CHAMPAIGN COUNTY ZONING BOARD OF APPEALS
NOTICE OF REGULAR MEETING

Date: February 13, 2014
Time: **6:30 P.M.**
Place: **Lyle Shields Meeting Room**
Brookens Administrative Center
1776 E. Washington Street
Urbana, IL 61802

Note: NO ENTRANCE TO BUILDING FROM WASHINGTON STREET PARKING LOT AFTER 4:30 P.M.
Use Northeast parking lot via Lierman Ave. and enter building through Northeast door.

If you require special accommodations please notify the Department of Planning & Zoning at (217) 384-3708

EVERYONE MUST SIGN THE ATTENDANCE SHEET – ANYONE GIVING TESTIMONY MUST SIGN THE WITNESS FORM

AGENDA

1. Call to Order
2. Roll Call and Declaration of Quorum
3. Correspondence
4. Approval of Minutes (January 16, 2014)
5. Continued Public Hearings

Note: The full ZBA packet is now available on-line at: www.co.champaign.il.us.

Case 685-AT-11 Petitioner: **Zoning Administrator**
Request: **Amend the Champaign County Zoning Ordinance by revising Section 6.1 by adding standard conditions required for any County Board approved special use permit for a Rural Residential Development in the Rural Residential Overlay district as follows:**

(1) Require that each proposed residential lot shall have an area equal to the minimum required lot area in the zoning district that is not in the Special Flood Hazard Area;

(2) Require a new public street to serve the proposed lots in any proposed RRO with more than two proposed lots that are each less than five acres in area or any RRO that does not comply with the standard condition for minimum driveway separation;

(3) Require a minimum driveway separation between driveways in the same development;

(4) Require minimum driveway standards for any residential lot on which a dwelling may be more than 140 feet from a public street;

(5) Require for any proposed residential lot not served by a public water supply system and that is located in an area of limited groundwater availability or over a shallow sand and gravel aquifer other than the Mahomet Aquifer, that the petitioner shall conduct groundwater investigations and contract the services of the Illinois State Water Survey (ISWS) to conduct or provide a review of the results;

(6) Require for any proposed RRO in a high probability area as defined in the Illinois State Historic Preservation Agency (ISHPA) about the proposed RRO development undertaking and provide a copy of the ISHPA response;

(7) Require that for any proposed RRO that the petitioner shall contact the Endangered Species Program of the Illinois Department of Natural Resources and provide a copy of the agency response.

Case 768-AT-13 Petitioner: **Zoning Administrator**
Request: **Amend the Champaign County Zoning Ordinance by adding the following standard conditions and special provisions to Section 6.1.3:**

Part A: Revise the use category "heliport/restricted landing area" to "heliport-restricted landing area: and revise the existing standard conditions and special provisions for the use category "heliport-restricted landing area" and add new standard conditions and special provisions, as follows:

(1) Number the existing standard condition and special provision 1.

(2) Add the following standard conditions and special provisions for a limited time not to exceed 365 days from the date of adoption:

(a) Add a standard condition and special provisions to require the Final Approach and Takeoff Area to be no closer than 800 feet from the nearest CR District when measured in a straight line from the Final Approach and Takeoff Area in an approach/takeoff path and no closer than 500 feet when measured from the Final Approach and Takeoff Area in other than an approach/takeoff path and that no part of the approach/takeoff path may be less than 100 feet above the nearest CR District.

(b) Add a standard condition and special provision to require that the Final Approach and Takeoff Area may be no closer than 1,320 feet from the nearest dwelling under different ownership

Case 768-AT-13 cont:

than the heliport-restricted landing area.

(c) Add a standard condition and special provision to require that the Final Approach and Takeoff Area may be no closer than 300 feet from the nearest property under different ownership than the heliport-restricted landing area.

Part B. Revise the existing standard conditions and special provisions for the use category "restricted landing area" and add new standard conditions and special provisions as follows:

(1) Number the existing standard conditions and special provision 1 through 4

(2) Add the following standard conditions and special provisions for a limited time not to exceed 365 days from the date of adoption:

(a) Add a standard condition and special provision to require the end of the runway to be at least 1,500 feet from the nearest CR District when measured in a straight line from the end of the runway and not less than 500 feet when measured from the edge of the runway and that no part of the approach surface may be less than 100 feet above the nearest CR District.

(b) Add a standard condition and special provision to require that the runway may be no closer than 1,320 feet from the nearest dwelling under different ownership than the restricted landing area.

(c) Add a standard condition and special provision to require that the runway may be no closer than 300 feet from the nearest property under different ownership than the restricted landing area.

6. New Public Hearings

Case 769-AT-13 Petitioner: **Zoning Administrator**

Request: **Amend the Champaign County Zoning Ordinance by amending the Champaign County Stormwater Management Policy by changing the name to Storm Water Management and Erosion Control Ordinance and amending the reference in Zoning Ordinance Section 4.3.10; and amend the Storm Water Management and Erosion Control Ordinance as described in the legal advertisement which can be summarized as follows:**

I. Revise existing Section 1 by adding a reference to 55 ILCS 5/5-15-15 that authorizes the County Board to have authority to prevent pollution of any stream or body of water. (Part A of the legal advertisement)

II. Revise existing Section 2 by merging with existing Sections 3.1 and 3.2 to be new Section 2 and add purpose statements related to preventing soil erosion and preventing water pollution and fulfilling the applicable requirements of the National Pollution Discharge System (NPDES) Phase II Storm Water Permit. (Part B of the legal advertisement)

III. Add new Section 3 titled Definitions to include definitions related to fulfilling the applicable requirements of the National Pollution Discharge Elimination System (NPDES) Phase II Storm Water Permit. (Part C of the legal advertisement)

IV. Revise existing Sections 3.3, 3.4, and 4 and add new Sections 5, 11, 12, 13, 14, and 15 and add new Appendices C, D, and E. Add requirements for Land Disturbance activities including a requirement for a Land Disturbance Erosion Control Permit including Minor and Major classes of Permits that are required within the Champaign County MS4 Jurisdictional Area; add a requirement that land disturbance of one acre or more in a common plan of development must comply with the Illinois Environmental Protection Agency's ILR 10 Permit requirements; add fees and time limits for each class of Permit; add requirements for administration and enforcement Permits; and add new Appendices with new standards and requirements for both Minor and Major Permits. (Parts D, E, L, M, N, O, T, U, and V of the legal advertisement)

V. Revise existing Section 7 to be new Section 6 and add a prohibition against erosion or sedimentation onto adjacent properties and add minimum erosion and water quality requirements that are required for all construction or land disturbance.

VI. Revise existing Section 5 to be new Section 8 and add a Preferred Hierarchy of Best Management Practices. (Part H of the legal advertisement)

VII. Revise and reformat existing Section 6, 8, 9, 10, 11, 12, and the Appendices and add new Section 18. (Parts G, I, J, P, Q, R, S and W of the legal advertisement)

7. Staff Report

8. Other Business
   A. Review of Docket
   B. Cancellation of March 27, 2014, meeting

9. Audience Participation with respect to matters other than cases pending before the Board

10. Adjournment

MINUTES OF REGULAR MEETING
CHAMPAIGN COUNTY ZONING BOARD OF APPEALS
1776 E. Washington Street
Urbana, IL 61801

DATE:	**January 16, 2014**	**PLACE:**	**Lyle Shield's Meeting Room** **1776 East Washington Street**
TIME:	**6:30 p.m.**		**Urbana, IL 61802**

MEMBERS PRESENT: Catherine Capel, Debra Griest, Marilyn Lee, Brad Passalacqua, Jim Randol

MEMBERS ABSENT : Roger Miller, Eric Thorsland

STAFF PRESENT : Connie Berry, John Hall, Susan Monte (County Planner, RPC)

OTHERS PRESENT : Lars Johnson, Shawn Bickers, Larry Hall, Julia Hall, Jean Fisher, Mark Fisher

1. Call to Order

The meeting was called to order a 6:30 p.m.

DRAFT

2. Roll Call and Declaration of Quorum

The roll was called and a quorum declared present with two members absent.

Mr. John Hall, Zoning Administrator stated that Mr. Thorsland is absent tonight due to a medical procedure that he has scheduled for tomorrow.

Mr. John Hall informed the Board that due to the absence of Mr. Thorsland the Board needs to appoint an acting Chair for tonight's meeting. He entertained a motion for appointment of an acting chair

Mr. Passalacqua moved, seconded by Mr. Randol to appoint Ms. Capel as acting Chair for tonight's meeting. The motion carried by voice vote.

Ms. Capel informed the audience that anyone wishing to testify for any public hearing tonight must sign the witness register for that public hearing. She reminded the audience that when they sign the witness register they are signing an oath

3. Correspondence

None

4. Approval of Minutes

None

5. **Continued Public Hearing**

Case 764-V-13 Petitioner: **Lars Johnson with agent Shawn Bickers Request to authorize the following in the R-4 Multiple Family Residence Zoning District: Part A. Authorize the following variance for an existing townhouse: (1) lot coverage of 44% in lieu of the maximum allowed 40%; and (2) a front setback of 40 feet from the centerline of Briar Hill Drive in lieu of the minimum required 55 feet; and (3) a front yard of 20 feet in lieu of the minimum required 25 feet. Part B. Authorize the following variance for an addition to an existing townhouse: (1) authorize construction of a building addition in a recorded utility easement in lieu of the requirement that no construction shall take place in a recorded utility easement; and (2) a side yard of 1 foot in lieu of the minimum required 5 feet.** Location: **Lot 1 of Wisegarver's Subdivision in the Southeast Quarter of Section 21 of Champaign Township and commonly known as the townhome at 2120 Briar Hill Drive, Champaign.**

Ms. Capel informed the audience that this is an Administrative Case and as such the County allows anyone the opportunity to cross examine any witness. She said that at the proper time she will ask for a show of hands for those who would like to cross examine and each person will be called upon. She requested that anyone called to cross examine go to the cross examination microphone to ask any questions. She said that those who desire to cross examine are not required to sign the witness register but are requested to clearly state their name before asking any questions. She noted that no new testimony is to be given during the cross examination. She said that attorneys who have complied with Article 7.6 of the ZBA By-Laws are exempt from cross examination.

Ms. Capel informed the audience that anyone wishing to testify for any public hearing tonight must sign the witness register for that public hearing. She reminded the audience that when they sign the witness register they are signing an oath.

Mr. Passalacqua stated that he has a few construction projects out for bid in which Mr. Shawn Bickers, co-petitioner, will be a sub-contractor for those projects, therefore due to this conflict he must remove himself from this case.

Ms. Capel asked the petitioners if they desired to make a statement outlining the nature of their request.

Mr. Lars Johnson, who resides at 1956 Berwyn, Chicago, stated that he had no new information to add tonight.

Ms. Capel asked Mr. Hall if he had any new information to add to the case tonight.

Mr. Hall, Zoning Administrator, stated that he had no new information to add to the case. He said that the information that was included in the mailing packet was very clear. He said that he would be happy to answer any questions that Board members may have regarding the case. He said that extra copies of Wisegarver's Subdivision were provided to the Board. He said that this was the same copy that was included in the Preliminary Memorandum but since it was the subject of a lot of the discussion at the last meeting staff thought that the Board might appreciate receiving fresh copies of the plat for review.

Ms. Capel asked Mr. Bickers if he had any new information to add to the case tonight.

Mr. Shawn Bickers, who resides at 4306 Summerfield Road, Champaign, stated that he had no new information to add to the case tonight.

Ms. Capel asked the audience if anyone desired to sign the witness register to present testimony regarding Case 764-V-13 and there was no one.

Ms. Capel closed the witness register.

Ms. Capel asked the Board if there were any questions for staff.

Ms. Griest stated the there is proposed special condition relating to prohibition of rebuilding a structure that is not yet built if it were destroyed by 50% or more. She said that the rationale behind this special condition is a little bit askew to her.

Mr. Hall stated that he noticed in the minutes that there was a question regarding the proposed special condition. He said that while he won't argue with Ms. Griest's view of the proposed special condition, but when preparing the materials for the Board's review it is not known what state of mind the Board will be in and one thing that staff has been very sensitive to lately is the irritated state that the Board gets in due to unauthorized construction that subsequently requires a variance. He said that the proposed special conditions were prepared early in the case and in his own mind if he had not proposed the special condition so early he might have not proposed it at all. He said that in the beginning we were posed with unauthorized construction and if it wasn't approved by the Board it would require removal and the fact that there may be less than 50% in place now was not a important as thinking that the Board may not want this to stay permanently unless there is a vacation of that part of the easement. He said that he would prefer no conditions if possible but early in the process he believed that such conditions may be necessary for the Board to make the necessary positive findings.

Ms. Lee stated that the petitioners are requesting a one foot side yard in lieu of the required five foot. She said that the petitioners have indicated that the garage type door would be relocated to the west side of the structure but in essence they will be moving their golf cart past the new addition and across the neighbor's yard. She said that it appears strange that the Board would indicate that it is okay to have an easement across the neighbor's yard to the extent that the golf cart exceeds one foot in width.

Mr. Hall stated that there is some question regarding how the golf cart will move from the storage area to the street. He said that there may be some overlap over the property line and there has been some discussion about maintenance of the lawn has always been based on an assumption that the lot line was down the

middle of the large open area when in fact the open area is all on the neighbor's lot. He said that he was assuming that Mr. Johnson and the neighbors could come to some sort of mutual agreement regarding the general maintenance of that part of the other lot in exchange for any golf cart traffic that occurs. He said that if the Board is skeptical that such an agreement would work and desires to see information regarding how the landscaping will be rearranged so that the golf cart can travel straight to the street and then down the street to the golf course then the Board would in its bounds to require such.

Mr. Johnson stated that the golf cart idea has been abandoned. He said that the storage area will be for the personal storage of his lawnmower, tools, etc. He said that they realized that the Board has previous questions regarding the golf cart access therefore they decided that the golf cart storage was not that important and moved the access to the west towards the street. He said that Mr. Bickers resubmitted the new plans indicating the change.

Mr. Hall stated that the plan that was received on December 11, 2013, still indicates "golf cart bay."

Mr. Johnson stated that Mr. Bickers was informed that he should not change the designation of the area.

Mr. Hall asked Mr. Johnson if he is testifying tonight that what was previously indicated as a "golf cart bay" should now be understood to be "lawnmower and other equipment storage."

Mr. Johnson stated yes.

Ms. Lee thanked Mr. Johnson.

Ms. Capel asked the Board if there were any additional questions regarding the special conditions.

Ms. Capel asked Mr. Johnson if he agreed with the proposed special conditions.

Mr. Johnson stated yes.

Ms. Capel entertained a motion to approve the proposed special conditions.

Mr. Randol moved to approve the proposed special conditions.

Ms. Capel called for a second for Mr. Randol's motion.

Mr. Hall noted that a motion must be called three times before it fails.

Ms. Capel called for a second to Mr. Randol's motion for a final time.

The motion failed due to the lack of a second.

Ms. Griest moved to approve proposed special conditions A.(1); A.(2); B and C and exclude A.(3).

Ms. Griest stated that she cannot support a special condition that allows building something that will not be allowed to be replaced. She said that she cannot ethically support building something that she would prohibit rebuilding should it be destroyed. She said that the structure is less than 50% built currently and she realizes that the contractor started work without authorization and that is unfortunate but she has an ethical dilemma in allowing them to continue building something that would not be allowed to be rebuilt if it were destroyed. She said that her position and the bottom line is whether the Board is going to allow the petitioner to build his structure and keep it or not to allow them to build it at all.

Mr. Hall stated that he would say that there is no need for a special condition if the Board is inclined to allow the structure to be completed and the structure to be used and there is no need for a special condition if the Board is inclined to think that there is not a special condition sufficient to allow construction to be completed therefore no special condition is needed for either one of those polar opposites. He said that

somewhere in between there a special condition may be needed but it may not be any of the proposed conditions but if the option is either one of those two then he thinks it is real simple, no special condition is required.

Ms. Griest stated that she appreciates Mr. Hall's recommendation and withdrew her motion.

Ms. Capel stated that the Board will proceed with no special conditions.

Mr. Hall stated that he does not want to make this any more complicated than necessary but Ms. Lee asked a question about what the Board is approving regarding the use of the structure. He said that if the Board approves the variance the Board will be approving a site plan and currently the site plan does not indicate golf cart storage but unless the Board makes a condition that it cannot be used for golf cart storage there is no prohibition in the future that it can be used for such in the future. He said that if the Board is really concerned about the storage of a golf cart then a special condition should be considered. He said that he is not recommending such a condition but he is putting the option out there for the Board's consideration in case one member believes it is necessary.

Mr. Randol stated that at the last meeting there was discussion that there was a mutual agreement between Mr. Johnson and the neighbors to allow moving back and forth through the area between the two structures. He said that if that travel ever became an issue it would be an issue between the neighbors and would have no affect on the ZBA because the property was one foot where everyone thought it was in the middle of the yard. He said that there is a maintenance agreement in place between the neighbors.

Mr. Johnson stated that there is a maintenance agreement in place and it has existed for almost 20 years. He said that if the neighbors didn't like something there would voice their concerns.

Mr. Hall stated that if the Board is comfortable with the neighbor's agreement then there is nothing else that needs to be done in that regard.

Mr. Randol stated that he is comfortable with just the neighbor's agreement. He said that sometimes the Board tries to get too involved in some of this stuff.

Ms. Capel stated that there is not a lot of difference between a riding lawnmower and a golf cart in terms of width and driving over the neighbor's property.

Mr. Randol agreed.

Ms. Lee stated that the present neighbors may be willing to allow Mr. Johnson to go over the property line but is the ZBA willing to, in effect, grant an easement of use. She said that a permanent easement could be granted between the neighbors.

Mr. Hall stated that he does not consider granting this variance to be the same thing as acquiescing to traveling over a neighbor's property because the door was moved and there is no need to travel over the property and testimony received tonight indicates that traveling over the property will not be the situation anyhow. He said that if the Board is so concerned that no golf cart storage should be allowed then the Board can certainly impose such a condition. He said that he would not want to have to make inspections to see what is being stored there but again, it is whatever the Board feels is necessary and justifiable. He noted that any condition would have to be accepted by the petitioner and the petitioner has already stated that the site plan doesn't indicate golf cart storage any longer. He said that the petitioner may accept a condition prohibiting golf cart storage or the petitioner may believe that the Board is getting too detailed.

Ms. Capel asked the Board if they were ready to proceed to the Finding of Fact.

Ms. Capel entertained a motion to proceed to the Finding of Fact for Case 764-V-13.

Ms. Griest moved, seconded by Mr. Randol to proceed to the Finding of Fact for Case 764-V-13. The

motion carried by voice vote.

Finding of Fact for Case 764-V-13:

From the documents of record and the testimony and exhibits received at the public hearing for zoning case 764-V-13 held on November 14, 2013, December 12, 2013, and January 16, 2014, the Zoning Board of Appeals of Champaign County finds that:

1. **Special conditions and circumstances DO exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district.**

Mr. Randol stated that special conditions and circumstances DO exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because the undisputed boundary line for years and the unknown issues with utility easements and the sanitary district had no problem with the construction.

Ms. Capel stated that the buildable area on the subject property is significantly smaller than on the other lots.

Mr. Hall stated that at the end of Mr. Randol's statement he mentioned that the utility companies had no problem with the construction. He asked Mr. Randol to explain his response.

Mr. Randol stated that at the last public hearing regarding this case there was a question whether or not there were sewer lines in the easement. He said that the Urbana Champaign Sanitary District indicated that there were no lines within the easement and that they had no problem with the structure being constructed.

Ms. Griest asked Mr. Randol if his statement intended to include all of the other utility companies that were involved. She said that although Illinois American Water stipulated that they have nothing running through

the easement and that they would have no objection to vacating, Ameren was unwilling to vacate the easement.

Ms. Capel stated that what Ameren actually said was that the fact that they were willing to allow did not imply a vacation. She said that the wording that Ameren used did not constitute a vacation.

Mr. Hall stated that Ameren's statement is included as item #11.E(3) in the Summary of Evidence.

Ms. Griest stated that item #11.E(3) does indicate that there are electric facilities within the easement along the north and east easement and that there is no immediate plan to use the south easement, but it is not a vacation of the south easement.

Ms. Capel stated that Ameren did not indicate their willingness one way or the other.

Ms. Griest stated that she would disagree and would interpret Ameren's statement as their willingness to not object does not mean that they are vacating it in any way. She said that she has no problem with Mr. Randol's statement indicating that the UCSD has no problem with the construction but it would be inaccurate if Ameren were included.

Ms. Griest stated that Illinois American Water had no interest in the easement and did not object to a vacation of the easement.

Mr. Hall read the Board's findings as follows:

- **Of the undisputed boundary line for years and the unknown issues with utility easements and the sanitary district had no problem with the construction; and**
- **Illinois American Water had no interest in the easement and did not object to the vacation of the easement; and**

- **The buildable area on the subject property is significantly smaller than on the other lots; and**

Ms. Capel stated that an additional point to add to the finding is that there is adequate space for utility maintenance between the two buildings.

- **There is adequate space for utility maintenance between the two buildings.**

Ms. Capel asked the Board if they agreed with Finding #1 and the Board agreed.

2. Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied WILL prevent reasonable or otherwise permitted use of the land or structure or construction.

Mr. Randol stated that practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied WILL prevent reasonable or otherwise permitted us of the land or structure or construction due to the open area between the two structures.

Ms. Capel stated that the townhome could not be reconstructed in the event of damage without the variance. She said that the addition, which is required for Mr. Johnson's business, would not obstruct the view to the golf course.

Ms. Griest asked Ms. Capel if she would entertain a minor revision to her previous statement. She said that the finding could read as follows: There is no alternative buildable area on the side of the building without obstructing views to the golf course.

Ms. Capel stated that she agreed with Ms. Griest's amended finding.

Mr. Hall read the Board's findings for Finding #2 as follows:

- **Of the open area between the two structures**
- **The townhome could not be reconstructed in the event of damage without the variance in Part A.**
- **There is no alternative buildable area on the side of the building without obstructing the views to the golf course.**

Ms. Capel asked the Board if they agreed with the findings for Finding #2 and the Board agreed.

3. The special conditions, circumstances, hardships, or practical difficulties DO result from actions of the applicant.

Ms. Griest stated that the special conditions, circumstances, hardships, or practical difficulties DO result from actions of the applicant because construction began prior to the issuance of a zoning use permit. She said that her recommendation would have been different if the construction had not begun and not moved forward with the request because the construction had begun. She said that this is a choice by the applicant to build this structure in this location and even if they had not begun the construction the applicant is choosing to place the structure in the proposed location therefore it would be an action on their part. She said that if someone has an opposing position on this finding and they would like to state that position she would be happy to hear it.

Ms. Capel stated that Part A. does not fall under Ms. Griest's finding. She said that Part A. involves the construction of the townhome itself and a permit that was issued in error. She said that Part A. includes lot coverage of 44% in lieu of the maximum allowed 40%; and a front setback of 40 feet from the centerline of Briar Hill Drive in lieu of the minimum required 55 feet; and a front yard of 20 feet in lieu of the minimum required 25 feet.

Ms. Griest asked Mr. Hall how the Board should respond to a finding when some parts of the variance apply to DO and some parts apply to DO NOT.

Mr. Hall stated that the Board does have to keep Part A. and Part B. in mind. He said that Finding #3 is talking about the special conditions which the Board has already said existed. He said that if the Board goes back and reviews Finding #1 the Board indicated that there was an undisputed boundary line and unknown issues with utility easements, two major utilities who have indicated that they do not have a problem with it, and smaller buildable area than on the other lots and adequate space for utility maintenance between the two buildings. He said that the Board could add that the project was begun without authorization but the Board needs to be careful with that because these findings are supposed to be about the property and building without a permit is not related to the property but is related to carelessness. He asked the Board to think about what it is about the property that DOES or DOES not support the variance. He said that the Board's findings in Finding #1 are all related to the property and construction without a permit is not related to the property.

Ms. Capel stated that the evidence states that the subcontractor was under the impression that there was a permit and stopped construction when it became apparent that there was no permit. She said that she would assume that the variance would have been applied for earlier had the misunderstanding not occurred.

Mr. Hall stated that this could work here if there was unauthorized construction indicated under Finding #1 because it would be consistent but in his mind there is a legal question about the Board focusing on things that are not related to the land. He said that he is not an attorney and he does not want to ever play like he is an attorney but he will give the Board whatever advice that he can.

Ms. Griest stated that she is having difficulty because she understands the conditions for the property when Mr. Johnson purchased it and the items in the variance that are related to the original construction but this is also including a request for additional construction which are a choice by the petitioner to include in this. She said that she is having difficulty being able to separate those two and if this was two separate cases it

would be much easier. She said that she has no problem with the lot coverage area and the setbacks in the front yard but her problem is with the proposal for the construction on the utility easement and up to within one foot of the side property line. She said that she can be flexible with the side yard variance but requesting to build something within the utility easement isn't part of the original construction therefore she can see both sides but there isn't a maybe or sort of in the DO and DO NOT.

Mr. Hall stated that this is why staff advertised this case in two parts. He said that if the evidence supports it he could imagine approval of one part and denial of the other part.

Ms. Griest asked if the Board should be preparing their findings as related to Part A. and findings related to Part B.

Mr. Hall stated yes. He said that if the Board wants to provide the possibility of clear approval of one part and clear denial of another then the findings need to be prepared separately. He said that the Board can return to Finding #1 and discuss Part A. and Part B. separately. He said that doing Parts A. and B separately does not lock the Board into any definite outcome but provides flexibility for the Board and if the Board needs that flexibility then that is what should be done.

Ms. Capel stated that there will be a finding for Part A. and Part B. She asked Mr. Hall if both findings have to be either negative or positive or could the Board find a positive finding for one part and a negative finding for the other part.

Mr. Hall stated yes, the Board could have different findings for each part.

Ms. Griest stated that there could be two final determinations, one on Part A. and one on Part B.

Mr. Hall stated yes. He asked the Board if they want to do anything else on Finding #3 or would they like to return to Finding #1 and resort.

Ms. Lee stated that if the Board is dealing with Part A. we are just dealing with lot coverage of 44% in lieu of the maximum allowed 40%; and the front setbacks which all go back to the original construction. She said that the Board will also deal with the front yard of 20 feet in lieu of the minimum required 25 feet.

Ms. Griest asked if Part A.(1) is prior to the addition or after the addition. She said that she would think that it is after the addition.

Mr. Randol stated that it is from the original construction.

Ms. Capel stated that there was an existing deck there and the construction is just taking the place of that deck.

Mr. Hall stated that a deck would not have been counted calculated as part of the lot coverage. He said that he does not believe that the area of the addition is 4% of the lot area therefore he is pretty certain that it was over the lot coverage in the beginning.

Mr. Randol stated that if the lot coverage is not taken as the original construction then the whole building will need to be changed. He said that the building was built over 40 years ago.

Ms. Lee stated that there was a Supplemental Memorandum on November 14, 2013, which indicated the following: Authorize the construction of an addition to an existing townhouse. She said that the memorandum indicates that the lot coverage is 44% in lieu of the maximum allowed 40% therefore she would believe that the original construction and the addition would be calculate to the 44%.

Ms. Griest asked Mr. Hall if the percentage does not include the addition is the variance adequate if the addition were approved.

Ms. Lee stated that the memorandum indicates that the total lot area is 14,840 square feet and the original square foot age of the house is 6,496.

Mr. Hall stated that the 264 square foot addition is nowhere near 4% of the lot area. He said that the existing building with no addition already exceeds the lot coverage limit. He apologized for not having this specific information included in the Summary of Evidence.

Ms. Griest stated that her calculations including the addition, indicates lot coverage of 45.55%. She said that Part A. is without the addition and the pre-construction lot coverage is 44%.

Ms. Lee stated that Part A. is incorrect.

Mr. Randol asked why the Board is trying to approve a variance for a structure that was built over 40 years ago rather than just taking care of what is proposed currently.

Ms. Capel stated that the building cannot be rebuilt if there was fire without a variance.

Ms. Griest stated that the variance would make the existing building compliant which gives them the ability to rebuild.

Ms. Capel asked Mr. Hall if the Board needs to vote on separating the findings into Part A. and Part B.

Mr. Hall stated that the Board only needs to vote on findings when there is reason to think that there are not four Board members in support of the finding. He said that separating the finding into parts does make a lot of sense. He said that the only way to provide the Board with the flexibility to approve on part and deny the other is to actually make complete findings for each part and he does not see any way that this one finding can apply to both parts. He asked the Board if they want to deal with each part separately or move through both parts concurrently through all of the findings.

Ms. Capel stated that the Board should move through each part separately.

Separation of Findings of Fact for Part A. and Part B of Case 764-V-13:

1. **Special conditions and circumstances DO exist for Part A which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district.**

Ms. Lee stated that special conditions and circumstances DO exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because a permit was issued even though the building did not comply with the Ordinance requirements.

Ms. Capel stated that the lot has significantly smaller buildable area than any of the other lots in the subdivision.

Ms. Griest stated that this unit is of similar size and shape to the adjoining three units on the subject property.

Mr. Hall pointed out that other than the aerial photography there is no evidence specific to Ms. Griest's finding.

The Board's Findings for Finding 1, Part A.:

- **The zoning use permit was approved even though the building did not comply with the Ordinance requirements; and**
- **The buildable area on the subject property is significantly smaller than on the other**

lots; and

- **This unit is of similar size and shape to the adjoining three units on the subject property.**

The Board's Findings for Finding 1, Part B.:

1. **Special conditions and circumstances DO exist for Part B which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district.**

- **Of the undisputed boundary line for years and the unknown issues with utility easements and the sanitary district had no problem with the construction; and**
- **Illinois American Water had no interest in the easement and did not object to the vacation of the easement; and**
- **The buildable area on the subject property is significantly smaller than on the other lots**

Mr. Hall asked the Board if they agreed to the findings for Finding 1 Parts A and B and the Board agreed.

The Board's Findings for Finding 2, Part A:

2. **For Part A, Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied WILL prevent reasonable or otherwise permitted use of the land or structure or construction.**

- **The townhome could not be reconstructed in the event of damage without the variance in Part A.**

The Board's Findings for Finding 2, Part B.:

For Part B, Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied WILL prevent reasonable or otherwise permitted use of the land or structure or construction.

- **Of the open area between the two structures; and**
- **There is no alternative buildable area on the side of the building without obstructing the views to the golf course.**

Mr. Hall asked the Board if they agreed to the findings for Finding 2 and the Board agreed.

The Board's Findings for Finding 3, Part A.:

For Part A, The special conditions, circumstances, hardships, or practical difficulties DO NOT result from actions of the applicant.

Ms. Lee stated that for Part A, the special conditions, circumstances, hardships, or practical difficulties DO NOT result from actions of the applicant because the structure was built in the 1970's which was long before the applicant came into the picture.

- **The construction happened in the 1970's long before the applicant owned the property.**

Ms. Lee asked Mr. Hall if the applicant had any idea that the structure was built out of compliance with the Zoning Ordinance.

Mr. Hall stated that he does not believe the applicant or anyone else was aware that the structure was built out of compliance with the Zoning Ordinance.

The Board's Findings for Finding 3, Part B.:

For Part B, The special conditions, circumstances, hardships, or practical difficulties DO result from actions of the applicant.

Ms. Griest stated that for Part B, the special conditions, circumstances, hardships, or practical difficulties DO result from actions of the applicant because the petitioner has proposed building in a recorded utility easement and with a size that would yield a one foot side yard in lieu of the required five feet.

Ms. Capel stated that the Board needs to revisit Finding #1, Part B to review what special conditions exist.

Mr. Hall stated that in the terms of the logic of the findings the Board could have a special condition in Finding #1 that construction was begun without a zoning use permit then later Finding 3, Part B, could be indicated that the special conditions, circumstances, hardships, or practical difficulties DO result from actions of the applicant.

The Board agreed to add the following to Finding #1, Part B: Construction was begun without a zoning use permit.

Mr. Hall read the Board's finding for Finding #3, Part B. as follows:

- **The proposed construction will reduce the side yard to one foot in lieu of the required five feet.**

Mr. Hall stated that the one thing that the Board should be thinking about is that this finding would indicate that this is causing some injury to the district. He said that Finding #5 refers to injury to the district therefore hopefully the Board will have some idea as to what injury has been done or will be caused.

Ms. Lee stated that Ms. Griest also mentioned that the petitioner was building within a recorded utility easement.

Mr. Hall revised the Board's finding as follows:

- **The petitioner proposed construction within a recorded utility easement with a size that would require a reduced side yard of one foot in lieu of the required five feet.**

Mr. Hall asked the Board if they agreed with the Finding for Finding 3, Part B.

Mr. Randol stated that he does not understand why this finding should be there when it has been agreed that everyone involved in the utility easement has indicated that they have no problem with the proposed construction.

Mr. Hall stated that Mr. Randol's concern is an important consideration.

Mr. Randol stated that the finding indicates a negative impact and everyone involved has indicated that they have no problems with it.

Mr. Hall stated that the Board could move forward with the Finding of Fact and once completed the Board could revisit all of the findings before they are adopted.

Ms. Capel asked if it would be appropriate to insert a contrary statement in the finding.

Mr. Hall stated that the Board could insert a contrary statement as long as the finding remains clear.

Ms. Griest asked Mr. Hall if this would be an appropriate place to reiterate the Summary of Evidence

information that the UCSD, Illinois American Water and Ameren have no existing utilities in the easement and have no plans to place utilities in the easement however none of them have vacated the easement. She said that it is significant information that none the three utility companies have vacated the easement even though they do not have any utilities located in it.

Mr. Hall stated that the UCSD's position, as he understands it, is that they have no easement to vacate and Illinois American Water indicated that they would be happy to support vacating the easement but Ameren only made clear that even though they had nothing at risk they would not vacate the easement. He said that he does not know what this information would do for the finding but he could certainly add it if the Board desires.

Mr. Randol stated that a ten foot easement is not big enough for water and sewer both because there must be a ten foot separation unless the sewer is two foot below the water. He said the water main is already located in front of the subject property.

Mr. Hall read Item 11.E(3) as follows: In an email dated October 10, 2013, from Elmer Crawford, Ameren Illinois Senior Engineering Representative, to Shawn Bickers, co-petitioner, Mr. Crawford indicated that there are electric facilities within the easement along the north and east easement and that there is no immediate plan to use the south easement, bit is not a vacation of the south easement. He asked the Board if that they believe that this is the same as saying that Ameren is opposed to vacation of the easement.

Ms. Capel stated no.

Ms. Griest stated that she disagreed with Ms. Capel.

Mr. Hall stated that the Board could vote on the interpretation.

Ms. Capel stated that the Board cannot vote on someone else's intent. She said that she and Ms. Griest are

interpreting Mr. Crawford's statement in two different ways.

Mr. Hall stated that the Board can vote on which interpretation the majority of the Board will support.

Ms. Lee stated that it is her opinion that if there is a recorded easement that the utility companies are not vacating then there is still a recorded easement.

Mr. Hall stated that Ms. Griest has suggested evidence which is her understanding that Ameren is opposed to the easement. He said that he wants the Board to be very careful because if this goes to court the Board does not have an email from Ameren indicating that they were opposed to the vacation of the easement.

Ms. Capel stated that the only evidence that the Board has is the email which indicates that they have not vacated the easement. She suggested that perhaps the finding should quote the email from Mr. Crawford.

Ms. Griest agreed that quoting the email would be appropriate.

Mr. Hall stated that quoting from the email will be difficult to do because the actual words are in the context of a broader statement.

Mr. Hall stated that the finding would read as follows:

- **Even though the proposed construction is located within a recorded utility easement, neither the UCSD nor Illinois American Water are opposed to vacation of the easement, Ameren made clear in an email dated 10/10/13 from Elmer Crawford, Senior Engineering Representative, that there is no immediate plan to use the south easement, but it is not a vacation of the south easement."**

Mr. Hall stated that he wants to make sure that the Board is comfortable with this being a finding related to

whether or not the special conditions result from the applicant.

The Board's Findings for Finding 4, Part A.:

4. For Part A, the requested variance IS in harmony with the general purpose and intent of the Ordinance.

Ms. Lee stated that For Part A, the requested variance IS in harmony with the general purpose and intent of the Ordinance because the initial mistake in the permit should not bring consequences to bear in later years.

Mr. Hall stated that legally, to allow something like this to go on for 40 years and then all of sudden deciding that it is so terrible to continue is very questionable.

Ms. Capel stated that the variance corrects an error that was made during the original construction.

Mr. Hall stated that the variance corrects the error and this criteria is the one the Board reviews why there is a lot coverage limit. He said that the requirement is to allow a certain amount of light and air into the units and the Board needs to decide if the units have adequate light and air.

Ms. Lee asked if there have been previous cases regarding similar lot coverage issues.

Mr. Hall stated yes, but each case is so unique that to try a draw some kind of rules from all of the previous cases is virtually impossible.

Ms. Griest stated that the building has always been like this and there has never been any detriment to the public health, safety, or welfare caused by the building. She said that the Champaign Township Highway Commissioner has no objection to the variance and the Fire Protection District has not provided comments. She said that it should be noted that the structure shares a common wall with an adjoining housing unit.

Mr. Hall stated that it may be appropriate to note that the structure is adjacent to a large golf course that provides ample light and air. He said that the variance is literally for the entire building and not just for Mr. Johnson's portion of that building.

Ms. Lee stated that she believes that it is appropriate to note that the structure is adjacent to a large gold course that provides ample light and air.

Ms. Griest stated that the property is bordered by a golf course on two sides and an open space for the interstate on a third side with a building on only one side that is 50 feet away from the subject building.

Ms. Lee asked if the open land to the south of Mr. Johnson's property is entirely owned by the property owner to the southeast.

Mr. Hall stated yes.

Ms. Capel stated that the subject property is at the end of Briar Hill Drive and it is very unlikely that the street will ever be widened or extended.

Mr. Hall read the Board's findings as follows:

- **The building has always been like this and there has never been any detriment to the public health, safety, or welfare caused by the building; and**
- **The Champaign Township Highway Commissioner has no objection to the variance; and**
- **The Fire Protection District has not provided any comments; and**
- **The property is bordered by a golf course on two sides and an open space for the interstate on a third side with a building on only one side that is 50 feet away from the**

subject property; and

- **The property is at the end of Briar Hill Drive and it is unlikely that the street will ever be widened.**
-

The Board's Findings for Finding 4, Part B.:

For Part B, the requested variance IS in harmony with the general purpose and intent of the Ordinance.

Mr. Randol stated that For Part B, the requested variance IS in harmony with the general purpose and intent of the Ordinance because this is an established subdivision that has been in existence since 1976.

Ms. Capel stated that the construction will not disturb existing utilities. She said that the property is bordered by a golf course on two sides and an open space for the interstate on a third side and the property is at the end of Briar Hill Drive and further development requiring additional utilities in this area is very unlikely.

Mr. Hall read the Board's findings as follows:

- **This is an established subdivision; and**
- **The construction will not disturb existing utilities; and**
- **The property is bordered by a golf course on two sides and an open space for the interstate on a third side and the property is at the end of Briar Hill Drive; and further development requiring additional utilities in this area is very unlikely;**

Ms. Griest stated that there are two similar additions constructed on townhomes on the property to the south.

Mr. Hall read Ms. Griest's finding as follows:

- **There are two other similar additions constructed on townhomes on the property to the south.**

The Board's Findings for Finding 5, Part A.:

For Part A, the requested variance WILL NOT be injurious to the neighborhood or otherwise detrimental to the public health, safety, or welfare.

Ms. Capel stated that for Part A, the requested variance WILL NOT be injurious to the neighborhood or otherwise detrimental to the public health, safety, or welfare because the building has always been like this and there has never been any detriment to the public health, safety, or welfare caused by the building.

Ms. Griest stated that the Champaign County Highway Commissioner has no objection to the variance and the Fire Protection District has not provided any comments.

Mr. Hall read the Boards findings as follows:

- **The building has always been like this and there has never been any detriment to the public health, safety, or welfare caused by the building; and**
- **The Champaign Township Highway Commissioner has no objection to the variance; and**
- **The Fire Protection District has not provided any comments; and**

Ms. Capel stated that the following finding could be added: Adequate light and air is provided by the abundant open space around the building.

Mr. Hall read Ms. Capel's finding as follows:

- **Adequate light and air is provided by the abundant open space around the building.**

The Board's Findings for Finding 5, Part B.:

For Part B, the requested variance WILL NOT be injurious to the neighborhood or otherwise detrimental to the public health, safety, or welfare.

Ms. Capel stated that for Part B, the requested variance WILL NOT be injurious to the neighborhood or otherwise detrimental to the public health, safety, or welfare because similar additions exist on townhomes to the south and have not been found to be injurious to the neighborhood. She said that it is unlikely that the existing easement will be required for new utilities as there are currently no utilities within the easement.

Mr. Hall stated that the water lines are within the easement but are in a different location.

Ms. Capel stated that she thought that the water lines were across the property line and in the easement on the property to the south.

Mr. Hall stated that Ms. Capel is thinking of the sanitary sewer lines.

Ms. Capel stated that the water line runs across the front of the property.

Mr. Randol stated that the water line does run across the front of the property and is not in the easement on the side of the property and actually there is nothing within the side easement.

Ms. Capel stated that the Champaign Township Highway Commissioner has no objection to the variance and the Fire Protection District has no provided any comments.

Ms. Griest stated that two items of evidence could be added. She said that items 7.H (1) and (2) of the Summary of Evidence could be added as follows: (1) The subject property is a one lot subdivision that is unlikely to ever be expanded; and (2) The subject property is at the end of Briar Hill Drive and is bordered by the Lincolnshire Fields Golf Course on the east and north and Interstate 57 is on the opposite side of the street so it is unlikely that future development will occur in the vicinity or that new utilities will be needed in the existing utility easement.

Mr. Hall read the Board's findings as follows:

- **There are two other similar additions constructed on townhomes on the property to the south which have not been injurious; and**
- **There are no utilities in the south utility easement; and**
- **The subject property is a one lot subdivision that is unlikely to ever be expanded; and**
- **The property is bordered by a golf course on two sides and an open space for the interstate on a third side and the property is at the end of Briar Hill Drive and further development requiring additional utilities in this area is very unlikely; and**
- **The Champaign Township Highway Commissioner has no objection to the variance; and**
- **The Fire Protection District has not provided any comments.**

Ms. Griest stated that she would like to return to Finding 1, Parts A and B and add items of evidence that she believes is relevant. She said that Items 7.G (1) and (2) should be added to Parts A and B as follows: (1)The subject property has an average lot width of only 140 feet and has a 10 feet wide utility easement on each side lot line for an overall net buildable lot width of only 120 feet; and (2) The other five lots on the North side of Briar Hill Drive have similar sized buildings and are similar in use to the subject property but the lots are 145 feet wide or wider and 3 of the 4 shared lot lines have no utility easements and therefore the smallest net buildable lot width among those five lots appears to be Lot 2 with a buildable lot width of 145 feet. She said that both of these items speak to the overall coverage, setbacks, and utility easement issues. She said

that overall she believes that these findings add weight to won't be injurious to the neighborhood and the general intent. She said that it shows the evolution of the development in that they made the changes but continued to build the same sized structures.

Mr. Hall asked Ms. Griest if the recommendation is to add Items #7.G(1) and (2) from page 11 of the January 10, 2014, Draft Summary of Evidence, these items have been added to Finding 1, Parts A and B.

Ms. Griest stated yes. She said that the fact that no utility easement exists on three of the four other shared lines is a significant factor.

Mr. Hall added Items #7.G.(1) and (2) to Finding 1, Parts A and B.

The Board's Findings for Finding 6, Part A.:

For Part A, the requested variance IS the minimum variation that will make possible the reasonable use of the land/structure.

Ms. Griest stated that for Part A, the requested variance IS the minimum variation that will make possible the reasonable use of the land/structure because there is no additional land available for purchase. She said that the Board has not received any evidence that indicates that no additional land is available for purchase but the recorded plat and the current aerial indicates such.

Ms. Capel asked if the Board needs to address that the lot coverage is 44% without the proposed construction and 46% with the proposed construction and does the case require re-advertisement.

Mr. Hall stated that he does not believe that the case requires re-advertisement.

Ms. Griest stated that the 44% is for the existing structure and if the Part B variance were approved that gave

approval for the additional 2% in lot coverage.

Ms. Capel agreed.

Ms. Griest stated that an additional finding could be as follows: it maintains the overall appearance of the neighborhood.

Mr. Hall read the Board's findings as follows:

- **There is no additional land available for purchase; and**
- **It maintains the overall appearance of the neighborhood.**

The Board's Findings for Finding 6, Part B.:

For Part B, the requested variance IS the minimum variation that will make possible the reasonable use of the land/structure.

Ms. Capel stated that for Part B, the requested variance IS the minimum variation that will make possible the reasonable use of the land/structure because there is no additional land available for purchase and the addition cannot be sited on any other part of the lot without blocking the view to the golf course.

Mr. Hall read the Board's findings as follows:

- **There is no additional land available for purchase; and**
- **The addition cannot be sited on any other part of the lot without blocking the view to the golf course.**

Ms. Griest stated that the addition is consistent in appearance with similar additions on townhomes to the

south.

Mr. Hall read Ms. Griest's finding as follows:

- **The addition is consistent in appearance with similar additions on townhomes to the south.**

The Board's Finding for Finding 7:

No Special conditions are hereby imposed.

Ms. Capel stated that the Board found positive findings on the following: Finding 1, Parts A and B; and Finding 2, Part A and B; and Finding 3, Part A; Finding 4, Parts A and B; and Finding 5, Parts A and B; and Finding 6, Parts A and B; and Finding 7. She said that the Board found a negative finding on Finding 3, Part B.

Ms. Lee asked if there was testimony regarding the one foot space and the neighbor not being opposed.

Mr. Hall stated that notices were sent out and staff did not receive any calls from the neighbors voicing concerns therefore he believes that there were no concerns.

Ms. Lee said that the neighbor who believed that the lot line was located in a different area didn't voice concerns regarding the addition either.

Mr. Hall stated that the Board has no evidence indicating that.

Ms. Griest that she does believe that the proposal by the applicant clearly is their action and the finding should be negative however Items #7.G(1) and (2) speaks volumes towards the DO NOT finding for Finding

3, Part B. She said that there are no utility easements on the 3 of the 4 shared lot lines and the fact that this is a smaller parcel. She said that the evidence for Finding 1, Parts A and B could also be appropriate for Finding 3, Part B in support of a finding for DO NOT. She said that if the Board desires to change their finding for Finding 3, Part B, to DO NOT there might be some alternatives to consider.

Mr. Hall stated that the Board must consider that even though construction was begun without a permit there are other factors that really suggest that the variance is reasonable. He said that there are three findings which indicate strong support for approval of the variance.

Ms. Griest stated that the Board originally included statements regarding the construction beginning without a permit because it wasn't critical to the Board's findings. She said that the Board could indicate that even though the construction would be located within a recorded utility easement neither the UCSD nor Illinois American Water are opposed to a vacation of the easement.

Ms. Capel stated that a separate statement could indicate the following: Ameren made clear in an email dated October 10, 2013, from Elmer Crawford, Senior Engineering Representative, that "there is no immediate plan to use the south easement."

Ms. Griest stated that the last item would show that there are no similar easements on similar properties that are adjacent to the subject property which gives a less likelihood that they would ever want to use them.

Mr. Hall read the Board's amended finding for Finding 3, Part B as follows:

The Board's amended Findings for Finding 3, Part B:

For Part B, the special conditions, circumstances, hardships, or practical difficulties DO NOT result from actions of the applicant.

- **The subject property has an average lot width of only 140 feet and has a 10 feet wide utility easement on each side lot line for an overall net buildable lot width of only 120 feet; and**
- **The other five lots on the North side of Briar Hill Drive have similar sized buildings and are similar in use to the subject property but the lots are 145 feet wide or wider and 3 of the 4 shared lot lines have no utility easements and therefore the smallest net buildable lot width among those five lots appears to be Lot 2 with a net buildable lot width of 145 feet; and**
- **Even though the proposed construction is located within a recorded utility easement, neither the UCSD nor Illinois American Water are opposed to vacation of the easement; and**
- **Ameren made clear in an email dated 10/10/13 from Elmer Crawford, Senior Engineering Representative, that "there is no immediate plan to use the south easement." ; and**

Ms. Griest stated that Items 7.H.(1) and (2) could be added to the Finding as well to support a DO NOT finding.

Mr. Hall read the findings as follows:

- **The subject property is a one lot subdivision that is unlikely ever to be expanded; and**

- **The subject property is at the end of Briar Hill Drive and is bordered by the Lincolnshire Fields Golf Course on the east and north and Interstate 57 is on the opposite side of the street so it is unlikely that future development will occur in the vicinity or that new utilities will be needed in the existing utility easement.**

Ms. Lee stated that Item # 7.E(2)(j) indicates that the neighbors have been very cooperative in discussing the

addition. She asked if Item # 7.E(2)(j) is discussing the neighbors to the south.

Ms. Capel stated yes. She said that Item #7.#(2)(J) is evidence from a previous hearing. She said that the other thing is that there is 50 foot distance between the two buildings. Ms. Capel stated that a new finding for Finding #3, Part B, could read as follows: Even though the proposed construction will reduce the side yard to one foot in lieu of the required five feet, Mr. Bickers, co-petitioner, testified that the neighbors have been very cooperative in discussing the addition and the nearest building is approximately 50 feet away.

Mr. Hall read the Board's finding as follows:

- **Even though the proposed construction will reduce the side yard to one foot in lieu of the required five feet, Mr. Bickers, co-petitioner, testified that the neighbors have been very cooperative in discussing the addition and the nearest building is approximately 50 feet away.**

Ms. Capel asked the Board if they agreed with the amended Finding 3, Part B and the Board agreed,

Ms. Capel asked Mr. Hall if the Documents of Record included in the January 10, 2014, Draft Summary of Evidence and Finding of Fact was current.

Mr. Hall stated yes.

Ms. Capel entertained a motion to adopt the Summary of Evidence, Documents of Record and Findings of Fact as amended for Part A.

Ms. Griest moved, seconded by Mr. Randol to adopt the Summary of Evidence, Documents of Record and Findings of Fact as amended for Part A. The motion carried by voice vote.

Ms. Capel entertained a motion to adopt the Summary of Evidence, Documents of Record and Findings of

Fact as amended for Part B.

Ms. Griest moved, seconded by Mr. Randol to adopt the Summary of Evidence, Documents of Record and Findings of Fact as amended for Part B. The motion carried by voice vote.

Ms. Capel entertained a motion to move to the Final Determination for Case 764-V-13.

Ms. Griest moved, seconded by Mr. Randol to move to the Final Determination for Case 764-V-13. The motion carried by voice vote.

Ms. Capel informed the petitioners that two Board members are absent and one Board member has abstained from the case therefore it is at their discretion to either continue Case 764-V-13 until a full Board is present or request that the present Board move forward to the Final Determination. She informed the petitioners that four affirmative votes are required for approval.

Mr. Johnson and Mr. Bickers requested that the present Board move to the Final Determination.

Final Determination for Case 764-V-13:

Ms. Griest moved, seconded by Mr. Randol that the Champaign County Zoning Board of Appeals finds that, based upon the application, testimony, and other evidence received in this case, that the requirements for approval in Section 9.1.9C HAVE been met, and pursuant to the authority granted by Section 9.1.6B of the Champaign County Zoning Ordinance, the Zoning Board of Appeals of Champaign County determines that the Variance requested in Case 764-V-13 is hereby GRANTED to the petitioners Lars Johnson and Shawn Bickers (agent) to authorize the following in the R-4 Multiple Family Residence Zoning District:

Part A. Authorize the following variance for an existing townhouse:

(1) lot coverage of 44% in lieu of the maximum allowed 40%; and

(2) a front setback of 40 feet from the centerline of Briar Hill Drive in lieu of the minimum required 55 feet; and

(3) a front yard of 20 feet in lieu of the minimum 25 feet.

Part B. Authorize the following variance for an addition to an existing townhouse:

(1) authorize construction of a building addition in a recorded utility easement in lieu of the requirement that no construction shall take place in a recorded utility easement; and

(2) a side yard of 1 foot in lieu of the minimum required 5 feet;

Ms. Capel requested a roll call vote:

Lee-yes	**Randol-yes**	**Capel-yes**
Griest-yes	**Miller-absent**	**Passalacqua-abstained**
Thorsland-absent		

Mr. Hall informed Mr. Johnson and Mr. Bickers that they have received an approval for their requested variance.

6. New Public Hearings

Case 768-AT-13 Petitioner: **Zoning Administrator** Request: **Amend the Champaign Zoning Ordinance by adding the following standard conditions and special provisions to Section 6.1.3: Part A. Revise the use category "heliport/restricted landing area" to heliport-restricting landing area: and revise the existing standard conditions and special provisions for the use category "heliport-restricted landing area" and add new standard conditions and special provisions, as follows: (1) Number the existing standard condition and special provision 1. (2) Add the following standard conditions and special provisions for a limited time not to exceed 365 days from the date of adoption: (a) Add a standard condition and special provisions to require the Final Approach and Takeoff Area to be no closer than 800 feet from the nearest CR District when measured in a straight line from the Final Approach and Takeoff Area in an approach/takeoff path and no closer than 500 feet when measured from the Final Approach and Takeoff Area in other than an approach/takeoff path and that no part**

of the approach/takeoff path may be less than 100 feet above the nearest CR District. (b) Add a standard condition and special provision to require that the Final Approach and Takeoff Area may be no closer than 1,320 feet from the nearest dwelling under different ownership than the heliport-restricted landing area. (c) Add a standard condition and special provision to require that the Final Approach and Takeoff Area may be closer than 300 feet from the nearest property under different ownership than the heliport-restricted landing area. Part B. Revise the existing standard conditions and special provisions for the use category "restricted landing area" and add new standard conditions and special provisions as follows: (1) Number the existing standard conditions and special provisions for the use category "restricted landing area" and add new standard conditions and special provisions as follows: (1) Number the existing standard conditions and special provisions 1-4; and (2) Add the following standard conditions and special provisions for a limited time not to exceed 365 days from the date of adoption: (a) Add a standard condition and special provision to require the end of the runway to be at least 1,500 feet from the nearest CR District when measured in a straight line form the end of the runway and not less than 500 feet when measured from the edge of the runway and that no part of the approach surface may be less than 100 feet above the nearest CR District. (b) Add as standard condition and special provision to require that the runway may be no closer than 1,320 feet from the nearest dwelling under different ownership than the restricted landing area. (c) Add a standard condition and special provision to require that the runway may be no closer than 300 feet from the nearest property under different ownership than the restricted landing area.

Ms. Capel entertained a motion to continue Case 768-AT-13 to the January 30, 2014, meeting and docket Case 768-AT-13 as the first case to be heard at that meeting.

Ms. Griest moved, seconded by Ms. Lee to continue Case 768-AT-13 to the January 30, 2014, meeting and docket Case 768-AT-13. The motion carried by voice vote.

Ms. Griest moved, seconded by Mr. Passalacqua to move Case 768-AT-13 as the first hearing on the January 30, 2013, agenda to be heard to accommodate those who attended tonight's hearing. The motion carried by voice vote.

7. Staff Report

None

8. Other Business

A. Review of Docket

Mr. Randol asked Mr. Hall why Case 765-V-13 is not indicated on the docket.

Mr. Hall stated that Case 765-V-13 has been withdrawn.

B. 2014 Zoning Board of Appeals Calendar

9. Audience Participation with respect to matters other than cases pending before the Board

None

10. Adjournment

Ms. Capel entertained a motion to adjourn the meeting.

Mr. Randol moved, seconded by Mr. Passalacqua to adjourn the meeting. The motion carried by voice vote.

The meeting adjourned at 9:26 p.m.

Respectfully submitted

Secretary of Zoning Board of Appeals

Champaign County
Department of
PLANNING &
ZONING

Brookens Administrative Center
1776 E. Washington Street
Urbana, Illinois 61802

(217) 384-3708
zoningdept@co.champaign.il.us
www.co.champaign.il.us/zoning

CASE NO. 768-AT-13

SUPPLEMENTAL MEMORANDUM
February 6, 2014

Petitioner: **Zoning Administrator** Prepared by: **John Hall,** Zoning Administrator
Susan Monte, RPC Planner

Request: Amend the Champaign County Zoning Ordinance by adding the following standard conditions and special provisions to Section 6.1.3:

Part A. Revise the use category "heliport/ restricted landing area" to "heliport-restricted landing area" and revise the existing standard conditions and special provisions for the use category "heliport-restricted landing area" and add new standard conditions and special provisions, as follows:

(1) Number the existing standard condition and special provision 1.

(2) Add the following standard conditions and special provisions for a limited time not to exceed 365 days from the date of adoption:

(a) Add a standard condition and special provision to require the Final Approach and Takeoff Area to be no closer than 800 feet from the nearest CR District when measured in a straight line from the Final Approach and Takeoff Area in an approach/ takeoff path and no closer than 500 feet when measured from the Final Approach and Takeoff Area in other than an approach/ takeoff path and that no part of the approach/ takeoff path may be less than 100 feet above the nearest CR District.

(b) Add a standard condition and special provision to require that the Final Approach and Takeoff Area may be no closer than 1,320 feet from the nearest dwelling under different ownership than the heliport- restricted landing area.

(c) Add a standard condition and special provision to require that the Final Approach and Takeoff Area may be no closer than 300 feet from the nearest property under different ownership than the heliport- restricted landing area.

Part B. Revise the existing standard conditions and special provisions for the use category "restricted landing area" and add new standard conditions and special provisions as follows:

(1) Number the existing standard conditions and special provisions 1 through 4.

(2) Add the following standard conditions and special provisions for a limited time not to exceed 365 days from the date of adoption:

(a) Add a standard condition and special provision to require the end of the runway to be at least 1,500 feet from the nearest CR District when measured in a straight line from the end of the runway and not less than 500 feet when measured from the edge of the runway and that no part of the approach surface may be less than 100 feet above the nearest CR District.

(b) Add a standard condition and special provision to require that the runway may be no closer than 1,320 feet from the nearest dwelling under different ownership than the restricted landing area.

(c) Add a standard condition and special provision to require that the runway may be no closer than 300 feet from the nearest property under different ownership than the restricted landing area.

STATUS

New evidence and a revised amendment are proposed based on the Board's discussion at the 1/30/14 meeting.

The amendment previously recommended for Section 4.3.8. is also reviewed again.

NEW EVIDENCE REGARDING THE SEPARATIONS BETWEEN EXISTING RLAs AND NEAREST DWELLINGS

In addition to the evidence that was previously proposed to be new item 16.E.(1) d., the following additional evidence is proposed as 16.E.(1) e. based on the Board's discussion at the 1/30/14 meeting:

d. A staff analysis of the four RLAs referred to in Case 688-S-11 and item 16.E.(1)c. of this Finding of Fact, and two additional RLAs that were not included in Case 688-S-11, was documented in the Supplemental Memorandum dated 1/16/14 as follows:

RLA Owner's Name (Township Section; Case Number if applicable)	Separation to Nearest Dwelling Under Other Ownership	Separation to Nearest Property Line
McCulley (Hensley 1)	760 feet ±	30 feet ±
Schmidt (Rantoul 29)	590 feet ±	10 feet ±
Busboom (St. Joseph 16)	1,600 feet ±	295 feet ±
Moment (Sidney 7; Case 672-S-88)	825 feet ±	150 feet ±
Schwenk (Pesotum 21; Case 724-S-90)	970 feet ±	270 feet ±
Routh (St. Joseph 36; Case 750-S-91)	900 feet ±	265 feet ±
AVERAGE	**940.8 feet**	**170.0 feet**
MINIMUM	**590 feet ±**	**10 feet ±**

e. The ZBA reviewed the staff analysis of the separation of existing RLAs to the nearest dwelling under other ownership but decided to recommend the 1,320 feet of separation that was included in the legal advertisement for the following reasons:

(a) The number of take-offs and landings at the existing RLAs are not known and therefore cannot be compared to any proposed RLA.

(b) The extra 380 feet of separation provided in a separation of 1,320 feet will provide a "factor of safety" over and above the existing average separation of 940 feet and can be evaluated as part of a permanent amendment.

COORDINATING THE AMENDMENT WITH SECTION 4.3.8

As was reviewed in the Supplemental Memorandum dated 1/16/14, the following changes are also recommended:

- **Add an exemption clause to Section 4.3.8 to make it read as follows:**

  No part of a BUILDING or STRUCTURE intended for regular human occupancy in a R or B DISTRICT nor a Public ASSEMBLY or INSTITUTIONAL USE not in existence or for which no Zoning USE Permit was issued on or before December 20, 1988 shall be located within the required separation distance or exclusion area as specified in the Explanatory or Special Provisions of Table 6.1.3 ,unless a SPECIAL USE Permit is granted per Section ~~9.1.5.D.4~~ 9.1.11. except as specifically exempted in Table 6.1.3. from the requirement for a SPECIAL USE Permit.

- **Make the following additional changes to the proposed amendment of Section 6.1.3 revising the use category "RESTRICTED LANDING AREAS" to "RESTRICTED LANDING AREA" and revising the Explanatory or Special Provisions to read as follows:**

  (1) Must meet the requirements of the Federal Aviation Administration and Illinois Department of Transportation, Division of Aeronautics.

  (2) The RESTRICTED LANDING AREA shall provide for a runway plus a runway safety area both located entirely on the LOT. The runway safety area is an area centered 120 feet wide and extending 240 feet beyond each end of the runway.

  (3) No part of a BUILDING or STRUCTURE intended for regular human occupancy located within a R or B DISTRICT nor any PUBLIC ASSEMBLY or INSTITUTIONAL USE may be located: 1) within the Primary Surface, an area 250 feet wide centered on the runway centerline and extending 200 feet beyond each end of the runway; or 2) the Runway Clear Zones, trapezoidal areas centered on the extended runway centerline at each end of the primary surface 250 feet wide at the end of the primary surface and 450 feet wide at a point 1,000 feet from the Primary Surface.

  (4) After a RESTRICTED LANDING AREA is established, the requirements in Section 4.3.7 and Table 5.3 note (12) shall apply.

  The following standard conditions shall be in effect for a limited time not to exceed 365 days from the date they are adopted:

(5) No part of the approach surface may be less than 100 feet above the nearest CR DISTRICT.

(6) The requirement of Section 4.3.8 notwithstanding, a BUILDING or STRUCTURE intended for regular human occupancy located within a R or B DISTRICT or any PUBLIC ASSEMBLY or INSTITUTIONAL USE may be located in the following required separation distances without being subject to the requirement for a SPECIAL USE Permit:

(a) The minimum separation to the nearest CR DISTRICT shall be a rectangular area encompassing 1,500 linear feet measured outward from the end of the runway and 500 linear feet measured outward from the side edge of the runway extended by 1,500 feet.

(b) No part of the runway may be closer than 1,320 feet from the nearest DWELLING under different ownership than the RESTRICTED LANDING AREA.

(c) No part of the runway may be closer than ~~300~~ 280 feet from the nearest PROPERTY under different ownership than the RESTRICTED LANDING AREA.

- **Make similar changes to the proposed amendment of Section 6.1.3 revising the use category "HELIPORTS or HELIPORT/RESTRICTED LANDING AREAS"**

ATTACHMENTS

A Revised Finding of Fact Items 16.E.(3) and (4)
B Diagrams of Revised Minimum Separations
C Revised Amendment

(3) Regarding the proposed standard condition and special provision in Part B of the proposed amendment to require that a restricted landing area (RLA) runway may be no closer than ~~300~~ 280 feet from the nearest property under different ownership than the RLA:

a. The proposed ~~300~~ 280 feet separation applies to separation from both the end of an RLA runway and the edge of an RLA runway.

b. The minimum RLA obstruction clearance requirements enforced by the Illinois Department of Transportation Division of Aeronautics are illustrated in Illustrations G-1 and G-2 of 92 Ill. Adm. Code 14 Subpart G.

c. The minimum separation from a RLA runway to a property under different ownership than the RLA required by the Zoning Ordinance currently is the following:

(a) Clearance for the side transition area at a slope of 7 to 1 for a horizontal distance of 84 feet and a height of 12 feet. Requiring only 84 feet of separation to property under other ownership may impact the existing use of that property and also the "by right" rural residential development potential of the other property. An RLA may also parallel a street and in those situations the separation between the RLA and the street should be such that landing and takeoff activities do not distract the street traffic.

(b) The minimum required clearance at the ends of the RLA runway is 265 feet based on the required 240 feet "runway safety area" required as a standard condition in Section 6.1.3 and the minimum required front or rear yard of 25 feet required by Section 5.3. The 265 feet of horizontal separation at the end of the runway provides for a vertical clearance of only about 17 feet 8 inches beneath the approach area. If there is an electrical utility line at either end the minimum separation is 300 feet from the utility line, assuming the utility line is at least 20 feet above the ground. If there is a railroad at either end of the runway the minimum separation is 345 feet based on the minimum 23 feet of clearance over all railroads required by Illustration G-1 of 92 Ill. Adm. Code 14 Subpart G. Note that even more separation may be required depending upon the difference in topographic elevation between the RLA and the railroad.

d. The proposed ~~300~~ 280 feet separation to other property at both the end of an RLA runway and the edge of an RLA runway will not

ensure adequate separation for a typical 20 feet high electrical utility line ~~and will reduce the impact of the RLA on neighboring land.~~

e. The proposed ~~300~~ 280 feet separation ~~also~~ means that the minimum total width of property required for a RLA runway will be ~~700~~ 660 feet and could ~~not~~ be accommodated by the typical long (half mile) narrow (660 feet) 40 acre parcel.

~~e~~ f. An RLA petitioner may propose less separation than the minimum proposed ~~300~~ 280 feet from the nearest property under different ownership than the RLA and in that instance the ZBA will have to approve a waiver of this standard condition. Approval of a waiver of a standard condition requires a finding that such waiver is in accordance with the general purpose and intent of the Zoning Ordinance and will not be injurious to the neighborhood or to the public health, safety, and welfare.

~~f~~g. The proposed standard condition and special provision to require that a restricted landing area (RLA) runway may be no closer than ~~300~~ 280 feet from the nearest property under different ownership than the RLA, will only be effective for a limited time not to exceed 365 days from the date of adoption and thereafter, the proposed standard condition and special provision or some modification thereof will presumably be made part of a permanent amendment to the Zoning Ordinance.

(4) Regarding the proposed standard condition and special provision in Part A of the proposed amendment to require that for a heliport- restricted landing area the Final Approach and Takeoff Area shall be no closer than 300 feet from the nearest property under different ownership than the heliport- restricted landing area:

a. Relevant evidence regarding the proposed standard condition and special provision in Part B of the proposed amendment to require that a restricted landing area (RLA) runway may be no closer than ~~300~~ 280 feet from the nearest property under different ownership than the RLA is reviewed in Finding of Fact item 16.E.c. and similar considerations apply to the proposed standard condition and special provision in Part A of the proposed amendment to require that for a heliport- restricted landing area the Final Approach and Takeoff Area shall be no closer than ~~300~~ 280 feet from the nearest property under different ownership than the heliport- restricted landing area except that there is no side transition for a heliport- restricted land area nor is there a runway

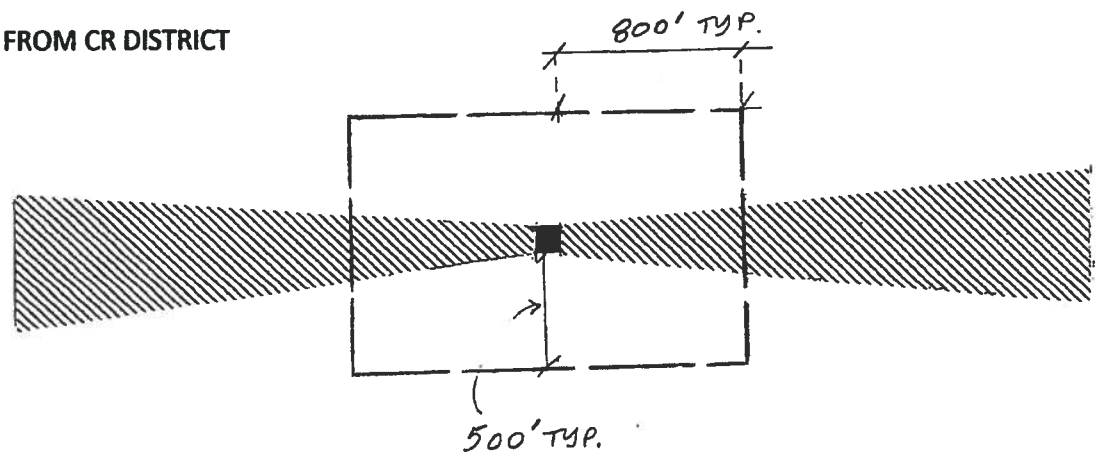
safety area required by Section 6.1.3 of the Ordinance for a heliport-restricted land area.

b. Note that the proposed ~~300~~ 280 feet separation provides for a vertical clearance of about ~~37 feet 6 inches~~ 35 feet beneath the approach/ takeoff path for a restricted landing area heliport.

Diagrams of Revised Minimum Separations

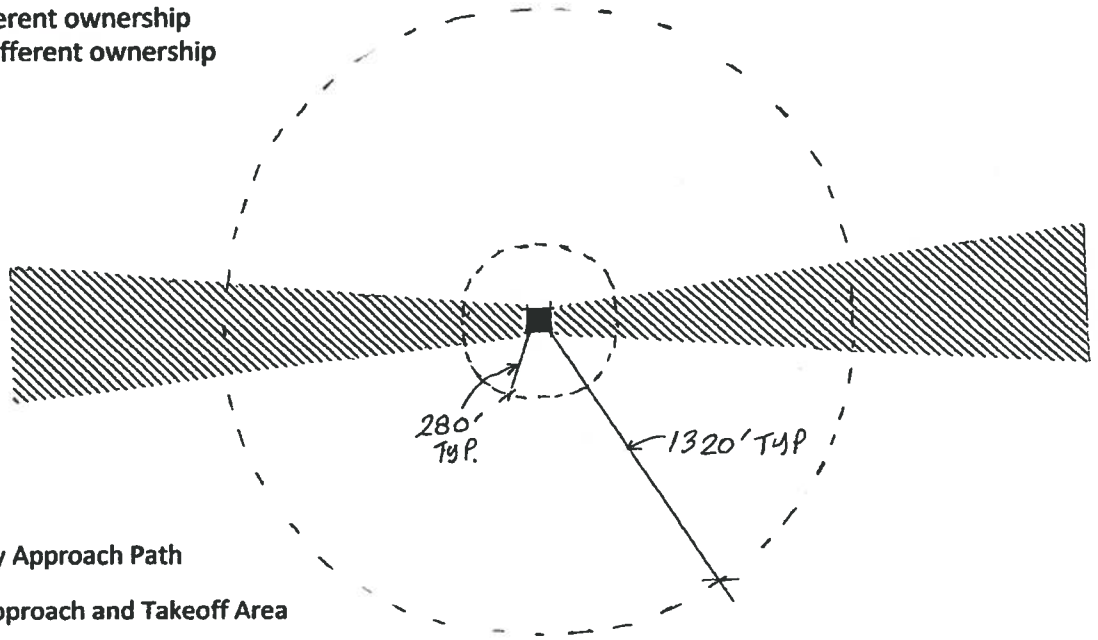
Heliport-Restricted Landing Area

MINIMUM SEPARATION FROM CR DISTRICT



MINIMUM SETBACK

280 linear feet from nearest PROPERTY under different ownership
1,320 linear feet from nearest DWELLING under different ownership



Scale: 1" = 800 linear feet

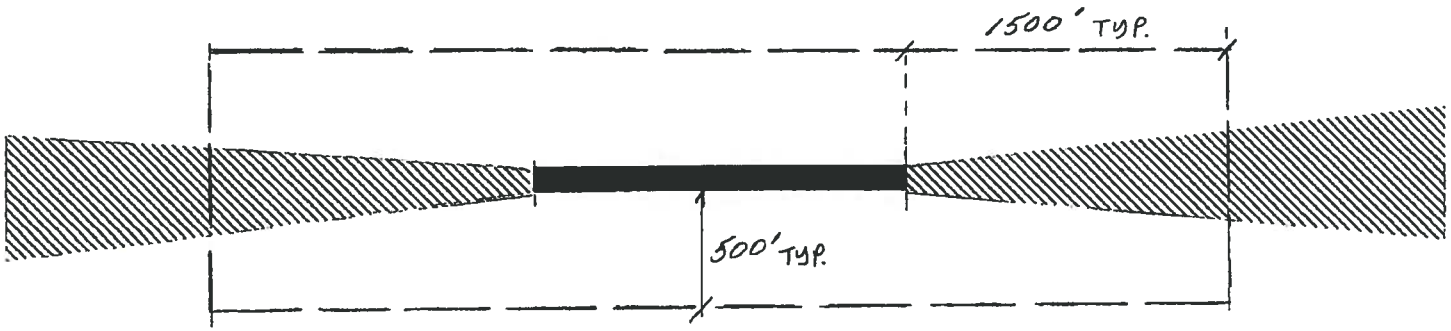
Runway Approach Path

Final Approach and Takeoff Area

Diagrams of Revised Minimum Separations

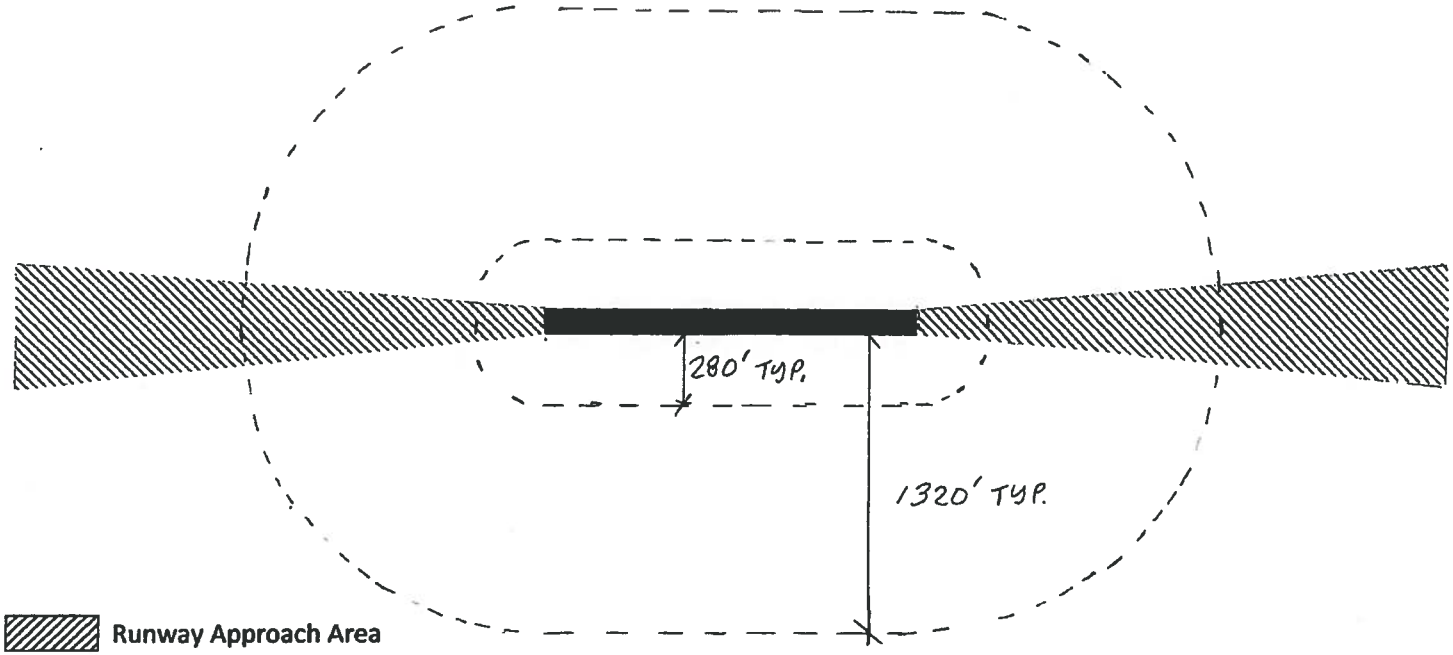
Restricted Landing Area

MINIMUM SEPARATION FROM CR DISTRICT



MINIMUM SETBACK

280 linear feet from nearest PROPERTY under different ownership
1,320 linear feet from nearest DWELLING under different ownership



Scale: 1" = 800 linear feet

Runway Approach Area

Runway

revised 2/7/2014

Proposed Amendment (Annotated)

A. Revise Section 4.3.8 to read as follows:

No part of a BUILDING or STRUCTURE intended for regular human occupancy in a R or B DISTRICT nor a Public ASSEMBLY or INSTITUTIONAL USE not in existence or for which no Zoning USE Permit was issued on or before December 20, 1988 shall be located within the required separation distance or exclusion area as specified in the Explanatory or Special Provisions of Table 6.1.3 ,unless a SPECIAL USE Permit is granted per Section ~~9.1.5.D.4~~ 9.1.11. except as specifically exempted in Table 6.1.3. from the requirement for a SPECIAL USE Permit.

B. In Section 6.1.3 revise the use category "HELIPORTS or HELIPORT/RESTRICTED LANDING AREAS" to "HELIPORT or HELIPORT/RESTRICTED LANDING AREA" and revise the Explanatory or Special Provisions to read as follows:

(1) Must meet the requirements for "Approach and Departure Protection Areas" of Paragraph 25 of the Federal Aviation Administration Circular Number 150/5390-2 and requirements of the Illinois Department of Transportation, Division of Aeronautics. HELIPORTS atop BUILDINGS are exempt from the minimum area standard.

The following standard conditions apply only to a heliport-restricted landing area and shall be in effect for a limited time not to exceed 365 days from the date they are adopted:

(2) The minimum separation to the nearest CR DISTRICT shall be a rectangular area encompassing 800 linear feet measured outward from the end of the Final Approach and Takeoff Area in the approach/takeoff path, and 500 linear feet measured outward from the side edge of the Final Approach and Takeoff Area.

(3) The requirement of Section 4.3.8 notwithstanding, a BUILDING or STRUCTURE intended for regular human occupancy located within a R or B DISTRICT or any PUBLIC ASSEMBLY or INSTITUTIONAL USE may be located in the following required separation distances without being subject to the requirement for a SPECIAL USE Permit:

(a) The minimum separation to the nearest CR DISTRICT shall be a rectangular area encompassing 1,500 linear feet measured outward from the end of the runway and 500 linear feet measured outward from the side edge of the runway extended by 1,500 feet.

(b) No part of the runway may be closer than 1,320 feet from the nearest DWELLING under different ownership than the RESTRICTED LANDING AREA.

(c) No part of the runway may be closer than ~~300~~ 280 feet from the nearest PROPERTY under different ownership than the RESTRICTED LANDING AREA.

B. In Section 6.1.3 revise the use category "RESTRICTED LANDING AREAS" to "RESTRICTED LANDING AREA" and revise the Explanatory or Special Provisions to read as follows:

(1) Must meet the requirements of the Federal Aviation Administration and Illinois Department of Transportation, Division of Aeronautics.

(2) The RESTRICTED LANDING AREA shall provide for a runway plus a runway safety area both located entirely on the LOT. The runway safety area is an area centered 120 feet wide and extending 240 feet beyond each end of the runway.

(3) No part of a BUILDING or STRUCTURE intended for regular human occupancy located within a R or B DISTRICT nor any PUBLIC ASSEMBLY or INSTITUTIONAL USE may be located: 1) within the Primary Surface, an area 250 feet wide centered on the runway centerline and extending 200 feet beyond each end of the runway; or 2) the Runway Clear Zones, trapezoidal areas centered on the extended runway centerline at each end of the primary surface 250 feet wide at the end of the primary surface and 450 feet wide at a point 1,000 feet from the Primary Surface.

(4) After a RESTRICTED LANDING AREA is established, the requirements in Section 4.3.7 and Table 5.3 note (12) shall apply.

The following standard conditions shall be in effect for a limited time not to exceed 365 days from the date they are adopted:

(5) The minimum separation to the nearest CR DISTRICT shall be a rectangular area encompassing 1,500 linear feet measured outward from the end of the runway and 500 linear feet measured outward from the side edge of the runway extended by 1,500 feet.

(6) The requirement of Section 4.3.8 notwithstanding, a BUILDING or STRUCTURE intended for regular human occupancy located within a R or B DISTRICT or any PUBLIC ASSEMBLY or INSTITUTIONAL USE may be located in the following required separation distances without being subject to the requirement for a SPECIAL USE Permit:

(a) The minimum separation to the nearest CR DISTRICT shall be a rectangular area encompassing 1,500 linear feet measured outward from the end of the runway and 500 linear feet measured outward from the side edge of the runway extended by 1,500 feet.

(b) No part of the runway may be closer than 1,320 feet from the nearest DWELLING under different ownership than the RESTRICTED LANDING AREA.

(c) No part of the runway may be closer than ~~300~~ 280 feet from the nearest PROPERTY under different ownership than the RESTRICTED LANDING AREA.

Champaign County
Department of
PLANNING &
ZONING

Brookens Administrative
Center
1776 E. Washington Street
Urbana, Illinois 61802

(217) 384-3708
zoningdept@co.champaign.il.us
www.co.champaign.il.us/zoning

CASE NO. 769-AT-13

PRELIMINARY MEMORANDUM
February 6, 2014

Petitioner: **Zoning Administrator** Prepared by: **John Hall,** Zoning Administrator
Andrew Levy, RPC Planner

Request:
Amend the Champaign County Zoning Ordinance by amending the Champaign County Stormwater Management Policy by changing the name to Storm Water Management and Erosion Control Ordinance and amending the reference in Zoning Ordinance Section 4.3.10; and amend the Storm Water Management and Erosion Control Ordinance as described in the legal advertisement which can be summarized as follows:

I. Revise existing Section 1 by adding a reference to 55 ILCS 5/5-15015 that authorizes the County Board to have authority to prevent pollution of any stream or body of water. (Part A of the legal advertisement)

II. Revise existing Section 2 by merging with existing Sections 3.1 and 3.2 to be new Section 2 and add purpose statements related to preventing soil erosion and preventing water pollution and fulfilling the applicable requirements of the National Pollution Discharge Elimination System (NPDES) Phase II Storm Water Permit. (Part B of the legal advertisement)

III. Add new Section 3 titled Definitions to include definitions related to fulfilling the applicable requirements of the National Pollution Discharge Elimination System (NPDES) Phase II Storm Water Permit. (Part C of the legal advertisement)

V. Revise existing Sections 3.3, 3.4, and 4 and add new Sections 5, 11, 12, 13, 14, and 15 and add new Appendices C, D, and E. Add requirements for Land Disturbance activities including a requirement for a Land Disturbance Erosion Control Permit including Minor and Major classes of Permits that are required within the Champaign County MS4 Jurisdictional Area; add a requirement that land disturbance of one acre or more in a common plan of development must comply with the Illinois Environmental Protection Agency's ILR 10 Permit requirements; add fees and time limits for each class of Permit; add requirements for administration and enforcement of Permits; and add new Appendices with new standards and requirements for both Minor and Major Permits. (Parts D, E, L, M, N, O, T, U, and V of the legal advertisement)

IV. Revise existing Section 7 to be new Section 6 and add a prohibition against erosion or sedimentation onto adjacent properties and add minimum erosion control and water quality requirements that are required for all construction or land disturbance. (Part F of the legal advertisement)

VI. Revise existing Section 5 to be new Section 8 and add a Preferred Hierarchy of Best Management Practices. (Part H of the legal advertisement)

VII. Revise and reformat existing Sections 6, 8, 9, 10, 11, 12, and the Appendices and add new Section 18. (Parts G, I, J, P, Q, R, S and W of the legal advertisement)

BACKGROUND

The Environment and Land Use Committee (ELUC) reviewed this amendment at their November 7, 2013, meeting (see attached ELUC Memorandum dated 10/29/13) and authorized this text amendment at their January 9, 2014, meeting (see the attached ELUC Memorandum dated 12/30/13).

Note that the case description used for the Agenda and Memoranda is a condensed version of the description used in the legal advertisement. The description from the legal advertisement will be included with each memorandum (see attached).

Note also that the Draft amendment originally included as an attachment to the 10/29/13 ELUC memorandum has not been included in the attached memorandum. A revised Draft amendment is included here with revisions based on the comments included in the 12/30/13 ELUC memorandum.

APPROACH TO THE ZONING CASE

The technical and policy issues in this zoning case are significant but straightforward. The public hearing will be as simple and short as possible but in order for the Board to make an informed recommendation there will necessarily be a lot of information provided. Memoranda and attachments will be printed on punched paper for insertion into binders that will be handed out at the 2/13/14 meeting.

The major concepts to be covered in this public hearing are proposed in the following order and at a pace suitable for the Board and consistent with the volume of public comment:

A. What is the NPDES program and what is a "small MS4"

B. Why our existing erosion regulations are inadequate

C. How is erosion and sedimentation typically regulated (a review of one prominent model ordinance)

D. Cities of Champaign and Urbana erosion control ordinance

E. Review of erosion control regulations adopted by other relevant Illinois counties

F. Implementing the new Ordinance (new application forms, handouts, and example erosion control plans)

G. Cost impacts for landowners

H. Operational impacts on the Department of Planning and Zoning and assessment of whether this can be done within existing resources

I. Public comments

J. Relevant LRMP goals and policies

ATTACHMENTS (* attachments that will be handed out at the meeting)

A **Case Description from Legal Advertisement**

B **ELUC Memorandum dated 10/29/13 with attachments except Att. F Draft *Storm Water Management and Erosion Control Ordinance*** (with new text underlined)

C **ELUC Memorandum dated 12/30/13 with attachments**

D **Revised Draft *Storm Water Management and Erosion Control Ordinance* dated 2/6/14** (with new text underlined)

***E** **Champaign County Stormwater Management Policy As Amended 2/20/03**

***F** **"National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule Report to Congress on the Phase II Storm Water Regulations; Notice," 64 Federal Register 235 (8 December 1999), pp. 68722 - 68723, 68751, 68791 – 68796, 68804 - 68805, 68812, 68815, 68842 - 68846**

***G** **Stormwater Phase II Final Rule Small MS4 Stormwater Program Overview. United States Environmental Protection Agency Office of Water Fact Sheet 2.0. January 2000 (revised December 2005)**

***H** **Stormwater Phase II Final Rule Who's Covered? Designation and Waivers of Regulated Small MS4s. United States Environmental Protection Agency Office of Water Fact Sheet 2.1. January 2000 (revised December 2005)**

***I** **Stormwater Phase II Final Rule Construction Site Runoff Control Minimum Control Measure. United States Environmental Protection Agency Office of Water Fact Sheet 2.6. January 2000 (revised December 2005)**

***J** **Stormwater Phase II Final Rule Small Construction Program Overview. United States Environmental Protection Agency Office of Water Fact Sheet 3.0. January 2000 (revised December 2005)**

***K** **General NPDES Permit No. ILR 40 for Discharges from Small Municipal Separate Storm Sewer Systems (Expiration Date March 31, 2014)**

***L** **General NPDES Permit No. ILR 10 for Storm Water Discharges From Construction Site Activities (Expiration Date July 31, 2018)**

Attachment A. Case Description from Legal Advertisement
Case 769-AT-13
FEBRUARY 6, 2014

Amend the Champaign County Zoning Ordinance by amending the Champaign County Stormwater Management Policy by changing the name to Storm Water Management and Erosion Control Ordinance and amending the reference in Zoning Ordinance Section 4.3.10; and amending the Storm Water Management and Erosion Control Ordinance as follows:

Part A. Revise Section 1 Authority by adding a reference to 55 ILCS 5/5-15015 that authorizes the County Board to have authority to prevent pollution of any stream or body of water.

Part B. Revise Section 2 as follows:

1. Merge existing Intent and Requirements (Sections 3.1) and General Requirements (Section 3.2) with existing Purpose (Section 2).
2. Add purpose statements related to preventing soil erosion and preventing water pollution and fulfilling the applicable requirements of the National Pollution Discharge Elimination System (NPDES) Phase II Storm Water Permit.

Part C. Add new Section 3 titled Definitions and add definitions related to fulfilling the applicable requirements of the National Pollution Discharge Elimination System (NPDES) Phase II Storm Water Permit.

Part D. Change the title of existing Section 4 to Scope and make the following changes:

1. Add a requirement that Land Disturbance have requirements identified in the Ordinance.
2. Add a requirement that all sections of the Ordinance are applicable to land disturbance activities in the Champaign County MS4 Jurisdictional Area.
3. Add a requirement that land disturbance of one acre or more in a common plan of development must comply with the Illinois Environmental Protection Agency's ILR 10 Permit requirements.
4. Add a requirement that all Sections except those related to the Land Disturbance Erosion Control Permit (Sections 12, 13, 14, and 15) are only applicable when a land subdivision requires approval of the Champaign County Board and when construction occurs that requires a Zoning Use Permit.
5. Add a requirement that Protect Existing Drainage and Water Resource (Section 6) and Easement (Section 7) are applicable to all subdivisions, zoning use permits and land disturbances regardless of the amount of area involved or percent impervious surface.
6. Add a requirement that Land Disturbance and Erosion Control Requirements (Section 11) are applicable with any Storm Water Drainage Plan or necessary enforcement action.
7. Add a requirement for erosion and sedimentation controls when there is more than 10,000 square feet of land disturbance in total, after the Effective Date.
8. Add exemptions to Land Disturbance Erosion Control Permits.

Part E. Add a new Section 5 titled Authorizations and Project Termination and make the following changes:

1. Relocate existing Reviewing Authorities (existing Section 4.1) and remove Special Use Approvals
2. Relocate existing Authorization to Construct (existing Section 3.3) and add authorizations for Land Disturbance Erosion Control Permits.
3. Relocate existing Requirements for Final Approvals (existing Section 3.4) and rename to Project Termination, and add requirements for Land Disturbance Erosion Control Permits.

Part F. Renumber existing Section 7 to new Section 6 titled Protect Existing Drainage and Water Resource and make the following changes:

1. Add new requirement to prohibit erosion or sedimentation onto adjacent properties.
2. Add new requirements for discharges from sump pumps.
3. Add new minimum erosion control and water quality requirements including a minimum requirement for proper disposal of construction waste; minimum requirement for location and control of soil stockpiles; and a requirement to cleanup sediment that enters onto public areas and adjacent properties.

Part G. Renumber existing Section 9 to new Section 7.

Part H. Change existing Section 5 to new Section 8 titled Storm Water Drainage System and add a Preferred Hierarchy of Best Management Practices.

Part I. Change existing Section 6 to new Section 9 titled Storm Water Drainage Plan and merge with existing Section 12.

Part J. Renumber existing Section 8 to new Section 10.

Part K. Add new Section 11 titled Land Disturbance and Erosion Control and include the following:

1. Add general requirements for erosion and sediment control operations.
2. Add list of practices that should be applied to minimize soil erosion.
3. Add list of practices that should be applied to minimize sediment.
4. Add requirements for filtering dewatering practices at construction sites.
5. Add requirements for soil stockpiles.
6. Add requirements for maintenance of erosion and sediment control measures.

Part L. Add new Section 12 titled Land Disturbance and Erosion Control Permits and include the following:

1. Add a requirement for Land Disturbance Erosion Control Permits.
2. Add a requirement that the class of permit Land Disturbance Erosion Control Permit – Minor is required for any land disturbance of less than one acre that is part of a common plan of development or sale of record that is not otherwise exempt.
3. Add a requirement that the class of permit Land Disturbance Erosion Control Permit – Major is required for any land disturbance of one acre or more that is not otherwise exempt.
4. Add required forms and procedure requirements for each permit class.
5. Add that the class of permit Land Disturbance Erosion Control Permit – Major shall comply with current ILR10 requirements.
6. Add a fee schedule with fees for each class of permit.
7. Add a requirement that an issued permit authorizes only those activities shown on approved plans.
8. Add time limitations for Land Disturbance Erosion Control Permits.
9. Add responsibilities of the holder of the Land Disturbance Erosion Control Permit.
10. Add requirements for maintenance of erosion control facilities and other drainage structures during and after construction.

Part M. Add new Section 13 titled Administration of Land Disturbance and Erosion Control Permits and include the following:

1. Add duties of the Zoning Administrator as established in the Champaign County Zoning Ordinance.
2. Add conditions of Land Disturbance and Erosion Control Permit approval to prevent the creation of a nuisance or unreasonable hazard to persons or to public or private property including specific erosion and sediment controls, safety structures, grading improvements, adequate dust controls, and acceptance of discharges on others property.
3. Add conditions to which a Land Disturbance Erosion Control Permit might be denied if the Erosion and Sediment Control Plan does not meet the requirements of the ordinance and restrictions if the permit is denied.
4. Add conditions to Land Disturbance Erosion Control Permit and plans to ensure that no work occurs without prior written approval, that any changes to plans must be submitted prior to work being conducted, and methods for changing an approved document.
5. Add requirement of site inspections during specific phases of the work to ensure compliance with the conditions of the Ordinance.

Part N. Add new Section 14 titled Liability Related to Land Disturbance and Erosion Control Permits and include a requirement that all responsibilities and liabilities are held by the permit holder and no liability is held by Champaign County.

Part O. Add new Section 15 titled Enforcement of Land Disturbance and Erosion Control Permits and include the following:

1. Add a requirement that work shall be done in accordance with the approved plans, the approved permit, and the Ordinance.
2. Add a classification of deficient sites and the related enforcement activities.
3. Add a classification of Non-Compliance on a sites and the related enforcement activities.
4. Add a classification of Notice of Violation on a sites and the related enforcement activities.
5. Add that the Zoning Administrator may require activities that shall be undertaken in order to prevent imminent hazards, dangers and adverse effects.
6. Add conditions and procedures that allow the Zoning Administrator to issue a stop-work order and that all work must stop immediately.
7. Add conditions and procedures for initiating legal proceedings.
8. Add penalties for violation of the ordinance at not less than one hundred dollars ($100.00) per day and not more than five hundred dollars ($500.00) per day.

Part P. Renumber existing Section 10 to new Section 16.

Part Q. Change existing Section 11 Waivers to new Section 17 titled Appeal, Waiver or Variance and include the following:

1. Add designation that the reviewing authority may issue a waiver or variance to the ordinance except for ILR10 requirements.
2. Add procedure for appealing a decision made by a reviewing authority.

Part R. Add new Effective Date (Section 18).

Part S. Re-letter existing Appendix B to be new Appendix A and re-letter existing Appendix A to be new Appendix B.

Part T. Add new Appendix C titled Champaign County MS4 Jurisdictional Area to include a map of the Champaign County MS4 Jurisdictional Area.

Part U. Add new Appendix D titled Technical Manual Minor Land Disturbance Erosion Control Permit Standards and Standard Details and include application templates, erosion control plan examples, and standard construction drawings.

Part V. Add new Appendix E titled Technical Manual Major Land Disturbance Erosion Control Permit Standards and Standard Details and include application templates, erosion control plan examples, and standard construction drawings.

Part W. Revise and reformat the text, and update all references to new and renumbered Sections.

Storm Water Management and Erosion Control Ordinance

Champaign County, Illinois

2/4/2014
Draft

The Storm Water Management and Erosion Control Ordinance is part of Champaign County's National Pollution Discharge Elimination System (NPDES) program to comply with State and Federal requirements for storm water discharge.

SECTION PAGE

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1. AUTHORITY

1.1 Title

This Ordinance shall be known, and may be cited as, the Champaign County Storm Water Management and Erosion Control Ordinance.

1.2 Illinois Compiled Statutes

This Ordinance has been adopted pursuant to Champaign County's authority to zone land (55 ILCS 5/5-12001); Champaign County's authority to adopt rules and regulations for subdivisions (55 ILCS 5/5-1041); and Champaign County's authority to prevent water pollution (55 ILCS 5/5-15015); and other applicable authority, all as amended from time to time.

2. PURPOSE

The purpose of this ordinance is to accomplish the following:

A. Protect the existing agricultural and natural drainage infrastructure.
B. Provide for adequate drainage of development sites and surrounding areas.
C. Guide DEVELOPERS' and builders' attempts to control the movement of STORM WATER and reduce damage to property.
D. Conserve, preserve and enhance the natural resources of the County, including its SOILS, waters, vegetation, fish and wildlife.
E. Promote public welfare and protect waters under the Clean Water Act by guiding, regulating and controlling the design, CONSTRUCTION, use and maintenance of any development or other activity that disturbs SOIL on land situated within the County.
F. Safeguard persons and protect property from the hazards and negative impacts of SOIL EROSION created by land disturbing activities.
G. Prevent flooding caused by silt clogging STORM WATER management infrastructure, such as storm sewers, inlets and receiving channels or streams.
H. Control the rate of release of STORM WATER and require temporary storage of STORM WATER from development sites.
I. Preserve and enhance water quality by preventing silt-laden water from reaching creeks, channels, streams, WETLANDS and other public waterways.
J. Fulfill the applicable requirements of the NPDES Phase II Storm Water permit.

3. DEFINITIONS

AGRICULTURE: The growing, harvesting and storing of crops including legumes, hay, grain, fruit and truck or vegetable crops, floriculture, horticulture, mushroom growing, orchards, forestry, and the keeping, raising, and feeding of livestock or poultry, including dairying, poultry, swine, sheep, beef cattle, pony and horse production, fur farms, and fish and wildlife farms; farm BUILDINGS used for growing, harvesting, and preparing crop products for market, or for use on the farm; roadside stands, farm BUILDINGS for storing and protecting farm machinery and equipment from the elements, for housing livestock or poultry and for preparing livestock or poultry products for market; farm DWELLINGS occupied by farm OWNERS, operators, tenants or seasonal or year-round hired farm workers. It is intended by this definition to include within the definition of AGRICULTURE all types of agricultural operations, but to exclude therefrom industrial operations such as a grain elevator, canning, or slaughterhouse, wherein agricultural products produced primarily by others are stored or processed. Agricultural purposes include,

without limitation, the growing, developing, processing, conditioning, or selling of hybrid seed corn, seed beans, seed oats, or other farm seeds.
APPLICANT: The legal entity who submits an application to the County for a LDEC PERMIT pursuant to this ordinance.
BEST MANAGEMENT PRACTICES (BMPs): A technique or series of techniques which are proven to be effective in controlling STORM WATER, EROSION, and SEDIMENTATION.
BORROW: The earth material acquired from an off-site location for use in grading on a site.
CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL: An individual with CPESC Certification.
CLEARING AND GRUBBING: The cutting and removal of trees, shrubs, bushes, windfalls and other vegetation including removal of stumps, roots, and other remains in the designated areas.
COMMON PLAN OF DEVELOPMENT OR SALE OF RECORD: All or part of a parcel of land that existed on {effective date} where multiple separate and distinct CONSTRUCTION activities may be taking place at different times on different schedules, and possibly (not necessarily) under different ownership. Examples include: 1) phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate OWNERs (e.g., a development where lots are sold to separate builders); 2) a development plan that may be phased over multiple years but is still under a consistent plan for long-term development; and 3) projects in a contiguous area that may be unrelated but still under the same contract, such as CONSTRUCTION of a building extension and a new parking lot at the same facility and any development or CONSTRUCTION under a Rural Residential Overlay District. The disturbed area of the entire plan shall be used in determining LDEC PERMIT requirements. Development on by-right lots created from any single parcel that existed on 1/1/2009 in the AG-1, AG-2 and CR Districts is not included under this definition.
CONSTRUCTION: The excavation of earth to provide for a foundation, basement or cellar; and/or, the addition to or removal from a LOT or tract of land of earth or water so as to prepare said LOT or tract of land for the CONSTRUCTION of a STRUCTURE: and/or, the act of placing or affixing a component of a STRUCTURE upon the ground or upon another such component; and/or, the placing of CONSTRUCTION materials in a permanent position and fastening in a permanent manner; and /or, the demolition, elimination, and./ or removal of an existing STRUCTURE in connection with such CONSTRUCTION and/or the CONSTRUCTION or placement of STORM WATER MANAGEMENT facilities or EROSION control BMPs.
CONTIGUOUS URBAN GROWTH AREA (CUGA): Areas outside of municipal limits and within municipal one and one-half mile extraterritorial jurisdiction destined for urban type land uses.
CONTRACTOR: The person who contracts with the PERMITTEE, OWNER, DEVELOPER, or another CONTRACTOR (subcontractor) to undertake any or all the land disturbing activities covered by this Ordinance.
CONTRACTOR'S CERTIFICATION STATEMENT: is a document required by the IEPA as part of the ILR10 construction site activity permit.
DEMOLITION: Any act or process of wrecking or destroying a building or STRUCTURE.
DETENTION BASIN: A temporary or permanent natural or manmade STRUCTURE that provides for the temporary storage of STORM WATER.
DEVELOPER: Any person, firm, corporation, sole proprietorship, partnership or political subdivision engaged in a LAND DISTURBANCE activity.
EROSION: The wearing away of the ground surface as a result of the movement of wind, water, ice, and/or LAND DISTURBANCE activities.
EROSION AND SEDIMENT CONTROL PLAN (ESCP): A plan which includes a set of BMPs or equivalent measures designed to control STORM WATER and EROSION and to retain SEDIMENT on a particular site during the period in which pre-CONSTRUCTION and

CONSTRUCTION-related land disturbances, fills, and soil storage occur, and before final improvements are completed, all in accordance with the specific requirements set forth in Section 11 of this Ordinance.

EROSION CONTROL: means any measures taken to temporarily or permanently prevent or manage EROSION in a way that minimizes undesirable impacts.

EROSION CONTROL INSPECTOR: The ZONING ADMINISTRATOR or representative who has the authority to inspect sites for compliance with the standards set forth in this Ordinance.

EROSION CONTROL INSPECTION REPORT (ECIR): The compliance report as defined by the Illinois Environmental Protection Agency in the General NPDES permit ILR10.

EXCAVATION: The mechanical removal of earth material.

FILL: A deposit of SOIL or other earth materials placed by artificial means.

FINAL EROSION AND SEDIMENT CONTROL PLAN (FINAL ESCP): a plan which includes permanent measures and BEST MANAGEMENT PRACTICES to control STORM WATER and control SEDIMENT if such permanent measures are not included in the ESCP.

FINAL EROSION CONTROL STRUCTURES: all SOIL disturbing activities at the site have been completed, and either of the two following conditions is met:

A. A uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent STRUCTURES, or
B. Equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

For individual lots in residential CONSTRUCTION, FINAL STABILIZATION means that either:

A. The homebuilder has completed FINAL STABILIZATION as specified above, or
B. The homebuilder has established temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for, and benefits of, FINAL STABILIZATION.

FINAL STABILIZATION: shall mean that: (1) All land disturbing activities at the site have been completed; (2) There are no areas of active erosion evident; and (3) A uniform perennial vegetative cover with a density of seventy (70) per cent of the cover for the area has been established or equivalent stabilization measures (i.e., mulches or geotextiles) have been employed.

FLOODPLAIN: The area adjoining a WATERCOURSE which could be inundated by a flood that has a one (1) percent chance of being equaled or exceeded in any given year and is delineated on Federal Emergency Management Agency Flood Insurance Rate Maps (FIRM).

GRADE: The vertical elevation of the ground surface.

(a) Existing grade is the grade prior to grading.
(b) Rough grade is the stage at which the grade approximately conforms to the approved plan.
(c) Finish grade is the final grade of the site which conforms to the approved process.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA): The Illinois Environmental Protection Agency.

ILR10: The Illinois Environmental Protection Agency's general National Pollutant Discharge Elimination System (NPDES) Construction Storm Water Permit covering anyone conducting a land disturbing activity which disturbs one (1) or more acres of total land area or a construction site less than one acre of total land that is a part of a COMMON PLAN OF DEVELOPMENT OR SALE OF RECORD if the larger common plan will ultimately disturb one or more acres total land area..

INCIDENCE OF NON-COMPLIANCE (ION): A report to the IEPA providing information about the cause of the non-compliance and description of the measures taken to prevent further non-compliances with the ILR10 permit.

LAND DISTURBANCE: Any land change that may result in SOIL EROSION from wind, water and/or ice and the movement of SEDIMENT unto or upon waters, lands, or rights-of-way within the County, including but not limited to DEMOLITION, CLEARING AND GRUBBING, GRADING , excavating, transporting and filling of land. LAND DISTURBANCE is not limited to a single instance of LAND DISTURBANCE, but is the total LAND DISTURBANCE that has occurred or may reasonably be expected to occur to any part of a given tract of land. LAND DISTURBANCE does not include the following:

(a) AGRICULTURE.
(b) Land disturbance activities including, but not limited to, underground utility repairs, home gardens, minor repairs.
(c) Installation of fence, sign, telephone, and electric poles and other kinds of posts or poles.
(d) Emergency work to protect life, limb, or property and emergency repairs. If the emergency land disturbing activity would have required and approved ESCP, then the land area disturbed shall be shaped and stabilized in accordance with the requirements of this Ordinance.

LAND DISTURBANCE EROSION CONTROL PERMIT (LDEC PERMIT): Includes both LAND DISTURBANCE EROSION CONTROL PERMIT – MAJOR and LAND DISTURBANCE EROSION CONTROL PERMIT – MINOR as defined in this Ordinance and issued by the County Zoning Administrator pursuant to this Ordinance.

LAND DISTURBANCE EROSION CONTROL PERMIT – MAJOR: A class of the LDEC PERMIT required where 1 acre or more of land will be disturbed.

LAND DISTURBANCE EROSION CONTROL PERMIT – MINOR: A class of LDEC PERMT required where less than one acre of land that is part of a COMMON PLAN OF DEVELOPMENT OR SALE OF RECORD will be disturbed.

LETTER OF NOTIFICATION: A letter from the IEPA stating that the PERMITTEE has the authority to construct.

LETTER OF TERMINATION: A document required by Champaign County as part of the Land Disturbance Erosion Control and Storm Water Management Ordinance. This document notifies the ZONING ADMINISTRATOR of the request to end coverage for CONSTRUCTION under the terms of the ILR10 permit when no STORM WATER DRAINAGE PLAN is required. This is submitted to the Zoning Administrator.

LOT: A designated parcel, tract or area of land established by plat, SUBDIVISION or as otherwise permitted by law, to be used, developed or built upon as a unit.

MS4 JURISDICTIONAL AREA: The limits of the Urbanized Area as defined by the Bureau of the Census.

NON-STRUCTURAL CONTROLS: institutional and pollution prevention type practices through education and source control, recycling, and maintenance that prevent pollutants from entering STORM WATER or reduce the amount of RUNOFF requiring management.

NOTICE OF INTENT (NOI): A document required by the IEPA as part of the ILR10 construction site activity permit. This document is the application for an ILR10 construction site activity permit from the IEPA.

NOTICE OF TERMINATION (NOT): A document required by the IEPA as part of the ILR10 construction site activity permit. This document requests the end of coverage for CONSTRUCTION under the terms of the ILR10 permit.

OWNER: Any person with a legal or equitable interest in the land for which a LDEC PERMIT has been issued.

PERMITTEE: The APPLICANT in whose name a valid LDEC PERMIT is duly issued pursuant to this Ordinance and his/her agents, employees, and others, acting under his/her direction.
PROFESSIONAL ENGINEER: A person licensed under the laws of the State of Illinois to practice professional engineering.
PROJECT TERMINATION: Specific activities required to occur to release the requirements of the Land Disturbance Erosion Control Permit.
RUNOFF: Volumes and / or velocities associated with precipitation amounts and/or intensities during periodic storm events.
SEDIMENT: Soils or other surficial materials transported by SURFACE WATER as a product of EROSION.
SEDIMENTATION: The process or action of depositing SEDIMENT that is determined to have been caused by EROSION.
SITE: The entire area of land on which the LAND DISTURBANCE activity is proposed in the LDEC PERMIT application.
SITE PLAN: A plan or set of plans showing the details of any LAND DISTURBANCE activity of a site including, but not limited to, the CONSTRUCTION of: STRUCTURES, open and enclosed drainage facilities, STORM WATER MANAGEMENT facilities, parking lots, driveways, curbs, pavements, sidewalks, bike paths, recreational facilities, ground covers, plantings, and landscaping.
SLOPE: The incline of a ground surface expressed as a ratio of horizontal distance to vertical distance.
SOIL: Naturally occurring surface deposits overlying bedrock.
STOP-WORK ORDER: A document issued by the Zoning Administrator that directs work to stop on a CONSTRUCTION site if LAND DISTURBANCE activities are in violation of this Ordinance.
STORM WATER: Rain RUNOFF, snow melt RUNOFF, surface RUNOFF and drainage.
STORM WATER DRAINAGE PLAN: a written document which identifies the drainage characteristics and controls for flow, storage and other components of STORM WATER management.
STORM WATER MANAGEMENT: means any measures taken to permanently reduce or minimize the negative impacts of RUNOFF.
STORM WATER POLLUTION PREVENTION PLAN (SWPPP): a document required by the IEPA as part of the ILR10 construction site activity permit. This document is a written description of the erosion and sediment control plan for a CONSTRUCTION site.
STRIPPING: Any activity which removes or significantly disturbs the vegetative surface cover including clearing, grubbing of stumps and root mat, and topsoil removal.
STRUCTURAL CONTROLS: practices to divert flows from exposed SOILS, store flows or otherwise limit RUNOFF and the discharges of pollutants from exposed areas of a CONSTRUCTION site.
STRUCTURE: Anything manufactured, constructed or erected which is normally attached to or positioned on land, including buildings, portable or earthen constructs, roads, parking lots, and paved storage areas.
SUBDIVISION: any division, development, or re-subdivision of any part, LOT, area or tract of land by the OWNER or agent, either by LOTS or by metes and bounds into LOTS two or more in number, for the purpose, whether immediate or future, of conveyance, transfer, improvement, or sale with the appurtenant streets, alleys, and easements, dedicated or intended to be dedicated to public use or for the use of the purchasers or OWNERS within the tract subdivided. The division of land for AGRICULTURAL purposes not involving any new street, alley, or other means of access shall not fall under this definition for the purpose of the regulations and standards of this ordinance.

SURFACE WATER: includes waters upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other water courses, lakes and reservoirs.
SURVEYOR: A person duly registered or authorized to practice land surveying in the State of Illinois.
TOPSOIL: The upper layer of SOIL.
USE: The specific purpose for which land is designed arranged, intended, or for which it is or may be occupied or maintained. This shall not include any nonconforming use.
WASHOUT FACILITY: A location where CONSTRUCTION waste such as concrete, asphalt or similar material can be temporarily stored until final disposal of the material. WASHOUT FACILITIES shall be designated by the LDEC PERMIT holder before work begins and shall be located in an appropriate area where the waste resulting from the washout cannot enter sewer systems or local waterways. Waste from the WASHOUT FACILITIES shall be disposed of in an approved manner according to state laws.
WATERCOURSE: Any natural or improved stream, river, creek, ditch, channel, canal, conduit, gutter, culvert, drain, gully, swale, or wash in which waters flow either continuously or intermittently.
WATERSHED: A region draining to a specific river, river system, or body of water.
WETLANDS: A lowland area such as a marsh, that is saturated with moisture, as defined in Section 404, Federal Water Pollution Control Act Amendments of 1987.
ZONING ADMINISTRATOR: The county personnel with the authority and duty to administer adopted ordinances including the Erosion and Sediment Control Ordinance.
ZONING DISTRICT: A section of the County/City/Village in which zoning regulations and standards are uniform.

4. SCOPE

4.1 Applicability

The IEPA ILR10 and this Ordinance apply to LAND DISTURBANCE, SUBDIVISION and/or CONSTRUCTION under the following conditions:

A. All requirements of the IEPA ILR10 permit apply regardless of this Ordinance; and
B. All Sections of this Ordinance apply to LAND DISTURBANCE activities within the Champaign County MS4 JURISDICTIONAL AREA (see Appendix C) except those activities listed in LDEC Permit Exemptions (Section 4.3); and
C. Notwithstanding the exempted activities listed in LDEC Permit Exemptions (Section 4.3), all Sections of this Ordinance, except those related to Land Disturbance Erosion Control Permits (Sections 12, 13, 14, and 15), apply to that part of the County falling outside of the Champaign County MS4 JURISDICTIONAL AREA where the following occurs:
    1. All SUBDIVISIONS which require the approval of the Champaign County Board pursuant to the provisions of the Illinois Plat Act, 765 ILCS 205/0.01 et. seq., and the Champaign County Subdivision Regulations; and
    2. All CONSTRUCTION requiring a Zoning Use Permit; and
D. Notwithstanding the exempted activities listed in Storm Water Drainage Plan Exemptions (Section 4.2) and LDEC Permit Exemptions (Section 4.3), the requirements listed in Protect Existing Drainage and Water Resource (Sections 6) and Easements (Section7) shall apply to all SUBDIVISIONS and to all Zoning Use Permits and to all LAND DISTURBANCE regardless of the amount of area involved or the percent of impervious surface area, but shall not apply to AGRICULTURE; and

E. Notwithstanding the exempted activities listed in Storm Water Drainage Plan Exemptions (Section 4.2) and LDEC Permit Exemptions (Section 4.3), Land Disturbance Erosion Control requirements (Section 11) shall apply to any STORM WATER DRAINAGE PLAN, or enforcement action outlined under Protect Existing Drainage and Water Resource (Section 6) that is undertaken by the Zoning Administrator.

4.2 Storm Water Drainage Plan Exemptions

All SUBDIVISIONS or CONSTRUCTION meeting any of the following conditions are exempt from the STORM WATER DRAINAGE PLAN requirements (Section 9):

A. CONSTRUCTION on LOTS in SUBDIVISIONS platted subject to municipal SUBDIVISION regulations containing standards for the detention and controlled release of STORM WATER, for provision of adequate site drainage, and for the protection of existing drainage facilities or on lots subject to the application of such standards by means of an annexation agreement; or

B. CONSTRUCTION of additions to existing STRUCTURES when the total increase in impervious area is less than 10,000 square feet; or

C. CONSTRUCTION located on a lot no more than one acre in area that existed on December 17, 1991; or

D. individual single family and two-family detached dwellings and related accessory STRUCTURES on a single lot; or

E. SUBDIVISIONS or CONSTRUCTION on lots when the cumulative total of all impervious areas from all developed lots created from a lot or lots in common ownership on January 1, 1998, including any specific impervious area addition to the adjacent public streets that is required to accommodate the SUBDIVISION or CONSTRUCTION, is less than the criteria shown in Table 1 - Maximum Exempt Impervious Area:

Table 1 - Maximum Exempt Impervious Area

Lot area*	Maximum exempt impervious area*
a. No more than .25 acre	Up to 100% of the lot may be impervious area
b. More than .25 acre but less than 2.0 acres	The limit on percent impervious area declines from 100% to 50% of the total lot or lots area plus 0.14 acres. See the graph of Exempt Impervious Area (Appendix B) or use the Mathematical Expressions on the graph to determine the limit for impervious area on a specific lot size.
c. More than 2.0 acres but not more than 6.25 acres	No more than 1 acre of the lot or lots shall be impervious surface area
d. More than 6.25 acres	No more than 16% of the total area of the lot or lots shall be impervious area provided that no exemption shall apply to any part of a lot when that part contains more than one acre of impervious surface area within a rectangular area of 90,000 square feet with a minimum dimension of 150 feet.

* "Lot area" refers to a single lot and to the cumulative total area of lot or lots that are created out of a larger tract. See paragraph 8.2 for other rules of application for exemptions.

F. The following rules govern the application of the Storm Water Drainage Plan Exemptions (Section 4.2), but shall not affect how the impervious area is calculated or determined for engineering design purposes.
   1. Measurement of the total area and impervious area of a LOT or SUBDIVISION is based on the entire area designated by the legal description of the tract for which the approval is requested, together with that of other contiguous LOTS, when required pursuant to Section 4.2 F.4. except for the area of adjacent public street right-of-ways as required by Section 4.2 F.2.c.
   2. Measurement of the total area and impervious area shall exclude the following:
      a. Portions of the LOT or LOTS that are devoted to cropland and that will remain devoted to cropland; and
      b. Portions of public street right-of-ways adjacent to any such areas of cropland.
      c. Portions of public street right-of-ways not containing any specific impervious area addition to the adjacent public streets that is required to accommodate the SUBDIVISION or construction. When specific additions of public street impervious area are required to accommodate a specific SUBDIVISION or construction, the specific addition of public street impervious area shall not be excluded.
   3. Areas that are comprised of a permanent vegetative cover that is generally at least equivalent to "Poor condition (grass cover less than 50 percent)" using the TR-55 Design Method shall be considered non-impervious.
   4. Impervious area limits and exemptions shall be applied separately for different portions of the lot or SUBDIVISION in the following instances:
      a. For each portion of the lot or SUBDIVISION that drains to a common point on the boundary of the total site (drainage sub-basin).
      b. For each portion of the lot or SUBDIVISION that drains to a drainage way that serves upstream areas that are under different ownership and that divides that portion of the lot or SUBDIVISIONS from the remainder of the lot or SUBDIVISIONS.
   5. Pursuant to Section 4.2 E., LOTS shall be considered as developed when the LOT or LOTS are:
      a. Occupied by other than farm structures; or
      b. Covered in whole or in part by any impervious area except for driveways or parking areas used for agricultural purposes and existing public streets; or
      c. Included in a plat or legal description and marketed for sale.

4.3 LDEC Permit Exemptions

All LAND DISTURBANCE activities meeting the following conditions are exempt from the LAND DISTURBANCE EROSION CONTROL PERMIT requirements (Section 12, 13, 14 and 15):

A. AGRICULTURE
B. LAND DISTURBANCE of less than one acre of land on all or part of a parcel of land that existed on {effective date} provided that the land is not part of any of the following:
   1. a COMMON PLAN OF DEVELOPMENT OR SALE OF RECORD; or
   2. in a Residential, Business, or Industrial ZONING DISTRICT as established in the Zoning Ordinance and indicated on the Zoning Map; or
   3. in an existing subdivisions of more than four LOTS including any subsequent replat in the AG-1, AG-2, or CR ZONING DISTRICT as defined in the Zoning Ordinance.
C. Digging activities related to cemetery grave sites

D. Emergencies posing an immediate danger to life or property, or substantial flood or fire hazards.
E. LAND DISTURBANCE less than 10,000 square feet in area
F. Activities on LOTS and SUBDIVISIONS subject to annexation agreements, unless municipal authority is not exercised.
G. CONSTRUCTION or LAND DISTURBANCE pursuant to a statewide or regional permit administered by the Illinois Department of Natural Resources Office of Water Resources (IDNR/OWR) and provided that information sufficient to document compliance with the relevant statewide or regional permit is submitted to the ZONING ADMINISTRATOR at least one week prior to the start of LAND DISTURBANCE. This exemption is only applicable to that portion of CONSTRUCTION or LAND DISTURBANCE that is eligible for the statewide or regional permit.

5. AUTHORIZATIONS AND PROJECT TERMINATION

5.1 Approval Authorities

For the purposes of this Ordinance the Approval Authorities are as follows:

A. For all subdivisions, the Environment and Land Use Committee of the Champaign County Board.
B. For Zoning Use Permits, Easements, as-built drawings and STORM WATER DRAINAGE PLANS, the Champaign County Zoning Administrator.

5.2 Authorizations

This Ordinance provides for the following:

A. Authorization for CONSTRUCTION when a STORM WATER DRAINAGE PLAN is not required by this Ordinance shall include the following acts in order:
   1. Approval of Engineering Drawings required for any Plat of SUBDIVISION if applicable; and
   2. Approval of a LDEC PERMIT if required by Section 4 and written approval of the inspection required by Section 13.5; and
   3. Approval of a Zoning Use Permit, if required by the Zoning Ordinance
B. Authorization for CONSTRUCTION when a STORM WATER DRAINAGE PLAN is required by this Ordinance shall include the following acts in order:
   1. The relevant Approval Authority has duly approved the STORM WATER DRAINAGE PLAN as described in Section 9.5; and
   2. The APPLICANT or other necessary party files with the Champaign County Recorder of Deeds any required easement or other legal instrument that is needed to implement or maintain the STORM WATER DRAINAGE PLAN, except for a Final Plat of SUBDIVISION, Owner's Certificate, or private SUBDIVISION covenants, and except as provided for in Section 7; and
   3. Approval of Engineering Drawings required for any Plat of Subdivision, if applicable; and
   4. Approval of a LDEC PERMIT if required by Section 4 and written approval of the inspection required by Section 13.5; and
   5. Approval of a Zoning Use Permit, if required by the Zoning Ordinance.

5.3 Project Termination

This Ordinance provides for the following:

A. When a STORM WATER DRAINAGE PLAN is not required by this Ordinance, PROJECT TERMINATION shall include the following acts in order:
   1. Any required as-built drawings or other documentation has been accepted by the Approval Authority as evidence that the requirements of Section 9.6 have been met; and;
   2. The APPLICANT or other necessary party files any required easement or other legal instrument with the Champaign County Recorder of Deeds that is needed to implement the requirements of Section 7, except for a Final Plat of Subdivision, Owners Certificate, or private subdivision covenants; and
   3. The following acts related to CONSTRUCTION related to any Final Plat of Subdivision, if applicable
      a. Approval of a Final Plat of Subdivision after the CONSTRUCTION of all physical improvements required by the Subdivision Regulations; and
      b. Full and complete release of any Performance Guarantee related to any Final Plat of Subdivision; and
   4. Full approval and unconditional issuance of a Zoning Compliance Certificate, if required by the Zoning Ordinance; and
   5. If a LDEC PERMIT is required by Section 4, A NOTICE OF TERMINATION shall be submitted to the IEPA and/or the ZONING ADMINISTRATOR, whichever is applicable.

B. When a STORM WATER DRAINAGE PLAN is required by this Ordinance, PROJECT TERMINATION shall include the following acts:
   1. Any required as-built drawings or other documentation has been accepted by the Approval Authority as evidence that the requirements of Section 9.6 have been met; and;
   2. the APPLICANT or other necessary party files any required easement or other legal instrument with the Champaign County Recorder of Deeds, needed to implement the requirements of Section 7, except for a Final Plat of Subdivision, Owner's Certificate, or private subdivision covenants; and
   3. The following acts related to CONSTRUCTION related to any Final Plat of Subdivision, if applicable:
      a. Approval of a Final Plat of SUBDIVISION after the CONSTRUCTION of all required physical improvements required by the SUBDIVISION Regulations, and
      b. Full and complete release of any Performance Guarantee related to any Final Plat of SUBDIVISION; and
   4. Acceptance by the ZONING ADMINISTRATOR of the certifications required by Section 9.6; and
   5. Full approval and unconditional issuance of a Zoning Compliance Certificate, if required by the Zoning Ordinance; and
   6. If a LDEC PERMIT is required by Section 4, a NOTICE OF TERMINATION shall be submitted to the IEPA and/or the ZONING ADMINISTRATOR, whichever is applicable.

6. PROTECT EXISTING DRAINAGE AND WATER RESOURCE

6.1 General Requirement

The requirements of Section 11 of this Ordinance notwithstanding, no CONSTRUCTION or LAND DISTURBANCE shall cause EROSION on any property or allow SEDIMENT to be

deposited on any adjacent property or any adjacent street or adjacent drainage ditch, roadside ditch, or stream.

A. No FILL shall be placed nor GRADE altered in such a manner that it will cause SURFACE WATER upstream of the development to pond or direct surface flows in such a way as to create a nuisance.
B. All STORM WATER shall exit the development at non-erosive velocities. All subsurface flows shall exit the development at such a velocity so as to prevent an increase in scouring or structural damage to off-site tile drains.
C. Sizing of culvert crossings shall consider entrance and exit losses as well as tail water conditions on the culvert.
D. No sump pump discharge or discharge from any private wastewater treatment system shall discharge directly into or within 25 feet of a roadside ditch, off-site drainage swale, stream, property line, or in such a way that it creates a nuisance condition at any time of year or contributes to erosion.
E. No sump pump discharge or STORM WATER shall be directed to any sanitary sewer.

6.2 Natural Drainage

A. Existing perennial streams shall not be modified to accommodate RUNOFF. Stream banks may be modified, however, incident to the installation of excess RUNOFF outfalls, necessary to ensure safety or bank stabilization, and/or for the improvement of aquatic habitats, and subject to any required local, state, and federal permits.
B. Other natural drainage features such as depressional storage areas and swales shall be incorporated into the drainage system.

6.3 Agricultural Drainage Improvements

F. The outlet for existing agricultural drainage tile will be located and the capacity of the outlet shall be maintained for the WATERSHED upstream of the development area.
G. Existing easements for any agricultural drainage tile located underneath areas that will be developed shall be preserved. If no easement exists an easement shall be granted for access and maintenance as provided in Section 7. Such easements shall be of sufficient width and located to provide for continued functioning and necessary maintenance of drainage facilities. No buildings or permanent STRUCTURES including paved areas but excluding streets, sidewalks, or driveways, which cross the easement by the shortest possible route may be located within the easement without the consent and approval of any public body to which the easement is granted.
H. All agricultural drainage tile located underneath areas that will be developed shall be replaced with non-perforated conduit to prevent root blockage provided however that drainage district tile may remain with the approval of the drainage district.
I. Agricultural drainage tile which, due to development, will be located underneath roadways, drives, or parking areas as allowed by Paragraph C above shall be replaced with ductile iron, or reinforced concrete pipe or equivalent material approved by the Approval Authority as needed to prevent the collapse of the agricultural drainage conduit.
J. Agricultural drainage tile may be relocated within development areas upon approval of the Approval Authority. Such relocation shall maintain sufficient SLOPE and capacity to prevent SEDIMENTATION and to prevent an increase in scouring or structural damage to the conduit. Such relocation shall only be with the consent and approval of the drainage district which is responsible for maintaining the tile. If the tile is not under the authority of a drainage district, the Approval Authority shall consider the interests of those landowners who are served by the tile.

K. No storm sewer inlet, outlet, or DETENTION BASIN outlet shall be connected to farm drainage tile unless flow is restricted to an amount equal to or less than the discharge capacity of the tile. Such connection shall only be made with the consent and approval of the drainage district responsible for maintaining the tile. If the tile is not under the authority of a drainage district the Approval Authority shall consider the interests of those landowners who are served by the tile.

6.4 Minimum Erosion Control and Water Quality Requirements

A. All CONSTRUCTION or LAND DISTURBANCE shall be provided with EROSION and SEDIMENT controls as necessary to prevent EROSION and SEDIMENTATION on any adjacent property, street, drainage ditch, roadside ditch, or stream. All CONSTRUCTION or LAND DISTURBANCE shall be provided with EROSION and SEDIMENT controls as necessary to minimize EROSION and SEDIMENTATION from occurring on SITE property. However, the lack of EROSION and SEDIMENT controls shall not itself be a violation of this Ordinance unless such controls are required pursuant to either the requirements of section 6.4 D, or a LAND DISTURBANCE EROSION CONTROL PERMIT, or a STORM WATER DRAINAGE PLAN, or as such controls may be required by the ZONING ADMINISTRATOR pursuant to an enforcement action.

B. No EROSION AND SEDIMENT CONTROL PLAN shall be required for any CONSTRUCTION or LAND DISTURBANCE unless required pursuant to either a LAND DISTURBANCE EROSION CONTROL PERMIT or a STORM WATER DRAINAGE PLAN or as such controls may be required by the ZONING ADMINISTRATOR pursuant to an enforcement action.

C. All waste and debris generated as a result of CONSTRUCTION activities including discarded building materials or packaging materials, concrete truck washout, chemicals, litter, sanitary waste, or any other waste, shall be placed in an appropriate waste container in a timely manner, and shall be properly disposed of and shall be prevented from being carried off the site by either wind or water.

D. The following practices shall be applied to LAND DISTURBANCE activities to minimize impacts from stockpiles containing more than 100 cubic yards of material;
   1. Stockpiles of soil and other erodible building material (such as sand) shall not be located less than 30 feet from a drainage ditch, roadside ditch, drainage swale, or stream or in a drainage ditch easement. There shall be adequate distance between the stockpile and the ditch, easement, swale, or stream to allow stabilization and maintenance on the stockpile without accessing the ditch, swale, or stream.
   2. A stockpile with 100 cubic yards or more of material shall be provided with appropriate EROSION and SEDIMENT controls consistent with Section 11 of this Ordinance except that the EROSION and SEDIMENT controls shall be in place prior to beginning the stockpile.

E. No CONSTRUCTION or LAND DISTURBANCE pursuant to CONSTRUCTION shall occur within 30 feet of the top of the bank of a drainage ditch or stream or within 30 feet of the centerline of a drainage swale that is indicated as an intermittent stream on a United States Geological Survey 7.5 Minute Quadrangle Map except for the following:
   1. Repair and replacement of any lawful CONSTRUCTION that existed on {effective date}.
   2. Establishment of a filter strip or other landscape maintenance practice or standard that is consistent with Section 11 of this Ordinance and provided that the establishment of the filter strip is coordinated with the Champaign County Soil and Water District Resource Conservationist or an Illinois Licensed Professional Engineer. No permit shall be required pursuant to either this Ordinance or the

Zoning Ordinance provided that no other CONSTRUCTION is undertaken and provided that no LAND DISTURBANCE EROSION CONTROL PERMIT is otherwise required.

3. CONSTRUCTION or LAND DISTURBANCE pursuant to a statewide or regional permit administered by the Illinois Department of Natural Resources Office of Water Resources (IDNR/OWR) and provided that information sufficient to document compliance with the relevant statewide or regional permit is submitted to the ZONING ADMINISTRATOR at least one week prior to the start of LAND DISTURBANCE.

F. Adjacent streets, sidewalks and public areas shall be kept free of SEDIMENT and nuisance soil. Any soil or SEDIMENT tracked onto a street, sidewalk or public area shall be removed before the end of each workday or sooner if directed by the relevant Authority.

6.5 General Enforcement

In the event that any CONSTRUCTION or LAND DISTURBANCE that is not subject to the requirement for a LAND DISTURBANCE EROSION CONTROL PERMIT causes EROSION or SEDIMENTATION on any adjacent property or any adjacent street or adjacent drainage ditch, roadside ditch, or stream, the ZONING ADMINISTRATOR shall take such enforcement actions as are necessary and authorized by Section 9.1.1 and Section 10 of the Zoning Ordinance and consistent with Section 11 of this Ordinance to prevent continued EROSION or SEDIMENTATION.

7. EASEMENTS

A. Easements to the County, township, drainage district or other public authority to provide for maintenance of public drainage facilities which serve the SITE and which are or are to be dedicated to, owned by, or under the control of such public authority shall be granted when the need for such facility is in whole or in part specifically and uniquely attributable to the proposed development.

B. All known agricultural drainage tile located underneath areas to be developed shall be granted an easement if no written easement exists prior to development.

C. Such easement shall be approved in writing by the public body to which they are granted and recorded in the Champaign County Recorder's Office before the Approval Authority issues any final approval except in the case of SUBDIVISIONS where such easements are shown on the plat.

8. STORM WATER DRAINAGE SYSTEM

8.1 Minor

The minor drainage component of the drainage system shall consist of storm sewers, street gutters, small open channels, and swales designed to store and convey RUNOFF from the 5-year, 24-hour precipitation event utilizing the Illinois State Water Survey Bulletin 70.

8.2 Major

The major drainage components shall be designed to store and convey STORM WATER beyond the capacity of the minor drainage component. Information depicting STORM WATER paths (including cross-sectional data), velocities, rates, and elevations and maps of flooding shall be included in the submittal as identified in Section 9.5.

8.3 Hierarchy of Best Management Practices

The drainage system shall be based on the use of appropriate BEST MANAGEMENT PRACTICES as presented in the Technical Appendices and the following hierarchy of preference with items near the beginning of the hierarchy preferred over items near the end.

A. Preserve the natural resource features of the development site (e.g. BEST PRIME FARMLAND, floodplains, wetlands, existing native vegetation) as much as practicable.
B. Preserve the existing natural streams, channels and drainage ways.
C. Minimize impervious surfaces created at the site (e.g. using minimum acceptable road width, minimizing driveway length and width, and clustering homes).
D. Use native vegetation as an alternative to turf grass as much as practicable.
E. Use of open vegetated channels, filter strips, and infiltration to convey, filter, and infiltrate STORM WATER as much as practicable.
F. Preserve the natural infiltration and storage characteristics of the site (e.g. disconnection of impervious cover and on-lot bioretention facilities) as much as practicable.
G. Use structural measures that provide STORM WATER quality and quantity control.
H. Use structural measures that provide only STORM WATER quantity control and conveyance.

9. STORM WATER DRAINAGE PLAN

9.1 General Design

A. Design Methods
   1. Calculation of Drainage Capacity - The Rational Method may be used to size the minor components for any development
   2. Calculation of Required Storage - The volume of required STORM WATER storage shall be calculated on the basis of the maximum value achieved from the RUNOFF of a design event less the volume of water released through the outlet structure.
      a. Development Watershed Area Less Than or Equal to 10 Acres -The Modified Rational Method shall be acceptable for development WATERSHEDs equal to or less than 10 acres in area. In determining the volume of storage required when using the Modified Rational Method, the release rate of the outlet structure shall be assumed to be constant and equal to the release rate through the outlet structure when one half of the storage volume is filled. In determining the maximum allowable release rate for the 50-year event, a runoff coefficient value of 0.25 shall be used for assumed land cover conditions. Roughness coefficients most closely matching those of the TR-55 Method shall be used to determine time of concentration.
      b. Development Watershed Area Less Than or Equal to 2,000 Acres -The method utilized for calculation of required volume of storage shall be the Natural Resources Conservation Service TR-55 Methodology for development WATERSHEDs less than or equal to 2,000 acres in area. In determining the maximum allowable release rate for the 50-year event, a curve number shall be used corresponding to the actual SOIL types found on the development SITE provided, however, that the land cover "Row crops, SR + CR" in "good" hydrologic condition are assumed. A roughness coefficient of 0 .17 and a ponding adjustment factor of 0.72 shall also be assumed in calculating the maximum allowable release rate.
      c. Development Watershed Area Greater Than 2,000 Acres -Developments and drainage designs for development WATERSHEDS larger than 2,000 acres

shall use the Natural Resources Conservation Service TR-20 Methodology. Other routing techniques may be used in determining required storage volume upon the approval of the Approval Authority.

d. When applying Natural Resources Conservation Service methods, a SCS Type II rainfall distribution shall be assumed.

B. Design Event
   1. Precipitation values for all return period storms shall be determined utilizing the Illinois State Water Survey Bulletin 70.
   2. A 50-year return period storm with a 24-hour duration shall be used.
   3. When using the Modified Rational Method, the critical storm duration (that requiring the largest detention volume) for any design event shall be identified and used in determining storage volume.

C. Release Rates
   1. Release Rate for Design Event - Outlet structure maximum release rate for the 50-year precipitation event shall be equal to the rate of discharge from the development area assuming row crop agricultural land cover and a 5-year return frequency precipitation event. See Section 9.1 A for the required assumptions for the row crop agricultural conditions.
   2. Effective Discharge for Frequent Storm Events - The outlet structure maximum discharge for each of the I-year, 2-year and 5- year precipitation events shall be no greater than the rate of discharge from the development area, assuming row crop agricultural land cover with the required assumptions described in Section 9.1 A.
   3. For all methods of calculating a maximum allowable release rate, the effect of any depressional storage that actually exists on a given SITE shall be included in determination of the time of concentration.

D. Each STORM WATER storage facility shall be provided with a means of overflow. This overflow structure shall be constructed to function without special maintenance attention and can become a part of the excess STORM WATER passageway for the entire development.

E. The entire STORM WATER storage facility shall be designed and constructed to fully protect the public health, safety, and welfare. The minimum building SITE elevation adjacent to wet or dry basins shall be set at a minimum of 1 foot above the maximum created head. The maximum created head will include the energy head at the emergency overflow structure.

F. STORM WATER storage facilities shall not receive RUNOFF from tributary areas outside the development SITE unless the Approval Authority determines that RUNOFF from such areas can be accommodated in the storage area in a manner that will protect immediate downstream properties.

G. Where portions of the OWNER's land are tributary to the same drain for an outlet, but which are within two or more tributary areas to that drain, the OWNER may construct, upon site specific approval by the Approval Authority, compensatory STORM WATER detention facilities within one tributary area which offset the lack of CONSTRUCTION of STORM WATER detention facilities in another tributary area. Such compensatory storage shall be designed and constructed such that the net effect of these facilities shall be to limit the rate at which STORM WATER is released into the drain to that rate which would have occurred had STORM WATER detention facilities been constructed for all the tributary areas.

9.2 Dry Bottom Storm Water Storage Areas

A. Dry bottom STORM WATER storage facilities should be designed where possible to serve a secondary purpose for recreation, open space, or similar types of uses which will not be adversely affected by occasional intermittent flooding and will not interfere with STORM WATER MANAGEMENT.

B. Minimum grades for turf areas within the basin shall be 2 percent (50 units horizontal to one unit vertical) except that the minimum GRADE shall be 1 percent (100 units horizontal to one unit vertical) if tile underdrains are adequately installed underneath the turf areas. Storage facility side SLOPES shall not exceed 3:1 (three units horizontal to one unit vertical), shall provide for the reasonably safe approach of persons and reasonably safe maintenance practices. Side SLOPES steeper than 3:1 may be allowed upon a determination by the Approval Authority that adequate precautions are taken to avoid unreasonable hazard. Storage basin excavations shall follow the natural land contours as closely as practicable. The geometry of dry bottom STORM WATER storage basins shall be approved by the Approval Authority.

C. Temporary seeding or other SOIL stabilization measures shall be established in the STORM WATER storage basin and excess STORM WATER passageway immediately following the CONSTRUCTION or RECONSTRUCTION of these facilities. These measures shall conform to Section 11. During the construction of the overall development, it is recognized that a limited amount of SEDIMENT buildup may occur in the STORM WATER storage facility due to EROSION. In no case, shall the volume of the storage basin be reduced to less than 90 percent of the required volume during the CONSTRUCTION phase of the development. Basins may be over-excavated to provide additional storage volume for anticipated SEDIMENTATION during CONSTRUCTION activities.

D. Permanent EROSION control measures such as hydro seeding, conventional seeding, nurse crops, fertilizing, or sod installation and associated stabilization techniques such as mulching shall be utilized to control SOIL movement and EROSION within the storage area and excess STORM WATER passageway as required. These measures shall conform to Section 11. The installation of these permanent measures shall take place only after the majority of CONSTRUCTION and other silt and SEDIMENT producing activities have been completed.

E. Prior to the establishment of permanent EROSION control measures, the required capacity of the STORM WATER storage area and the excess STORM WATER passageway shall, if necessary, be restored by EXCAVATION of SEDIMENT materials to provide 100 percent of the required storage volume. Upon completion of CONSTRUCTION activities, the storage volume shall be certified in writing by an Illinois Registered Professional Engineer prior to the issuance of any Compliance Certificate required by Section 9.1.3 of the Champaign County Zoning Ordinance for any development served by such basin. The specific EROSION control measures to be employed shall be included in an ESCP to be approved by the Approval Authority.

F. The outlet control structure shall be provided with an interceptor for trash and debris, and it shall be designed and constructed to minimize EROSION and not to require manual adjustments for its proper operation. The control structure shall be designed to operate properly with minimal maintenance or attention. The control structure shall be provided with safety screens for any pipe or opening, other than a weir, to prevent children or large animals from crawling into structures. The control structure shall be constructed to allow access to it at all times, including times of flood flow.

G. Paved low flow conduits shall be provided in STORM WATER storage basins. These conduits shall be so constructed that they will not unnecessarily interfere with any

secondary use of the storage area and will reduce the frequency of time that the storage area will be covered with water and facilitate dewatering of the SOILS in the STORM WATER storage area to avoid saturated SOIL conditions. Low flow conduits shall facilitate complete interior drainage of the STORM WATER storage area. Tile underdrain systems may be combined with the low flow conduits or channel systems.

H. Pipe outlets of less than 10 inches in diameter shall not be allowed unless specifically approved by the Approval Authority. Multiple outlet pipes from a STORM WATER storage area shall be avoided if they are designed to be less than 12 inches in diameter.

I. Warning signs shall be placed at appropriate locations to warn of deep water, possible flood conditions during storm periods, and of other dangers that exist to pedestrian and vehicular traffic.

9.3 Wet Bottom Storm Water Storage Areas

Wet bottom STORM WATER storage facilities shall be designed in compliance with all the applicable regulations which govern the CONSTRUCTION of dry bottom STORM WATER storage facilities. The following additional regulations shall apply to wet bottom STORM WATER storage facilities:

A. The water surface area of the permanent pool shall not exceed one-fifth of the area of the tributary WATERSHED, or as approved by the Approval Authority.

B. Minimum normal water depth (excluding safety ledges and side SLOPES) shall be eight feet provided, however, that if fish are to be maintained in the pond, at least one-quarter of the pond area shall be a minimum of ten feet deep.

C. Measures shall be included in the design to minimize pond stagnation and to help ensure adequate aerobic pond conditions.

D. All wet bottom STORM WATER storage areas shall comply with the requirements for some combination of vertical barrier or safety ledge for all pools as required by Section 4.3.6 of the Champaign County Zoning Ordinance.

9.4 Alternative Storm Water Storage Areas

The use of STORM WATER storage facilities as described in Sections 9.2 and 9.3 are the preferred means of STORM WATER storage. The following alternative means of STORM WATER storage may be used on development sites under 2 acres in area or where practical necessity makes the use of STORM WATER storage facilities infeasible. The use of such alternative STORM WATER storage areas is only permitted upon the specific approval of the Approval Authority. Storage of STORM WATER in public streets will not be allowed.

A. Paved STORM WATER Storage - Design and CONSTRUCTION of the pavement base must insure that there is minimal pavement damage due to flooding. Control structures in paved areas must be readily accessible for maintenance and cleaning. Flow control devices will be required unless otherwise approved by the Approval Authority.

B. Street Pavement Surface Ponding - Street pavement surface ponding shall not exceed 9 inches in depth in the gutter line nor over the roadway crown if no gutter is present under all rainfall conditions up to and including the 50-year storm event. Open waterways such as surface overflow swales shall be designed into the grading plan to receive all excess STORM WATER. Depressing sidewalks across such overflow swales to meet this requirement shall be acceptable. Street ponding shall be allowed only for the conveyance of RUNOFF and will be subject to approval by the public body accepting dedication of the street.

C. Rooftop STORM WATER Storage - Rooftop storage of excess STORM WATER shall be designed and constructed to provide permanent control inlets and parapet walls to contain excess STORM WATER. Adequate structural roof design must be provided to

ensure that roof deflection does not occur which could cause the roofing material to fail and result in leakage. Overflow areas must be provided to ensure that the weight of STORM WATER will never exceed the structural capacity of the roof. Any rooftop storage of excess STORM WATER shall be approved only upon submission of building plans signed and sealed by a licensed structural engineer or architect attesting to the structural adequacy of the design.

D. Automobile Parking Lot Storage Areas - Automobile parking lots may be designed to provide temporary detention storage on a portion of their surfaces. Automobile parking facilities used to store excess STORM WATER may be constructed having a maximum depth of stored STORM WATER of 0.6 feet; and these areas shall be located in the most remote, least used areas of the parking facility. Design and CONSTRUCTION of automobile parking in STORM WATER areas must insure that there is minimal damage to the parking facility due to flooding, including minimal damage to the sub base. Warning signs shall be mounted at appropriate locations to warn of possible flood conditions during storm periods.
E. Underground STORM WATER Storage - Underground STORM WATER storage facilities must be designed for easy access in order to remove accumulated SEDIMENT and debris. These facilities must be provided with a positive gravity outlet unless otherwise approved by the Approval Authority.

9.5 Submittals

Two copies of a STORM WATER DRAINAGE PLAN prepared by an Illinois Professional Engineer must be submitted with any zoning petition or SUBDIVISION application where required by this Ordinance. Such plan must at a minimum contain the following:

A. The SUBDIVISION name or other project identification, engineer's firm, the engineer's name, and date shall all be indicated.
B. Full description of before and after development topography, existing drainage (including locations of agricultural drainage tile serving the area to be developed as well as serving off-site areas but which crosses the area to be developed as well as the efforts to identify and locate underground tile), grading, and environmental characteristics of the property. <u>This includes but is not limited to the location and size of all landscaped and vegetated areas, green roofs, rain water storage systems, and areas of permeable surfacing intended to provide stormwater treatment or other stormwater control.</u>
C. An explanation of the minor and major drainage systems' performance under storm events up to and including the 100-year precipitation event and of the provisions for handling drainage from any tributary off-site areas.
D. The potential impacts of the development on water resources both upstream and downstream.
E. STORM WATER Detention or Retention System Designs - Calculations shall be submitted with all assumptions, coefficients, and other parameters identified and their sources noted.
F. For detention systems for developments of more than 10 acres in area, a plot or tabulation of storage volumes with corresponding water surface elevations (stage storage table) and of the basin outflow rates for those water surface (stage discharge) elevations shall be furnished for the I-year, 2-year, 5-year and 50-year precipitation events. These tabulations shall be listed for water surface elevation intervals not exceeding 1.0 foot.
G. ESCP as required by Section 11 of this Ordinance.

9.6 Certifications

The following certifications shall be submitted prior to the issuance of any Certificate of

Compliance, final plat approval, or release of performance guarantee for development on the SITE as provided in the applicable provisions of the Champaign County Zoning Ordinance or Champaign County Subdivision Regulations:

A. Certification of storage volume as required in Section 9.1 A.2.d.
B. As-built drawings of the drainage system including the storage facility in sufficient detail to determine that the constructed facility is substantially the same as that presented in the approved STORM WATER DRAINAGE PLAN with certification to that effect by an Illinois Professional Engineer.

10. JOINT CONSTRUCTION

STORM WATER storage areas may be planned and constructed jointly by two or more landowners so long as compliance with this Ordinance is maintained.

11. LAND DISTURBANCE EROSION CONTROL

11.1 General Requirement

A. The requirements of this Section shall apply to any STORM WATER DRAINAGE PLAN, LDEC PERMIT or enforcement actions prescribed by the Zoning Administrator.
B. The design, testing, installation, and maintenance of EROSION and SEDIMENT control operations and facilities shall adhere to the requirements of this Ordinance and the standards and specifications contained in the Technical Appendices; and to the most recent version of the Illinois Urban Manual. This Ordinance shall prevail where any of those requirements conflict. The EROSION and SEDIMENT control standards specifically included in this Ordinance may not be adequate for every situation that may be encountered and in those situations the most appropriate standard(s) from the Illinois Urban Manual should be utilized.

11.2 Minimize Soil Erosion

The following practices shall be applied to LAND DISTURBANCE activities to minimize Soil Erosion.

A. LAND DISTURBANCE shall be minimized to the extent practical and shall be conducted in such a manner as to minimize soil EROSION.
B. Prior to any LAND DISTURBANCE on the site, EROSION control facilities shall be installed.
C. Areas of LAND DISTURBANCE shall be stabilized immediately whenever LAND DISTURBACE has permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization of disturbed areas must be initiated within 1 working day of permanent or temporary cessation of earth disturbing activities and shall be completed as soon as possible but not later than 14 days from the initiation of stabilization work in the area. Except where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable or on areas where construction activity has temporarily ceased and will resume after 14 days, a temporary stabilization method can be used.
D. Appropriate temporary or permanent stabilization measures shall include seeding, mulching, sodding, and/or non-vegetative measures.
E. Areas of LAND DISTURBANCE with a slope equal to or greater than three feet horizontal to one foot vertical shall be stabilized.

F. To the extent practicable, ditches and swales which are to convey off-site flows through the site shall be stabilized upon construction.
G. The condition of the LAND DISTURBANCE and/ or construction site for the winter shutdown period shall address proper EROSION and SEDIMENT control early in the fall growing season so that all LAND DISTURBANCE areas may be stabilized with temporary or permanent vegetative cover.
    1. All non-active construction areas that are to remain idle throughout the winter shall receive temporary erosion control measures including temporary seeding, mulching, and/or erosion control blanketing prior to the end of the fall growing season that is approximately October 15.
    2. Those active construction areas to be worked beyond October 15 shall incorporate soil stabilization measures that do not rely on vegetative cover such as erosion control blanketing and heavy mulching.

11.3 Minimize On Site Sedimentation

The following practices shall be applied to LAND DISTURBANCE activities to minimize SEDIMENT.

A. SEDIMENT control facilities shall be utilized to prevent SEDIMENT from leaving the site and minimize the amount of sediment being moved on the site.
B. Common SEDIMENT control facilities or structures are sediment traps, sediment basins, and silt fences. Straw bale dikes are not authorized SEDIMENT control facilities.
C. SEDIMENT control facilities shall be in place for all drainage leaving the site prior to mass grading.
D. Adjacent private and public areas shall be kept free of SEDIMENT and nuisance soil. A stabilized LOT or construction entrance (driveway) and vehicle wash down facilities, if necessary, shall be provided to minimize the amount of soil and SEDIMENT tracked onto public or private streets. Any soil or SEDIMENT tracked onto a public or private street shall be removed before the end of each workday or sooner if directed by the relevant Authority.
E. When a proposed LAND DISTURBANCE is tributary to a storm drain inlet, that storm drain inlet shall be protected by an appropriate SEDIMENT control device prior to the LAND DISTURBANCE.

11.4 Construction Dewatering

Water that is pumped or otherwise discharged on or from the site during construction dewatering shall be filtered to remove SEDIMENT and erosion shall be minimized.

11.5 Stockpiles

Stockpiles of soil and other erodible building material (such as sand) of 100 cubic yards or more shall be stabilized with temporary or permanent measures of EROSION and SEDIMENT control within 14 calendar days and shall not be located less than 30 feet from a drainage ditch, roadside ditch, drainage swale, or stream or in a drainage ditch easement. There shall be adequate distance between the stockpile and the ditch, easement, swale, or stream to allow stabilization and maintenance on the stockpile without accessing the ditch, swale, or stream.

11.6 Required Maintenance of Erosion and Sediment Control Measures

All temporary EROSION and SEDIMENT control measures shall be inspected regularly and maintained in an effective working condition at least as frequently (and more often if needed) as follows:

A. Repair, replace, or maintain EROSION and SEDIMENT control measures after a singular or cumulative rainfall event of 0.5 inches or more over a 24 hour period.
B. All temporary EROSION and SEDIMENT control measures shall be removed within 30 days after final stabilization is achieved with permanent soil stabilization measures.
C. Trapped SEDIMENT and other disturbed soil resulting from temporary measures shall be properly disposed of and the area shall be stabilized.

12. LDEC PERMITS

A. Within that part of Champaign County identified in Section 4.1 where all parts of this Ordinance apply and except as otherwise provided in Section 4.3, a LDEC PERMIT shall be required for any LAND DISTURBANCE.
B. The requirements and review procedures to authorize a particular LAND DISTURBANCE depend upon the classification of that particular LAND DISTURBANCE. LDEC PERMITS shall be of the following types:
    1. A MINOR LDEC PERMIT shall be required for any LAND DISTURBANCE of less than one acre of land that is part of a COMMON PLAN OF DEVELOPMENT OR SALE OF RECORD or that is part of any other USE, DISTRICT, or LOT described in Section 4.1. that is not otherwise exempted from this Ordinance by Section 4.3
    2. A MAJOR LDEC PERMIT shall be required for any LAND DISTURBANCE of one acre or more of land within the Champaign County MS4 JURISDICTION. An ILR10 permit is required for land both within and outside of the Champaign County MS4 JURISDICTION.

12.1 Applications for a LDEC Permit

Applications for a LDEC PERMIT shall be filed in written form with the ZONING ADMINISTRATOR on such forms as the ZONING ADMINISTRATOR prescribes and shall include the following:

A. Name and address of the OWNER, the APPLICANT, contractor, engineer and architect when applicable;
B. Location, including township and section, street number, lot block and or tract comprising the legal description of the site;
C. Permanent Index Number (PIN);
D. LOT Area;
E. ZONING DISTRICT;
F. Special Flood Hazard Area, if applicable;
G. Use of existing property and structures;
H. Proposed use and any proposed structures;
I. Estimated cost of proposed construction;
J. SITE PLAN indicating all existing and proposed uses and structures;
K. Extent and nature of proposed LAND DISTURBANCE;
L. An EROSION AND SEDIMENT CONTROL PLAN (ESCP) meeting the requirements of this Ordinance;
M. Applications for a Major LDEC PERMIT shall also include the Supplemental Application Form in Technical Appendix E.

12.2 LDEC Permit - Minor

The following forms and procedures are required:

A. The APPLICANT shall submit a completed Application Form. Copies of the completed and approved Application Form and LETTER OF NOTIFICATION shall be kept on the project SITE and made available for public viewing during CONSTRUCTION hours.
B. Submission of an ESCP consistent with the guidelines and standards in Technical Appendix D.
C. Upon approval of the ESCP by the ZONING ADMINISTRATOR, the ESCP shall be implemented by the PERMITTEE consistent with the guidelines and standards in Technical Appendix D.
D. The PERMITTEE shall allow inspections of the LAND DISTURBANCE by the ZONING ADMINISTRATOR as required by Section 13.5 of this Ordinance.
E. When the LAND DISTURBANCE is completed and all LAND DISTURBANCE on the project SITE has received FINAL STABILIZATION, a LETTER OF TERMINATION shall be submitted by the PERMITTEE to the ZONING ADMINISTRATOR.

12.3 LDEC Permit - Major

The following forms and procedures are required:

A. Submission of a completed Application Form and Supplemental Land Disturbance Erosion Control Permit Application Form. Copies of the completed and approved Application Form, SWPPP and ESCP shall be kept on the project SITE and made available for public viewing during CONSTRUCTION hours.
B. The APPLICANT shall complete a NOTICE OF INTENT according to the ILR10 requirements and submit the NOI to the IEPA and the County.
C. The APPLICANT shall complete a CONTRACTOR'S CERTIFICATION STATEMENT (CCS) according to the ILR10 requirements and submit the CCS to the IEPA and the County.
D. The APPLICANT shall prepare a SWPPP according to the ILR10 requirements and submit the written SWPPP to the IEPA and the County.
E. The APPLICANT shall submit an ESCP that has been prepared by a licensed PROFESSIONAL ENGINEER or a CERTIFIED PROFESSIONAL EROSION CONTROL SPECIALIST, for approval by the ZONING ADMINISTRATOR. The ESCP shall be as follows:
    1. The ESCP shall be drawn to an appropriate scale and shall include sufficient information to evaluate the environmental characteristics of the affected areas, the potential impacts of the proposed grading on water resources, and measures proposed to minimize SOIL EROSION and prevent offsite EROSION and SEDIMENTATION.
    2. The following information shall be included in any ESCP:
        a. A letter of transmittal, which includes a project narrative.
        b. An attached vicinity map showing the location of the SITE in relationship to the surrounding area's WATERCOURSES, water bodies and other significant geographic features, roads and other significant STRUCTURES.
        c. An indication of the scale used and a north arrow.
        d. The name, address, and telephone number of the OWNER and/or DEVELOPER of the property where the land disturbing activity is proposed.
        e. Suitable contours for the existing and proposed topography.
        f. Types of SOILS present on the SITE, as defined by the "Soil Survey of Champaign County, Illinois", prepared by the United States Department of Agriculture Natural Resources Conservation Service.

g. The proposed grading or LAND DISTURBANCE activity including; the surface area involved, excess spoil material, use of BORROW material, and specific limits of disturbance.
h. Location of WASHOUT FACILITIES for concrete and asphalt materials indicated on the SITE PLAN. Provide details of proposed WASHOUT FACILITIES.
i. A clear and definite delineation of any areas of vegetation or trees to be saved.
j. A clear and definite delineation of any WETLANDS, natural or artificial water storage detention areas, and drainage ditches on the SITE.
k. A clear and definite delineation of any 100-year FLOODPLAIN on or near the SITE.
l. Storm drainage systems, including quantities of flow and SITE conditions around all points of SURFACE WATER discharge from the SITE.
m. EROSION and SEDIMENT control provisions to minimize on-site EROSION and SEDIMENTATION and prevent off-site EROSION and SEDIMENTATION, including provisions to preserve TOPSOIL and limit disturbance. Provisions shall be in accordance with the standards presented in the appropriate Technical Appendix.
n. Design details for both temporary and permanent EROSION control structures. Details shall be in accordance with the standards presented in the appropriate Technical Appendix.
o. Details of temporary and permanent stabilization measures including a note on the plan stating: "Following initial SOIL disturbance or redisturbance, permanent or temporary stabilization shall be completed within seven (7) calendar days on all perimeter dikes, swales, ditches, perimeter SLOPES, and all SLOPES greater than three (3) horizontal to one (1) vertical (3:1); embankments of ponds, basins, and traps; and within fourteen (14) days on all other disturbed or graded areas. The requirements of this section do not apply to those areas which are shown on the plan and are currently being used for material storage or for those areas on which actual CONSTRUCTION activities are currently being performed."
p. A chronological schedule and time frame (with estimated month) including, as a minimum, the following activities:
    i. CLEARING AND GRUBBING for those areas necessary for installation of perimeter EROSION control devices.
    ii. CONSTRUCTION of perimeter EROSION control devices.
    iii. Remaining interior site CLEARING AND GRUBBING.
    iv. Installation of permanent and temporary stabilization measures.
    v. Road grading.
    vi. Grading for the remainder of the SITE.
    vii. Building, parking lot, and SITE CONSTRUCTION.
    viii. Final grading, landscaping or stabilization.
    ix. Implementation and maintenance of FINAL EROSION CONTROL STRUCTURES.
    x. Removal of temporary EROSION control devices.
q. A statement on the plan noting that the CONTRACTOR, DEVELOPER, and OWNER shall request the EROSION CONTROL INSPECTOR to inspect and approve work completed in accordance with the approved ESCP, and in accordance with the ordinance.

r. A description of, and specifications for, SEDIMENT retention structures.
s. A description of, and specifications for, surface RUNOFF and EROSION control devices.
t. A description of vegetative measures.
u. A proposed vegetative condition of the SITE on the 15th of each month between and including the months of April through October.
v. The seal of a licensed PROFESSIONAL ENGINEER in the State of Illinois, if applicable.
w. The APPLICANT may propose the use of any EROSION and SEDIMENT control techniques in a FINAL ESCP, provided such techniques are proved to be as or more effective than the equivalent BEST MANAGEMENT PRACTICES as contained in the manual of practices.

F. The PERMITTEE shall prepare an EROSION CONTROL INSPECTION REPORT (ECIR) on a weekly basis or after any rainfall event one-half (1/2) inch or greater in twenty-four (24) hours, as recorded on site, at the nearest United States Geologic Survey or Illinois State Water Survey rain gauge nearest the site. Submit the ECIR to the ZONING ADMINISTRATOR. Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is 0.5" or greater rain event, or a discharge due to snowmelt occurs.
G. The PERMITTEE shall prepare an INCIDENCE OF NON-COMPLIANCE (ION) report within forty-eight (48) hours for any incident that allows SEDIMENT to leave the project site. The ION report shall meet all ILR10 requirements. Submit the ION to the IEPA and the County.
H. Copies of the documents listed above shall be kept on the project site and shall be made available for public viewing during CONSTRUCTION hours.
I. The PERMITTEE shall prepare a NOTICE OF TERMINATION (NOT) upon FINAL STABILIZATION of the project site. Submit the NOT to the IEPA and the County.

12.4 Fee

At the time the application is filed a fee shall be paid in accordance with the following schedule of fees in addition to any Zoning Use Permit fees that may apply:

A. LDEC PERMIT - MINOR…….$50.00
B. LDEC PERMIT - MAJOR
   1. No additional fee is required if a STORM WATER DRAINAGE PLAN is required and a fee has been paid in accordance with Section 9.3.4 of the Zoning Ordinance.
   2. If no STORM WATER DRAINAGE PLAN is required the fee shall be the Engineering Review Fee established by Section 9.3.4 of the Zoning Ordinance.

12.5 LDEC Permit Authorization

The issuance of a LDEC PERMIT shall constitute an authorization to do only the work described in the PERMIT or shown on the approved SITE PLANS and specifications, all in strict compliance with the requirements of this ordinance and conditions determined by the Zoning Administrator.

12.6 LDEC Permit Duration

A. LDEC PERMITS shall be issued for a specific period of time, up to one (1) year. The LDEC PERMIT duration shall reflect the time the proposed land disturbing or filling activities and SOIL storage are scheduled to take place. If the PERMITTEE commences permitted activities later than one hundred eighty (180) days of the scheduled

commencement date for grading, the PERMITTEE shall resubmit all required application forms, maps, plans, and schedules to the ZONING ADMINISTRATOR. The PERMITTEE shall fully perform and complete all of the work required in the sequence shown on the plans within the time limit specified in the LDEC PERMIT.

B. LAND DISTURBANCE activities that require schedules in excess of one (1) year shall be reviewed and authorized by the ZONING ADMINISTRATOR in accordance with paragraph 9.1.2 D. of the Zoning Ordinance.

12.7 Responsibility of the Permittee

A. The PERMITTEE shall maintain a copy of the LDEC PERMIT, approved plans and reports required under the LDEC PERMIT on the work SITE and available for public inspection during all working hours. The PERMITTEE shall, at all times, ensure that the property is in conformity with the approved grading plan, ESCP's, and with the following:

1. General - Notwithstanding other conditions or provisions of the LDEC PERMIT, or the minimum standards set forth in this Ordinance, the PERMITTEE is responsible for the prevention of damage to adjacent property arising from LAND DISTURBANCE activities. No person shall GRADE on land in any manner, or so close to the property lines as to endanger or damage any adjoining public street, sidewalk, alley or any other public or private property without supporting and protecting such property from settling, cracking, EROSION, SEDIMENTATION or other damage or personal injury which might result.
2. Public ways - The PERMITTEE shall be responsible for the prompt removal of any SOIL, miscellaneous debris or other materials washed, spilled, tracked, dumped or otherwise deposited on public streets, highways, sidewalks, public thoroughfare or public sanitary or STORM WATER conveyance systems, incident to the CONSTRUCTION activity, or during transit to and from the SITE and shall promptly correct any damages resulting therefrom.

B. Compliance with this Ordinance does not ensure compliance with ILR10 requirements. APPLICANT and/or PERMITTEE is responsible for ensuring compliance with ILR10 requirements.

12.8 Required Maintenance During and After Construction

On any property on which grading or other work has been performed pursuant to a LDEC PERMIT granted under the provisions of this Ordinance, the PERMITTEE or OWNER, their agent, CONTRACTOR, and employees shall, at a minimum, daily inspect, maintain and repair all graded surfaces and EROSION control facilities, drainage structures or means and other protective devices, plantings, and ground cover installed while CONSTRUCTION is active. After CONSTRUCTION is complete, the OWNER or their agent shall maintain erosion control facilities and other drainage structures. This shall include cleaning inlets at least once a year during spring time and SEDIMENT shall be removed every 15 years or as needed.

13. ADMINISTRATION OF LDEC PERMITS

13.1 Zoning Administrator

A. Administration and enforcement of this Ordinance shall be governed by the requirements of this Ordinance and Section 9 of the Champaign County Zoning Ordinance. This Ordinance shall prevail where there is a conflict but the Zoning Ordinance shall prevail where this Ordinance is silent.

B. The ZONING ADMINISTRATOR, as defined in Section 9.1.1 of the Zoning Ordinance, shall have the duty to administer and enforce this Ordinance.
C. The ZONING ADMINISTRATOR representative is authorized to make inspections of any SITE at various times on which there is a LAND DISTURBANCE that is regulated by this Ordinance. The intent of entering premises is to inspect the SITE before, during and after CONSTRUCTION to determine compliance with this Ordinance.

13.2 Conditions of Approval

In granting any LDEC PERMIT pursuant to this Ordinance, the ZONING ADMINISTRATOR may impose such conditions as may be reasonably necessary to prevent the creation of a nuisance or unreasonable hazard to persons or to a public or private property. Such conditions may include, but need not be limited to:

A. The granting (or securing from others) and the recording in county land records of easements for drainage facilities, including the acceptance of their discharge on the property of others, and for the maintenance of SLOPES or EROSION control facilities.
B. Adequate control of dust by watering, or other control methods acceptable to the ZONING ADMINISTRATOR, and in conformance with applicable air pollution ordinances.
C. Improvements of any existing grading, ground surface or drainage condition on the SITE (not to exceed the area as proposed for work or development in the application) to meet the standards required under this Ordinance for new grading, drainage and EROSION control.
D. SEDIMENT traps and basins located within a densely populated area or in the proximity of an elementary school, playground or other area where small children may congregate without adult supervision, may be required to install additional safety-related devices.
E. Any other EROSION and SEDIMENT control technique necessary, in the opinion of the ZONING ADMINISTRATOR, to avoid a public safety hazard.

13.3 LDEC Permit Denial

A. If the ZONING ADMINISTRATOR determines that an ESCP does not meet the requirements of this Ordinance, the application for the LDEC PERMIT shall not be approved.
B. The ESCP must be resubmitted and approved before any LAND DISTURBANCE activity may be authorized.
C. All land use and building permits shall be suspended on a SITE until there is an approved ESCP and the ZONING ADMINISTRRATOR has approved a LDEC PERMIT.

13.4 Changes to LDEC Permits and Plans

A. No work associated with any proposed modification to a LDEC PERMIT or plan shall occur without prior written approval by the ZONING ADMINISTRATOR.
B. Administrative changes such as contact information or schedule changes must be submitted prior to, or together with, any reports, information, or applications to be signed by and authorized representative, but does not require review or approval by the ZONING ADMINISTRATOR.
C. Changes to an approved ESCP can be authorized in two (2) ways:
    1. Changes within the scope of the applicable Technical Appendix may be approved and documented on a field inspection report signed and dated by the EROSION CONTROL INSPECTOR.
    2. Changes outside of the scope of the applicable Technical Appendix shall be submitted to the ZONING ADMINISTRATOR for approval.

13.5 Required Inspection

A. All work for which a LDEC PERMIT is required shall be subject to inspection and approval by the ZONING ADMINISTRATOR. Refusal to allow entry of the ZONING ADMINISTRATOR or his/her representative to inspect for compliance with this Ordinance, or interference with such inspection, shall be grounds for the issuance of a STOP-WORK ORDER.

B. The PERMITTEE and/or their agents shall conduct a pre-CONSTRUCTION meeting on SITE with the EROSION CONTROL INSPECTOR on each SITE which has an approved ESCP.

C. Before commencing grading or land disturbing activities, the PERMITTEE shall obtain written inspection approvals by the EROSION CONTROL INSPECTOR at the following stages in the development of the site, or of each SUBDIVISION thereof:
   1. Upon completion of installation of perimeter EROSION and SEDIMENT controls and prior to proceeding with any other LAND DISTURBANCE or grading. Other building or grading inspection approvals, including approval of any related Zoning Use Permit, shall not be authorized until approved by the EROSION CONTROL INSPECTOR.
   2. Upon completion of stripping, the stockpiling of TOPSOIL, the CONSTRUCTION of temporary EROSION and SEDIMENT control facilities, disposal of all waste material, and preparation of the ground and completion of rough grading, but prior to placing TOPSOIL, permanent drainage or other SITE development improvements and ground covers.
   3. Upon completion of FINAL STABILIZATION, including grading, permanent drainage and EROSION control facilities, including established ground covers and plantings, and all other work of the LDEC PERMIT.
   4. The ZONING ADMINISTRATOR may require additional inspections as may be deemed necessary.

D. Work shall not proceed beyond the stages outlined above until the EROSION CONTROL INSPECTOR inspects the SITE and approves the work previously completed.

E. Requests for inspections shall be made at least twenty-four (24) hours in advance (exclusive of Saturdays, Sundays, and holidays) of the time the inspection is desired. Upon request for inspections, the EROSION CONTROL INSPECTOR shall perform the inspection within forty-eight (48) hours of the request.

F. The inspection to determine compliance with this Ordinance shall not normally include a new building which was completed and which has been secured, but shall include inspection of any area of the property where land disturbing activity is occurring, or is thought to be planned.

14. LIABILITY RELATED TO LDEC PERMITS

A. Neither the issuance of a LDEC PERMIT under the provisions of this Ordinance, nor the compliance with the provisions hereto or with any condition imposed by the ZONING ADMINISTRATOR, shall relieve any person from responsibility for damage to persons or property resulting from the activity of the PERMITTEE.

B. Compliance with the conditions imposed by this Ordinance, or conditions imposed by the ZONING ADMINISTRATOR, shall not create liability on the County resulting from such compliance.

15. ENFORCEMENT OF LDEC PERMITS

15.1 Compliance

The PERMITTEE shall carry out the proposed work in accordance with the approved plans and specifications, and in compliance with all the requirements of the LDEC PERMIT, including those documents referenced in this Ordinance.

15.2 Deficiency

A SITE is deficient when regular maintenance of EROSION and SEDIMENT CONTROLS have not been completed and can generally be resolved during weekly inspections or inspections following storm events. The ZONING ADMINISTRATOR may send a letter encouraging the PERMITTEE to fix the deficiency before the next rain event when the SITE may become non-compliant.

15.3 Non-Compliance

Any incidence of noncompliance (ION) shall be reported to the IEPA as required by the ILR10 permit and to the Zoning Administrator. The ION shall include statements regarding: the cause of Non-compliance, actions taken to prevent any further non-compliance, environmental impact resulting from the non-compliance, actions taken to reduce the environmental impact from the non-compliance.

A. If non-compliance occurs and an ION is not filed, the site is in violation of the LDEC PERMIT.
B. Recurring non-compliance could be a violation of the LDEC PERMIT.

15.4 Notice of Violation

A. If the ZONING ADMINISTRATOR finds any conditions not as stated in the application or approved plans, the ZONING ADMINISTRATOR may issue a Notice of Violation or a STOP-WORK ORDER on the entire project, or any specified part thereof, until a revised plan is submitted conforming to current site conditions. Failure to obtain a LDEC PERMIT for activities regulated under this Ordinance constitutes a violation.
B. If the ZONING ADMINISTRATOR issues a Notice of Violation or a STOP-WORK ORDER on the entire project, or any specified part thereof, pursuant to a MAJOR LDEC PERMIT, the ZONING ADMINISTRATOR shall also notify the IEPA that the project may not be in compliance with the ILR10 permit.

15.5 Prevention of Hazard

Whenever the ZONING ADMINISTRATOR determines that any LAND DISTURBANCE on any private property is an imminent hazard to life and limb, or endangers the property of another, or adversely affects the safety, use, SLOPE, or SOIL stability of a public way, publicly controlled WETLAND, or WATERCOURSE, then the ZONING ADMINISTRATOR shall issue a Stop-Work Order and require that all LAND DISTURBANCE activities cease and the corrective work begin immediately.

15.6 Stop-Work Order

A. The ZONING ADMINISRATOR may require that, on a SITE, all work which is being performed contrary to the provisions of this Ordinance or is being performed in an unsafe or dangerous manner shall immediately stop.
B. STOP-WORK ORDERS do not include work as is directed to be performed to remove a violation or dangerous or unsafe condition as provided in the STOP-WORK ORDER..

C. The ZONING ADMINISTRATOR may issue a STOP-WORK ORDER for the entire project or any specified part thereof if any of the following conditions exist:
   1. Any LAND DISTURBANCE activity regulated under this Ordinance is being undertaken without a LDEC PERMIT.
   2. The ESCP or SWPPP is not being fully implemented.
   3. Any of the conditions of the LDEC PERMIT are not being met.
   4. The work is being performed in a dangerous or unsafe manner.
   5. Refusal to allow entry for inspection.

D. A STOP-WORK ORDER shall be issued as follows:
   1. The STOP-WORK ORDER shall be in writing and shall be posted and served upon the OWNER and PERMITTEE, as provided below. In addition, a copy of the STOP-WORK ORDER may be given to any person in charge of or performing work on drainage improvements in the development, or to an agent of any of the foregoing.
   2. The STOP-WORK ORDER shall state the conditions under which work may be resumed.
   3. No person shall continue any work after having been served with a STOP-WORK ORDER.
   4. For the purposes of this section, a STOP-WORK ORDER is validly posted by posting a copy of the STOP-WORK ORDER on the SITE of the LAND DISTURBANCE in reasonable proximity to a location where the LAND DISTURBANCE is taking place. Additionally, in the case of work for which there is a LDEC PERMIT, a copy of the STOP-WORK ORDER, shall be mailed by first class mail to the address listed by the PERMITTEE and in the case of work for which there is no LDEC PERMIT, a copy of the STOP-WORK ORDER shall be mailed to the person to whom real estate taxes are assessed, or if none, to the taxpayer shown by the records of the Supervisor of Assessment.
   5. If the LAND DISTURBANCE continues more than 24 hours after the STOP-WORK ORDER is posted on the SITE, the ZONING ADMINISTRATOR may do the following:
      a. If there is a LDEC PERMIT the ZONING ADMINISTRATOR may revoke the LDEC PERMIT
      b. If there is no LDEC PERMIT, the ZONING ADMINISTRATOR may request the State's Attorney to obtain injunctive relief.
   6. The ZONING ADMINISTRATOR may retract the revocation.
   7. Ten (10) days after posting a STOP-WORK ORDER, the ZONING ADMINISTRATOR may issue a notice to the OWNER and/or PERMITTEE of the intent to perform the work necessary to prevent EROSION and institute SEDIMENT control. The ZONING ADMINISTRATOR or his/her designated representative may go on the land and commence work after fourteen (14) days from issuing the notice. The costs incurred to perform this work shall be paid by the OWNER or PERMITTEE. In the event no LDEC PERMIT was issued, the costs, plus a reasonable administrative fee, shall be billed to the OWNER.
   8. Compliance with the provisions of this Ordinance may also be enforced by injunction.

15.7 Legal Proceedings

A. A complaint may be filed with the Circuit Court for any violation of this Ordinance. A separate violation shall be deemed to have been committed on each day that the violation existed.

B. In addition to other remedies, the State's Attorney may institute any action or proceeding which:
   1. Prevents the unlawful CONSTRUCTION, alteration, repair, maintenance, or removal of drainage improvements in violation of this Ordinance or the violation of any LDEC PERMIT issued under the provisions of this Ordinance.
   2. Prevents the occupancy of a building, STRUCTURE or land where such violation exists.
   3. Prevents any illegal act, conduct, business, or use in or about the land where such violation exists.
   4. Restrains, corrects or abates the violation.

C. In any action or proceeding under this section, the State's Attorney may request the court to issue a restraining order or preliminary injunction, as well as a permanent injunction, upon such terms and conditions as will enforce the provisions of this Ordinance. A lien may also be placed on the property in the amount of the cleanup costs.

15.8 Penalties

A. Penalties for violation of this Ordinance shall be governed by the requirements of this Ordinance and Section 10 of the Champaign County Zoning Ordinance. This Ordinance shall prevail where there is a conflict but the Zoning Ordinance shall prevail where this Ordinance is silent.

B. Any person, firm, corporation or agency acting as principal, agent, employee or otherwise, who fails to comply with the provisions of this Ordinance shall be punishable by a fine of not less than one hundred dollars ($100.00) per day and not more than five hundred dollars ($500.00) per day for each separate offense. Each day there is a violation of any part of this Ordinance shall constitute a separate offense.

16. RULES OF CONSTRUCTION

This Ordinance shall be construed liberally in the interests of the public so as to protect the public health, safety, and welfare.

17. APPEAL, WAIVER OR VARIANCE

A. Any part here of or this entire Ordinance may be waived or varied by the by the relevant Approval Authority in accord with the relevant provision of Article 18 of the Champaign County Subdivision Regulations or Section 9.1.9 of the Champaign County Zoning Ordinance except for specific requirements of the ILR10.

B. When the ZONING ADMINISTRATOR is the Approval Authority, the PERMITTEE, or its designee, may appeal a decision of the ZONING ADMINISRATOR pursuant to this Ordinance as authorized in Section 9.1.8 of the Zoning Ordinance. The filing of an appeal shall not operate as a stay of a Notice of Violation or STOP-WORK ORDER. The County shall grant the appeal and issue the appropriate instructions to the Department of Planning and Zoning upon a finding of fact that there is no violation of the Ordinance or the LDEC PERMIT issued.

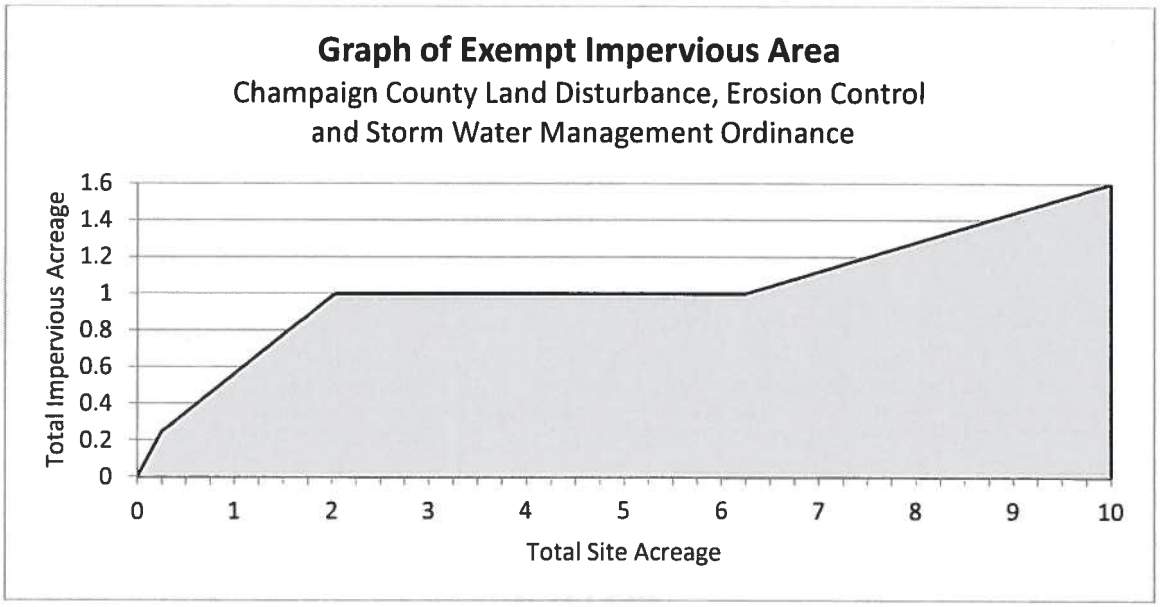
18. EFFECTIVE DATE

This ordinance shall become effective upon adoption.

Appendix A – Adopting Resolution and Amendments

Appendix B – Exempt Impervious Area

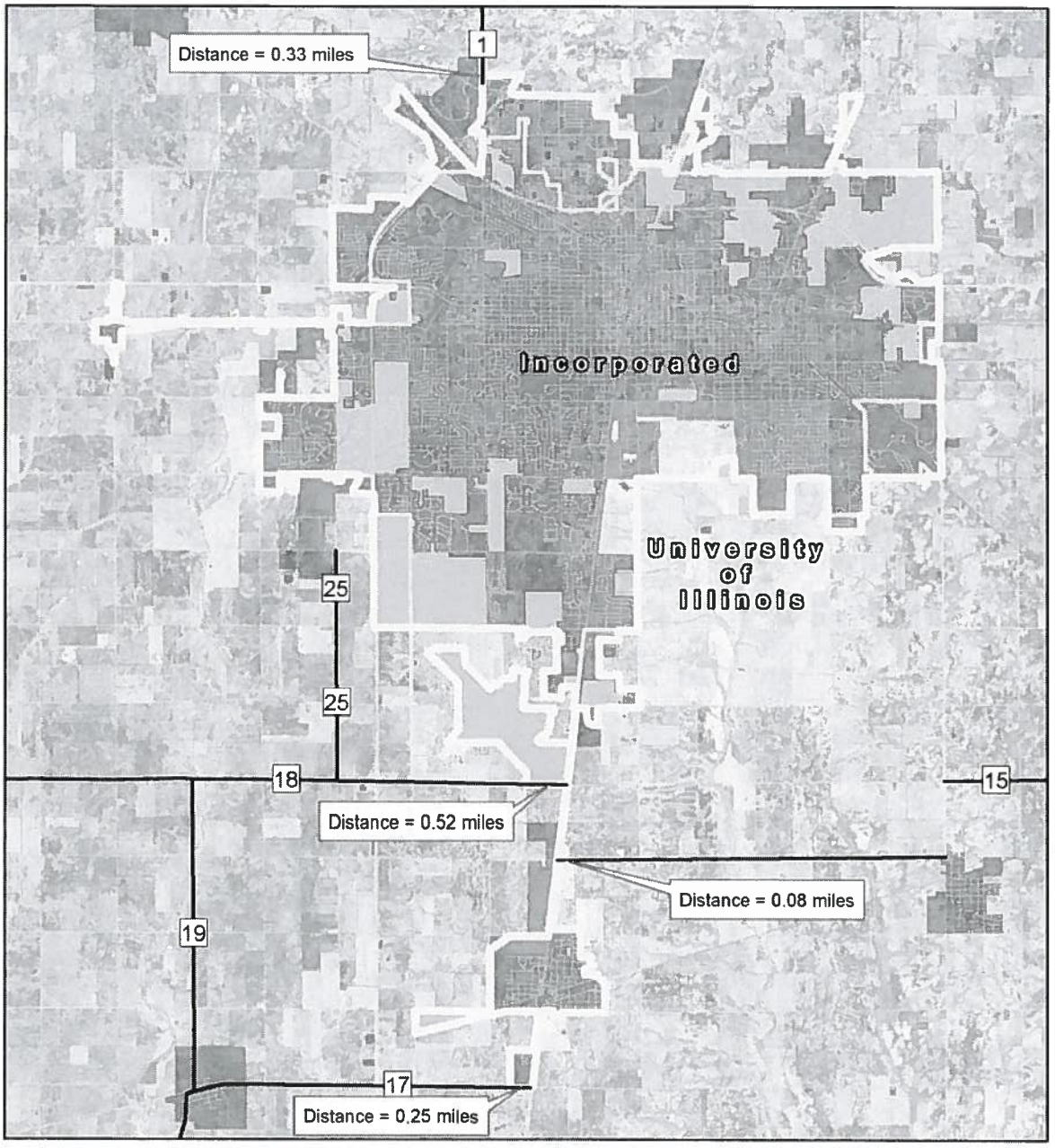
The following graph illustrates the impervious area exemption established in Subparagraph 8.2.A.5. The mathematical expressions for the different portions of the graph are also included. Exemption status can either be read directly from Subparagraph 8.2.A.5. or the graph or determined mathematically using the mathematical expressions.



Mathematical Expressions for Exempt Impervious Area

Site Area	Project is Exempt if:
Less than or equal to 0.25 acres	Impervious Area is less than or equal to Site Area
Greater than 0.25 acres or equal to 2.0 acres	Impervious Area is less than or equal to 0.14 acres plus 0.423 x Site Area
Greater than 2.0 acres or equal to 6.25 acres	Impervious Area is less than or equal to 1.0 acres
Greater than 6.25 acres	Impervious Area is less than or equal to 0.16 x Site Area

Appendix C – Champaign County MS4 Jurisdictional Area



Champaign County MS4 Jurisdiction

Urbanized Area based on the 2010 Census

This map shows the defined MS4 jurisdiction including 10.4 square miles of unincorporated County. Location and size of County stormwater facilites are noted

MS4 Related Boundaries

- County Hwys
- Urbanized Area 2010
- Urbanized Area 2000
- County MS4 Area 2012

Map Created 10/1/13

rpc REGIONAL PLANNING COMMISSION

GIS CONSORTIUM

0 0.75 1.5 3 Miles

CHAMPAIGN COUNTY, ILLINOIS

Storm Water Management and Erosion Control Ordinance

Appendix D

Technical Manual

Minor Land Disturbance Erosion Control Permit

Standards and Standard Details

DRAFT

October 25, 2013

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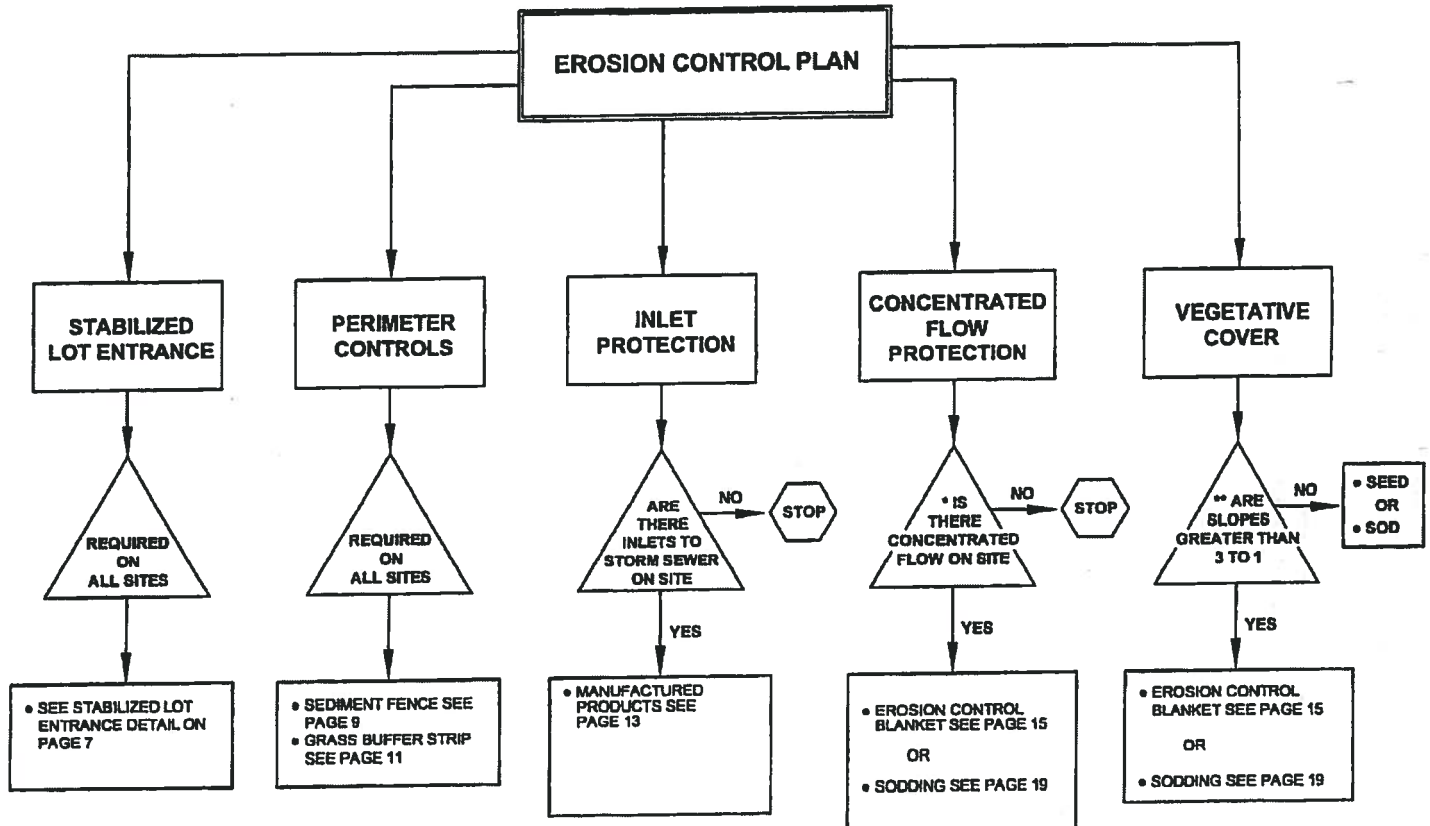
Minor Land Disturbance Erosion Control Permit

EROSION CONTROL PRACTICES FLOW CHART

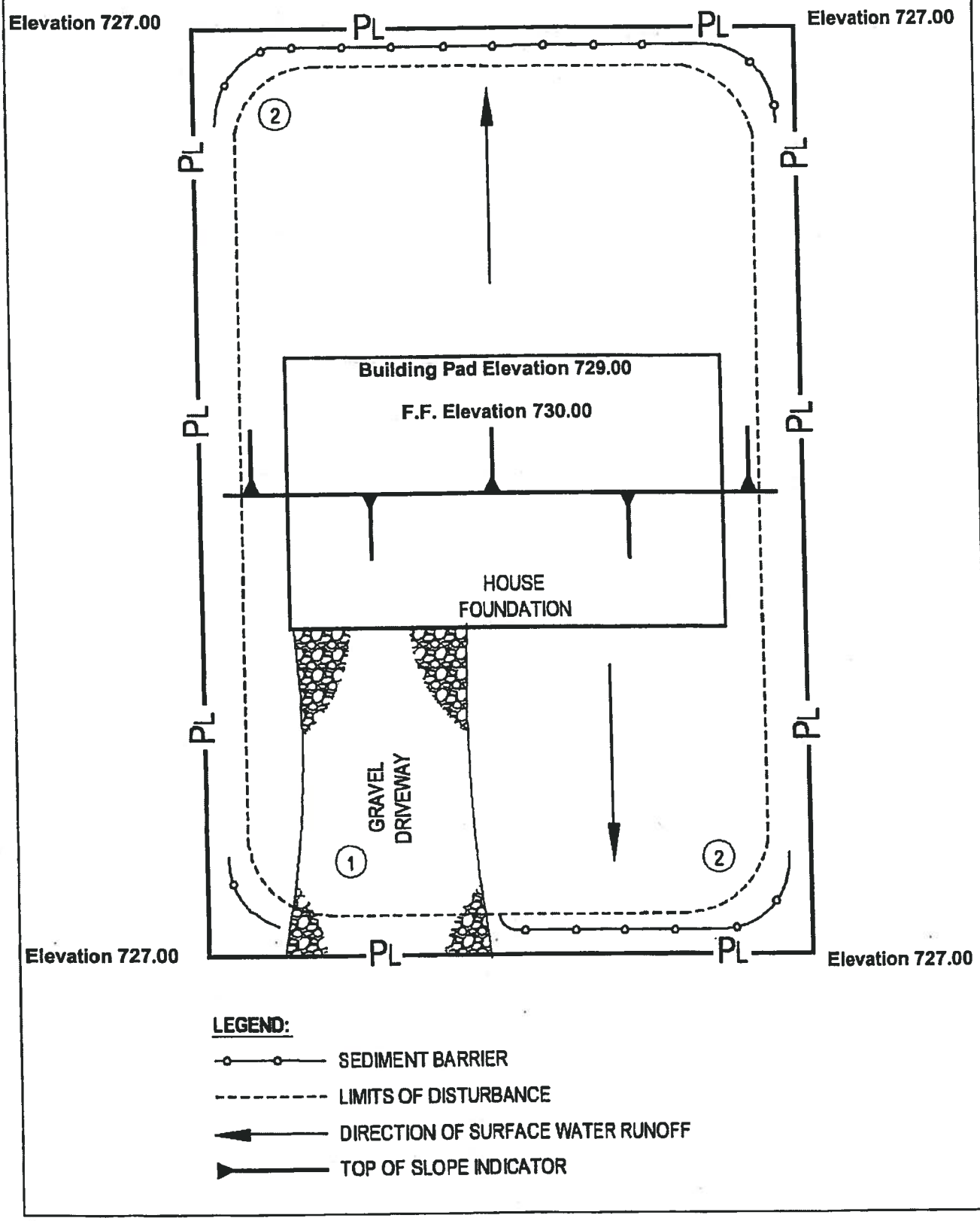


NOTES

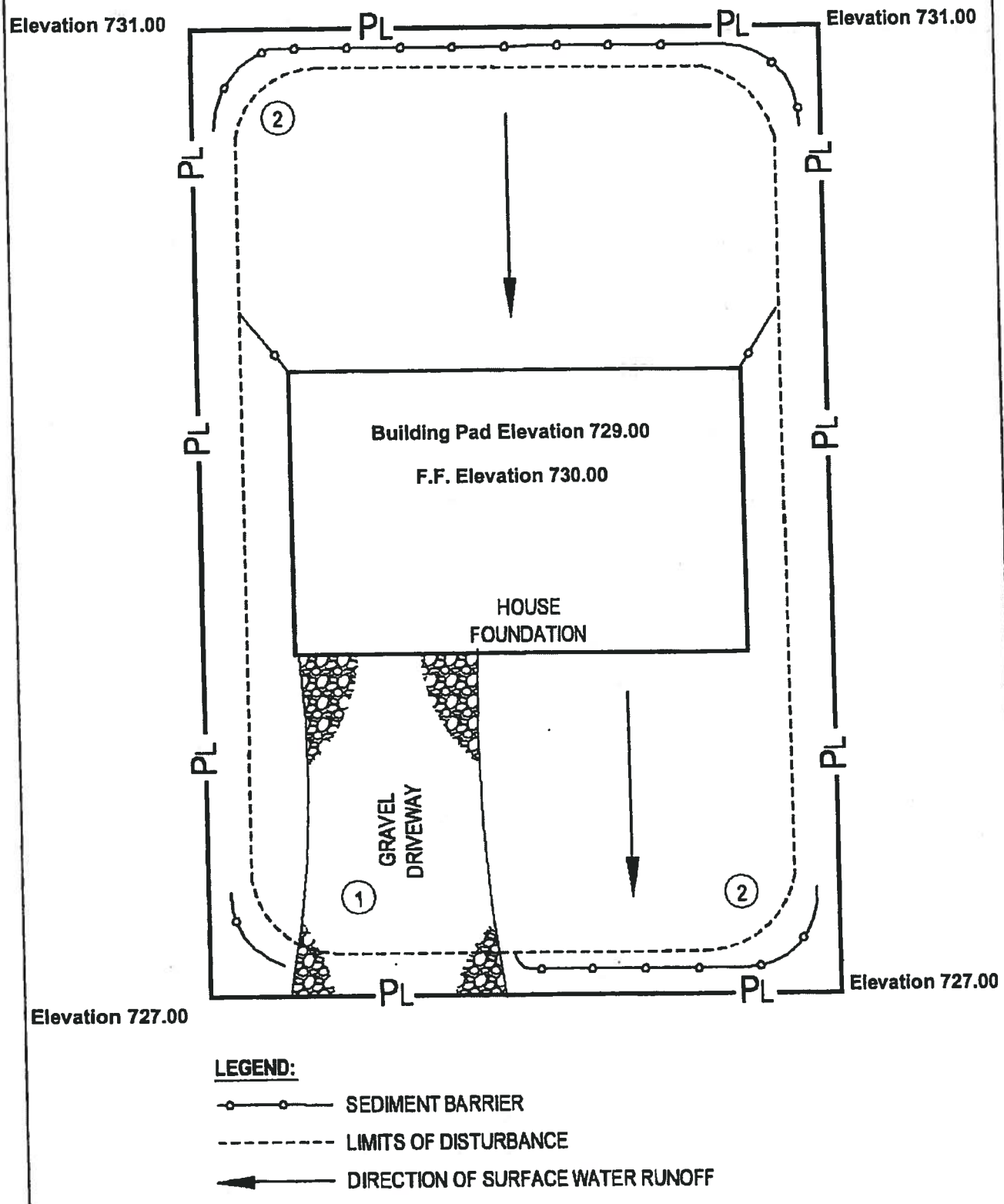
* Concentrated flow refers to storm water runoff that has been concentrated and is flowing through small depressions, rills, gullies, ditches or swales.

** 3 to 1 refers to 3 feet horizontal to to 1 foot vertical on slopes. 1/3

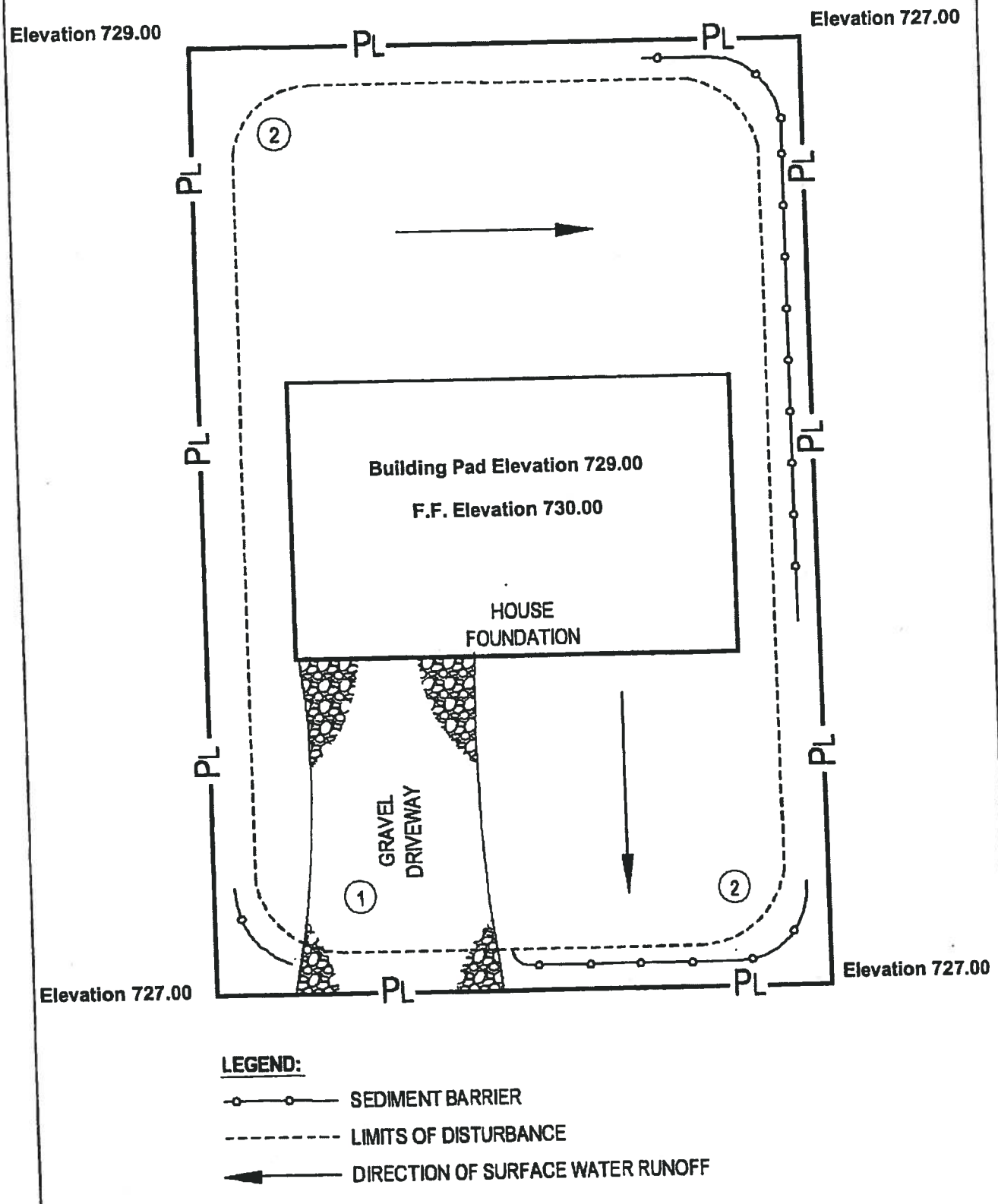
SAMPLE EROSION CONTROL PLAN DRAWING #1



SAMPLE EROSION CONTROL PLAN DRAWING #2



SAMPLE EROSION CONTROL PLAN DRAWING #3



GENERAL INSTALLATION/CONSTRUCTION SEQUENCE:

1.) Stabilized lot entrance

2.) Perimeter controls

- Place where stormwater runoff leaves the site.

- Inspect and maintain controls.

3.) Excavate and backfill foundations

- Spoil pile must remain a minimum of 5 FT. from back of curb and do not extend beyond property line.

4.) Construction activities

- Maintain and repair all controls until final certificate of occupancy is issued.

5.) Final grading and sod or seed placement.

6.) Perimeter controls removed

- Remove after permanent ground cover is obtained at a density sufficient to control erosion.

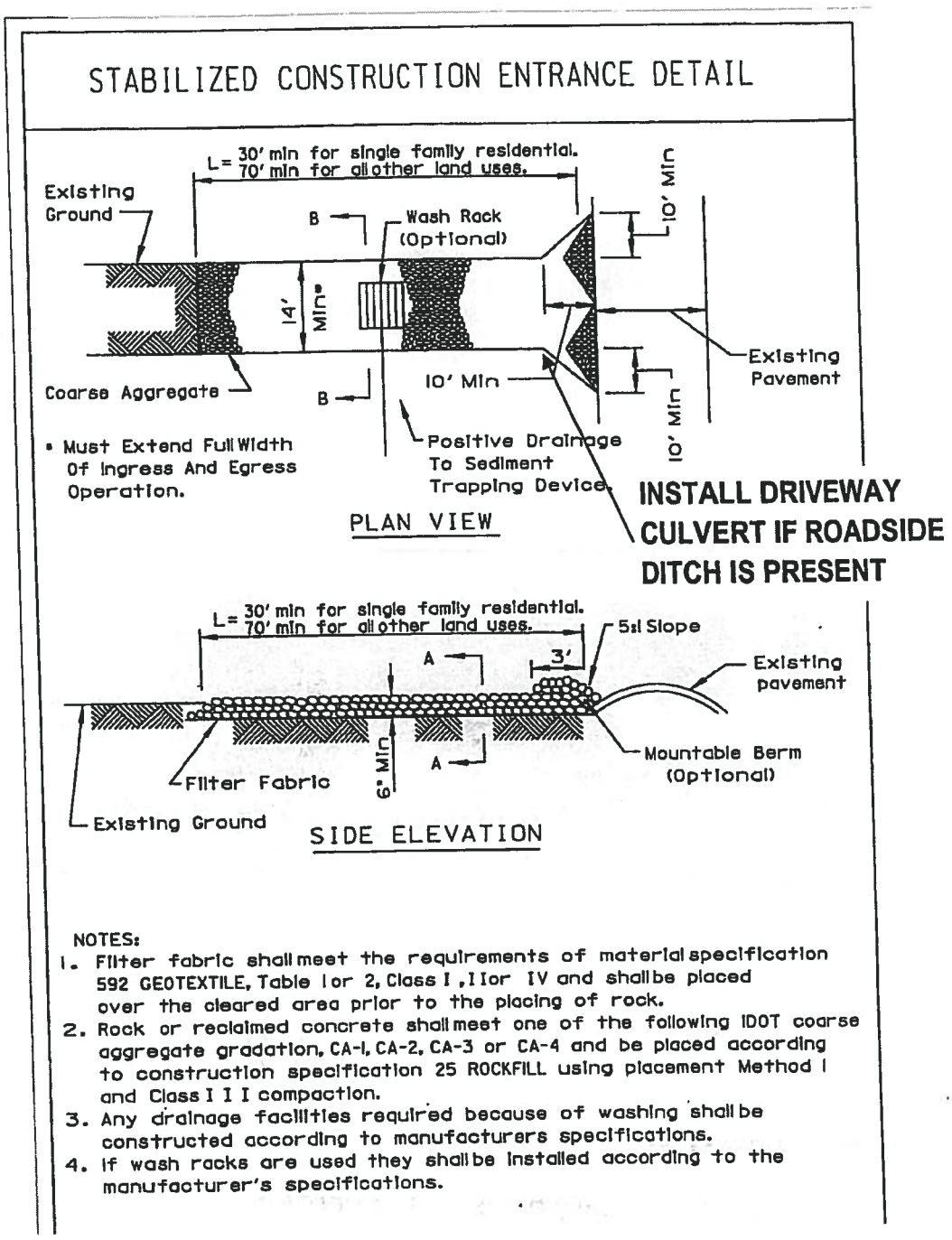
CONCENTRATED FLOW:

1.) Provide erosion blanket or sod for concentrated flow areas.

2.) Provide soil protection and energy dissipation at gutter downspouts if they are in place prior to full vegetative cover over the area.

3.) Provide inlet protection at all storm sewer inlets, grates, drains, and manholes.

STABILIZED LOT ENTRANCE:

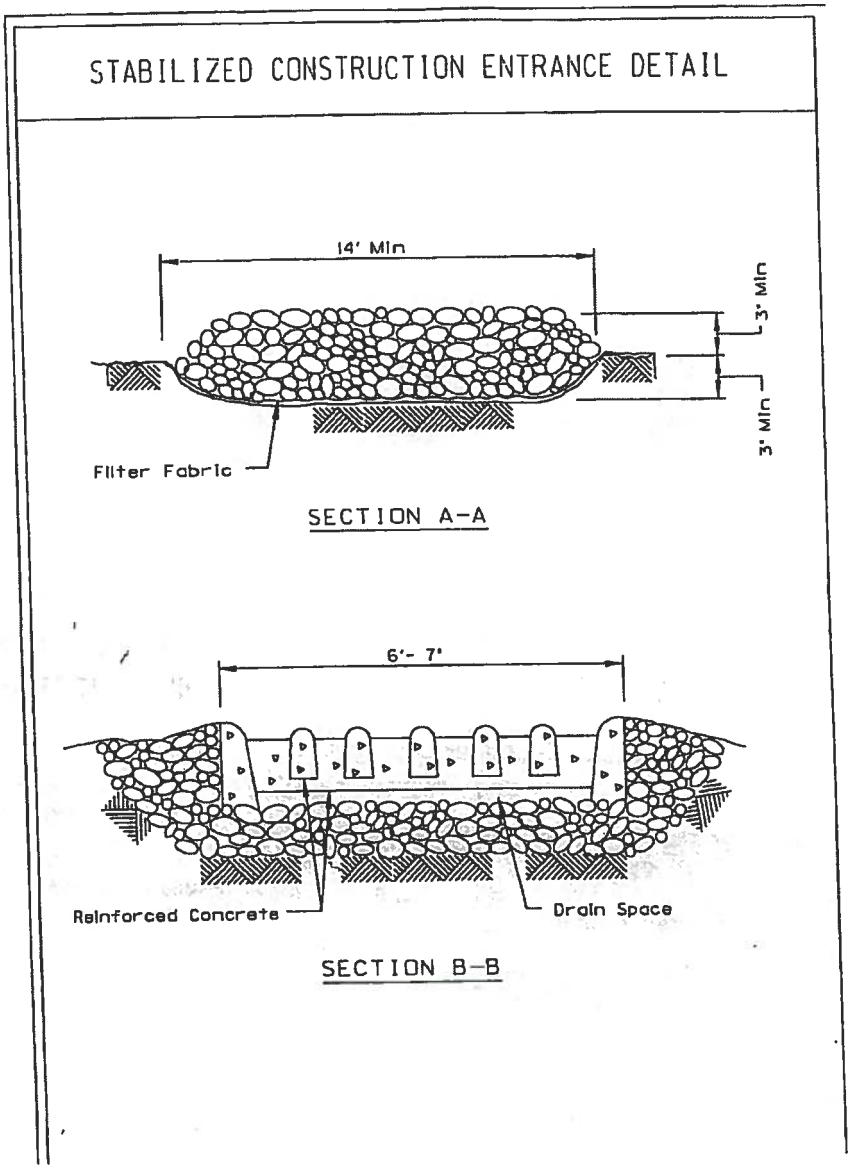


NOTES:

1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method I and Class I I I compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

STABILIZED LOT ENTRANCE:



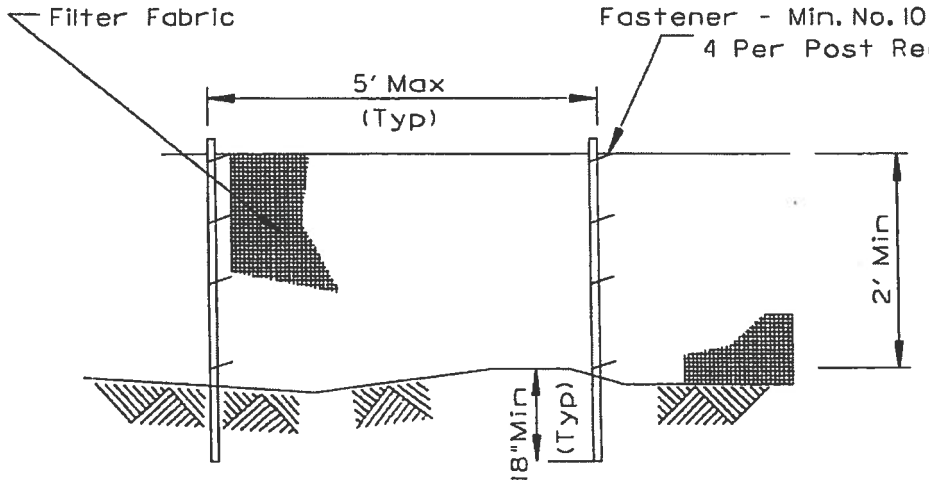
MAINTENANCE:

1.) Inspect on a daily basis or as necessary.

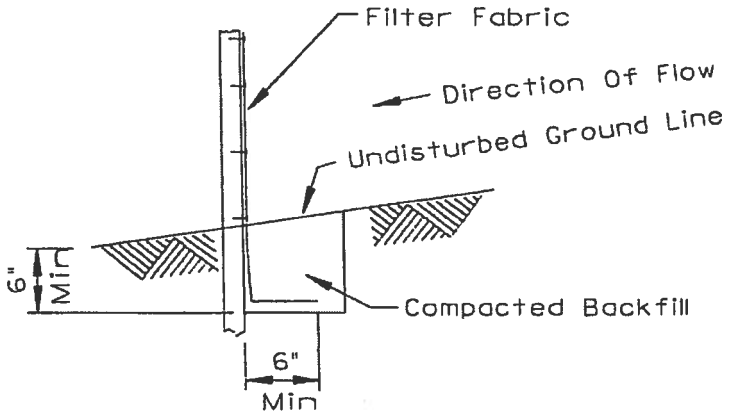
2.) Immediately remove mud or sediment tracked onto road.

3.) Add additional stabilized material as necessary.

PERIMETER BARRIER - SILT FENCE DETAIL



ELEVATION



FABRIC ANCHOR DETAIL

NOTES:

1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 50 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

SEDIMENT FENCE NOTES:

INSTALLATION:

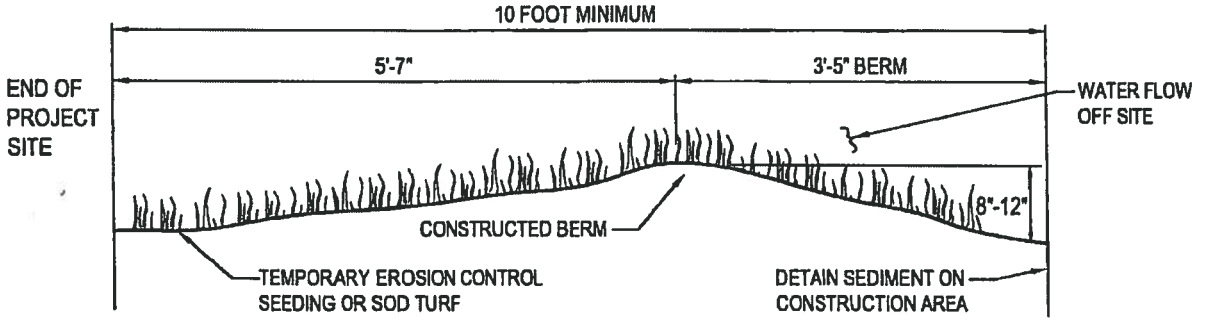
1. Sediment fence shall be a minimum of 24 inches above the original ground surface and shall not exceed 36 inches above ground surface.
2. Excavate a trench approximately 6 inches wide and 6 inches deep on the upslope side of the proposed location of the fence. A slicing machine may be used in lieu of trenching.
3. Posts shall be placed a maximum of 5 feet apart. Fabric shall be fastened securely to the upslope side of posts using min. One-inch long, heavy-duty wire staples or tie wires. Eight inches of the fabric shall be extended into the trench. The fabric shall not be stapled to existing trees.
4. The 6 inch by 6 inch trench shall be backfilled and the soil compacted over the textile unless a slicing machine is used.

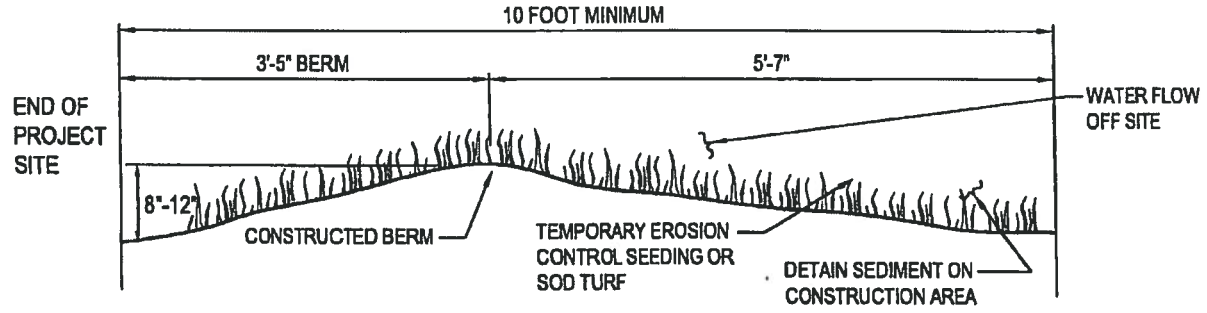
MAINTENANCE:

1. Inspect on a daily basis or as necessary.
2. Any damage shall be repaired immediately.
3. Sediment must be removed when it reaches 6 inches high on the fence.
4. If geotextile has deteriorated due to ultraviolet breakdown, it shall be replaced.
5. Sediment fence shall be removed when it has served its useful purpose, but not before the upslope area has been permanently stabilized.

PERIMETER CONTROL

GRASS BUFFER STRIP





SOURCE: STORM WATER MANAGEMENT HANDBOOK, 2000

GRASS BUFFER STRIP

DESCRIPTION:

These are wide strips of undisturbed vegetation consisting of grass or other erosion resistant plants surrounding the disturbed site. They provide infiltration, intercept sediment and other pollutants, and reduce stormwater flow and velocity. They can also act as a screen for visual pollution and reduce construction noise.

PLANNING CONSIDERATIONS:

Grass strips should be fenced off prior to construction. Avoid storing debris from clearing and grubbing, and other construction waste material in these strips during construction.

DESIGN CRITERIA:

The minimum length of strip must be at least as long as the contributing runoff area. The minimum width should conform to Table below.

MINIMUM WIDTHS OF FILTER STRIPS

SLOPE OF LAND %	WIDTH OF FILTER STRIP FOR GRASSED AREAS (FT)
0	10
2	12
4	14
6	16
8	18
10	20
15	25

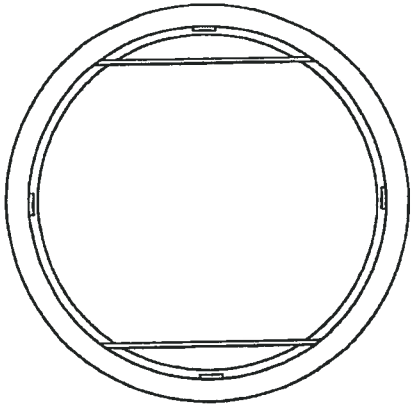
INSPECTION AND MAINTENANCE

1. Maintain moist soil conditions immediately after seeding and/or sod installation.
2. Maintain moist soil conditions throughout vegetation establishment period.
3. Sediment deposits should be removed after each storm event.

SOURCE: STORM WATER MANAGEMENT HANDBOOK, 2000

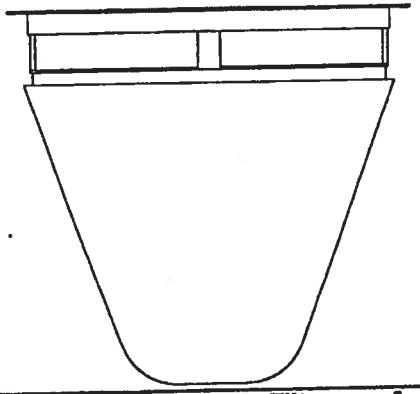
INLET FILTER PROTETOR

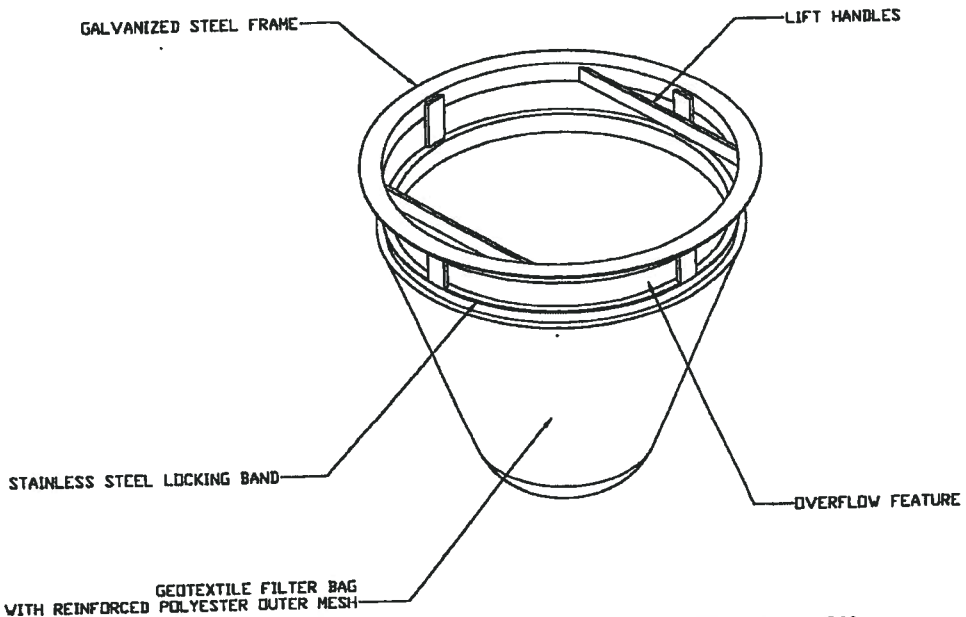
IPP INLET FILTERS



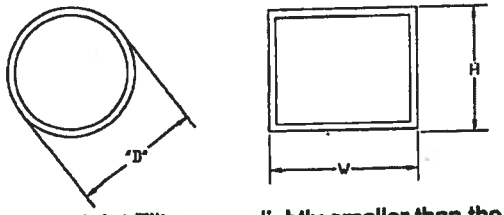
IDOT Type 1 Round Inlet Filter Depicted

NOTE: Round and Square/Rectangular Inlet Filters Available for most Neenah and East Jordan Beehive, Roll Curb and Curb Box Frame Types





INLET FILTER SPECIFICATION



Note: Inlet Filters are slightly smaller than the inlet grate sizes. When identifying or specifying filters/castings please refer to the diameter "D" or width "W" and height "H" of filter frames or casting grates. You may also refer to our casting cross reference guide for IDOT standards.

All Products Manufactured by Inlet & Pipe Protection, Inc
www.inletfilters.com
(847) 722-0690 ph
(847) 364-5262 fx
sales@inletfilters.com

***** Certification: All IPP Inlet Filters conform to IDOT Specifications as outlined in Article 1081.15 of IDOT's Standard Specifications Guide***

INLET FILTER PROTECTORS

THE FOLLOWING PRODUCTS ARE APPROVED FOR INLET PROTECTION

IPP INLET FILTERS
3535 Stackinghay
Naperville, IL 60564
847-722-0690 Telephone
847-364-5262 Fax

www.inletfilters.com

CATCH-ALL INLET PROTECTOR
MARATHON MATERIALS, INC.
25523 WEST SCHULTZ STREET
PLAINFIELD, ILLINOIS 60544
(630) 983-9494 Tel
(800) 983-9493 Toll Free
(630) 983-9580 Fax

www.marathonmaterials.com

OTHER PRODUCTS CAN BE SUBMITTED FOR REVIEW AND APPROVAL

INLET FILTER PROTECTORS

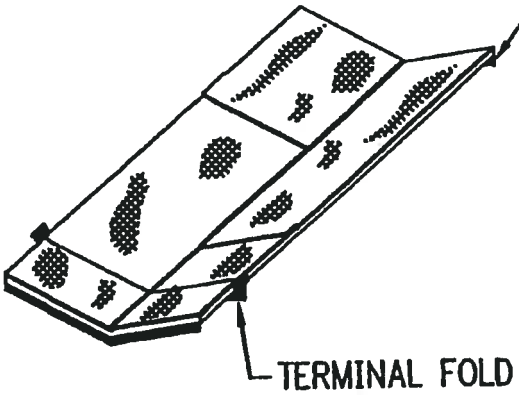
INSTALLATION:

All inlet protection products shall be installed in accordance with manufacturer's instructions.

MAINTENANCE

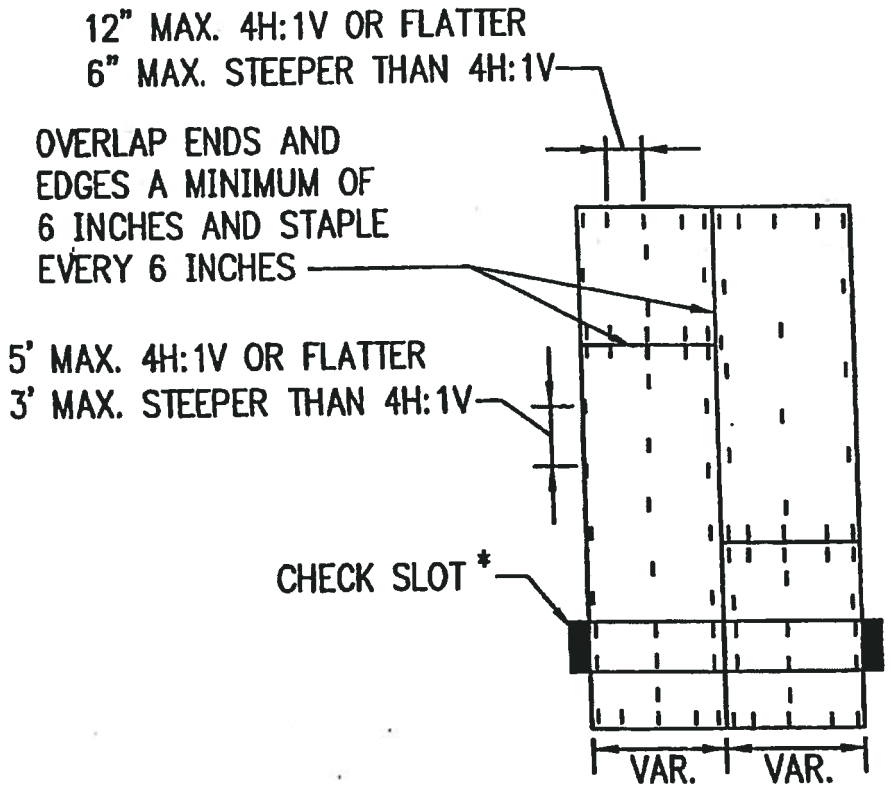
1. Inspect on a daily basis or as necessary.
2. Any damage to products shall be repaired immediately.
3. Sediment must be removed when it reaches 1/3 the height of the product.
4. Inlet protection shall be removed when it has served its useful purpose, but not before upslope area has been permanently stabilized.

EROSION CONTROL BLANKET



NOTES:

1. APPROXIMATELY 200 STAPLES REQUIRED PER 100 SQ. YDS. OF MATERIAL ROLL. CHECK MANUFACTURER'S RECOMMENDATIONS FOR SPECIFIC INSTALLATION ANS STAPLING REQUIREMENTS.



PLAN VIEW

STAPLING DIAGRAM:

* CHECK SLOTS AT MIN. 50' INTERVALS; NOT REQ'D WITH ALL "COMBINATION" BLANKETS.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

TYPICAL ORIENTATION OF EROSION CONTROL BLANKET

SHALLOW SLOPE:

ON SHALLOW SLOPES, STRIPS OF PROTECTIVE COVERINGS MAY BE APPLIED PARALLEL TO DIRECTION OF FLOW.

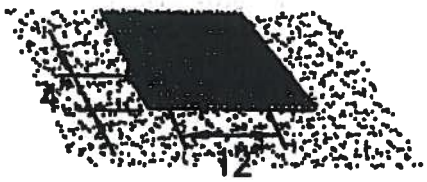
BERM:

WHERE THERE IS A BERM AT THE TOP OF THE SLOPE, BRING THE MATERIAL OVER THE BERM AND ANCHOR IT BEHIND THE BERM.

STEEP SLOPE:

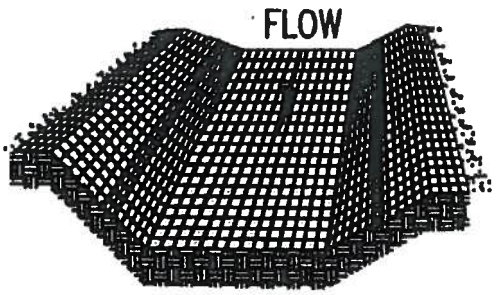
ON STEEP SLOPES, APPLY PROTECTIVE COVERING PERPENDICULAR TO THE DIRECTION OF FLOW AND ANCHOR SECURELY.

STEEP SLOPE:



BRING MATERIAL DOWN TO A LEVEL AREA BEFORE TERMINATING INSTALLATION. TURN THE END UNDER 4" AND STAPLE AT 12" INTERVALS.

DITCH:



IN DITCHES, APPLY PROTECTIVE COVERING PARALLEL TO THE DIRECTION OF FLOW. AVOID JOINING MATERIAL IN THE CENTER OF THE DITCH IF AT ALL POSSIBLE.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

EROSION CONTROL BLANKET

LAYING AND STAPLING:

Place the erosion control blanket on a friable seedbed free of clods, rocks, and roots that might impede good contact.

1. Start placing the protective covering from the top of the channel or slope and unroll down-grade.
2. Allow to rest loosely on soil; do not stretch.
3. Upslope ends of the protective covering should be buried in an anchor slot no less than 6 inches deep. Tamp earth firmly over the material. Staple the material at a minimum of every 12 inches across the top end.
4. Edges of the material shall be stapled every 3 feet. The multiple widths are placed side by side, the adjacent edges shall be overlapped a minimum of 6 inches and stapled together. Staples shall be placed down the center, staggered with the edges at 3 foot intervals.

NOTE:

Study manufacturer's recommendations and site conditions for correct installation and stapling of product.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

EROSION CONTROL BLANKET NOTES (CONTINUED):

JOINING PROTECTIVE COVERINGS:

Insert a new roll of material into an anchor slot as with upslope ends. Overlap the end of the previous roll a minimum of 12 inches, and staple across the end of the roll just below the anchor slot and across the material every 12 inches.

TERMINAL END:

Where the material is discontinued or where the ends under 4 inches, and staple across end every 12 inches.

AT BOTTOM OF SLOPES:

Roll onto a level surface before anchoring, turn ends under 4 inches, and staple across end every 12 inches.

FINAL CHECK:

These installation criteria must be met:

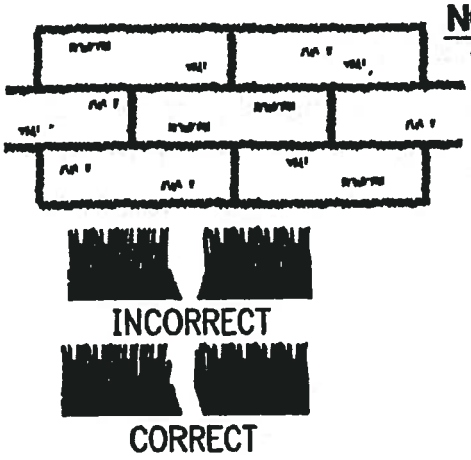
1. Protective blanket is in uniform contact with the soil.
2. All lap joints are secure.
3. All staples are driven flush with the ground.
4. All disturbed areas have been seeded.

MAINTENANCE:

All soil stabilization blankets and matting should be inspected periodically following installation, particularly after storms, to check for erosion and undermining. Any dislocation or failure should be repaired immediately. If washouts or breakage occurs, reinstall the material after repairing damage to the slope or ditch. Continue to monitor these areas until they become permanently stabilized; at that time an annual inspection should be adequate.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

SODDING:



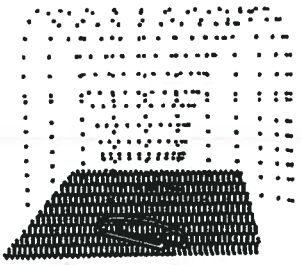
NOTE:

LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

BUTTING:

ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.

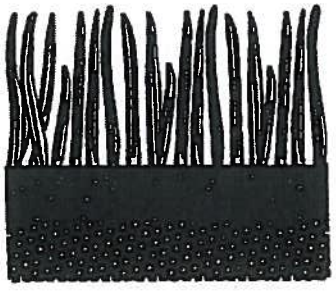
ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL.



WATER SOD TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS INSTALLED.

MOW WHEN THE SOD IS ESTABLISHED – IN 2–3 WEEKS. SET THE MOWER HEIGHT AT 2"–3".

APPEARANCE OF GOOD SOD:



SHOOTS:

GRASS SHOULD BE GREEN AND HEALTHY, MOWED AT A 2"–3" CUTTING HEIGHT.

THATCH:

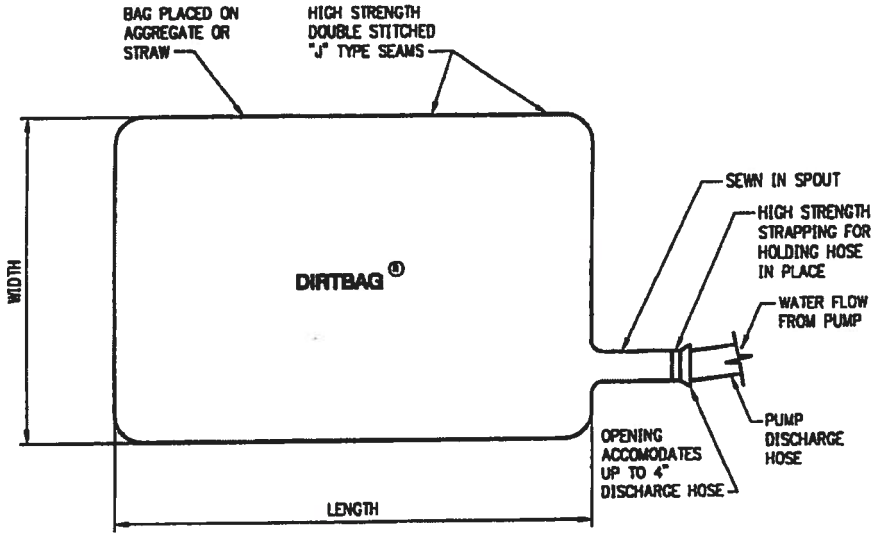
GRASS CLIPPINGS AND DEAD LEAVES UP TO ½" THICK.

ROOT ZONE:

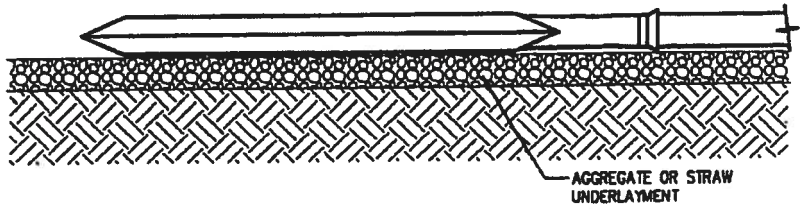
SOIL AND ROOTS SHOULD BE ½" – ¾" THICK WITH DENSE ROOT MAT FOR STRENGTH.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

PUMP DISCHARGE FILTER BAG:



TOP VIEW



SIDE VIEW

DIRTBAG© PUMP-SILT CONTROL SYSTEM NOTES:

A) GENERAL NOTES:

1. THE DIRTBAG® WILL HAVE AN OPENING LARGE ENOUGH TO ACCOMMODATE A 4" DISCHARGE HOSE WITH ATTACHED STRAP TO TIE OFF THE HOSE TO PREVENT THE PUMPED WATER FROM ESCAPING THE DIRTBAG® WITHOUT BEING FILTERED.

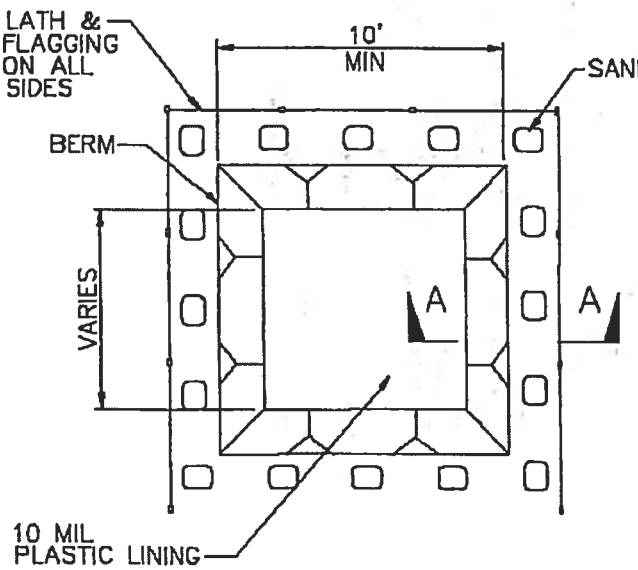
2. INSTALL THE DIRTBAG® ON A SLOPE. IT SHOULD BE PLACED SO THE INCOMING WATER FLOWS THROUGH THE DIRTBAG® SHOULD BE TIED OFF TIGHTLY TO STOP THE WATER FROM FLOWING OUT OF THE OPENING WITHOUT BEING FILTERED THROUGH THE FABRIC TO INCREASE THE EFFICIENCY OF THE FILTRATION, THE BAG SHOULD BE PLACED ON AN AGGREGATE BED TO ALLOW WATER TO FLOW THROUGH ALL SURFACES OF THE BAG.

3. DISPOSAL MAY BE ACCOMPLISHED AS DIRECTED BY THE ENGINEER. IF THE SITE ALLOWS, THE DIRTBAG® MAY BE CUT OPEN AND SEEDED, REMOVING THE VISIBLE FABRIC. THE DIRTBAG® IS STRONG ENOUGH TO BE LIFTED IF IT MUST BE HAULED AWAY. IF THE JOBSITE REQUIRES THE DIRTBAG® TO BE RELOCATED TO LANDFILL FOR DISPOSAL, IT MAY BE HELPFUL TO PLACE THE DIRTBAG® IN THE BACK OF A DUMP TRUCK OR FLATBED PRIOR TO USE, ALLOWING THE WATER TO DRAIN WITH BAG IN PLACE, THEREBY DISMISSING THE NEED TO LIFT THE DIRTBAG®.

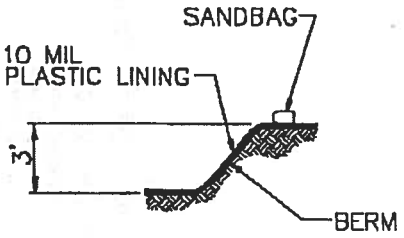
B) INSPECTION AND MAINTENANCE:

1. THE DIRTBAG® SHOULD BE CONSIDERED FULL WHEN IT IS IMPRACTICAL FOR THE BAG TO FILTER OUT SEDIMENT AT A REASONABLE RATE, AND SHOULD BE REPLACED WITH A NEW DIRTBAG®.

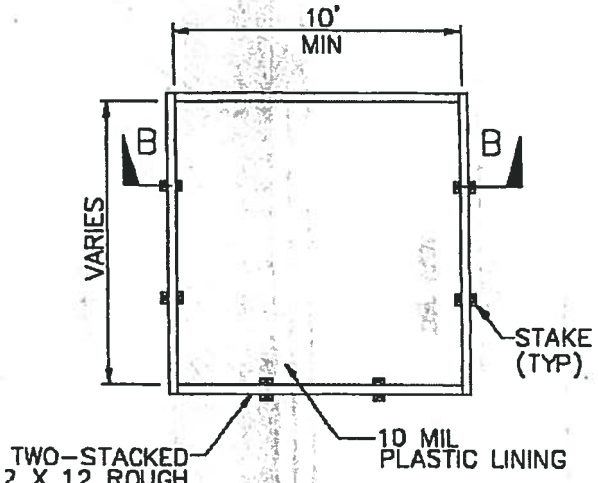
CONCRETE WASHOUT FACILITIES



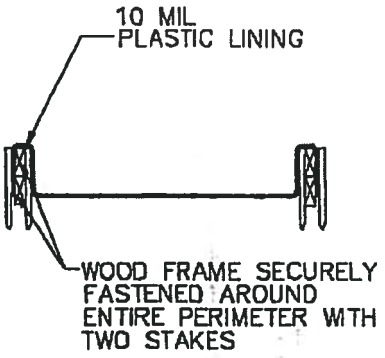
PLAN
NOT TO SCALE
TYPE "BELOW GRADE"



SECTION A–A
NOT TO SCALE



PLAN
NOT TO SCALE
TYPE "ABOVE GRADE"



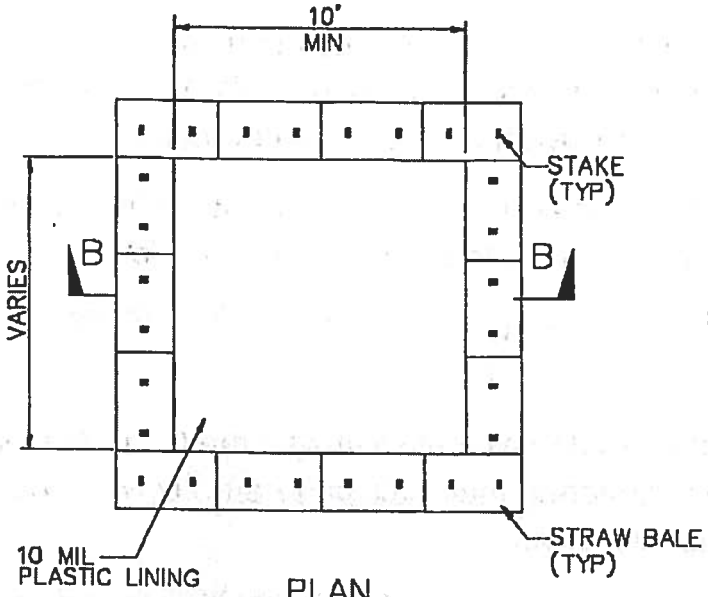
SECTION B–B
NOT TO SCALE

NOTES

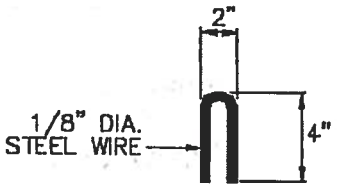
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

SOURCE: CALIFORNIA STORM WATER BMP HANDBOOK

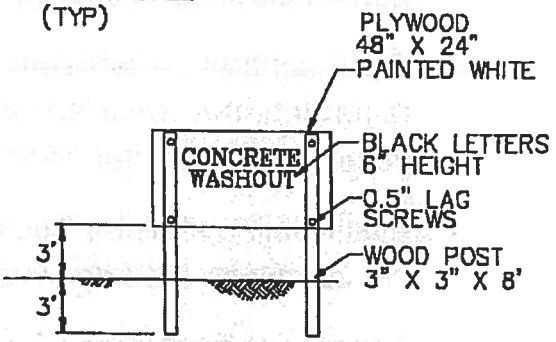
CONCRETE WASHOUT FACILITIES



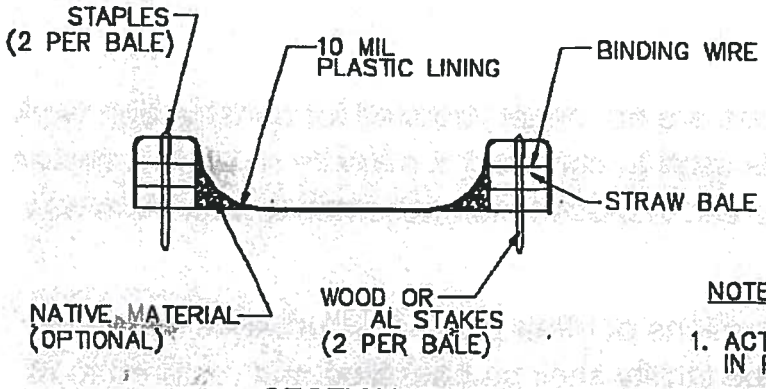
PLAN
NOT TO SCALE
TYPE "ABOVE GRADE"
WITH STRAW BALES



STAPLE DETAIL



CONCRETE WASHOUT
SIGN DETAIL
(OR EQUIVALENT)



SECTION B–B
NOT TO SCALE

NOTES

1. ACTUAL LAYOUT DETERMINED IN FIELD
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

SOURCE: CALIFORNIA STORM WATER BMP HANDBOOK

CONCRETE WASHOUT FACILITIES NOTES

GENERAL

- PCC and AC wastes shall be collected and disposed of or placed in a concrete washout facility. No PCC or AC wastes shall enter the storm sewer system or watercourses.
- Sign shall be installed adjacent to each facility to inform concrete equipment operators to utilize proper facilities.
- Below grade facilities are typical. Above grade facilities are utilized if excavation is not practical.
- Washout facilities shall have sufficient volume to contain all liquid and waste concrete materials generated by washout and construction activities.
- Once concrete wastes are discharged to facility and allowed to harden, the concrete waste should be broken up and disposed of in accordance with state and local law.
- Plastic lining shall be free of holes, tears, or other defects that comprise the impermeability of the material.
- A minimum freeboard 12-inches is required for below grade facilities and a minimum of 4-inches freeboard is required for above grade facilities.

REMOVAL

- When facilities are no longer required for construction work, the materials used to construct the facility shall be removed from the site and disposed of in accordance with state and local law.
- Holes, depressions or other ground disturbance caused by removal of the facility shall be backfilled and restored to its pre-existing condition or intended use.

CONCRETE WASHOUT FACILITIES NOTES

MAINTENANCE

- Facilities must be cleaned or new facilities constructed once the washout is 75% full.
- Remove and dispose of hardened concrete materials to return facilities to a functional condition.
- Inspect washout facility on a weekly basis.

NOTES

CHAMPAIGN COUNTY, ILLINOIS

Storm Water Management and Erosion Control Ordinance

Appendix E

Technical Manual

Major Land Disturbance Erosion Control Permit

Forms, Standards, and Standard Details

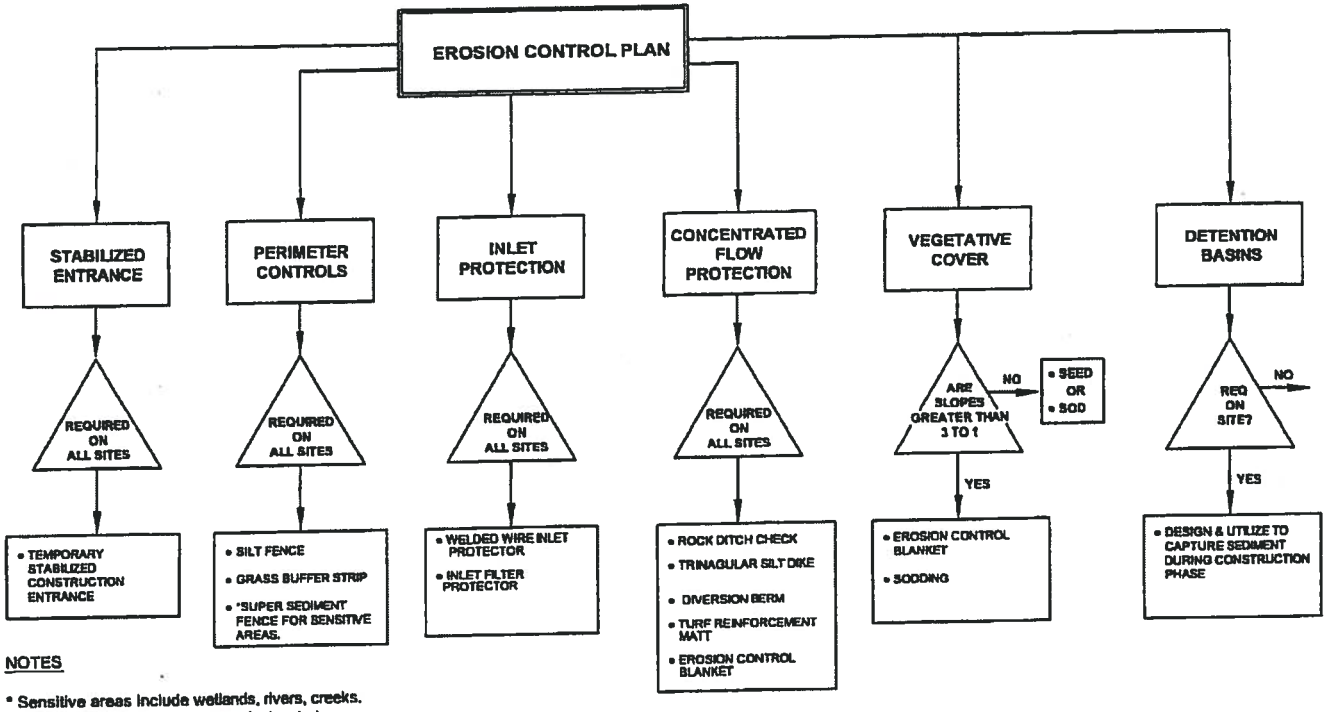
DRAFT

October 25, 2013

Table of Contents

Major Land Disturbance Erosion Control Permit

EROSION CONTROL PRACTICES FLOW CHART



NOTES

* Sensitive areas include wetlands, rivers, creeks, natural areas, and other areas designated

Supplemental Land Disturbance Erosion Control Permit Application Form
Major Land Disturbance Erosion Control Permit

14. ILR-10 Permit Number_____

Attach copies of the following documents submitted to the IEPA for compliance with ILR-10:

- Notice of Intent (NOI)
- Storm Water Pollution Prevention Plan (SWPPP)

Also provide Champaign County with copies of all IEPA documents required for compliance with ILR-10.

15. Name and Telephone Number of Onsite Responsible Person

Name:_____

Company:_____

Telephone Number:_____

I (we) affirm that the above information is accurate and that I (we) shall conduct the above described land disturbance in accordance with Part 91 Soil Erosion and Sedimentation Control, of the Natural Resource and Environmental Protection Act, 1994 PA No. 451 as amended, and all applicable local ordinances and the documents accompanying this application.

Landowner's Signature	Print Landowner Name	Date

Designated Agent's Signature	Print Agent Name	Date

16. Complete the following checklist and include the drawings, specifications, and supporting documentation with the completed Land Use Permit Application.

EROSION AND SEDIMENT CONTROL PLAN CHECKLIST

Project: _____

Sheet/Page No.

I. Project Narrative Description

A. Description of proposed development ..... ☐ _____

B. Past, present and proposed land uses including adjacent properties ..... ☐ _____

C. Surface area involved, use of excess spoil material, use of borrow material ☐ _____

II. Vicinity Map – 500 ft around site

A. 8½" x 11" copy of a USGS map with the outline of the project area..... ☐ _____

B. Scale indicated on map ..... ☐ _____

C. Streets and significant structures properly labeled on map..... ☐ _____

D. Watercourses, water bodies, wetlands, and other significant geographic features in the vicinity of the project area properly identified and labeled on the maps ..... ☐ _____

III. Site Drawing(s)

A. Sealed by licensed professional engineer ..... ☐ _____

B. Existing and proposed contours shown and labeled -100 ft around site..... ☐ _____

C. Property lines shown and labeled ..... ☐ _____

			Sheet/Page No.
D.	Scale, legend, and north arrow shown and labeled.	☐	_____
E.	100 year flood elevation and floodplain delineation shown and labeled	☐	_____
F.	Delineation of any wetlands, natural or artificial water storage detention areas, and drainage ditches on the site.	☐	_____
G.	Delineation of any storm drainage systems including quantities of flow and site conditions around all points of surface water discharge from the site. . . .	☐	_____
H.	Delineation of any areas of vegetation or trees to be preserved	☐	_____
I.	Delineation of any grading or land disturbance activity including specific limits of disturbance and stockpile locations	☐	_____
J.	Stabilized construction entrance provisions shown and labeled	☐	_____
K.	Perimeter erosion control provisions shown and labeled	☐	_____

- Silt Fence
- Grass Buffer Strip
- Super Sediment Fence for Sensitive Areas

L.	Inlet protection provisions shown and labeled	☐	_____

- Stone Bags
- Welded Wire Inlet Protectors
- Approved Manufacturers Product

M.	Concentrated flow provisions shown and labeled	☐	_____

- Diversion Berms
- Erosion Control Blanket
- Turf Reinforcement Matt
- Stone Ditch Check

Sheet/Page No.

N. Vegetative restoration provisions shown and labeled ..... ☐ _____

- Seed
- Erosion Control Blanket
- Sod

O. Sediment traps or basins shown and labeled ..... ☐ _____

P. Plan note stating "Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within seven (7) calendar days on all perimeter dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1); embankments of ponds, basins, and traps; and within fourteen (14) days on all other disturbed or graded areas. The requirements of this section do not apply to those areas which are shown on the plan and are currently being used for material storage or for those areas on which actual construction activities are currently being performed." ..... ☐ _____

Q. Erosion control provision details in accordance with standards presented in the Manual of Practice..... ☐ _____

IV. Chronological Construction Schedule and Time Frame including the following:

A. Clearing and grubbing those areas necessary for installation of perimeter erosion control devices ..... ☐ _____

B. Construction of perimeter erosion control devices ..... ☐ _____

C. Remaining interior site clearing and grubbing..... ☐ _____

D. Installation of permanent and temporary stabilization measures..... ☐ _____

E. Road grading ..... ☐ _____

F. Grading for remainder of the site ..... ☐ _____

G. Building, parking lot, and site construction ..... ☐ _____

Sheet/Page No.

H. Final grading, landscaping, or stabilization ..... ☐ _____

I. Implementation and maintenance of final erosion control structures ..... ☐ _____

J. Removal of temporary erosion control devices ..... ☐ _____

V. Specifications

A. Sediment retention structure specifications ..... ☐ _____

B. Surface runoff and erosion control devices specifications ..... ☐ _____

VI. Vegetative Measures

A. Description of vegetative measures ..... ☐ _____

B. Proposed vegetative conditions of the site on the 15th of each month between and including the months of April through October ..... ☐ _____

VII. Concrete Washout Facilities

A. Location of Concrete Washout Facility shown on Site Plan ..... ☐ _____

B. Details of Concrete Washout Facility ☐ _____

SAMPLE PERMIT PLAN

TYPICAL EROSION CONTROL PLAN ELEMENTS

① SUPER SEDIMENT FENCE TO PROTECT SENSITIVE AREAS.

② STABILIZED CONSTRUCTION ENTRANCES.

③ STABILIZE PARKING AND LAY DOWN AREA WITH GRAVEL PAD AND SILT FENCE AROUND DOWNHILL SIDES.

④ BUILD DETENTION PONDS AND SEDIMENT TRAPS

⑤ DIVERT UPSTREAM SITE WATER AROUND SITE WITH DIVERSION BERMS

⑥ PROTECT STOCKPILE WITH TEMPORARY VEGETATION AND SILT FENCE.

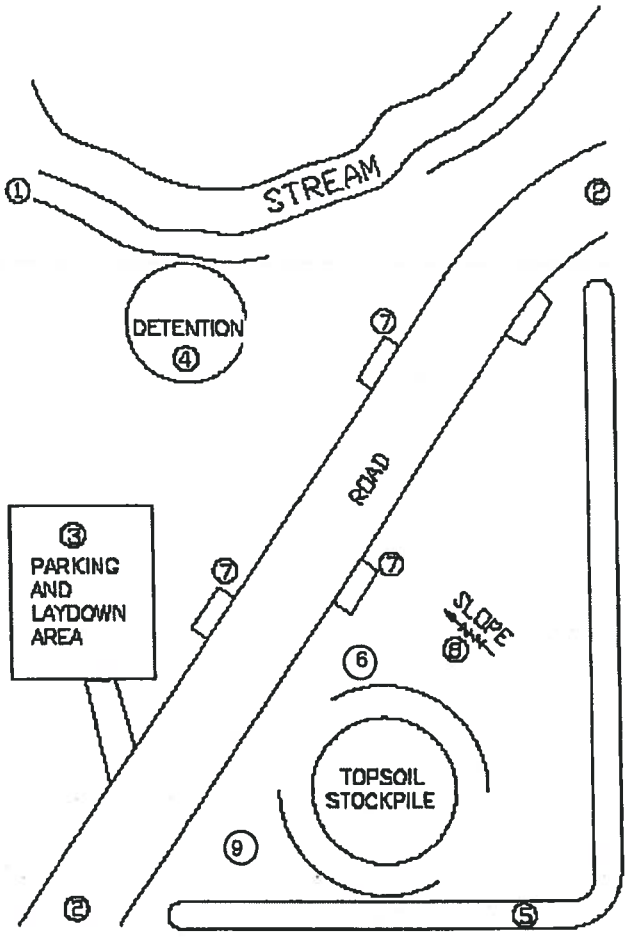
⑦ INLET PROTECTION ONCE STORM SEWERS ARE IN PLACE.

⑧ STABILIZE SOIL WITHIN 14 DAYS OF ROUGH GRADING WITH SOD, SEED BLANKETS, HYDRO MULCH, ETC.

⑨ SLOPES GREATER THAN 3:1 MUST RECEIVE EROSION CONTROL PROTECTION OF BLANKET OR SOD WITHIN 7 DAYS OF BEING PLACED OR STRIPPED.

LEGEND

—— SILT FENCE OR OTHER LIKE CONTROL



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF INTENT (NOI)

GENERAL PERMIT TO DISCHARGE STORM WATER CONSTRUCTION SITE ACTIVITIES

OWNER INFORMATION

NAME:	LAST	FIRST	MI.	(SEE INSTRUCTIONS)	OWNER TYPE: (SELECT ONE AND TYPE "X") ☐ PRIVATE ☐ COUNTY ☐ STATE ☐ CITY ☐ SPECIAL DISTRICT ☐ FEDERAL		
MAILING ADDRESS:							
CITY:		ST:		ZIP:			
CONTACT PERSON:					TELEPHONE NUMBER:	AREA CODE	NUMBER

CONTRACTOR INFORMATION

NAME	LAST	FIRST	MI.	(SEE INSTRUCTIONS)	TELEPHONE NUMBER:	AREA CODE	NUMBER	
MAILING ADDRESS:			CITY:		ST:		ZIP:	

CONSTRUCTION SITE INFORMATION

SELECT ONE:	☐ EXISTING SITE	☐ NEW SITE	☐ CHANGE OF INFORMATION		GENERAL NPDES PERMIT NO.	I	L	R	1	0					
FACILITY NAME:					OTHER NPDES PERMIT NUMBERS:										
FACILITY ADDRESS:					TELEPHONE NUMBER:	AREA CODE			NUMBER						
CITY:		ST:	IL	ZIP:	LATITUDE:	DEG.	MIN.	SEC	LONGITUDE:	DEG.	MIN.	SEC.			
COUNTY:		SECTION:			TOWNSHIP:				RANGE:						
START OF CONSTRUCTION DATE:	MM/DD/YY		END OF CONSTRUCTION DATE:	MM/DD/YY					TOTAL SIZE OF CONSTRUCTION SITE IN ACRES:						

TYPE OF CONSTRUCTION (TYPE "X" FOR ALL THAT APPLY)

☐ RESIDENTIAL ☐ COMMERCIAL ☐ INDUSTRIAL ☐ RECONSTRUCTION ☐ TRANSPORTATION ☐ OTHER

HISTORIC PRESERVATION AND ENDANGERED SPECIES COMPLIANCE (OPTIONAL)

HAS THIS PROJECT SATISFIED APPLICABLE REQUIREMENTS FOR COMPLIANCE WITH ILLINOIS LAW ON:

HISTORIC PRESERVATION ☐ YES ☐ NO, AND

ENDANGERED SPECIES ☐ YES ☐ NO?

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a storm water pollution prevention plan and a monitoring program plan, will be complied with.

OWNER SIGNATURE: _____ DATE: _____

MAIL COMPLETED FORM TO:

(DO NOT SUBMIT ADDITIONAL DOCUMENTATION UNLESS REQUESTED)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF WATER POLLUTION CONTROL
ATTN: PERMIT SECTION
POST OFFICE BOX 19276
SPRINGFIELD, Illinois 62794-9276

FOR OFFICE USE ONLY

LOG:	
PERMIT:	ILR10
DATE:	

Information required by this form must be provided to comply with 415 ILCS 5/39(1996). Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

IL 532 2104
WPC 623 Rev. 5/98

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GUIDELINES FOR COMPLETION OF NOTICE OF INTENT (NOI) FORM

Please adhere to the following guidelines to allow automated forms processing using Optical Character Recognition (OCR) technology.

- Submit original forms. Do not submit photocopies. Original forms can be obtained from:

  Illinois Environmental Protection Agency
  Division of Water Pollution Control
  Permits Section
  2200 Churchill Road
  P.O. Box 19276
  Springfield, IL 62794-9276
  or call (217)782-0610

- Reports must be typed and signed. Do not staple.
- Center your information by typing within the allocated areas avoiding all lines which border the areas.
- Provide only one line of type per allocated area.
- Replace typewriter ribbons and clean as necessary to avoid smeared, faint or illegible characters.
- Use the formats given in the following examples for correct form completion.

	EXAMPLE	FORMAT
NAME:	Smith John C	Last First Middle Initial
	Taylor T J Mfg Co	Surname First (or initials) and remainder
	LJ Trucking Co	Initials and remainder
DATE:	06/30/92	Month/day/year
SECTION:	12	1 or 2 numerical digits
TOWNSHIP:	12N	1 or 2 numerical digits followed by "N" or "S"
RANGE:	12W	1 or 2 numerical digits followed by "E" or "W"
AREA CODE:	217	3 numerical digits
TELEPHONE NUMBER:	782-0610	3 numerical digits followed by a hyphen and 4 more numerical digits
ZIP CODE:	62546	5 numerical digits only

Illinois Department of Transportation

Contractor Certification Statement

This certification statement is a part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with NPDES Permit No. ILR10, issued by the Illinois Environmental Protection Agency on May 14, 1998.

Project Information:

Route _____ Marked _____

Section _____ Project No. _____

County _____

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR 10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

_____ _____
Signature Date

_____
Title

_____
Name of Firm

_____
Street Address

_____
City State

_____
Zip Code

_____
Telephone Number

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

CONSTRUCTION SITE STORM WATER DISCHARGE INCIDENCE OF NON-COMPLIANCE (ION)

IMPORTANT: FORM MUST BE TYPED TO ENABLE AUTOMATED OPTICAL PROCESSING.

SUBMIT ORIGINAL FORM - DO NOT SUBMIT PHOTOCOPY

PERMITTEE NAME:	LAST		FIRST		MI.		(SEE INSTRUCTIONS)	
STREET:			CITY:		ST:		ZIP:	
CONSTRUCTION SITE NAME:								
COUNTY:		SECTION:		TOWNSHIP:		RANGE:		
NPDES PERMIT NUMBER: I L R 1 0		TELEPHONE NUMBER	AREA CODE	NUMBER	LATITUDE: NEAREST 15 SECONDS	DEG. MIN. SEC.	LONGITUDE: NEAREST 15 SECONDS	DEG. MIN. SEC.
DATE(S) OF NON-COMPLIANCE:								

CAUSE OF NON-COMPLIANCE

ACTIONS TAKEN TO PREVENT ANY FURTHER NON-COMPLIANCE

ENVIRONMENTAL IMPACT RESULTING FROM THE NON-COMPLIANCE

ACTIONS TAKEN TO REDUCE THE ENVIRONMENTAL IMPACT RESULTING FROM THE NON-COMPLIANCE

Signature: ______________________ Title: ______________ Date: __________

Return completed form to:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section #19
2200 Churchill Road
P.O. Box 19276
Springfield, IL 62794-9276

FOR OFFICE USE ONLY

LOG	
PERMIT	ILR10
DATE	

This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 1/2, Section 1039. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $10,000.00 per day of violation or a fine up to $25,000.00 per day of violation and imprisonment up to three years. This form has been approved by the Forms Management Center.

GUIDELINES FOR COMPLETION OF INCIDENCE OF NON-COMPLIANCE (ION) FORM

Complete and submit this form for any violation of the Storm Water Pollution Prevention Plan observed during any inspection conducted, including those not required by the Plan. Please adhere to the following guidelines to allow automated forms processing using Optical Character Recognition (OCR) technology.

- Submit original forms. Do not submit photocopies. Original forms can be obtained from:

  Illinois Environmental Protection Agency
  Division of Water Pollution Control
  Permits Section
  2200 Churchill Road
  P.O. Box 19276
  Springfield, IL 62794-9276
  or call (217)782-0610

- Reports must be typed and signed. Do not staple.

- Center your information by typing within the allocated areas avoiding all lines which border the areas.

- Provide only one line of type per allocated area unless you are describing the cause of non-compliance, environmental impact, or actions taken.

- Replace typewriter ribbons and clean as necessary to avoid smeared, faint or illegible characters.

- Use the formats given in the following examples for correct form completion.

	EXAMPLE	FORMAT
NAME:	Smith John C	Last First Middle Initial
	Taylor T J Mfg Co	Surname First (or initials) and remainder
	LJ Trucking Co	Initials and remainder
DATE:	06/30/92	Month/day/year
SECTION:	12	1 or 2 numerical digits
TOWNSHIP:	12N	1 or 2 numerical digits followed by "N" or "S"
RANGE:	12W	1 or 2 numerical digits followed by "E" or "W"
AREA CODE:	217	3 numerical digits
TELEPHONE NUMBER:	782-0610	3 numerical digits followed by a hyphen and 4 more numerical digits
ZIP CODE:	62546	5 numerical digits only

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF TERMINATION (NOT) OF COVERAGE UNDER THE NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES

OWNER INFORMATION

NAME:	LAST	FIRST	MI. (SEE INSTRUCTIONS)	OWNER TYPE: (SELECT ONE AND TYPE "X")		
MAILING ADDRESS:				☐ PRIVATE	☐ COUNTY	☐ STATE
CITY:		ST:	ZIP:	☐ CITY	☐ SPECIAL DISTRICT	
CONTACT PERSON:				☐ FEDERAL		
				TELEPHONE NUMBER:	AREA CODE	NUMBER

CONTRACTOR INFORMATION

NAME:	LAST	FIRST	MI. (SEE INSTRUCTIONS)	TELEPHONE NUMBER:	AREA CODE / NUMBER
MAILING ADDRESS:		CITY:	ST:	ZIP:	

CONSTRUCTION SITE INFORMATION

FACILITY NAME:					NPDES STORM WATER GENERAL PERMIT NUMBER:	I	L	R	1	0				
MAILING ADDRESS:													
CITY:		ST:	IL	ZIP:	LATITUDE: (NEAREST 15 SECONDS)	DEG.	MIN.	SEC.	LONGITUDE: (NEAREST 15 SECONDS)	DEG.	MIN.	SEC.	
COUNTY:		SECTION:			TOWNSHIP:				RANGE:				

"I certify under penalty of law that disturbed soils at the identified facility have been finally stabilized or that all storm water discharges associated with industrial activity from the identified facility that are authorized by an NPDES general permit have otherwise been eliminated. I understand that by submitting this notice of termination, that I am no longer authorized to discharge storm water associated with industrial activity by the general permit, and that discharging pollutants in storm water associated with industrial activity to Waters of the State is unlawful under the Environmental Protection Act and the Clean Water Act where the discharge is not authorized by an NPDES permit."

OWNER SIGNATURE: _____ DATE: _____

MAIL COMPLETED FORM TO:

(DO NOT SUBMIT ADDITIONAL DOCUMENTATION UNLESS REQUESTED)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF WATER POLLUTION CONTROL
ATTN: PERMIT SECTION
2200 CHURCHILL ROAD
POST OFFICE BOX 19276
SPRINGFIELD, IL 62794-9276

FOR OFFICE USE ONLY	
LOG	
PERMIT	ILR10
DATE	

This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 1/2, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

GUIDELINES FOR COMPLETION OF NOTICE OF TERMINATION (NOT) FORM

Please adhere to the following guidelines to allow automated forms processing using Optical Character Recognition (OCR) technology.

- Submit original forms. Do not submit photocopies. Original forms can be obtained from:

  Illinois Environmental Protection Agency
  Division of Water Pollution Control
  Permits Section
  2200 Churchill Road
  P.O. Box 19276
  Springfield, IL 62794-9276
  or call (217)782-0610

- Reports must be typed and signed. Do not staple.

- Center your information by typing within the allocated areas avoiding all lines which border the areas.

- Provide only one line of type per allocated area.

- Replace typewriter ribbons and clean as necessary to avoid smeared, faint or illegible characters.

- Use the formats given in the following examples for correct form completion.

	EXAMPLE	FORMAT
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	LJ Trucking Co	Initials and remainder
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RANGE:	12W	1 or 2 numerical digits followed by "E" or "W"
AREA CODE:	217	3 numerical digits
TELEPHONE NUMBER:	782-0610	3 numerical digits followed by a hyphen and 4 more numerical digits
ZIP CODE:	62546	5 numerical digits only

SWPPP INSPECTION REPORT

PROJECT NAME: _____

EROSION CONTROL PERMIT NO. _____

INSPECTION TYPE: *Routine Weekly* *Post Rain*

DATE: _____ **FOR WEEK ENDING:** _____

WEATHER: _____

DATE AND TIME OF LAST STORM EVENT: _____

INSPECTOR INFORMATION: _____ _____
(PRINT NAME) **(TITLE)**

_____
(SIGNATURE)

NO.	DESCRIPTION	YES	NO	N/A
1.	Are all erosion control devices in-place and functioning in accordance with the SWPPP and erosion control site map?			
2.	Are all sediment traps, barriers, and basins clean and functioning properly?			
3.	Are sediment controls in place at the site perimeter and storm drain inlets?			
4.	Are all discharge points free of any noticeable pollutants?			
5.	Are construction accesses stabilized adequately?			
6.	Is sediment, debris, or mud being cleaned from public roads where they intersect with site access roads?			
7.	Are all exposed slopes protected from erosion?			
8.	Are all temporary stockpiles or construction materials located in approved areas (as shown on map) and protected from erosion?			
9.	Are dust control measures being appropriately implemented?			
10.	Are all materials and equipment properly covered?			
11.	Are all material (paint, fuel, oil, etc.) handling and storage areas clean and free of spills and leaks?			
12.	Are all equipment storage and maintenance areas clean and free of spills and leaks?			
13.	Is concrete washing conducted on-site? If so, are wash-out areas defined and maintained properly?			
14.	Are there areas where construction activities have temporarily or permanently ended?			
15.	Is construction debris or other litter being blown off-site?			
16.	Are off-site material storage areas being managed properly?			
17.	Is the Notice of Permit Coverage posted in a location where the public can view it without entering the site?			
18.	Other:			

If any answer is "No", describe needed corrections on reverse side. Indicate the location of needed corrections and date corrections are made on attached site map.

Development Name:_____

Development Address:

File No._____

Inspection Date:_____

Time:_____

NOTES

Illinois Department of Transportation

Storm Water Pollution Prevention Plan

Route _____ Marked _____

Section _____ Project No. _____

County _____

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR10, issued by the Illinois Environmental Protection Agency for storm water discharges from Construction Site Activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

Signature Date

_____

Title

1. Site Description

a. The following is a description of the construction activity which is the subject of this plan (use additional pages, as necessary):

b. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site, such as grubbing, excavation and grading (use additional pages, as necessary):

c. The total area of the construction site is estimated to be _____ acres.

The total area of the site that it is estimated will be disturbed by excavation, grading or other activities is _____ acres.

d. The estimated runoff coefficients of the various areas of the site after construction activities are completed are contained in the project drainage study which is hereby incorporated by reference in this plan. Information describing the soils at the site is contained either in the Soils Report for the project, which is hereby incorporated by reference, or in an attachment to this plan.

e. The design/project report, hydraulic report, or plan documents, hereby incorporated by reference, contain site map(s) indicating drainage patterns and approximate slopes anticipated after major grading activities, areas of major soil disturbance, the location of major structural and nonstructural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands), and locations where storm water is discharged to a surface water.

f. The names of receiving water(s) and area extent of wetland acreage at the site are in the design/project report or plan documents which are incorporated by reference as a part of this plan.

2. **Controls**

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b. above. For each measure discussed, the contractor that will be responsible for its implementation is indicated. Each such contractor has signed the required certification on forms which are attached to, and a part of, this plan:

a. **Erosion and Sediment Controls**

(I) Stabilization Practices. Provided below is a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided in 2.a.(I).(A) and 2.b., stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased on all disturbed portions of the site where construction activity will not occur for a period of 21 or more calendar days.

(A) where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

Description of Stabilization Practices (use additional pages, as necessary):

(ii) **Structural Practices.** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include silt fences, earth dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

Description of Structural Practices (use additional pages, as necessary):

b. **Storm Water Management**

Provided below is a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

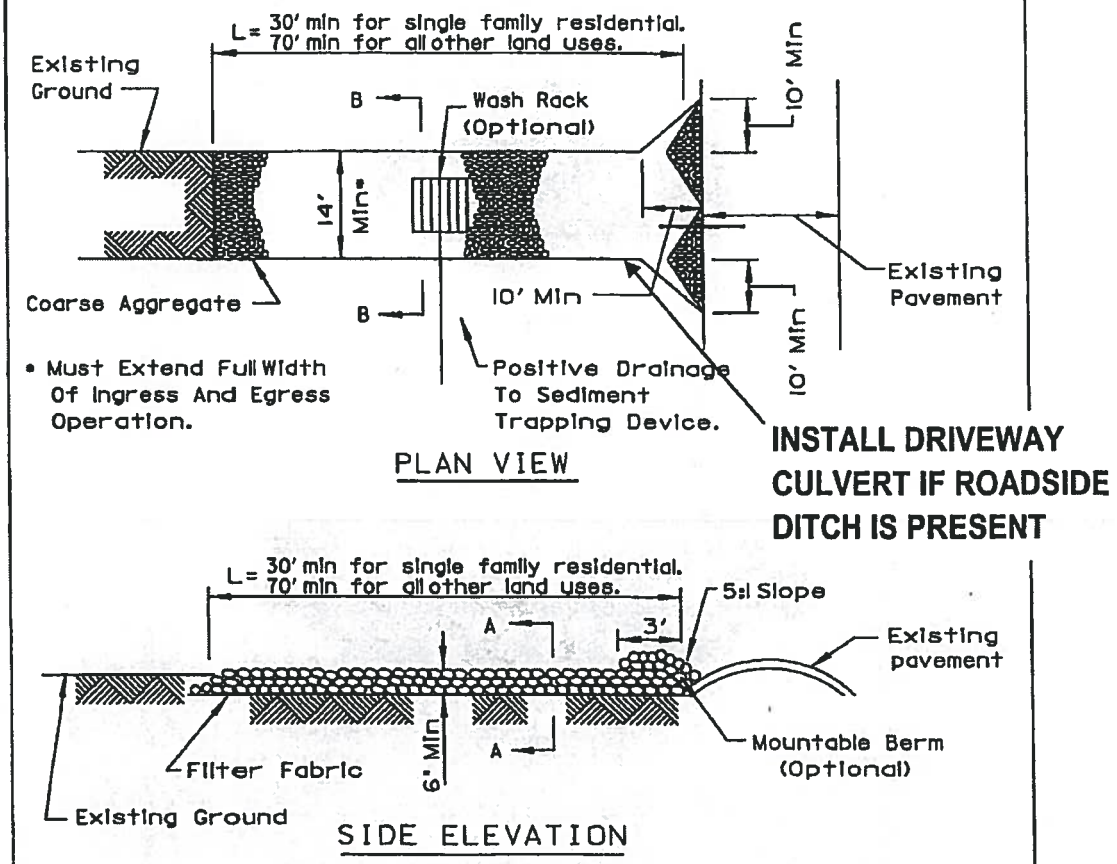
(i) Such practices may include: storm water detention structures (including wet ponds); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff on site; and sequential systems (which combine several practices). **The practices selected for implementation were determined on the basis of the technical guidance in Section 10-300 (Design Considerations) in Chapter 10 (Erosion and Sedimentation Control) of the Illinois Department of Transportation Drainage Manual. If practices other than those discussed in Section 10-300 are selected for implementation or if practices are applied to situations different from those covered in Section 10-300, the technical basis for such decisions will be explained below.**

(ii) Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of Storm Water Management Controls (use additional pages, as necessary):

STABILIZED CONSTRUCTION ENTRANCE:

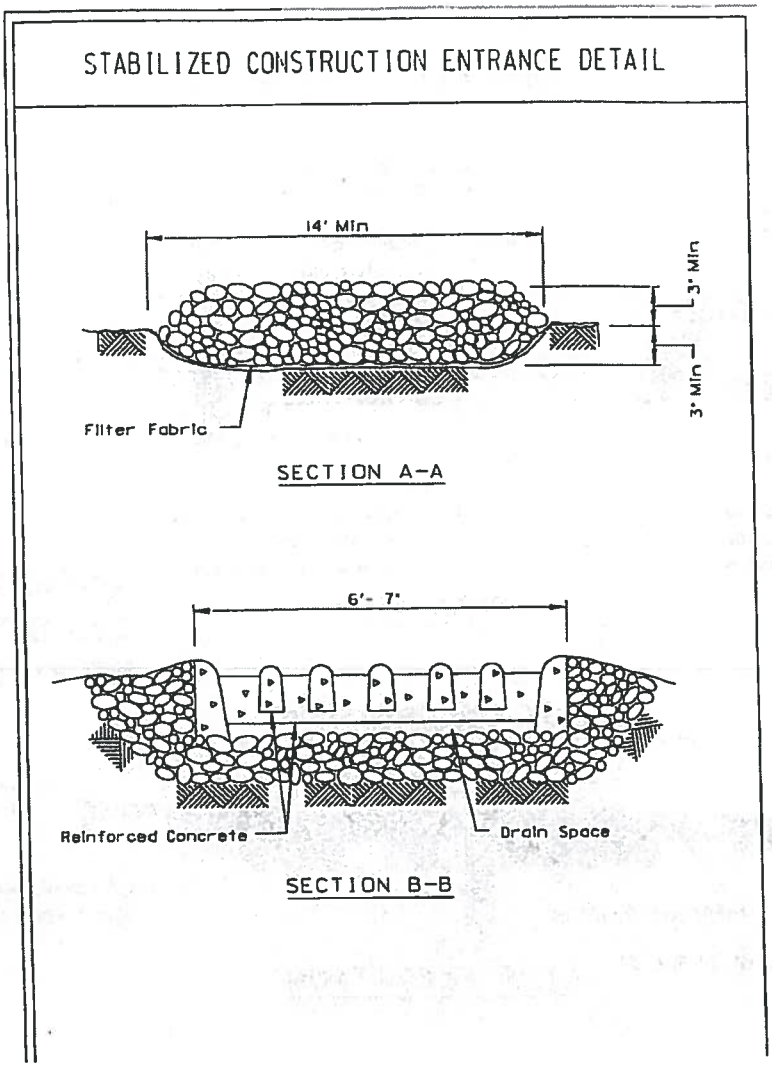
STABILIZED CONSTRUCTION ENTRANCE DETAIL



NOTES:

1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method I and Class I I I compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

STABILIZED LOT ENTRANCE:



MAINTENANCE:

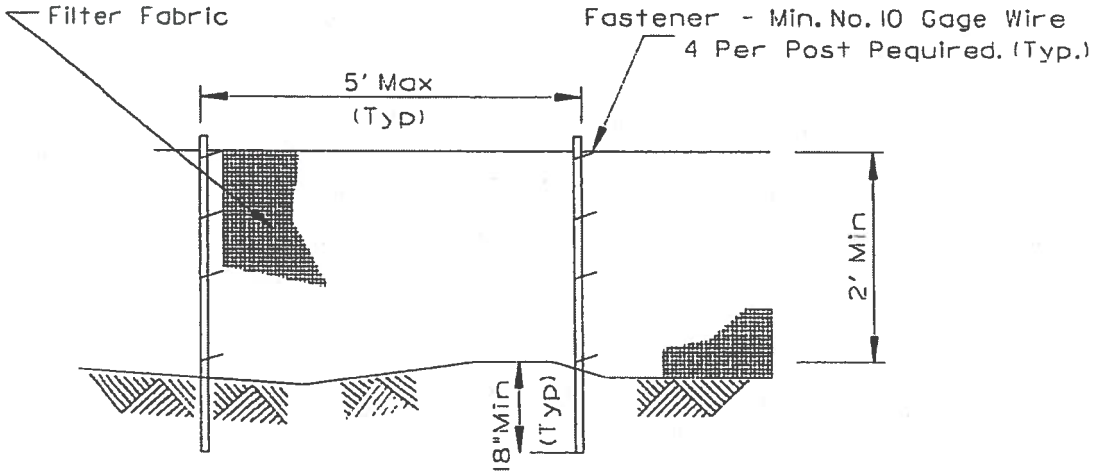
1.) Inspect on a daily basis or as necessary.

2.) Immediately remove mud or sediment tracked onto road.

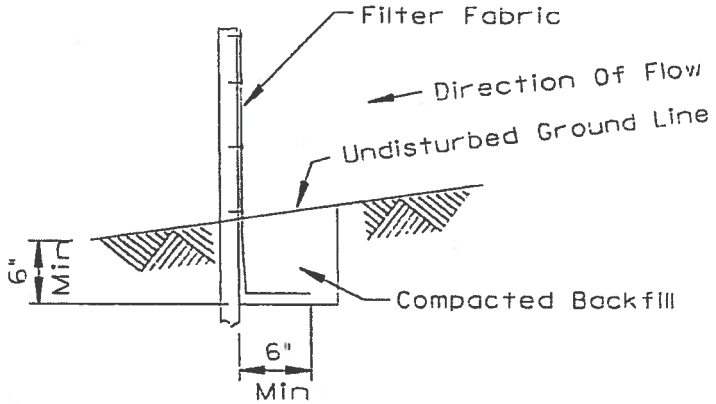
3.) Add additional stabilized material as necessary.

SILT FENCE

PERIMETER BARRIER - SILT FENCE DETAIL



ELEVATION



FABRIC ANCHOR DETAIL

NOTES:

1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table I or 2, Class I with equivalent opening size of at least 30 for nonwoven and 50 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

SILT FENCE NOTES:

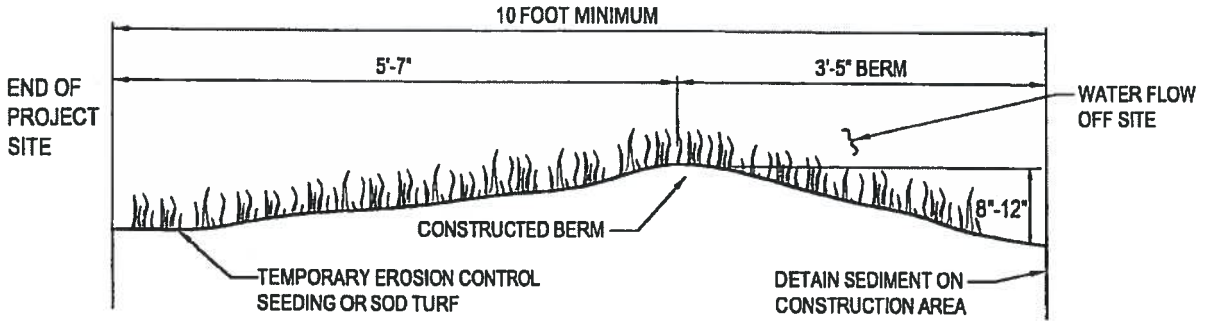
INSTALLATION:

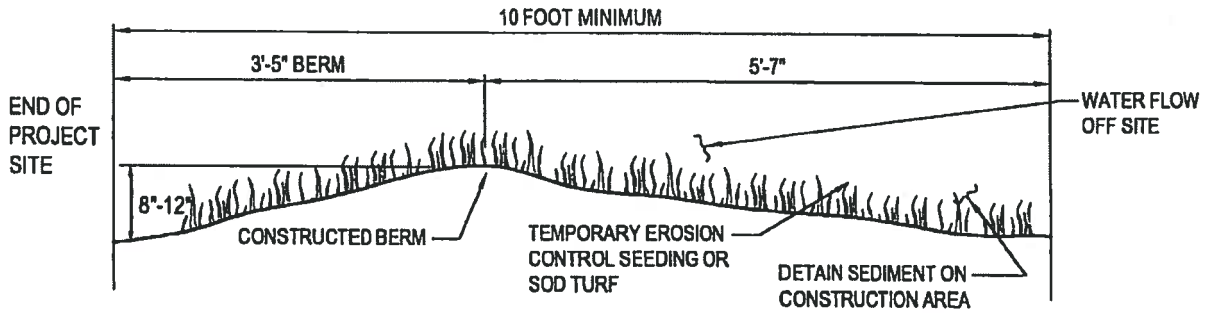
1. Silt fence shall be a minimum of 24 inches above the original ground surface and shall not exceed 36 inches above ground surface.
2. Excavate a trench approximately 6 inches wide and 6 inches deep on the upslope side of the proposed location of the fence. A slicing machine may be used in lieu of trenching.
3. Posts shall be placed a maximum of 5 feet apart. Fabric shall be fastened securely to the upslope side of posts using min. One-inch long, heavy-duty wire staples or tie wires. Eight inches of the fabric shall be extended into the trench. The fabric shall not be stapled to existing trees.
4. The 6 inch by 6 inch trench shall be backfilled and the soil compacted over the textile unless a slicing machine is used.

MAINTENANCE:

1. Inspect on a daily basis or as necessary.
2. Any damage shall be repaired immediately.
3. Sediment must be removed when it reaches 6 inches high on the fence.
4. If geotextile has deteriorated due to ultraviolet breakdown, it shall be replaced.
5. Silt fence shall be removed when it has served its useful purpose, but not before the upslope area has been permanently stabilized.

GRASS BUFFER STRIP





NOTES

GRASS BUFFER STRIP

DESCRIPTION:

These are wide strips of undisturbed vegetation consisting of grass or other erosion resistant plants surrounding the disturbed site. They provide infiltration, intercept sediment and other pollutants, and reduce stormwater flow and velocity. They can also act as a screen for visual pollution and reduce construction noise.

PLANNING CONSIDERATIONS:

Grass strips should be fenced off prior to construction. Avoid storing debris from clearing and grubbing, and other construction waste material in these strips during construction.

DESIGN CRITERIA:

The minimum length of strip must be at least as long as the contributing runoff area. The minimum width should conform to Table below.

MINIMUM WIDTHS OF FILTER STRIPS

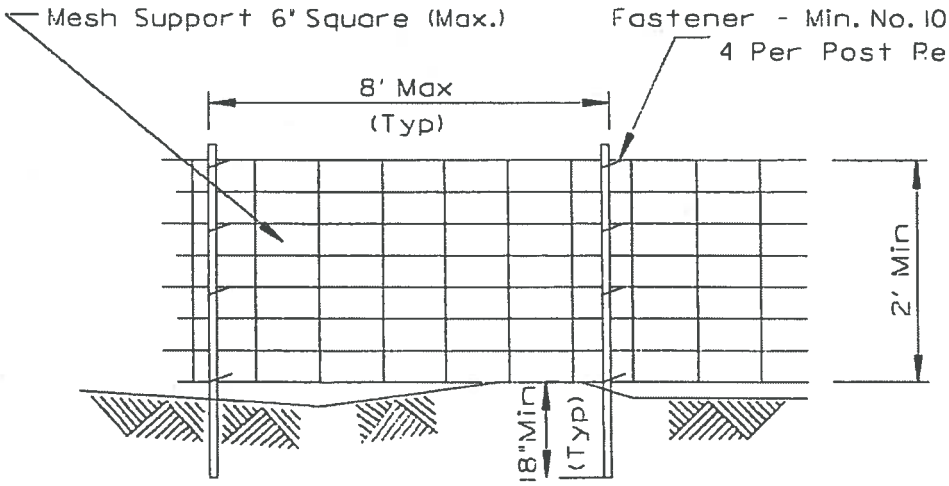
SLOPE OF LAND %	WIDTH OF FILTER STRIP FOR GRASSED AREAS (FT)
0	10
2	12
4	14
6	16
8	18
10	20
15	25

INSPECTION AND MAINTENANCE

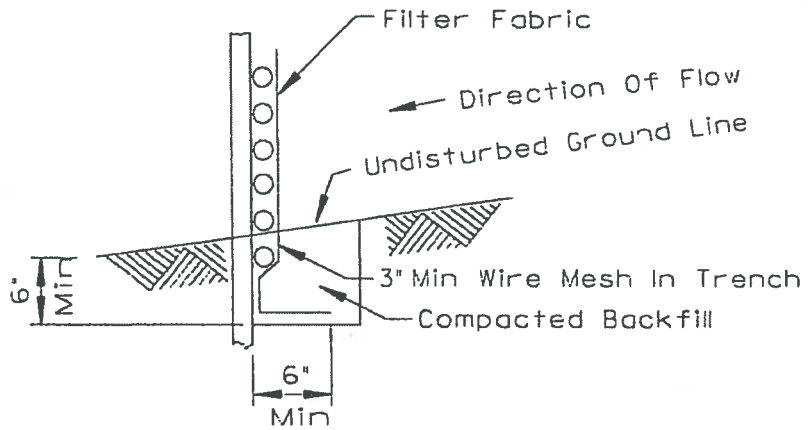
1. Maintain moist soil conditions immediately after seeding and/or sod installation.
2. Maintain moist soil conditions throughout vegetation establishment period.
3. Sediment deposits should be removed after each storm event.

SUPER SILT FENCE

PERIMETER BARRIER - SILT FENCE WITH WIRE SUPPORT DETAIL



ELEVATION



FABRIC ANCHOR DETAIL

NOTES:

1. Wires of mesh support shall be min. gage no. 12.
2. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
3. Filter fabric shall meet the requirements of material specification 592 Geotextile Table I or 2, Class I with equivalent opening size of at least 30 for nonwoven and 50 for woven.
4. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

SUPER SILT FENCE NOTES:

INSTALLATION:

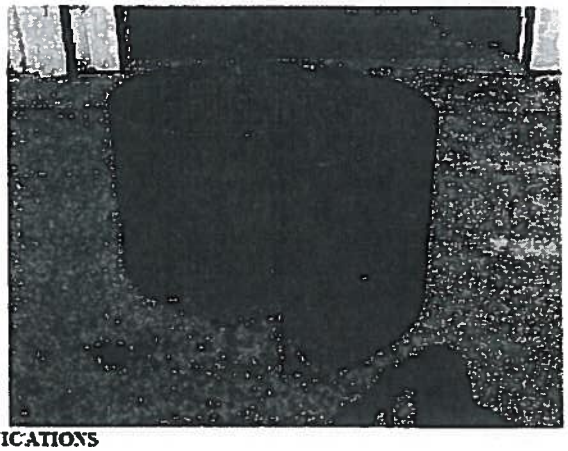
1. Silt fence shall be a minimum of 24 inches above the original ground surface and shall not exceed 36 inches above ground surface.
2. Excavate a trench approximately 6 inches wide and 6 inches deep on the upslope side of the proposed location of the fence. A slicing machine may be used in lieu of trenching.
3. Posts shall be placed a maximum of 5 feet apart. Fabric shall be fastened securely to the upslope side of posts using min. One-inch long, heavy-duty wire staples or tie wires. Eight inches of the fabric shall be extended into the trench. The fabric shall not be stapled to existing trees.
4. The 6 inch by 6 inch trench shall be backfilled and the soil compacted over the textile unless a slicing machine is used.

MAINTENANCE:

1. Inspect on a daily basis or as necessary.
2. Any damage shall be repaired immediately.
3. Sediment must be removed when it reaches 6 inches high on the fence.
4. If geotextile has deteriorated due to ultraviolet breakdown, it shall be replaced.
5. Silt fence shall be removed when it has served its useful purpose, but not before the upslope area has been permanently stabilized.

WELDED WIRE INLET PROTECTION

WELDED WIRE / MONOFILAMENT INLET PROTECTORS



SPECIFICATIONS

Description: Inlet protector shall consist of three (3) parts:

1. 35" wide geotextile fabric shall be Mirafi® FF101. Mirafi® FF101 is composed of high-tenacity monofilament polypropylene yarns, which are woven into a stable network such that the yarns retain their relative position. FF101 is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

2. 6" x 6" welded wire mesh geotextile composite, shall be 30" tall, formed and secured into a 42" minimum diameter circle.

3. Fastening rings shall be constructed of wire conforming to ASTM A-641, A-309, A-370, and A-938.

Assembly
Geotextile shall be wrapped three inches over the top member of the 6" x 6" welded wire mesh and secured with fastening rings at six inches on center. Geotextile shall be secured to the sides of the welded wire mesh with fastening rings at a spacing of one per square foot. The fastening rings shall penetrate both layers of geotextile and securely close around a steel member.

Geotextile

Mechanical/ Physical Properties	Description Minimum Average Roll Values	Test Method
Structure	Woven Monofilament	
Polymer	Polypropylene	
U.V. Resistance (@ 500hrs)	80% Strength Retained	ASTM D4355
Permittivity	2.9 Sec-1	ASTM D4491
Flow Rate	100 gpm ft²	ASTM D4491
Grab Tensile Strength (md)	130 lbs	ASTM D4632
AOS (U.S. Sieve)	30	ASTM D4751
Mullen Burst Strength	175 psi	ASTM D3786
Color	Orange or Black	

Welded Wire Mesh
6" x 6" welded wire mesh shall be formed of 10 gauge steel conforming to ASTM A-185.

SILT FENCE FABRICATORS, LLC P.O. BOX 36 GREENWOOD, IN 46142
PHONE: (317) 888-0599 Rev. 2/12/05

WELDED WIRE INLET PROTECTION NOTES:

MAINTENANCE:

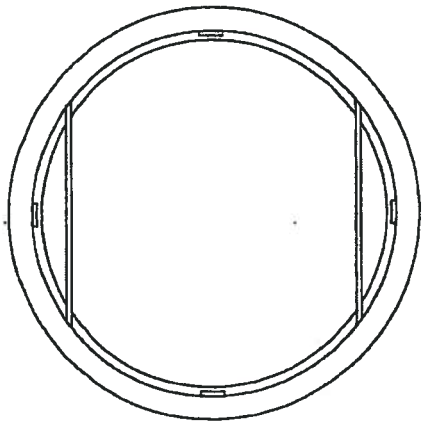
1. Excavate a trench approximately 6 inches wide and 6 inches deep the proposed location of the inlet protector.
2. The 6 inch by 6 inch trench shall be backfilled and the soil compacted over the textile

MAINTENANCE:

1. Inspect on a daily basis or as necessary.
2. Any damage shall be repaired immediately.
3. Sediment must be removed when it reaches 6 inches high on the basket.
4. If geotextile has deteriorated due to ultraviolet breakdown, it shall be replaced.
5. Inlet protector shall be removed when it has served its useful purpose, but not before the upslope area has been permanently stabilized.

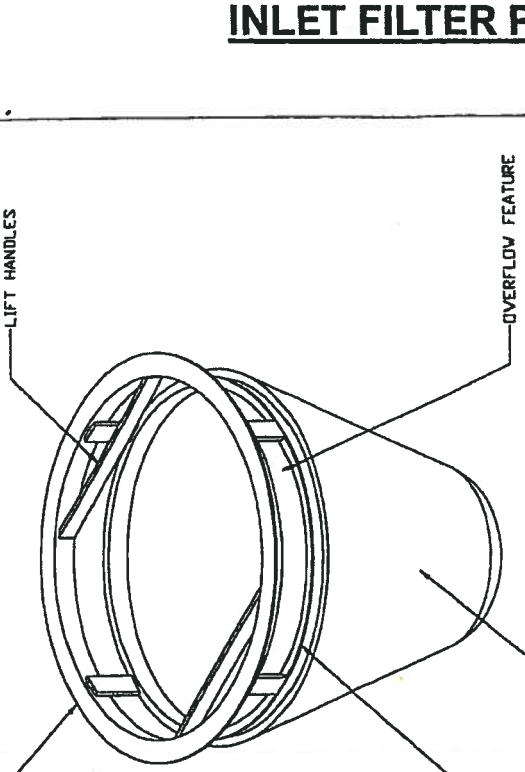
INLET FILTER PROTECTOR

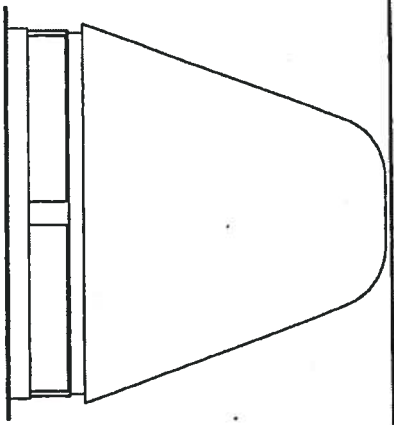
IPP INLET FILTERS



IDOT Type 1 Round Inlet Filter Depicted

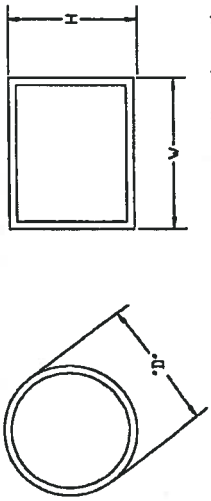
NOTE: Round and Square/Rectangular Inlet Filters Available for most Neenah and East Jordan Beehive, Roll Curb and Curb Box Frame Types





All Products Manufactured by Inlet & Pipe Protection, Inc
www.inletfilters.com
(847) 722-0690 ph
(847) 364-5262 fx
sales@inletfilters.com

INLET FILTER SPECIFICATION



Note: Inlet Filters are slightly smaller than the inlet grate sizes. When identifying or specifying filters/castings please refer to the diameter "D" or width "W" and height "H" of filter frames or casting grates. You may also refer to our casting cross reference guide for IDOT standards.

*** Certification: All IPP Inlet Filters conform to IDOT Specifications as outlined in Article 1081.15 of IDOT's Standard Specifications Guide*

INLET FILTER PROTECTOR

THE FOLLOWING PRODUCTS ARE APPROVED FOR INLET PROTECTION

IPP INLET FILTERS
3535 Stackinghay
Naperville, IL 60564
847-722-0690 Telephone
847-364-5262 Fax

www.inletfilters.com

CATCH-ALL INLET PROTECTOR
MARATHON MATERIALS, INC.
25523 WEST SCHULTZ STREET
PLAINFIELD, ILLINOIS 60544
(630) 983-9494 Tel
(800) 983-9493 Toll Free
(630) 983-9580 Fax

www.marathonmaterials.com

OTHER PRODUCTS CAN BE SUBMITTED FOR REVIEW AND APPROVAL

INLET FILTER PROTECTORS

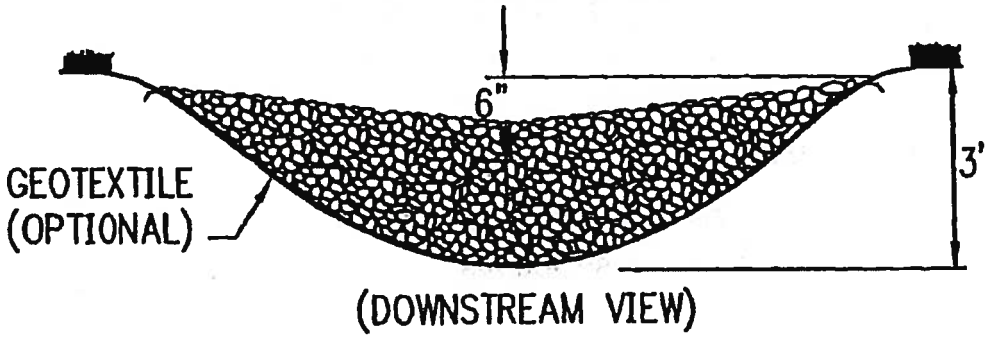
INSTALLATION:

All inlet filter protectors shall be installed in accordance with manufacturer's instructions.

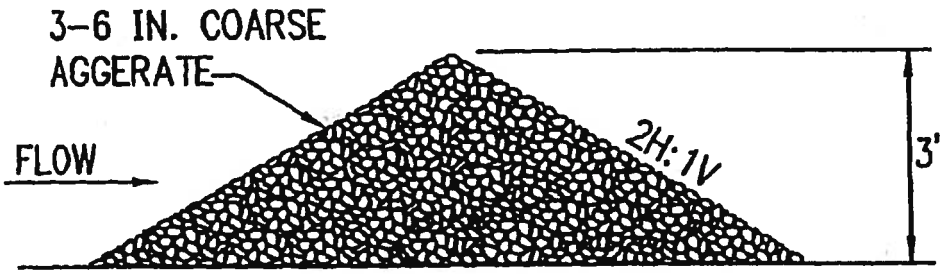
MAINTENANCE

1. Inspect on a daily basis or as necessary.
2. Any damage to products shall be repaired immediately.
3. Sediment must be removed when it reaches 1/3 the height of the product.
4. Inlet protection shall be removed when it has served its useful purpose, but not before upslope area has been permanently stabilized.

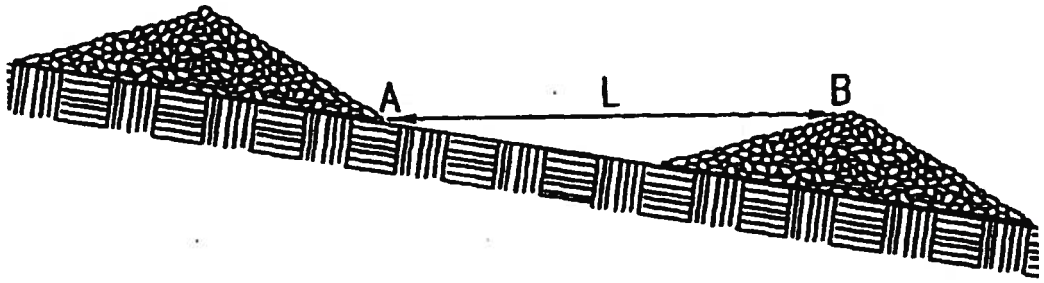
ROCK CHECK DAM:



(DOWNSTREAM VIEW)



SPACING BETWEEN CHECK DAMS:



L = DISTANCE SUCH THAT POINTS
A AND B ARE OF EQUAL ELEVATION.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

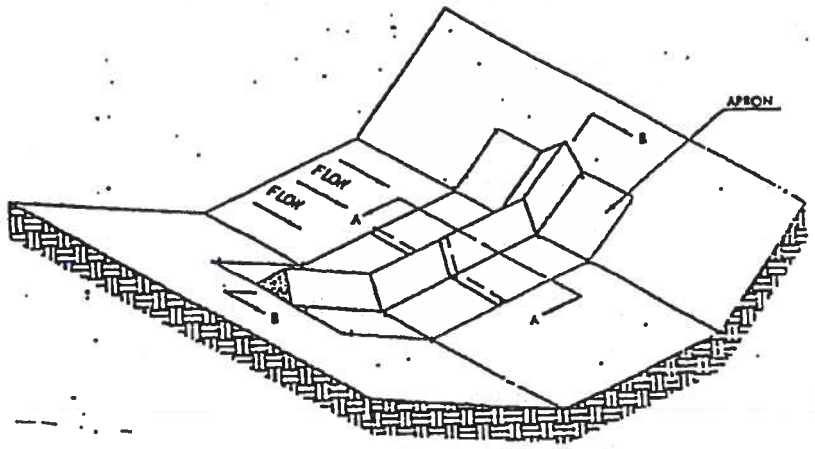
ROCK CHECK DAM:

NOTES:

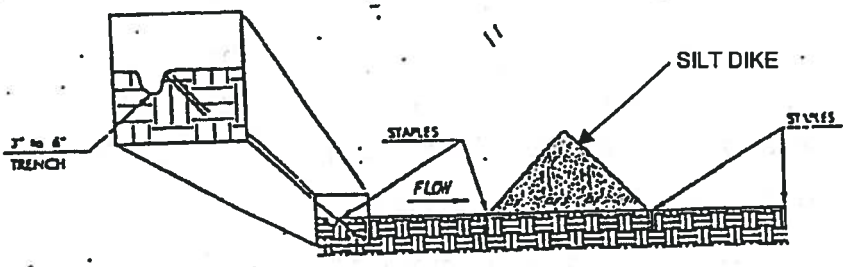
1. The maximum height of the dam shall be 3.0 feet.
2. The center of the check dam must be at least 6 inches lower than the outer edges.
3. For added stability, the base of the check dam can be keyed into the soil approximately 6 inches.
4. The dams should be spaced so the toe of the upstream dam is at the same elevation as the top of the downstream dam.
5. Stone should be placed according to the detail. Hand or Mechanical placement will be necessary to achieve complete coverage of the ditch or swale and to ensure that the center of the dam is lower than the edges.
6. Geotextile may be used under the stone to provide a stable foundation and to facilitate removal of the stone.
7. Check dams should be inspected for sediment accumulation after each runoff producing storm event. Sediment should be removed when it reaches half of the original height of the measure.
8. Regular inspection should be made to ensure that the center of the dam is lower than the edges. Erosion caused by high flows around the edges of the dam should be corrected immediately.

TRIANGULAR SILT DIKE:

TRIANGULAR SILT DIKE INSTALLATION FOR ROADWAY DITCH OF DRAINAGE DITCH

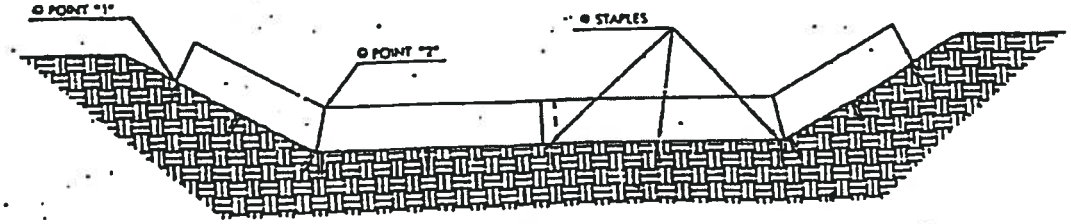


SILT DIKE UNIT
CUT SECTION



DETAIL A–A

● STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE 7' UNIT AS SHOWN ON THE DIAGRAM.



DIKE SECTION
DETAIL B–B

POINT "1" MUST BE HIGHER THAN POINT "2" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

TRIANGULAR SILT DIKE NOTES:

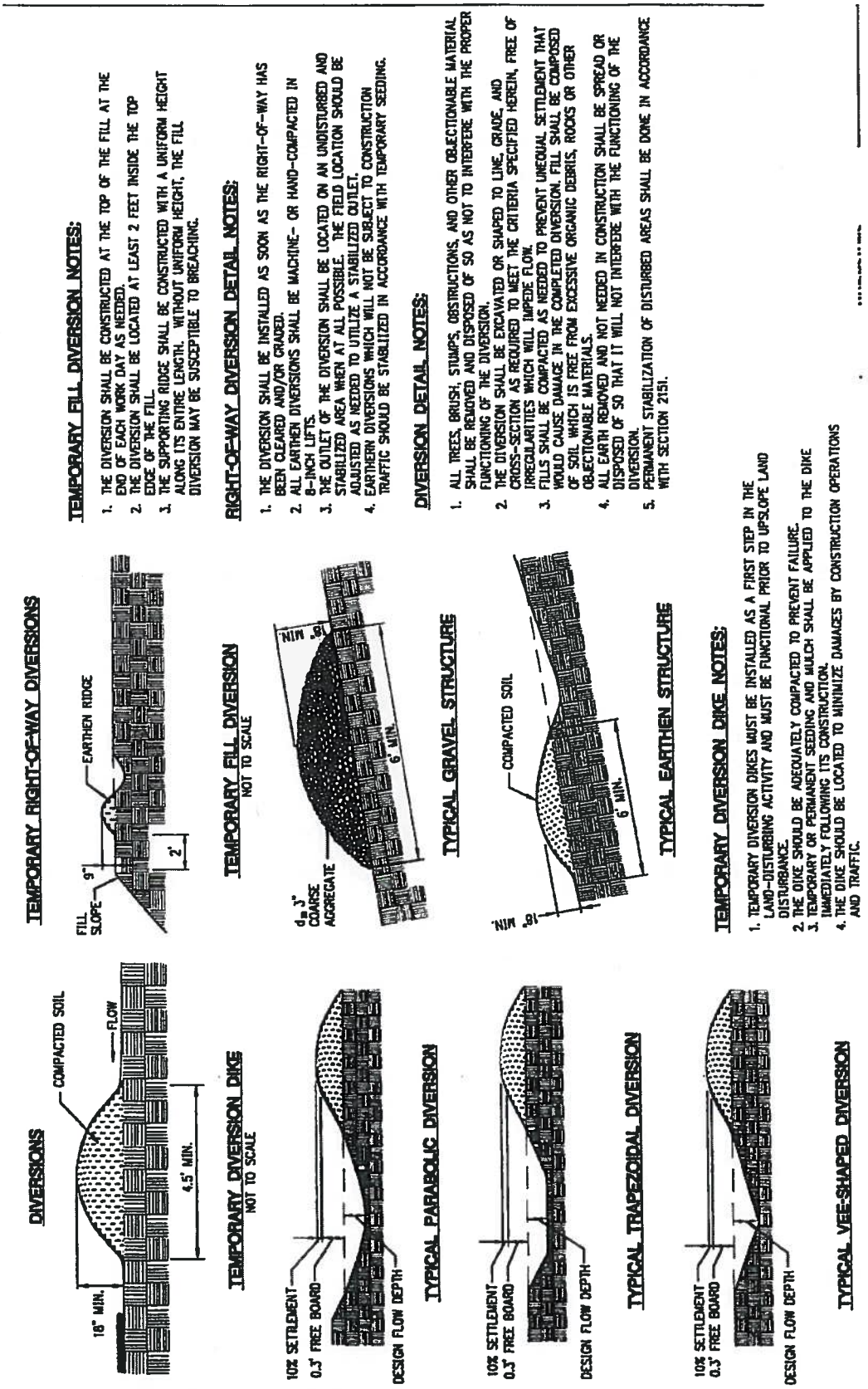
INSTALLATION:

1. Excavate a trench approximately 3-6 inches wide and 3-6 inches deep on the upslope side of the proposed location of the dike.
2. The 3-6 inch by 3-6 inch trench shall be backfilled and the soil compacted over the textile .

MAINTENANCE:

1. Inspect on a daily basis or as necessary.
2. Any damage shall be repaired immediately.
3. Sediment must be removed when it reaches 6 inches high on the dike.
4. If geotextile has deteriorated due to ultraviolet breakdown, it shall be replaced.
5. Dike shall be removed when it has served its useful purpose, but not before the upslope area has been permanently stabilized.

DIVERSION BERMS:



TEMPORARY FILL DIVERSION NOTES:

1. THE DIVERSION SHALL BE CONSTRUCTED AT THE TOP OF THE FILL AT THE END OF EACH WORK DAY AS NEEDED.
2. THE DIVERSION SHALL BE LOCATED AT LEAST 2 FEET INSIDE THE TOP EDGE OF THE FILL.
3. THE SUPPORTING RIDGE SHALL BE CONSTRUCTED WITH A UNIFORM HEIGHT ALONG ITS ENTIRE LENGTH. WITHOUT UNIFORM HEIGHT, THE FILL DIVERSION MAY BE SUSCEPTIBLE TO BREACHING.

RIGHT-OF-WAY DIVERSION DETAIL NOTES:

1. THE DIVERSION SHALL BE INSTALLED AS SOON AS THE RIGHT-OF-WAY HAS BEEN CLEARED AND/OR GRADED.
2. ALL EARTHEN DIVERSIONS SHALL BE MACHINE- OR HAND-COMPACTED IN 8-INCH LIFTS.
3. THE OUTLET OF THE DIVERSION SHALL BE LOCATED ON AN UNDISTURBED AND STABILIZED AREA WHEN AT ALL POSSIBLE. THE FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED OUTLET.
4. EARTHERN DIVERSIONS WHICH WILL NOT BE SUBJECT TO CONSTRUCTION TRAFFIC SHOULD BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING.

DIVERSION DETAIL NOTES:

1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE DIVERSION.
2. THE DIVERSION SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS-SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, FREE OF IRREGULARITIES WHICH WILL IMPEDE FLOW.
3. FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETED DIVERSION. FILL SHALL BE COMPOSED OF SOIL WHICH IS FREE FROM EXCESSIVE ORGANIC DEBRIS, ROCKS OR OTHER OBJECTIONABLE MATERIALS.
4. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DIVERSION.
5. PERMANENT STABILIZATION OF DISTURBED AREAS SHALL BE DONE IN ACCORDANCE WITH SECTION 2151.

TEMPORARY DIVERSION DIKE NOTES:

1. TEMPORARY DIVERSION DIKES MUST BE INSTALLED AS A FIRST STEP IN THE LAND-DISTURBING ACTIVITY AND MUST BE FUNCTIONAL PRIOR TO UPSLOPE LAND DISTURBANCE.
2. THE DIKE SHOULD BE ADEQUATELY COMPACTED TO PREVENT FAILURE.
3. TEMPORARY OR PERMANENT SEEDING AND MULCH SHALL BE APPLIED TO THE DIKE IMMEDIATELY FOLLOWING ITS CONSTRUCTION.
4. THE DIKE SHOULD BE LOCATED TO MINIMIZE DAMAGES BY CONSTRUCTION OPERATIONS AND TRAFFIC.

SOURCE: APWA KANSAS CITY METRO CHAPTER

TURF REINFORCEMENT MAT:

TURF REINFORCEMENT MAT SLOPE INSTALLATION NOTES:

A) TURF REINFORCEMENT MAT:

1. THE MAJORITY OF THESE PRODUCTS PROVIDE A THREE DIMENSIONAL GEOMATRIX OF NYLON, POLYETHYLENE, OR RANDOMLY ORIENTED MONOFILAMENTS, FORMING A MAT. THESE PRODUCTS CONTAIN ULTRA VIOLET (UV) INHIBITING STABILIZERS, ADDED TO THE COMPOUNDS TO ENSURE ENDURANCE AND PROVIDE "PERMEANENT ROOT REINFORCEMENT." THE THREE DIMENSIONAL FEATURE CREATES AN OPEN SPACE WHICH IS ALLOWED TO FILL WITH SOIL. THE ROOTS OF THE GRASS PLANT BECOME ESTABLISHED WITHIN THE MAT ITSELF, FORMING A SYNERGISTIC ROOT AND MAT SYSTEM. AS THE GRASS BECOMES ESTABLISHED, THE TWO ACTUALLY "REINFORCE" EACH OTHER, PREVENTING MOVEMENT OR DAMAGE TO THE SOIL. ALLOWABLE VELOCITIES ARE INCREASED CONSIDERABLY OVER NATURAL TURF STANDS. SELECTION OF THE APPROPRIATE MATTING MATERIALS ALONG WITH PROPER INSTALLATION BECOME CRITICAL FACTORS IN THE SUCCESS OF THIS PRACTICE. CONSULTATION WITH THE SUPPLIER OR THE MANUFACTURER AND THOROUGH EVALUATION OF PERFORMANCE DATA TO ENSURE PROPER SELECTION OF A SOIL STABILIZATION MATTING ARE ALSO ESSENTIAL. ALTHOUGH MANY MANUFACTURERS CLAIM THEIR PRODUCTS MAY INHIBIT EROSION ASSOCIATED WITH CHANNEL VELOCITIES OF UP TO 20 FT./SEC., IT IS RECOMMENDED THAT ANY VELOCITIES THAT EXCEED 10 FT./SEC. BE PROPERLY PREVENTED WITH SOME FORM OF STRUCTURAL LINING.

B) INSTALLATION REQUIREMENTS:

1. SITE PREPARATION:

   AFTER SITE HAS BEEN SHAPED AND GRADED TO APPROVED DESIGN, PREPARE A FRIABLE SEEDBED RELATIVELY FREE FROM CLODS AND ROCKS MORE THAN 1-INCH IN DIAMETER, AND ANY FOREIGN MATERIAL THAT WILL PREVENT CONTACT OF THE SOIL STABILIZATION MAT WITH THE SOIL SURFACE. IF NECESSARY, REDIRECT ANY RUNOFF AWAY FROM THE DITCH OR SLOPE DURING INSTALLATION.

2. PLANTING:

   LIME, FERTILIZE AND SEED IN ACCORDANCE WITH THE APPROVED PLAN, PAYING SPECIAL ATTENTION TO THE PLANT SELECTION THAT MAY HAVE BEEN CHOSEN FOR THE MATTED AREA. IF THE AREA HAS BEEN SEEDED PRIOR TO INSTALLING THE MAT, MAKE SURE AND RESEED ALL AREAS DISTURBED DURING INSTALLATION.

3. LAYING AND SECURING:

   SIMILAR TO INSTALLING OTHER EROSION CONTROL BLANKETS, BUT PLAN APPROVING AUTHORITY'S REQUIREMENTS OR MANUFACTURER'S RECOMMENDATIONS MUST BE FOLLOWED AS DETAILED. THE KEY TO ACHIEVING DESIRED PERFORMANCE IS DEPENDENT UPON PROPER INSTALLATION.

4. CHECK SLOTS:

   BLANKET MANUFACTURERS VARY SIGNIFICANTLY IN THEIR CHECK SLOT REQUIREMENTS. SIMILAR TO THE INSTALLATION OF OTHER BLANKETS, A CHECK SLOT MAY BE REQUIRED WHEN LAYING TURF REINFORCEMENT MAT TO "CORRECT" THE FLOW OF WATER IF IT HAS THE POTENTIAL TO UNDERMINE THE BLANKET. MOST AUTHORITIES REQUIRE THAT THE SIDES OF THE BLANKET ALSO BE ENTRENCHED, CREATING A SLOPE SHELF FOR THE MATERIAL TO REST ON, PREVENTING WATER FROM ENTERING UNDER THE BLANKET ON THE SIDES.

5. SECURING THE MATERIAL AND JOINING BLANKETS:

   AGAIN, PRODUCT SPECIFICATIONS VARY – UPSTREAM AND DOWNSTREAM TERMINAL SLOTS, NEW ROLL OVERLAPS AND MULTIPLE WIDTH INSTALLATIONS DIFFER BY VARIOUS PRODUCTS AND MANUFACTURERS.

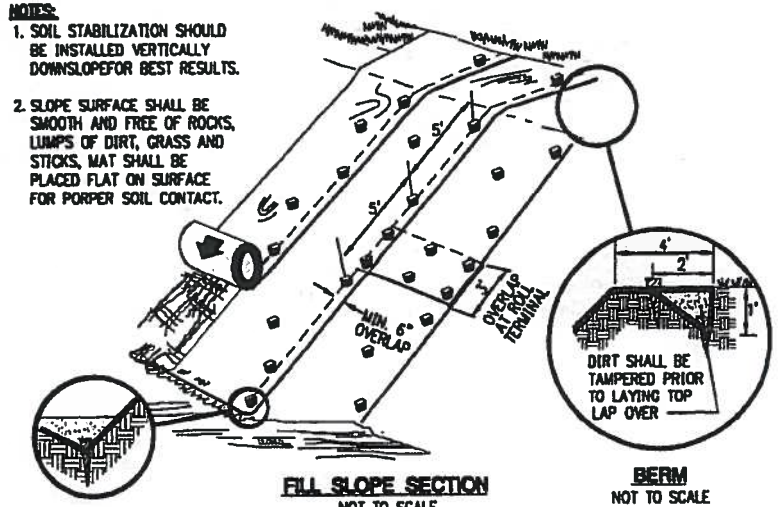
6. FINAL CHECK:

   THESE INSTALLATION TECHNIQUES MUST BE ADHERED TO:

   a. SOIL STABILIZATION BLANKET IS IN UNIFORM CONTACT WITH THE SOIL
   b. ALL REQUIRED SLOTS AND LAPPED JOINTS ARE IN PLACE.
   c. THE MATERIAL IS PROPERLY ANCHORED.
   d. ALL DISTURBED AREAS ARE SEEDED.

TURF REINFORCEMENT MAT INSTALLATION ON A SLOPE

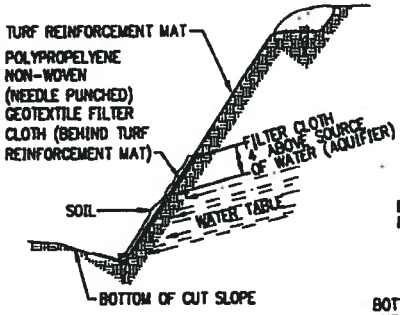
NOTES:
1. SOIL STABILIZATION SHOULD BE INSTALLED VERTICALLY DOWNSLOPEFOR BEST RESULTS.
2. SLOPE SURFACE SHALL BE SMOOTH AND FREE OF ROCKS, LUMPS OF DIRT, GRASS AND STICKS, MAT SHALL BE PLACED FLAT ON SURFACE FOR PORPER SOIL CONTACT.



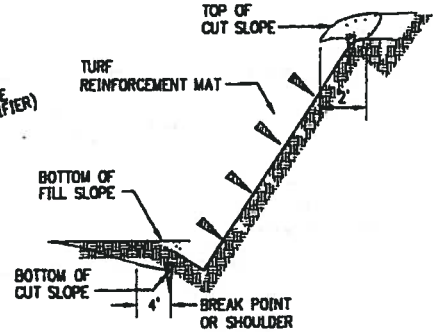
TOE
MAINTAIN SLOPE ANGLE

FILL SLOPE SECTION
NOT TO SCALE

BERM
NOT TO SCALE
TRENCH INTO BERM AND PROGRESS DOWNSLOPE



SLOPE LINING (WET SLOPE)
NOT TO SCALE



SLOPE LINING (DRY SLOPE)
NOT TO SCALE

SOURCE: MODIFIED FROM VA. DCR, 1992

TURF REINFORCEMENT MAT:

TURF REINFORCEMENT MAT CHANNEL INSTALLATION NOTES:

A) TURF REINFORCEMENT MAT:

1. THE MAJORITY OF THESE PRODUCTS PROVIDE A THREE DIMENSIONAL GEOMATRIX OF NYLON, POLYETHYLENE, OR RANDOMLY ORIENTED MONOFILAMENTS, FORMING A MAT. THESE PRODUCTS CONTAIN ULTRA VIOLET (UV) INHIBITING STABILIZERS, ADDED TO THE COMPOUNDS TO ENSURE ENDURANCE AND PROVIDE "PERMANENT ROOT REINFORCEMENT." THE THREE DIMENSIONAL FEATURE CREATES AN OPEN SPACE WHICH IS ALLOWED TO FILL WITH SOIL. THE ROOTS OF THE GRASS PLANT BECOME ESTABLISHED WITHIN THE MAT ITSELF, FORMING A SYNERGISTIC ROOT AND MAT SYSTEM. AS THE GRASS BECOMES ESTABLISHED, THE TWO ACTUALLY "REINFORCE" EACH OTHER, PREVENTING MOVEMENT OR DAMAGE TO THE SOIL. ALLOWABLE VELOCITIES ARE INCREASED CONSIDERABLY OVER NATURAL TURF STANDS. SELECTION OF THE APPROPRIATE MATTING MATERIALS ALONG WITH PROPER INSTALLATION BECOME CRITICAL FACTORS IN THE SUCCESS OF THIS PRACTICE. CONSULTATION WITH THE SUPPLIER OR THE MANUFACTURER AND THOROUGH EVALUATION OF PERFORMANCE DATA TO ENSURE PROPER SELECTION OF A SOIL STABILIZATION MATTING ARE ALSO ESSENTIAL. ALTHOUGH MANY MANUFACTURERS CLAIM THEIR PRODUCTS MAY INHIBIT EROSION ASSOCIATED WITH CHANNEL VELOCITIES OF UP TO 20 FT./SEC. FOR SHORT PERIODS OF TIME, IT IS RECOMMENDED THAT ANY VELOCITIES THAT EXCEED 10 FT./SEC. BE PROPERLY ARMORED WITH SOME FORM OF STRUCTURAL LINING.

B) INSTALLATION REQUIREMENTS:

1. SITE PREPARATION:
   AFTER SITE HAS BEEN SHAPED AND GRADED TO APPROVED DESIGN, PREPARE A FRIABLE SEEDBED RELATIVELY FREE FROM CLODS AND ROCKS MORE THAN 1-INCH IN DIAMETER, AND ANY FOREIGN MATERIAL THAT WILL PREVENT CONTACT OF THE SOIL STABILIZATION MAT WITH THE SOIL SURFACE. IF NECESSARY, REDIRECT ANY RUNOFF AWAY FROM THE DITCH OR SLOPE DURING INSTALLATION.

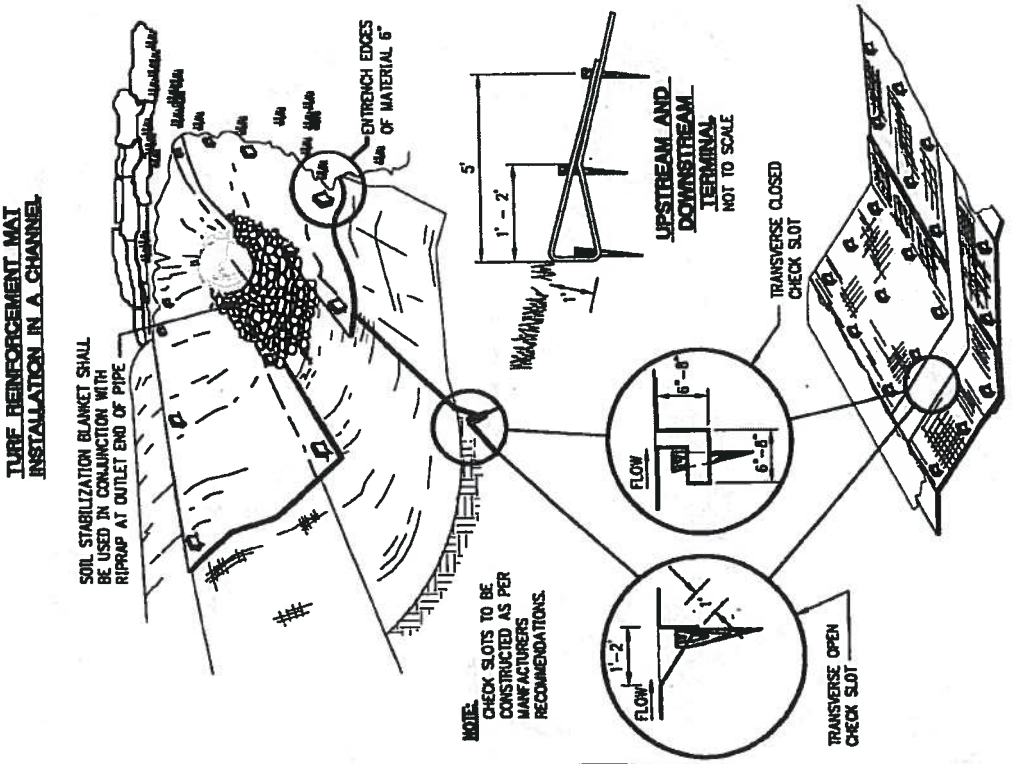
2. PLANTING:
   LIME, FERTILIZE AND SEED IN ACCORDANCE WITH THE APPROVED PLAN, PAYING SPECIAL ATTENTION TO THE PLANT SELECTION THAT MAY HAVE BEEN CHOSEN FOR THE MATTED AREA. IF THE AREA HAS BEEN SEEDED PRIOR TO INSTALLING THE MAT, MAKE SURE AND RESEED ALL AREAS DISTURBED DURING INSTALLATION.

3. LAYING AND SECURING:
   SIMILAR TO INSTALLING OTHER EROSION CONTROL BLANKETS, BUT PLAN APPROVING AUTHORITY'S REQUIREMENTS OR MANUFACTURER'S RECOMMENDATIONS MUST BE FOLLOWED AS DETAILED. THE KEY TO ACHIEVING DESIRED PERFORMANCE IS DEPENDENT UPON PROPER INSTALLATION.

4. CHECK SLOTS:
   BLANKET MANUFACTURERS VARY SIGNIFICANTLY IN THEIR CHECK SLOT REQUIREMENTS. SIMILAR TO THE INSTALLATION OF OTHER BLANKETS, A CHECK SLOT MAY BE REQUIRED WHEN LAYING TURF REINFORCEMENT MAT TO "CORRECT" THE FLOW OF WATER IF IT HAS THE POTENTIAL TO UNDERMINE THE BLANKET. MOST AUTHORITIES REQUIRE THAT THE SIDES OF THE BLANKET ALSO BE ENTRENCHED, CREATING A SLOPE SHELF FOR THE MATERIAL TO REST ON, PREVENTING WATER FROM ENTERING UNDER THE BLANKET ON THE SIDES.

5. SECURING THE MATERIAL AND JOINING BLANKETS:
   AGAIN, PRODUCT SPECIFICATIONS VARY - UPSTREAM AND DOWNSTREAM TERMINAL SLOTS, NEW ROLL OVERLAPS AND MULTIPLE WIDTH INSTALLATIONS DIFFER BY VARIOUS PRODUCTS AND MANUFACTURERS.

6. FINAL CHECK:
   THESE INSTALLATION TECHNIQUES MUST BE ADHERED TO:
   a. SOIL STABILIZATION BLANKET IS IN UNIFORM CONTACT WITH THE SOIL
   b. ALL REQUIRED SLOTS AND LAPPED JOINTS ARE IN PLACE.
   c. THE MATERIAL IS PROPERLY ANCHORED.
   d. ALL DISTURBED AREAS ARE SEEDED



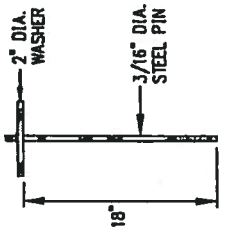
SOURCE: APWA KANSAS CITY METRO CHAPTER

TURF REINFORCEMENT MAT:

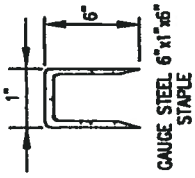
STAKES, STAPLES, AND PINS NOTES:

A) GENERAL NOTES:

1. 1x4 TRIANGULAR SURVEY STAKE – MINIMUM 10" IN LENGTH. PLACEMENT OF THE STAKE ACROSS THE FLOW OF THE WATER IS THOUGHT TO PROVIDE A "PINBALL EFFECT" TO HELP SLOW THE VELOCITY.
2. 11 GAUGE STEEL – MINIMUM 1" WIDE BY 6" IN LENGTH STEEL STAPLE – 2"x8" STAPLE MAY BE REQUIRED IN CERTAIN SOIL CONDITIONS.
3. STEEL PINS – 3/16 DIAMETER STEEL PIN BY 18" IN LENGTH WITH A 2" DIAMETER WASHER ON TOP. (SEE ILLUSTRATION)
4. STAPLES OR ANCHORING METHODS AND RECOMMENDATIONS VARY BY MANUFACTURERS. THE EXPECTATIONS OF HIGH VELOCITIES SHOULD DICTATE THE USE OF MORE SUBTANTIAL ANCHORING.

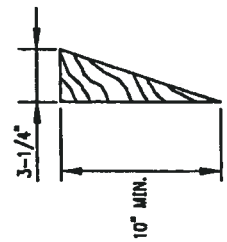


3. PIN
SEE NOTE 3



11 GAUGE STEEL 6"x1"x6" STAPLE

2. STAPLE
SEE NOTE 2

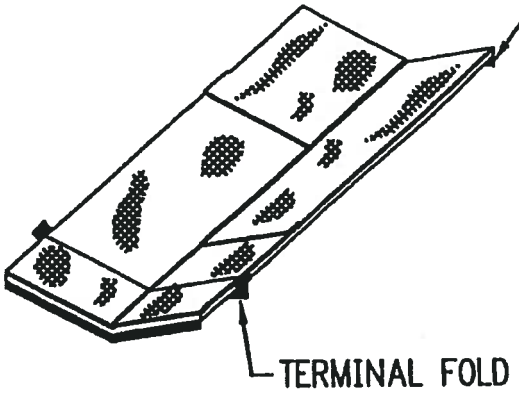


1. STAKE
SEE NOTE 1

STAKES, STAPLES, AND PINS FOR INSTALLATION OF ROLLED EROSION CONTROL PRODUCTS
NOT TO SCALE

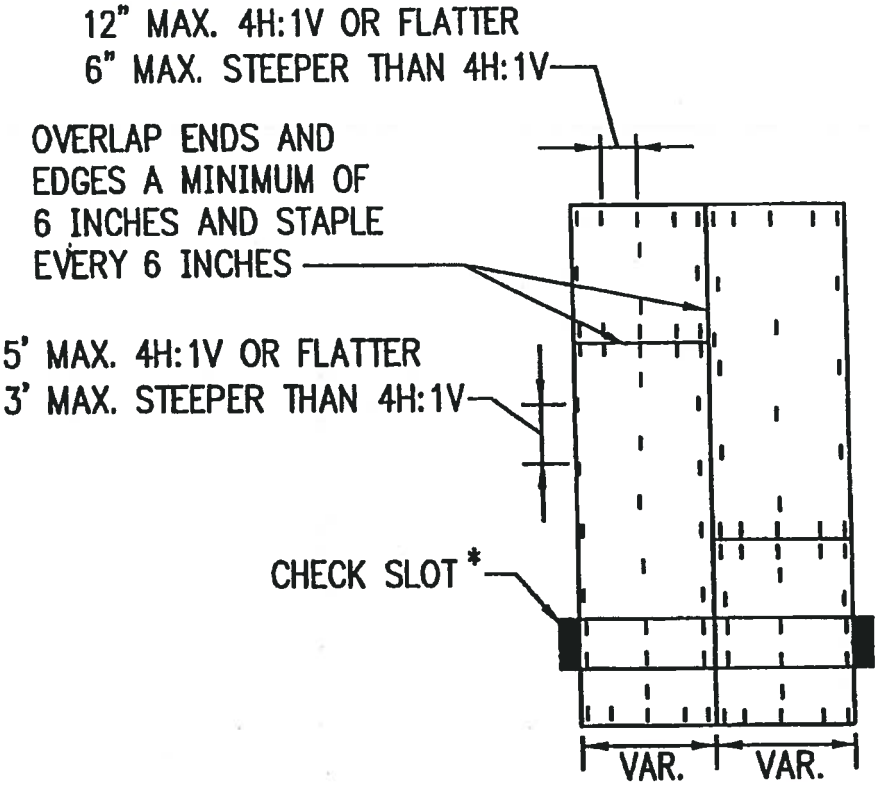
SOURCE: APWA KANSAS CITY METRO CHAPTER

EROSION CONTROL BLANKET



NOTES:

1. APPROXIMATELY 200 STAPLES REQUIRED PER 100 SQ. YDS. OF MATERIAL ROLL. CHECK MANUFACTURER'S RECOMMENDATIONS FOR SPECIFIC INSTALLATION ANS STAPLING REQUIREMENTS.



PLAN VIEW

STAPLING DIAGRAM:

* CHECK SLOTS AT MIN. 50' INTERVALS; NOT REQ'D WITH ALL "COMBINATION" BLANKETS.

SOURCE: MODIFIED ILLINOIS URBAN . MANUAL, 1995

TYPICAL ORIENTATION OF EROSION CONTROL BLANKET

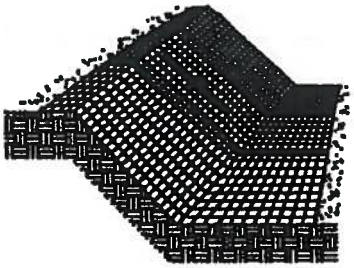
SHALLOW SLOPE:

ON SHALLOW SLOPES, STRIPS OF PROTECTIVE COVERINGS MAY BE APPLIED PARALLEL TO DIRECTION OF FLOW.

BERM:

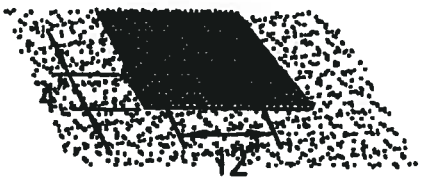
WHERE THERE IS A BERM AT THE TOP OF THE SLOPE, BRING THE MATERIAL OVER THE BERM AND ANCHOR IT BEHIND THE BERM.

STEEP SLOPE:



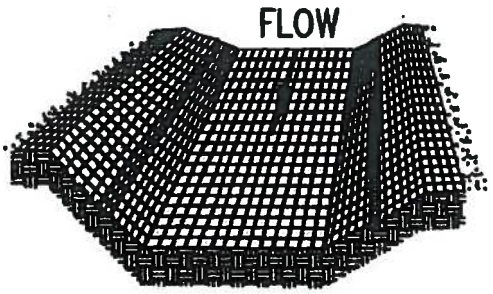
ON STEEP SLOPES, APPLY PROTECTIVE COVERING PERPENDICULAR TO THE DIRECTION OF FLOW AND ANCHOR SECURELY.

STEEP SLOPE:



BRING MATERIAL DOWN TO A LEVEL AREA BEFORE TERMINATING INSTALLATION. TURN THE END UNDER 4" AND STAPLE AT 12" INTERVALS.

DITCH:



IN DITCHES, APPLY PROTECTIVE COVERING PARALLEL TO THE DIRECTION OF FLOW. AVOID JOINING MATERIAL IN THE CENTER OF THE DITCH IF AT ALL POSSIBLE.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

EROSION CONTROL BLANKET

LAYING AND STAPLING:

Place the erosion control blanket on a friable seedbed free of clods, rocks, and roots that might impede good contact.

1. Start placing the protective covering from the top of the channel or slope and unroll down-grade.
2. Allow to rest loosely on soil; do not stretch.
3. Upslope ends of the protective covering should be buried in an anchor slot no less than 6 inches deep. Tamp earth firmly over the material. Staple the material at a minimum of every 12 inches across the top end.
4. Edges of the material shall be stapled every 3 feet. The multiple widths are placed side by side, the adjacent edges shall be overlapped a minimum of 6 inches and stapled together. Staples shall be placed down the center, staggered with the edges at 3 foot intervals.

NOTE:

Study manufacturer's recommendations and site conditions for correct installation and stapling of product.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

EROSION CONTROL BLANKET NOTES (CONTINUED):

JOINING PROTECTIVE COVERINGS:

Insert a new roll of material into an anchor slot as with upslope ends. Overlap the end of the previous roll a minimum of 12 inches, and staple across the end of the roll just below the anchor slot and across the material every 12 inches.

TERMINAL END:

Where the material is discontinued or where the ends under 4 inches, and staple across end every 12 inches.

AT BOTTOM OF SLOPES:

Roll onto a level surface before anchoring, turn ends under 4 inches, and staple across end every 12 inches.

FINAL CHECK:

These installation criteria must be met:

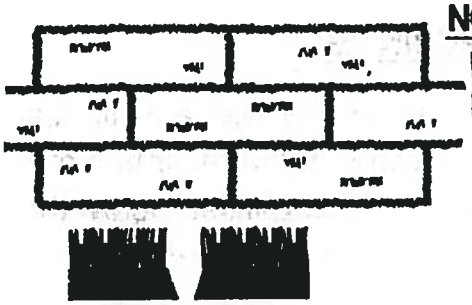
1. Protective blanket is in uniform contact with the soil.
2. All lap joints are secure.
3. All staples are driven flush with the ground.
4. All disturbed areas have been seeded.

MAINTENANCE:

All soil stabilization blankets and matting should be inspected periodically following installation, particularly after storms, to check for erosion and undermining. Any dislocation or failure should be repaired immediately. If washouts or breakage occurs, reinstall the material after repairing damage to the slope or ditch. Continue to monitor these areas until they become permanently stabilized; at that time an annual inspection should be adequate.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

SODDING:



INCORRECT

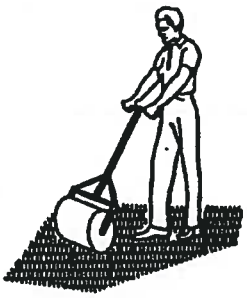
CORRECT

NOTE:

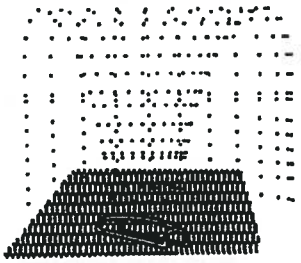
LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

BUTTING:

ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.



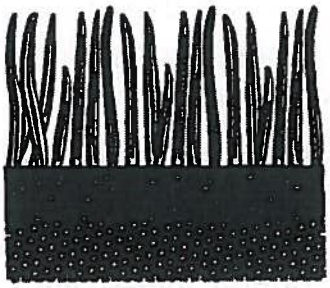
ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL.



WATER SOD TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS INSTALLED.

MOW WHEN THE SOD IS ESTABLISHED – IN 2–3 WEEKS. SET THE MOWER HEIGHT AT 2"–3".

APPEARANCE OF GOOD SOD:



SHOOTS:

GRASS SHOULD BE GREEN AND HEALTHY, MOWED AT A 2"–3" CUTTING HEIGHT.

THATCH:

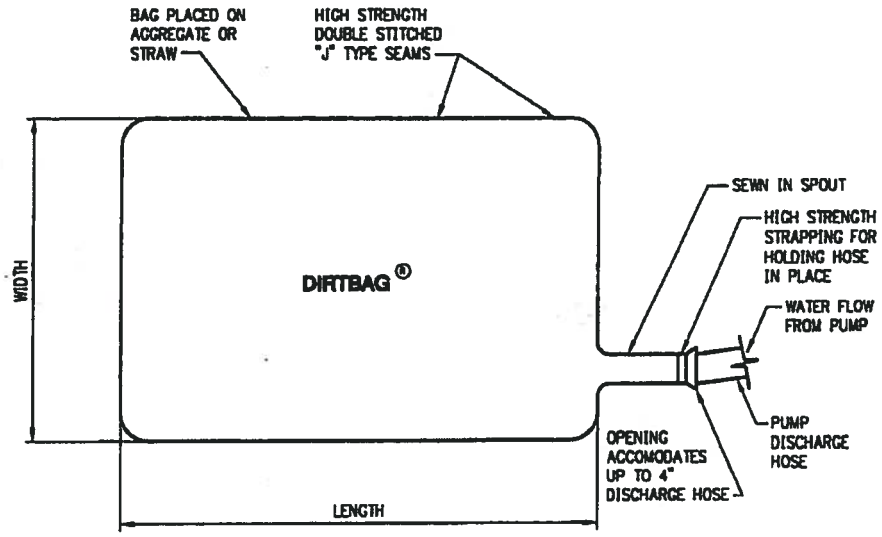
GRASS CLIPPINGS AND DEAD LEAVES UP TO ½" THICK.

ROOT ZONE:

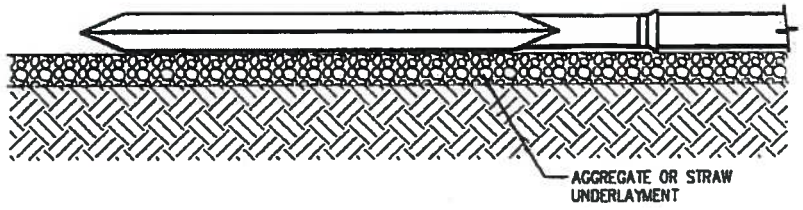
SOIL AND ROOTS SHOULD BE ½" – ¾" THICK WITH DENSE ROOT MAT FOR STRENGTH.

SOURCE: MODIFIED ILLINOIS URBAN MANUAL, 1995

PUMP DISCHARGE FILTER BAG:



TOP VIEW



SIDE VIEW

DIRTBAG® PUMP-SILT CONTROL SYSTEM NOTES:

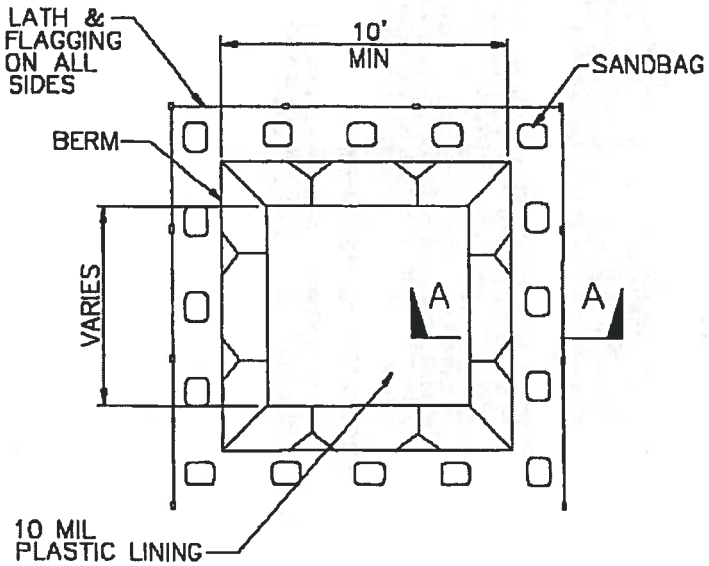
A) GENERAL NOTES:

1. THE DIRTBAG® WILL HAVE AN OPENING LARGE ENOUGH TO ACCOMMODATE A 4" DISCHARGE HOSE WITH ATTACHED STRAP TO TIE OFF THE HOSE TO PREVENT THE PUMPED WATER FROM ESCAPING THE DIRTBAG® WITHOUT BEING FILTERED.
2. INSTALL THE DIRTBAG® ON A SLOPE. IT SHOULD BE PLACED SO THE INCOMING WATER FLOWS THROUGH THE DIRTBAG® SHOULD BE TIED OFF TIGHTLY TO STOP THE WATER FROM FLOWING OUT OF THE OPENING WITHOUT BEING FILTERED THROUGH THE FABRIC TO INCREASE THE EFFICIENCY OF THE FILTRATION, THE BAG SHOULD BE PLACED ON AN AGGREGATE BED TO ALLOW WATER TO FLOW THROUGH ALL SURFACES OF THE BAG.
3. DISPOSAL MAY BE ACCOMPLISHED AS DIRECTED BY THE ENGINEER. IF THE SITE ALLOWS, THE DIRTBAG® MAY BE CUT OPEN AND SEEDED, REMOVING THE VISIBLE FABRIC. THE DIRTBAG® IS STRONG ENOUGH TO BE LIFTED IF IT MUST BE HAULED AWAY. IF THE JOBSITE REQUIRES THE DIRTBAG® TO BE RELOCATED TO LANDFILL FOR DISPOSAL, IT MAY BE HELPFUL TO PLACE THE DIRTBAG® IN THE BACK OF A DUMP TRUCK OR FLATBED PRIOR TO USE, ALLOWING THE WATER TO DRAIN WITH BAG IN PLACE, THEREBY DISMISSING THE NEED TO LIFT THE DIRTBAG®.

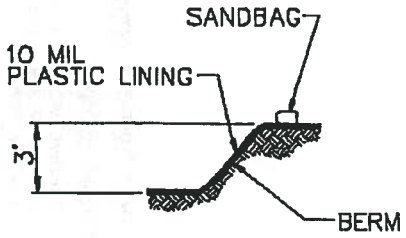
B) INSPECTION AND MAINTENANCE:

1. THE DIRTBAG® SHOULD BE CONSIDERED FULL WHEN IT IS IMPRACTICAL FOR THE BAG TO FILTER OUT SEDIMENT AT A REASONABLE RATE, AND SHOULD BE REPLACED WITH A NEW DIRTBAG®.

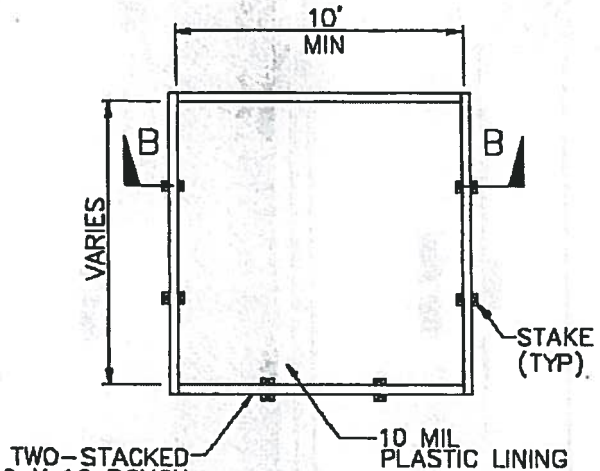
CONCRETE WASHOUT FACILITIES



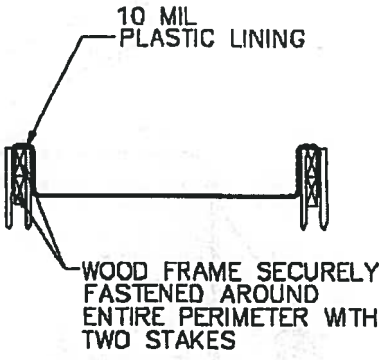
PLAN
NOT TO SCALE
TYPE "BELOW GRADE"



SECTION A–A
NOT TO SCALE



PLAN
NOT TO SCALE
TYPE "ABOVE GRADE"



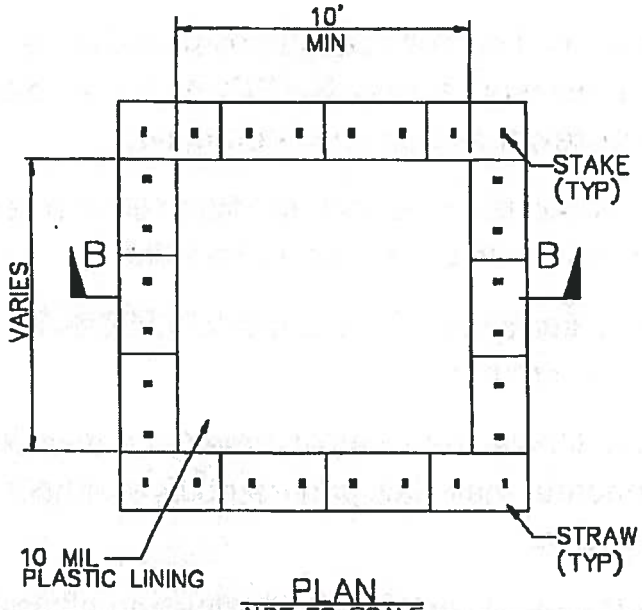
SECTION B–B
NOT TO SCALE

NOTES

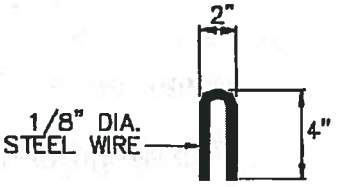
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

SOURCE: CALIFORNIA STORM WATER BMP HANDBOOK

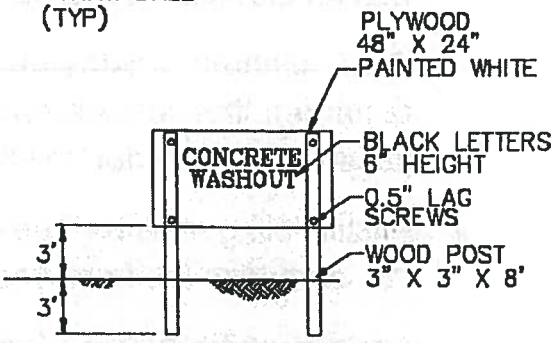
CONCRETE WASHOUT FACILITIES



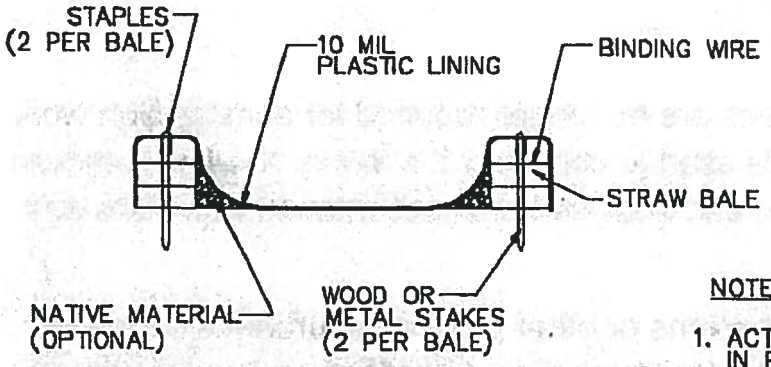
PLAN
NOT TO SCALE
TYPE "ABOVE GRADE"
WITH STRAW BALES



STAPLE DETAIL



CONCRETE WASHOUT
SIGN DETAIL
(OR EQUIVALENT)



SECTION B-B
NOT TO SCALE

NOTES

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

SOURCE: CALIFORNIA STORM WATER BMP HANDBOOK

CONCRETE WASHOUT FACILITIES NOTES

GENERAL

- PCC and AC wastes shall be collected and disposed of or placed in a concrete washout facility. No PCC or AC wastes shall enter the storm sewer system or watercourses.
- Sign shall be installed adjacent to each facility to inform concrete equipment operators to utilize proper facilities.
- Below grade facilities are typical. Above grade facilities are utilized if excavation is not practical.
- Washout facilities shall have sufficient volume to contain all liquid and waste concrete materials generated by washout and construction activities.
- Once concrete wastes are discharged to facility and allowed to harden, the concrete waste should be broken up and disposed of in accordance with state and local law.
- Plastic lining shall be free of holes, tears, or other defects that comprise the impermeability of the material.
- A minimum freeboard 12-inches is required for below grade facilities and a minimum of 4-inches freeboard is required for above grade facilities.

REMOVAL

- When facilities are no longer required for construction work, the materials used to construct the facility shall be removed from the site and disposed of in accordance with state and local law.
- Holes, depressions or other ground disturbance caused by removal of the facility shall be backfilled and restored to its pre-existing condition or intended use.

CONCRETE WASHOUT FACILITIES NOTES

MAINTENANCE

- Facilities must be cleaned or new facilities constructed once the washout is 75% full.
- Remove and dispose of hardened concrete materials to return facilities to a functional condition.
- Inspect washout facility on a weekly basis.

NOTES

federal register

Wednesday
December 8, 1999

Part II

Environmental Protection Agency

40 CFR Parts 9, 122, 123, and 124
National Pollutant Discharge Elimination System—Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule

Report to Congress on the Phase II Storm Water Regulations; Notice

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9, 122 , 123, and 124

[FRL—6470–8]

RIN 2040–AC82

National Pollutant Discharge Elimination System—Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Today's regulations (Phase II) expand the existing National Pollutant Discharge Elimination System (NPDES) storm water program (Phase I) to address storm water discharges from small municipal separate storm sewer systems (MS4s) (those serving less than 100,000 persons) and construction sites that disturb one to five acres. Although these sources are automatically designated by today's rule, the rule allows for the exclusion of certain sources from the national program based on a demonstration of the lack of impact on water quality, as well as the inclusion of others based on a higher likelihood of localized adverse impact on water quality. Today's regulations also exclude from the NPDES program storm water discharges from industrial facilities that have "no exposure" of industrial activities or materials to storm water. Finally, today's rule extends from August 7, 2001 until March 10, 2003 the deadline by which certain industrial facilities owned by small MS4s must obtain coverage under an NPDES permit. This rule establishes a cost-effective, flexible approach for reducing environmental harm by storm water discharges from many point sources of storm water that are currently unregulated.

EPA believes that the implementation of the six minimum measures identified for small MS4s should significantly reduce pollutants in urban storm water compared to existing levels in a cost-effective manner. Similarly, EPA believes that implementation of Best Management Practices (BMP) controls at small construction sites will also result in a significant reduction in pollutant discharges and an improvement in surface water quality. EPA believes this rule will result in monetized financial, recreational and health benefits, as well as benefits that EPA has been unable to monetize. Expected benefits include reduced scouring and erosion of streambeds, improved aesthetic quality of waters, reduced eutrophication of aquatic systems, benefit to wildlife and endangered and threatened species, tourism benefits, biodiversity benefits and reduced costs for siting reservoirs. In addition, the costs of industrial storm water controls will decrease due to the exclusion of storm water discharges from facilities where there is "no exposure" of storm water to industrial activities and materials.

DATES: This regulation is effective on February 7, 2000. The incorporation by reference of the rainfall erosivity factor publication listed in the rule is approved by the Director of the Federal Register as of February 7, 2000. For judicial review purposes, this final rule is promulgated as of 1:00 p.m. Eastern Standard Time, on December 22, 1999 as provided in 40 CFR 23.2.

ADDRESSES: The complete administrative record for the final rule and the ICR have been established under docket numbers W–97–12 (rule) and W–97–15 (ICR), and includes supporting documentation as well as printed, paper versions of electronic comments. Copies of information in the record are available upon request. A reasonable fee may be charged for copying. The record is available for inspection and copying from 9 a.m. to 4 p.m., Monday through Friday, excluding legal holidays, at the Water Docket, EPA, East Tower Basement, 401 M Street, SW, Washington, DC. For access to docket materials, please call 202/260–3027 to schedule an appointment.

FOR FURTHER INFORMATION CONTACT: George Utting, Office of Wastewater Management, Environmental Protection Agency, Mail Code 4203, 401 M Street, SW, Washington, DC 20460; (202) 260–5816; sw2@epa.gov.

SUPPLEMENTARY INFORMATION: Entities potentially regulated by this action include:

Category	Examples of regulated entities
Federal, State, Tribal, and Local Governments.	Operators of small separate storm sewer systems, industrial facilities that discharge storm water associated with industrial activity or construction activity disturbing 1 to 5 acres.
Industry	Operators of industrial facilities that discharge storm water associated with industrial activity.
Construction Activity.	Operators of construction activity disturbing 1 to 5 acres.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility or company is regulated by this action, you should carefully examine the applicability criteria in §§ 122.26(b), 122.31, 122.32, and 123.35 of the final rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Table of Contents:

I. Background

A. Proposed Rule and Pre-Proposal Outreach

On January 9, 1998 (63 FR 1536), EPA proposed to expand the National Pollutant Discharge Elimination System (NPDES) storm water program to include storm water discharges from municipal separate storm sewer systems (MS4s) and construction sites that were smaller than those previously included in the program. The proposal also addressed industrial sources that have "no exposure" of industrial activities and materials to storm water. Today, EPA is promulgating a final rule to implement most of the proposed revisions with minor changes based on public comments received on the proposal. Today's final rule also extends the deadline by which certain industrial facilities operated by municipalities of less than 100,000 population must be covered by a NPDES permit; the deadline is changed from August 7, 2001 until March 10, 2003.

In 1972, Congress amended the Federal Water Pollution Control Act (commonly referred to as the Clean Water Act (CWA)) to prohibit the discharge of any pollutant to waters of the United States from a point source unless the discharge is authorized by an NPDES permit. The NPDES program is a program designed to track point sources and require the implementation of the controls necessary to minimize the discharge of pollutants. Initial efforts to improve water quality under the NPDES program primarily focused on reducing pollutants in industrial process wastewater and municipal sewage. These discharge sources were easily identified as responsible for poor, often drastically degraded, water quality conditions.

As pollution control measures for industrial process wastewater and municipal sewage were implemented and refined, it became increasingly evident that more diffuse sources of water pollution were also significant causes of water quality impairment. Specifically, storm water runoff draining large surface areas, such as agricultural and urban land, was found to be a major cause of water quality impairment, including the nonattainment of designated beneficial uses.

In 1987, Congress amended the CWA to require implementation, in two phases, of a comprehensive national program for addressing storm water discharges. The first phase of the program, commonly referred to as "Phase I," was promulgated on November 16, 1990 (55 FR 47990). Phase I requires NPDES permits for storm water discharge from a large number of priority sources including municipal separate storm sewer systems ("MS4s") generally serving populations of 100,000 or more and several categories of industrial activity, including construction sites that disturb five or more acres of land.

Today's rule, which is the second phase of the storm water program, expands the existing program to include discharges of storm water from smaller municipalities in urbanized areas and from construction sites that disturb between one and five acres of land. Today's rule allows certain sources to be excluded from the national program based on a demonstrable lack of impact on water quality. The rule also allows other sources not automatically regulated on a national basis to be designated for inclusion based on increased likelihood for localized adverse impact on water quality.

townships, because they were not considered to be incorporated areas according to the Census Bureau's definition. Would the whole town/township be covered or only the part of the town/township in the urbanized area? States use many different types of systems in their geographical divisions. Some towns are similar to incorporated cities and others are large areas that are more similar to counties. Some commenters thought that the urbanized area boundary was arbitrary, and if part of a town or county was covered, it all should be covered. Other commenters noted that some townships and counties encompass very large areas of which only a small portion is urbanized. Due to the great variety of situations, EPA has decided that for all geographical entities, only MS4s in the urbanized area are automatically designated. The population densities associated with the Census Bureau's designation of urbanized areas provide the basis for designation of these areas to protect water quality. This focused designation provides for consistency and allows for flexibility on the part of the MS4 and the permitting authority. In those situations where an incorporated place or a town is not all in an "urbanized area", there is a good possibility that it is served by more than one MS4. In those cases where the area is served by the same MS4, it makes sense to develop a storm water program for the whole area. Permitting authorities may also decide to designate all MS4s within a county or township, if they believe it is necessary to protect water quality.

Most operators of MS4s will not need to independently determine the status of coverage under today's rule. EPA has revised the proposed Appendices 6 and 7 to include towns and townships. Therefore, these appendices will alert most MS4s as to whether they are likely to be covered under today's rule. However, each permitting authority must make the decision as to who requires coverage. Most likely, an illustrative list of the regulated areas will be published with the general permit. If not, the operator can contact its permitting authority or the Bureau of the Census to find out if their separate storm sewer systems are within an urbanized area.

i. Urbanized Area Description. Under the Bureau of the Census definition of "urbanized area," adopted by EPA for the purposes of today's final rule, "an urbanized area (UA) comprises a place and the adjacent densely settled surrounding territory that together have a minimum population of 50,000 people." The proposal to today's rule provided the full definition and case studies to help explain the census category of "urbanized area." Appendix 2 is a simplified urbanized area illustration to help demonstrate the concept of urbanized areas in relation to today's final rule. The "urbanized area" is the shaded area that includes within its boundaries incorporated places, a portion of a Federal Indian reservation, portions of two counties, an entire town, and portions of another town. All small MS4s located in the shaded area are covered by the rule, unless and until waived by the permitting authority. Any small MS4s located outside of the shaded area are subject to potential designation by the permitting authority.

There are 405 urbanized areas in the United States that cover 2 percent of total U.S. land area and contain approximately 63 percent of the nation's population (see Appendix 3 for a listing of urbanized areas of the United States and Puerto Rico). These numbers include U.S. Territories, although Puerto Rico is the only territory to have Census-designated urbanized areas. Urbanized areas constitute the largest and most dense areas of settlement. The purpose of determining an "urbanized area" is to delineate the boundaries of development and map the actual built-up urban area. The Bureau of the Census geographers liken it to flying over an urban area and drawing a line around the boundary of the built-up area as seen from the air.

Using data from the latest decennial census, the Census Bureau applies the urbanized area definition nationwide (including U.S. Tribes and Territories) and determines which places and counties are included within each urbanized area. For each urbanized area, the Bureau provides full listings of who is included, as well as detailed maps and special CD-ROM files for use with computerized mapping systems (such as GIS). Each State's data center receives a copy of the list, and some maps, automatically. The States also have the CD–ROM files and a variety of publications available to them for reference from the Bureau of the Census. In addition, local or regional planning agencies may have urbanized area files already. New listings for urbanized areas based on the 2000 Census will be available by July/August 2001, but the more comprehensive computer files will not be available until late 2001/early 2002.

Additional designations based on subsequent census years will be governed by the Bureau of the Census' definition of an urbanized area in effect for that year. Based on historical trends, EPA expects that any area determined by the Bureau of the Census to be included within an urbanized area as of the 1990 Census will not later be excluded from the urbanized area as of the 2000 Census. However, it is important to note that even if this situation were to occur, for example, due to a possible change in the Bureau of the Census' urbanized area definition, a small MS4 that is automatically designated into the NPDES program for storm water under an urbanized area calculation for any given Census year will remain regulated regardless of the results of subsequent urbanized area calculations.

ii. Rationale for Using Urbanized Areas. EPA is using urbanized areas to automatically designate regulated small MS4s on a nationwide basis for several reasons: (1) studies and data show a high correlation between degree of development/ urbanization and adverse impacts on receiving waters due to storm water (U.S. EPA, 1983; Driver et al., 1985; Pitt, R.E. 1991. "Biological Effects of Urban Runoff Discharges." Presented at the Engineering Foundation Conference: *Urban Runoff and Receiving Systems; An Interdisciplinary Analysis of Impact, Monitoring and Management,* August 1991. Mt. Crested Butte, CO. American Society of Civil Engineers, New York. 1992.; Pitt, R.E. 1995. "Biological Effects of Urban Runoff Discharges," in *Storm water Runoff and Receiving Systems: Impact, Monitoring, and Assessment.* Lewis Publishers, New York.; Galli, J. 1990. *Thermal Impacts Associated with Urbanization and Storm water Management Best Management Practices.* Prepared for the Sediment and Storm water Administration of the Maryland Department of the Environment.; Klein, 1979), (2) the blanket coverage within the urbanized area encourages the watershed approach and addresses the problem of "donut-holes," where unregulated areas are surrounded by areas currently regulated (storm water discharges from donut hole areas present a problem due to their contributing uncontrolled adverse impacts on local waters, as well as by frustrating the attainment of water quality goals of neighboring regulated communities), (3) this approach targets present and future growth areas as a preventative measure to help ensure water quality protection, and (4) the determination of urbanized areas by the Bureau of the Census allows operators of small MS4s to quickly determine whether they are included in the NPDES storm water program as a regulated small MS4.

Urbanized areas have experienced significant growth over the past 50 years. According to EPA calculations

(for small construction), the requirements of today's rule may be waived based on wasteload allocations that are part of "total maximum daily loads" (TMDLs) that address the pollutants of concern or, in the case of small construction and municipalities serving between 1,000 and 10,000 persons, the equivalents of TMDLs. One commenter stated that waivers would allow exemptions to the technology based requirements and would thus be inconsistent with the two-fold approach of the CWA (a technology based minimum and a water quality based overlay). EPA acknowledges that waivers are not allowed for other technology-based requirements under the CWA. A more flexible approach is allowed, however, for sources designated for regulation under 402(p)(6) to protect water quality. For such sources EPA may allow a waiver where it is demonstrated that an individual source does not present the threat to water quality that was the basis for EPA's designation.

III. Cost-Benefit Analysis

EPA has determined that the range of the rule's benefits exceeds the range of regulatory costs. The estimated rule costs range from $847.6 million to $981.3 million annually with corresponding estimated monetized annual benefits which range from $671.5 million to $1.628 billion, expected to exceed costs.

The rule's cost and benefit estimates are based on an annual comparison of costs and benefits for a representative year (1998) in which the rule is implemented. This differs from the approach used for the proposed rule which projected cost and benefits over three permit terms. EPA has chosen to use the current approach because it determined that the ratio of annual benefits and costs would not change significantly over time. Moreover, because there is not an initial outlay of capital costs with benefits accruing in the future (*i.e.*, benefits and costs are almost immediately at a steady state), it is not necessary to discount costs in order to account for a time differential.

EPA developed detailed estimates of the costs and benefits of complying with each of the incremental requirements imposed by the rule. The Agency used two approaches, a national water quality model and national water quality assessment, to estimate the potential benefits of the rule. Both approaches show that the benefits are likely to exceed costs.

These estimates, including descriptions of the methodology and assumptions used, are described in detail in the *Economic Analysis of the Final Phase II Rule,* which is included in the record of this rule making. Exhibit 3 summarizes costs and benefits associated with the basic elements of today's rule.

EXHIBIT 3.—COMPARISON OF ANNUAL COMPLIANCE COST AND BENEFIT ESTIMATES [1]

Monetized benefits	National water quality model (millions of 1998 dollars)	National water quality assessment (millions of 1998 dollars)
Municipal Minimum Measures	.....	$131.0–$410.2
Controls for Construction Sites	.....	$540.5–$686.0
Total Annual Benefits	$1,628.5	$671.5–$1,096.2

Costs	Millions of 1998 dollars [2]
Municipal Minimum Measures	$297.3
Controls/Waivers for Construction Sites	$545.0–$678.7
Federal/State Administrative Costs	$5.3
Total Annual Costs	$847.6–$981.31

[1] National level benefits are not inclusive of all categories of benefits that can be expected to result from the regulation.
[2] Total may not add due to rounding.

A. Costs

1. Municipal Costs

Initially, to determine municipal costs for the proposed rule, EPA used anticipated expenditure data included in permit applications from a sample of 21 Phase I MS4s. Certain commenters criticized the Agency for using anticipated expenditures because they could be significantly different from the actual expenditures. These commenters suggested that the Agency use the actual cost incurred by the Phase I MS4s. Other comments stated that because the Phase I MS4s, in general, are large municipalities, they may not be representative of the Phase II MS4s for estimating regulatory costs. Finally, one commenter noted that the sample of 21 municipalities used to project cost was relatively small.

To address the concerns of the commenters, EPA utilized a National Association of Flood and Stormwater Management Agencies (NAFSMA) survey of the Phase II community to obtain incremental cost estimates for Phase II municipalities. Using the list of potential Phase II designees published in the **Federal Register** (63 FR 1616), NAFSMA contacted more than 1,600 jurisdictions. The goal of the survey was to solicit information from those communities about the proposed Phase II NPDES storm water program. Several of the survey questions corresponded directly to the minimum measures required by the Phase II rule. One hundred twenty-one surveys were returned to NAFSMA and were used to develop municipal costs.

Using the NAFSMA information, EPA estimated average annual per household program costs for automatically designated municipalities. EPA also estimated an average annual per household administrative cost for municipalities to address application, record keeping, and reporting requirements of the Rule. The total average per household cost of the rule is expected to $9.16 per household.

To determine potential national level costs for municipalities, EPA multiplied the number of households (32.5 million) by the per household cost ($9.16). EPA estimates the annual cost of the Phase II municipal program at $298 million.

As an alternative method, and point of comparison, to the NAFSMA-based approach, EPA reviewed actual expenditures reported from 35 Phase I MS4s. The Agency targeted these 35 Phase I MS4s because they had participated in the NPDES program for

nearly one permit term, were smaller in size and had detailed data reflecting their actual program implementation costs. Of the 35 MS4s, appropriate cost data was only available for 26 of those MS4s. EPA analyzed the expenditure data and identified the relevant expenditures, excluding costs presented in the annual reports unrelated to the requirements of the Rule. The cost range and annual per household program costs of $9.08 are similar to those found using the NAFSMA survey data.

2. Construction Costs

In order to estimate the rule's construction-related cost on a national level (the soil and erosion controls (SEC) requirements of the rule and the potential impacts of the post-construction municipal measure on construction), EPA estimated a per site cost for sites of one, three, and five acres and multiplied these costs by the total number of estimated Phase II construction starts across these size categories.

To estimate the percentage of starts subject to the soil and erosion control requirements between 1 and 5 acres, with respect to each category of building permits (residential, commercial, *etc.*), EPA initially used data from Prince George's County (PGC), Maryland, and applied these percentages to national totals. In the proposal, EPA recognized that the PGC data may not be representative of the entire country and requested data that could be used to develop better estimates of the number of construction sites between 1 and 5 acres. EPA did not receive any substantiated national data from commenters.

In view of the unavailability of national data from commenters, EPA made extensive efforts to collect construction site data around the country. The Agency contacted more than 75 municipalities. EPA determined that 14 of the contacted municipalities had useable construction site data. Using data from these 14 municipalities, EPA developed an estimate of the percentage of construction starts on one to five acres. EPA then multiplied this percentage by the number of building permits issued nationwide to determine the total number of construction starts occurring on one to five acres. Finally, to isolate the number of construction starts incrementally regulated by Phase II, EPA subtracted the number of activities regulated under equivalent programs (*e.g.*, areas covered by the Coastal Zone Act Reauthorization Amendments of 1990, and areas covered by equivalent State level soil and erosion control requirements). Ultimately, EPA estimated that 110,223 construction starts would be incrementally covered by the rule annually.

EPA then used standard cost estimates from *Building Construction Cost Data* and *Site Work Landscape Cost Data* (R.S. Means, 1997a and 1997b) to estimate construction BMP costs for 27 model sites in a variety of typical site conditions across the United States. The model sites included three different site sizes (one, three and five acres), three slope variations (3%, 7%, and 12%), and three soil erosivity conditions (low, medium, and high). EPA chose BMP combinations appropriate to the model site conditions. Based on the assumption that any combination of site factors is equally likely to occur in a given site, EPA developed average cost of sediment and erosion control for all model sites. EPA estimated that, on average, BMPs for a 1 acre site will cost $1,206, for a 3 acre site $4,598 and for a 5 acre site $8,709.

EPA then estimated administrative costs per construction site for the following elements required under the rule: Submittal of a notice of intent for permit coverage; notification to municipalities; development of a storm water pollution prevention plan; record retention; and submittal of a notice of termination. EPA estimated the average total administrative cost per site to be $937.

EPA also considered the cost implications of NPDES permit authorities waiving the applicability of requirements to storm water discharges from small construction sites based on two different criteria involving water quality impact and low rainfall. EPA received comments stating that a waiver would require a significant investment in training or acquisition of a consultant. Based on comments received, EPA eliminated one of the waiver conditions involving low soil loss threshold because it necessitated use of the Revised Universal Soil Loss Equation which could require extensive technical expertise.

Based on the opinions of construction industry experts, EPA estimates that 15 percent of the construction sites that would otherwise be covered by today's rule will be eligible to receive waivers. Therefore, the Agency has excluded 15 percent of the construction sites when deriving costs of sediment and erosion control. The average cost for sites to qualify for the waiver is expected to be $34 per site. The construction cost analysis for the proposed rule did not include any costs for the preparation and submission of waiver applications because EPA believed those costs would be negligible. However, in response to public comments, EPA has estimated these potential costs.

EPA has also estimated the potential costs for construction site operators to implement the post-construction minimum measure. These are costs that may be incurred by construction site operators if the MS4 chooses to meet the post-construction minimum measure by requiring on-site structural, site-by-site control of post-construction runoff. Municipalities may select from an array of structural and non-structural options in implementing this measure, so the potential costs to construction operators is uncertain. Nonetheless, EPA developed average annual BMP costs for sites of one, three, five and seven acres. EPA's analysis accounted for varying levels of imperviousness that characterize residential, commercial, and institutional land uses. Nationwide, these costs are expected to range from $44 million to $178 million annually.

Finally, to establish national incremental annual costs for Phase II construction starts, EPA multiplied the total costs of compliance for the chosen site size categories by the total number of Phase II construction starts and added post-construction costs. EPA estimates the annual compliance cost to range from $545 million to $678.7 million.

B. Quantitative Benefits

In the Economic Analysis for the proposed rule, a "top-down" approach was used to estimate economic benefits. Under this approach, the combined economic benefits for wet weather programs were estimated first, and then were divided among various water programs on the basis of expert opinion. As a result, the benefits estimates for an individual program were rather uncertain. Moreover, this approach was inconsistent with the approach used to estimate the cost of the proposed storm water rule, which was developed using municipal-based and cost-based data to develop "bottom-up" costs. Therefore, EPA decided to use a "bottom-up" approach for estimating benefits of the Phase II rule. To adequately reflect the quantifiable benefits of the rule, EPA used two different methods: (1) National Water Quality Model and (2) National Water Quality Assessment.

To monetize benefits in both approaches, the Agency applied Carson and Mitchell's (1993) estimates of household willingness-to-pay (WTP) for water quality improvement to estimates of waters impaired by storm water discharges. Carson and Mitchell's 1993 study reports the results of their 1983 national survey of WTP for incremental

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improvements in fresh water quality. Carson and Mitchell estimate the WTP for three minimum levels of fresh water quality: boatable, fishable, and sizable. EPA adjusted the WTP amounts to account for inflation, growth in real per capita income, and increased attitudes towards pollution control. The adjusted WTP amounts for improvements in fresh water quality are $210 for boatable, $158 for fishable, and $177 for sizable. A brief summary of the national water quality model and national water quality assessment approaches follow.

1. National Water Quality Model

One approach EPA used to estimate the benefits of the Phase II municipal and construction site controls was the National Water Pollution Control Assessment Model (NWPCAM). NWPCAM estimates benefits of the storm water program at the national level, including the impact on small streams. This model estimates water quality and the resultant use support for the 632,000 miles of rivers and streams in the USEPA Reach File Version 1 (RF1), which covers the continental United States. The model analyzes water quality changes by stream reach. The parameters modeled in the NWPCAM are biological oxygen demand (BOD), total suspended solids (TSS), dissolved oxygen (DO), and fecal coliforms (FC).

The model projects changes in water quality due to the Phase II municipal and construction site controls. To calculate the economic benefits of change in water quality, the number of households in the proximity of the stream reach are determined, by overlaying the model results on the 1990 Census of Populated Places and Minor Civil Divisions, and updating the population to 1998. Economic benefits are calculated using the Carson and Mitchell WTP values. The benefits are separately estimated for local and non-local waters on the basis of WTP values and proximity to water quality changes.

The value of the change in use support for local waters is greater than the value of the non-local waters because of the opportunity to use local waters by the local population. This model assumes that if improvement occurs in waters that are not close to population centers the economic value is lower. Therefore, benefits are estimated for local and non-local waters separately. This assumption is based on Carson and Mitchell's survey which asked respondents to apportion each of their stated WTP values between achieving the water quality goals in their own State and achieving those goals in the nation as a whole. On average, respondents allocated 67% of their values to achieving in-State water quality goals and the remainder to the nation as a whole. Carson and Mitchell argue that for valuing local water quality changes 67% is a reasonable upper bound for the local multiplier and 33% for the non-local water quality changes. For the purposes of this analysis, the locality is defined as urban sites and associated populations linked into the NWPCAM framework. Using this methodology, the total monetized benefits of Phase II control of urban and construction site runoff is estimated to be $1.628 billion per year. The local and non-local benefits due to Phase II controls are presented in Exhibit 4.

EXHIBIT 4.—LOCAL AND NON-LOCAL BENEFITS ESTIMATES DUE TO PHASE II CONTROLS NATIONAL WATER QUALITY MODEL ESTIMATE

Use support	Local benefits ($million/yr)	Non-local benefits [1] ($million/yr)	Total benefits ($million/yr)
Swimming, Fishing, and Boating	306.20	60.60	366.80
Fishing and Boating	395.10	51.90	447.00
Boating	700.10	114.60	814.70
Total	1401.40	227.10	1628.50

[1] To estimate non-local willingness to pay per household, the 33% of willingness is multiplied by the fraction of previously impaired national waters (in each use category) that attain the beneficial use as a result of the Phase II rule. To estimate the aggregate non-local benefits, non-local willingness to pay is multiplied with the total number of households in the US.

While the numbers of miles that are estimated to change their use support are small, the benefits estimates are quite significant. This is because urban runoff and, to a large extent, construction activity occurs where the people actually reside and the water quality changes mostly occur close to these population centers. NWPCAM indicates that changes in pollution loads have the most effect immediately downstream of pollution changes. As a result, the aggregate WTP is large because large numbers of households in these population centers are associated with the local waters that reflect improvement in designated use support.

2. National Water Quality Assessment

EPA also estimated benefits of the Phase II Storm Water program using the 1998 National Water Quality Inventory (305(b)) Report to Congress, rather than the NWPCAM as a basis for estimating impairment addressed by the rule. The Water Quality Assessment method separately estimates benefits associated with improvements to fresh water, marine water and construction site controls, and then aggregates these separate categories into an estimate of total annual benefits.

a. Municipal Measures

i. Fresh Waters Benefits

In order to develop estimates for the potential value of the municipal measures (except storm water runoff controls for construction sites), EPA applied Carson & Mitchell WTP values to estimated existing and projected future fresh water impairment. Carson & Mitchell did not evaluate marine waters, so only fresh water values were available from their research. Even though the Carson and Mitchell estimates apply to all fresh water, it is not clear how these values would be apportioned among rivers, lakes, and the Great Lakes. The 305(b) data indicate that lakes are the most impaired by urban runoff/storm sewers, followed closely by the Great Lakes, and then rivers. Therefore, EPA applied the WTP values to the categories separately and assumed that the higher resulting value for lakes represents the high end of the range (*i.e.*, assuming that lake impairment is more indicative of national fresh water impairment) and that the lower resulting value for impaired rivers represents the low end of a value range for all fresh waters (*i.e.*, assuming that river impairment is more indicative of national fresh water impairment). In addition, EPA estimated that the post-construction runoff

requirements of the municipal program might result in benefits of at least $16.8 million annually from avoided future runoff. The post-construction estimate significantly underestimates potential program benefits because it does not account for avoided hydrologic changes and resulting water quality impairment associated with increases in imperviousness from development and redevelopment. Summing the benefits across the water quality use support levels yields an estimate of benefits ranging from approximately $121.9 million to $378.2 million per year.

ii. Marine Waters Benefits

In addition to the fresh water benefits captured by the Carson and Mitchell study, EPA anticipates benefits as a result of improvements to marine waters. Sufficient methods have not been developed to quantify national-level benefits for commercial or recreational fishing. EPA used beach closure data and visitation estimates from its Beach Watch Program to estimate potential reductions in marine swimming visits due to storm water runoff contamination events in 1997. The estimated 86,100 trips that did not occur because of beach closures in coastal Phase II communities is a lower bound because it represents only those beaches that report both closures and visitation data. EPA estimates potential swimming benefits from the rule to be at least $2.1 million annually.

EPA developed an analysis of potential benefits associated with avoided health impacts from exposure to contaminants in storm sewer effluent. Based on a study of incremental illnesses found among people who swam within one yard of storm drains in Santa Monica Bay, EPA estimated a range of incremental illnesses (Haile *et al.*, 1996). Depending on assumptions made about number of exposures to contaminants and contaminant concentrations, benefits ranged from $7.0 million to $29.9 million annually.

b. Construction Benefits

The major pollutant resulting from construction activities is sediment. However, in addition to sediment, construction activities also yield pollutants such as pesticides, petroleum products, and solvents. Because circumstances will vary considerably from site to site, data is not available with which to develop estimates of benefits for each site and aggregate to obtain a national-level estimate.

In the proposed rule, EPA estimated the combined benefits of all wet weather programs, and then used expert opinions to allocate them to different individual programs. To eliminate the possible overlap between the benefits of the soil and erosion control requirements, municipal measures, and other wet weather storm water programs, EPA chose to use an approach in today's final rule that directly estimates the benefits of soil and erosion requirements.

A survey of North Carolina residents (Paterson *et al.*, 1993) indicated that households are willing to pay for erosion and sediment controls similar to those in today's rule. Based on income and other indicators, the values derived from the study are expected to be similar to values held in the rest of the country. Using the mean value of the willingness to pay of $25 per household, EPA projects annual benefits of the soil and erosion requirements to range from $540.5–$686 million.

c. Summary of Benefits From the National Water Quality Assessment

Total benefits from municipal measures and construction site controls are expected to range from $671.5 million to $1.1 billion per year, including benefits of approximately $13.7 million per year associated with small stream improvements. A summary of the potential benefits is presented in Exhibit 5.

As shown in Exhibit 5, it was not possible to monetize all categories of benefits using the WTP estimates. In particular, benefits for improving marine water quality such as fishing and passive use benefits are not included in the values used to estimate the potential benefits of the municipal minimum measures (excluding construction sites controls), and they are not estimated separately, because information is not currently available.

EXHIBIT 5.—POTENTIAL ANNUAL BENEFITS OF THE PHASE II STORM WATER RULE NATIONAL WATER QUALITY ASSESSMENT ESTIMATE

Benefit category	Annual WTP
Municipal Minimum Measures [1]	
Fresh Water Use and Passive Use [2]	$121.9–$378.2
Marine Recreational Swimming	$2.1
Human Health (Marine Waters)	$7.0–$29.9
Other Marine Use and Passive Use	(+)
Erosion and Sediment Controls for Construction Sites	
Fresh Water and Marine Use and Passive Use [3]	$540.5–$686
Total Phase II Program	
Total Use & Passive Use (Fresh Water and Marine)	>$671.5–>$1,096.2

+= positive benefits expected but not monetized.
[1] Includes water quality benefit of municipal programs, based on 80% effectiveness of municipal programs.
[2] Based on research by Carson and Mitchell (1993). Fresh water value only. Does not include commercial fishery, navigation, or diversionary (*e.g.* municipal drinking water cost savings or risk reductions) benefits. May not fully capture human health risk reduction or ecological values.
[3] Based on research by Paterson *et al.* (1993). Although the survey's description of the benefits of reducing soil erosion from construction sites included reduced dredging, avoided flooding, and water storage capacity benefits, these benefit categories may not be fully incorporated in the WTP values. Small streams may account for over 2% of total benefits.

C. Qualitative Benefits

There are additional benefits to storm water control that cannot be quantified or monetized. Thus, the current estimate of monetized benefits may understate the true value of storm water controls because it omits many ways in which society is likely to benefit from reduced storm water pollution, such as improved

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aesthetic quality of waters, benefits to wildlife and to threatened and endangered species, cultural values, and biodiversity benefits.

A benefit that EPA did not monetize completely is the flood control benefits attributable to municipal storm water controls reducing downstream flooding, although flood control benefits associated with sediment and erosion control are already reflected to some extent in the construction benefits. Similarly, the Agency could not value the benefits from increased property value due to storm water controls reflected in the rule, even though a commenter suggested inclusion of these benefits in the estimates.

Moreover, while a number of commenters requested that EPA include ecological benefits, the Agency was not able to fully monetize these benefits. Urbanization usually increases the amount of sediment, nutrients, metals and other pollutants associated with land disturbance and development. Development usually not only results in a dramatic increase in the volume of water runoff, but also in a substantial decrease in that water's quality due to stream scour, runoff and dispersion of toxic pollutants, and oversiltation. These kinds of secondary benefits could not be fully reflected in the monetized benefits. EPA was able to only monetize the aquatic life support benefits for waters assumed to be impaired. Thus, only the aquatic life support benefits attributable to municipal controls, reflected through human satisfaction, are taken into account.

Reduced nutrient level is another benefit of the storm water control which is not fully captured by the economic analysis. High nutrient levels often lead to eutrophication of the aquatic system. The quality change in ecological sources as the result of storm water controls to reduce pollutants is not fully reflected in the present benefits.

D. National Economic Impact

Finally, the Agency determined that the rule will have minimal impacts on the economy or employment. This is because the final rule regulates small MS4s and construction sites under 5 acres, not the typical industrial plants or other non-construction activities that could directly impact production and thus those sectors of the economy.

Discussions with representatives within the construction industry indicate that construction costs will likely be passed on to buyers, thus not seriously affecting the housing industry directly. One commenter argued that the rule will have a negative employment effect because the builders will build fewer homes requiring less building materials as a result of the declining demand induced by the cost of the soil and erosion controls. EPA disagrees with this argument because the cost of the controls, as the percentage of the price of a median home, is negligible and will be passed on to final buyers.

Flexibility within the rule allows MS4s to tailor the storm water program requirements to their needs and financial position, minimizing impacts. For sedimentation and erosion controls on construction sites, the rule contemplates application of commonly used BMPs to reduce costs for the construction industry. Thus, the rule attempts to use existing practices to prevent pollution, which should minimize impacts on States, Tribes, municipalities and the construction industry.

Thus, EPA concludes that the effect of the rule, if any, on the national economy will be minimal. The benefits of today's rule more than offset any cost impacts on the national economy.

IV. Regulatory Requirements

A. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved some of the information collection requirements contained in this final rule (*i.e.* those found in 40 CFR 122.26(g) and 123.35(b)) under the provisions of the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2040–0211.

The burden and costs described below are for the information collection, reporting, and record keeping requirements for the three year period beginning with the effective date of today's rule. Additional information collection requirements for regulated small MS4s and small construction sites will occur after this initial three year period and will be counted in a subsequent information collection requirement. The total burden of the information collection requirements for the first three years of this rule is estimated at 56,369 hours with a corresponding cost of $2,151,305 million annually. This burden and cost is for industrial facilities to complete and submit the no exposure certification, for NPDES-authorized States to process and review the no exposure certification, and for the NPDES-authorized States to develop designation criteria and assess additional MS4s outside of urbanized areas. Compliance with the applicable information collection requirements imposed under this rule are mandatory, pursuant to CWA section 402.

Exhibit 6 presents average annual burden and cost estimates for Phase II respondents for the first three years. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust existing ways for complying with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

EXHIBIT 6.—AVERAGE ANNUAL BURDEN AND COST ESTIMATES FOR PHASE II RESPONDENTS

Information collection activity	A Respondents per year (projected) [1]	B Burden hours per respondent per year (predicted)	(A)×(B)=C Annual respondent burden hours (projected)	D Respondent labor cost ($/hr) (1998 $)	(C)×(D)=E Annual Cost ($) (projected)
Ind. No Expos. Facilities:[2]					
No Expos. Certification	36,377	1.0	36,377	44.35	1,613,320
Annual Subtotal			36,377		1,613,320
NPDES-Authorized States:[3]					
Designation of Addit. MS4s [4]	15	332.8	4,892	26.91	131,644

EXHIBIT 6.—AVERAGE ANNUAL BURDEN AND COST ESTIMATES FOR PHASE II RESPONDENTS—Continued

Information collection activity	A Respondents per year (projected) [1]	B Burden hours per respondent per year (predicted)	(A)×(B)=C Annual respondent burden hours (projected)	D Respondent labor cost ($/hr) (1998 $)	(C)×(D)=E Annual Cost ($) (projected)
No Exp. Cert. Proc. & Rev	30,200	0.5	15,100	26.91	406,341
Annual Subtotal			19,992		537,985
Annual Totals			56,369		2,151,305

Notes:

[1] Source: U.S. EPA, Office of Wastewater Management. Economic Analysis for the Storm Water Phase II Rule.

[2] The total number of potential no exposure respondents was divided by 5 to estimate an annual total. It was assumed that the annual number of respondents for the no exposure certification would be spread over the five year period the exclusion applies.

[3] The number of respondents in each category represents only those respondents located within the 44 NPDES-authorized States and Territories. The burden and cost estimates provided in this section are for the NPDES-authorized States in their role as the permitting authority for municipal designations and industrial no exposure.

[4] The number of respondents for this activity, 15, represents the number of NPDES-authorized States and Territories that must develop designation criteria and assess small MS4s located outside of an urbanized area for possible Phase II coverage divided by the three year ICR period.

Given the requirements of today's regulation, EPA believes there will be no capital startup and no operation and maintenance costs associated with information collection requirements of the rule.

The government burden associated with today's rule will impact State, Tribal, and Territorial governments (NPDES-authorized governmental entities) that have storm water program authority, as well as the federal government (*i.e.*, EPA), where it is the NPDES permitting authority. As of March 1999, 43 States and the Virgin Islands had NPDES authority.

The annual burden imposed upon authorized governmental entities (delegated States and the Virgin Islands) and the federal government for the next three years is estimated to be 19,992 hours ($537,985) and 4,087 hours ($115,948) respectively, for a total of 24,079 hours ($653,933). This estimate is based on the average time that governments will expend to carry out the following activities: designate additional MS4s (332.8 hours) and process and review "no exposure" certificates from industrial dischargers (0.5 hour).

Under the existing rule, storm water discharges from light industrial activities identified under § 122.26(b)(14)(xi) were exempted from the permit application requirements if they were not exposed to storm water. Today's rule expands the applicability of the "no exposure" exclusion to include all industrial activity regulated under § 122.26(b)(14) (except category (x), construction). The "no exposure" provision is applied through the use of a written certification process, thus representing a slight reporting burden increase for "light" industries with "no exposure'.

In addition to the information collection, reporting, and record keeping burden for the next three years, today's rule contains information collection requirements that will not begin until three years or more from the effective date of today's rule. These information collection requirements were not included in the information collection request approved by OMB. EPA will submit these burden estimates for OMB approval when it submits ICR 2040–0211 to OMB for renewal in three years. The rule burdens for regulated small MS4s and small construction sites that will be included in the ICR renewal fall into three areas: application for an NPDES permit or submittal of waiver information, record keeping of storm water management activities, and submittal of reports to the permitting authority. There will also be an additional burden for the permitting authority to review this information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15. EPA is amending the table in 40 CFR Part 9 of currently approved ICR control numbers issued by OMB for various regulations to list the first three years of information requirements contained in this final rule.

B. Executive Order 12866

Under Executive Order 12866, [58 FR 51,735 (October 4, 1993)] the Agency must determine whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

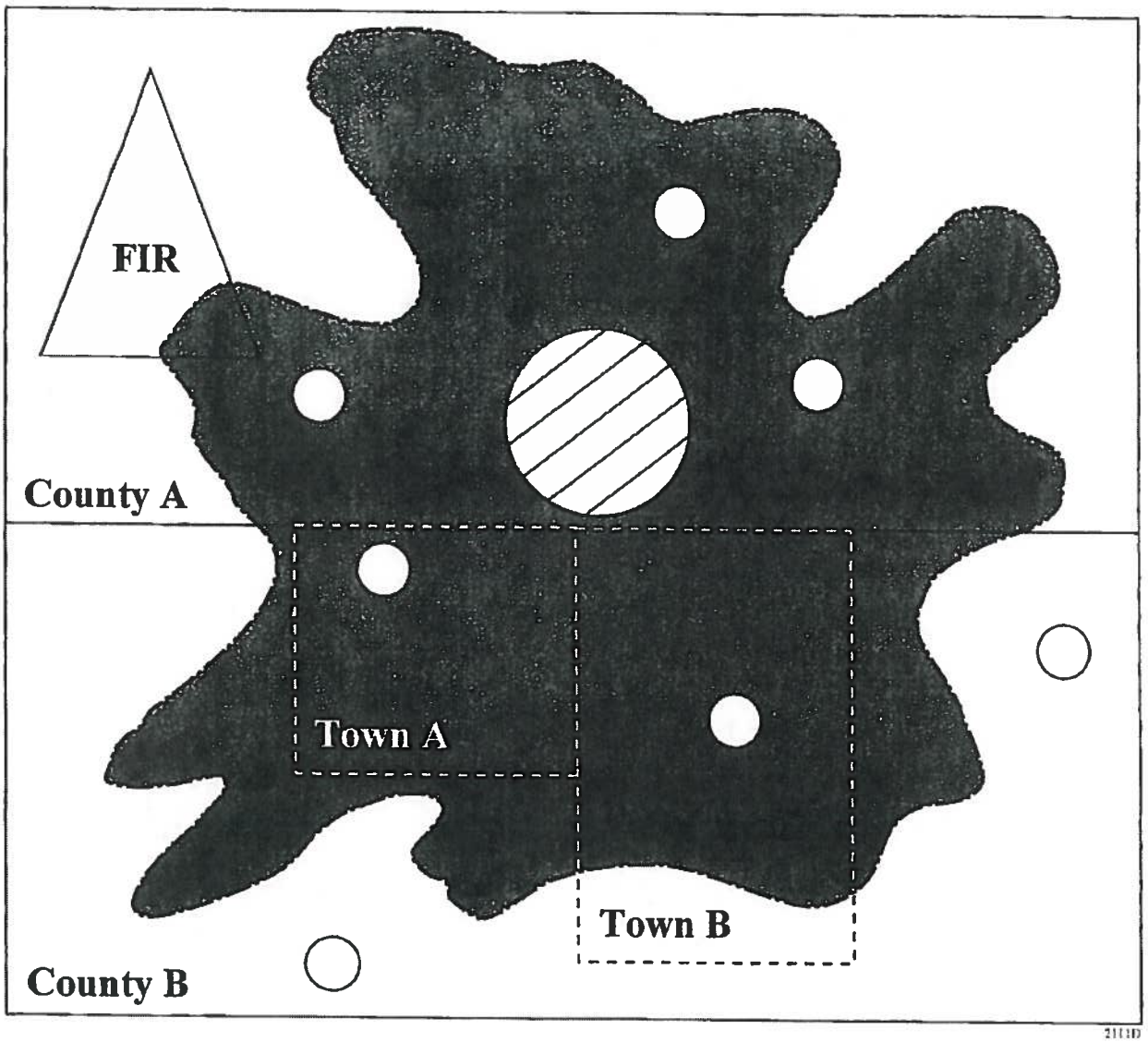
(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, it has been determined that this rule is a "significant regulatory action". As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

C. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a

APPENDIX 2 TO PREAMBLE—URBANIZED AREA ILLUSTRATION



Central Place

Incorporated Place

Federal Indian Reservation (FIR)

Unincorporated "Urbanized Area" Portion of a Town (MCD) or County

Urbanized Area

Town or Township as a functioning Minor Civil Division (MCD). An MCD is the primary subdivision of a County.

County

BILLING CODE 6560-50-C

Appendix 3 to the Preamble—Urbanized Areas of the United States and Puerto Rico

(Source: 1990 Census of Population and Housing, U.S. Bureau of the Census—This list is subject to change with the Decennial Census)

Alabama

Anniston
Auburn-Opelika
Birmingham
Columbus, GA–AL
Decatur
Dothan
Florence
Gadsden
Huntsville
Mobile
Montgomery
Tuscaloosa

Alaska

Anchorage

Arizona

Phoenix
Tucson
Yuma, AZ–CA

Arkansas

Fayetteville-Springdale
Fort Smith, AR–OK
Little Rock-North Little Rock
Memphis, TN–AR–MS
Pine Bluff
Texarkana, AR–TX

California

Antioch-Pittsburgh
Bakersfield
Chico
Davis
Fairfield
Fresno
Hemet-San Jacinto
Hesperia-Apple Valley-Victorville
Indio-Coachella
Lancaster-Palmdale
Lodi
Lompoc
Los Angeles
Merced
Modesto
Napa
Oxnard-Ventura
Palm Springs
Redding
Riverside-San Bernardino
Sacramento
Salinas
San Diego
San Francisco-Oakland
San Jose
San Luis Obispo
Santa Barbara
Santa Cruz
Santa Maria
Santa Rosa
Seaside-Monterey
Simi Valley
Stockton
Vacaville
Visalia
Watsonville
Yuba City
Yuma

Colorado

Boulder
Colorado Springs
Denver
Fort Collins
Grand Junction
Greeley
Longmont
Pueblo

Connecticut

Bridgeport-Milford
Bristol
Danbury, CT–NY
Hartford-Middletown
New Britain
New Haven-Meriden
New London-Norwich
Norwalk
Springfield, MA–CT
Stamford, CT–NY
Waterbury
Worcester, MA–CT

Delaware

Dover
Wilmington, DE–NJ–MD–PA

District of Columbia

Washington, DC–MD–VA

Florida

Daytona Beach
Deltona
Fort Lauderdale-Hollywood-Pompano Beach
Fort Myers-Cape Coral
Fort Pierce
Fort Walton Beach
Gainesville
Jacksonville
Kissimmee
Lakeland
Melbourne-Palm Bay
Miami-Hialeah
Naples
Ocala
Orlando
Panama City
Pensacola
Punta Gorda
Sarasota-Bradenton
Spring Hill
Stuart
Tallahassee
Tampa-St. Petersburg-Clearwater
Titusville
Vero Beach
West Palm Beach-Boca Raton-Delray Beach
Winter Haven

Georgia

Albany
Athens
Atlanta
Augusta
Brunswick
Chattanooga
Columbus
Macon
Rome
Savannah
Warner Robins

Hawaii

Honolulu
Kailua

Idaho

Boise City
Idaho Falls
Pocatello

Illinois

Alton
Aurora
Beloit, WI–IL
Bloomington-Normal
Champaign-Urbana
Chicago, IL-Northwestern IN
Crystal Lake
Davenport-Rock Island-Moline, IA–IL
Decatur
Dubuque
Elgin
Joliet
Kankakee
Peoria
Rockford
Round Lake Beach-McHenry, IL–WI
St. Louis, MO–IL
Springfield

Indiana

Anderson
Bloomington
Chicago, IL-Northwestern IN
Elkhart-Goshen
Evansville, IN–KY
Fort Wayne
Indianapolis
Kokomo
Lafayette-West Lafayette
Louisville, KY–IN
Muncie
South Bend-Mishawaka, IN–MI
Terre Haute

Iowa

Cedar Rapids
Davenport-Rock Island-Moline, IA–IL
Des Moines
Dubuque, IA–IL–WI
Iowa City
Omaha, NE–IA
Sioux City, IA–NE–SD
Waterloo-Cedar Falls

Kansas

Kansas City, MO–KS
Lawrence
St. Joseph, MO–KS
Topeka
Wichita

Kentucky

Cincinnati, OH–KY
Clarksville, TN–KY
Evansville, IN–KY
Huntington-Ashland, WV–KY–OH
Lexington-Fayette
Louisville, KY–IN
Owensboro

Louisiana

Alexandria
Baton Rouge
Houma
Lafayette
Lake Charles
Monroe
New Orleans
Shreveport

4. Construction site storm water runoff control

5. Post-construction storm water management in new development and redevelopment

6. Pollution prevention/good housekeeping for municipal operations

EPA will provide guidance and recommend, but not mandate, certain BMPs for some of the minimum control measures listed above. States can provide guidance to supplement or supplant EPA guidance.

Small MS4s can identify the measurable goals for each of the minimum control measures listed above. In their reports to the NPDES permitting authority, the small MS4s must evaluate their progress towards achievement of their identified measurable goals.

Waivers for Small Entities From Coverage

The rule allows permitting authorities to waive from coverage MS4s operated by small governmental jurisdictions located within an urbanized area and serving a population less than 1,000 people where the permitting authority has determined the MS4 is not contributing substantially to the pollutant loadings of an interconnected MS4 and, if the MS4 discharges pollutants that have been identified as a cause of impairment in the receiving water of the MS4 then the permitting authority has determined that storm water controls are not needed based on a TMDL that addresses the pollutants of concern.

The rule allows the permitting authority to waive from coverage MS4s serving a population under 10,000 where the permitting authority has evaluated all waters that receive a discharge from the MS4 and the permitting authority has determined that storm water controls are not needed based on a TMDL that addresses the pollutants of concern and future discharges do not have the potential to result in exceedances of water quality standards.

B. Regulatory Flexibility for Small Construction Activities

Different Compliance, Reporting, or Timetables That Are Responsive to Resources of Small Entities

The rule gives NPDES permitting authorities discretion not to require the submittal of a notice of intent (NOI) for coverage under a NPDES general permit, thereby reducing administrative and financial burden. All construction sites disturbing greater than 5 acres must submit an NOI.

Clarifying, Consolidating, or Simplifying Compliance and Reporting Requirements

The rule avoids duplication by allowing the NPDES permitting authority to incorporate by reference State, Tribal, or local programs under a NPDES general permit. Compliance with these programs is considered compliance with the NPDES general permit.

Performance Rather Than Design Standards for Small Entities

The operator of a covered construction activity selects and implement the BMPs most appropriate for the construction site based on the operator's storm water pollution prevention plan.

Waivers for Small Entities From Coverage

Waivers could be granted based on the use of a rainfall erosivity factor or a comprehensive analysis of water quality impacts.

(A) *Low rainfall waiver:* When the rainfall erosivity factor ("R" from Revised Universal Soil Loss Equation) is less than 5 during the period of construction activity, a permit is not required.

(B) *Determination based on Water Quality Analysis:* The NPDES permitting authority can waive from coverage construction activities disturbing from 1 acre up to 5 acres of land where storm water controls are not needed based on:

1. A TMDL approved or established by EPA that addresses the pollutants of concern, or

2. For non-impaired waters, an equivalent analysis that determines that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety.

C. Regulatory Flexibility for Industrial/ Commercial Facilities

Waivers for Small Entities From Coverage

The rule provides a "no-exposure" waiver provision for Phase I industrial/commercial facilities. Qualifying facilities seeking this provision simply need to complete a self-certification form indicating that no industrial materials or activities are exposed to rain, snow, snow melt and/or runoff.

Appendix 6 of Preamble—Governmental Entities Located Fully or Partially Within an Urbanized Area

(This is a reference list only, *not* a list of all operators of small MS4s subject to §§ 122.32–122.36. For example, a listed governmental entity is only regulated if it operates a small MS4 within an "urbanized area" boundary as determined by the Bureau of the Census. Furthermore, entities such as military bases, large hospitals, prison complexes, universities, sewer districts, and highway departments that operate a small MS4 within an urbanized area are also subject to the permitting regulations but are not individually listed here. See § 122.26(b)(16) for the definition of a small MS4 and § 122.32(a) for the definition of a regulated small MS4.)

(Source: 1990 Census of Population and Housing, U.S. Bureau of the Census. This list is subject to change with the Decennial Census)

AL Anniston city
AL Attalla city
AL Auburn city
AL Autauga County
AL Blue Mountain town
AL Calhoun County
AL Colbert County
AL Dale County
AL Decatur city
AL Dothan city
AL Elmore County
AL Etowah County
AL Flint City town
AL Florence city
AL Gadsden city
AL Glencoe city
AL Grimes town
AL Hartselle city
AL Hobson City town
AL Hokes Bluff city
AL Houston County
AL Kinsey town
AL Lauderdale County
AL Lee County
AL Limestone County
AL Madison County
AL Midland City town
AL Montgomery County
AL Morgan County
AL Muscle Shoals city
AL Napier Field town
AL Northport city
AL Opelika city
AL Oxford city
AL Phenix City city
AL Prattville city
AL Priceville town
AL Rainbow City city
AL Russell County
AL Sheffield city
AL Southside city
AL Sylvan Springs town
AL Talladega County
AL Tuscaloosa city
AL Tuscaloosa County
AL Tuscumbia city
AL Weaver city
AR Alexander town
AR Barling city
AR Benton County
AR Cammack Village city
AR Crawford County
AR Crittenden County
AR Farmington city
AR Fayetteville city
AR Fort Smith city
AR Greenland town
AR Jacksonville city
AR Jefferson County
AR Johnson city
AR Marion city
AR Miller County
AR North Little Rock city
AR Pine Bluff city
AR Pulaski County
AR Saline County
AR Sebastian County
AR Shannon Hills city
AR Sherwood city
AR Springdale city
AR Sunset town
AR Texarkana city
AR Van Buren city
AR Washington County
AR West Memphis city
AR White Hall city
AZ Apache Junction city
AZ Chandler city
AZ El Mirage town
AZ Gilbert town
AZ Guadalupe town
AZ Maricopa County
AZ Oro Valley town
AZ Paradise Valley town
AZ Peoria city
AZ Pinal County

IL Burritt township
IL Burton township
IL Cahokia village
IL Calumet City city
IL Calumet Park village
IL Calumet township
IL Canteen township
IL Capital township
IL Carbon Cliff village
IL Carol Stream village
IL Carpentersville Village
IL Cary village
IL Caseyville township
IL Caseyville village
IL Centreville city
IL Centreville township
IL Champaign city
IL Champaign County
IL Champaign township
IL Channahon township
IL Cherry Valley township
IL Cherry Valley village
IL Chicago city
IL Chicago Heights city
IL Chicago Ridge village
IL Chouteau township
IL Cicero town
IL Cincinnati township
IL Clarendon Hills village
IL Coal Valley township
IL Coal Valley village
IL Collinsville city
IL Collinsville township
IL Colona township
IL Colona village
IL Columbia city
IL Country Club Hills city
IL Countryside city
IL Crest Hill city
IL Crestwood village
IL Crete township
IL Crete village
IL Creve Coeur village
IL Crystal Lake city
IL Cuba township
IL Curran township
IL Darien city
IL Decatur city
IL Decatur township
IL Deer Park village
IL Deerfield township
IL Deerfield village
IL Des Plaines city
IL Dixmoor village
IL Dolton village
IL Dorr township
IL Downers Grove township
IL Downers Grove village
IL Dry Grove township
IL Du Page township
IL Dundee township
IL Dunleith township
IL Dupo village
IL East Alton village
IL East Dubuque city
IL East Dundee village
IL East Hazel Crest village
IL East Moline city
IL East Peoria city
IL East St. Louis city
IL Edwardsville city
IL Edwardsville township
IL Ela township
IL Elgin city
IL Elgin township
IL Elk Grove township
IL Elk Grove Village village
IL Elm Grove township
IL Elmhurst city
IL Elmwood Park village
IL Evanston city
IL Evergreen Park village
IL Fairmont City village
IL Fairview Heights city
IL Flossmoor village
IL Fondulac township
IL Ford Heights village
IL Forest Park village
IL Forest View village
IL Forsyth village
IL Fort Russell township
IL Foster township
IL Fox Lake village
IL Fox River Grove village
IL Frankfort township
IL Frankfort village
IL Franklin Park village
IL Fremont township
IL Gardner township
IL Geneva city
IL Geneva township
IL Gilberts village
IL Glen Carbon village
IL Glen Ellyn village
IL Glencoe village
IL Glendale Heights village
IL Glenview village
IL Glenwood village
IL Godfrey township
IL Golf village
IL Grafton township
IL Grandview village
IL Granite City city
IL Grant township
IL Grayslake village
IL Green Oaks village
IL Green Rock city
IL Groveland township
IL Gurnee village
IL Hainesville village
IL Hampton township
IL Hampton village
IL Hanna township
IL Hanover Park village
IL Hanover township
IL Harlem township
IL Harristown township
IL Harristown village
IL Hartford village
IL Harvey city
IL Harwood Heights village
IL Hawthorn Woods village
IL Hazel Crest village
IL Henry County
IL Hensley township
IL Hickory Hills city
IL Hickory Point township
IL Highland Park city
IL Highwood city
IL Hillside village
IL Hinsdale village
IL Hodgkins village
IL Hoffman Estates village
IL Hollis township
IL Homer township
IL Hometown city
IL Homewood village
IL Indian Creek village
IL Indian Head Park village
IL Inverness village
IL Itasca village
IL Jarvis township
IL Jerome village
IL Jo Daviess County
IL Joliet city
IL Joliet township
IL Justice village
IL Kane County
IL Kankakee city
IL Kankakee County
IL Kankakee township
IL Kendall County
IL Kenilworth village
IL Kickapoo township
IL Kildeer village
IL La Grange Park village
IL La Grange village
IL Lake Barrington village
IL Lake Bluff village
IL Lake Forest city
IL Lake in the Hills village
IL Lake Villa township
IL Lake Villa village
IL Lake Zurich village
IL Lakemoor village
IL Lakewood village
IL Lansing village
IL Leland Grove city
IL Lemont township
IL Leyden township
IL Libertyville township
IL Libertyville village
IL Limestone township
IL Lincolnshire village
IL Lincolnwood village
IL Lindenhurst village
IL Lisle township
IL Lisle village
IL Lockport city
IL Lockport township
IL Lombard village
IL Long Creek township
IL Long Grove village
IL Loves Park city
IL Lynwood village
IL Lyons township
IL Lyons village
IL Machesney Park village
IL Macon County
IL Madison city
IL Madison County
IL Maine township
IL Markham city
IL Marquette Heights city
IL Maryville village
IL Matteson village
IL Maywood village
IL McCook village
IL McCullom Lake village
IL McHenry city
IL McHenry County
IL McHenry township
IL McLean County
IL Medina township
IL Melrose Park village
IL Merrionette Park village
IL Midlothian village
IL Milan village
IL Milton township
IL Moline city
IL Moline township
IL Monee township
IL Monroe County
IL Montgomery village
IL Moro township
IL Morton Grove village
IL Morton township
IL Morton village

separate storm sewer systems, primary industrial facilities, and storm water discharges associated with industrial activity, may, at the discretion of the Director, be authorized to discharge under a general permit without submitting a notice of intent where the Director finds that a notice of intent requirement would be inappropriate. In making such a finding, the Director shall consider: the type of discharge; the expected nature of the discharge; the potential for toxic and conventional pollutants in the discharges; the expected volume of the discharges; other means of identifying discharges covered by the permit; and the estimated number of discharges to be covered by the permit. The Director shall provide in the public notice of the general permit the reasons for not requiring a notice of intent.

* * * * *

5. Add §§ 122.30 through 122.37 to subpart B to read as follows:

§ 122.30 What are the objectives of the storm water regulations for small MS4s?

(a) Sections 122.30 through 122.37 are written in a "readable regulation" format that includes both rule requirements and EPA guidance that is not legally binding. EPA has clearly distinguished its recommended guidance from the rule requirements by putting the guidance in a separate paragraph headed by the word "guidance".

(b) Under the statutory mandate in section 402(p)(6) of the Clean Water Act, the purpose of this portion of the storm water program is to designate additional sources that need to be regulated to protect water quality and to establish a comprehensive storm water program to regulate these sources. (Because the storm water program is part of the National Pollutant Discharge Elimination System (NPDES) Program, you should also refer to § 122.1 which addresses the broader purpose of the NPDES program.)

(c) Storm water runoff continues to harm the nation's waters. Runoff from lands modified by human activities can harm surface water resources in several ways including by changing natural hydrologic patterns and by elevating pollutant concentrations and loadings. Storm water runoff may contain or mobilize high levels of contaminants, such as sediment, suspended solids, nutrients, heavy metals, pathogens, toxins, oxygen-demanding substances, and floatables.

(d) EPA strongly encourages partnerships and the watershed approach as the management framework for efficiently, effectively, and consistently protecting and restoring aquatic ecosystems and protecting public health.

§ 122.31 As a Tribe, what is my role under the NPDES storm water program?

As a Tribe you may:

(a) Be authorized to operate the NPDES program including the storm water program, after EPA determines that you are eligible for treatment in the same manner as a State under §§ 123.31 through 123.34 of this chapter. (If you do not have an authorized NPDES program, EPA implements the program for discharges on your reservation as well as other Indian country, generally.);

(b) Be classified as an owner of a regulated small MS4, as defined in § 122.32. (Designation of your Tribe as an owner of a small MS4 for purposes of this part is an approach that is consistent with EPA's 1984 Indian Policy of operating on a government-to-government basis with EPA looking to Tribes as the lead governmental authorities to address environmental issues on their reservations as appropriate. If you operate a separate storm sewer system that meets the definition of a regulated small MS4, you are subject to the requirements under §§ 122.33 through 122.35. If you are not designated as a regulated small MS4, you may ask EPA to designate you as such for the purposes of this part.); or

(c) Be a discharger of storm water associated with industrial activity or small construction activity under §§ 122.26(b)(14) or (b)(15), in which case you must meet the applicable requirements. Within Indian country, the NPDES permitting authority is generally EPA, unless you are authorized to administer the NPDES program.

§ 122.32 As an operator of a small MS4, am I regulated under the NPDES storm water program?

(a) Unless you qualify for a waiver under paragraph (c) of this section, you are regulated if you operate a small MS4, including but not limited to systems operated by federal, State, Tribal, and local governments, including State departments of transportation; and:

(1) Your small MS4 is located in an urbanized area as determined by the latest Decennial Census by the Bureau of the Census (If your small MS4 is not located entirely within an urbanized area, only the portion that is within the urbanized area is regulated); or

(2) You are designated by the NPDES permitting authority, including where the designation is pursuant to §§ 123.35(b)(3) and (b)(4) of this chapter, or is based upon a petition under § 122.26(f).

(b) You may be the subject of a petition to the NPDES permitting authority to require an NPDES permit for your discharge of storm water. If the NPDES permitting authority determines that you need a permit, you are required to comply with §§ 122.33 through 122.35.

(c) The NPDES permitting authority may waive the requirements otherwise applicable to you if you meet the criteria of paragraph (d) or (e) of this section. If you receive a waiver under this section, you may subsequently be required to seek coverage under an NPDES permit in accordance with § 122.33(a) if circumstances change. (See also § 123.35(b) of this chapter.)

(d) The NPDES permitting authority may waive permit coverage if your MS4 serves a population of less than 1,000 within the urbanized area and you meet the following criteria:

(1) Your system is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated by the NPDES storm water program (see § 123.35(b)(4) of this chapter); and

(2) If you discharge any pollutant(s) that have been identified as a cause of impairment of any water body to which you discharge, storm water controls are not needed based on wasteload allocations that are part of an EPA approved or established "total maximum daily load" (TMDL) that addresses the pollutant(s) of concern.

(e) The NPDES permitting authority may waive permit coverage if your MS4 serves a population under 10,000 and you meet the following criteria:

(1) The permitting authority has evaluated all waters of the U.S., including small streams, tributaries, lakes, and ponds, that receive a discharge from your MS4;

(2) For all such waters, the permitting authority has determined that storm water controls are not needed based on wasteload allocations that are part of an EPA approved or established TMDL that addresses the pollutant(s) of concern or, if a TMDL has not been developed or approved, an equivalent analysis that determines sources and allocations for the pollutant(s) of concern;

(3) For the purpose of this paragraph (e), the pollutant(s) of concern include biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from your MS4; and

(4) The permitting authority has determined that future discharges from your MS4 do not have the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

§ 122.33 If I am an operator of a regulated small MS4, how do I apply for an NPDES permit and when do I have to apply?

(a) If you operate a regulated small MS4 under § 122.32, you must seek coverage under a NPDES permit issued by your NPDES permitting authority. If you are located in an NPDES authorized State, Tribe, or Territory, then that State, Tribe, or Territory is your NPDES permitting authority. Otherwise, your NPDES permitting authority is the EPA Regional Office.

(b) You must seek authorization to discharge under a general or individual NPDES permit, as follows:

(1) If your NPDES permitting authority has issued a general permit applicable to your discharge and you are seeking coverage under the general permit, you must submit a Notice of Intent (NOI) that includes the information on your best management practices and measurable goals required by § 122.34(d). You may file your own NOI, or you and other municipalities or governmental entities may jointly submit an NOI. If you want to share responsibilities for meeting the minimum measures with other municipalities or governmental entities, you must submit an NOI that describes which minimum measures you will implement and identify the entities that will implement the other minimum measures within the area served by your MS4. The general permit will explain any other steps necessary to obtain permit authorization.

(2)(i) If you are seeking authorization to discharge under an individual permit and wish to implement a program under § 122.34, you must submit an application to your NPDES permitting authority that includes the information required under §§ 122.21(f) and 122.34(d), an estimate of square mileage served by your small MS4, and any additional information that your NPDES permitting authority requests. A storm sewer map that satisfies the requirement of § 122.34(b)(3)(i) will satisfy the map requirement in § 122.21(f)(7).

(ii) If you are seeking authorization to discharge under an individual permit and wish to implement a program that is different from the program under § 122.34, you will need to comply with the permit application requirements of § 122.26(d). You must submit both Parts of the application requirements in §§ 122.26(d)(1) and (2) by March 10, 2003. You do not need to submit the information required by §§ 122.26(d)(1)(ii) and (d)(2) regarding your legal authority, unless you intend for the permit writer to take such information into account when developing your other permit conditions.

(iii) If allowed by your NPDES permitting authority, you and another regulated entity may jointly apply under either paragraph (b)(2)(i) or (b)(2)(ii) of this section to be co-permittees under an individual permit.

(3) If your small MS4 is in the same urbanized area as a medium or large MS4 with an NPDES storm water permit and that other MS4 is willing to have you participate in its storm water program, you and the other MS4 may jointly seek a modification of the other MS4 permit to include you as a limited co-permittee. As a limited co-permittee, you will be responsible for compliance with the permit's conditions applicable to your jurisdiction. If you choose this option you will need to comply with the permit application requirements of § 122.26, rather than the requirements of § 122.34. You do not need to comply with the specific application requirements of § 122.26(d)(1)(iii) and (iv) and (d)(2)(iii) (discharge characterization). You may satisfy the requirements in § 122.26 (d)(1)(v) and (d)(2)(iv) (identification of a management program) by referring to the other MS4's storm water management program.

(4) Guidance: In referencing an MS4's storm water management program, you should briefly describe how the existing plan will address discharges from your small MS4 or would need to be supplemented in order to adequately address your discharges. You should also explain your role in coordinating storm water pollutant control activities in your MS4, and detail the resources available to you to accomplish the plan.

(c) If you operate a regulated small MS4:

(1) Designated under § 122.32(a)(1), you must apply for coverage under an NPDES permit, or apply for a modification of an existing NPDES permit under paragraph (b)(3) of this section by March 10, 2003, unless your MS4 serves a jurisdiction with a population under 10,000 and the NPDES permitting authority has established a phasing schedule under § 123.35(d)(3) of this chapter.

(2) Designated under § 122.32(a)(2), you must apply for coverage under an NPDES permit, or apply for a modification of an existing NPDES permit under paragraph (b)(3) of this section, within 180 days of notice, unless the NPDES permitting authority grants a later date.

§ 122.34 As an operator of a regulated small MS4, what will my NPDES MS4 storm water permit require?

(a) Your NPDES MS4 permit will require at a minimum that you develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from your MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. Your storm water management program must include the minimum control measures described in paragraph (b) of this section unless you apply for a permit under § 122.26(d). For purposes of this section, narrative effluent limitations requiring implementation of best management practices (BMPs) are generally the most appropriate form of effluent limitations when designed to satisfy technology requirements (including reductions of pollutants to the maximum extent practicable) and to protect water quality. Implementation of best management practices consistent with the provisions of the storm water management program required pursuant to this section and the provisions of the permit required pursuant to § 122.33 constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable." Your NPDES permitting authority will specify a time period of up to 5 years from the date of permit issuance for you to develop and implement your program.

(b) *Minimum control measures*—(1) *Public education and outreach on storm water impacts.* (i) You must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

(ii) Guidance: You may use storm water educational materials provided by your State, Tribe, EPA, environmental, public interest or trade organizations, or other MS4s. The public education program should inform individuals and households about the steps they can take to reduce storm water pollution, such as ensuring proper septic system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting and restoring riparian vegetation, and properly disposing of used motor oil or

household hazardous wastes. EPA recommends that the program inform individuals and groups how to become involved in local stream and beach restoration activities as well as activities that are coordinated by youth service and conservation corps or other citizen groups. EPA recommends that the public education program be tailored, using a mix of locally appropriate strategies, to target specific audiences and communities. Examples of strategies include distributing brochures or fact sheets, sponsoring speaking engagements before community groups, providing public service announcements, implementing educational programs targeted at school age children, and conducting community-based projects such as storm drain stenciling, and watershed and beach cleanups. In addition, EPA recommends that some of the materials or outreach programs be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant storm water impacts. For example, providing information to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges. You are encouraged to tailor your outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children.

(2) *Public involvement/participation.* (i) You must, at a minimum, comply with State, Tribal and local public notice requirements when implementing a public involvement/participation program.

(ii) Guidance: EPA recommends that the public be included in developing, implementing, and reviewing your storm water management program and that the public participation process should make efforts to reach out and engage all economic and ethnic groups. Opportunities for members of the public to participate in program development and implementation include serving as citizen representatives on a local storm water management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other pre-existing programs, or participating in volunteer monitoring efforts. (Citizens should obtain approval where necessary for lawful access to monitoring sites.)

(3) *Illicit discharge detection and elimination.* (i) You must develop, implement and enforce a program to detect and eliminate illicit discharges (as defined at § 122.26(b)(2)) into your small MS4.

(ii) You must:

(A) Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls;

(B) To the extent allowable under State, Tribal or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into your storm sewer system and implement appropriate enforcement procedures and actions;

(C) Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to your system; and

(D) Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

(iii) You need address the following categories of non-storm water discharges or flows (i.e., illicit discharges) only if you identify them as significant contributors of pollutants to your small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water (discharges or flows from fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as significant sources of pollutants to waters of the United States).

(iv) Guidance: EPA recommends that the plan to detect and address illicit discharges include the following four components: procedures for locating priority areas likely to have illicit discharges; procedures for tracing the source of an illicit discharge; procedures for removing the source of the discharge; and procedures for program evaluation and assessment. EPA recommends visually screening outfalls during dry weather and conducting field tests of selected pollutants as part of the procedures for locating priority areas. Illicit discharge education actions may include storm drain stenciling, a program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials.

(4) *Construction site storm water runoff control.* (i) You must develop, implement, and enforce a program to reduce pollutants in any storm water runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If the NPDES permitting authority waives requirements for storm water discharges associated with small construction activity in accordance with § 122.26(b)(15)(i), you are not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites.

(ii) Your program must include the development and implementation of, at a minimum:

(A) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal, or local law;

(B) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;

(C) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

(D) Procedures for site plan review which incorporate consideration of potential water quality impacts;

(E) Procedures for receipt and consideration of information submitted by the public, and

(F) Procedures for site inspection and enforcement of control measures.

(iii) Guidance: Examples of sanctions to ensure compliance include non-monetary penalties, fines, bonding requirements and/or permit denials for non-compliance. EPA recommends that procedures for site plan review include the review of individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements. Procedures for site inspections and enforcement of control measures could include steps to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and receiving

water quality. You are encouraged to provide appropriate educational and training measures for construction site operators. You may wish to require a storm water pollution prevention plan for construction sites within your jurisdiction that discharge into your system. See § 122.44(s) (NPDES permitting authorities' option to incorporate qualifying State, Tribal and local erosion and sediment control programs into NPDES permits for storm water discharges from construction sites). Also see § 122.35(b) (The NPDES permitting authority may recognize that another government entity, including the permitting authority, may be responsible for implementing one or more of the minimum measures on your behalf.)

(5) *Post-construction storm water management in new development and redevelopment.*

(i) You must develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into your small MS4. Your program must ensure that controls are in place that would prevent or minimize water quality impacts.

(ii) You must:

(A) Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for your community;

(B) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law; and

(C) Ensure adequate long-term operation and maintenance of BMPs.

(iii) Guidance: If water quality impacts are considered from the beginning stages of a project, new development and potentially redevelopment provide more opportunities for water quality protection. EPA recommends that the BMPs chosen: be appropriate for the local community; minimize water quality impacts; and attempt to maintain pre-development runoff conditions. In choosing appropriate BMPs, EPA encourages you to participate in locally-based watershed planning efforts which attempt to involve a diverse group of stakeholders including interested citizens. When developing a program that is consistent with this measure's intent, EPA recommends that you adopt a planning process that identifies the municipality's program goals (*e.g.*, minimize water quality impacts resulting from post-construction runoff from new development and redevelopment), implementation strategies (e.g., adopt a combination of structural and/or non-structural BMPs), operation and maintenance policies and procedures, and enforcement procedures. In developing your program, you should consider assessing existing ordinances, policies, programs and studies that address storm water runoff quality. In addition to assessing these existing documents and programs, you should provide opportunities to the public to participate in the development of the program. Non-structural BMPs are preventative actions that involve management and source controls such as: policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; policies or ordinances that encourage infill development in higher density urban areas, and areas with existing infrastructure; education programs for developers and the public about project designs that minimize water quality impacts; and measures such as minimization of percent impervious area after development and minimization of directly connected impervious areas. Structural BMPs include: storage practices such as wet ponds and extended-detention outlet structures; filtration practices such as grassed swales, sand filters and filter strips; and infiltration practices such as infiltration basins and infiltration trenches. EPA recommends that you ensure the appropriate implementation of the structural BMPs by considering some or all of the following: pre-construction review of BMP designs; inspections during construction to verify BMPs are built as designed; post-construction inspection and maintenance of BMPs; and penalty provisions for the noncompliance with design, construction or operation and maintenance. Storm water technologies are constantly being improved, and EPA recommends that your requirements be responsive to these changes, developments or improvements in control technologies.

(6) *Pollution prevention/good housekeeping for municipal operations.*

(i) You must develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials that are available from EPA, your State, Tribe, or other organizations, your program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

(ii) Guidance: EPA recommends that, at a minimum, you consider the following in developing your program: maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural storm water controls to reduce floatables and other pollutants discharged from your separate storm sewers; controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by you, and waste transfer stations; procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris); and ways to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices. Operation and maintenance should be an integral component of all storm water management programs. This measure is intended to improve the efficiency of these programs and require new programs where necessary. Properly developed and implemented operation and maintenance programs reduce the risk of water quality problems.

(c) If an existing qualifying local program requires you to implement one or more of the minimum control measures of paragraph (b) of this section, the NPDES permitting authority may include conditions in your NPDES permit that direct you to follow that qualifying program's requirements rather than the requirements of paragraph (b) of this section. A qualifying local program is a local, State or Tribal municipal storm water management program that imposes, at a minimum, the relevant requirements of paragraph (b) of this section.

(d)(1) In your permit application (either a notice of intent for coverage

under a general permit or an individual permit application), you must identify and submit to your NPDES permitting authority the following information:

(i) The best management practices (BMPs) that you or another entity will implement for each of the storm water minimum control measures at paragraphs (b)(1) through (b)(6) of this section;

(ii) The measurable goals for each of the BMPs including, as appropriate, the months and years in which you will undertake required actions, including interim milestones and the frequency of the action; and

(iii) The person or persons responsible for implementing or coordinating your storm water management program.

(2) If you obtain coverage under a general permit, you are not required to meet any measurable goal(s) identified in your notice of intent in order to demonstrate compliance with the minimum control measures in paragraphs (b)(3) through (b)(6) of this section unless, prior to submitting your NOI, EPA or your State or Tribe has provided or issued a menu of BMPs that addresses each such minimum measure. Even if no regulatory authority issues the menu of BMPs, however, you still must comply with other requirements of the general permit, including good faith implementation of BMPs designed to comply with the minimum measures.

(3) Guidance: Either EPA or your State or Tribal permitting authority will provide a menu of BMPs. You may choose BMPs from the menu or select others that satisfy the minimum control measures.

(e)(1) You must comply with any more stringent effluent limitations in your permit, including permit requirements that modify, or are in addition to, the minimum control measures based on an approved total maximum daily load (TMDL) or equivalent analysis. The permitting authority may include such more stringent limitations based on a TMDL or equivalent analysis that determines such limitations are needed to protect water quality.

(2) Guidance: EPA strongly recommends that until the evaluation of the storm water program in § 122.37, no additional requirements beyond the minimum control measures be imposed on regulated small MS4s without the agreement of the operator of the affected small MS4, except where an approved TMDL or equivalent analysis provides adequate information to develop more specific measures to protect water quality.

(f) You must comply with other applicable NPDES permit requirements, standards and conditions established in the individual or general permit, developed consistent with the provisions of §§ 122.41 through 122.49, as appropriate.

(g) *Evaluation and assessment*—(1) *Evaluation.* You must evaluate program compliance, the appropriateness of your identified best management practices, and progress towards achieving your identified measurable goals.

Note to Paragraph (g)(1): The NPDES permitting authority may determine monitoring requirements for you in accordance with State/Tribal monitoring plans appropriate to your watershed. Participation in a group monitoring program is encouraged.

(2) *Recordkeeping.* You must keep records required by the NPDES permit for at least 3 years. You must submit your records to the NPDES permitting authority only when specifically asked to do so. You must make your records, including a description of your storm water management program, available to the public at reasonable times during regular business hours (see § 122.7 for confidentiality provision). (You may assess a reasonable charge for copying. You may require a member of the public to provide advance notice.)

(3) *Reporting.* Unless you are relying on another entity to satisfy your NPDES permit obligations under § 122.35(a), you must submit annual reports to the NPDES permitting authority for your first permit term. For subsequent permit terms, you must submit reports in year two and four unless the NPDES permitting authority requires more frequent reports. Your report must include:

(i) The status of compliance with permit conditions, an assessment of the appropriateness of your identified best management practices and progress towards achieving your identified measurable goals for each of the minimum control measures;

(ii) Results of information collected and analyzed, including monitoring data, if any, during the reporting period;

(iii) A summary of the storm water activities you plan to undertake during the next reporting cycle;

(iv) A change in any identified best management practices or measurable goals for any of the minimum control measures; and

(v) Notice that you are relying on another governmental entity to satisfy some of your permit obligations (if applicable).

§ 122.35 As an operator of a regulated small MS4, may I share the responsibility to implement the minimum control measures with other entities?

(a) You may rely on another entity to satisfy your NPDES permit obligations to implement a minimum control measure if:

(1) The other entity, in fact, implements the control measure;

(2) The particular control measure, or component thereof, is at least as stringent as the corresponding NPDES permit requirement; and

(3) The other entity agrees to implement the control measure on your behalf. In the reports you must submit under § 122.34(g)(3), you must also specify that you rely on another entity to satisfy some of your permit obligations. If you are relying on another governmental entity regulated under section 122 to satisfy all of your permit obligations, including your obligation to file periodic reports required by § 122.34(g)(3), you must note that fact in your NOI, but you are not required to file the periodic reports. You remain responsible for compliance with your permit obligations if the other entity fails to implement the control measure (or component thereof). Therefore, EPA encourages you to enter into a legally binding agreement with that entity if you want to minimize any uncertainty about compliance with your permit.

(b) In some cases, the NPDES permitting authority may recognize, either in your individual NPDES permit or in an NPDES general permit, that another governmental entity is responsible under an NPDES permit for implementing one or more of the minimum control measures for your small MS4 or that the permitting authority itself is responsible. Where the permitting authority does so, you are not required to include such minimum control measure(s) in your storm water management program. (For example, if a State or Tribe is subject to an NPDES permit that requires it to administer a program to control construction site runoff at the State or Tribal level and that program satisfies all of the requirements of § 122.34(b)(4), you could avoid responsibility for the construction measure, but would be responsible for the remaining minimum control measures.) Your permit may be reopened and modified to include the requirement to implement a minimum control measure if the entity fails to implement it.

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Office of Water (4203)
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Fact Sheet 3.0

Stormwater Phase II Final Rule

Small Construction Program Overview

The 1972 amendments to the Federal Water Pollution Control Act, later referred to as the Clean Water Act (CWA), prohibit the discharge of any pollutant to navigable waters of the United States from a point source unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. Efforts to improve water quality under the NPDES program traditionally have focused on reducing pollutants in industrial process wastewater and municipal sewage treatment plant discharges. Over time, it has become evident that more diffuse sources of water pollution, such as stormwater runoff from construction sites, are also significant contributors to water quality problems.

Sediment runoff rates from construction sites are typically 10 to 20 times greater than those from agricultural lands, and 1,000 to 2,000 times greater than those of forest lands. During a short period of time, construction activity can contribute more sediment to streams than can be deposited over several decades, causing physical and biological harm to our Nation's waters.

In 1990, EPA promulgated rules establishing Phase I of the NPDES stormwater program. Phase I addresses, among other discharges, discharges from large construction activities disturbing 5 acres or more of land. Phase II of the NPDES stormwater program covers small construction activities disturbing between 1 and 5 acres. Phase II became final on December 8, 1999 and small construction permit applications were due by March 10, 2003 (specific compliance dates will be set by the NPDES permitting authority in each State). This fact sheet outlines the construction activities covered by Phase I and Phase II, including possible waiver options from Phase II coverage, and the Phase II construction program requirements.

Who Is Covered Under the Phase I Rule?

Sites Five Acres and Greater

The Phase I NPDES stormwater rule identifies eleven categories of industrial activity in the definition of "stormwater discharges associated with industrial activity" that must obtain an NPDES permit. Category (x) of this definition is construction activity, commonly referred to as "large" construction activity. Under category (x), the Phase I rule requires all ***operators*** of construction activity ***disturbing 5 acres or greater of land*** to apply for an NPDES stormwater permit. Operators of sites disturbing less than 5 acres are also required to obtain a permit if their activity is part of a "larger common plan of development or sale" with a planned disturbance of 5 acres or greater. "Disturbance" refers to exposed soil resulting from activities such as clearing, grading, and excavating. Construction activities can include road building, construction of residential houses, office buildings, industrial sites, or demolition.

What Is Meant by a "Larger Common Plan of Development or Sale"?

As defined in EPA's NPDES stormwater general permit for construction activity, a "larger common plan of development or sale" means a contiguous area where multiple separate and distinct construction activities are occurring under one plan (e.g., the operator is building on three half-acre lots in a 6-acre development). The "plan" in a common plan of development or sale is broadly defined as any announcement or piece of documentation

(including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that construction activities may occur on a specific plot.

What Is the Definition of an "Operator" of a Construction Site?

As defined in EPA's stormwater general permit for construction activity, an "operator" is the party or parties that has:

- ❑ Operational control of construction project plans and specifications, including the ability to make modifications to those plans and specifications; *or*
- ❑ Day-to-day operational control of those activities that are necessary to ensure compliance with a stormwater pollution prevention plan (SWPPP) for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

There may be more than one party at a site performing the tasks related to "operational control" as defined above. Depending on the site and the relationship between the parties (e.g., owner, developer, contractor), there can either be a single party acting as site operator and consequently be responsible for obtaining permit coverage, or there can be two or more operators, all obligated to seek permit coverage. It is important to note that NPDES-authorized States may use a different definition of "operator" than the one above.

How Is the Phase II Construction Rule Related to the Phase I Construction Rule?

In 1992, the Ninth Circuit court remanded for further proceedings portions of EPA's existing Phase I stormwater regulation related to the category (x) discharges from large construction activity (NRDC v. EPA, 966 F.2d at 1292). EPA responded to the court's decision by designating under Phase II stormwater discharges from construction activity disturbing less than 5 acres as sources that should be regulated to protect water quality. The Phase II Rule designates these sources as "stormwater discharges associated with *small construction* activity," rather than as another category under "stormwater associated with *industrial* activity."

Who Is Covered Under the Phase II Construction Rule?

Sites Between One and Five Acres

The Stormwater Phase II Rule automatically designates, as small construction activity under the NPDES stormwater permitting program, all operators of construction site activities that result in a ***land disturbance of equal to or greater than 1 and less than 5 acres.***

Sites Less Than One Acre

Site activities disturbing less than 1 acre are also regulated as small construction activity if they are part of a larger common plan of development or sale with a planned disturbance of equal to or greater than 1 acre and less than 5 acres, or if they are designated by the NPDES permitting authority. The NPDES permitting authority or EPA Region may designate construction activities disturbing less than 1 acre based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the United States.

Are Waivers Available for Operators of Regulated Construction Activity?

Yes, but only for small, not large, construction activity. Under the Phase II Rule, NPDES permitting authorities have the option of providing a waiver from the requirements to operators of small construction activity who certify to either one of two conditions:

❶ Low predicted rainfall potential (i.e., activity occurs during a negligible rainfall period), where the rainfall erosivity factor ("R" in the Revised Universal Soil Loss Equation [RUSLE]) is less than 5 during the period of construction activity (See Fact Sheet 3.1); *or*

❷ A determination that stormwater controls are not necessary based on either:

(A) A "total maximum daily load" (TMDL) that address the pollutant(s) of concern for construction activities; **OR**

(B) An equivalent analysis that determines allocations are not needed to protect water quality based on consideration of instream concentrations, expected growth in pollutant concentrations from all sources, and a margin of safety.

> ***Pollutants of concern*** include sediment or a parameter that addresses sediment (such as total suspended solids, turbidity, or siltation) and any other pollutant that has been identified as a cause of impairment of a receiving waterbody.

The intent of the waiver provision is to waive only those sites that are highly unlikely to have a negative effect on water quality. Therefore, before applying for a waiver, operators of small construction activity are encouraged to consider the potential water quality impacts that may result from their project and to carefully examine such factors as proximity to water resources and sensitivity of receiving waters.

a. *What is the Rainfall Erosivity Factor in Waiver ❶?*

Waiver ❶ uses the Rainfall Erosivity Factor to determine whether the potential for polluted discharge is low enough to justify a waiver from the requirements. It is one of six variables used by the Revised Universal Soil Loss Equation (RUSLE)—a predictive tool originally used to measure soil loss from agricultural lands at various times of the year on a regional basis—to predict soil loss from construction sites. The Rainfall Erosivity Factor waiver is time-sensitive and is dependent on when during the year a construction activity takes place, how long it lasts, and the expected rainfall and intensity during that time. For information about the rainfall erosivity waiver, see Fact Sheet 3.1. An erosivity calculator for construction sites is available at http://ei.tamu.edu.

b. *What is a "TMDL" in Waiver ❷?*

For impaired waters where technology-based controls required by NPDES permits are not achieving State water quality standards, the CWA requires implementation of the TMDL process. The TMDL process establishes the maximum amount of pollutants a waterbody can assimilate before water quality is impaired, then requires that this maximum level not be exceeded.

A TMDL is done for each pollutant that is found to be contributing to the impairment of a waterbody or a segment of a waterbody. To allow a waiver for construction activities, a TMDL would need to address sediment, or a parameter that addresses sediment such as total suspended solids, turbidity, or siltation. Additional TMDLs addressing common pollutants from construction sites such as nitrogen, phosphorus, and oil and grease also may be necessary to ensure water quality protection and allow a waiver from the NPDES stormwater program.

A TMDL assessment determines the source or sources of a pollutant of concern, considers the maximum allowable level of that pollutant for the waterbody, then allocates to each source or category of sources a set level of the pollutant that it is allowed to discharge into the waterbody. Allocations to point sources are called wasteload allocations.

How Would an Operator Qualify for, and Certify to, Waiver ❷?

EPA expects that when TMDLs or equivalent analyses are completed, there may be a determination that certain classes of sources, such as small construction activity, would not have to control their contribution of pollutants of concern to the waterbody in order for the waterbody to be in attainment with water quality standards (i.e., these sources were not assigned wasteload allocations). In such a case, to qualify for waiver ❷, the operator of the construction site would need to certify that its construction activity will take place, and the stormwater discharges will occur, within the area covered either by the TMDLs or equivalent analysis. A certification form would likely be provided by the NPDES permitting authority for this purpose.

What Does the Phase II Construction Program Require?

The Phase II Final Rule requires operators of Phase II small construction sites, nationally, to obtain an NPDES permit and implement practices to minimize pollutant runoff. It is important to note that, locally, these same sites also may be covered by State, Tribal, or local construction runoff control programs (see Fact Sheets 2.6 and 2.7 for information on the Phase II small MS4's construction program). For the Phase II small construction program, EPA has taken an approach similar to Phase I where the program requirements are not fully defined in the rule but rather in the NPDES permit issued by the NPDES permitting authority.

EPA recommended that the NPDES permitting authorities use their existing Phase I large construction general permits as a guide to developing their Phase II small construction permits. In doing so, the Phase II requirements would be similar to the three general Phase I requirements summarized below.

- ❑ Submission of a ***Notice of Intent*** (NOI) that includes general information and a certification that the activity will not impact endangered or threatened species. This certification is unique to EPA's NOI and is not a requirement of most NPDES-delegated State's NOIs;
- ❑ The development and implementation of a ***Stormwater Pollution Prevention Plan*** (SWPPP) with appropriate BMPs to minimize the discharge of pollutants from the site; and

- ❑ Submission of a *Notice of Termination* (NOT) when final stabilization of the site has been achieved as defined in the permit or when another operator has assumed control of the site.

In July 2003, EPA issued a construction general permit that covers both large and small construction activities. This permit, supporting information, and guidance can be found at http://www.epa.gov/npdes/stormwater/cgp.

Can the Permitting Authority Reference a Qualifying Erosion and Sediment Control Program in NPDES Construction Permits?

Yes. The Phase II Rule allows the NPDES permitting authority to include in its NPDES permits for large and for small construction activity conditions that incorporate by reference qualifying State, Tribal, or local erosion and sediment control program requirements. A qualifying program must include the following requirements:

- ❑ Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;
- ❑ Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste that may cause adverse impacts to water quality;
- ❑ Requirements for construction site operators to develop and implement a stormwater pollution prevention plan; and
- ❑ Requirements to submit a site plan for review that incorporates consideration of potential water quality impacts.

In addition to the four elements above, a qualifying program for large construction activities must also include any additional requirements necessary to achieve the applicable technology-based standards of "Best Available Technology" (BAT) and "Best Conventional Technology" (BCT) based on the best professional judgment of the permit writer.

Should a State, Tribal, or local program include one or more, but not all, of the elements listed above, the permitting authority can reference the program in the permit, provided it also lists the missing element(s) as a condition in the permit.

What are Some Recommended BMPs for Small Construction Sites?

The approach and BMPs used for controlling pollutants in stormwater discharges from small construction sites may vary from those used for large sites since their characteristics can differ in many ways. For example, operators of small sites may have more limited access to qualified design personnel and technical information. Also, small sites may have less space for installing and maintaining certain BMPs.

As is the case with all construction sites, erosion and sediment control at small construction sites is best accomplished with proper planning, installation, and maintenance of controls. The following practices have shown to be efficient, cost effective, and versatile for small construction site operators to implement. The practices are divided into two categories: non-structural and structural.

❑ Non-Structural BMPs

- Minimizing Disturbance
- Preserving Natural Vegetation
- Good Housekeeping Practices

❑ Structural BMPs

Erosion Controls
- Mulch
- Grass
- Stockpile Covers

Sediment Controls
- Silt Fence
- Inlet Protection
- Check Dams
- Stabilized Construction Entrances
- Sediment Traps

Most erosion and sediment controls require regular maintenance to operate correctly. Accumulated sediments should be removed frequently and materials should be checked periodically for wear. Regular inspections by qualified personnel, which can allow problem areas to be addressed, should be performed after major rain events.

The BMPs listed above as well as additional erosion and sediment control practices for construction activities are described in detail in the National Menu of BMPs for Stormwater Phase II, which can be found at http://www.epa.gov/npdes/stormwater.

For Additional Information

Contacts

A. U.S. EPA Office of Wastewater Management
http://www.epa.gov/npdes/stormwater
Phone: 202-564-9545

☞ Your NPDES Permitting Authority. Most States and Territories are authorized to administer the NPDES Program, except the following, for which EPA is the permitting authority:

Alaska	Guam
District of Columbia	Johnston Atoll
Idaho	Midway and Wake Islands
Massachusetts	Northern Mariana Islands
New Hampshire	Puerto Rico
New Mexico	Trust Territories
American Samoa	

☞ A list of names and telephone numbers for each EPA Region and State is located at http://www.epa.gov/npdes/stormwater (click on "Contacts").

☞ Your local soil conservation district office. They can provide assistance with RUSLE and other conservation related issues.A list of conservation district contacts is available at http://www.nacdnet.org/resources/cdsonweb.html

Reference Documents

☞ EPA's Stormwater Web Site
http://www.epa.gov/npdes/stormwater
- Stormwater Phase II Final Rule Fact Sheet Series
- Stormwater Phase II Final Rule (64 *FR* 68722)
- National Menu of Best Management Practices for Stormwater Phase II
- Measurable Goals Guidance for Phase II Small MS4s
- Stormwater Case Studies
- Construction General Permit and Fact Sheet (68 FR 45817)
  http://www.epa.gov/npdes/stormwater/cgp
- EPA Stormwater Management for Construction Activities and Best Management Practices : Developing Pollution Prevention Plans Guidance
- And many others

☞ Construction Industry Compliance Assistance Center:
http://www.cicacenter.org/

☞ *Agricultural Handbook Number 703, Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)*, Chapter 2, pp. 21-64, January 1997. http://www.epa.gov/npdes/pubs/ruslech2.pdf

☞ *Guidance for Water Quality Based Decisions: The TMDL Process.* April 1991. U.S. EPA Office of Water. EPA 440/4-91-001.
http://www.epa.gov/OWOW/tmdl