

**Table 2.11**  
**Sump Inlets in John Street Double Type "A" Inlet Capacity Calculations**  
**John Street Feasibility Design Analysis Report**

**Curb Opening (Treated As Orifice)**

Orifice Calcs

$Q_o = .6AV\sqrt{2gh}$

A = Open area of weir (sq. ft)	5.5
g = 32.2 (ft/s <sup>2</sup> )	32.20
H = Head (ft)	0.67
clogging factor =	0%

<b>Qw = Capacity (cfs)</b>	<b>21.6</b>
<b>Number of Inlets</b>	<b>4</b>
<b>Total Discharge (cfs):</b>	<b>86.5</b>

Notes:  
 Type "A" Double curb opening is approximately 6 inches (0.5 feet) tall by 26 inches wide (11 feet). 8 inch (0.67 feet) curb height, or head available.

**Grate (Treated As Weir)**

Weir Flow Calcs

$Q_w = 2.7L(H)^{1.5}$

P = Perimeter (ft)	
H = Head (ft)	0.67
coefficient of discharge =	2.70
clogging factor =	15%

<b>Qw = Capacity (cfs)</b>	<b>0.0</b>
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Notes:

**Grate (Treated As Orifice)**

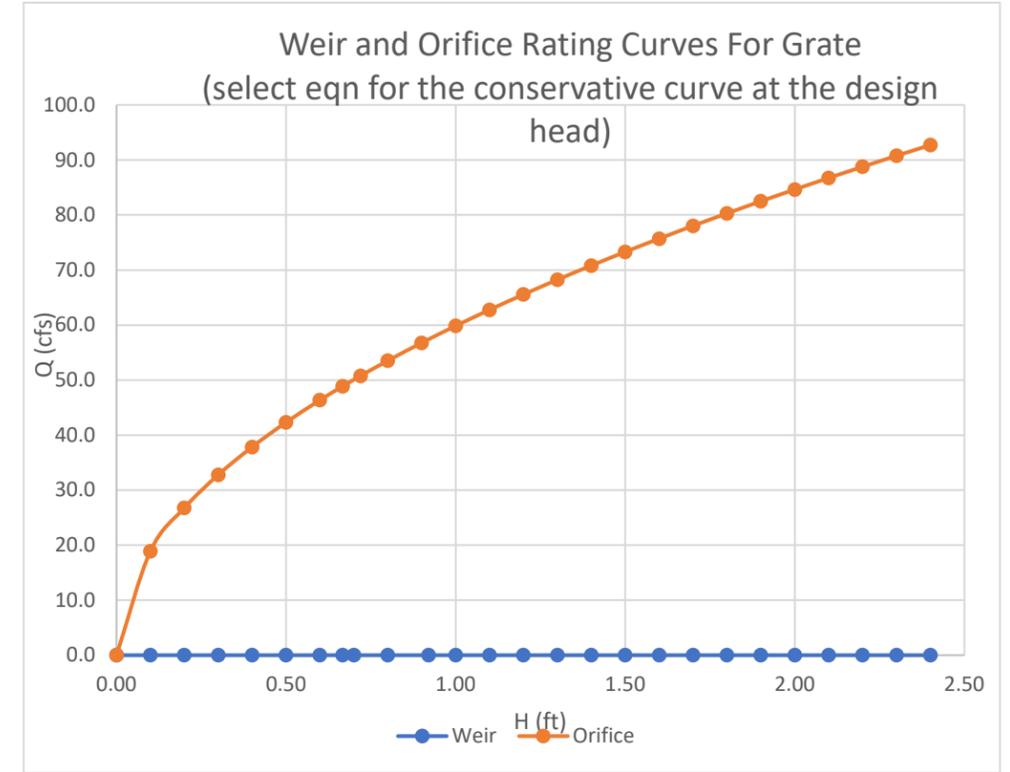
Orifice Calcs

$Q_o = .6AV\sqrt{2gh}$

A = Open area of grate (sq. ft)	14.6
g = 32.2 (ft/s <sup>2</sup> )	32.20
H = Head (ft)	0.67
clogging factor =	15%

<b>Qo = Capacity (cfs)</b>	<b>48.9</b>
<b>Number of Inlets</b>	<b>4</b>
<b>Total Discharge (cfs):</b>	<b>195.5</b>

Notes:  
 Total length of grate is 81 inches (6.75 feet), then grate width total is 21 inches (2.17 feet).



**Table 2.12**  
**Sump Inlets in Williams Street Double Type "A" Inlet Capacity Calculations**  
**John Street Feasibility Design Analysis Report**

**Curb Opening (Treated As Orifice)**

Orifice Calcs

$Q_o = .6AV\sqrt{2gh}$

A = Open area of weir (sq. ft)	5.5
g = 32.2 (ft/s <sup>2</sup> )	32.20
H = Head (ft)	0.67
clogging factor =	0%

<b>Qw = Capacity (cfs)</b>	<b>21.6</b>
<b>Number of Inlets</b>	<b>4</b>
<b>Total Discharge (cfs):</b>	<b>86.5</b>

Notes:  
 Type "A" Double curb opening is approximately 6 inches (0.5 feet) tall by 26 inches wide (11 feet). 8 inch (0.67 feet) curb height, or head available.

**Grate (Treated As Weir)**

Weir Flow Calcs

$Q_w = 2.7L(H)^{1.5}$

P = Perimeter (ft)	
H = Head (ft)	0.67
coefficient of discharge =	2.70
clogging factor =	15%

<b>Qw = Capacity (cfs)</b>	<b>0.0</b>
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Notes:

**Grate (Treated As Orifice)**

Orifice Calcs

$Q_o = .6AV\sqrt{2gh}$

A = Open area of grate (sq. ft)	14.6
g = 32.2 (ft/s <sup>2</sup> )	32.20
H = Head (ft)	0.67
clogging factor =	15%

<b>Qo = Capacity (cfs)</b>	<b>48.9</b>
<b>Number of Inlets</b>	<b>4</b>
<b>Total Discharge (cfs):</b>	<b>195.5</b>

Notes:  
 Total length of grate is 81 inches (6.75 feet), then grate width total is 21 inches (2.17 feet).

