

**D> EXISTING FILTER AREA DEMO KEY NOTES**

1. Existing filter building structure
2. Existing filter building doors
3. Salvage/reuse existing wood planks/grating used to cover pits
4. Protect existing handrails around pits
5. Protect existing pit access ladder
6. Protect existing deep pit manhole steps
7. Existing overflow block out in wall
8. Demo/remove all existing related chemical feed systems within chlorine room. Present to Owner for assessment to be discarded, saved for reinstallation
- a. Demo/remove existing pool controller and chemical feeder. Present to Owner for assessment to be either discarded, or saved for reinstallation
9. Salvage existing erosion feeder. Provide to owner for assessment to be reused/reinstalled
10. Demo/remove existing erosion feeder supply piping
11. Demo/remove existing pool filter mechanical equipment identified unless otherwise noted or needed for complete system
12. Demo/remove partial of existing 3" pool manual fill line
13. Evaluate existing D.E. pit floor drain isolation valve at end of piping within drain pit replace if necessary
14. Demo/remove existing 4" wading pool main drain and end of season drain piping within drain pit to include isolation valves
15. Existing 10" pool gutter piping below floor identified shall remain and in-situ lined for reuse and connect to new spray ground main drain
- a. Existing 4" Pool gutter end of season drain piping discharged into drain pit
16. Demo/remove remaining of pool gutter piping beyond exterior of filter building. See Detail SP-F2, PM1 sheet for further information
17. Demo/remove exposed pool main drain piping within deep pit routed up into trash basket baffle area
18. Existing 6" Pool main drain piping beyond exterior of filter building, abandoned. See key note (E9) Sheet SP-D1 for further piping information
19. Protect existing deep pit submersible sump pumps
20. Protect existing deep pit submersible sump pump manifold header piping and supports routed up into upper basin and drain basin
21. Existing 6" pool return piping cut/capped at floor. remainder of piping below grade and beyond abandoned
22. Existing upper wet pit structure
23. Existing 6" upper wet pit floor drain piping discharge into drain pit
24. Demo/remove existing wood baffle system within deep wet pit
25. Protect existing trash basket and hoist system
26. Approximate location of electrical panels on wall
27. Demo/remove partial of existing concrete floor shown for spray features laterals and drain piping ~ See Sheet SP-F2
28. Existing 4" Wading pool drain return piping cap/abandoned beyond ~ See Sheet SP-F2
29. Existing 6" Pool return piping below grade and beyond abandoned
30. Existing deep pit structure
31. Existing drain pit structure
32. Approximate route of existing 3" domestic water supply
33. Approximate route of existing 1" pool deck hose bibb supply
34. Approximate location of existing 6" sanitary sewer with running trap piping
35. Existing floor drains location

**N> FILTER AREA IMPROVEMENT KEY NOTES**

1. Existing 6" pool main drain within deep pit capped at wall/abandoned beyond exterior of filter building ~ See key note (E9), Sheet SP-D1
2. 8" Spray ground main drain piping ~ See PM1 Sheet for pipe continuation
- a. Provide DIP to PVC transition connection to existing pool gutter piping
3. 4" Spray ground end of season main drain piping ~ See PM1 sheet for pipe continuation
4. 10" x 8" Eccentric reducer with flat side down
5. 10" Spray ground main drain reconnected to existing 10" pool gutter pipe ~ See demo key note (D15) SP-F1
- a. Continuation/re-purposing of existing old 10" pool gutter piping in-situ lined, routed into deep pit
6. 10" Spray ground main drain discharge into trash basket baffle area
7. Existing 4" – Wading pool main drain and end of season drain piping capped and abandoned within drain pit
- a. Existing 4" – Wading pool main drain abandoned
8. Existing 4" – End of season drain piping capped and abandoned within pit ~ See demo key note (D15a) SP-F1
9. Grout fill pipe opening within wall after removal of existing piping
10. Existing 6" – Pool return piping capped at floor ~ See demo key note (11) SP-F1
11. Existing 6" – Pool return piping below slab abandoned beyond ~ See demo key note (16) SP-F1
12. Throttling Butterfly Valve ~ Wheel operated valve at supply lines (water features, pool recirc, backwash discharge)
13. Isolation Butterfly Valve ~ Lever or hand wheel operated (Pumps) for isolation.
14. Provide S.S. operator extension stem guide for submerged valves and valves in pits anchored with S.S. hardware as req'd.
15. Spray ground – Dual submersible recirc pumps combined
16. 4" Filter influent header piping
17. Grout fill open hole in floor of trash basket/baffle area and in wall after removal of old piping.  
See key note (D17) SP-F1
18. Pipe supports – See Details D,E,F-SP-F4
19. Mag meter flow meter with remote readout
- a. Mag meter remote readout
20. 4" Filter face piping
21. Floor mount pipe supports – Saddle type
22. (3) 3"-0"Ø Spray ground fiberglass filters
23. Air release valves top of filters – See Detail G-SP-F4
24. Filter pressure gauges mounted to filter face piping with S.S. hardware
25. 4" Filter effluent/UV influent piping
26. UV bypass piping
27. PVC blind flange for future UV connection
28. UV Vessel and Controller (N.I.C)
29. Connection TO Chemical Controller – See Details C,D-SP-F5
30. Connection TO Erosion Feeder – See Details B,D-SP-F5
31. Connection FROM Muriatic Acid feed system – See Details A,D-SP-F5
32. Erosion feeder discharge piping into pit
33. 4" Filter return piping discharged into pit
34. 4" Filter backwash laterals
35. 4" Filter backwash header piping discharged into drain pit. Set open end 3" above drain pit
36. 6" Spray ground feature pump suction piping
37. Provide link seal fittings around both pump suction piping. Filled annular space with non shrink grout on wet side of pit.
38. Reducer bushing
39. Spray ground spray features pump with integrated basket strainer on concrete base ~ See Details B,C-SP-F4
40. 4" Spray ground – Pump discharge/ spray features header supply piping
41. Pipe saddle, thus
42. 2" "Vortex Cylinder Spray" feature supply piping ~ See PM1 Sheet for pipe continuation
43. 2" "Vortex Jet Stream No.1" feature supply piping ~ See PM1 Sheet for pipe continuation
44. 1½" "Vortex Water Jelly No.1" feature supply piping ~ See PM1 Sheet for pipe continuation
45. 1½" "Vortex Bubbler" feature supply piping ~ See PM1 Sheet for pipe continuation
46. 1½" "Vortex Bamboo Tree No.2" feature supply piping ~ See PM1 Sheet for pipe continuation
47. 2" "Vortex Jet Stream No.2" feature supply piping ~ See PM1 Sheet for pipe continuation
48. 1½" "Vortex Donut" feature supply piping ~ See PM1 Sheet for pipe continuation
49. 1½" "Vortex Bamboo Tree No.2" feature supply piping ~ See PM1 Sheet for pipe continuation
50. Spray ground feature pump with integrated basket strainer on concrete base ~ See Details B,C-SP-F4
- a. 4" Spray ground pump discharge header supply piping
51. 3" "Water Wheel" feature supply piping ~ See PM1 Sheet for pipe continuation
52. Ball valves
53. Solenoid valves
54. End of season laterals drain piping routed/discharged into deep pit ~ Drain piping size shall match supply size
55. Replacement of filter area slab to allow installation of below grade feature supply and drain piping. New slab construction shall include a min. 4" concrete slab with #4 @ 18" O.C. reinforcing. Install expansion joint, slip dowels in adjacent existing concrete surfaces. Saw-cut new slab as needed
56. Reconnection of 3" pool manual fill re-routed
57. Mechanical auto fill supply piping tapped off pool manual fill
58. Mechanical auto fill device
59. Mechanical auto fill discharge piping with air gap 6" above wet pit wall
60. Low water cut-off switch with baffle – Set float 18" above pump suction ~ See Detail H-SP-F4
61. (2) 12"x8" PVC funnels combined. Set top of funnel 4" down from top of pit wall
- a. 8" Overflow piping routed to deep pit
62. Muriatic Acid chemical storage drums and feeder system furnished by Owner/installed by Contractor
63. Existing erosion feeder ~ Furnished by Owner, installed by Contractor
64. Drain valve provide tap or appropriate fitting to allow release of water at low point of piping, pumps volutes, strainer baskets, etc.
65. Spray ground – Chemical controller furnished by Owner/installed by Contractor
66. Spray ground – Features control panel ~ MEP sheets for further information
67. Existing wood planks/grates re-installed over existing pits
68. Emergency eyewash/shower. Anchor with S.S. hardware
69. Provide 1¼" tempered water connection with mixing valve from existing bathhouse water supply, field verify location
70. Provide 1½" thick FRP grating with ½" thick surface plate ~ Field measure existing baffle system, cut to fit
71. Concrete pipe supports ~ See Detail A-SP-F4
72. Existing 3" domestic water supply piping
73. Existing 1" pool deck supply piping
74. Existing 6" sanitary sewer with running trap
75. Filled annular space around spray ground water features supply laterals with non shrink grout at foundation wall penetration going to spray ground, and at end of season drain laterals discharging into pit

**IMPORTANT NOTE**

Pump hoist NOT required at this location

FILTER DATA												
Pool	Volume (gallons)	Recirc Rate (GPM)	Filter Size (dia.)	Quantity or Cells	Filter Area Each (s.f.)	Filter Area Total (s.f.)	Filter Loading Rate (gpm/s.f.)	Average Turnover (hours)	Backwash Rate at 15 gpm's.f. (gpm)	Backwash Time (minutes)	Backwash Volume Each (gal.)	Backwash Volume Total (gal.)
Main	0	240	3.00	3	7.07	21.20	11.32	0.00	106	5	530	1,590

PUMP DATA									
Location	Pump Description	Flow (gpm)	TDH (ft.) (psi)	Shut-off Head (max.) (ft.)	Efficiency +/- %	HP	RPM	VFD	
Spray Ground	Recirc (existing sump pump)	480	--	--	--	--	6	--	No
Spray Ground	Recirc ea. (2 sump pumps total)	115	42	18	75	n/a	3 ea.	3,600	No
Spray Ground	Water Feature (Vortex sprays)	201	35	15	--	--	5	--	Yes
Spray Ground	Water Feature (Wat. Wh. - Bub.)	170	35	15	--	--	5	--	Yes

MAXIMUM PIPE SUPPORT SPACING (Feet) **				
Pipe Size	Sch 80 PVC	Ductile Iron	Copper (L&K)	
1/2"	4.5	--	5.0	
3/4"	4.5	--	5.0	
1"	5.0	--	6.0	
1 1/4"	5.0	--	7.0	
1 1/2"	5.5	--	8.0	
2"	6.0	--	8.0	
2 1/2"	6.0	--	9.0	
3"	7.0	--	10.0	
4"	7.5	*	12.0	
5"	--	--	13.0	
6"	9.0	*	14.0	
8"	9.5	*	16.0	
10"	10.0	*	18.0	
12"	11.5	*	19.0	
14"	--	*	--	
16"	--	*	--	

\* Maximum support spacing of 20 Ft. Provide a minimum of 1 hanger as close as practical to the joint behind the bell, and at changes of direction and branch connections.

\*\* Unless shown or noted otherwise

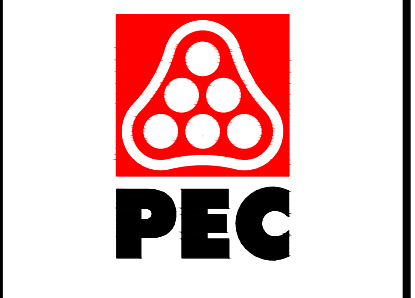
- PIPING NOTES**
1. Pipe type shall be Sch 80 PVC unless noted otherwise
  2. Refer to Pool Mechanical Sheets for pipe types beyond the building
  3. Pipe sizes are identified in inches on the drawings
  4. Pipe connection hardware shall be S.S. within Pool Mechanical Room
  5. Contractor shall provide and install uniflanges/unions as req'd
  6. Sch 80 PVC fittings may be solvent weld or flanged at Contractor's option
  7. All piping and fittings at equipment (filters, pumps, valves, etc.) shall be flanged ~ PVC flanges at fittings shall be male type as shown
  8. Refer to Maximum Pipe Support Spacing Schedule for frequency and spacing of pipe supports ~ At minimum, Contractor shall support piping as indicated on schedule which may require more supports than indicated on drawings
  9. All hardware shall be S.S.
  10. Provide air release valve at all high loops in piping
  11. Provide drain valve at all low points in piping
  12. All piping through concrete structures shall be cast-in-place ~ No pipe sleeves or coring allowed

**waters edge**  
AQUATIC DESIGN

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**WICHITA, KANSAS**  
**Spray Ground**  
**LINWOOD PARK**



Seal: **JEFF A. BARTLEY**  
LICENSED PROFESSIONAL ENGINEER  
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8/14/18

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Date: 08-14-20 Job #: 18-512  
Drawn: CJB Checked: JAB

ISSUE: CONSTRUCTION DOCUMENTS

**FILTER AREA IMPROVEMENT DATA AND KEY NOTES**

**SP-F0**