



LANDSCAPE/IRRIGATION WORKSHEET

Tap sizing for dedicated irrigation taps

Project Information

Project Name:

Irrigation Tap Address:
*physical location of tap

Worksheet Submission Details

Prepared By:

Company:

Company Address:

Submission Date: Phone:

Owner/Developer Information

Owner/Developer: Phone:

Attn:

Billing Address:

ET Controller Information (with Rain Sensor)

Manufacturer:

Model Number:

****PLEASE CONTINUE TO 'CALCULATOR' TAB FOR LANDSCAPE/IRRIGATION WORKSHEET****



LANDSCAPE/IRRIGATION WORKSHEET

Tap sizing for dedicated irrigation taps

Yellow fields require user input

Irrigation Water Requirement = (ET_o x PF x LA)/IE

Define Landscape & Irrigation System:			
High Water Use Plant Material			
<i>*Cool season turfgrass (Kentucky bluegrass)</i>			
<i>Plant Factor (PF, %)</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">High</td> <td style="width: 50%; text-align: center;">0.9</td> </tr> </table>	High	0.9
High	0.9		
<i>Landscape Area (LA, sq ft)</i>	0		
<i>Irrigation Efficiency (IE, %)</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Overhead</td> <td style="width: 50%; text-align: center;">0.65</td> </tr> </table>	Overhead	0.65
Overhead	0.65		
High-Moderate Water Use Plant Material			
<i>*Hybrid grass types (Texas hybrids, fescue, etc.)</i>			
<i>Plant Factor (PF, %)</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">High-Med</td> <td style="width: 50%; text-align: center;">0.8</td> </tr> </table>	High-Med	0.8
High-Med	0.8		
<i>Landscape Area (LA, sq ft)</i>	5411		
<i>Irrigation Efficiency (IE, %)</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Overhead</td> <td style="width: 50%; text-align: center;">0.65</td> </tr> </table>	Overhead	0.65
Overhead	0.65		
Moderate Water Use Plant Material			
<i>*Traditional trees/shrubs/perennials, alternative grass types (buffalograss, blue grama, etc.)</i>			
<i>Plant Factor (PF, %)</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Med</td> <td style="width: 50%; text-align: center;">0.5</td> </tr> </table>	Med	0.5
Med	0.5		
<i>Landscape Area (LA, sq ft)</i>	1597.92		
<i>Irrigation Efficiency (IE, %)</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Drip</td> <td style="width: 50%; text-align: center;">0.9</td> </tr> </table>	Drip	0.9
Drip	0.9		
Low Water Use Plant Material			
<i>*Xeric trees/shrubs/perennials, native grass mixes</i>			
<i>Plant Factor (PF, %)</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Low</td> <td style="width: 50%; text-align: center;">0.25</td> </tr> </table>	Low	0.25
Low	0.25		
<i>Landscape Area (LA, sq ft)</i>	2535.84		
<i>Irrigation Efficiency (IE, %)</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Drip</td> <td style="width: 50%; text-align: center;">0.9</td> </tr> </table>	Drip	0.9
Drip	0.9		

*PWSD holds final discretion for determining appropriate plant factor designations based on landscape plan submission

Site Summary:	
<i>Total Irrigated Area (sq ft)</i>	9545
<i>Avg Plant Factor (%)</i>	0.60
<i>Avg Irrigation Efficiency (%)</i>	0.76

Peak monthly ET, Parker, CO:	
Peak monthly ET (July):	7.56 in

Irrigation Water Requirement (IWR):	
Peak monthly IWR:	38678 gal
Maximum flow requirement	4.0 GPM

* Max. flow requirements are based on peak monthly irrigation demands and follow PWSD's watering guidelines

Hydraulic Requirements:	
Tap Size (in)	Max GPM v = 7.5 fps
3/4"	10
1"	18
1 1/2"	40
2"	71
3"	189
4"	380
<small>* 2" and smaller assumes Seamless K Copper Tube 3" and larger assumes Ductile Iron Pipe Class 350</small>	
Tap Size Requirement	3/4"

System Design Pressure: 45 PSI

- Design pressure has been field tested & verified
- This form has been completed in compliance with PWSD's Engineering Standards & Specifications Manual regarding irrigation design specifications

Visit Appendix B of the SMWSA Model Ordinance for Plant Factor Guidelines