### Hydrologic Information

**SCS Method**

- **Area**: __________ AC. = __________ SM.
- **RCN.**: ________
- **t_c**: ________ MIN. = ________ HRS.

**Rational Method**

- **Area** = ________ AC.
- **C_w** = ________
- **i_1**: ________ MIN.
- **i_2**: ________ "/HR.
- **i_10**: ________ "/HR.
- **i_100**: ________ "/HR.

**Culvert Dimension(s)**: ________ IN. = ________ FT.

### Culvert Analysis

<table>
<thead>
<tr>
<th>Culvert Type &amp; Entrance Type</th>
<th>Q C.F.S.</th>
<th>Headwater Computation</th>
<th>Controlling HW</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Inlet Control</td>
<td>Outlet Control</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HW D</td>
<td>HW</td>
<td>Ke</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HW</td>
<td>HW</td>
<td>Ke</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Formulae:

**Outlet Control:**

\[ HW = h_o + H - L_So \]

**Reference:** Pages 53 to 54

### Remarks:

...
<table>
<thead>
<tr>
<th>INLET NO.</th>
<th>AREA ACRES</th>
<th>C</th>
<th>CA</th>
<th>BYPASS CA</th>
<th>TOTAL CA</th>
<th>t_c MIN.</th>
<th>i2if &quot;/hr</th>
<th>Q2 CFS</th>
<th>INLET TYPE</th>
<th>CROSS SLOPE</th>
<th>CHART NO.</th>
<th>STREET GRADE</th>
<th>SPREAD FT.</th>
<th>PICKUP %</th>
<th>BYPASS TO CA</th>
<th>INLET NO.</th>
<th>REMARKS</th>
</tr>
</thead>
</table>

MARYLAND STATE HIGHWAY ADMINISTRATION
INLET SPACING

DESIGNED BY-  
CHECKED BY-  

CONTRACT NO.  
PROJECT  

RAINFALL FACTORS  

DURATION: 0-10 10.1-40 40.1-150

SHA-61.1-491
9-1-80

SHEET ____ OF ____
DATE- _____
### Storm Sewer Design

**Maryland State Highway Administration**

**Table:**

<table>
<thead>
<tr>
<th>Structure</th>
<th>Contributing Area</th>
<th>Year Runoff</th>
<th>Pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>From To</td>
<td>C Area Acres</td>
<td>A Runoff</td>
<td>Δ CA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Rainfall Factors:**

- Duration: 0-10 10.1-40 40.1-150

**Contract Title:**

**Checked By:**

**Designed By:**

**Page of:**

[SHA-61.1-4]

9-1-80
<table>
<thead>
<tr>
<th>Structure</th>
<th>Year</th>
<th>Runoff</th>
<th>Pipes</th>
<th>Hydraulic Gradient</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
<td>To</td>
<td>X</td>
<td>t_c</td>
<td>Rainfall Intensity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PEAK DISCHARGES USING TR-55

HYDROLOGIC
SOIL GROUP

TREATMENT OR PRACTICE

HYDROLOGIC CONDITION

RUNOFF CURVE NUMBER (RCN)

AREA (ac.)

(RCN) x AREA

TOTALS =

WEIGHTED RUNOFF CURVE NO. = \( \frac{RCN \times \text{AREA}}{\text{AREA}} \) = ___________ = ___________; USE ___________

PEAK ADJUSTMENT FACTORS:

A. SLOPE = _____%, RANGE _____ (TABLE E-1) - ___________ FACTOR A

B. IMPERVIOUS AREA _____% (FIGURE 4-1) - ___________ FACTOR B

C. H.L.M. = _____% (FIGURE 4-2) - ___________ FACTOR C

PEAK DISCHARGE q (cfs/Inches of Runoff) = ___________ (FIGURE D-2)

ADJUSTED PEAK Q (cfs/Inches Runoff) = q x Adjustment Factors (A, B, C) = _____ x _____ x _____ = cfs.

RAINFALL FREQ. = ___________ Year
R. = ___________ Inches
R. = ___________ Inches
Q x RUNOFF = ___________ cfs

1/ FROM ENGINEERING FIELD MANUAL, EXHIBIT 2-3A
2/ FROM ENGINEERING FIELD MANUAL, EXHIBIT 2-7A