



Mecklenburg County Health Department
Environmental Health Division
In-Field Plan Review Application Form
 (Equipment Changes)

HEALTH USE ONLY:	
DATE RCD _____	
APP _____	DIS _____
INITIALS _____	

Complete all applicable information below. Attach an updated Pool Drain/Suction Compliance (PDSC) form with new equipment information with submittal of this application form. A blank PDSC form can be found on our website at <http://meckpools.charmeck.org>. Include all applicable manufacturer product information sheets with submittal.

Pool Permit ID: _____

Project/Pool Name: _____

Pool Address: _____

Original Construction Date: _____

Pool renovation or repair may require permits from Mecklenburg County Code Enforcement including building, electrical, plumbing, and/or mechanical permits. Contact CTAC at 980-314-0916 or [email](#) for additional permitting questions. It is the responsibility of the applicant to retain all required permits for work completed at their swimming pool.

Scope of Work	
Description of Work to be Completed at Project	
Electrical Scope	Provide electrical permit number, if required. _____
Mechanical Scope	Provide mechanical permit number, if required. _____
Plumbing Scope	Provide plumbing permit number, if required. _____

Contractor Information	
Name	
Address	
Phone Number	
Email	



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Pool Profile Information	
Pool Type	<input type="checkbox"/> Swimming Pool <input type="checkbox"/> Wading Pool <input type="checkbox"/> Spa <input type="checkbox"/> Specialized Water Attraction
Pool Perimeter (ft)	
Pool Surface Area (sq. ft)	
Pool Volume (gallons)	Turnover Required = _____ GPM

Pump Information

*Provide pump curve for pump located in pump room and new replacement pump
Design flow – 65' head*

# Pumps Currently Installed: _____ Current Pump Mfg: _____ Model #: _____ Max Flow: _____ GPM Design Flow: _____ GPM VFD Installed Y <input type="checkbox"/> N <input type="checkbox"/>	# Pumps to be Installed: _____ NEW Pump Mfg: _____ Model #: _____ Max Flow: _____ GPM Design Flow: _____ GPM Will Total Dynamic Head (TDH) loss or True Flow be provided? Y <input type="checkbox"/> N <input type="checkbox"/> If yes, fill out Section A or B below and provide flow meter information.
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A. TDH Calculations <i>(Gauge PSI x 2.31) + (Gauge Hg x 1.13)</i> (_____ x 2.31) + (_____ x 1.13) = _____ ft. head loss <i>Design Flow =</i> _____ GPM Provide/attach photograph documentation of pressure gauges after backwash. Provide pump curve.	B. True Flow Type of Flow Meter/Model: _____ VFD Installed? Y <input type="checkbox"/> N <input type="checkbox"/> VFD Mfg./Model: _____ or NA <input type="checkbox"/> Flow Set Point: _____ or NA <input type="checkbox"/>
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<p align="center">For Calculated TDH or True Flow, Flow Meter is Required Installed per Mfg. Instructions and Operable</p> <p align="center">Return Pipe Diameter: _____ in.</p> <p align="center">Length of Pipe before Flow Meter: _____ in.</p> <p align="center">Length of Pipe after Flow Meter: _____ in</p> <p align="center"><i>True Flow Design Flow after Backwash =</i> _____ GPM</p> <p align="center">Provide/attach photograph documentation of flow meter reading after backwash. Include pipe size and inlet/outlet pipe distance.</p>



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Feature Pump Information

Provide pump curve for pump located in pump room and new replacement pump

<p># Pumps Currently Installed: _____</p> <p>Current Pump Mfg: _____</p> <p>Model #: _____</p> <p>Max Flow: _____ GPM</p> <p>Design Flow: _____ GPM</p> <p>VFD Installed Y <input type="checkbox"/> N <input type="checkbox"/></p>	<p># Pumps to be Installed: _____</p> <p>NEW Pump Mfg: _____</p> <p>Model #: _____</p> <p>Max Flow: _____ GPM</p> <p>Design Flow: _____ GPM</p> <p>Will Total Dynamic Head (TDH) loss or True Flow be provided? Y <input type="checkbox"/> N <input type="checkbox"/> If yes, fill out Section A or B below and provide flow meter information.</p>
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<p>A. TDH Calculations <i>(Gauge PSI x 2.31) + (Gauge Hg x 1.13)</i></p> <p>(_____ x 2.31) + (_____ x 1.13) = _____ ft. head loss</p> <p><i>Design Flow</i> = _____ GPM</p> <p>Provide/attach photograph documentation of pressure gauges after backwash. Provide pump curve.</p>	<p>B. True Flow Type of Flow Meter/Model: _____</p> <p>VFD Installed? Y <input type="checkbox"/> N <input type="checkbox"/></p> <p>VFD Mfg./Model: _____ or NA <input type="checkbox"/></p> <p>Flow Set Point: _____ or NA <input type="checkbox"/></p>
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For Calculated TDH or True Flow, Flow Meter is Required Installed per Mfg. Instructions and Operable

Return Pipe Diameter: _____ in.

Length of Pipe before Flow Meter: _____ in.

Length of Pipe after Flow Meter: _____ in

True Flow Design Flow after Backwash = _____ GPM

Provide/attach photograph documentation of flow meter reading after backwash. Include pipe size and inlet/outlet pipe distance.

Pipe Sizing in Pump Room (inches)

Pipe sizing is pipe located in pump room that comes through pump room floor. Flow rates on Page 4.

<p>Existing Pipe Size</p> <p><input type="checkbox"/> Filtration System and/or <input type="checkbox"/> Feature System</p> <p>Main Drain: _____ in. Feat. Main Drain: _____ in.</p> <p>Skimmer(s): _____ in.</p> <p>Return: _____ in. Feat. Return: _____ in.</p>	<p>Required Pipe Size:</p> <p><input type="checkbox"/> Filtration System and/or <input type="checkbox"/> Feature System <i>Pre-2010</i> <i>Assume 50/50 Split for Main Drain and Skimmer</i></p> <p>Main Drain: _____ in. Feat. Main Drain: _____ in.</p> <p>Skimmer(s): _____ in.</p> <p>Return: _____ in. Feat. Return: _____ in.</p>
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Main Drain Covers

Provide manufacturer product specification sheets from website with flow ratings.

Filtration Suction Mfg: _____	Feature Suction Mfg: _____
Model #: _____	Model #: _____
Max Flow: _____ GPM	Max Flow: _____ GPM
# of Main Drains: _____	# of Main Drains: _____

Sump Information

Provide manufacturer product specification sheets from website.

<input type="checkbox"/> Manufactured Sump Sump Mfg: _____ Sump Model #: _____ Sump Diameter – <input type="checkbox"/> Circular: _____ in. <input type="checkbox"/> Rectangular Dimensions: _____ in. x _____ in. Sump minimum depth: _____ in. Diameter of suction outlet pipe in sump: _____ in. Distance of top (inside) of suction outlet pipe from bottom of cover/grate: _____ in.	<input type="checkbox"/> Field Built Sump Provide engineer certification meeting APSP standard and sump dimensions. Sump Diameter – <input type="checkbox"/> Circular: _____ in. <input type="checkbox"/> Rectangular Dimensions: _____ in. x _____ in. Sump minimum depth: _____ in. Diameter of suction outlet pipe in sump: _____ in. Distance of top (inside) of suction outlet pipe from bottom of cover/grate: _____ in.
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Equalizer Covers

Provide manufacturer product specification sheets with flow ratings.

Equalizer Mfg: _____	Max Flow: _____
Model: _____	# of Operable Equalizers: _____
<input type="checkbox"/> Built Without	

Filter Specifications

Provide manufacturer product specification sheets with flow ratings.

Existing Filter Mfg: _____	NEW Filter Mfg: _____
Model: _____	Model: _____
Max Flow: _____	Max Flow: _____
# of Filters Currently Installed: _____	# of Filters to be Installed: _____



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Inlet/Return Specifications

Provide floor/wall return information.

Inlet/Return Mfg: _____ **Model #:** _____

of Inlets/Returns Installed/Existing: _____

Calculated Required Inlets/Returns (Design flow ÷ 20): _____

Skimmer Specifications

Provide manufacturer product specification sheets with flow ratings.

Minimum Sf – Swimming Pools – 1 per 400 sf; Wading Pools – 1 per 400 sf; Spas – 1 per 100 sf

Skimmer Mfg: _____ **Model #:** _____

Rated Flow (NSF): _____ **# of Skimmers Installed:** _____

Calculated Required # of Skimmers (Surface Area ÷ minimum sf): _____

Comments:

Submit completed application through email to meckpools@mecknc.gov, fax at 704-336-5306, or mail to 3205 Freedom Drive, Suite 8000, Charlotte, NC 28208.



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Pipe Sizing

PVC Sch. 40 Pipe Sizing Chart per .2518(c)							
pipe size	1"	1.5"	2"	2.5"	3"	4"	6"
Suction PVC pipe @6ft/sec (all drains, skimmers, gutters)	16	38	63	89	138	238	539
Discharge or Returns (inlets) PVC pipe @10ft/sec	27	63	104	149	230	396	899

PVC Sch. 80 Pipe Sizing Chart per .2518(c)							
pipe size	1"	1.5"	2"	2.5"	3"	4"	6"
Suction PVC pipe @6ft/sec (all drains, skimmers, gutters)	13	33	55	79	124	215	487
Discharge or Returns (inlets) PVC pipe @10ft/sec	22	55	92	132	206	358	812