



Water Efficiency Update Park Operations

Presented by Park Superintendent David Garrard

Public Works Commission

August 11, 2021



Park Maintenance Operations

- Program background
- Water conservation efforts



Background

- Park Operations Bureau:
 - Maintains the landscape of the City parks and facilities, historic Greystone Park, medians/traffic islands/easements, parking facilities, reservoir sites, Business Triangle, and City-owned properties.
 - Provides support services to other Departments.



Background

- Responsible for landscape maintenance of:
 - 101.5 landscaped acres
 - 97 irrigation controllers
 - 1578 irrigation valves
 - 1000's of irrigation supply devices



Background

- Expectations of landscape and irrigation:
 - Keep landscape clean and green
 - Manage landscape with moderate plant health in mind (low-moderate water-use plants selected)
 - Continue adding flow meter/master valves
 - Response time to leaks and repairs is within 24 hours
 - Partner with Water Conservation to reduce water use



Park Maintenance Operations

- Reasons for additional watering
 - Establish new plants/turf
 - Replanted 1,500 plants at Beverly Gardens Park in FY 2021/22
 - Reseed turf (e.g. athletic fields)
 - Unhealthy plants/turf



Park Maintenance Operations

- Examples of Water Conservation efforts
 - Adjust watering schedules
 - Reseed grass only when necessary
 - Avoid replanting large areas, whenever possible
 - Replace with drought tolerant plants, whenever possible
 - Upgrade aging irrigation components
 - Water medians with non-potable water
 - Removal of annual color and replace with perennial color in certain locations



Park Maintenance Operations

IMMS ET - 4.0.2.3: C:\ProgramData\Hunter Industries\IMMS\Data\IMSDData.mdf

File View Reports Tools Help

Home Back Sync All Save Program Overview Analysis Login Settings Help

Controller Scheduling | Map View | Controller Non Water Windows | Controller Hardware | Station Settings | Custom Manual

Selected Properties

Name: **Amaz Mini Park**

Type: **ACC**

Season Adjust: **100**

Station Size: **12**

Actual Size: **<N/A>**

Stack/Overlap

Smartstack

SSG/Smartstac

Comm Enabled

Program	A	B	C	D	E	F
Program Name	LAWN PRO A	Shrub PRO B	PROGRAM C	PROGRAM D	PROGRAM E	PROGRAM F
Days To Water	SMTWTFSS	SMTWTFSS	SMTWTFSS	SMTWTFSS	SMTWTFSS	SMTWTFSS
Next Water Date	8/13/2022	8/13/2022	NONE	NONE	NONE	NONE
Start Times						
Start Time 1	12:00 AM	12:15 AM	OFF	OFF	OFF	OFF
Actual Start	---	---	OFF	OFF	OFF	OFF
End Time	---	---	OFF	OFF	OFF	OFF
Season Adjust	100 G	100 G	100 G	100 G	100 G	100 G
Start Mode	Stack	Stack	Stack	Stack	Stack	Stack
Station Delay	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00

Station Name	PROGRAM A	PROGRAM B	PROGRAM C	PROGRAM D	PROGRAM E	PROGRAM F	Cycle
(01) back shrub	0:00:00	0:05:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00
(02) no. shrub	0:00:00	0:05:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00
(03) front shrub	0:00:00	0:05:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00
(04) back lawn	0:04:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00
(05) ins ps lawns	0:08:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00
(06) so shrubs	0:00:00	0:05:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00
(07)	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00
(08)	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00
(09)	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00
(10)	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00
(11)	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00
(12)	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00

Per Start Time:	0:12:00	0:20:00	0:00:00	0:00:00	0:00:00	0:00:00
Per Program:	0:12:00	0:20:00	0:00:00	0:00:00	0:00:00	0:00:00

Ready | Communication History | Controller Mode Alarms | 6:16 AM | 8/10/2022



Park Maintenance Operations

Products and Materials

Block 13: Hunter and Hounds Garden at Crescent Drive to Canon Drive

BLOCK 13: CRITICAL ANALYSIS

Generated: 2017-11-03 16:22

P.O.C. NUMBER: 01

Water Source Information:
site measurement-remeasurement 11/3/17

FLOW AVAILABLE

Point of Connection Size: 2"
Flow Available: 78.62 gpm

PRESSURE AVAILABLE

Static Pressure at POC: 60.00 psi
Pressure Available: 60.00 psi

DESIGN ANALYSIS

Maximum Station Flow: 31.48 gpm
Flow Available at POC: 78.62 gpm
Residual Flow Available: 47.14 gpm

Critical Station: 4
Design Pressure: 40.00 psi
Friction Loss: 5.21 psi
Fittings Loss: 0.52 psi
Elevation Loss: 0.00 psi
Loss through Valve: 0.48 psi
Pressure Req. at Critical Station: 46.21 psi
Loss for Fittings: 0.05 psi
Loss for Main Line: 0.53 psi
Loss for POC to Valve Elevation: 0.00 psi
Loss for Backflow: 11.30 psi
Loss for Master Valve: 0.80 psi
Critical Station Pressure at POC: 58.89 psi
Pressure Available: 60.00 psi
Residual Pressure Available: 1.11 psi

BLOCK 13 WATER EFFICIENT LANDSCAPE WORKSHEET									
Landscape Area (LA)	Reference Evapotranspiration (E _t)	Conversion Factor (to Gallons/SF)	Evapotranspiration Adjustment Factor (ETAF)						
Regular	8.763	0.62	0.45	Reference Site	E _t				
Special	42.170	Los Angeles	50.1						
TOTAL	50.933								
Estimated Applied Water Use (EAWU):									
REGULAR LANDSCAPE AREAS									
Hydrozone No.	Hydrozone Description	Hydrozone Area (F ²)	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF*IE)	(ETAF x Area)	Estimated Total Water Use (Gallons) (ETWU)	
1	Shrubs	8.763	0.2	Drip Area	0.81	0.25	2,163.70	67,208.96	
Total Area		8.763			TOTALS	8.763	2,163.70	67,208.96	
SPECIAL LANDSCAPE AREAS - IRRIGATED BY <source>									
Hydrozone No.	Hydrozone Description	Hydrozone Area (F ²)	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF*IE)	(ETAF x Area)	Estimated Total Water Use (Gallons) (ETWU)	
6	Turf	42.170	0.7	Spray	0.75	0.93	39,358.67	1,222,558.90	
Total Area		42.170			TOTALS	42.170	39,358.67	1,222,558.90	
ETAF Calculations									
Regular Landscape Areas		Average ETAF		0.25		ESTIMATED TOTAL WATER USE (ETWU)		1,289,768	GALLONS
All Landscape Areas		Sitewide ETAF		0.82		MAXIMUM ALLOW WATER ALLOWANCE (MAWA)		1,432,373	GALLONS



Park Maintenance Operations

STAR AMI System 7 User: GBHjambrose Database: [aclaradb01].[StarDatabase]

Premise Communications Reporting Premise Help
Premise Views Edit Delete Xmits

Premise Selection

Search By:

Search For:

Select a View: Readings Maintenance Diagnostics Consumption Transmissions

Enter Date Range: Start End

Premise 21001016 Display Comments

Name: CITY OF BEVERLY HILLS Phone: Or
 Organization: C/O PARKS & REC Account Type: 1
 Address: 0 PARK WAY Cycle: 2
 BEVERLY HILLS, CA 90210 Route: 21

Billing Account Longitude

MTU	Port	Meter Serial #	Service #	State	Utility
<input checked="" type="radio"/> 46182400	1 (Cu. FL) (Manage MTU)	60697998 (Edit Meter)		Active	Water
<input type="radio"/> 1885392	1 (Cu. FL) (Manage MTU)	60697998 (Edit Meter)		Inactive	Water

MTU 46182400, Port 1 Consumption

Interval: Interval Weekly Monthly Units:

Total	High	Average	Low
1299702.1	160116.82	99877.08	28394.66

Month	Consumption (Gals.)
08/2021	129987.72
09/2021	150176.82
10/2021	67623.51
11/2021	148856.70
12/2021	50157.02
01/2022	78592.35
02/2022	124077.84
03/2022	140007.35
04/2022	131888.8
05/2022	50293.71
06/2022	87180.71
07/2022	87587.71
08/2022	28394.66



Comments/Questions