

Di = depth to invert

For box conduits or arch pipes use the inside vertical dimension rather than inside pipe diameter.

**D. Designation Language**

- See "Recordable Documents", Section 21, Volume 2 of the Development Process Manual.

**E. Drainage Right-of-Way Access**

All newly constructed drainage facilities within a public right-of-way must be blocked off at both ends to prevent unauthorized vehicular access with City Standard Tube Gate or removable bollards.

**Section 7. SUPPLEMENTARY MATERIALS FOR DRAINAGE SUBMITTALS**

**DRAINAGE SUBMITTAL FORMAT**

**INTRODUCTION**

A Drainage Submittal is generally in the form of a Conceptual Grading and Drainage Plan, Drainage Report or Drainage Plan. Quite often, the terms are used interchangeably. The following are definitions of these three types of submittals:

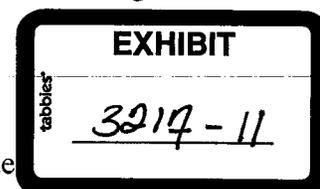
**Conceptual Grading and Drainage Plan.** Conceptual Grading and Drainage Plan is a graphic representation of existing and proposed grading, drainage, flood control, erosion control and stormwater pollution prevention information. The information should be of sufficient detail to determine project feasibility. The purposes of this plan are to check the compatibility of the proposed development within grading, drainage, floodplain, erosion control and stormwater pollution prevention constraints as dictated by on-site physical features as well as adjacent properties, streets, alleys and channels. Modifications to the Comprehensive Plan and the development of area plans, sector plans, site development plans and landscaping plans on tracts of five (5) acres or more are appropriate applications of conceptual grading and drainage plans.

**Drainage Report.** A Drainage Report is a comprehensive analysis of the drainage management, flood control, erosion control and stormwater pollution prevention constraints on and impacts resulting from the proposed platting, development or construction of a particular project. Drainage Reports are required for subdivisions containing more than 10 lots or comprising more than 5 acres, platting or construction proposed within a designated flood hazard area, and for platting or development proposed adjacent to a major arroyo.

**Drainage Plan.** A Drainage Plan is a comparatively short, yet comprehensive, presentation for small, non-complex development submittals. Drainage Plans are often combined with or accompany the detailed Grading Plan, and address both onsite and offsite drainage management, flood control, erosion control and stormwater pollution prevention. Drainage Plans are required for the approval of Building Permits, Site Development Plans, and Landscape Plans for the development of projects 5 acres or less in size.

The Format presented below provides for a logical and comprehensive treatment of the topics relevant to the review and analysis of a complete Drainage Submittal. The Format is presented in outline form for simplicity. Following this format will not only facilitate the review of each submittal, but will also serve as a "checklist" so that the content of each submittal can be more complete. In addition, each submittal shall include the following information:

1. Project Name
2. Name of Engineering Firm



3. Engineer's Seal (signed and dated)
4. Completed Drainage Information Sheet

*NOTE: The following Outline is intended as a guide for the preparation of Drainage Submittals. It is merely a GUIDE. Some items may not be applicable, while other items may require a more in-depth treatment or may have been overlooked in the preparation of the Outline.*

*A Pre-design Conference is recommended for projects where the scope may be difficult to define, the constraints and conditions somewhat unique, or the drainage solution non-traditional.*

*The allowable discharge from a particular project shall be determined based upon available downstream capacity as defined by the Drainage Ordinance. In certain cases, the allowable discharge shall be based upon the value(s) set forth in previously approved and/or adopted Drainage Management Plans, Drainage Plans reports or studies.*

## **OUTLINE**

### **I. EXECUTIVE SUMMARY**

A. Provide a brief yet comprehensive discussion of the following:

1. General project location
2. Development concept for the site
3. Drainage concept for the site (include relevant #'s as appropriate)
4. How offsite flows will be handled
5. How onsite flows will be handled and discharged
6. Downstream capacity and how determined
7. Impacts on or requirements of other jurisdictions

B. Identify all approvals being requested in conjunction with this submittal, such as:

1. Zone Change
2. Subdivision Plat
3. Site Plan for Subdivision
4. Site Development Plan for Building Permit
5. Building Permit
6. S.O. #19
7. Grading Permit
8. Paving Permit
9. DPM Design Variance
10. CLOMR, LOMR or LOMA

### **II. INTRODUCTION**

A. Narrative description of project scope

1. Provide more detail than presented in the Executive Summary (combine with Executive Summary for non-complex projects)

B. Project requirements

1. Discuss and reference required infrastructure and associated infrastructure list

2. Platting and/or easements
3. Approvals by and/or coordination with other Agencies and/or entities

C. Attachments (when applicable)

1. Infrastructure List (draft, preliminary, amended or approved)
2. Preliminary or Final Plat
3. Easement Documents
4. Drainage Covenants
5. Approval Letters

III. PROJECT DESCRIPTION

A. Location

1. Discuss relationship of the site to the following:

- a. Well known landmarks
- b. Municipal limits
- c. City Zone Atlas page and reference
- d. Other jurisdictional boundaries

e. Previously approved Drainage Management Plans, Drainage Reports, Plans or studies including watersheds, basins, drainageways, etc. as defined therein

2. Provide copy of Zone Atlas page, or equivalent, with the site location superimposed

B. Legal Description

1. Identify the current legal description(s) of the land which comprises the site
2. Identify the proposed legal description(s), when applicable, of the land which comprises the site

3. Include a copy of existing and/or proposed platting as an attachment in cases where its inclusion will lend clarity or facilitate the review

C. Flood Hazard Zone (A Zones only)

1. Identify proximity of site to a designated Flood Hazard Zone
2. Provide reference to the above referenced Flood Hazard Zone
3. Identify whether or not the site drains to or has an adverse impact upon a designated Flood Hazard Zone
4. Include a copy of the relevant FEMA Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map with the site clearly identified along with all affected Flood Zones

5. Identify portion of designated Flood Hazard Zone to be revised or amended when CLOMR, LOMR or LOMA approval requested

IV. BACKGROUND DOCUMENTS

A. Planning History

1. Reference and discuss relevant Planning and Zoning actions, plans or studies
2. Verify and/or demonstrate compatibility with the above actions, plans and studies

B. Drainage History and Related Documents

1. Reference and discuss relevant Drainage Management Plans, Drainage Plans, Reports and Studies
2. Reference applicable Hydrology File, PWD (DRC) Project and DRB Project numbers
3. Discuss status of above referenced Plans, Reports and Studies
4. Describe compatibility with or deviation from the above referenced Plans, Reports and Studies
5. Describe the location of site with respect to previously defined watersheds or drainage basins
6. Provide copies of pertinent data from above referenced Plans, Reports and/or Studies when applicable

V. EXISTING CONDITIONS

A. Site Investigation

1. Describe by text or clearly show graphically the following:
  - a. onsite drainage patterns
  - b. onsite drainage facilities
  - c. point(s) of discharge
  - d. drainage basin(s) boundaries
  - e. offsite drainage facilities
  - f. offsite drainage patterns including offsite flow conditions
  - g. condition and status of adjacent properties (e.g. developed, undeveloped, under construction, etc.)
  - h. condition and status of adjacent right-of-way (e.g. developed, undeveloped, under construction, etc.)
  - i. presence of any other relevant features

B. Site Evaluation

1. Discuss the significance and impacts of the following:
  - a. onsite drainage facilities
  - b. offsite drainage facilities
  - c. point(s) of discharge
  - d. drainage basin(s) boundaries

- e. offsite flow conditions
- f. proximity to designated flood hazard zone(s) (A Zones only)
- g. presence of any other relevant features or conditions which may impact or be impacted by the development of the property or project

## 2. Form of Analysis

- a. Most situations - most submittals require both qualitative and quantitative analyses
- b. Unique situations - for some cases, such as infill sites, a qualitative analysis by itself may be appropriate. Examples of appropriate qualitative analysis criteria are
  - (1.) a comparison of the runoff generated by the proposed development to that generated by the overall drainage basin with respect to the impacts of the anticipated increase
  - (2.) impacts on downstream flood plains
  - (3.) potential offsite problems which may or may not be attributed to this development
  - (4.) anticipated impact(s) and/or precedent to be set on the development of the remaining infill sites by following the same drainage concept

## 3. Downstream Capacity

(The evaluation of downstream capacity shall include, but not be limited to, the following:)

- a. Assumptions
  - (1.) fully developed watershed
  - (2.) ability to accept and safely convey runoff generated from the 100-year design storm
- b. Hydraulic capacity
  - (1.) channel
  - (2.) crossing structure
  - (3.) storm inlet and/or entrance conditions
  - (4.) storm drain
  - (5.) street and/or alley
- c. Storage capacity
  - (1.) Detention pond/reservoir
  - (2.) Retention pond
  - (3.) Flood zone
- d. Stability
  - (1.) Channel/arroyo
  - (2.) Natural slope
  - (3.) Cut/fill slope

## VI. DEVELOPED CONDITIONS

### A. Onsite

1. Discuss the following as applicable:

- a. proposed development/construction
- b. impacts on existing drainage patterns
- c. impacts on existing drainage basins
- d. impacts on existing onsite facilities
- e. identification of offsite flow conditions
  
- f. compatibility/compliance with previously approved and/or adopted Plans, Reports and Studies
  
- g. sediment bulking
  
- h. aggradation and/or degradation potential
  
- i. impacts on designated flood hazard zones (A Zones only)
  
- j. required private drainage improvements
- k. required infrastructure
- l. required easements
- m. phasing and future improvements
- n. ownership, operation and maintenance responsibilities
- o. stormwater pollution potential during construction

2. Evaluate and/or quantify the following:

- a. capacity and freeboard of existing onsite facilities
- b. capacity and freeboard of proposed onsite facilities
  
- c. impacts on designated flood hazard zones (A Zones only)
  
- d. impacts on existing drainage patterns and drainage basin boundaries
  
- e. impact of offsite flows on the proposed development
  
- f. erosion potential and erosion setback requirements
  
- g. phased system capacities and ability to function as a stand alone system
  
- h. emergency overflow spillway conditions

B. Offsite

1. Discuss the following:

- a. impacts on existing drainage basins and/or watersheds
- b. impacts on existing offsite facilities and downstream capacity
- c. compatibility/compliance with previously approved and/or adopted Plans, Reports and Studies
- d. impacts on designated flood hazard zones (A Zones only)
  
- e. required improvements

- f. required easements
  - g. right-of way dedications
  - h. phasing and future improvements
  - i. ownership, operation and maintenance responsibilities
- j. concurrence and/or approval from affected property owners for offsite grading or construction activities
2. Evaluate and/or quantify the following:
- a. capacity of existing offsite facilities
  - b. capacity of proposed offsite facilities
  - c. impacts on downstream designated flood hazard zones
  - d. impacts on downstream drainage basins and/or watersheds
  - e. downstream capacity

## VII. GRADING PLAN

### A. Description

1. Reference the Grading Plan when included as an attachment to the Drainage Submittal
2. Describe elements of the Plan and how those elements relate to the Existing and Developed Conditions sections of the submittal discussed above
3. Discuss and reference all other supporting drawings provided in support of the Drainage Submittal

### B. Content

1. Refer to Grading Plan Checklist that follows

## VIII. CALCULATIONS

### A. Description

1. Provide narrative description of the calculations performed to support the analyses and evaluations discussed above
2. Discuss and reference calculations for Existing, Developed and Future hydrology
3. Discuss and reference hydraulic calculations demonstrating capacity and/or adequacy of existing and proposed facilities
4. Provide sample calculations, tables, charts, etc. as necessary to support the calculations and results discussed above
5. Reference computer software, documents, circulars, manuals, etc. used to produce the calculations and results discussed above

## IX. CONCLUSION

- ### A. Summary of proposed drainage management strategy

- B. Justification of rationale for discharge of developed runoff from site
- C. Summary of proposed drainage improvements
- D. Identification of DPM design variances being requested
- E. Identification of required Drainage Covenants
- F. Identification of ownership, operation and maintenance responsibilities

## GRADING PLAN CHECKLIST

*The following checklist is intended as a guide for preparing a Grading Plan to accompany a drainage report or plan. It is only a guide. Some items may not be applicable to your particular project; some items may require more detail. A pre-design conference is recommended to define scope and project specific requirements.*

### General Information:

1. Professional Engineer's stamp with signature and date.
2. Drafting Standards: (Reference City Standards, D.P.M. Volume 2, Chapter 27).
  - A. North Arrow
  - B. Scales - recommended engineer scales:
    - (1) 1" = 20' for sites less than 5 acres
    - (2) 1" = 50' for sites 5 acres or more
  - C. Legend - see D.P.M. Manual, Volume 2, Tables 27.3a - 27.3d for recommended standard symbols
  - D. Plan drawings size: 24" x 36"
  - E. Notes defining property line, asphalt paving, sidewalks, planting areas, ponding areas, project limits, and all other areas whose definition would increase clarity
3. Vicinity Map
4. Benchmark - location, description and elevation
  - A. Albuquerque control survey vertical datum
  - B. Permanently marked temporary benchmark located on or very near site
5. Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM)
6. Legal Description

### EXISTING CONDITIONS

1. On-site:
  - A. Existing Contours - vertical intervals for contour maps shall not exceed the following:
    - (a) One foot intervals for slopes under 1% with sufficient spot elevations at key points to adequately show the site's topography
    - (b) Two feet for slopes between 1% and 5%

- (c) Five feet for slopes in excess of 5%
- B. Spot elevations adequately showing conditions on-site.
- C. Contours and spot elevations extending a minimum of 25' beyond property line.
- D. Identification of all existing structures located on-site or on adjacent property extending a minimum of 25' beyond property line with particular attention to retaining and garden walls.
- E. Identification of all existing drainage facilities located on-site or on adjacent property.
- F. Pertinent elevation(s) of structures and facilities defined in A, B and C above with NGVD 29 designation. NGVD 29 is the vertical system on which ACS monuments are currently based. In the future, ACS monuments should be field converted to NAVD 88 at which time NAVD shall become "equivalent".
- G. Indication of all existing easements and rights-of-way on or adjacent to the site with dimensions and purpose shown.
- H. Existing City top of curb and flow line elevations with NGVD 29 designation, or equivalent.
- I. The location of Special Flood Hazard Area Boundaries from the latest FEMA maps must be overlaid on the existing site map (enlarged to site plan scale), when applicable.

2. Off-site:

- A. Contributing Area - delineation of off-site contributing watersheds and/or drainage basins on City of Albuquerque Ortho-Topo Area Maps or equivalent mapping at a preferable scale of 1" = 200' or 1" = 500'. Watershed and Basin designations shall match those used in the hydrology calculations.
- B. Existing easements and rights-of-way including ownership and purpose.

## PROPOSED CONDITIONS

1. On-site:

- A. Proposed improvements superimposed onto the existing conditions,
- B. Proposed Grades

Proposed grades shall be adequately depicted by contours and/or spot elevations conforming with the following minimum criteria:

- (1) Contours - vertical intervals for contour maps shall not exceed the following:
  - (a) One foot intervals for slopes under 1% (with supplemental spot elevations as appropriate to adequately illustrate the proposed grading of the site).
  - (b) Two feet for slopes between 1% and 5%.
  - (c) Five feet for slopes in excess of 5%.
- (2) Spot Elevations - supply spot elevations at the following:
  - (a) Key points and grade breaks
  - (b) Critical locations
  - (c) Pad elevations

C. Indication of all proposed easements and rights-of-way on or adjacent to the site with dimensions and purpose identified.

D. City Engineer approved street and/or alley grades when site abuts a dedicated unpaved street or alley. In the event that approved grades are not available, provide preliminary street and/or alley grades.

E. Internal contributory drainage areas, including roof areas, outlined on plan.

F. Flow lines defined by arrows and spot elevations with NGVD 29 designation, or equivalent, as appropriate for clarity.

G. Pond(s) 100 year water surface elevation outlined and indicated on plan.

H. Finish building floor elevation(s) or pad elevation(s) with complete NGVD 29 designation, or equivalent, when applicable.

I. Elevations along property lines including relationship to adjacent top of curb.

J. Details of ponds, inverts, rundowns, curb cuts, water blocks, emergency spillways, retaining walls, pond outlets, safety fences, slopes, and all other significant drainage structures with contours, cross-sections and spot elevations. All cross-sections must be drawn to a standard engineering scale and adequately dimensioned.

K. Phasing,

L. Proposed construction of private storm drain improvements within public right-of-way and/or easement including identification of the public entity having ownership.

M. Proposed contours superimposed over existing contours adequately demonstrating changes in grade especially at the property line

N. Identification of any required offsite grading

O. Specifications for the proposed grading and/or soil compaction

P. Erosion Control and Stormwater Pollution Prevention Plans. See Erosion Control and Stormwater Pollution Prevention Plans Checklist.

2. Off-site:

A. Definition, location, and configuration of required drainage facilities.

B. Rights-of-way and easements needed to accommodate (A) above.

## **EROSION CONTROL AND STORMWATER POLLUTION PREVENTION PLANS CHECKLIST**

Use this checklist to prepare a plan for the mitigation of damages due to stormwater pollution, soil erosion and deposition. All grading of 1.0 acre or more or 500 cubic yards and any grading within or adjacent to a watercourse defined as a major facility during the months of July, August, or September shall provide for erosion control and the safe passage of the 10-year design storm runoff during the construction phase. A Stormwater Pollution Prevention Plan shall be provided for all grading of 1.0 acre or more.

**NOTE:** The following checklist is intended to be used as a guide for preparing the plan to meet any or all drainage requirements. It is only a guide. Some items may not be applicable to your particular project; some items may require

<http://www.amlegal.com/nxt/gateway.dll/New%20Mexico/albuqdp/volumeii-designcriteria/chapter22dr...> 2/26/2010

*more detail. A pre-design conference is recommended to define the scope and specific requirements.*

1. Provide the corresponding information for the following phases of development:

a. Rough grading

1. Grading plan with limits of soil disturbance outlined.
2. Erosion protection and stormwater pollution prevention practices indicated.
3. Supporting data, calculations, references and details drawn to scale or adequately dimensioned.
4. Erosion control and stormwater pollution prevention notes:
  - a. The contractor is to ensure that no soil erodes from the site onto adjacent property or public right-of-way. This should be achieved by implementing Best Management Practices (BMP's) to protect the soil from wind, and water erosion.
  - b. During the months of July, August or September, any grading within or adjacent to a watercourse defined as a major facility shall provide for erosion control and safe passage of the 10-year design storm runoff during the construction phase.
  - c. Contractor shall conform to all City, County, State and Federal dust control and stormwater pollution prevention requirements and is responsible for preparing and obtaining all necessary applications, permits and approvals.
  - d. All graded areas which do not receive a final surface treatment will be revegetated in accordance with COA Standard Specification 1012 and the Landscape Specifications.
  - e. Contractor shall obtain and abide by a Topsoil Disturbance Permit from the City of Albuquerque. The cost for required construction dust and erosion control measures shall be incidental to the project cost.

b. Phased development

1. Grading plan with limits of soil disturbance outlined for each phase of development and numbered in sequential order of events.
2. Erosion protection and stormwater pollution prevention procedures indicated for each phase.
3. Supporting data, calculations, references and details drawn to scale or adequately dimensioned.

c. Construction and permanent phase

1. Grading plan with limits of soil disturbance outlined.
2. Erosion protection and stormwater pollution prevention practices indicated.
  - a. Project owner and the owner's contractor shall complete federal EPA Notice of Intent (NOI) prior to commencement of any construction project disturbing 1.0 or more acres of land area.

b. Stormwater Pollution Prevention Plans and accompanying federal EPA administrative procedures shall meet the City of Albuquerque guidelines and procedures outlined in the current edition of the New Mexico State Highway and Transportation Department Stormwater Management Guidelines for Construction and Industrial Activities Manual.

3. Supporting data, calculations, references and details drawn to scale or adequately dimensioned.

### **ENGINEER'S CERTIFICATION CHECKLIST FOR NON-SUBDIVISION**

Use this checklist when certifying compliance with an approved drainage report or drainage plan for public, commercial and multi-residential buildings requiring a Certificate of Occupancy building permit or grading and paving projects. Engineer must revise the original drawing as approved with the following information which shall serve as minimum criteria for evaluation. This is merely a guide. The level of detail necessary for presentation and verification is a function of the specific plan being evaluated. The engineer's certification must be approved prior to the release of the issuance of a Certificate of Occupancy, or acceptance (by the City) of the completed work.

1. Completed Information Sheet - see Information Sheet.
2. Provide as-built finished floor and/or pad
3. Provide as-built spot elevations on the property line and/or limits of phase development (points of significant grade changes) to demonstrate compliance with the approved drainage report or drainage plan.
4. Provide copies of construction approval from the appropriate government agencies for construction within their right-of-ways and/or easements.
5. Outline the as-built drainage basin(s) (including roof areas) supported with sufficient spot elevations and roof drain locations.
6. Provide as-built elevations and dimensions for the following structures:
  - A. Pond(s) (include as-built volume calculations)
  - B. Pipe inlet(s) and outlet(s) (include as-built capacity calculations)
  - C. Rundown(s) (including the required inlet dimensions)
  - D. Spillway(s) (including the required outlet dimensions)
  - E. Channel(s)
  - F. Flowlines
  - G. Erosion control and stormwater pollution prevention structure(s)
  - H. Temporary drainage, erosion control and stormwater pollution prevention facilities required for phased development
  - I. Retaining and/or garden wall(s)
  - J. Other features critical to the drainage scheme.
7. Professional Certification

A. Engineer's stamp dated and signed accompanied with a statement indicating substantial compliance with the approved drainage report and/or deficiencies with recommended corrections.

B. The surveying associated with the certification must be performed by a professional engineer and/or surveyor in accordance with the "New Mexico Engineering and Surveying Practice Act" as amended and any standards adopted by the State Board of Registration.

### **ENGINEER'S CERTIFICATION CHECKLIST FOR SUBDIVISIONS**

Use this checklist when certifying compliance with an approved drainage report or drainage plan for subdivisions when required by the Development Review Board (DRB) for the release of financial guarantees associated with an executed Subdivision Improvement Agreement (SIA). Engineer must revise the DRB approved drawing with the following information, which shall serve as minimum criteria for evaluation. This is merely a guide. The level of detail necessary for presentation and verification is a function of the specific plan being evaluated. The engineer's certification must be approved prior to the release of the SIA and/or financial guarantees.

1. Completed Information Sheet - see Information Sheet.
2. As-Built Information:
  - A. Pad elevations
  - B. Top of Curb Elevations at critical locations
  - C. Property corner elevations at each lot
  - D. Horizontal and vertical data for storm drains (public and private)
  - E. Horizontal and vertical data for retaining walls
3. As-Built Analysis
  - A. Statement and verification that all grades inside the subdivision do not deviate by more than 18" of the DRB approved grades within 50 feet of the subdivision's perimeter.
  - B. Statement and verification of street, storm drain and channel hydraulic capacities.
  - C. Statement and verification of pond capacities.
  - D. Statement of as-built elevation tolerances with respect to the feature being analyzed.
4. Other Approvals
  - A. When necessary or appropriate, provide documentation of acceptance or construction approval from other affected governmental agencies or property owners.
5. Clearly State the origin and Date(s) of As-Built Data
6. Supplemental Information
  - A. Provide details as necessary to illustrate as-built conditions for instances in which the as-constructed work materially deviates from the as approved design.
  - B. Provide calculations to demonstrate and/or verify that all deviations satisfy the intent of the approved design.
7. Professional Certification
  - A. Engineer's stamp dated and signed accompanied with a statement indicating substantial compliance with the approved drainage report and/or deficiencies with recommended corrections.
  - B. The surveying associated with the certification must be performed by a professional engineer and/or surveyor in accordance with the "New Mexico Engineering and Surveying Practice Act" as amended and any standards adopted by the State Board of Registration.

**~~DRAINAGE CERTIFICATION WITH SURVEY WORK BY PROFESSIONAL SURVEYOR~~**

DRAINAGE CERTIFICATION

I, \_\_\_\_\_, NMPE \_\_\_\_, OF THE FIRM \_\_\_\_\_, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED \_\_\_\_\_. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY \_\_\_\_\_, NMPS \_\_\_\_, OF THE FIRM \_\_\_\_\_. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON \_\_\_\_\_ AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR \_\_\_\_\_.

(DESCRIBE ANY EXCEPTIONS AND/OR QUALIFICATIONS HERE IN A SEPARATE PARAGRAPH)

(DESCRIBE ANY DEFICIENCIES AND/OR CORRECTIONS REQUIRED HERE IN A SEPARATE PARAGRAPH)

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

\_\_\_\_\_

XXXXXXXXXXXXXXXXXX, NMPE XXXX

(SEAL)

\_\_\_\_\_

DATE

**DRAINAGE CERTIFICATION WITH VERIFICATION BY ENGINEER OF RECORD  
12/28/01**

DRAINAGE CERTIFICATION

I, \_\_\_\_\_, NMPE \_\_\_\_, OF THE FIRM \_\_\_\_\_, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED \_\_\_\_\_. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AS SUPPLEMENTAL DATA TO THE ORIGINAL TOPOGRAPHIC SURVEY PREPARED BY \_\_\_\_\_, NMPS \_\_\_\_\_, OF THE FIRM \_\_\_\_\_, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR \_\_\_\_\_.

(DESCRIBE ANY EXCEPTIONS AND/OR QUALIFICATIONS HERE IN A SEPARATE PARAGRAPH)

(DESCRIBE ANY DEFICIENCIES AND/OR CORRECTIONS REQUIRED HERE IN A SEPARATE PARAGRAPH)

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS

PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

XXXXXXXXXXXXXXXXXX, NMPE XXXX

(SEAL)

DATE

### INSTRUCTIONS FOR DRAINAGE COVENANT

1. The proper and correct title of the Owner should be inserted such as ABC Corporation or the Ace limited Partnership, etc.
2. It is absolutely essential that the correct legal description be inserted. If it is in metes and bounds and there is not enough room to get it in the space provided, simply type in "See Attached Legal Description" and attach it to another page.
3. A brief description of the facilities should be given or if there is some type of drainage report, it can be referred to and adopted. If there is some type of letter conditioning or modifying the drainage report issued by the City, this should also be referred to and attached.
4. The time limit for compliance will have to be inserted and will depend, of course, on the nature of the construction or maintenance required.
5. The signing of the instrument by the correct parties is absolutely essential. If it is a corporation, the corporate acknowledgment must be used, and the signature must be by the president of the corporation. If someone else wants to sign on behalf of the corporation, we must have a copy under the seal of the corporate secretary of the minutes of the Board of Directors authorizing that person to bind the corporation. If it is a limited partnership, the general partner must sign. If it is a regular partnership, any partner can sign. If the is a regular partnership, any partner can sign. If the property is owned by husband and wife, they should both sign.
6. The reason for the notarization requirement is that this document must be filed with the County Clerk and cannot be so filed unless it is so acknowledged. The only protection that the city has in the event of the transfer of ownership is if the document is filed with the County Clerk and, therefore, it puts any subsequent purchaser on notice and obligates him to the same provisions.
7. It is to our best interest and, therefore, our responsibility to see that this document is filed with the County Clerk. The cost of such recording should be paid by the applicant. The cost to the City of such recording is \$1.50 for the first page and \$.50 for each succeeding page. This is a discounted fee to the City, and if an individual records the document, it would cost more.
8. An original and at least 2 copies should be prepared and signed. The original is recorded and returned. It then should be filed with the City Clerk. One copy goes to the Owner and the other is retained in the department file. This copy should contain the County Clerk's recording information. You may wish to have other copies as may be necessary.
9. If you have any questions or peculiar problems, please consult the Legal Department (768-4500) or the City Engineer's Office (924-3979).

### GRADING AND DRAINAGE PLAN NOTE:

This is not a boundary survey; data is shown for orientation only. The boundary information depicted by this plan is based upon the (boundary survey, plat, etc.) prepared by \_\_\_\_\_, NMPS no. \_\_\_\_\_, dated \_\_\_\_/\_\_\_\_/\_\_\_\_\_. Topographic survey information is based upon a topographic survey prepared by \_\_\_\_\_ on \_\_\_\_/\_\_\_\_/\_\_\_\_\_, NMPS no. \_\_\_\_\_.

**Click to view:**  
**Drainage Facilities Within City Right-of-Way**  
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**Section 8. MISCELLANEOUS**

**A. Maintenance Standards**

**1. General:**

All drainage control, flood control and erosion control facilities both public and private shall be regularly maintained. Accumulations of silt, trash, litter or stagnant water which create a health or safety hazard or which endanger the design function of the facility are not permitted. Excessive growth or accumulation of woody vegetation in channels and on dams and levees shall not be permitted. Active erosion due to wind or water associated with drainage control, flood control and erosion control facilities shall not be permitted.

All newly constructed drainage facilities within a public right-of-way must be blocked off at both ends to prevent unauthorized vehicular access with City Standard Tube Gate or removable bollards.

**2. City Maintained Facilities:**

The City shall regularly maintain the drainage control, flood control and erosion control facilities for which it has responsibility based on the above general requirements and the following schedule:

| <u>Facility</u>      | <u>Maintenance</u>   | <u>Inspection</u> |
|----------------------|--|-------------------|
| Channels             | Monthly June-October   | Semi-Annual       |
| Channel Joints       | Monthly June-October   | Semi-Annual       |
| Crossing Structures  | Monthly June-October   | Semi-Annual       |
| Pump Stations        | Monthly June-October   | Semi-Annual       |
| Detention Facilities | Silt removal and weed control operation or monthly during flood season | After any major   |
| Storm Pump           | Periodic cycling April and October                                     | Semi-Annually in  |
|                      | Vibration analysis   | 3-5 Years         |
| Storm Sewer Systems  | Annual   | Bi-Annual         |
| Storm Sewer Inlets   | On-going process   | Semi-Annual       |