

Lawn Ridge Pump Station

General Site and Safety Considerations

Tuesday, December 01, 2015

GENERAL SITE CONDITION/ACCESS

Vehicle Entrance and Exit to Site	Driveway to site, located in park
Parking	On street or driveway
Sight lighting Fixture	None

SAFETY CONSIDERATIONS

General Site Safety Issues	Lack of lighting may pose challenge when visited at night
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SITE SECURITY

Facility Fenced	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Privacy Fence	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Fence Material	N/A	Height of Fence	N/A
Method of Securing Access Gates	N/A	Fence Topping	N/A
Adequate security for keeping public off site?	No		

Notes:



General Site Photos

Tuesday, December 01, 2015



Looking southeast from across NW Hawthorne Ave



Front access of building

Equipment Housing

Tuesday, December 01, 2015

Equipment Housing	<input checked="" type="checkbox"/> Building	<input type="checkbox"/> Enclosure	<input type="checkbox"/> Other		
Condition	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Criticality	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input checked="" type="checkbox"/> 4	
Serviceability	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	

Structural Materials	Brick façade on CMU
Age	Installed 1969

Locking Doors	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Intrusion Alarm	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Dimensions:

Length	~40	ft
Width	~15	ft

HVAC:

Heat	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Cooling	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Humidity Control	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Fan	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Notes:



Equipment Housing Photos

Tuesday, December 01, 2015



Front door to building - shared structure with parks storage/bathroom facility (on left)



South side of structure with diesel engine exhaust



North side of building has restrooms



Inside of structure

Flow Meter and Vault(s)

Tuesday, December 01, 2015

Flow Meter	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Condition	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
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Criticality	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
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Serviceability	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
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Asset Nos.	
Location.	
Type/Manufacturer	
Age	

Vault	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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Description	
Structural Materials	
Dimensions	
Age	

Access Hatch Fall Protection	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Access Hatch Lock	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Intrusion Alarm	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Notes:



Flow Meter and Vault(s) Photos

Tuesday, December 01, 2015

No Facility

LAWN RIDGE #1

Tuesday, December 01, 2015

Suction Zone	1108.5	Discharge Zone	1240
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Pumping System No. 1

Condition 1 2 3 4 5

Criticality 1 2 3 4

Serviceability 1 2 3 4

Pump Type Vert. Turb. End Suction Split case In-line centrifugal

Mounting Horizontal Vertical

Pump from Piping Can Basin/Clearwell

Pump to Closed zone Pressure tank Reservoir

Asset no.	P-7-11-1
Manufacturer	WORTHINGTON
Model	22LR-13
Serial #	Y470206
Age	Installed 1969

Rated Design Pt 400 gpm @ 120 feet TDH

Ability to Isolate Pump Yes No

How to Remove Pump Manual, no hatches

MOTOR

ODP TEFC TENV TEBC Diesel Engine Other

Horsepower 25 Voltage Phase 3 rpm 1760

Manufacturer	US Motors
Model	R-1706-03-170
Serial #	Unknown
Age	Installed 1969

Inverter duty rated? Yes No Unknown

Motor Driver VFD Soft Starter FVNR Starter None

Notes:

Suction isolation valve, but no discharge isolation



Valves and Gauges

Tuesday, December 01, 2015

Check/Control Valve	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.	FCV-7-11-1-2	
Type/Manufacturer	Cla-Val	
Model	4-125	
Age	Installed 1969	

Isolation Valve(s)	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.	FV-7-11-1-1	
Type/Manufacturer	BV/Henry Pratt, 4-150B, no independent discharge iso valve	
Age	Installed 1969	

Pressure Gauge(s)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Asset Nos.		
Type/Manufacturer		

Pressure Relief Valve(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition		
Asset Nos.	FCV-7-11-1	
Location.		
Type/Manufacturer: Cla-Val		
Model: CAT#6-50		
Stk# 74882-06		
Age: Installed 1969		

Notes:

PRV-7-11-1 Lawnridge Pressure Relief Valve Henry Pratt Pressure Relief Valve



Piping

Tuesday, December 01, 2015

Common Suction Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	12"? 16"?
Pipe material	Steel
Age	Installed 1969

Pump Specific Suction Pipe

Reported/Exterior Condition	Rubber bellows fittings are rotting - require replacement
Pipe size	4"
Pipe material	Steel
Age	Installed 1969

Pump Specific Discharge Pipe

Reported/Exterior Condition	Rubber bellows fittings are rotting - require replacement
Pipe size	4"
Pipe material	Steel
Age	Installed 1969

Common Discharge Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	12"/16"
Pipe material	Steel
Age	Installed 1969

Notes:



Pump/Valve/Piping Photos

Tuesday, December 01, 2015



Pumping System No. 1



Pumping System No. 1 suction piping and isolation valve



Pumping System No. 1 with pump control valve



Pumping System No. 1 motor nameplate



Pumping System No. 1 pump nameplate



Pumping System No. 1 pump control valve



Common system pressure relief valve



Common system pressure relief valve

LAWN RIDGE #2

Tuesday, December 01, 2015

Suction Zone	1108.5	Discharge Zone	1240
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Pumping System No. 2

Condition 1 2 3 4 5

Criticality 1 2 3 4

Serviceability 1 2 3 4

Pump Type Vert. Turb. End Suction Split case In-line centrifugal

Mounting Horizontal Vertical

Pump from Piping Can Basin/Clearwell

Pump to Closed zone Pressure tank Reservoir

Asset no.	P-7-11-2
Manufacturer	WORTHINGTON
Model	4LR-11
Serial #	Y470207A
Age	Installed 1969

Rated Design Pt 1000 gpm @ 120 feet TDH

Ability to Isolate Pump Yes No

How to Remove Pump Manual, no hatches

MOTOR

ODP TEFC TENV TEBC Diesel Engine Other

Horsepower 50 Voltage Phase 3 rpm 3540

Manufacturer	US Motors
Model	R-1718-02-270
Serial #	Unknown
Age	Installed 1969

Inverter duty rated? Yes No Unknown

Motor Driver VFD Soft Starter FVNR Starter None

Notes:



Valves and Gauges

Tuesday, December 01, 2015

Check/Control Valve	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.	FCV-7-11-2-2	
Type/Manufacturer	Cla-Val, Model: 6-100G, SN: 175MWWP	
Age	Installed 1969	

Isolation Valve(s)	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.	FV-7-11-2-1	
Type/Manufacturer	BV/Henry Pratt, 6-150B, no independent discharge iso valve	
Age	Installed 1969	

Pressure Gauge(s)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Asset Nos.		
Type/Manufacturer		
Age		

Notes:



Piping

Tuesday, December 01, 2015

Common Suction Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	12"? 16"?
Pipe material	Steel
Age	Installed 1969

Pump Specific Suction Pipe

Reported/Exterior Condition	Rubber bellows fittings are rotting - require replacement
Pipe size	6"
Pipe material	Steel
Age	Installed 1969

Pump Specific Discharge Pipe

Reported/Exterior Condition	Rubber bellows fittings are rotting - require replacement
Pipe size	6"
Pipe material	Steel
Age	Installed 1969

Common Discharge Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	12"/16"
Pipe material	Steel
Age	Installed 1969

Notes:



Pump/Valve/Piping Photos

Tuesday, December 01, 2015



Pumping System No. 2



Pumping System No. 2 suction piping and isolation valve



Pumping System No. 2 motor nameplate



Pumping System No. 2 pump nameplate



Pumping System No. 2 pump control valve



Pumping System No. 2 pump control valve nameplate

LAWN RIDGE #3

Tuesday, December 01, 2015

Suction Zone	1108.5	Discharge Zone	1240
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Pumping System No. 3

Condition 1 2 3 4 5

Criticality 1 2 3 4

Serviceability 1 2 3 4

Pump Type Vert. Turb. End Suction Split case In-line centrifugal

Mounting Horizontal Vertical

Pump from Piping Can Basin/Clearwell

Pump to Closed zone Pressure tank Reservoir

Asset no.	P-7-11-3
Manufacturer	WORTHINGTON
Model	4LR-11
Serial #	Y470207
Age	Installed 1969

Rated Design Pt 1000 gpm @ 120 feet TDH

Ability to Isolate Pump Yes No

How to Remove Pump Manual, no hatches

MOTOR

ODP TEFC TENV TEBC Diesel Engine Other

Horsepower 50 Voltage Phase 3 rpm 3540

Manufacturer	US Motors
Model	R-1718-02-270
Serial #	Unknown
Age	Installed 1969

Inverter duty rated? Yes No Unknown

Motor Driver VFD Soft Starter FVNR Starter None

Notes:



Valves and Gauges

Tuesday, December 01, 2015

Check/Control Valve	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.	FCV-7-11-3-2	
Type/Manufacturer	Cla-Val, Model: 6-100G, SN: 175MWWP	
Age	Installed 1969	

Isolation Valve(s)	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.	FV-7-11-3-1	
Type/Manufacturer	BV/Kennedy, 6-150B, no independent discharge iso valve	
Age	Installed 1969	

Pressure Gauge(s)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Asset Nos.		
Type/Manufacturer		
Age		

Notes:



Piping

Tuesday, December 01, 2015

Common Suction Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	12"? 16"?
Pipe material	Steel
Age	Installed 1969

Pump Specific Suction Pipe

Reported/Exterior Condition	Rubber bellows fittings are rotting - require replacement
Pipe size	6"
Pipe material	Steel
Age	Installed 1969

Pump Specific Discharge Pipe

Reported/Exterior Condition	Rubber bellows fittings are rotting - require replacement
Pipe size	6"
Pipe material	Steel
Age	Installed 1969

Common Discharge Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	12"/16"
Pipe material	Steel
Age	Installed 1969

Notes:



Pump/Valve/Piping Photos

Tuesday, December 01, 2015



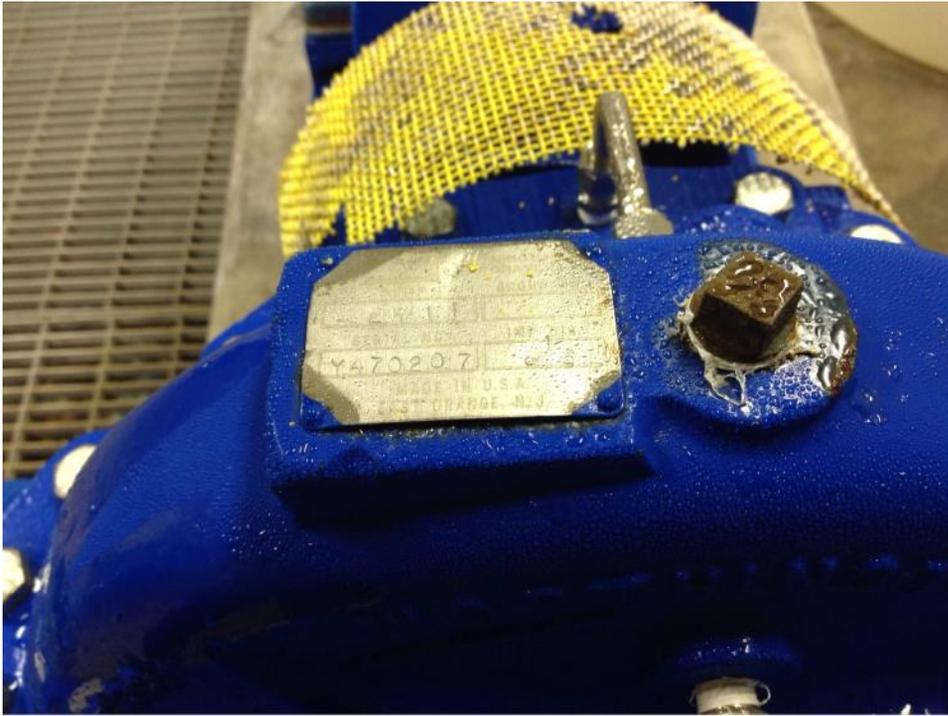
Pumping System No. 3



Pumping System No. 3 motor nameplate



Pumping System No. 3 suction piping and isolation valve (note failing bellows)



Pumping System No. 3 pump nameplate



Pumping System No. 3 pump control valve



Pumping System No. 3 pump control valve nameplate



Pumping Systems

LAWN RIDGE #4

Tuesday, December 01, 2015

Suction Zone	1108.5	Discharge Zone	1240
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Pumping System No. 4

Condition 1 2 3 4 5

Criticality 1 2 3 4

Serviceability 1 2 3 4

Pump Type Vert. Turb. End Suction Split case In-line centrifugal

Mounting Horizontal Vertical

Pump from Piping Can Basin/Clearwell

Pump to Closed zone Pressure tank Reservoir

Asset no.	P-7-11-4
Manufacturer	WORTHINGTON
Model	8LR-13
Serial #	Y715523
Age	Installed 1969

Rated Design Pt 2000 gpm @ 148 feet TDH

Ability to Isolate Pump Yes No

How to Remove Pump Manual, no hatches

MOTOR

ODP TEFC TENV TEBC Diesel Engine Other

Horsepower 100 Voltage 460 Phase 3 rpm 1780

Manufacturer	US Motors
Model	Unknown
Serial #	Unknown
Age	Installed 1969

Inverter duty rated? Yes No Unknown

Motor Driver VFD Soft Starter FVNR Starter None

Notes:



Valves and Gauges

Tuesday, December 01, 2015

Check/Control Valve	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.	FCV-7-11-4-2	
Type/Manufacturer	CLA-VAL, MODEL: 8-2100G	
Age	Installed 1969	

Isolation Valve(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.	FV-7-11-4-1, FV-7-11-4-3	
Type/Manufacturer	BV/Kennedy, 8-150B both suction and discharge	
Age	Installed 1969	

Pressure Gauge(s)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Asset Nos.		
Type/Manufacturer		
Age		

Notes:



Piping

Tuesday, December 01, 2015

Common Suction Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	12"? 16"?
Pipe material	Steel
Age	Installed 1969

Pump Specific Suction Pipe

Reported/Exterior Condition	Rubber bellows fittings are rotting - require replacement
Pipe size	8"
Pipe material	Ductile iron
Age	Installed 1969

Pump Specific Discharge Pipe

Reported/Exterior Condition	Rubber bellows fittings are rotting - require replacement
Pipe size	8"
Pipe material	Ductile iron
Age	Installed 1969

Common Discharge Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	12"/16"
Pipe material	Steel
Age	Installed 1969

Notes:



Pump/Valve/Piping Photos

Tuesday, December 01, 2015



Pumping System No. 4



Pumping System No. 4 suction piping and isolation valve



Pumping System No. 4 suction pipe and diesel engine



Pumping System No. 4 motor nameplate



Pumping System No. 4 pump nameplate



Pumping System No. 4 pump control valve



Pumping System No. 4 backup diesel engine batteries



Pumping System No. 4 backup diesel engine (not used/functional)



Pumping System No. 4 backup diesel engine (not used/functioning)

Backup Power

Tuesday, December 01, 2015

BACKUP POWER

Source	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Pig tail for portable	<input type="checkbox"/> On-site, permanent
Transfer Switch	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Type	<input type="checkbox"/> Manual	<input type="checkbox"/> Auto	

Notes:

Plans to add soon

STANDBY GENERATOR

Condition	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Criticality	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	
Serviceability	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	
Asset No.					
Manufacturer					
Model					
Serial #					
Age(s)					
Location					
Electrical capacity	KW		Voltage		Phase(s)
Fuel type	<input type="checkbox"/> Diesel	<input type="checkbox"/> Nat. Gas	<input type="checkbox"/> Propane	<input type="checkbox"/> Gasoline	<input type="checkbox"/> Other
Full load fuel demand		gal/hr			
Fuel stored on-site		gal			

Notes:



PRV near Lawnridge

Tuesday, December 1, 2015



Square hatch problem





PRV at 9th and Savage

Tuesday, December 1, 2015



