



## Appendix D

# ***Contacts, Submittal Materials, Inspections, Operations and Maintenance***

# **Northwest Area (NWA) Inver Grove Heights Stormwater Manual**

## **Contacts, Submittal Materials, Inspections, Operations and Maintenance**

Appendix D

this appendix contains a number of materials that may be useful to manual users in identifying key people and information needed from the project development phase, through development of the site and follow up inspections

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## ***I. Contacts***

### **Inver Grove Heights**

Scott Thureen  
City Engineer  
Inver Grove Heights  
8150 Barbara Ave.,  
Inver Grove Heights, MN 55077  
(651)450-2572  
[sthureen@ci.inver-grove-heights.mn.us](mailto:sthureen@ci.inver-grove-heights.mn.us)

Gary Johnson  
Public Works Director  
Inver Grove Heights  
8150 Barbara Ave.,  
Inver Grove Heights, MN 55077  
(651)450-2571  
[gjohnson@ci.inver-grove-heights.mn.us](mailto:gjohnson@ci.inver-grove-heights.mn.us)

Tom Link  
Community Development Director  
Inver Grove Heights  
8150 Barbara Ave.,  
Inver Grove Heights, MN 55077  
(651)450-2546  
[tlink@ci.inver-grove-heights.mn.us](mailto:tlink@ci.inver-grove-heights.mn.us)

Allan Hunting  
Inver Grove Heights  
8150 Barbara Ave.,  
Inver Grove Heights, MN 55077  
(651)450-2554  
[ahunting@ci.inver-grove-heights.mn.us](mailto:ahunting@ci.inver-grove-heights.mn.us)

### ***Weblinks***

IGH Northwest Area: <http://www.ci.inver-grove-heights.mn.us/dev/nwarea.html>  
IGH Community Development: <http://www.ci.inver-grove-heights.mn.us/dev/index.html>

### **Gun Club Lake WMO**

Eric Macbeth  
Administrator  
Gun Club Lake Water Management Organization  
3501 Coachman Point  
Eagan, MN 55122  
Phone: (651) 675-5300  
Fax: (651) 675-5360  
[gclwmo@cityofeagan.com](mailto:gclwmo@cityofeagan.com)



## Lower Mississippi River WMO

Gary Johnson  
Inver Grove Heights Representative  
Lower Mississippi River WMO  
8150 Barbara Ave.,  
Inver Grove Heights, MN 55077  
(651)450-2571  
[gjohnson@ci.inver-grove-heights.mn.us](mailto:gjohnson@ci.inver-grove-heights.mn.us)

## Web Links

Gun Club Lake WMO: <http://www.dakotacountyswcd.org/watersheds/gunclubwmo/>  
Lower Mississippi River WMO: <http://www.dakotacountyswcd.org/watersheds/lmrwmo/lr-news2005.pdf>

## Local Government Unit for the Wetland Conservation Act (LGU)

Allan Hunting  
Inver Grove Heights  
8150 Barbara Ave.,  
Inver Grove Heights, MN 55077  
(651)450-2554  
[ahunting@ci.inver-grove-heights.mn.us](mailto:ahunting@ci.inver-grove-heights.mn.us)

## *Dakota County Soil and Water Conservation District*

Laura Jester  
Dakota County Watershed Conservationist  
Dakota County Soil and Water Conservation District  
4100 220th Street West, Suite 102  
Farmington, MN 55204  
[laura.jester@co.dakota.mn.us](mailto:laura.jester@co.dakota.mn.us)

Mike Isensee  
MPCA Stormwater Program for Construction Activities Inspections Contact  
Dakota County Soil and Water Conservation District  
4100 220th Street West, Suite 102  
Farmington, MN 55204  
651-480-7781  
[mike.isensee@co.dakota.mn.us](mailto:mike.isensee@co.dakota.mn.us)

## Web Link

<http://www.dakotacountyswcd.org/>

## Minnesota Board of Soil and Water Resources (BWSR)

Less Lemm  
Board Conservationist  
BWSR  
520 Lafayette Rd. N.  
St. Paul, MN 55155  
(651) 296-6057  
[les.lemm@bwsr.state.mn.us](mailto:les.lemm@bwsr.state.mn.us)  
<http://www.bwsr.state.mn.us/>

## Minnesota Department of Natural Resources (DNR)

Pat Lynch  
DNR Area Hydrologist  
DNR Waters  
Central Region  
1200 Warner Rd.  
St. Paul, MN 55106  
651-772-7917  
[pat.lynch@state.mn.us](mailto:pat.lynch@state.mn.us)  
<http://www.dnr.state.mn.us/waters/index.html>

## Minnesota Department of Transportation (Mn/DOT)

Nicklas Tiedeken  
Water and Wetland Requirement Compliance  
Office of Environmental Service  
Mn/DOT  
395 John Ireland Blvd  
Mail Stop 620  
St Paul, MN 55155-1899  
(651) 284-3789  
[nicklas.tiedeken@dot.state.mn.us](mailto:nicklas.tiedeken@dot.state.mn.us)  
<http://www.dot.state.mn.us/environment/>

## Minnesota Pollution Control Agency (MPCA)

Brian Gove  
MPCA Stormwater Program for Construction Activities Technical Contact  
520 Lafayette Rd. N.  
St. Paul, MN 55155651-296-7036  
[brian.gove@pca.state.mn.us](mailto:brian.gove@pca.state.mn.us)  
<http://www.pca.state.mn.us/water/stormwater/>

## United States Army Corps of Engineers (USACOE)

Brad Johnson  
Corps of Engineers Permit Staff  
Department of the Army  
St. Paul District, Attn: OP-R  
190 Fifth Street East, Suite 401  
St. Paul, MN 55101-1638  
651-290-5250  
[brad.a.johnson@mvp02.usace.army.mil](mailto:brad.a.johnson@mvp02.usace.army.mil)  
<http://www.mvp.usace.army.mil/regulatory/>

## II. Submittals

Examples of forms and instructions for typical submittal requirements for development projects are provided below. These materials include:

- ▶ Land alteration requirements [pages 7–11]
- ▶ Sample building permit application [page 12]
- ▶ Sample final plat application [pages 13-16]



- ▶ Sample planning application form [pages 17-21]
- ▶ Sample land alteration application [pages 22-24]
- ▶ Sample petition for local improvement [page 25]
- ▶ Sample preliminary plat application [pages 26-29]
- ▶ Minnesota Developer Checklist [page 31]
- ▶ 2004 Joint Trench contact - Metro East-Xcel Energy [pages 32]
- ▶ New Plat Submittal Form / New Residential Development [pages 33]

For more information on required submittals, contact Allan Hunting, the City Planner for the City of Inver Grove Heights.



**CITY OF INVER GROVE HEIGHTS  
DAKOTA COUNTY, MINNESOTA**

**LAND ALTERATION REQUIREMENTS FOR ALL CONSTRUCTION**

As per Section 420 of the Inver Grove Heights City Code, the following requirements will be enforced:

1. All slopes must be a minimum of four (4) feet horizontal to one (1) foot vertical.
2. No land may be altered that results in water runoff causing flooding or erosion on adjacent property. Such runoff shall be channeled to an appropriate drainage facility.
3. No concrete, asphalt, tree stumps or branches or demolition debris (as defined in City Code, Section 420.19) shall be use as fill material.
4. Operating hours: 7:00 a.m. to 7:00 p.m. only.
5. Fencing: When open excavation exceeds 20 feet and/or slope of 2:1, or greater, a fence completely around the site is required.
6. No stagnant water is permitted to collect.
7. All affected areas are to have topsoil re-spread and turf re-established within six (6) months of occupancy, or as defined by terms of a land alteration permit.
8. All excavation and filling work associated with a building permit is to be completed within six (6) months of occupancy. All work done after this time requires a permit as prescribed by Section 420 of the City Code.



**DAKOTA COUNTY SOLID WASTE REGULATION**  
**QUALIFIED CLEAN FILL GUIDELINES**

Pursuant to Dakota County Ordinance No. 110, Solid Waste Management, Section VII., Subsection 1., the Dakota County Environmental Management Department (“Department”) is granted the authority to waive provisions of Ordinance No. 110 pertaining to demolition landfills or special waste facilities. The intent and purpose of these guidelines are : (1) to allow for the use of certain solid waste materials as fill for beneficial land use project where the potential for environmental, public health and safety problems are minimal, and (2) to establish a staff review and approval process for qualified clean-fill projects which will not be subject to County Board licensure.

**I. DEFINITIONS.**

- A. **“Clean Fill.”** Uncontaminated natural earthen materials such as soil, sand and gravel.
- B. **“Demolition Waste.”** Waste resulting from the demolition of man-made structures and other similar materials specifically approved by the Department. This excludes asbestos and other materials specifically prohibited by the Department.
- C. **“Inert.”** Lacking the physical or chemical capacity to adversely impact human health or the environment.
- D. **“Qualified Clean Fill.”** Uncontaminated concrete, brick, or inert materials as approved by the Department.
- E. **“Qualified Clean Fill Landfill.”** Utilization of qualified clean fill for a beneficial land use project.

**II. LOCATION REQUIREMENTS.**

Qualified clean fill projects shall not be located within the following areas:

- A. Within areas that violate local land use and zoning laws.
- B. Within locations which may adversely impact surface water drainage.
- C. Within standing water, a wetland, lake, pond, reservoir, stream, or river, unless specifically approved by governing agencies for purposes of bank stabilization/erosion prevention. If so, attach a copy of the approval letter.
- D. Within areas where there are karst features, such as sinkholes, solution channels, disappearing streams, or caves.
- E. Within areas which may adversely impact public health and safety or the environment as determined by the Department.

- III. DIMENSION REQUIREMENTS.** Aggregate size may **NOT** exceed eighteen (18) inches in any dimension unless specifically approved by the Department.
- IV. APPLICATION REQUIREMENTS.** The responsible party (owner/operator) shall submit to the Department a narrative project description, including:
- A. The names, addresses and telephone numbers of the property owner(s) and the contractor(s) or party(ies) proposing to conduct the actual fill operation.
  - B. A legal description of the property at which filling activities are proposed.
  - C. The address/location from which fill materials originate.
  - D. A description of the proposed fill material(s) including: quantity, the fill type (i.e., concrete, brick) and the physical/chemical characteristics of the fill material (i.e., aggregate size). Chemical analysis of proposed fill materials may be required.
  - E. Plans and specifications for the proposed fill site, including at a minimum scale drawing or map indicating fill area(s), property lines, public road and access roads, surface water bodies, existing structures, north arrow, and other information as required by the Department.
  - F. The projected timetable for the proposed fill project.
  - G. A description of any local, state, and/or federal licenses, permits, approvals needed/acquired. If not applicable, please indicate. Provide copies of required applications made and approvals received from local, regional and/or state authorities.
  - H. Reapplication will be required if the project exceeds the volume or duration standards indicated in Section VII.
  - I. Provide a statement describing the reason for the fill project, and the expected use of the property after completion.
- V. INSPECTION REQUIREMENTS.** The Department requires and shall implement the following inspections prior to and in conjunction with a qualified clean fill project.
- A. Inspection of the proposed fill material and the site from which it originates, prior to its removal.
  - B. Inspection of the proposed fill site prior to placement of any fill.



- C. The responsible party(ies) shall notify the Department at least three (3) days prior to placement of fill at the fill site, once Department approval has been obtained.
- D. The Department reserves the right to inspect the fill project at any time.
- E. The Department shall conduct a final inspection of the fill site upon completion of the project, and reserves the right to require additional work at the fill site if proper site closure has not occurred.

**VI. CLOSURE REQUIREMENTS.** The following closure requirements shall be implemented by the responsible party(ies).

- A. The Department form, "Closure Record Location of an Abandoned Disposal Site," shall be filed on the property deed with the Dakota County Registrar of Deeds.
- B. Completed fill areas shall be covered with earthen material or otherwise terminated properly, in accordance with the plans and specifications submitted to and approved by the Department.
- C. Measure shall be taken to minimize erosion, such as the establishment of vegetation, and provision of adequate surface water drainage.

**VII. VOLUME REQUIREMENT AND CLASSIFICATION LEVELS.** The volume of fill material(s) allowed by the Department to be deposited at any one location shall be determined on a case-by-case basis, dependent upon location factors and type of material(s).

<u>Amount of Fill</u>	<u>Duration of Project</u>
A. Less than 100 cubic yards (exempt from County review/approval)	Less than 30 days
B. 100 - 500 cubic yards (Level I)	Less than 90 days
C. 500 - 5,000 cubic yards (Level II)	Less than 1 year
D. More than 5,000 cubic yards (Level III)	Less than 2 years

If a project exceeds either the volume or the duration, the Department will require reapplication by the responsible party(ies) and the project will be reclassified to a higher level, unless the project already exceeds 5,000 cubic yards, in which case, the project will continue to be classified at the greater than 5,000 cubic yard level.

**VIII. PERFORMANCE BOND.** Bonds or letters of credit shall be required for project classification levels, as referenced in Section VII. above, in the following amounts:

Level I — \$5,000  
Level II — \$10,000  
Level III — \$20,000

Insurance amounts, for general liability and vehicle liability for project operations, shall be in accordance with the amounts and conditions specified in Dakota County Ordinance No. 110, Section II., Subsection 5.

**IX. FEES.** To be determined per classification by the County Board of Commissioners on an annual basis.

**X. APPEAL.** Any party determined by staff to be subject to these guidelines shall have the right to appeal that determination or any subsequent determinations made by staff during the project review process to the County Board.

SWM:cleanfil



## CITY OF INVER GROVE HEIGHTS BUILDING PERMIT APPLICATION

1. BUILDING SITE ADDRESS \_\_\_\_\_ ZIP CODE \_\_\_\_\_

2. OWNER NAME \_\_\_\_\_ ADDRESS \_\_\_\_\_ PHONE (HOME) \_\_\_\_\_ (WORK) \_\_\_\_\_

3. CONTRACTOR \_\_\_\_\_ ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_ (FAX) \_\_\_\_\_

4. ARCHITECT/ENGINEER \_\_\_\_\_ ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_ (FAX) \_\_\_\_\_

5. LEGAL DESCRIPTION OF SITE (attach if long description) \_\_\_\_\_

6. CLASS OF WORK: NEW  ADDITION  REMODEL/ALTERATION  OTHER

7. DESCRIBE WORK \_\_\_\_\_

8. USE OF BUILDING \_\_\_\_\_

9. CONSTRUCTION DATA:

Setbacks: Front \_\_\_\_\_ Square Feet: Basement \_\_\_\_\_ Garage \_\_\_\_\_

Right Side \_\_\_\_\_ 1st Floor \_\_\_\_\_ Porch \_\_\_\_\_

Left Side \_\_\_\_\_ 2nd Floor \_\_\_\_\_ Deck \_\_\_\_\_

Rear Side \_\_\_\_\_ 3rd Floor \_\_\_\_\_ Other \_\_\_\_\_

Structure Height: \_\_\_\_\_ VALUATION (Incl. Labor): \_\_\_\_\_

10. The undersigned acknowledges that he/she has read this application and that the above is correct and agrees to comply with all the ordinances and laws of the City of Inver Grove Heights regulating building construction.

PERMIT #

SITE ADDRESS

\_\_\_\_\_  
SIGNATURE OF CONTRACTOR OR AUTHORIZED AGENT      DATE

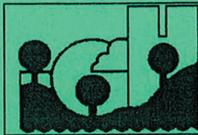
NOTICE: This is an application only. Permit will be issued after city approval and payment of fees.

OFFICE USE ONLY			
	FEE TYPE	AMOUNT	RECEIPT CODE
Zoning _____	Contractors License _____	_____	AK
Occupancy _____	Building Permit _____	_____	AL
Type of Constr. _____	Plan Review _____	_____	AM
# of Stories _____	Surcharge _____	_____	BR
Bdrm/Dwelling Units _____	Sprinkler/Alarm Permit _____	_____	AO
Max. Occup. Load _____	Misc. Permits (Sign, Fence) _____	_____	AR
Sprinklered _____	MCWS Sac Charge _____	_____	BP
	Sewer Connection Fee _____	_____	BD
	Water Connection Fee _____	_____	BC
Application Accepted By _____	Water Treatment Fee _____	_____	CD
License No. _____	Meter Sale _____	_____	WD
Building Insp. Approval _____	Tax on Meter _____	_____	BQ
Planning Approval _____	B-Line Sewer Connection _____	_____	BE
Engineering Approval _____	Park Dedication Fees _____	_____	BO
Fire Marshal Approval _____	Eagan Utility Connections _____	_____	CA
Approved to Issue By _____	Other Forms & Fees _____	_____	AS
Date Approved _____	<b>TOTAL FEE</b> _____	_____	
SPECIAL CONDITIONS _____	Receipt # _____	Date Issued _____	

★ APPLICANT NOT TO SEPARATE SHEETS ★

NOTICE: Inspections made by the City are a public service and do not constitute any representation, guarantee or warranty, either implied or expressed, to any person as to the condition of the building inspected.

8150 Barbara Ave. • Inver Grove Heights, MN 55077 • Inspections 651-450-2550



## FINAL PLATS

### PETITIONER'S INSTRUCTIONS

ALL REQUESTS FOR FINAL PLATS SHALL BE FILED WITH THE CITY'S PLANNING DIVISION. THE FOLLOWING DOCUMENTATION SHALL ACCOMPANY ALL REQUESTS BEFORE A REQUEST IS ACCEPTED FOR PROCESSING.

1. A completed application form with fees and including all information listed below.
2. Submit thirteen (13) folded full size copies plus one set of 11 x 17 reductions of the following:
  - a) Final Plat; Prepared for recording purposes in accordance with provisions of Minnesota State Statutes and Dakota County regulations. The final plat shall contain the following information:
    - Name of the subdivision, which shall not duplicate or too closely approximate the name of any existing subdivision.
    - Location by section, township, range, county and state, and including descriptive boundaries of the subdivision, based on an accurate traverse, giving angular and linear dimensions which must mathematically close. The allowable error closure of any portion of a final plat shall be one foot (1') in seven thousand five hundred feet (7500').
    - The location of monuments shall be shown and described on the final plat. Locations of such monuments shall be shown in reference to existing official monuments on the nearest established street lines, including true angles and distances to such reference points or monuments.
    - Location of lots, streets, public highways, alleys, parks and other features, with accurate dimensions in feet and decimals of feet, with the length of radii and/or arcs of all curves, and with all other information necessary to reproduce the plat on the ground shall be shown. Dimensions shall be shown from all angle points of curve to lot lines.
    - Lots shall be numbered clearly. Blocks are to be numbered with numbers shown clearly in the center of the block.



- The exact locations, widths and names of all streets to be dedicated.
- Location and width of all easements to be dedicated.
- Name and address of surveyor making the plat.
- Scale of plat (the scale to be shown graphically on a bar scale), date and north arrow.
- Statement dedicating all easements as follows:  
Easements for installation and maintenance of utilities and drainage facilities are reserved over, under, and along the strips marked "utility easements".
- Statement dedicating all streets, alleys and other public areas not previously dedicated as follows:
- Streets, alleys and other public areas shown on this plat and not heretofore dedicated to public use are hereby so dedicated.

b) Certification Requirement:

- Certification by registered surveyor in the form required by Section 505.03, Minnesota Statutes, as amended.
- Execution of all owners of any interest in the land and any holders of a mortgage thereon of the certificates required by Section 505.03, Minnesota Statutes, as amended and which certificate shall include a dedication of the utility easements and other public areas in such form as approved by the City Council.
- Space for certificates of approval and review to be filled in by the signatures of the Chair of the City Planning Commission and the Mayor and Deputy City Clerk.

c) Utility Plan

Plan and profile showing existing utilities, proposed utilities, connection with existing utilities (watermain, sanitary sewer, storm sewer) appropriate easements as required.



Note whether utilities will be publicly or privately constructed, owned and maintained.

For plats in the unsewerd portion of the City, note drainfield locations on proposed lots. (Must be located on undisturbed soil.)

d) Street Plan

Plan and profile showing internal roads, grades, lengths of cul-de-sacs, curb data (horizontal and vertical), connection to existing streets or platted right-of-way, provisions for future extensions or connections to adjacent land, appropriate easements or right-of-way.

e) Street Signage Plan

Plan showing location and details for all street signage. This must include all street name signs, regulatory signs, and warning signs that are to be located within any public or private street right-of-ways associated with the project. The street signage plan does not include fire lane signage, which will be addressed by the Fire Marshal together with issuance of building permits.

f) Wetland Plan

Plan showing fill or draining of any wetland including sequencing justification and proposed mitigation consistent with the Wetland Conservation Act. All wetlands must be delineated in accordance with the Wetland Conservation Act.

g) Tree Preservation Plan

Plan showing location, size and specie of all significant trees (8 caliper inches or greater for deciduous trees, 10 feet in height for coniferous trees) including trees to be preserved, removed and those within 30 feet of grading limits.

h) Reforestation or Landscape Plan

Plan showing reforestation required by City Code Section 515.90. Subd. 28 and landscaping required by City Code Section 515.90. Subd. 10. Plan must identify location, size, species and quantity of plant materials.



i) Letter from Dakota County or MN/DOT

Containing recommendations on access or right-of-way requirements, if the property abuts county or state roads or right-of-way, or proposes access to a state or county road.

Other Possible Agency Reviews

- MN/DOT - When a proposed plat is adjacent to state right-of-way or road, or access to a state road is proposed.
- Dakota County - When a proposed plat is adjacent to a county right-of-way or road, or access to a county road is proposed.
- DNR - For subdivisions, Planned Unit Developments in a Shoreland Overlay Zone, or for variances requested from the Shoreland Management standards.
- U.S. Army Corps of Engineers - Permits are required for fills exceeding one acre in identified wetlands.
- EQB (Minnesota Environmental Quality Board) - Projects requiring environmental review.





**CITY OF INVER GROVE HEIGHTS**

8150 Barbara Avenue • Inver Grove Heights, MN 55077 • (651) 450-2545

**PLANNING APPLICATION FORM**

**Section I: Applicant Information**

Applicant's Name \_\_\_\_\_  
Street Address \_\_\_\_\_  
City/State/Zip \_\_\_\_\_  
Mailing Address (if different than above) \_\_\_\_\_  
Telephone Number (Home) \_\_\_\_\_ (Work) \_\_\_\_\_ (Fax) \_\_\_\_\_  
E-Mail \_\_\_\_\_

Owner's Name (if different than above) \_\_\_\_\_  
Street Address \_\_\_\_\_  
City/State/Zip \_\_\_\_\_  
Telephone Number (Home) \_\_\_\_\_ (Work) \_\_\_\_\_ (Fax) \_\_\_\_\_  
E-Mail \_\_\_\_\_

**Section II: Type of Application**

- Variance
- Rezoning
- Comp Plan Amendment
- Waiver Of Plat
- Conditional Use Permit
- Preliminary Plat
- Final Plat
- Other: \_\_\_\_\_
- Major Site Plan Review
- Planned Unit Development
- Zoning Code Amendment

**Section III: Property Information**

Property Address \_\_\_\_\_  
Legal Description \_\_\_\_\_  
County Tax PIN \_\_\_\_\_

**Section IV: Other Information**

Attach the written description, plans and other required documents (See Petitioner's Instructions.).

**APPLICANT SIGNATURE** \_\_\_\_\_

**OWNER SIGNATURE** \_\_\_\_\_

**SECTION V (Office Use Only):**

Case Number: _____	Plan Review Committee Date: _____
Date Accepted: _____	Planning Commission Date: _____
Accepted By: _____	Park & Rec. Commission Date: _____
Receipt #: _____	Environmental Commission Date: _____
Escrow #: 702-0000- _____	City Council Date: _____
	60 Day Deadline: _____



**Section VI:      Application Fees**

Request Type	Base Fee	GIS Fee	Escrow*	Total
Comprehensive Plan Amendment	\$400	\$ 50	\$2,500	
Comprehensive Plan Amendment - Minor	\$200		\$250	
Zoning Code Amendment	\$200	--	\$500	
Zoning Code Amendment - Minor	\$100		\$250	
Rezoning	\$400	\$ 50	--	
Planned Unit Development (PUD)	\$500 + plat fees	variable	\$4,500	
PUD Amendment	\$250		\$1,000	
Preliminary Plat	\$250 + \$5/lot	--	\$2,500	
Final Plat - Single Family Residential.	\$200	\$ 25/lot	\$500	
Final Plat – Other (i.e. Commercial or Industrial)	\$200	\$100/acre	\$2,500	
Waiver of Plat	\$200	\$ 25	--	
Administrative Subdivision	\$100	\$ 25/lot	--	
Conditional Use Permit - Single Family Residence	\$250	--	--	
Conditional Use Permit - other	\$300	--	\$1,250	
Conditional Use Permit - other - Amendment	\$150		\$500	
Major Site Plan Review	\$300		\$1,000	
Variance - Residential	\$150	--	--	
Variance - Commercial	\$150	--	--	
Determination of Substantially Similar Use	\$150		\$200	
Street/Easement Vacation	\$150	\$ 50	--	
Street Dedication	\$150	\$ 50	--	
Wetland Conservation Act Certification	\$ 75	--	--	
Wetland Replacement Plan	\$200	\$100/acre	\$2,500	
<b>TOTAL CUMULATIVE FEE</b>	\$ (Code "AV")	\$ (Code "CB")	\$ (Acct. # )	\$

\*The above escrow amounts represent the minimum deposit required. Additional escrow amounts may be required depending upon the size, complexity and scope of project.



**CITY OF INVER GROVE HEIGHTS**

8150 Barbara Avenue • Inver Grove Heights, MN 55077 • (651) 450-2545

Dear Applicant:

As outlined in the Planning Application Form, the City of Inver Grove Heights requires a cash escrow deposit to cover all costs directly related to processing your application. These costs include City staff time, administrative costs, and costs for any consultants essential to complete the application's review.

The City makes every effort to minimize the cost of reviewing your application. To be most effective at this, it is important that you submit complete documents, plans, and designs. Incomplete submittals typically result in increased review time, and may require more of the City's consultants to become involved in the review. For example, if the City Attorney is required to draft legal documents that your attorney could draft, your escrow account would have to cover the City Attorney's time. Your own attorney may be able to complete the documents less expensively. The City's legal firm currently bills \$155/hour for its attorneys' time and \$75/hour for its legal assistants' time.

If your escrow deposit is depleted before the application is concluded, you will be required to make an additional deposit. In all cases, any negative balance in your escrow account will need to be paid prior to releasing City approvals of your application. Excess escrow will be refunded to you after final action is taken by the City Council and all billings are posted to your account.

Please contact the City Planner at 651-450-2553 if there are unanswered questions or you are unsure how to proceed.

Sincerely,

CITY OF INVER GROVE HEIGHTS

Acknowledgement by applicant that this letter has been read and understood:

\_\_\_\_\_  
(Applicant's signature)

\_\_\_\_\_  
(date)



**CITY OF INVER GROVE HEIGHTS, MINNESOTA  
PLANNING DIVISION**

PROPERTY ACCESS CONSENT FORM

This is to certify that on \_\_\_\_\_, 20\_\_\_\_, I,  
\_\_\_\_\_, owner of property described as follows (address  
or legal description):

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

\_\_\_\_\_, filed a request, (or authorized, by my signature, the filing of a request) with the Inver  
Grove Heights Planning Division for  
\_\_\_\_\_ on the described property.

By filing the above referenced request, I hereby consent to permit access to said property, at  
any reasonable time, to members of City Staff, the Planning Commission, and the City Council  
for purposes of viewing the site and information gathering that is pertinent to the request.

\_\_\_\_\_ Dated: \_\_\_\_\_  
Property Owner

(Please return this completed form to the Planning Division at the time of application for your  
planning request. If the Consent Form is not returned with your Planning Application Form, it  
will be assumed that you do not wish to grant access to your property for the stated purpose. A  
copy of the Consent Form will be retained in the planning file relative to your case. The consent  
granted by virtue of this form expires upon final City Council action relative to your request.)

**OFFICE USE ONLY**

Case No: \_\_\_\_\_ Applicant: \_\_\_\_\_

## Planning Application Cycles (Year 2005)

To use this table, identify the application deadline in the far left column and follow the table to the right to determine the applicable meeting dates for your application.

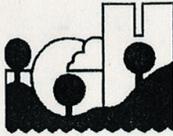
*\*\*The Planning Division reserves the right to impose earlier application deadlines should the need arise to limit the length of upcoming agendas.*

Application Deadline	Plan Review Committee	Planning Commission	Park and Rec. Commission**	Environmental Commission**	City Council
12/6/04	12/15/04	1/4/05	1/12/05	12/16/04	1/24/05
12/20/04	12/29/04	1/18/05	1/12/05	1/27/05	2/14/05
1/3/05	1/12	2/1	2/9	1/27	2/28
1/18	1/26	2/15	2/9	2/24	3/14
1/31	2/9	3/1	3/9	2/24	3/28
2/14	2/23	3/15	3/9	3/24	4/11
3/7	3/16	4/5	4/13	3/24	4/25
3/21	3/30	4/19	4/13	4/28	5/9
4/4	4/13	5/3	5/11	4/28	5/23
4/18	4/27	5/17	5/11	5/26	6/13
5/9	5/18	6/7	6/8	5/26	6/27
5/23	6/1	6/21	6/8	6/23	7/11
6/6	6/15	7/5	7/13	6/23	7/25
6/20	6/29	7/19	7/13	7/28	8/8
7/5	7/13	8/2	8/10	7/28	8/22
7/18	7/27	8/16	8/10	8/25	9/12
8/8	8/17	9/6	9/14	8/25	9/26
8/22	8/31	9/20	9/14	9/22	10/10
9/6	9/14	10/4	10/12	9/22	10/24
9/19	9/28	10/18	10/12	10/27	11/14
10/3	10/12	11/1	11/9	10/27	11/28
10/17	10/26	11/15	11/9	11/17	12/12
11/7	11/16	12/6	12/14	11/17	12/27*
11/21	11/30	12/20	12/14	12/22*	1/9/06
12/5	12/14	1/3/06	1/11/06	12/22*	1/23/06

\* Possible Change of Date

\*\* Not all requests require an appearance before the Park and Recreation Commission or the Environmental Commission. The applicant will be notified when an appearance before a Commission is not required.





**CITY OF INVER GROVE HEIGHTS**  
 8150 Barbara Avenue  
 Inver Grove Heights, MN 55077  
 (612) 450-2500 • (612) 450-2502 (fax)

Permit No \_\_\_\_\_

Type \_\_\_\_\_

**APPLICATION FOR LAND ALTERATION PERMIT**

*Date of Application* \_\_\_\_\_

**Excavator**

Excavator \_\_\_\_\_  
 Contact Person \_\_\_\_\_  
 Address \_\_\_\_\_  
 Telephone \_\_\_\_\_ Fax \_\_\_\_\_

**Land Owner(s)**

Land Owner \_\_\_\_\_  
 Address \_\_\_\_\_  
 Telephone \_\_\_\_\_ Fax \_\_\_\_\_

PID No. 20- \_\_\_\_\_

Legal Description Lot \_\_\_\_\_ Block \_\_\_\_\_ Addition \_\_\_\_\_

Section \_\_\_\_\_ Township \_\_\_\_\_

Land Owner \_\_\_\_\_  
 Address \_\_\_\_\_  
 Telephone \_\_\_\_\_ Fax \_\_\_\_\_

PID No. 20- \_\_\_\_\_

Legal Description Lot \_\_\_\_\_ Block \_\_\_\_\_ Addition \_\_\_\_\_

Section \_\_\_\_\_ Township \_\_\_\_\_

**Description of Land Being Altered**

General Location of Land Being Altered \_\_\_\_\_

Purpose of Land Alteration \_\_\_\_\_

Value of Work \$ \_\_\_\_\_ Estimated Start Date \_\_\_\_\_

Estimated Completion Date \_\_\_\_\_

Source and Composition of Fill \_\_\_\_\_

Cubic Yards of Fill \_\_\_\_\_ c.y.

Cubic Yards of Excavation \_\_\_\_\_ c.y.

Total Volume of Land Alteration = \_\_\_\_\_ c.y.

Total Area of Land Altered \_\_\_\_\_ Acres

**A. Plan Checking Fees**

100 - 500 Cubic Yards.....	NO FEE
501 TO 1,000 Cubic Yards.....	\$25.00
1,001 to 10,000 Cubic Yards.....	\$30.00
10,001 to 100,000 Cubic Yards.....	\$75.00
(For the first 10,000 Cubic Yards plus \$25.00 for each additional 10,000 Cubic Yards or fraction thereof).	
100,001 Cubic Yards or More.....	\$300.00
(For the first 100,000 Cubic Yards plus \$50.00 for each additional 100,000 Cubic Yards or fraction thereof).	

**B. Grading Permit Fees**

100 - 500 Cubic Yards.....	\$25.00
501 to 1,000 Cubic Yards.....	\$50.00
(For the first 500 Cubic Yards plus \$7.50 for each additional 100 Cubic Yards or fraction thereof).	
1,001 to 10,000 Cubic Yards.....	\$87.50
(For the first 1,000 Cubic Yards plus \$12.50 for each additional 1,000 Cubic Yards or fraction thereof).	
10,001 to 100,000 Cubic Yards.....	\$200.00
(For the first 10,000 Cubic Yards, plus \$16.00 for each additional 10,000 Cubic Yards or fraction thereof).	
100,001 Cubic Yards or more.....	\$350.00
(For the first 100,000 Cubic Yards, plus \$25.00 for each additional 100,000 Cubic Yards or fraction thereof).	

A. Plan Checking Fee \$ \_\_\_\_\_

B. Grading Permit Fee \$ \_\_\_\_\_

Total Fee (A + B) \$ \_\_\_\_\_

Amount of Bond \$ \_\_\_\_\_

(\$5,000 per acre, minimum \$10,000; Must be submitted upon approval of application, if applicable).

**Attachments to Application (The following plans, drawings, calculations, bonds and/or statements are required by the City Engineer).**

- Half-section map or sketch of property showing all adjacent property indicating the existing buildings and/or structures.
- Grading plan showing existing and proposed finished contours and elevations.
- Drainage plan showing existing and proposed drainage ways, culverts, storm sewer pipe, drainage structures, stabilization walls, retaining walls, cribbing, dams, or other protective items.
- Calculations for and approximate quantities of excavation and/or fill required.
- Signed statement from the property owner accepting responsibility for the operation and granting permission for land alteration/mining operation.
- Statement to be attached to deed advising of potential need for soil tests prior to any construction on lots where additional fill material has been placed.
- Sediment and erosion control plan meeting the requirements of the City of Inver Grove Heights City Code 430: Stormwater Management.
- Conformance with the City of Inver Grove Heights Water Resource Management Plan.
- Soil borings.
- Conformance with the City of Inver Grove Heights' Tree Preservation Ordinance.
- A final use plan, illustrating the ultimate land uses projected for the property.
- Location and surface type of access roads.
- Certification of Comprehensive General Liability Insurance.
- Compaction and/or Soil Density Requirements.
- Other: \_\_\_\_\_



**Stipulations**

1. A surety bond or certified check in the amount of \$ \_\_\_\_\_ (\$5,000 per acre, minimum \$10,000) must be submitted after approval of application and prior to any work. This bond or check is to ensure satisfactory performance and compliance with the below stated stipulations. The surety bond or check shall be kept active until the completion work and/or expiration of permit and can only be released by written notification of the City after a satisfactory final inspection has been performed by the City.
2. All access and street frontage of the land site must be controlled by a fence, a minimum of four (4) feet in height. All entrances must have gates that are capable of being locked.
3. Only rock, sand, gravel, dirt or similar natural earth fill is permitted. No concrete, asphalt, or demolition wastes will be permitted as fill unless a demolition landfill permit is first obtained from Dakota County (see attached).
4. Operations shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday - Saturday, and shall not interfere with the health and safety of surrounding residents and the premises shall be maintained at all times so as not to create a nuisance.
5. Any explosives used must be done so in accordance with Inver Grove Heights Code and any other applicable standards, e.g., Federal, State, Industrial, etc. Obtain all required permits.
6. At end of each season's operations and no later than the last day of December, each year, the site is to be left in a neat and orderly condition, with maximum slopes of 3:1 with no overhang of vertical banks and with a level bottom.
7. Each day, or when required by the City, material from this operation that is found to exist on City streets shall be cleaned to the City's satisfaction by the applicants.
8. Upon completion of land alteration operations, the land must be left according to the plans and contours submitted with this application and planted with vegetation (subject to approval by the City) to prevent erosion.
9. Upon completion of land alteration operations or expiration of this permit, an inspection will be made by the City of the premises and adjoining streets. Any damage to have been caused by these operations will be corrected by the applicant upon notification of the City.

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

Date \_\_\_\_\_

\_\_\_\_\_  
Property Owner's Signature

Date \_\_\_\_\_

\_\_\_\_\_  
Property Owner's Signature

Date \_\_\_\_\_

<b>CITY USE ONLY</b>			
Recommended for Approval	<input type="checkbox"/>	<input type="checkbox"/>	By _____ Date _____
	Yes	No	
Recommended for Approval	<input type="checkbox"/>	<input type="checkbox"/>	By _____ City Council _____ Date _____
	Yes	No	
Bond No. _____	Date Bond Expires _____		
Insurance Company _____	Date Insurance Expires _____		

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

## PETITION FOR LOCAL IMPROVEMENT

### CITY OF INVER GROVE HEIGHTS DAKOTA COUNTY, MINNESOTA

We, the undersigned, owners of not less than thirty-five (35) percent in frontage of real property abutting an existing or proposed street, hereby petition for that existing or proposed street, pursuant to Minnesota Statutes, Chapter 429, be improved by the improvement(s) checked below, to wit:

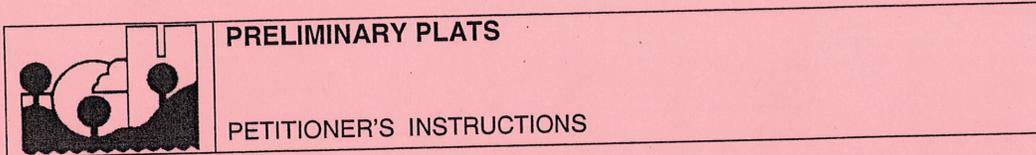
- Bituminous Surfacing
- Grading
- Concrete Surfacing
- Installation of Curbs and Gutters
- Construction of Water Mains and Necessary Appurtenances therein
- Construction of Storm Sewer and Necessary Appurtenances therein
- Construction of Sanitary Sewer and Necessary Appurtenances therein
- Construction of Sidewalks Therealong
- Installation of Street Lighting Therealong
- Other (Specify): \_\_\_\_\_

#### DESCRIPTION OF STREET OR WORK AREA:

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

Owner Signature	P.I.D. or Property Description	Frontage
1. _____ Name _____ Address	20- _____ P.I.D. No. _____ Property Description	_____ Feet
2. _____ Name _____ Address	20- _____ P.I.D. No. _____ Property Description	_____ Feet
3. _____ Name _____ Address	20- _____ P.I.D. No. _____ Property Description	_____ Feet
4. _____ Name _____ Address	20- _____ P.I.D. No. _____ Property Description	_____ Feet
5. _____ Name _____ Address	20- _____ P.I.D. No. _____ Property Description	_____ Feet
6. _____ Name _____ Address	20- _____ P.I.D. No. _____ Property Description	_____ Feet





ALL REQUESTS FOR PRELIMINARY PLATS SHALL BE FILED WITH THE CITY'S PLANNING DIVISION. THE FOLLOWING DOCUMENTATION SHALL ACCOMPANY ALL REQUESTS BEFORE A REQUEST IS ACCEPTED FOR PROCESSING:

- 1) A completed Planning Application Form with fees and including all information listed below.
- 2) Provide an Abstractor's Certificate of the names and addresses of the owners of property within 350 feet of the boundaries of the property under consideration or properties within 1,000 feet if the property is not to be served by city sewer and water.

(Source of such information is the Dakota County Abstract Company, located at 1250 Highway 55, Hastings, Minnesota 55113, (651-437-5600) – **MAY NEED TWO (2) WEEKS NOTICE FOR PREPARATION.** North Star Title (multiple metro locations). Universal Title Insurance Company (multiple metro locations).

- 3) Thirteen (13) folded full size copies plus one set of 11 x 17 reductions of the following:
  - a) Exact Legal Description(s) of the Property to be platted.
  - b) Preliminary Plat  
Containing the information as specified in Section 510.07, Subd. 2.
  - c) Grading and Drainage Plan  
Including earthwork quantities, final grades (3:1 maximum slopes, 4:1 preferred maximum), building pad elevations, existing and proposed topography, drainage calculations, 10-year storm pipe design, 100-year storm level of protection, direction of drainage around each building pad location, appropriate easements as required.
  - d) Erosion Control Plan  
Including method, location and detail of erosion control measures.

e) Utility Plan

Plan and profile showing existing utilities, proposed utilities, connection with existing utilities (watermain, sanitary sewer, storm sewer) appropriate easements as required.

Note whether utilities will be publicly or privately constructed, owned and maintained.

For plats in the non-utilitized portion of the city note drainfield locations on proposed lots. (Must be located on undisturbed soil.)

f) Street Plan

Plan and profile showing internal roads, grades, lengths of cul-de-sacs, curb data (horizontal and vertical), connection to existing streets or platted right-of-way, provisions for future extensions or connections to adjacent land, appropriate easements of right-of-way.

g) Street Signage Plan

Plan showing location and details for all street signage. This must include all street name signs, regulatory signs, and warning signs that are to be located within any public or private street right-of-ways associated with the project. The street signage plan does not include fire lane signage, which will be addressed by the Fire Marshal together with issuance of building permits.

h) Wetland Plan

Plan showing fill or draining of any wetland including sequencing justification and proposed mitigation consistent with the Wetland Conservation Act. All wetlands must be delineated in accordance with the Wetland Conservation Act.

i) Tree Preservation Plan

Plan showing location, size and specie of all significant trees (8 caliper inches or greater for deciduous trees, 10 feet in height for coniferous trees), including trees to be preserved, removed and those within 30 feet of grading limits.



j) Reforestation or Landscape Plan

Plan showing reforestation required by City Code Section 515.90. Subd. 28 and landscaping required by City Code Section 515.90. Subd. 10. Plan must identify location, size, species and quantity of plant materials.

k) Urban Development Concept Plan

All lands guided for residential development by the Comprehensive Plan that are located within the "A" Agricultural, "E-1" and "E-2" Estate Zoning Districts, are outside of the Metropolitan Urban Service Area (MUSA), and have a gross land area of 20.0 acres or more shall provide a concept plan indicating the manner in which land could be developed at urban densities. The Urban Development Concept Plan should be designed to current subdivision standards for urban development. In designing the subdivision, the following considerations shall be made:

- a. The proposed street layout for the urban subdivision overlay may, at the discretion of the City Council, be required to integrate with the rural plat to maximize the use of existing built roadways and connections to off-site systems. All street right-of-ways for the Urban Development Concept Plan may, at the discretion of the City Council, be required to be platted as part of the rural plat to secure the integrity of future urban platting.
- b. Lot size and arrangement may, at the discretion of the City Council, be required to be based on the R-1C One-Family Residential District standards. House pad locations for the rural development may, at the discretion of the City Council, be required to be indicated on the concept plan and be consistent with urban zoning standards so as to maximize efficient resubdivision of the rural lots into urban lots.
- c. Areas for potential park land dedication and trail connections shall be identified as Outlots that are suitable for dedication to the City if required by the City Council.
- d. The potential location of easements for drainage, municipal water, sanitary sewer, and storm sewer systems may, at the discretion of the City Council, be required to be shown in the Urban Development Concept Plan, including connection points for utility systems at the plat boundaries. Such easements may be required to be dedicated together with the rural plat if the City Council requires it.
- e. The preliminary storm drainage system design may, at the discretion of the City Council, be required to include proper pipe

sizing and storm water ponding improvements for the urban development.

l) Letter from Dakota County or MN/DOT

Containing recommendations on access or right-of-way requirements, if the property abuts county or state roads or right-of-way, or proposes access to a state or county road.

Other Possible Agency Reviews

- MN/DOT - When a proposed plat is adjacent to state right-of-way or road, or access to a state road is proposed.
- Dakota County - When a proposed plat is adjacent to a county right-of-way or road, or access to a county road is proposed.
- DNR - For subdivisions, Planned Unit Developments in a Shoreland Overlay Zone, or for variances requested from the Shoreland Management standards.
- U.S. Army Corps of Engineers - Permits are required for fills exceeding one acre in identified wetlands.
- EQB (Minnesota Environmental Quality Board) - Projects requiring environmental review.
- Any other applicable agency or jurisdiction.



# MINNESOTA DEVELOPER CHECKLIST

**BUILDERS CALL LINE 1-800-628-2121**

We've developed this checklist as a helpful tool for you to use when planning and scheduling your utility services for your residential or commercial developments. Your project may require design, scheduling, site visits and permitting, therefore please provide as much advance notice as possible so we can ensure the most timely installation of your services. By taking these factors into consideration, we can help you keep your project on schedule and eliminate delays. Please contact the **Xcel Energy Builders Call Line at 1-800-628-2121** to schedule any of the following services:

- Relocating existing gas or electric facilities that are in conflict with the new development.
- Disconnecting gas and electric services to existing homes on the site that will be moved or demolished for the new development.
- Determining temporary electric needs to serve:
  - Existing buildings that are required to remain in service while you prepare the site and complete development
  - Sales or construction trailers
- Moving or burying transmission lines.  
*Please note: this service requires at least six months advance notice to allow for permitting. Due to the expense, we provide this service on a limited basis.*
- Submitting overhead to underground request for existing overhead distribution.

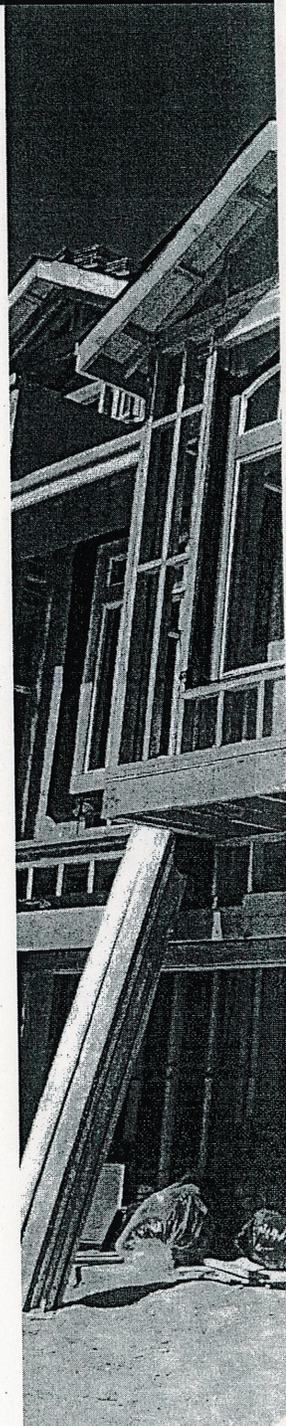
#### Telephone and Cable

- We recommend that you notify your appropriate phone & cable companies as soon as possible for undergrounding requests or modifications to their systems.

*Thank you for your assistance and we look forward to working with you.*

Builders Call Line  
1518 Chestnut Ave.  
Minneapolis, MN 55403  
1-800-628-2121  
www.xcelenergy.com

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Northern States Power Company d/b/a Xcel Energy  
03-08-108R 6/04 CSS# 1581



## 2004 JOINT TRENCH CONTACTS - METRO EAST

Name	Title	Office Number	Nextel Number	E-Mail Address
<b>XCEL ENERGY</b>				
Builders Call Line		800.628.2121		
Electric Emergency		800.895.1999		
Natural Gas Emergency		800.895.2999		
Jerry Vehrs	Joint Trench Field Coordinator - Metro East	651.229.2277	612.369.4530	jerome.a.vehrs@xcelenergy.com
Dave Horejsi	Joint Trench Coordinator	651.229.5537	612.369.3993	david.m.horejsi@xcelenergy.com
Jim Virant	Manager, Contracting	651.229.5532	612.369.4535	tim.j.virant@xcelenergy.com
Becky Harasyn	New Development Liaison	651.748.3333	612.723.5012	becky.l.harasyn@xcelenergy.com
Cindy Pariseau	Xcel Local Crew Construction Coordinator	651.779.3514	612.720.3799	cynthia.k.pariseau@xcelenergy.com
<b>MUELLER PIPELINERS</b>				
Bert Veen	Manager, Joint Trench	651.762.8600	612.369.4516	bveen@exelonunderground.com
Doug Cabak	Joint Trench Designer	952.829.4579	612.282.5598	douglas.m.cabak@xcelenergy.com
Troy Nodes	Joint Trench Designer	651.748.3340	612.369.0822	troy.b.nodes@xcelenergy.com
Gary Kammerude	Conduit Crossing		612.369.2734	
<b>COMCAST CABLE</b>				
Brad Greenwaldt	New Build Supervisor	651.493.5307	651.755.2445	bradley.Greenwaldt@cable.comcast.com
<b>CITIZENS/GTE/Frontier</b>				
Doug Roush		651.257.3151	612.209.5763	droush@czn.com
<b>CONNEXUS</b>				
Tim Bergh	Line Superintendent	763.323.4226	763.286.2249 612.369.4433	timbe@connexusenergy.com
<b>QWEST COMMUNICATIONS</b>				
John Driscoll	Metro South	612.861.8745	612.250.8059	jadrisc@qwest.com
Denny Hoel	Metro East	651.229.4643	612.275.1558	dhoel@qwest.com
Jason Perkins	Cottage Grove - Woodbury, Northfield	651.777.8666	651.231.5748	jpperki@qwest.com
Wayne Johnson	White Bear, Stillwater Lake Elmo, Forest Lake	651.282.8077	612.275.1567	wajohns@qwest.com
Jim Sanders	Metro North	651.281.7000	612.267.2035	jesanders@qwest.com
Ross Larson	Manager Design Engr.	651.714.7541	651.276.6426	rjlars2@qwest.com
<b>U.S. CABLE</b>				
John Fischer	Manager	320.980.3517		

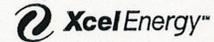


Builders Call Line  
1518 Chestnut Avenue  
Minneapolis, MN 55403  
(800) 628-2121  
www.xcelenergy.com

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Northern States Power d/b/a Xcel Energy  
04-03-409



# NEW PLAT SUBMITTAL FORM NEW RESIDENTIAL DEVELOPMENT



Builders Call Line • 1518 Chestnut Avenue • Minneapolis, MN 55403  
Phone: 612-623-2000 or 1-800-628-2121 Fax: 1-800-628-2521  
[www.xcelenergy.com](http://www.xcelenergy.com)

*Please photocopy this page for multiple use.*

Developer Name: \_\_\_\_\_ Today's Date: \_\_\_\_\_  
Phone: ( ) \_\_\_\_\_ Contact: \_\_\_\_\_ Fax: ( ) \_\_\_\_\_  
Pager: ( ) \_\_\_\_\_ Cell Phone: ( ) \_\_\_\_\_ Other Contact Number: ( ) \_\_\_\_\_  
Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
\*Email Address: \_\_\_\_\_

\*By providing your e-mail, you are giving us permission to send information about this and other Xcel Energy products, services and events

## Project Information

Development Name: \_\_\_\_\_ Contact: \_\_\_\_\_ Phone: ( ) \_\_\_\_\_  
Type of Development:  Single-Family Number of Lots: \_\_\_\_\_  Multi-Family Number of Units: \_\_\_\_\_  
Existing Homes on Site:  Yes  No Development Served By:  City Water/Sewer  Septic/Well  
Road Requirements:  Curb and Gutter  Sidewalk  Rural Ditch Section  
Paving:  Yes  No Association common area/community area/swimming pool:  Yes  No  
Association Sprinkler System:  Yes  No Sprinkler system electric locations(cross streets): \_\_\_\_\_  
Commercial Buildings:  Yes  No Fountains:  Yes  No 3 Phase Requirements:  Yes  No  
Requested Services:  Electric  Gas  Street Lighting  
List any special conditions that might require an on-site meeting to determine energy routing: \_\_\_\_\_

## Location

*If Plats Included skip this section*

Site Location: \_\_\_\_\_  
Nearest Crossroads: \_\_\_\_\_  
Section: \_\_\_\_\_ City/Town/Village (circle one)

## Schedule

Two full sets of construction plans enclosed:  Yes  No  
Approval Stage:  Conceptual  Preliminary  Final  
Construction Start Date: \_\_\_\_\_ Electric/Gas Target Install Date: \_\_\_\_\_

### THIS SECTION FOR Xcel Energy USE ONLY

Xcel Energy Street Lights Project?  Yes  No Work Order #: \_\_\_\_\_ Designer: \_\_\_\_\_  
GIS DATA:  
File ID: \_\_\_\_\_ Received From: \_\_\_\_\_ Date Received: \_\_\_\_\_  
Format:  Paper  Digital Type: \_\_\_\_\_  
Conversion Area:  Future  Current  
Date Landbase Created In GIS: \_\_\_\_\_ Date Street Centerlines and Address Created in GIS: \_\_\_\_\_  
Date Designer Notified: \_\_\_\_\_

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**III. Construction Inspection Checklists**



## Bioretention - Construction Inspection Checklist

Project:		
Location:		
Site Status:		
Date:		
Time:		
Inspector:		
Construction Sequence	Satisfactory / Unsatisfactory	Comments
<b>1. Pre-Construction</b>		
Pre-construction meeting		
Runoff diverted		
Facility area cleared		
Soil tested for permeability		
Project benchmark near site		
Facility location staked out		
Temporary erosion and sediment protection properly installed		
<b>2. Excavation</b>		
Lateral slopes completely level		
Soils not compacted during excavation		
Longitudinal slopes within design range		
Stockpile location not adjacent to excavation area and stabilized with vegetation and/or silt fence		
<b>3. Structural Components</b>		
Stone diaphragm installed per plans		
Outlets installed pre plans		
Underdrain installed to grade		
Pretreatment devices installed per plans		
Soil bed composition and texture conforms to specifications		
<b>4. Vegetation</b>		
Complies with planting specs		

## Bioretention - Construction Inspection Checklist

Topsoil complies with specs in composition and placement		
--	--	--

Soil properly stabilized for permanent erosion control		
--	--	--

### 5. Final Inspection

Dimensions per plans		
----------------------	--	--

Pretreatment operational		
--------------------------	--	--

Inlet/outlet operational		
--------------------------	--	--

Soil/ filter bed permeability verified		
--	--	--

Effective stand of vegetation stabilized		
--	--	--

Construction generated sediments removed		
--	--	--

Contributing watershed stabilized before flow is diverted to the practice		
---	--	--

Comments:



## Bioretention - Construction Inspection Checklist

Actions to be taken:



## Media Filter System - Construction Inspection Checklist

Project:

Location:

Site Status:

Date:

Time:

Inspector:

Construction Sequence	Satisfactory / Unsatisfactory	Comments
<b>1. Pre-Construction</b>		
Pre-construction meeting		
Runoff diverted		
Facility area cleared		
Soil tested for permeability		
Project benchmark near site		
Facility location staked out		
Temporary erosion and sediment protection properly installed		
<b>2. Excavation</b>		
Side slopes stable		
Foundation cleared of debris		
Excavation does not compact subsoil, if infiltration component of design		
Stockpile location not adjacent to excavation area and stabilized with vegetation and/ or silt fence		
<b>3. Structural Components</b>		
Materials per specifications		
Forms adequately sized		
Concrete meets standards		
Prefabricated joints sealed		
Under-drains (size, materials) per specifications		
<b>4. Vegetation</b>		
Contributing area stabilized with vegetation and/ or erosion blankets		
Filter material per specification		



## Media Filter System - Construction Inspection Checklist

Under-drains installed to grade		
Flow diversion structure installed per plans		
Pre-treatment devices installed per plans		
Level overflow weirs, multiple orifices, distribution slots		
<b>5. Final Inspection</b>		
Dimensions per plans		
Surface completely level		
Pre-treatment device operational		
Structural components operational		
Inlet/ outlet operational		
Contributing watershed stabilized before flow is diverted to the practice		
<p>Comments:</p>		

## Media Filter System - Construction Inspection Checklist

Actions to be taken:



## Vegetative Filter System - Construction Inspection Checklist

Project:
Location:
Site Status:
Date:
Time:
Inspector:

Construction Sequence	Satisfactory / Unsatisfactory	Comments
<b>1. Pre-Construction</b>		
Pre-construction meeting		
Runoff diverted		
Facility area cleared		
Project benchmark near site		
Facility location staked out		
Temporary erosion and sediment protection properly installed		
<b>2. Excavation</b>		
Size and location per plans		
Side slopes stable		
Soil permeability verified		
Groundwater / bedrock verified		
Lateral slopes completely level		
Longitudinal slopes within design range		
Subsoils not compacted during excavation		
Stockpile location not adjacent to excavation area and stabilized with vegetation and/ or silt fence		
<b>3. Check Dams</b>		
Dimensions per plans		
Spacing and grade installed per plans		
Materials per specifications		
<b>4. Structural Components</b>		
Filter material per specification		
Under-drains installed to grade		



## Vegetative Filter System - Construction Inspection Checklist

Under-drain installed per plans		
Inlet installed per plans		
Pre-treatment devices installed per plans		
<b>5. Vegetation</b>		
Dimensions per plans		
Check dams operational		
Inlet / outlet operational		
Effective stand of vegetation and stabilization		
Contributing watershed stabilized before flow is routed to the facility		
<p>Comments:</p>		



## Vegetative Filter System - Construction Inspection Checklist

Actions to be taken:



## Infiltration Trench - Construction Inspection Checklist

Project:
Location:
Site Status:
Date:
Time:

Construction Sequence	Satisfactory / Unsatisfactory	Comments
<b>1. Pre-Construction</b>		
Pre-construction meeting		
Runoff diverted		
Soil permeability verified		
Groundwater / bedrock verified		
Project benchmark established		
Facility location staked out		
Temporary erosion and sediment control established		
<b>2. Excavation</b>		
Size and location per plans		
Side slopes stable		
Depth adjusted to soil layer with specified soil type and permeability		
Sub-soil not adjacent to excavation area and stabilized with vegetation and/ or silt fence		
Stockpile location not adjacent to excavation area and stabilized with vegetation and/ or silt fence		
<b>3. Filter Fabric Placement</b>		
Fabric per specifications		
Placed per plan location		
<b>4. Aggregate Material</b>		
Size as specified		
Clean / washed material		



## Infiltration Trench - Construction Inspection Checklist

Placed properly		
<b>5. Observation Well</b>		
Pipe size per plans		
Under-drain installed per plans		
Inlet installed per plans		
Pre-treatment devices installed per plans		
<b>6. Vegetation</b>		
Complies with planting specifications		
Topsoil complies with composition and placement in specifications		
Permanent erosion control measures in place		
<b>7. Final Inspection</b>		
Dimensions per plans		
Check dams operational		
Inlet / outlet operational		
Effective stand of vegetation and stabilization		
Contributing watershed stabilized before flow is routed to the facility		
Comments:		
Actions to be taken:		

## Infiltration Basin - Construction Inspection Checklist

Project:

Location:

Site Status:

Date:

Time:

Inspector:

Construction Sequence	Satisfactory / Unsatisfactory	Comments
<b>1. Pre-Construction</b>		
Pre-construction meeting		
Runoff diverted		
Soil permeability verified		
Groundwater / bedrock verified		
Project benchmark established		
Facility location staked out		
Temporary erosion and sediment control established		
<b>2. Excavation</b>		
Size and location per plans		
Side slopes stable		
Depth adjusted to soil layer with specified soil type and permeability		
Sub-soil not adjacent to excavation area and stabilized with vegetation and/ or silt fence		
Stockpile location not adjacent to excavation area and stabilized with vegetation and/ or silt fence		
<b>3. Embankment</b>		
Anti-seep collar or filter diaphragm per plans		
Fill material per specifications		
<b>4. Final Excavation</b>		
Drainage area stabilized		
Sediment removed from facility		



## Infiltration Basin - Construction Inspection Checklist

Basin floor tilled		
Facility stabilized		
Removable cap / footplate per plans		
Initial depth = _____ feet		
<b>5. Final Inspection</b>		
Pre-treatment facility operational		
Contributing watershed stabilized prior to flow diversion		
Inlet and outlet operational		
Comments:		

## Infiltration Basin - Construction Inspection Checklist

Actions to be taken:



## Stormwater Pond/ Wetland - Construction Inspection Checklist

Project:		
Location:		
Site Status:		
Date:		
Time:		
Inspector:		
Construction Sequence	Satisfactory/ Unsatisfactory	Comments
<b>1. Pre-Construction/Materials and Equipment</b>		
Pre-construction meeting		
Pipe and appurtenances on-site prior to construction and dimensions checked		
1. Material (including protective coating, if specified)		
2. Diameter		
3. Dimensions of metal riser or pre-cast concrete outlet structure		
4. Required dimensions between water control structures (orifices, weirs, etc.) are in accordance with approved plans		
5. Barrel stub for prefabricated pipe structures at proper angle for design barrel slope		
6. Number and dimensions of prefabricated anti-seep collars		
7. Watertight connectors and gaskets		
8. Outlet drain valve		
Project benchmark near pond site		
Facility location staked out		
Equipment for temporary de-watering		
Temporary erosion and sediment control in place		
<b>2. Subgrade Preparation</b>		
Area beneath embankment stripped of all vegetation, topsoil, and organic matter		
<b>3. Pipe Installation</b>		
Method of installation detailed on plans		
<b>A. Bed preparation</b>		
Installation trench excavated with specified side slopes		

## Stormwater Pond/ Wetland - Construction Inspection Checklist

Stable, uniform, dry subgrade of relatively impervious material (If subgrade is wet, contractor shall have defined steps before proceeding with installation)		
Invert at proper elevation and grade		
<b>B. Pipe placement</b>		
Metal / plastic pipe		
1. Watertight connectors and gaskets properly installed		
2. Anti-seep collars properly spaced and having watertight connections to pipe		
3. Backfill placed and tamped by hand under “haunches” of pipe		
4. Remaining backfill placed in max. 8 inch lifts using small power tamping equipment until 2 feet cover over pipe is reached		
Concrete pipe		
1. Pipe set on blocks or concrete slab for pouring of low cradle		
2. Pipe installed with rubber gasket joints with no spalling in gasket interface area		
3. Excavation for lower half of anti-seep collar(s) with reinforcing steel set		
4. Entire area where anti-seep collar(s) will come in contact with pipe coated with mastic or other approved waterproof sealant		
5. Low cradle and bottom half of anti-seep collar installed as monolithic pour and of an approved mix		
6. Upper half of anti-seep collar(s) formed with reinforcing steel set		



## Stormwater Pond/ Wetland - Construction Inspection Checklist

7. Concrete for collar of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
8. Forms stripped and collar inspected for honeycomb prior to backfilling. Parge if necessary.		
<b>C. Backfilling</b>		
Fill placed in maximum 8 inch lifts		
Backfill taken minimum 2 feet above top of anti-seep collar elevation before traversing with heavy equipment		
<b>4. Riser / Outlet Structure Installation</b>		
Riser located within embankment		
<b>A. Metal riser</b>		
Riser base excavated or formed on stable subgrade to design dimensions		
Set on blocks to design elevations and plumbed		
Reinforcing bars placed at right angles and projecting into sides of riser		
Concrete poured so as to fill inside of riser to invert of barrel		
<b>B. Pre-cast concrete structure</b>		
Dry and stable subgrade		
Riser base set to design elevation		
If more than one section, no spalling in gasket interface area; gasket or approved caulking material placed securely		
Watertight and structurally sound collar or gasket joint where structure connects to pipe spillway		
<b>C. Poured concrete structure</b>		
Footing excavated or formed on stable subgrade, to design dimensions with reinforcing steel set		

## Stormwater Pond/ Wetland - Construction Inspection Checklist

Structure formed to design dimensions, with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
Forms stripped & inspected for honeycomb prior to backfilling; parge if necessary		
<b>5. Embankment Construction</b>		
Fill material		
Compaction		
Embankment		
1. Fill placed in specified lifts and compacted with appropriate equipment		
2. Constructed to design cross-section, side slopes and top width		
3. Constructed to design elevation plus allowance for settlement		
<b>6. Impounded Area Construction</b>		
Excavated / graded to design contours and side slopes		
Inlet pipes have adequate outfall protection		
Forebay(s) constructed per plans		
Pond benches construction per plans		
<b>7. Earth Emergency Spillway Construction</b>		
Spillway located in cut or structurally stabilized with riprap, gabions, concrete, etc.		
Excavated to proper cross-section, side slopes and bottom width		
Entrance channel, crest, and exit channel constructed to design grades and elevations		
<b>8. Outlet Protection</b>		
A. End section		



## Stormwater Pond/ Wetland - Construction Inspection Checklist

Securely in place and properly backfilled		
<b>B. Endwall</b>		
Footing excavated or formed on stable subgrade, to design dimensions and reinforcing steel set, if specified		
Endwall formed to design dimensions with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing, if necessary)		
Forms stripped and structure inspected for honeycomb prior to backfilling; parge if necessary		
<b>C. Riprap apron / channel</b>		
Apron / channel excavated to design cross-section with proper transition to existing ground		
Filter fabric in place		
Stone sized as per plan and uniformly place at the thickness specified		
<b>9. Vegetative Stabilization</b>		
Approved seed mixture or sod		
Proper surface preparation and required soil mendments		
Excelsior mat or other stabilization, as per plan		
<b>10. Miscellaneous</b>		
Drain for ponds having a permanent pool		
Trash rack / anti-vortex device secured to outlet structure		
Trash protection for low flow pipes, orifices, etc.		
Fencing (when required)		
Access road		
Set aside for clean-out maintenance		
<b>11. Stormwater Wetlands</b>		

## Stormwater Pond/ Wetland - Construction Inspection Checklist

Adequate water balance		
Variety of depth zones present		
Approved pondscaping plan in place and budget for additional plantings		
Plants and materials ordered 6 months prior to construction		
Construction planned to allow for adequate planting and establishment of plant community (April-June planting window)		
<b>12. Final Inspection</b>		
Construction sediment removed from settling basin		
Contributing drainage area stabilized		
Vegetation established per specifications		
Inlet and outlet structures operational		



## **IV. Operations and Maintenance**

Long term performance of BMPs is ensured with proper operation and regular maintenance. Maintenance is necessary to prevent the following problems (CWP, 2004):

- ▶ Sediment accumulation, reduction in storage volume
- ▶ Debris blockage of structures
- ▶ Structural damage
- ▶ Invasive plants
- ▶ Loss of slope stabilization vegetation
- ▶ Reduced structural integrity of embankments, weirs or risers

Therefore, it is REQUIRED that site designers communicate how to maintain the BMP in an Operation and Maintenance (O&M) Plan. Owners and maintenance staff will be able to reference this plan, for example, when they have questions about sediment removal, valve operation, or capacity for future site expansion. At a minimum the contents of an O&M manual should include:

- ▶ Detailed inspection and maintenance requirements/tasks
- ▶ Inspection and maintenance schedules
- ▶ Parties legally responsible for maintenance (name, address, and telephone number)
- ▶ Provisions for financing of operation and maintenance activities
- ▶ As-built plans of completed structures
- ▶ Letter of compliance from the designer
- ▶ Post-construction documentation to demonstrate compliance with maintenance activities

The following checklists for the BMPs recommended in this Manual are intended to supplement the O&M Plan requirements.

Additional guidance for individual stormwater treatment practices is provided in Chapter 8 of this manual. This guidance breaks the operation and maintenance requirements of BMPs into the following categories:

- ▶ Design Phase Maintenance Considerations
- ▶ Construction Phase Maintenance
- ▶ Post-Construction Operation and Maintenance

Stormwater Managers/Designers seeking more detailed background information are encouraged to research information available from the Center for Watershed Protection, the Toronto SWAMP program, the US EPA; or a local source, such as the City of Plymouth Pond Maintenance Policy.

## Bioretention - Operation & Maintenance Checklist

Project:		
Location:		
Site Status:		
Date:		
Time:		
Inspector:		
Maintenance Item	Satisfactory / Unsatisfactory	Comments
<b>1. Debris Cleanout (Monthly)</b>		
Contributing areas clean of litter and vegetative debris		
No dumping of yard wastes into practice		
Bioretention area clean of litter and vegetative debris		
<b>2. Vegetation (Monthly)</b>		
Plant height taller than design water depth		
Fertilized per O&M plan		
Plant composition according to O&M plan		
Undesirable vegetation removed		
Grass height less than 6 inches		
No evidence of erosion		
<b>3. Check Dams/Energy Dissipators/Sumps (Annual, After Major Storms)</b>		
No evidence of sediment buildup		
Sumps should not be more than 50% full of sediment		
No evidence of erosion at downstream toe of drop structure		
<b>4. Dewatering (Monthly)</b>		
Dewaters between storms within 72 hours/ 48 hours for MPCA permit		
No evidence of standing water		
<b>5. Sediment Deposition (Annual)</b>		
Pretreatment areas clean of sediments		



## Bioretention - Operation & Maintenance Checklist

Contributing drainage area stabilized and clear of erosion		
Winter sand deposition evacuated every spring		
<b>6. Outlet/Overflow Spillway (Annual, After Major Storms)</b>		
Good condition, no need for repair		
No evidence of erosion		
No evidence of any blockages		
<b>7. Integrity of Filter Bed (Annual)</b>		
Filter bed has not been blocked or filled inappropriately		
Comments:		
Actions to be Taken:		

## Media Filter System - Operation & Maintenance Checklist

Project:
Location:
Site Status:
Date:
Time:
Inspector:

Maintenance Item	Satisfactory / Unsatisfactory	Comments
<b>1. Debris Cleanout (Monthly)</b>		
Contributing areas clean of litter and vegetative debris		
Filtration facility clean		
Inlet and outlets clear		
<b>2. Oil and Grease (Monthly)</b>		
No evidence of filter surface clogging		
Activities in drainage area minimize oil and grease entry		
<b>3. Vegetation (Monthly)</b>		
Contributing drainage area stabilized		
Undesirable vegetation removed		
No evidence of erosion		
Area mowed and clipping removed		
<b>4. Sediment Traps and Forebays (Monthly)</b>		
Water holding chambers at normal pool		
No evidence of leakage		
Obviously trapping sediment		
Greater than 50% storage volume remaining		
<b>5. Sediment Deposition (Annual)</b>		
Filter chamber free of sediments		
Contributing drainage area stabilized and free of erosion		
<b>6. Structural Components (Annual)</b>		





## Vegetative Filter System - Operation & Maintenance Checklist

Project:		
Location:		
Site Status:		
Date:		
Time:		
Inspector:		
Maintenance Item	Satisfactory/ Unsatisfactory	Comments
<b>1. Debris Cleanout (Monthly)</b>		
Contributing areas clean of litter and vegetative debris		
Inlet and outlet clear		
Filtration facility clean		
<b>2. Check Dams or Energy Dissipaters (Annual, After Major Storms)</b>		
No evidence of flow going around structures		
No evidence of erosion at downstream toe		
<b>3. Vegetation (Monthly)</b>		
Mowing done per O&M plan		
Minimum mowing depth not exceeded		
Undesirable vegetation removed		
No evidence of erosion		
Fertilized per O&M plan		
<b>4. Dewatering (Monthly)</b>		
Dewaters between storms within 72 hours/ 48 hours for MPCA permit		
<b>5. Sediment deposition (Annual)</b>		
Clean of sediment		
Winter accumulation of sand removed each spring		
Contributing drainage area stabilized and free of erosion		
<b>6. Outlet/Overflow Spillway (Annual)</b>		
Good condition, no need for repairs		



## Vegetative Filter System - Operation & Maintenance Checklist

No evidence of erosion		
No evidence of blockage		
Comments:		
Actions to be Taken:		



## Infiltration Trench/ Basin - Operation & Maintenance Checklist

Project:		
Location:		
Site Status:		
Date:		
Time:		
Inspector:		
Maintenance Item	Satisfactory / Unsatisfactory	Comments
<b>1. Debris Cleanout (Monthly)</b>		
Contributing drainage area clear of litter and vegetative debris		
Trench surface clean		
Inflow pipes clear		
Overflow spillway clear		
Inlet area clean		
<b>2. Sediment Traps or Forebays (Annual)</b>		
Obviously trapping sediment		
Greater than 50% of storage volume remaining		
<b>3. Dewatering (Monthly)</b>		
Trench dewaterers between storms		
<b>4. Vegetation (Monthly)</b>		
Mowing done per O&M plan		
Minimum mowing depth not exceeded		
Undesirable vegetation removed		
No evidence of erosion		
Fertilized per O&M plan		
<b>5. Sediment Cleanout of Trench (Annual)</b>		
No evidence of sedimentation in gravel filter		
Sediment accumulation doesn't yet require cleanout		
<b>6. Sediment deposition of Basin (Annual)</b>		
Clean of sediment		
Winter accumulation of sand removed each spring		



## Infiltration Trench/ Basin - Operation & Maintenance Checklist

Contributing drainage area stabilized and free of erosion		
7. Inlets (Annual)		
Good condition		
No evidence of erosion		
8. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repair		
No evidence of erosion		
9. Aggregate Repairs (Annual)		
Surface of aggregate clean		
Top layer of stone does not need replacement		
Trench does not need rehabilitation		
Comments:		
Actions to be Taken:		

## Stormwater Pond/ Wetland Operation & Maintenance Checklist

Project:
Location:
Site Status:
Date:
Time:
Inspector:

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
<b>1. Embankment and emergency spillway (Annual, After Major Storms)</b>		
1. Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of embankment		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6. Pond, toe & chimney drains clear and functioning		
7. Seeps/leaks on downstream face		
8. Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam "As-Built"		
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
<b>2. Riser and principal spillway (Annual)</b>		
Type: Reinforced concrete _____		
Corrugated pipe _____		
Masonry _____		
1. Low flow orifice obstructed		



## Stormwater Pond/ Wetland Operation & Maintenance Checklist

2. Low flow trash rack.		
a. Debris removal necessary		
b. Corrosion control		
3. Weir trash rack maintenance		
a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
5. Concrete/masonry condition riser and barrels		
a. cracks or displacement		
b. Minor spalling (<1" )		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve		
a. Operational/exercised		
b. Chained and locked		
8. Pond drain valve		
a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		
3. Permanent Pool (Wet Ponds) (Monthly)		
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		

## Stormwater Pond/ Wetland Operation & Maintenance Checklist

4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1. Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual , After Major Storms)		
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4. Endwalls / Headwalls		
5. Other (specify)		
7. Other ( Monthly)		
1. Encroachment on pond, wetland or easement area		
2. Complaints from residents		
3. Aesthetics		
a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		



## Stormwater Pond/ Wetland Operation & Maintenance Checklist

5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
1. Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
2. Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
4. Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
Comments:		