

User Input: Address/GPS Coordinates



User Input: Building Information

- Building Occupancy Type: Drop down list of Occ Types
- Building Use Schedule (12hrs/12hrs, 18hrs/6hrs, 24hr use)
- Total Gross Interior Building Area (SF)
- Total Roof Area (SF)
- Total Site Area (SF)
- Total Pervious Exterior Area (SF)
- Total Impervious Exterior Area (SF)

User Input: Site Survey/Soils Tests

- Soil Borings and Site Survey (Conducted on site)
- Phase 1 and 2 Environmental Site Assessments

Tool Input: Water Usage Calculator

Tool Populates SITE INFO

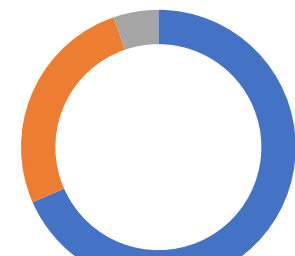
- Yearly precipitation – Gallons/yr.
- Monthly precipitation – Gallons/mo.
- Atlas 14 Rain events total precipitation for 2, 10 and 100 rain events
- Anticipated Percolation rates for the site inches/hr.
- Rainfall distributions: Type I, Type IA, Type II, and Type III
- Avg Annual Temperature Ranges (Deg F)

- Topographic GIS Maps (Query highest/lowest value within site and avg ht ASL)
- County Soil Surveys and other Soil Information as Available (Query Soil Type within site)
- County Geologic Atlas (Query bedrock depth and composition)
- Local Groundwater Levels (Query Avg depth at nearest)
- DWSMA and Wellhead Protection Maps (1 year, 5 years, 10 year TOT)
- FEMA and Local Floodplain Maps (Risk Levels 1-10)
- MPCA Listing of Potentially Contaminated Sites (Query site plus 1/4 miles for y/n)
- TMDLs and Local Water Quality Standards
- Wetland Delineations (site y/n or distance to nearest)
- Avg Risk for (Drought, Flood, Severe Storm, other)

Tool Populates BLDG/SITE VARIABLES

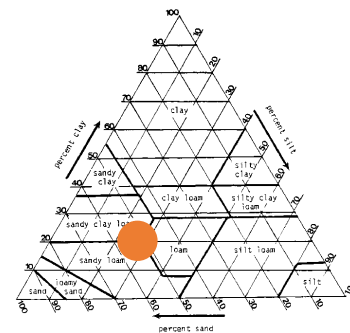
- Irrigated Site Area: (% Irrigated x Pervious total)
- Building Occupancy Load: Determined by gross SF x Occ type load
- Male/Female Toilet/Urinal Fixture Totals: Determined by Load and SF
- Lavatory Faucets (Using Occupancy Type/Load and avg gal/day use)
- Showers (Using Occupancy Type/Load and avg gal/day use)
- Kitchen Faucets (Using Occupancy Type/Load and avg gal/day use)
- Industrial Water Uses (Using Occupancy Type/Load and avg gal/day use)
- Laboratory Faucet (Using Occupancy Type/Load and avg gal/day use)
- Hose Bibs (Using Occupancy Type/Load and avg gal/day use)
- Dishwasher (Using Occupancy Type/Load and avg gal/day use)
- Clothes Washer (Using Occupancy Type/Load and avg gal/day use)

SITE PERVIOUSNESS

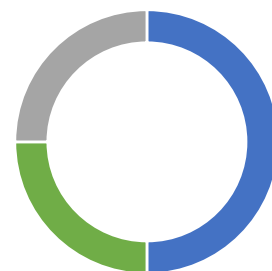


■ Impervious ■ Pervious ■ Semi Pervious

SITE SOILS

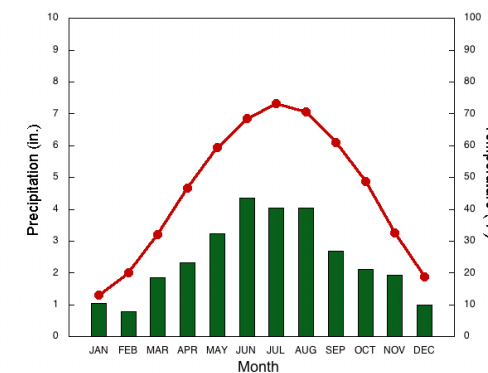


IRRIGATED OUTDOOR AREA



■ IRRIGATED ■ NON IRRIGATED ■ XERSCAPED

MONTHLY TEMP + PRECIPITATION

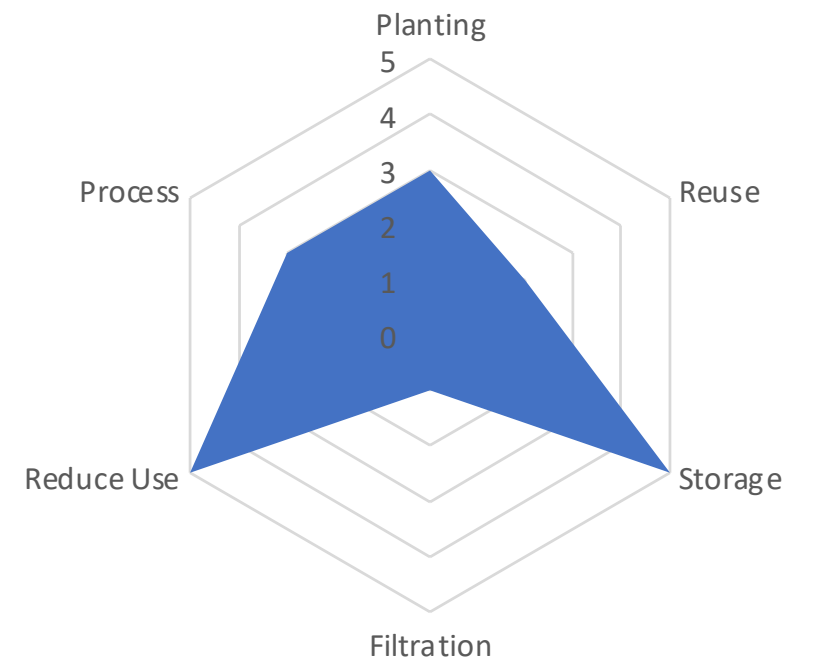


OCCUPANT DENSITY -

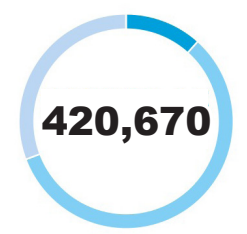
ATLAS 14 RAIN EVENTS - 2 YR EVENT
10 YR EVENT
100 YR EVENT

CLIMATE ZONE -

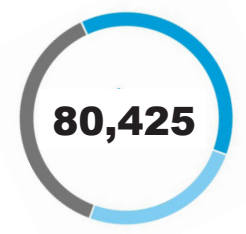
Zone Specific Design Strategies	Logistics				Function		
	Size (SF)	Size (Gal)	Cost (\$ > \$\$\$\$)	Complexity (1-10)	Slow	Filter	Capture
ZONE 1 DESIGN STRATEGIES							
Site Slow/Capture							
Bioretention basin (w/o underdrain)							
Bioretention basin (with underdrain)							
Swale Side Slope							
Swale main channel							
Harvest and re-use/Cistern							
Constructed stormwater pond							
Constructed wetland							
Dry wells							
Rain Barrels							
Mulden-Riglen System (MRS)							
Site Filtration/Infiltration							
Infiltration basin/Infiltration trench (aboveground)							
Underground infiltration							
Permeable pavement							
Stormwater disconnection (Impervious disconnection)							
Sand filters							
Rain Gardens							
Site Evap/Evapotranspiration							
Green Roof							
Tree trench system/Box (w/o underdrain)							
Swale main channel (with underdrain)							
Wet swale							
Trees/Natural ground cover							
Evaporation of water							
Evaporative water features							
Evaporative Vegetation							
Evaporative Ponds							
Transpiration of water							
Flexible Treatment Options (FTO)							
Other (User Defined Reductions)							
ZONE 2 DESIGN STRATEGIES							
Water Use Reductions							
Xeriscaping							
Low Flow Fixtures							
Water Pressure Reduction							
Interactive water-use monitoring and feedback							
Composting Toilets							
Reuse Strategies							
Sink Greywater Recycling							
Sink Greywater Recycling							
Shower Greywater Recycling							
Toilet Blackwater to Living Machine/Biodigester							
Living Machines							
Greywater Treatment and Reuse							
Heating/Cooling							
Evaporative Cooling Towers							
Insulated Piping							
Leak Proofing							
Cooling Tower Recovery							
Steam Boiler Blowdown							
ZONE 3 DESIGN STRATEGIES							
Greywater Reuse Strategies							
Irrigation							
Mechanical (non-potable uses)							
Maintenance/Cleaning							
Trombe Wall							
Reuse Strategies							
Sink Greywater Recycling							
Sink Greywater Recycling							
Shower Greywater Recycling							
Toilet Blackwater to Living Machine/Biodigester							
Living Machines							
Greywater Treatment and Reuse							
Heating/Cooling Uses							
Evaporative Cooling Towers							
Insulated Piping							
Leak Proofing							
Cooling Tower Recovery							
Steam Boiler Blowdown							
ZONE 4 DESIGN STRATEGIES							
Reduction of Storm Sewer Input							
Reduction of Site Runoff							
Increase of Infiltration							
Site Storage							



TOTAL WATER USE (GAL.YR)



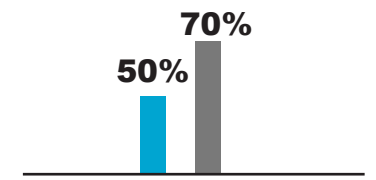
TOTAL WATER REUSE (GAL/YR)



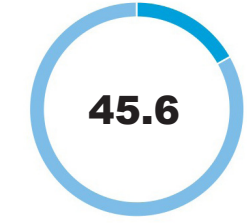
IRRIGATION WATER USE INTENSITY (GAL/FT2/YR)



COMPARISON TO PRESETTLEMENT INFILTRATION AND EVAP ON SITE (GAL/YR)



INDOOR WATER USE INTENSITY (GAL/FT2/YR)



STORMWATER MANAGED ONSITE (%)



