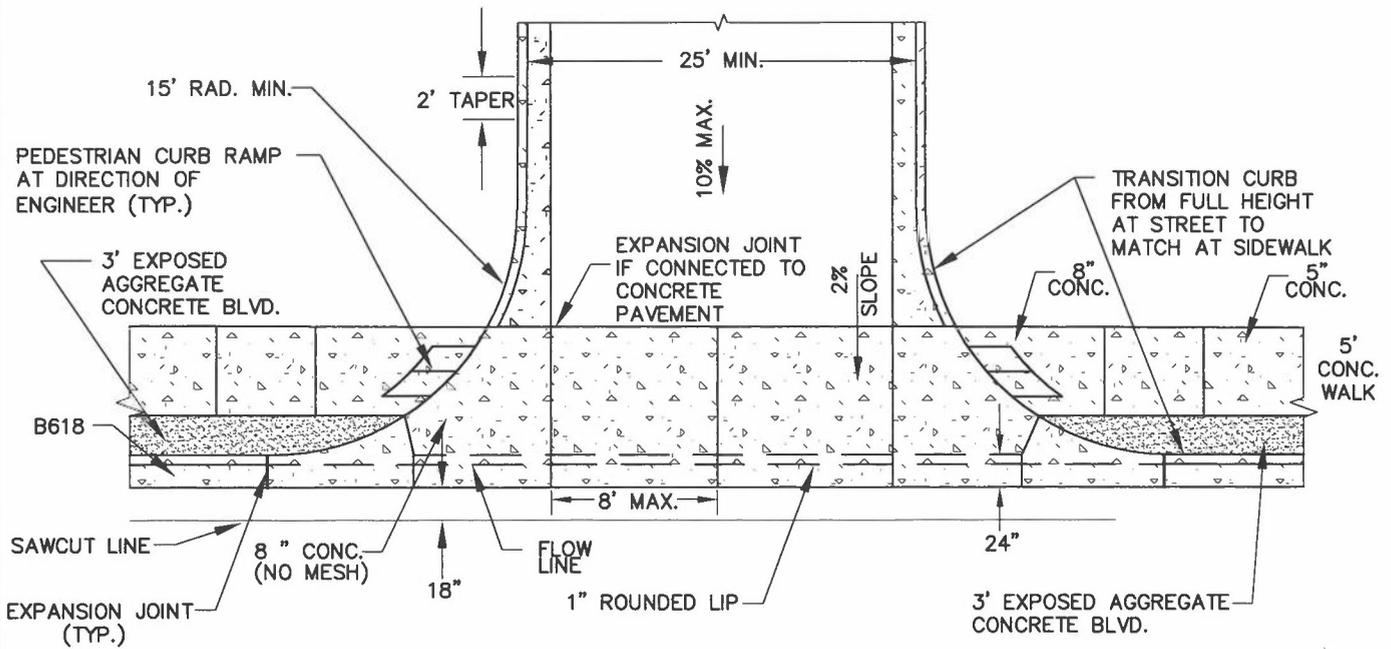
4" BIT PAVEMENT IN 2 - 2" LIFTS

EXPANSION JOINT MATERIAL SHALL BE CLOSED CELL POLYETHYLENE

**COMMERCIAL DRIVEWAY WITH BOULEVARD SIDEWALK**



**COMMERCIAL DRIVEWAY WITH SIDEWALK**

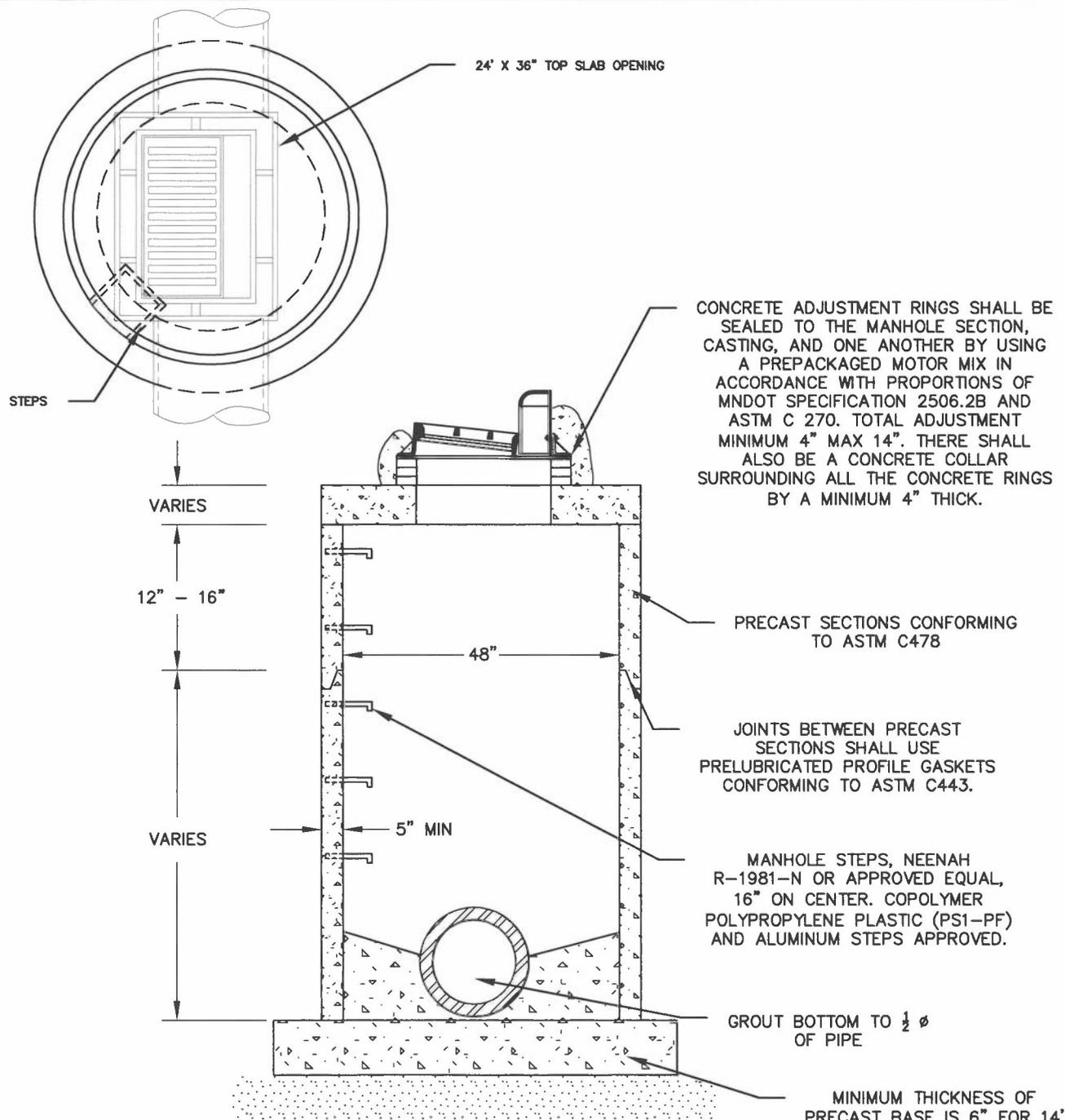


LAST REVISION  
NOVEMBER 2014

**INDUSTRIAL / COMMERCIAL DRIVEWAY APRON**

CITY OF MAPLE GROVE ENGINEERING  
& PUBLIC WORKS DEPARTMENTS

STANDARD  
PLATE #  
CONC-10



**NOTES:**

FRAME AND GRATE FOR BULKHEAD STYLE CURB SHALL BE A NEENAH R-3067-V OR NEENAH R-3067-VB

FRAME AND GRATE FOR SURMOUNTABLE STYLE CURB OR DRIVEWAYS SHALL BE A NEENAH R-3501-TR OR R-3501-TL LOW POINTS 3501-TB

FRAME AND GRATE FOR OFF ROAD LOCATION (DITCH GRATE, STOOL TYPE) R-4342

ALL MANHOLES WITH FRAME AND LID IN A PAVED AREA SHALL USE A NEENAH R-1642 WITH SOLID B LID WITH 2 CONCEALED PICK HOLES OR APPROVED EQUAL. LID SHALL BE LETTERED "STORM SEWER" WITH 2" RAISED LETTERS

DOG HOUSES SHALL BE GROUTED ON BOTH THE OUTSIDE AND INSIDE OF THE STRUCTURE

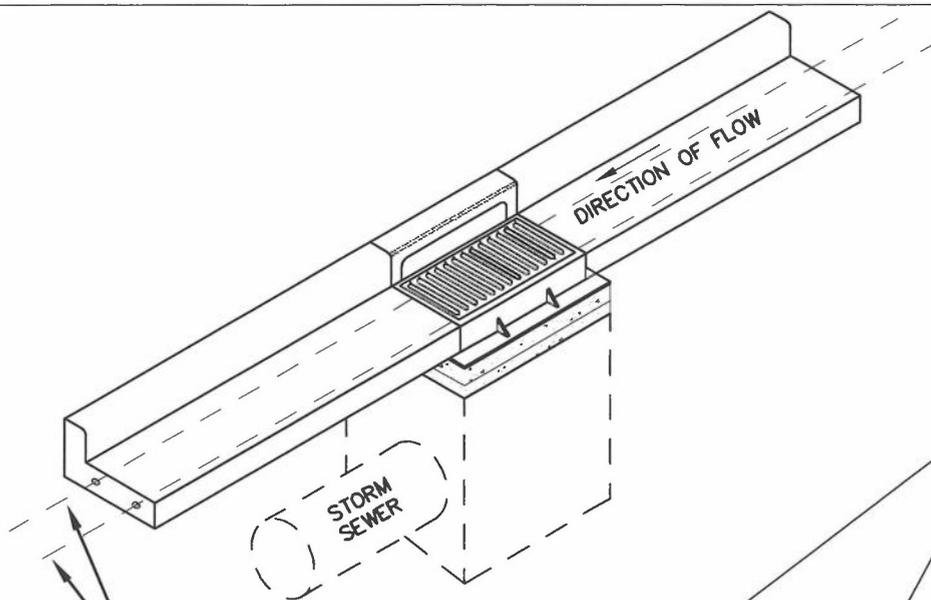


LAST REVISION  
NOVEMBER 2014

**CATCH BASIN MANHOLE**

CITY OF MAPLE GROVE ENGINEERING  
& PUBLIC WORKS DEPARTMENTS

STANDARD  
PLATE #  
STS-1



CASTING DETAIL - SEE NOTES

CONCRETE ADJUSTMENT RINGS SHALL BE SEALED TO THE CONE, CASTING, AND ONE ANOTHER BY USING A PREPACKAGED MOTOR MIX. TOTAL ADJUSTMENT MINIMUM 4" MAX 14".

2 NO. 4 EPOXY COATED REBAR AT 15' LENGTHS (TYP.)

CONCRETE COLLAR TO ENCASE STORM SEWER PIPE. CURB MIX SHALL BE USED FOR CONCRETE COLLAR.

24" X 36" PRECAST REINFORCED CONCRETE

4" CONCRETE COLLAR TO ENCASE CASTING AND RINGS. CURB MIX SHALL BE USED FOR CONCRETE COLLAR.

5"

GROUT BOTTOM TO 1/2 Ø OF PIPE

FLOW

6" PRECAST REINFORCED CONCRETE BASE.

MECHANICALLY COMPACT 4" GRANULAR MATERIAL FOR LEVELING (MN/DOT 3149.2F) (ORDINARY COMPACTION).

**NOTES:**

FRAME AND GRATE FOR BULKHEAD STYLE CURB SHALL BE A NEENAH R-3067-V OR NEENAH R-3067-VB

FRAME AND GRATE FOR SURMOUNTABLE STYLE CURB OR DRIVEWAYS SHALL BE A NEENAH R-3501-TR OR R-3501-TL. LOW POINTS SHALL BE R-3501-TB

FRAME AND GRATE FOR OFF ROAD LOCATION (DITCH GRATE, STOOL TYPE) R-4342

DOG HOUSES SHALL BE GROUTED ON BOTH THE OUTSIDE AND INSIDE OF THE STRUCTURE



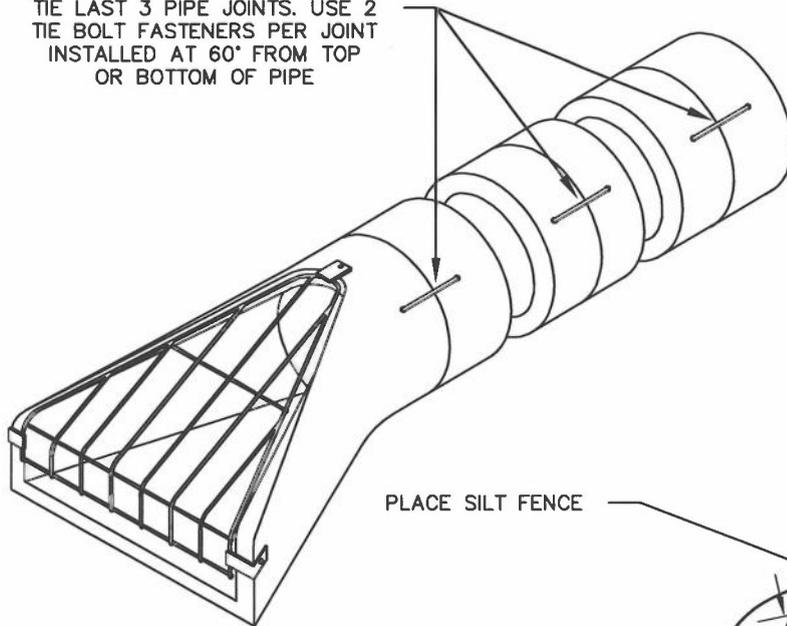
LAST REVISION

**CATCH BASIN 2'X3'**

CITY OF MAPLE GROVE ENGINEERING & PUBLIC WORKS DEPARTMENTS

STANDARD PLATE # STS-2

TIE LAST 3 PIPE JOINTS. USE 2 TIE BOLT FASTENERS PER JOINT INSTALLED AT 60° FROM TOP OR BOTTOM OF PIPE



PLACE SILT FENCE

**NOTES:**

RIP RAP AS SPECIFIED IN MNDOT STANDARD SPECS. 2511.3 AND 3601.2.

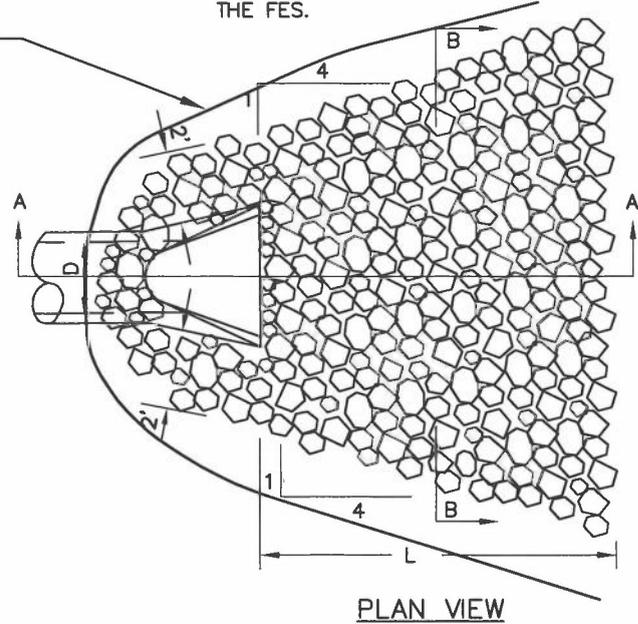
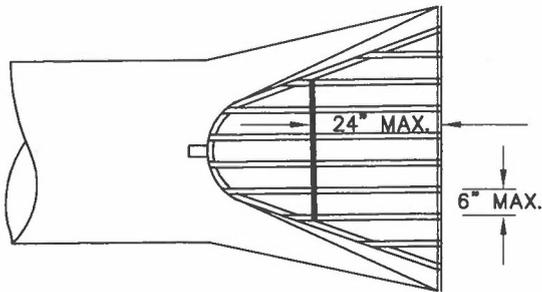
RIP RAP QUANTITY SHALL BE IN ACCORDANCE WITH MNDOT STANDARD PLATE 3133.

PROVIDE 3 CLIPS TO FASTEN TRASH GUARD TO FLARED END.

TRASH GUARD TO BE HOT DIP GALVANIZED AFTER FABRICATION.

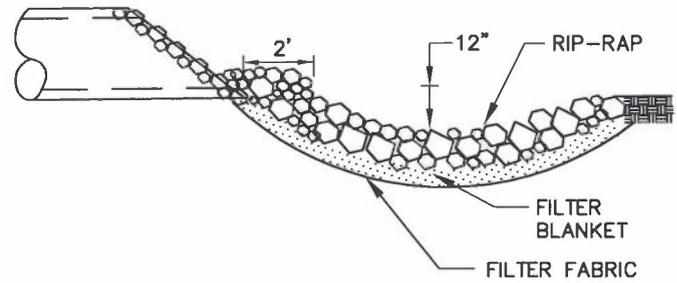
SIZED OUTLETS AT THE DISCRETION OF THE ENGINEER.

IF THE PLANS CALL FOR A HDPE FLARED END SECTION THE CONTRACTOR SHALL SUPPLY A STAINLESS STEEL THREADED ROD, WASHERS AND WING NUTS INSTEAD OF THE PLASTIC ONES THAT COME WITH THE FES.

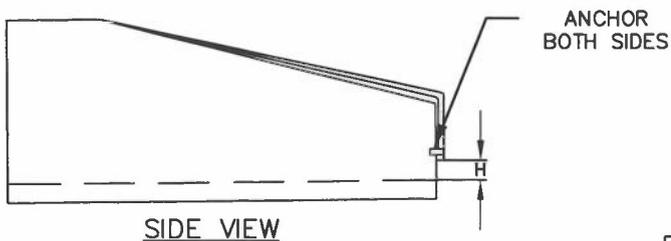


PLAN VIEW

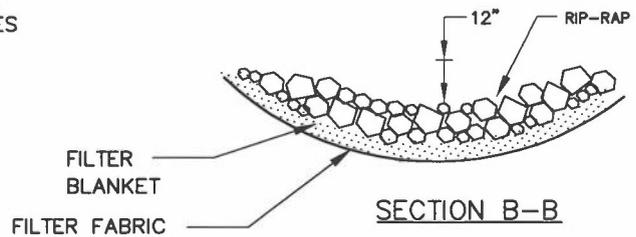
PIPE SIZE	BAR SIZE	"H"	BOLT SIZE
12" - 18"	3/4"φ	6"	5/8"
21" to 42"	1"φ	6"	3/4"
48" to 72"	1 1/4"φ	12"	1"



SECTION A-A



SIDE VIEW



SECTION B-B

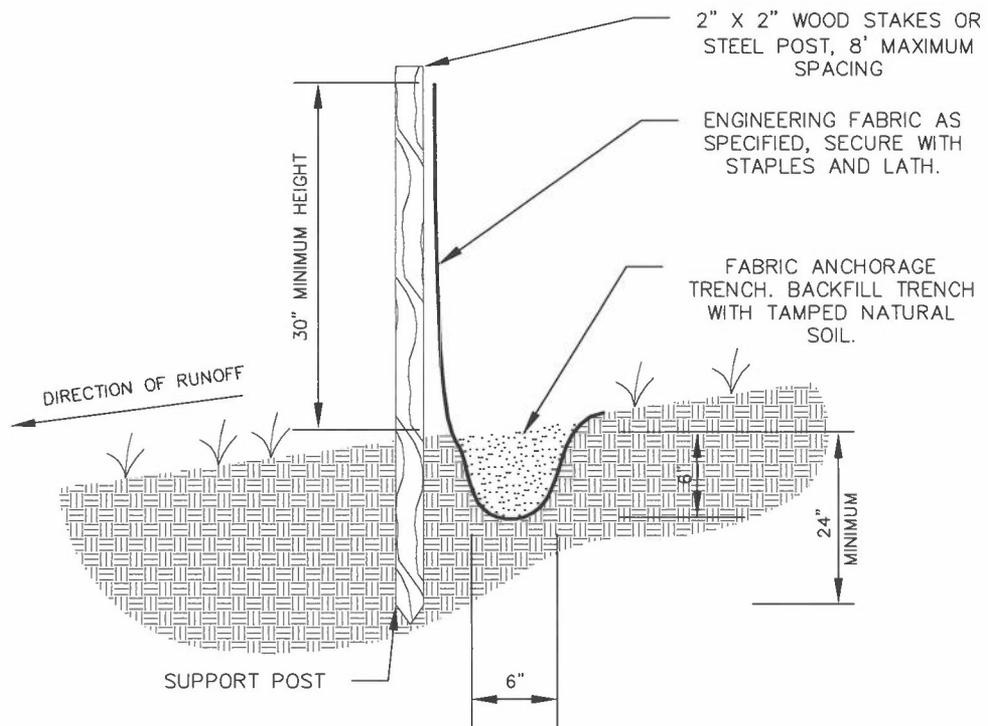


LAST REVISION  
NOVEMBER 2014

**FLARED END SECTION**

CITY OF MAPLE GROVE ENGINEERING  
& PUBLIC WORKS DEPARTMENTS

STANDARD  
PLATE #  
STS-7



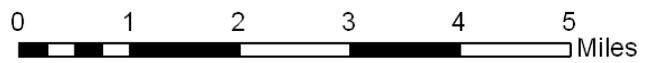
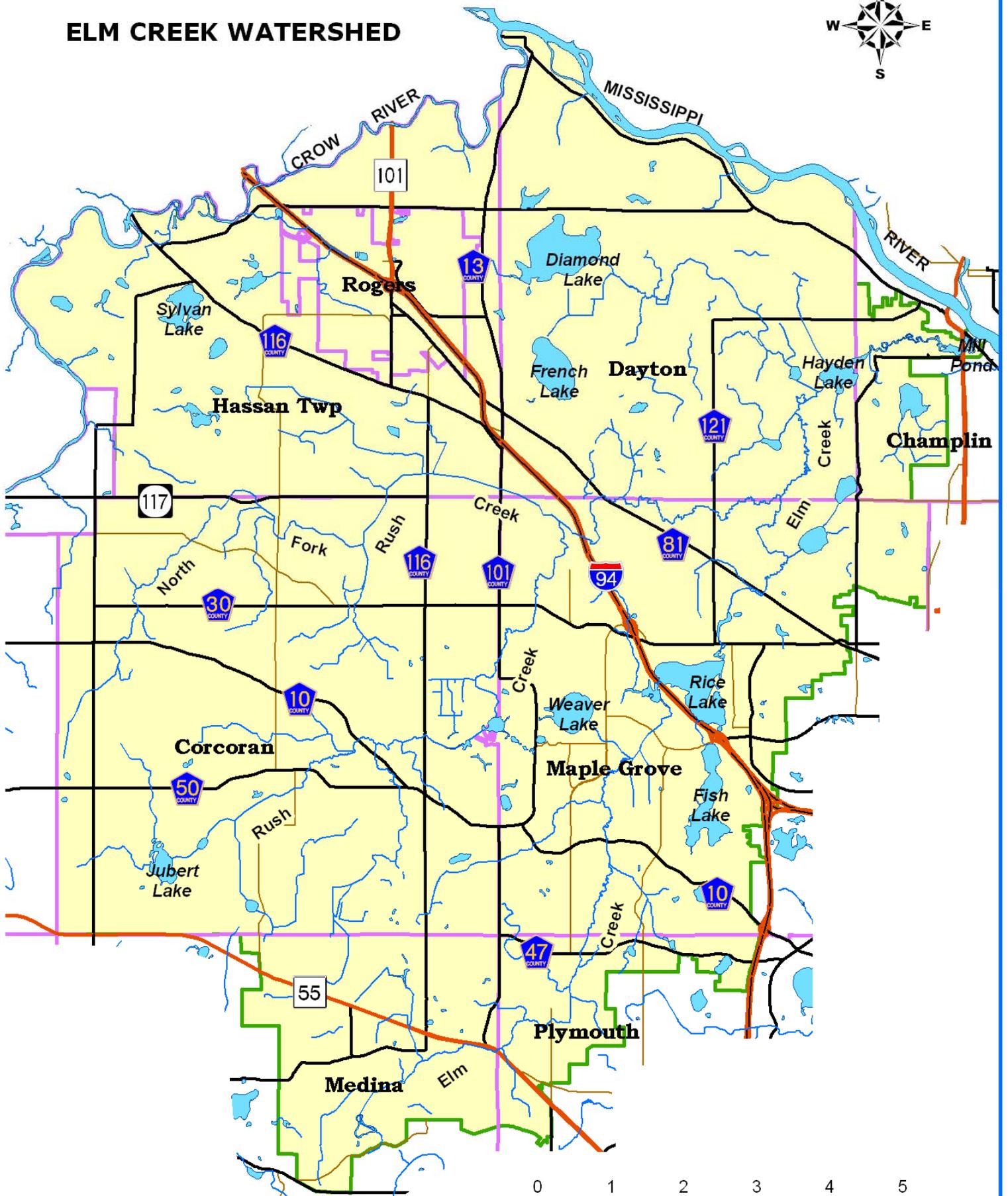
LAST REVISION  
JANUARY 2016

## SILT FENCE

CITY OF MAPLE GROVE ENGINEERING  
& PUBLIC WORKS DEPARTMENTS

STANDARD  
PLATE #  
EROS-1

# ELM CREEK WATERSHED



## Elm Creek Watershed Management Commission Request for Plan Review and Approval

**Administrative Office**  
3235 Fernbrook Lane  
Plymouth, MN 55447  
Ph: 763-553-1144  
Fax: 763-553-9326  
Email: [judie@jass.biz](mailto:judie@jass.biz)

Date: \_\_\_\_\_

Please print clearly.

Fee Submitted: \$ \_\_\_\_\_

**Applicant:** \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: (    ) \_\_\_\_\_ Cell: (    ) \_\_\_\_\_ Email: \_\_\_\_\_

**Agent:** \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: (    ) \_\_\_\_\_ Cell: (    ) \_\_\_\_\_ Email: \_\_\_\_\_

**Application for Approval of:** *(check all the applicable items)*

<input type="checkbox"/> Residential Development	<input type="checkbox"/> Road Construction	<input type="checkbox"/> WCA Exemption Certificate
<input type="checkbox"/> Commercial/Industrial Development	<input type="checkbox"/> Wetland Determination	<input type="checkbox"/> Wetland Replacement Plan
<input type="checkbox"/> Floodplain Alteration	<input type="checkbox"/> Wetland Delineation	<input type="checkbox"/> Wetland Banking Application
<input type="checkbox"/> Drainage Alteration	<input type="checkbox"/> Wetland Alteration	<input type="checkbox"/> Pond Excavation
<input type="checkbox"/> Other (explain): _____		<input type="checkbox"/> Issuance of General Permit

**Project Name:** \_\_\_\_\_

Project Location - City or Town: \_\_\_\_\_ PID#: \_\_\_\_\_

Total Acres: \_\_\_\_\_ Acres Disturbed: \_\_\_\_\_

Acres Impervious Before Development: \_\_\_\_\_

Acres Impervious After Development (incl. gravel roads and parking areas): \_\_\_\_\_

For Residential Developments: Number of Lots: \_\_\_\_\_ Lot Density: \_\_\_\_\_

Anticipated Project Start Date: \_\_\_\_\_

Remarks: \_\_\_\_\_

**Applicant's Signature:**Print Name: \_\_\_\_\_ **X** \_\_\_\_\_

In order for a project to be considered by the Commission, a complete application packet must be received in the Commission's administrative office at least TEN BUSINESS DAYS prior to the Commission's next regular meeting. Action by the Commission will be predicated on factors such as completeness of the application documents and complexity of the project, etc. The Commission normally meets on the second Wednesday of the month.

**Submit this form to the City along with two paper and one electronic copy of the required plans and the appropriate fee (check made payable to "Elm Creek Watershed Management Commission").** The City will forward one paper copy, the electronic copy and the fee payment to the Commission. The Commission will transmit a letter to the applicant following approval. For submittal requirements, see the Commission Plan Review Requirements packet. A copy of this form and the fee schedule can be downloaded from:

<http://www.elmcreekwatershed.org/projrb.shtml>

**AUTHORIZATION - to be prepared by City**

Requested by City of \_\_\_\_\_

Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Phone \_\_\_\_\_

Date \_\_\_\_\_

Site Area =  
 Buildable Area =  
 Disturbed Area =  
 Density =

**Elm Creek Watershed Management Commission**  
**Project Review Fee Schedule and Worksheet**  
 Effective July 28, 2015

Project Name

I. No applications will be reviewed until the Commission receives a completed application form, all appropriate materials, and fees.				Amount Due
II. Application Fee				\$ 50.00
III. Project Reviews <sup>1</sup>				
A. New Development - Area is the Site Area				
1	Residential			
	a.	High density <sup>2</sup> - more than 40% impervious area <sup>3</sup>		
		0 to 20 acres = Area x \$100		
		21 to 100 acres = \$2,000 + (Area - 20) x \$75		
		101 + acres = \$8,000 + (Area - 100) x \$20		
		maximum fee = \$10,000 + application fee		
	b.	Low density - less than 40% impervious area		
		0 to 100 acres = Area x \$50		
		101 to 150 acres = \$5,000 + (Area - 100) x \$20		
		maximum fee = \$6,000 + application fee		
2	Commercial / industrial / institutional / governmental agency development project			
		0 to 40 acres = Area x \$250		
		41 + acres = \$10,000 + (Area - 40) x \$75		
		maximum fee = \$12,250 + application fee		
B. Re-development				
1	For <i>Re-development</i> use the " <i>New Development</i> " rates above but use <i>Disturbed Area</i> (in acres) instead of <i>Site Area</i>			
	<i>Note</i> : If more than 50% of the site is disturbed for a <i>Re-development</i> project, use the <i>New Development</i> fee formula with <i>Site Area</i>			
C. Development / Re-development with mapped floodplains on site				
1	No impact or impacts ≤ 100 cubic yards.		\$ 100	
2	Impacts ≥ 100 cubic yards.		\$ 500	
D. Linear Projects <sup>4</sup>				
1	1.0 - 2.0 acres new impervious surface = \$500			
2	Over 2.00 acres new impervious surface = \$500 + (new impervious area - 2) x \$250			
		maximum fee = \$5,000 + application fee		
E. Drainage alterations - Any culvert installation or replacement, bridge construction, stream cross-section alteration, or activity requiring a DNR Waters Permit				
1	on Elm, Rush, North Fork Rush, or Diamond Creeks		\$ 500	
2	on all other tributaries within the watershed		\$ 100	
F. Water appropriation permits (two years)				\$ 50
IV Wetland Project Fees				
G. Wetland fees apply in the communities (Champlin and Corcoran) where the Commission is the LGU for the Wetland Conservation Act (WCA) and are in addition to the project fees.				
1	Exemption certificates		\$ 100	
2	Determinations		\$ 100	
3	Delineation review		\$ 250	
4	Pond Excavations		\$ 100	
5	Wetland replacement plans <10,000 SF impact on single basins or <1/4 acre impact for private driveways		\$ 400	
6	All other replacement plans		\$ 2,500	
7	Replacement plan in conjunction with wetland banking		\$ 3,500	
a.	All other wetland banking applications		\$ 3,500	
Additional wetland replacement plan and banking application escrows and sureties are determined on a site-specific basis. (See page 2.)				
V. Failure to make application and receive approval prior to beginning work results in doubling of fees				
			Total fees	1
1	The following projects require review: Any land disturbing activity or the development or redevelopment of land as listed in Rule D. 2. (Appendix O).		<i>Double Fee if V. applies</i>	2
			Total due (Line 1 or 2)	
2	Density = number of units per buildable area prior to development. Buildable area = Site Area excluding wetlands and floodplains. Rights-of-way are included in buildable area. Acreage is based on total Site Area unless noted.			
3	Impervious area includes any compacted gravel surface such as road shoulders, parking lots and storage areas.			
4	Sidewalks and trails that do not exceed twelve feet in width, are not constructed with other improvements, and have a minimum of five feet of vegetated buffer on both sides are exempt from Stormwater Management requirements (RULE D), but has to comply with Erosion and Sediment Control requirements (RULE E).			

**Elm Creek Watershed Management Commission**  
**Escrow and Surety Requirements**  
**for Wetland Projects**

**Cash Escrows**

**Monitoring**

Minimum \$6,000/basin, to be determined on a site-specific basis, to cover Commission expenses related to the monitoring requirements of the Wetland Conservation Act (WCA). The balance in the escrow account will be refunded without interest following final completion of the project.

**Extraordinary Expenses**

Initial deposit of \$1,000 with additional deposits in \$1,000 increments, if expended, will be required. Extraordinary expenses will be billed based on actual costs incurred and deducted from the escrow. This escrow is required to cover Commission expenses for technical evaluation panels (TEPs), additional administrative, technical or legal processing costs (in excess of the \$1,000 fee) associated with projects involving wetlands. The balance in the escrow account will be refunded without interest following final completion of the project.

**Replacement Surety**

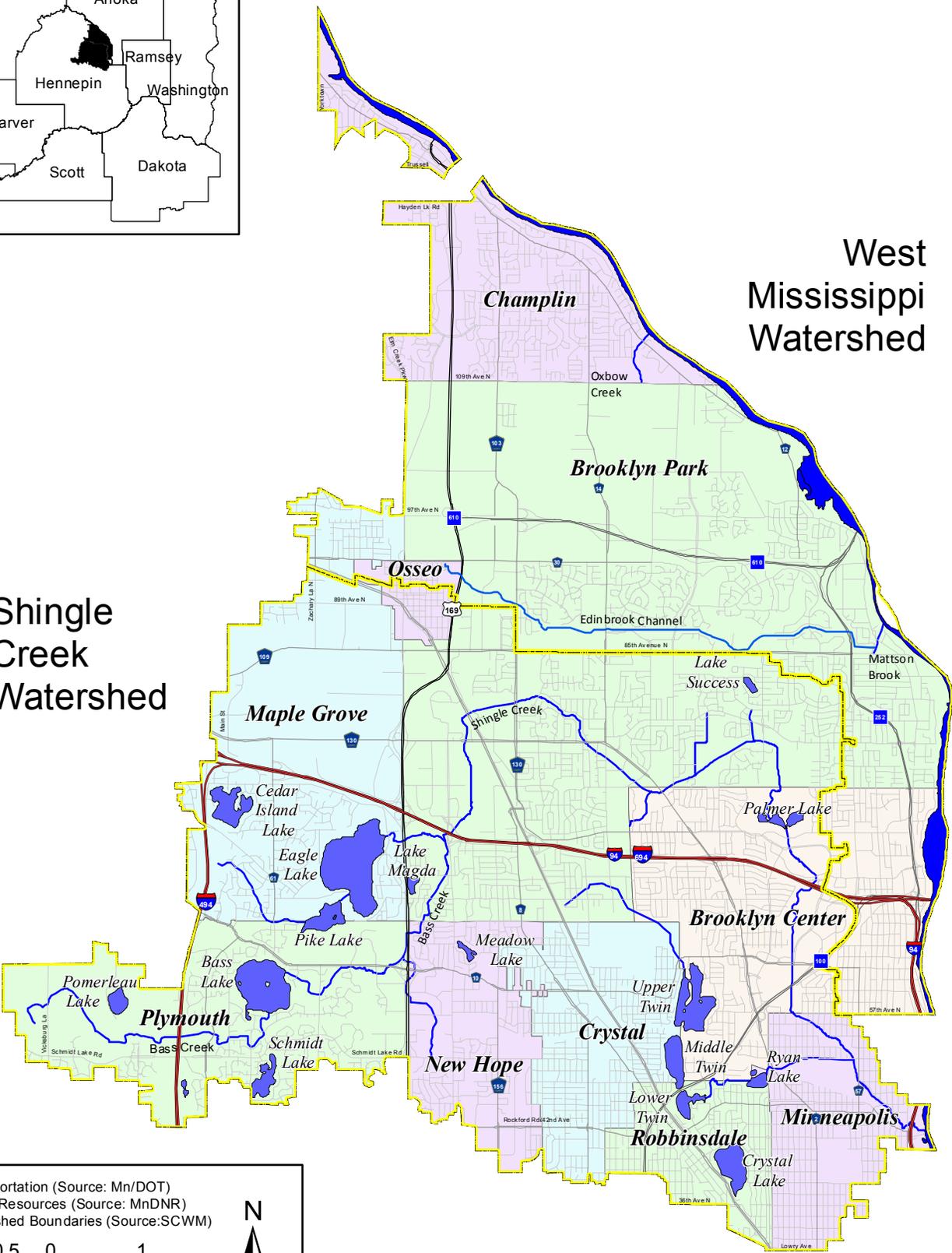
To be determined on a site-specific basis, based on estimated costs to purchase replacement credits. This surety may also be used for expenses to conduct repair work on replacement wetlands. The surety may be submitted as a cash escrow, surety bond, or irrevocable letter of credit. This surety will be released when the Commission has determined that the replacement wetland meets all the requirements of WCA.

Financial guarantees shall be issued from financial institutions (banks, savings and loans and credit unions) having business offices within the greater Twin Cities metropolitan area. Financial guarantees, other than cash escrows, from individuals or corporations will not be accepted. The guarantee shall be for a period of five (5) years. All instruments submitted as financial guarantees of completion of required projects shall be submitted on a form provided by or approved by the Commission.

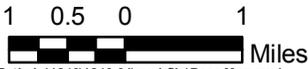


# West Mississippi Watershed

# Shingle Creek Watershed



Transportation (Source: Mn/DOT)  
 Water Resources (Source: MnDNR)  
 Watershed Boundaries (Source: SCWM)



Path: L:\1240\1240-01\mxd file\Base Map.mxd  
 Date: 10/3/2013



**PROJECT REVIEW APPLICATION**

*Submittal deadline is 10 days prior to the Commissions' meetings, which are held monthly on the second Thursday.*

This project is in the  Shingle Creek Watershed  West Mississippi Watershed *(check one)*

**OWNER**

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Phone \_\_\_\_\_  
 E-mail \_\_\_\_\_

**NATURE OF REVIEW**

*(check all that apply)*  
 Wetland Alteration *(DNR Protected or WCA Regulated with Commission Designated LGU)*  
 Floodplain Alteration  
 Stormwater Management Plan  
 Other \_\_\_\_\_

**PROJECT INFORMATION**

Name \_\_\_\_\_  
 Location \_\_\_\_\_  
 \_\_\_\_\_  
 Area of Property \_\_\_\_\_ acres  
 Project Description: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**FEES** *(see fee schedule)*

Project Review Fee \$ \_\_\_\_\_

**PROJECT ENGINEER**

Name \_\_\_\_\_  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 \_\_\_\_\_  
 Phone \_\_\_\_\_  
 Fax \_\_\_\_\_  
 Email \_\_\_\_\_

**AUTHORIZATION - to be prepared by City**

Requested by City of \_\_\_\_\_  
 Signature \_\_\_\_\_  
 Name \_\_\_\_\_  
 Title \_\_\_\_\_  
 Date \_\_\_\_\_

**Send copy of application, completed checklist, application fee, and project materials to:**

Shingle Creek **OR** West Mississippi Watershed Management Commission  
 7500 Olson Memorial Highway, Suite 300  
 Golden Valley, MN 55427  
 Phone: 763-252-6800 • Fax: 952-831-1268  
 Email: [ematthiesen@wenck.com](mailto:ematthiesen@wenck.com)



**FEE SCHEDULE**

*This fee schedule is adopted in accordance with Rule J of the Rules and Standards of the Shingle Creek and West Mississippi Watershed Management Commissions' joint Third Generation Watershed Management Plan. It is effective October 1, 2014.*

Please make your check payable to the watershed management commission in whose watershed your project is located when paying your application fees.

**Project Fees**

Single Family Lot .....	\$300
Single Family Residential Development, density less than 3 units per acre	
Total Site <15 acres .....	\$1,500
Total Site 15-29.99 acres .....	\$1,800
Total Site ≥30 acres .....	\$2,500
All Other Development	
Total Site <5 acres .....	\$1,700
Total Site 5-9.99 acres .....	\$2,200
Total Site 10-19.99 acres .....	\$2,200
Total Site ≥20 acres .....	\$3,000
Variance Escrow .....	\$2,000
Street/Highway/Utility Project .....	\$1,100

Note: Total site area includes wetland, buffer, right of way and other nondeveloped areas.

**Wetland Fees**

Wetland Delineation Review .....	\$300
Wetland Replacement Plan Escrow .....	\$1,500
Monitoring and Reporting Deposit .....	\$1,500
Wetland Replacement Deposit .....	Varies

## Landscape Tree Suggestions

The following document is split into multiple sections. Native selections are listed first, followed by non-native species. The native species are those defined by the MN DNR Division of Forestry for the Big Woods Ecological Subsection. Additionally, native plants are best adapted to the local climate. Once established, they seldom need watering, mulching, protection from frost or continuous mowing; They are used by beautiful and diverse native butterflies and insects. In contrast, many common horticultural plants require insect pest control to survive; Moreover, native plants and plant communities provide habitats and refuges for wildlife, especially birds. (Adapted from the MN DNR website: <http://www.maplegrovern.gov/about/boards-and-commissions/arbor-committee/resources/>)

### Native Deciduous – small

Common Name (Latin)	At Maturity			Light Preference	Tolerance to:				Comments & Notable Varieties
	Height	Spread	Growth Rate		Salt	Wet	Clay Soils	Drought	
1. Alder, Speckled ( <i>Alnus rugosa</i> )	15-20'	15-20'	F		L	H	H	L	Needs moist conditions. Improves soil fertility with nitrogen. Dark purple fruit persists on wood that turns orange in winter. Age 25-50 years.
2. Bladdernut, American ( <i>Staphylea trifolia</i> )	10-15'	10-15'	M		L	I	H	I	Interesting 1-2" seed pods. Yellow fall color.
3. Blue Beech ( <i>Carpinus caroliniana</i> )	15-18'	15-20'	S	 	L	L	L	L	Also called American Hornbeam. Good fall color; interesting bark. Understory tree. Age 50-75 years.
4. Dogwood, Gray ( <i>Cornus racemosa</i> )	8-12'	6-10'	M	 	L	H	H	L	White flowers, white fruit, purple-red fall color. May colonize.
5. Dogwood, Pagoda ( <i>Cornus alternifolia</i> )	15-25'	20-25'	S	 	L	I	I	L	White spring flowers; interesting horizontal branching pattern. Beneficial for butterflies. pH 4.0-7.5. Potentially invasive.

**Key:**

Light:



Full Sun



Part sun/part shade



Shade

Growth Rate:

F – fast

M – moderate

S – slow

Tolerance: H – high

I – intermediate

L – low

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments & Notable Varieties
	Height	Spread			Salt	Wet	Clay Soils	Drought	
6. Hawthorn, Cockspur ( <i>Crataegus crusgalli</i> )	15-18' 15-25'	20-25' 20-30'	M S	 	L	H	H	H	Bright red fruit; seek out thornless varieties. Deer usually avoid eating. Beneficial for butterflies. Age 50-100 years. Potentially invasive.
7. Ninebark, Common ( <i>Physocarpus opulifolius</i> )	8-10'	8-10'	M		I	H	H	I	Dense growth.
8. Serviceberry ( <i>Amelanchier sp.</i> )	15-25'	10-15'	M		H	H	H	L	White flowers in spring; good fall color. Very high wildlife value, bird magnet. Edible fruit. Consider Downy ( <i>A. arborea</i> ) or Allegheny ( <i>A. laevis</i> ) varieties.
9. Buffaloberry, Silver ( <i>Shepherdia argentea</i> )	8-10'	8-10'	M		H	H	H	L	Silvery, light green leaves. Berries in late summer.
10. Viburnum, Arrowwood ( <i>Viburnum dentatum</i> )	6-8'	6-8'	M	  	I	H	H	I	Very shade tolerant. Also recommended varieties: Witherod Viburnum ( <i>V. cassinoides</i> ) or Mapleleaf Viburnum ( <i>V. acerifolium</i> )
11. Viburnum, Nannberry ( <i>Viburnum lentago</i> )	16-20'	10-20'	F	  	L	H	H	L	White flowers. Rose-pink fruit turns blue-black. Purple-red fall color. Edible fruit, but large central pit. Often along forest edges, swamps. Age 10-20 years.
12. Crimson Cloud Hawthorn ( <i>Crataegus laevigata</i> )	15'	10-15'	M	 	L	H	H	H	Rounded form. Red fruit and flowers. Minor insect and disease concerns. pH 6.0-8.0
13. Ivory Silk Lilac ( <i>Syringa reticulata</i> 'Ivory Silk')	15-25'	15-20'	M		H	H	H	M	Introduced in Ontario Canada. Has superior bloom & foliage. Flowers at a young age. Sturdy & more compact growth than other species. Cherry-like bark. Intolerant to compacted soil. pH 6.5-8.0

**Key:**

Light:



Full Sun



Part sun/part shade



Shade

Growth Rate:

F – fast  
M – moderate  
S – slow

Tolerance: H – high

I – intermediate  
L – low

## Native Deciduous – medium

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
1. Ironwood or Hophornbeam ( <i>Ostrya virginiana</i> )	25-45'	20-35'	S	  	L	H	H	L	Tolerates wide range of soil and light conditions (grows faster in more sun). Attractive catkins resemble 'hops'. Holds leaves into winter. Age 75-100 years.
2. Linden, Littleleaf ( <i>Tilia cordata</i> )	35-50'	20-30'	M	  	I	H	H	I	Excellent shade tree. Beneficial for bees and other wildlife. Very susceptible to storm damage. pH 6.5-7.5
3. Plum, American ( <i>Prunus americana</i> )	20-35'	20-30'	F		L	L	H	H	Produces sweet-spice scented white blooms. Edible fruit. Age 25-30 years.
4. Black Willow ( <i>Salix nigra</i> )	35-55	20-40	F		M	H	H	H	Only native willow to MN that reaches tree size. Form is columnar.

## Native Deciduous – tall

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
1. Birch, Paper ( <i>Betula papyrifera</i> )	40-70'	25-50'	M	 	M	H	I	L	Attractive white bark, yellow fall color. Choose insect-resistant cultivars. Age 80-100 years. Available in clump or single stem forms. pH 5.0-8.0
2. Birch, River ( <i>Betula nigra</i> )	40-60'	30-40'	M		I	H	H	L	Attractive bark. High wildlife value. Available in clump or single stem forms. Age 50-75 years.
3. Butternut ( <i>Juglans cinerea</i> )	50-75'	50-75'	M F		L	H	H	L	Gray bark color. Edible nuts. Age 80-100 years. pH 6.6-8.0

**Key:**

Light:



Full Sun

Growth Rate:

F – fast  
M – moderate  
S – slow

Tolerance: H – high

I – intermediate  
L – low

October 2015



Part sun/part shade



Shade

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
4. Cherry, Pin ( <i>Prunus pensylvanica</i> )	20-35'	20-35'	F		L Spray-M	H	L	H	Attractive bark. Bright red-orange color in fall. Edible fruit. Great wildlife value. Age 20-40 years. pH 6.0-7.5
5. Coffeetree, Kentucky ( <i>Gymnocladus dioicus</i> )	50-70'	30-50'	M		I	I	H	H	Provides open shade; 4-8" long pods (female trees) create interest in winter. Age 50-75 years.
6. Hackberry ( <i>Celtis occidentalis</i> )	50-75'	35-50'	M F		I Spray-L	H	H	H Silty Clay	Unique bark; adaptable. Persistent berries. High wildlife value. Age 100-150 years. pH 6.5-8.0
7. Hickory, Bitternut ( <i>Carya cordiformis</i> )	50-75'	50-75'	S		I	H	H	I	Yellow color in fall. Nuts produced are very bitter. Age 100-150 years.
8. Honey locust ( <i>Gleditsia triacanthos</i> )	50-75'	50-75'	M F		H	H	H	H	Provides attractive "open" shade. Opt for thornless varieties: 'Moraine', 'Shademaster', or 'Skyline'. Age 100-125 years. pH 6.0-8.0
9. Linden ( <i>Tilia americana</i> )	50-75'	25-40'	F		L	I	H	I	Also called American Basswood. Excellent for larger sites. Age 150-200 years
10. Maple, Sugar ( <i>Acer saccharum</i> ) *	50-75'	50'	M S		L	H	L	L	Excellent fall color. Sap used for maple syrup. Leaves break down quickly. Age 150-200 years. pH 6.0-7.5
11. Oak, Bur ( <i>Quercus macrocarpa</i> )	60-100'	75-100'	S		H spray-M	H	H	H	Excellent tree for urban landscapes. Age 150-250 years. Edible acorns. pH 4.6-8.0
12. Oak, Northern Pin ( <i>Quercus ellipsoidalis</i> )	50-75'	50-75'	M S		I	H	H	H	Good red fall color; distinctive pyramid form. Good wildlife value. Age 100-150 years. pH 5.5-7.5
13. Oak, Northern Red ( <i>Quercus rubra</i> )	60-80'	40-50'	M		Spray-L Soil-I	H	H	L	Withstands City conditions. Fast growth rate for oaks. Age 100-150 years. pH 4.0-6.5
14. Oak, Swamp White ( <i>Quercus bicolor</i> )	40-60'	30-60'	M		H (soil)	H	H	L	Quite adaptable. Unique bark. Holds leaves into winter. Very high wildlife value. Age 150-200 years.
15. Walnut, Black ( <i>Juglans nigra</i> )	70-100'	75-100'	M F		I (soil)	H	H	H	Produces sizeable and edible fruit. Some plants may be sensitive being nearby. Age 150-175 years.

**Key:**

Light:



Full Sun



Part sun/part shade



Shade

Growth Rate:

F – fast

M – moderate

S – slow

Tolerance: H – high

I – intermediate

L – low

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
16. Northern Catalpa ( <i>Catalpa speciosa</i> )	40-75'	25-50'	F		I	H	I	H	White flowers in the spring with capsule fruit. Yellow fall color. Tolerant of compacted soil. pH 6.1-8.0

\*Maple trees tend to be overplanted in Maple Grove. Consideration should be given to plant other trees to aid in tree diversification.

## Native Coniferous (Evergreens)

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
1. Fir, Balsam ( <i>Abies balsamea</i> )	50-75'	20-30'	S	 	L	H	H	L	Withstands pollution. Fragrant needles. Age 100-150 years.
2. Hemlock, Emerald Fountain ( <i>Tsuga canadensis</i> 'Monier')	6-10'	2-3'	F	  	L	H	H	L	Shad tolerant.
3. Hemlock, Weeping ( <i>Tsuga canadensis</i> 'Sargentii')	10-15'	6-8'	F	  	L	L	L	L	Prefers moist well drained acidic soil. Benefits from protection from winter winds.
4. Larch, American ( <i>Larix laricina</i> )	40-70'	20-35'	M		H	H	H	I	Also called Tamarack, Needles yellow in fall and drop off; small cones. Likes wet/boggy areas. Age 100-150 years.
5. Pine, Red (Norway) ( <i>Pinus resinosa</i> )	75-100'	35-55'	M F	 	I	H	L	L	Minnesota State Tree. Also called Norway Pine. Produces large cones. Age 150-200 years. Major insect & disease concerns.
6. Spruce, Black Hill ( <i>Picea glauca</i> 'densata') *	30-50'	20-35'	S	 	H	I	H	H	More dense and ornamental than other spruce.
7. Spruce, White ( <i>Picea glauca</i> ) *	40-60'	12-20'	M		H	I	H	H	Hardy; Needs full sun. Age 175-200 years.

**Key:**

Light:

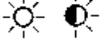


Growth Rate:

F – fast  
M – moderate  
S – slow

Tolerance: H – high

I – intermediate  
L – low

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
8. Northern White Cedar ( <i>Thuja occidentalis</i> )	30-60	20-50	M		Spray-L Soil-H	H	H	I	Nice shape and form. Susceptible to storm damage. pH 6.0-8.0
9. Japanese Larch ( <i>Larix kaempferi</i> )	70-90	25-40	F		H	H	H	L	Considered the most handsome Larch & fastest growing when young. Plant in a large area due to size.

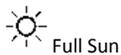
\*Spruce trees tend to be overplanted in Maple Grove. Consideration should be given to plant other trees to aid in tree diversification.

## Non-Native Plants - Deciduous – small

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
1. Birch, Fox Valley ( <i>Betula nigra</i> 'Little King')	10'	12'	F		I	H	L	L	In River Birch family. Very dense, compact growth. Most adaptable birch. "Cully" has high tolerance to clay soils. 45-50' H and 30-35 Spread
2. Chokecherry, Amur ( <i>Prunus maackii</i> )	20-30'	18-25'	F		L	L	H	L	Showy white flowers; attractive copper bark.
3. Crabapple ( <i>Malus sp.</i> )	10-30'	8-20'	M		L	H	H	I	White to pink flowers in spring. Choose cultivars with small, persistent fruit. Varieties are: 'PrairieFire', 'Donald Wyman', 'Sargent's', 'Purple Prince', 'Harvest Gold', 'Coralburst',. Choose disease resistant! ("Radiant, Prairie, Indian Magic, Pink Spires and Profusion" have major disease concerns).
4. Hydrangea, Tree Form ( <i>Hydrangea paniculata</i> 'Grandiflora')	8-10'	6-10'	F		H	I	H	L	White to pink flowers

**Key:**

Light:

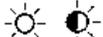
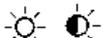


Growth Rate:

F – fast  
M – moderate  
S – slow

Tolerance: H – high

I – intermediate  
L – low

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
5. Lilac, Dwarf Korean ( <i>Syringa meyeri</i> 'Palibin')	6-8'	5-7'	F		I	I	H	I	An excellent specimen tree for small areas.
6. Lilac, Japanese Tree ( <i>Syringa reticulata</i> )	15-25'	15-20'	M		H	H	H	I	Showy white flowers in summer. Easy to plant bareroot in spring and fall as well as container. pH 6.5-8.0
7. Lilac, Miss Kim ( <i>Syringa patula</i> )	8-10'	10-15'	S		Spray-I	H	H	I	Fragrant pink flowers. Burgundy fall color. If require smaller variety, consider 'Tinkerbelle' ( <i>Syringa</i> 'ballbelle') just 5-6' in height/width. pH 6.5-7.5
8. Magnolia ( <i>Magnolia acuminata</i> ) ( <i>Magnolia leobneri</i> )	8-30'	8-30'	M		I	L	L	L	ZONE 5-9 Fragrant flowers in April to May. Loebneri Magnolia runs taller – 'Merrill' variety has done well at the MN Landscape Arboretum.
9. Maple, Korean * ( <i>Acer pseudosieboldianum</i> )	15-25'		M		L	I		I	A hardy version of a Japanese maple. Exfoliating bark and reddish-gold fall color.
10. Viburnum, Blackhaw ( <i>Viburnum prunifolium</i> )	10-15'	8-12' 6-12'	M		L	H	H	H	White flower clusters, pink fruits turn black in fall. Red/bronze fall color.
11. Viburnum, Mohican ( <i>Viburnum lantana</i> 'Mohican')	8' 7-8'	8' 7-10'	F S		L	H	I	H	Creamy white flowers. Orange/red fruit turns black in fall. Red fall color. pH 6.0-7.0
12. Willow, Arctic Blue Leaf ( <i>Salix purpurea</i> 'Nana')	6-10' 3-4'	3-6'	M F		I	H	H	I	Fine textured blue-green foliage. Branches are used to make baskets.
13. Homestead Buckeye ( <i>Aesculus</i> X 'Homestead Buckeye')	25-30'	20-35'	S		H	H	I	L	Dark orange-red flowers. Resistant to scorch & mildew. Fruitless. Do not plant bareroot. pH 6.0-7.5
14. Ohio Buckeye ( <i>Aesculus glabra</i> )	25-35'	20-35'	S		I	H	H	L	Yellow spring flowers; orange fall color. Butterflies love the flowers. pH 6.0-7.5

\* Maple trees tend to be overplanted in Maple Grove. Consideration should be given to plant other trees to aid in tree diversification.

**Key:**

Light:



Full Sun

Growth Rate:

F – fast  
M – moderate  
S – slow

Tolerance: H – high

I – intermediate  
L – low

October 2015



Part sun/part shade



Shade

## Deciduous – medium

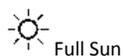
Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
1. Pear, Ussurian ( <i>Pyrus ussurlensis</i> )	30-45'	30-45'	M	 	I	I	H	H	Showy spring flowers. Fruit inedible, but not present on solitary trees. Very hardy. pH 5.5-8.0
2. Redbud, Eastern ( <i>Cercis canadensis</i> )	20-30'	25-35'	M S	  	I	H	H Silty Clay	L	Reddish purple flower in spring. Age 50-75 years. Major disease concerns. pH 6.1-8.0
3. Willow, Laurel ( <i>Salix pentandra</i> )	20-40'	15-35'	F		I	H	H	I	Glossy, attractive dark green foliage. Age 20-40 years.
4. Yellowwood, American ( <i>Cladrastis lutea</i> )	30-45'	40-45'	M		I	I	I	H	Yellow fall leaf color. Clusters of fragrant white flowers. High pH & dry soil tolerant.
5. Blue Beech ( <i>Carpinus caroliniana</i> )	15-30'	15-25'	S	  	I	H	I	L	Also known as Hornbeam
6. Bebb Willow ( <i>Salix bebbiana</i> )	20-35'	20-35'	F		H	H	H	H	pH 5.5 - 7.5 Can survive short periods of standing water, but growth rates decline sharply if water persists above the root collar. Is not drought tolerant, but prefers sites with adequate moisture. It is also shade intolerant and grows best in full sunlight

## Deciduous – tall

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
1. Cork tree, Amur ( <i>Phellodendrom sp.</i> Sachalinense 'His Majesty')	30-50'	30-50'	F	 	I	I	H	H	Interesting corky bark, Pollution tolerant, adaptable to wide range of soil types. pH 5.0 – 8.2 Tolerant to compacted soil.

**Key:**

Light:



Full Sun

Growth Rate:

F – fast  
M – moderate  
S – slow

Tolerance: H – high

I – intermediate  
L – low



Part sun/part shade



Shade

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
2. Elms, Hybrid ( <i>Ulmus</i> hybrids)	40-60'	20-40'	F	  	I	I	H	H	Cultivars resistant to Dutch Elm disease: 'Accolade', 'New Horizon', 'Homestead', 'Discovery', and 'Cathedral'. Beneficial for butterflies.
3. Princeton Sentry Ginkgo ( <i>Ginkgo biloba</i> 'Princeton sentry')	55 – 60	25 – 30	S		H	H	H	H	Yellow fall color. pH 6.1 – 8.0

\*Maple trees tend to be overplanted in Maple Grove. Consideration should be given to plant other trees to aid in tree diversification.

## Coniferous – small

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
1. Arborvitae, Eastern ( <i>Thuja occidentalis</i> )	10-15'	3-5'	M		L	I	H	I	'Emerald' variety is narrow, compact, and pyramidal form. 'Nigra' variety is pyramidal. 'Techny' variety is also a strong grower.
2. Techny Arborvitae ( <i>Thuja occidentalis</i> , 'Techny')	15 – 25	6 – 20	M	 	Spray=L Soil=M	H	H	L	Good dense hedge or screen. Retains deep green color all year. Susceptible to cold injury and storm damage. pH 6.0 – 8.0
3. Juniper, Chinese ( <i>Juniperus chinensis</i> )	8-15'	6-12'	M		I	L	H	H	Excellent evergreen foliage; females produce berry-like cones.
4. Larch, Deborah Waxman ( <i>Larix laricina</i> 'Deborah Waxman')	6'	4'	F		L	I	H	L	Dwarf form of American Larch. Blue-green needles turn golden yellow in fall.
5. Pine, Macopin ( <i>Pinus strobus</i> 'Macopin')	8-10'	8-10'	S		L	L	H	I	Dwarf form of white pine. Upright habit with large quantity of cones.
6. Pine, Mugo ( <i>Pinus mugo</i> )	12-15'	12-15'	M	 	H	L	H	H	Dense, wide-spreading form.
7. Pine, Slim Jim ( <i>Pinus sylvestris</i> 'Slim Jim')	8-10'	4'	S	 	L	L	H	H	Dense columnar form of Scotch Pine with twisted dark green needles.

**Key:**

Light:



Full Sun



Part sun/part shade



Shade

Growth Rate:

F – fast  
M – moderate  
S – slow

Tolerance: H – high

I – intermediate  
L – low

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
8. Pine, Mugho ( <i>Pinus mugo</i> 'Tannenbaum')	10-15'	6'	S	 	L	L	H	H	Compact, pyramidal form with good winter color.
9. Spruce, Acrocona ( <i>Picea abies</i> 'Acrocona') *	8'	4'	S	 	L	L	H	I	Compact & upright growth habit
10. Spruce, Alberta ( <i>Picea glauca</i> 'Conica') *	13'	10'	S	 	L	L	L	I	Attracts birds, deer resistant
11. Spruce, North Star ( <i>Picea glauca</i> 'North Star') *	12'	4'	S		I	I	L	L	Resilient to harsh winter conditions. No significant negative characteristics.
12. Yew, Upright Japanese ( <i>Taxus cuspidata</i> 'Capitata')	10-12'	3-5'	S	 	L	L	I	I	Prefers moist well drained soil. Shade tolerant. Needs protection from winter winds.

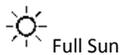
\*Spruce trees tend to be overplanted in Maple Grove. Consideration should be given to plant other trees to aid in the diversification.

## Coniferous – medium & tall

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
1. Fir, White ( <i>Abies concolor</i> )	30-50'	15-25'	M	 	I	I	H	I	Soft, evergreen foliage; excellent pyramidal form. pH 4.0 – 6.5
2. Pine, Scotch ( <i>Pinus sylvestris</i> )	30-50'	25-40'	M	 	L	L	L	H	Attractive orange bark. Age 100-150 years.
3. Balsam Fir ( <i>Abies balsamea</i> )	50-75'	20-30	S	  	I	H	H	I	Very popular as Christmas trees.

**Key:**

Light:



Full Sun



Part sun/part shade



Shade

Growth Rate:

F – fast  
M – moderate  
S – slow

Tolerance: H – high

I – intermediate  
L – low

Common Name (Latin)	At Maturity		Growth Rate	Light Preference	Tolerance to:				Comments
	Height	Spread			Salt	Wet	Clay Soils	Drought	
4. Pine, Swiss Stone ( <i>Pinus cembra</i> )	25-35'	10-15'	S		L	L	L	I	Dense, conical growth form; dark green foliage.
5. Spruce, Norway ( <i>Picea abies</i> ) *	40-65'	20-35'	F		L	L	H	I	Produces large cones of any spruce. Age 150-200 years. Intolerant to compacted soil. Largest and fastest growing spruce. pH 4.7 – 7.5

\*Spruce trees tend to be overplanted in Maple Grove. Consideration should be given to plant other trees to aid in tree diversification.

**List of Trees the Maple Grove Arbor Committee Recommends Not to Plant:**

**Ash**

Green Ash – susceptible to Emerald Ash Borer

*Fraxinus pennsylvanica*

White Ash – susceptible to Emerald Ash Borer

*Fraxinus americana*

**European Mountain Ash** – susceptible to fireblight

*Sorbus aucuparia*

**Birch**

European Birch – highly susceptible to bronze birch borer

*Betula pendula*

Asian Birch – highly susceptible to bronze birch borer

*Betula platyphylla*

Himalayan Birch – highly susceptible to bronze birch borer

*Betula utilis*

Japanese Monarch Birch

*Betula maximowicziana*

**Key:**

Light:



Full Sun



Part sun/part shade



Shade

Growth Rate:

F – fast  
M – moderate  
S – slow

Tolerance: H – high

I – intermediate  
L – low

**Black Cherry** – invasive, spreads laterally by suckers

*Prunus serotina*

**Crabapple** – The Arbor Committee does not recommend the planting of any Crabapple trees due to them being overplanted in Maple Grove. Crabapple trees that are not disease resistant will need to be treated with fungicides or antibiotic streptomycin to prevent weakening or death of the tree

Columnar Siberian Crabapple – susceptible to disease Apple Scab

*Malus baccata ‘Columnaris’*

Golden Raindrops Crabapple – susceptible to disease Fire Blight

*Malus ‘Schmidtcutleaf’*

Klehm’s Improved Bechtel Flowering Crab – susceptible to disease Cedar Apple Rust

*Malus icensis ‘Klehm’s Improved Bechtel’*

Prairie Rose Crabapple – susceptible to disease Cedar Apple Rust

*Malus icensis ‘Prairie Rose’*

Royalty Crabapple – susceptible to disease Apple Scab

*Malus ‘Royalty’*

Spring Snow Crabapple – susceptible to disease Apple Scab

*Malus ‘Spring Snow’*

**Eastern Red Cedar** – disease vector, invasive, toxic

*Juniperus virginiana*

**Eastern Redbud** – extremely borderline for Minnesota winters

*Cercis canadensis*

**Elm**

Siberian Elm – invasive

*Ulmus pumila*

**Key:**

Light:



Full Sun

Growth Rate:

F – fast  
M – moderate  
S – slow

Tolerance: H – high

I – intermediate  
L – low

October 2015



Part sun/part shade



Shade

**Locust**

Black Locust - invasive

*Robinia pseudoacacia*

**Lombardy Poplar** – susceptible to disease and insects

*Poplar nigra italica*

**Maple** – The Arbor Committee does not recommend the planting of any Maple trees due to them being overplanted in Maple Grove.

Amur Maple - invasive

*Acer ginnala*

Norway Maple - invasive

*Acer platanoides*

Silver Maple – weak wood, shallow roots

*Acer saccharinum*

Autumn Blaze Maple – crossed with Silver Maple, weak wood, shallow roots

*Acer x fremanii*

Northwood Red Maple – very shallow roots

*Acer rubrum 'Northwood'*

Scarlet Jewel Red Maple – intolerant of the soil ph in Maple Grove

*Acer rubrum 'Scarlet Jewel'*

Fall Fiesta Sugar Maple – intolerant of compacted soils

*Acer saccharum 'Bialsta'*

Apollo Sugar Maple – intolerant of compacted soils

*Acer saccharum 'Barrett Cole'*

Freen Mountain Sugar Maple – intolerant of compacted soils

*Acer saccharum 'Green Mountain'*

Hot Wings Maple – invasive

*Acer tataricum 'GarAnn'*

Three Flowered Maple – intolerant of the soil ph in Maple Grove

*Acer triflorum*

**Key:**

Light:



Full Sun



Part sun/part shade



Shade

Growth Rate:

F – fast

M – moderate

S – slow

Tolerance: H – high

I – intermediate

L - low

Bloodgood Japanese Maple – not in Minnesota hardiness zone

*Acer palmatum 'bloodgood'*

Columnar Norway Maple – shallow roots

*Acer platanoides 'Columnare'*

Crimson King Norway Maple – invasive

*Acer platanoides 'Crimson King'*

Deborah Schwedler Maple – invasive

*Acer platanoides 'Deborah'*

Red Sunset Red Maple – intolerant of soil ph in Maple Grove

*Acer rubrum 'Red Sunset'*

Japanese Viridis Maple – Not in Minnesota hardiness zone

*Acer palmatum 'Dissectum Viridis'*

Crimson Queen Japanese Maple – not in Minnesota hardiness zone

*Acer palmatum 'Crimson Queen'*

Emperor I Japanese Maple – not in Minnesota hardiness zone

*Acer palmatum 'Emperor I'*

Shirazz Japanese Maple – not in Minnesota hardiness zone

*Acer palmatum 'Gwen's Rose Delight'*

Red Dragon Japanese Maple – not in Minnesota hardiness zone

*Acer palmatum 'Red Dragon'*

**Russian Olive** – invasive

*Elaeagnus angustifolia*

**Spruce** – The Arbor Committee does not recommend the planting of any Spruce trees due to them being overplanted in Maple Grove.

Colorado Blue Spruce – highly susceptible to Rhizosphaera needle cast, Needle rust,

*Picea Pungens*

Fat Albert Blue Spruce – susceptible to many diseases

*Picea pungens 'Fat Albert'*

Colorado Weeping Blue Spruce – susceptible to many diseases

**Key:**

Light:



Full Sun

Growth Rate:

F – fast  
M – moderate  
S – slow

Tolerance: H – high

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Part sun/part shade



Shade

*Picea pungens 'Pendula'*

Slenderina Weeping Blue Spruce – susceptible to many diseases

*Picea pungens 'Slenderina'*

**Tree of Heaven** – invasive

*Ailanthus altissima*

**Quaking Aspen** – suckers profusely

*Populus tremuloides*

**Key:**

Light:



Full Sun



Part sun/part shade



Shade

Growth Rate:

F – fast

M – moderate

S – slow

Tolerance: H – high

I – intermediate

L – low





## CITY OF MAPLE GROVE 2016 PLANNING COMMISSION SUBMISSION DATES

<b>Submission Deadline (DATE is FIRM)</b>	<b>Planning Commission Meeting Dates</b>	<b>City Council Meeting Dates</b>	<b>Osseo-MG Press PH Notice Deadline</b>	<b>Residential Mailing Deadline</b>
December 14, 2015 December 28, 2015	January 11, 2016 January 25, 2016	*Tues., January 19, 2016 February 1, 2016	December 24, 2015 January 7, 2016	December 31, 2015 January 15, 2016
January 11, 2016 February 1, 2016	February 8, 2016 February 29, 2016	*Tues., February 16, 2016 March 7, 2016	January 21, 2016 February 11, 2016	January 29, 2016 February 19, 2016
*Tues., February 16, 2016 February 29, 2016	March 14, 2016 March 28, 2016	March 21, 2016 April 4, 2016	February 25, 2016 March 10, 2016	March 4, 2016 March 18, 2016
March 14, 2016 March 28, 2016	April 11, 2016 April 25, 2016	April 18, 2016 May 2, 2016	March 24, 2016 April 7, 2016	April 1, 2016 April 15, 2016
April 11, 2016 May 2, 2016	May 9, 2016 *Tues., May 31, 2016	May 16, 2016 June 6, 2016	April 21, 2016 May 12, 2016	April 29, 2016 May 20, 2016
May 16, 2016 *Tues., May 31, 2016	June 13, 2016 June 27, 2016	June 20, 2016 *Tues., July 5, 2016	May 26, 2016 June 9, 2016	June 3, 2016 June 17, 2016
June 13, 2016 June 27, 2016	July 11, 2016 July 25, 2016	July 18, 2016 August 1, 2016	June 23, 2016 July 7, 2016	July 1, 2016 July 15, 2016
July 11, 2016 August 1, 2016	August 8, 2016 August 29, 2016	August 15, 2016 *Tues., Sept. 6, 2016	July 21, 2016 August 11, 2016	July 29, 2016 August 19, 2016
August 15, 2016 August 29, 2016	September 12, 2016 September 26, 2016	September 19, 2016 October 3, 2016	August 25, 2016 September 8, 2016	September 2, 2016 September 16, 2016
September 12, 2016 October 3, 2016	October 10, 2016 October 31, 2016	October 17, 2016 November 7, 2016	September 22, 2016 October 13, 2016	September 30, 2016 October 21, 2016
October 17, 2016 October 31, 2016	November 14, 2016 November 28, 2016	November 21, 2016 December 5, 2016	October 27, 2016 November 10, 2016	November 4, 2016 November 18, 2016
November 14, 2016	December 12, 2016	December 19, 2016	November 23, 2016	December 2, 2016

Planning Commission meetings are held on the 2nd and last Mondays of the month at **7:00 p.m.** unless a holiday falls on a Monday, then it would be held on the following Tuesday. After the Planning Commission makes its recommendation, (unless it is tabled) the item will be scheduled on the next available City Council meeting for their action.