

CONSTRUCTION PLANS FOR CITY OF ANN ARBOR PARKS AND REC. VETERANS PARK POOL IMPROVEMENTS

CITY OF ANN ARBOR
WASHTENAW COUNTY, MICHIGAN



PROJECT DESCRIPTION

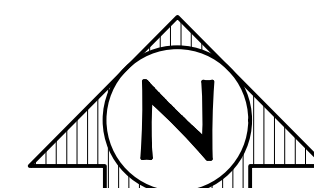
PROJECT INCLUDES THE REMOVAL AND REPLACEMENT OF THE EXISTING SAND FILTER. REMOVE AND REPLACE ALL EXISTING POOL PIPING FROM PUMP SUCTION TO POOL RETURN, PNEUMATIC OPERATORS, POOL PUMP COMPONENTS, AND ASSOCIATED ELECTRICAL WORK TO BE INCLUDED.

SHEET INDEX

- 1 - COVER SHEET
- 2 - PLAN AND DETAIL SHEET "SP-1"

LOCATION MAP

SCALE: 1"=150'



PROPERTY ADDRESS

CITY OF ANN ARBOR
VETERANS MEMORIAL PARK POOL & ICE ARENA
2150 JACKSON AVENUE
ANN ARBOR, MI 48103

OWNER INFORMATION

CITY OF ANN ARBOR PARKS AND RECREATION DEPARTMENT
301 E. HURON STREET
ANN ARBOR, MI 48104

PARCEL INFORMATION

09-09-216-001



Know what's below.
Call before you dig.

PLAN SUBMITTALS AND CHANGES

PRELIMINARY PLANS - **NOT FOR CONSTRUCTION**

DATE	DESCRIPTION

REV:

SHT# 1 OF 2

JOB No: 17C0261

PLAN DATE: NOVEMBER 2017
PROJECT MGR: DRS
REVIEWER: DAS
SCALE: 1"=150'

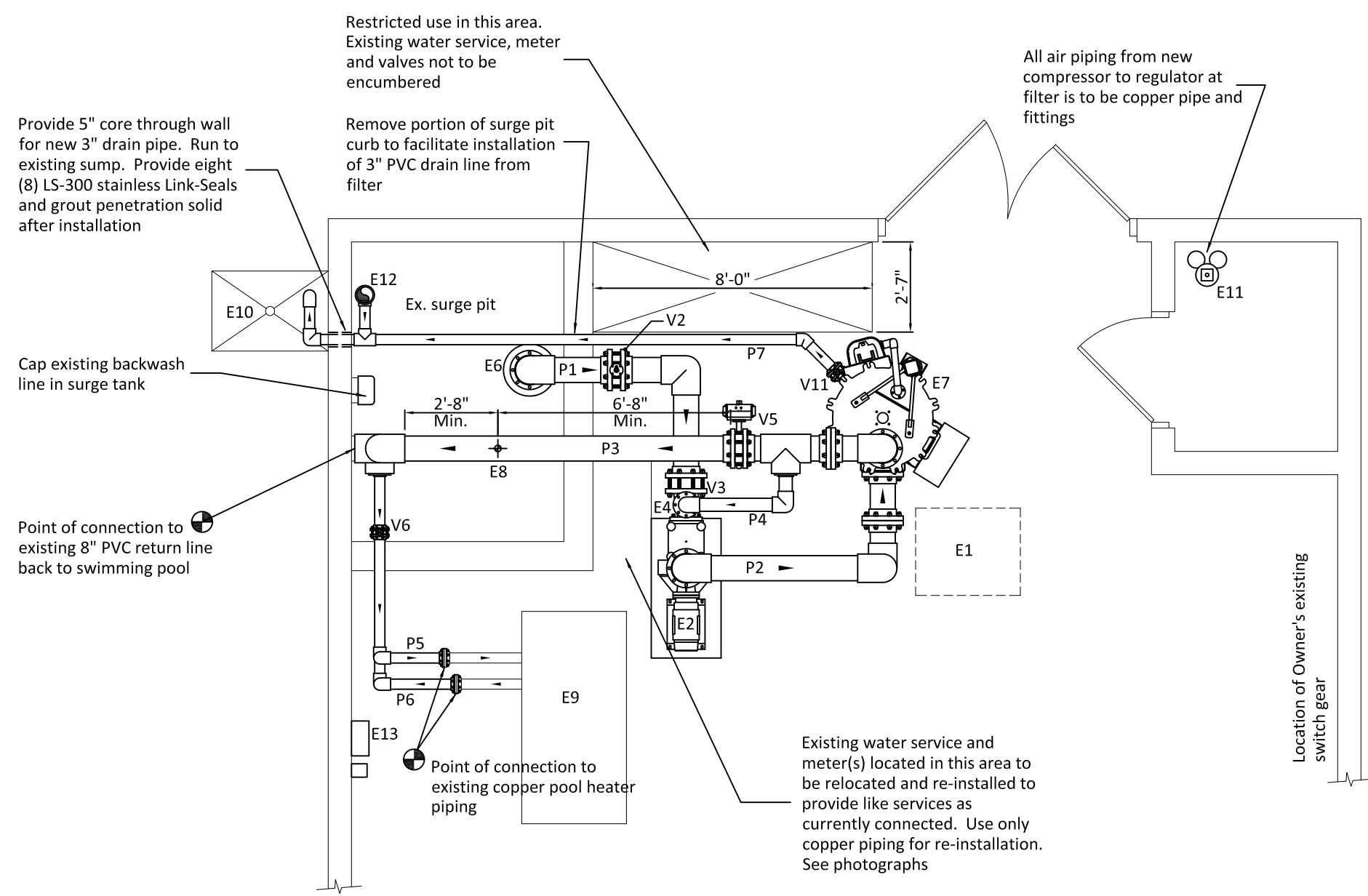
ROWE PROFESSIONAL SERVICES COMPANY



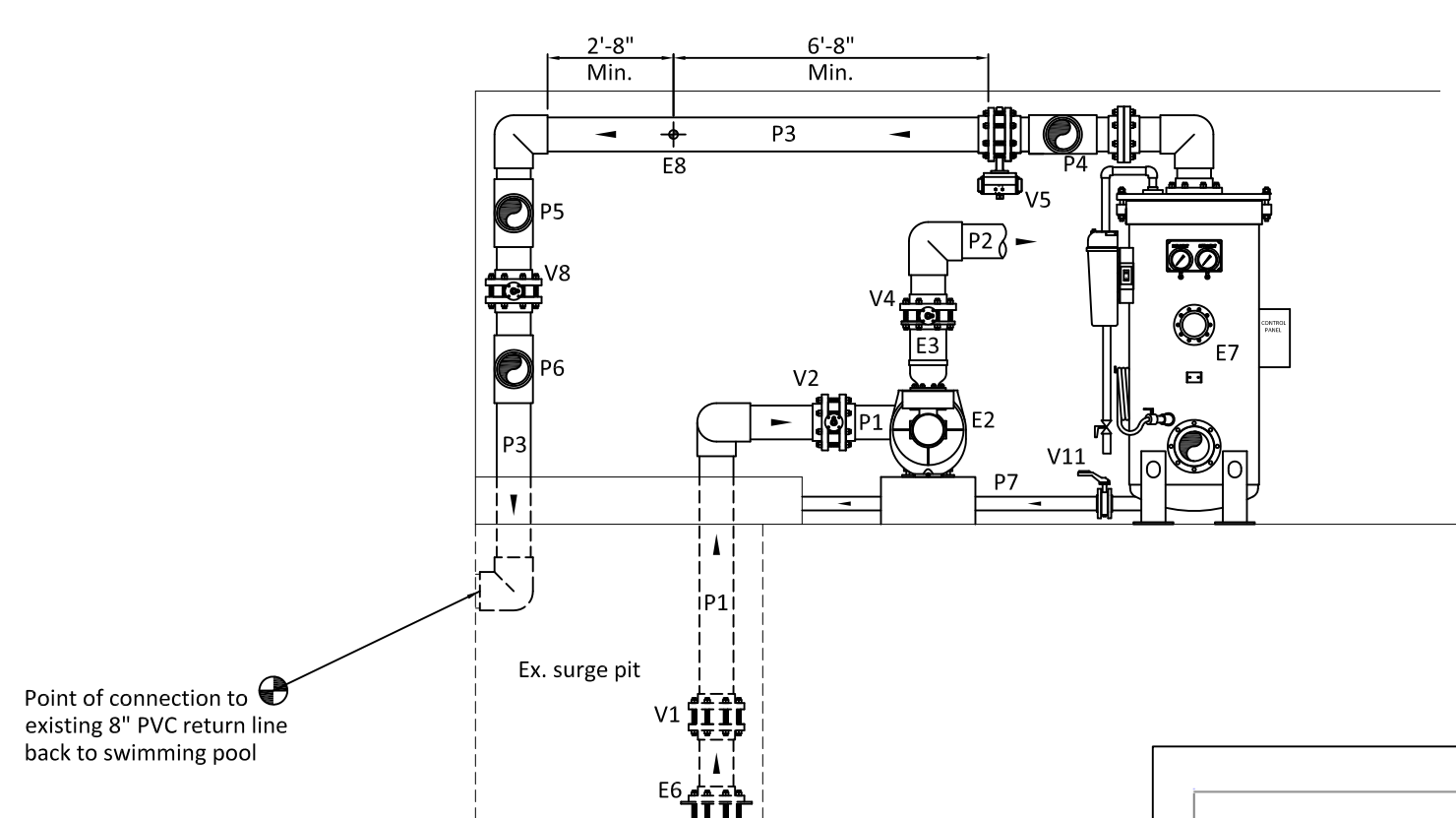
The Rowe Building
540 S. Saginaw St., Suite 200
Flint, MI 48502

O: (810) 341-7500
F: (810) 341-7573
www.rowepsc.com

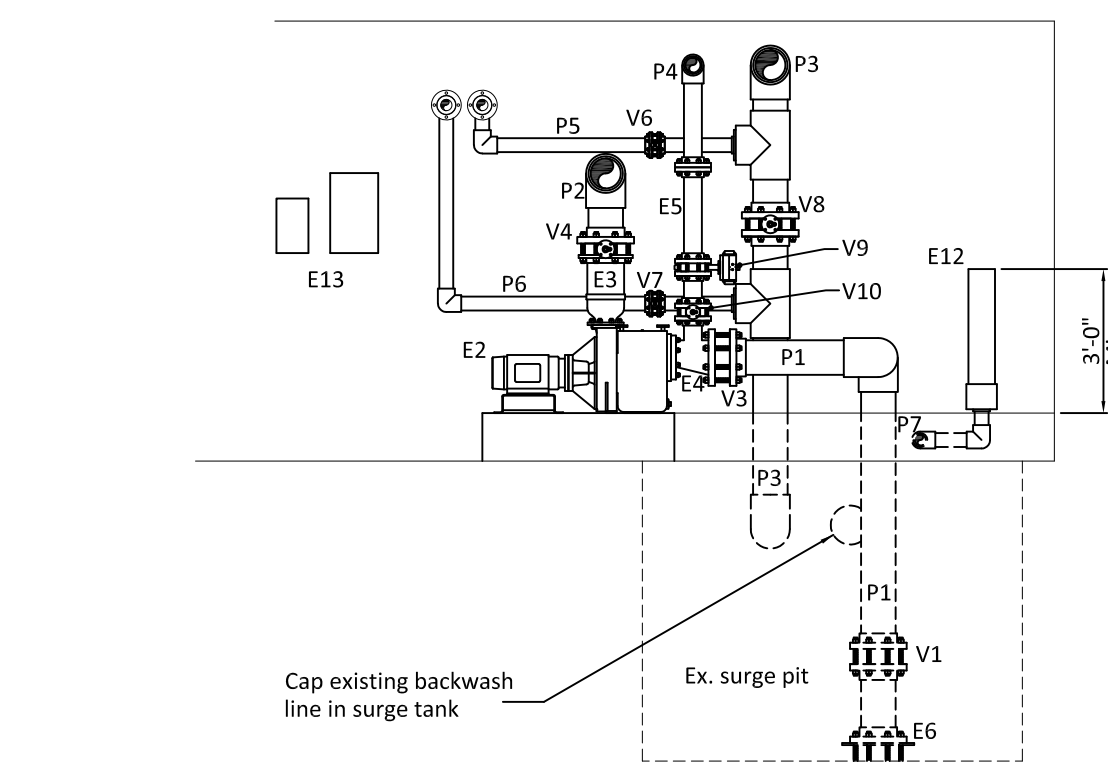
PREPARED FOR
**CITY OF ANN ARBOR PARKS AND REC.
VETERAN'S PARK POOL IMPROVEMENTS**
ANN ARBOR, WASHTENAW COUNTY, MICHIGAN
COVER SHEET



NEW FILTER PIPING PLAN
SCALE: 1/4" = 1'-0"

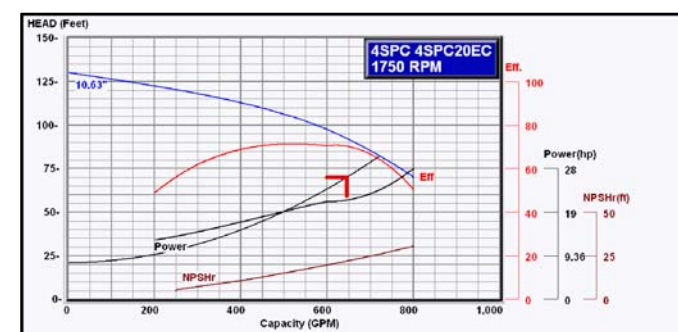


NEW FILTER PIPING ELEVATION
SCALE: 1/4" = 1'-0"



NEW FILTER PIPING ELEVATION
SCALE: 1/4" = 1'-0"

Tag	Description	Qty.
E1	'Vantage' cal-hypo feeder. Salvage existing for re-installation. Contract w/ Northwest pools, Toledo OH to provide installation on new piping	1
E2	New self priming re-circulation pump by Marlow, Series 4SPC, model 4SPC20EC, 20 HP, 208 volt, 3-phase epoxy coated. Provide integral strainer w/ extra basket per code. Install on min. 12" hi conc. pad	1
E3	Metraflex stainless steel flexible pipe connector 8" x 4"	1
E4	Eccentric fiberglass pre-coat tee by Neptune Benson 8" x 6" x 4" model #15008X06X04-FG	1
E5	4" clear pre-coat site glass by Neptune Benson	1
E6	Anti-vortex plate by Neptune Benson model #AVPLATE8PVCKIT	1
E7	Defender regenerative media filter by Neptune Benson w/ automatic bump, model #SP-33-48-732-R (reduced height version required)	1
E8	New Signet flow sensor model #2536 in PVC saddle. Run wire to and integrate with new pool pump variable frequency drive	1
E9	Existing pool heater to remain intact. Protect as required	1
E10	Existing backwash pit to remain intact	1
E11	New 2 hp compressor for Defender. Requires dedicated 110v 20 amp	1
E12	Construct new 6" PVC drain sump min. 36" in height AFF. Tie into filter drain line. See Defender schematic for lines run to this sump	1
E13	New variable frequency drive by HZFlow model #EF-C-46-12-2. Include by-pass panel w/ integrated aquatic controller	1



NEW PUMP CURVE



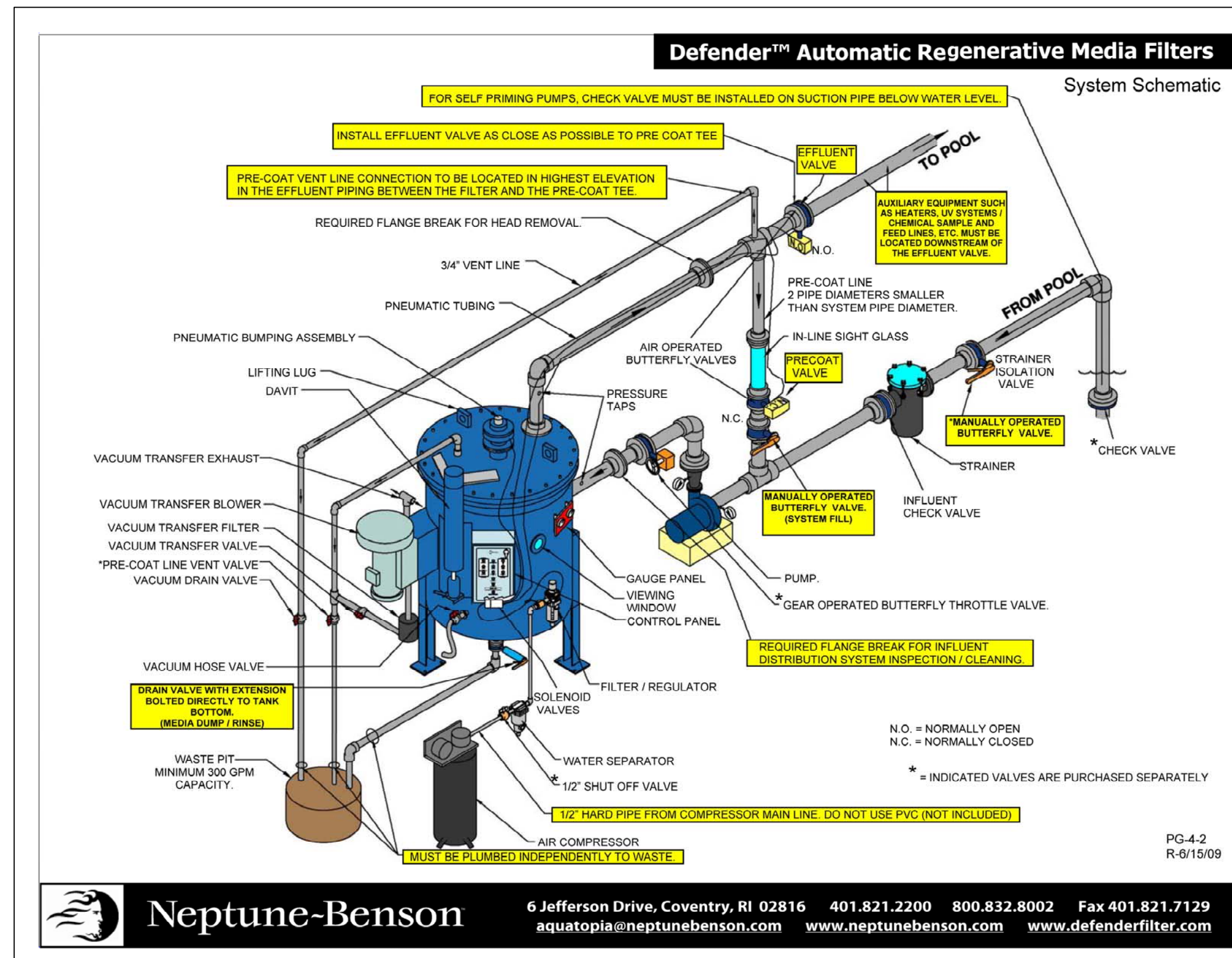
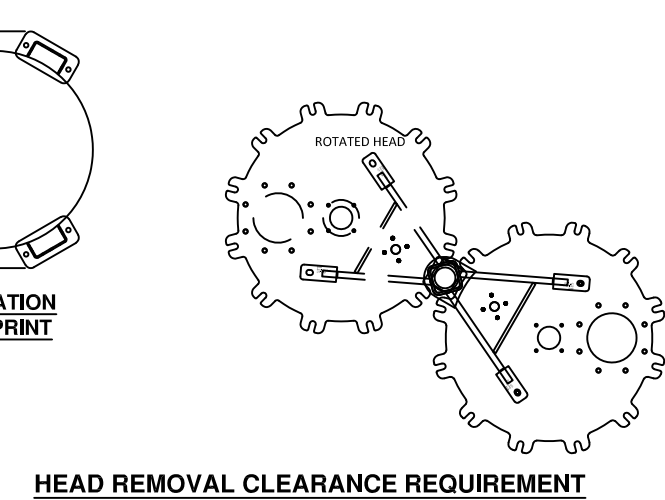
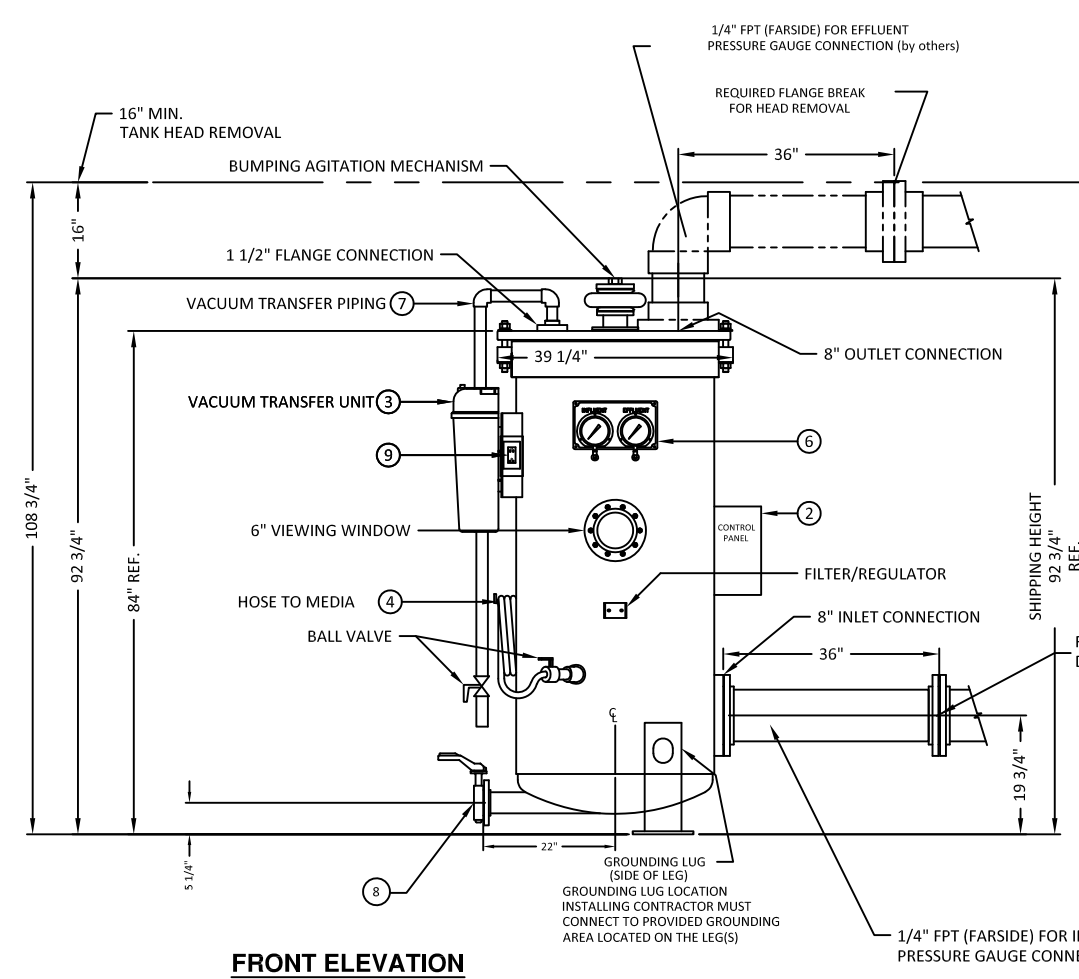
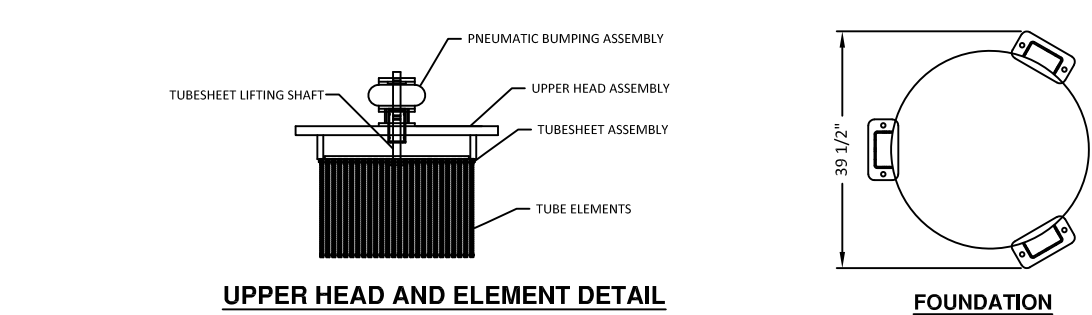
EXISTING WATER METERS TO BE RELOCATED



EXISTING VANTAGE FEEDER TO BE SALVAGED & RE-INSTALLED



EXISTING FILTRATION SYSTEM & PIPING TO BE DEMOLISHED



Neptune-Benson
6 Jefferson Drive, Coventry, RI 02816 401.821.2200 800.832.8002 Fax 401.821.7129
aquatopia@neptunebenson.com www.neptunebenson.com www.defenderfilter.com

Tag	Size	Description	Position
V1	8"	Double door, butterfly check valve. Install as low as possible	
V2	3"	Butterfly valve w/ wheel operator (surge tank isolation)	N.O.
V3	8"	Double door, butterfly check valve	
V4	8"	Butterfly valve w/ wheel operator (pump throttle)	N.O.
V5	8"	Butterfly valve w/ pneumatic operator (filter effluent)	N.O.
V6	3"	Butterfly valve w/ lever operator (heater influent)	N.O.
V7	3"	Butterfly valve w/ lever operator (heater effluent)	N.O.
V8	8"	Butterfly valve w/ wheel operator (heater bypass)	N.O.
V9	4"	Butterfly valve w/ pneumatic operator (pre-coat)	N.C.
V10	4"	Butterfly valve w/ lever operator (pre-coat isolation)	N.O.
V11	3"	Butterfly valve w/ lever operator (filter drain valve)	N.C.

Tag	Size	Description
P1	8"	Pump suction line
P2	8"	Filter influent line
P3	8"	Filter effluent line
P4	4"	Pre-coat line
P5	3"	Heater influent line
P6	3"	Heater effluent line
P7	3"	Filter drain line

Pool Filtration Data	
Pool Gallons:	232,000 GAL
Turnover:	6.0 HR
Turnover Rate:	645 GPM
Filter Area:	572.0 SQFT
Filtration Rate:	1.13 GPM/SQFT < 2.0 GPM/SQFT

Project Notes:

Existing sand filter, backwash line, return line and pump suction lines are to be completely demolished and removed from the job site

Contractor is to salvage existing 'Vantage' calcium hypo-chlorite for re-installation. Include in the bid costs to have Northwest Pools, Inc. (888-843-5551) re-install this equipment after the new filtration system is installed. Use \$3,000 for this scope of work

OR

Provide an alternate calcium hypo-chlorite feeder by another manufacturer. All equipment for new product and integration into existing systems must be included. A three (3) year price locked price of \$2.22 per pound of product must be held, not to include delivery

Certain pipes and valves are not shown for clarity on line drawing that are required for the Defender filtration system. These lines and valves are shown on the installation drawing shown on this sheet. These components are required to be installed by the installing contractor

Piping diagrams are diagrammatic in nature only. Installing contractor is required to provide all fittings and pipe required for a full and functioning system

Electrical Notes:

Pool contractor is responsible for contracting with a licensed electrician in the State of Michigan for all electrical work required for installation of new filter, included but not limited to the following:

1. Provide 110 volt single phase power to new filter control panel
2. Provide new feeders from new VFD to new pump
3. Remove ex. motor starter. Provide simple blade disconnect in between existing pump service and new VFD. Install new VFD and bypass panel and re-feed pump
4. Provide new feeders and service disconnect for new air compressor required for filter operation. 2 HP, 115 volt single phase phase, 15 amp
5. All bonding and grounding of new equipment into Owner's existing bonding grid

All new control and power wiring is to be installed in schedule 40 rigid PVC conduit or flexible liquid tight conduit

All electrical work must be permitted by the authorities having jurisdiction and inspected and passed by the same

All electrical work is to assumed to be provided from Owner's existing switch gear located in the mechanical room as noted

BILL OF MATERIAL				
MARK	QTY	DESCRIPTION	PART #	REMARKS
1	1	DEFENDER FILTER #SP-33-48-732-R	SP-33-48-732-R	SHIP LOOSE
2	1	AUTOMATIC FILTER PROGRAMMER MODEL RMF 120V	MICROMAT	SHIP LOOSE
3	1	120V VACUUM TRANSFER ASSEMBLY	13002	SHIP LOOSE
4	1	MEDIA SUCTION ASSEMBLY	11141	SHIP LOOSE
5	1	VACUUM HOSE, & BRACKET		SHIP LOOSE
6	1	120V VACUUM TRANSFER ASSEMBLY	11518	NOT SHOWN
7	1	1/2" (1.27cm) NPT CONNECTION		SHIP LOOSE
8	1	GAUGE PANEL KIT	GAUGENKIT	SHIP LOOSE
9	1	VACUUM TRANSFER PLUMBING KIT	12882	SHIP LOOSE
10	1	DEFENDER DRAIN VALVE 3"	DR3000027	SHIP LOOSE
11	1	120V REMOTE RECEPTACLE	12876	SHIP LOOSE

ASSEMBLY & GENERAL NOTES

REDUCED HEIGHT DEFENDER FILTER

SIDE EXIT DRAIN

IMPERIAL CONNECTIONS

FLANGES CONFORM TO ANSI B16.5, CLASS 150

EFFLUENT & DRAIN CONNECTIONS ARE DRILLED FOR METRIC AND IMPERIAL FLANGE BOLT PATTERNS

SEE PLAN VIEW FOR TRUE ORIENTATION OF ALL FITTINGS

SPECIAL NOTES:
NONE

FILTER DATA	
FLOW RATE	= 645 G.P.M.
FILTRATION RATE	= 1.13 GPM/SQ.FT.
FILTER AREA	= 572 SQ.FT.
NUMBER OF TUBES	= 732
UNIT WEIGHT	1,800 LBS. (DRY)
UNIT CAPACITY	250 GALS.
OPERATING WEIGHT	3,880 LBS.
3 LEGS PER TANK	
CONCRETE BEARING REQUIREMENT	26 P.S.I.
MEDIA REQUIREMENTS	
PERLITE	45 LBS. (5.4 cu.ft.)



PROJECT #
07-20

Architect Information:
House - Seaman Architects, PLLC
5797 Felske Road
Brighton, MI 48116 phone : (810) 531-1902

Project: Veteran's Memorial Pool
New Filter Installation
2150 Jackson Avenue
Ann Arbor, MI 48103
SP #: 81-4830-01
Permit: 11/14/17 Construction: 00/00/00
Revision: 00/00/00

Drawing: New Piping Plan
New Filter Info.
Scale: 1/4" = 1'-0"
Date: 11-14-17

SP-1
SHEET #