CITY OF ROSEVILLE -- ENGINEERING DIVISION

SUBMITTAL REQUIREMENTS FOR ALL HEC - 1 STUDIES

YOU MUST SUBMIT THE ITEMS LISTED UNDER EACH CATEGORY THAT APPLY FOR EACH HEC-1 MODEL RUN THAT IS SUBMITTED.

1.   HEC-1 print out with summary tables.
     The following information must be on cover of print out

     - Name of Engineering firm doing study
     - Name of project
     - Version of HEC-1 program
     - Date & time that the model was run
     - A statement if the model is pre-project or post-project

2.   The computer model on 3-1/4" disk.

     - Disk must be clearly labeled.
     - If more than one model file is on the disk, a listing & description of all files must be included with the disk in an envelope.
     - HEC-1, HEC-2 or HEC-RAS files need to be submitted on separate disks

3.   City of Roseville's "Model Summary Worksheet" pages 1-3 filled out for each HEC-1 run submitted and attached to the print out.

4.   Water Shed map showing the following:

     - Outline of all subsheds used in the HEC-1 study
     - The label of each subshed as modeled in the HEC-1 study
     - The area of each subshed as used in the HEC-1 study
     - The location that each subshed merges with the next clearly marked

5.   If you are comparing pre-project to post-project HEC-1 models, you must also include in the City's summary sheet a listing of all the types and the locations in the model of the changes made.

GENERAL INFORMATION

Name of project: _____

Name of Engineering firm doing study: _____

Contact person _____ Phone # _____

If this replaces a previously submitted study what is the name of the study _____

This study reflects: � Existing conditions   ☺ Post-development conditions

If this HEC-1 study is used to compare pre-project to post-project runoff what is the name of the

study that you are comparing it with _____ Run date_____

Has the pre-project study been approved by the city ☺ **YES** ☺ **NO** and when _____

BASIN INFORMATION

Total area of the basin studied (sq. ml.)_____   Number of sub-basins _____

Elevation of shed: High point _____ Low point _____ Ave. _____ Used_____

The method used to determine the design storm used in the model:

    ☺   P.C. Flood Dist. manual   ☺   HEC-1 synthetic storm

    ☺   P.C. Flood Dist. PDP program   ☺   Rain gauge data

Duration of design storm: 1 hr   2 hrs   3 hrs   6 hrs   12 hrs   1 day   other _____

Design storm frequency: 2 yr   5 yr   10 yr   25 yr 50 yr 100 yr   other _____

Base flow (cfs / sq mile): _____ Infiltration (in/hour) _____

Response time of entire basin _____

Detention Basins   Give location and size of any detention basins that were modeled:

Provide topo or grading plans used to calculate storage volume for each detention basin.

Location in model	Amount of storage resulting from each design storm	Storm frequency	Max. Stage Height (ft.)	Freeboard to Spill Point (ft.)
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

SUBSHED INFORMATION

The total number of subsheds in the model   _____

Give your assumed "N" factors used most often for the following surfaces:

Overland swales _____   Concrete gutters_____   Drainage Pipes _____

Earth-lined channels _____   Streams _____   Other _____

TITLE OF SUBSHED OR ROUTING LEG IN MODEL	PRIMARY LAND USES OF SUBSHED residential, open space, commercial, etc.	AREA OF SUBSHED (SQ ML)	METHOD USED IN ROUTING EXAMPLE: Kinematic wave, Muskingum	WAS DETENTION MODELED (YES OR NO)

CITY OF ROSEVILLE HEC-1 MODEL SUMMARY WORKSHEET

PRE-PROJECT TO POST-PROJECT CHANGES
This sheet is to be filled out if this HEC-1 study is used to compare pre-project to post-project runoff

Name of pre-project HEC-1 study : _____Run date_____

Basin's peek flow rate: Existing conditions _____ Post-development conditions _____

Has the pre-project study been approved by the city   ☻ **YES**   ☻ **NO**   If so when_____

Locations in model	Types of change made
Example Shed-2S	Change Earth-lined channels to Drainage Pipes and increased subbasin area