

ORGAN SEARCH COMMITTEE REPORT

First Presbyterian Church, Boone NC

June 19, 2018



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2018

WHY AN ORGAN NOW?

At First Presbyterian we utilize many tools to help us recognize God in our midst, sacred vessels, vestments, paraments, flowers, etc. Additionally, musical instruments inspire our song and aid us in reflection. We have a beautiful piano, guitars, violins, keyboards, and yes drums, all of which bring a variety of music to life. Of all the instruments heard in a worship service, the organ is the largest and most versatile.

Because of its aural and visual presence during worship, an organ often draws strong opinions from those who like it, and those who don't. Often opinions are not so much about the organ but about how it's playing is perceived (too loud, too fast, too slow) and the type of music being played (old fashioned hymns, dissonant instrumental interludes etc.). Some liturgical repertoire sounds great on a piano or guitar but not so great on an organ. Other repertoire is more successful when offered by an organ. To offer a worship experience that all our congregants find aesthetically pleasing it is necessary to provide a wide range of liturgical music. The issue isn't *For All the Saints* played on the organ or *Amazing Grace, My Chains Are Gone* played on a violin. The issue is being able to offer many types of music in a liturgically, pastorally and artistically appropriate style.

Among all other instruments which are suitable for divine worship, the organ is "accorded pride of place" because of its capacity to sustain the singing of a large gathered assembly, due to both its size and its ability to give resonance to the fullness of human sentiments, from joy to sadness, from praise to lamentation. Likewise, the manifold possibilities of the organ in some way remind us of the immensity and the magnificence of God. The organ draws upon our memory and

emotion. Who among us can forget our church wedding probably led by an organ? Or the emotion of seeing your daughter slowly walk down the aisle to the glorious sounds of *Mendelssohn's Wedding March* played on an organ. Some instruments are more suggestive of religious emotions than others ; this makes these instruments of greater use to the church.

The organ remains the central instrument, besides the human voice, of traditional Christian music. It is held in high esteem, for it is the traditional musical instrument which adds splendor to the Church's ceremonies and powerfully lifts up man's mind to God and to higher things. To this point, it is considered a sacred instrument, and one that enhances worship. To that end, an organ brings excellence to our worship of God.

Perhaps the most important use is the organ's ability to lead congregational singing. This is the organ's primary role in the liturgy. It is the most effective instrument for this purpose. Organs are designed to mimic many sounds. Trumpets, oboes, strings, and flutes are all literally at one person's finger tips, but it is the "principle" sounds of the organ that are designed to support the human voice. What better way to lead people in song than with the sounds designed to support and blend with their voices? It is the clarity and intensity (not necessarily volume) of the principle chorus sound generated that effectively inspires song. Praise Bands and amplified liturgical music have their place in worship right beside the organ because we stress the importance of congregational participation. When we gather on Sunday we don't only listen to songs as prayer, we generate the prayer with the songs we sing. Given our large worship space the organ is an invaluable tool needed to support and inspire our prayer.

SUMMARY



MANDATE

In January, 2018, the Session approved the formation of an Organ Search Committee to examine all options for the repair or replacement of First Presbyterian's pipe organ. The Session's charge is to find the best instrument for our congregation. This document constitutes the committee's final report.

STARTING POINT

The committee was formed in late January with the following church members:

Will Buckmaster

Lisa Combs

Doug Hall

Ben Miller

Sylvia Rippy

Wes Weaver

Bob Smith, Moderator

The first meeting included initial comments from Pastor Jeff Smith and Moderator Bob Smith. The committee was led through the history of the Gawthrop pipe organ, the charge from the Session, and the need to move forward without looking behind. The next couple meetings were spent learning pipe organ terminology and functions. Organist Sylvia Rippy and Will Buckmaster were instrumental in demystifying the workings of a modern pipe organ.

The committee’s goal is to present to Session four primary options, each with a proposed instrument. The options are: 1) Repair the existing pipe organ, 2) Remove all pipes and equipment from the pipe closet, and build an entirely new pipe organ, 3) Purchase a new electronic organ, or 4) Do nothing by relying on the piano in support of congregational singing, choir accompaniment, and liturgical music. The committee is to present to Session it’s best solution for each of the above options, and it’s best choice of the four options.

OPTIONS

The following table arrays the options considered against the guidelines. The full text of the guidelines is found on page 5. The table provides a general idea of how these options conform to the criteria identified as desirable, leaving aside the very significant of cost.

Guideline	Repair Gawthrop organ	New Hybrid Pipe Organ	New Pipe Organ	New Digital Organ
Long-term Solution	Yes/But Inadequate	Yes, About 50 Years	Yes, About 50 Years	20-30 Years, See Note
Conforms to AGO Standards	No	Yes	Yes	Yes
Sound volume suited to space	No	Yes	Yes	Yes
Sound quality/balance	No	Yes	Yes	Yes
Pipe chamber size is adequate	No	No	No	Yes, No Pipes
External/exposed pipes & casing	No	Yes	Yes	No
Workmanship / Materials	Bad	Good	Good	Better
Repair parts availability	No	Yes	Yes	Yes
Ease of maintenance	No	Yes	Yes	Better
Maintenance costs	High	High	High	As Needed
Warranty	No	Yes	Yes	Yes

Note - Some have lasted 40 years. Lifetime of digital organs can be lengthened with circuitry replacement.

Note: The pros and cons of each option are summarized on page 6.

Note: The “No.-organ” option of simply staying with our piano for service music was obviously not included in the above table as there is no action required and no cost.

THE WAY FORWARD

First Presbyterian Church of Boone has been without an organ for about seven years. The committee is aware that there are diverse opinions within the congregation about the importance of organ music in our ministry of worship. That is why the committee has spent many weeks praying about and considering the best route for this church, God’s church. It is the committee’s recommendation to move forward with the acquisition of an organ in support of congregational singing, choir accompaniment, and liturgical music. The full report that follows on page 7 will support the committee’s proposed instrument.

ORGAN OPTIONS - - PROS AND CONS

Options	Pros	Cons
Repair current organ \$125,000 approx.	<ul style="list-style-type: none"> ▪ Low cost ▪ No chancel construction necessary 	<ul style="list-style-type: none"> ▪ Reduced Stop List ▪ Great & Pedal divisions must be digitally reproduced, not AGO standards ▪ Sound output not big enough to fill the sanctuary ▪ Pipe chamber remains a mess ▪ Maintenance costs higher ▪ Warranty unlikely
Repair and enhance current organ, \$175,000 approx. plus case work	<ul style="list-style-type: none"> ▪ Larger range of sound ▪ Some repositioning of pipes 	<ul style="list-style-type: none"> ▪ Chancel construction ▪ Exposed pipes ▪ Hybrid digital voices ▪ Maintenance costs higher ▪ Uncertain warranty
Rebuild current organ, \$240,000 approx. plus case work construction	<ul style="list-style-type: none"> ▪ Complete in terms of capacity flexibility using our old equipment ▪ Antiphonal pipes at rear of sanctuary 	<ul style="list-style-type: none"> ▪ Chancel construction ▪ Exposed pipes ▪ Long build time ▪ Annual maintenance costs ▪ Uncertain warranty
Clear pipe chamber, build using our pipes and used organ pipes, \$225,000 approx. plus construction and used organ	<ul style="list-style-type: none"> ▪ Purchase used organ for parts ▪ Rebuilt to higher standards ▪ Lower labor costs ▪ Better access for maintenance ▪ Some form of warranty 	<ul style="list-style-type: none"> ▪ Price varies depending on design, size, and builder ▪ Chancel construction ▪ Exposed pipes ▪ Long build time ▪ Annual maintenance costs
Build all new pipe organ with no hybrid voices, \$550,000 - \$650,000	<ul style="list-style-type: none"> ▪ Totally new high quality and versatile musical accompaniment ▪ Better access for maintenance ▪ Current organ has some value in pipes and the console 	<ul style="list-style-type: none"> ▪ Price varies depending on design, size, and builder ▪ Chancel Construction ▪ Exposed pipes ▪ Long build time, years ▪ Annual maintenance costs
New digital organ, \$121,000 - \$155,000	<ul style="list-style-type: none"> ▪ Versatile musical instrument ▪ Hundreds of voices ▪ Less complicated maintenance ▪ Much lower maintenance costs ▪ No exposed pipes or chancel construction ▪ Lockable roll-top ▪ Current organ has some value in pipes and the console ▪ 10 year warranty on parts, 5 years on labor ▪ Maintenance support from Johnson City, Installation within 6 months ▪ Repair usually involves just a circuitboard 	<ul style="list-style-type: none"> ▪ <i>Shorter anticipated lifetime than a new or rebuilt pipe organ</i>

FULL REPORT



INTRODUCTION

In January, 2018, the Session approved the formation of an Organ Search Committee to examine all options for the repair or replacement of First Presbyterian’s pipe organ, and to identify the associated costs for each option. The Session’s charge was to find the best instrument for our congregation. In so doing, the committee was to propose the best instrument for each type of organ, as well as the committee’s choice for the ideal organ for First Presbyterian church. Unless instructed otherwise, this report completes the Session’s charge.

SCOPE AND GUIDELINES

In order to fulfill the Sessions mandate of ensuring the long term availability of a quality organ, the committee prepared a set of guidelines to shape the options it would consider. The guidelines are as follows:

The committee is weighing alternatives for repairing, rebuilding, or replacing the Gawthrop organ. We seek an instrument that will be capable (in order of priority) of leading the congregation in a comprehensive program of Protestant worship, accompanying the Chancel Choir, and supporting a wide repertoire of organ music.

More specifically:

- *Solution should be long term – no further renovation or repairs anticipated for at least 20-30 years.*
- *The organ's console should conform to the American Guild of Organists' standards. No major adjustment of technique should be needed before a competent organist is able to play the instrument.*
- *The volume of sound must be adequate to fill the entire sanctuary with consistent sound no matter where you sit in the room.*
- *The organ should provide a strong, lively and versatile sound that is acoustically well-balanced within the space.*
- *If a pipe organ or pipe organ hybrid, the pipe chamber must be redesigned so as to permit an organized and secure site for all pipes necessary to manufacture the required volume of sound.*
- *If a pipe organ or pipe organ hybrid, all pipes must be housed in the pipe chamber without necessitating the need to mount pipes external to the pipe chamber. The organ's appearance should be consistent with the sanctuary's architectural style.*
- *Quality workmanship and materials are necessary to sustain the instrument for many decades of superior music.*
- *In view of the churches location some distance from major cities, the accessibility to repair/maintenance personnel and parts is critical for a speedy resolution of problems.*
- *All components of the organ must be readily accessible to repair personnel for the ease of servicing the organ.*
- *The expected routine maintenance costs should be reasonable.*
- *There should be a warranty period for parts and labor. This is a difficult issue when considering the repair of the existing organ. It is unlikely that a pipe organ builder will issue a warranty on someone else's design.*

Note: "the Non-organ option of continuing to use the piano for all accompaniment and other liturgical music was considered. However, the committee is unanimous in supporting the need for an organ.

BACKGROUND

A year or two prior to moving from the former FPC church on Howard Street, a number of pipes were removed from the old pipe organ to be used in the building of a whole new pipe organ. The requirements for the new pipe organ were provided to the new building committee for its inclusion in the blueprints of the new sanctuary. Somewhere between that point and the final buildout, the organ pipe chamber became a closet. The organ builder went ahead and used the space provided for almost all of the organ's pipes. The final result was an organ that barely played at all.

CURRENT CONDITION OF THE GAWTHORP ORGAN

The current condition of the Gawthrop organ can only be termed as "a mess". The console doesn't have all of its stops installed. The pipe chamber is in such disarray that it prompted every pipe organ builder who saw it to run and get his camera. The committee interviewed several professional organ builders who inspected the organ and recommended future steps. This process generated a number of observations including the following:

General:

Even if a builder tore out all of the pipes and equipment from the chamber, and reinstalled the pipes in the required positions to maximize the amount of sound necessary, the organ would not have enough volume to fill the sanctuary.

With one exception, all pipe organ proposals stated that pipes would be required to be mounted external to the chamber in a newly constructed framework above the choir. The exception is for a proposal to only use a portion of the pipes in a hybrid format. This proposal was deemed unacceptable as it would not be able to fill the sanctuary space.

The computer software that controls the organ, as well as its electronic voices is a proprietary system that cannot be maintained by any professional organ builder or maintenance company.

The chamber is in a corner of the building that receives very cold conditions during the winter. It's not mandatory, but insulating the inside of the walls would help maintain a constant temperature in the chamber.

To insure that the pipes are exposed to the sanctuary air temperature, the heating/cooling system in the sanctuary must be run for at least three hours prior to a service or 24/7.

Pipes:

Although most of the pipes can be reused or sold, some are from very old organs and not worth retaining, or have been dented and are irreparable.

Wind Chests:

The wind chests appear to be in fair condition, and functional.

Wind System:

There are two blowers currently installed. Only one is probably needed. One could be sold.

Overall function:

The overall function of the Gawthrop organ is poor. Pipes are mounted at the bottom of the chamber, and have little chance to push sound up and out. Many pipes are mounted and held together with bungee straps. Some pipes are not installed at all. Many pipes are unable to stay in tune, and some do not work at all.

Of course, the organ is unplayable in it's current configuration. The best solution, if the current parts are to be reused, is to remove everything from the chamber, and start over. If mounting pipes outside the chamber above the choir is unacceptable, then the chamber size is too small to produce the required sound. This is what Bradley Gawthrop found to be true, but failed to alert the church of the problem.

NOTE: Other than the lowest cost option, all other options require that all pipes and equipment must be removed from the chamber before any work can begin. This process must be coordinated by someone familiar with ranks of pipes. FPC can provide the muscle, but an expert needs to direct the process. Additionally, that expert might want the pipes and console, and would do the work for a price reduction. Or, we would need to pay someone to lead in the boxing and labeling for eventual selling.

PIPE ORGAN CONSIDERATIONS AND RECOMMENDATIONS

In considering pipe organs, the committee met with several pipe organ builders. They are:

- *Lincoln Pipe Organs, Lincolnton, NC*
- *Lewtak Pipe Organ Builders, Mocksville, NC*
- *Angerstein Pipe Works Ltd, Hendersonville, NC*
- *Parkey Organ Builders, Atlanta, GA*
- *Randall Dyer & Associates Inc, Jefferson City, TN*

The committee felt that Lincoln Pipe Organs represented the best solutions in two different organ categories. They gave us the opportunity to hear two very different organs in two very different spaces. We visited:

- *Plaza Presbyterian Church, Charlotte, NC*
- *Unity Presbyterian Church, Fort Mill, SC*

Mr. John Dower of Lincoln Pipe Organs provided us with an education in designing pipe organs for very different environments. He demonstrated to us that he is well suited to building a pipe organ for First Presbyterian. He has 30 plus years of experience playing and building pipe organs and hybrid pipe organs. The committee feels that Mr. Dower is our builder of choice should we proceed with a pipe organ installation.

PIPE ORGAN RECOMMENDATIONS

Repair the Gawthrop Organ **RECOMMENDED REPAIR OPTION**

Lincoln Pipe Organs can repair the current organ utilizing most of the existing pipes and equipment. The console would be reduced to a two manual configuration. The number of ranks would be reduced from the planned 31 ranks to 16 ranks, plus up to 10 digital voices with no 32' pitches. It would be necessary to have the Great and Pedal divisions be digitally reproduced and therefore played from speakers. Most builders, including Lincoln think that its is a bad idea for the foundation sounds of a pipe organ to come from anything but pipes. The palette of tonal colors is limited with this solution.

Approximate cost: \$125,000

Rebuild the current Gawthrop Hybrid Organ **RECOMMENDED REBUILD OPTION**

Lincoln Pipe Organs can also completely rebuild the current organ by gutting the pipe chamber, locating and purchasing a used organ that they will use to augment the parts found in our organ. This configuration would require exposing pipes on top of the heating and air return ductwork on both sides of the chancel. Tonal resources would be dependent on the configuration of the purchased used organ.

Approximate cost: \$225,000, plus construction costs and the purchase of a used organ.

All New Pipe Organ **RECOMMENDED ALL NEW OPTION**

Several pipe organ builders quoted the committee on totally new pipe organs. The Gawthrop organ would be dismantled and removed from the pipe chamber. Everything would be replaced with all new pipes, chests, wind system, control systems, etc. The equipment would be mounted in the two pipe chambers and in newly constructed external pipe casework. The console would be also replaced. The Gawthrop console and pipes would be placed in the used market. This organ would be a completely unique instrument.

Approximate cost: \$550,000 - \$650,000

DIGITAL ORGANS

A digital organ has the potential to provide a musical experience comparable to that of a new pipe organ at a lower cost. In the past two decades, digital organs have developed as an alternative for churches seeking to retain the traditional sound of a pipe organ but either unable to afford such an instrument or facing architectural issues that make a pipe organ impractical. First Presbyterian faces both of those challenges if considering a pipe organ or a hybrid pipe organ. Currently, the best digital organs are able to generate sounds that advocates say are identical to those produced by a pipe organ. In the United States, the majority of these instruments employ a technology known as sampling that uses sound files previously recorded from various ranks of organ pipes.

Digital Organ Pros and Cons

Pros: A digital organ could provide a musical experience that far-outweighs a new pipe organ in versatility, and at a significantly lower initial cost. Digital organs can be upgraded throughout their lifetimes via changes in software in the same manner that computers can be upgraded. Ongoing maintenance expenses will be lower than with a pipe organ, as a digital instrument maintenance is as needed only.

Cons: The life expectancy of a digital organ is likely to be slightly shorter than that of a pipe organ. While a pipe organ can last up to 50 years without major changes, its annual maintenance costs over a lifetime equal about \$150,000. A new digital organ could be purchased for that amount. A digital instrument should continue functioning 20-40 years with very little maintenance costs. The availability of parts is a concern with some manufacturers of digital organs. However, the committee has reviewed the issue with one vendor who can remanufacture all of its own parts for every organ ever made.

DIGITAL ORGAN CONSIDERATION & RECOMMENDATIONS

Allen Organ Company - The consideration of electronic organs began with the Allen Organ Company of Macungie, PA. In 1969, Allen Organ Company partnered with North American Rockwell on a project that went on to change the world of music. Using technology developed for the Apollo Space Program, the companies packed the power of thousands of transistors into 1/16 of a square inch and used those transistor functions to store pipe sounds. For the first time, an electronic instrument recreated actual pipe organ sound using digital technology instead of merely imitating it with the older, analog method. It was the birth of sampling and the basis for virtually every recorded sound we listen to today.

The committee spent considerable time reviewing Allen's website, www.allenorgans.com. Their online videos answer most of our questions. Sales of Allen Organs are conducted through a network of local representatives. These representatives are factory trained in installation and service, as well as many other technical areas. Allen is the worlds largest builder of electronic organs and is represented throughout North America, Europe, Africa, South America, Australia, and Asia.

After a meeting with a regional sales person from Macungie, the committee scheduled a trip to Elizabethton, TN to visit the First United Methodist Church. This church has an Allen organ similar to the instrument proposed to FPC, though a model version older. We made the visit on April 28th, and were delighted at what we heard. For 1½ hours, we listened to their organist describe the instrument and play many of the extraordinary reproduced voices of their organ. The sound filled every inch of their sanctuary with the same sound. Based on what we heard and learned, plus what we already knew about the Allen company, we knew that Allen would be our organ of choice.

Rodgers Instruments – The committee's second electronic organ vendor to consider was Rodgers Instruments of Hillsboro, OR. We expected Rodgers to be of a similar size and reputation to the Allen Organ Company. We were wrong. Although Rodgers sells many organs, they are much smaller than Allen, and have been through about five takeovers. They rely upon a long list of sub-manufacturers for their parts. However, we tried to keep an open mind through our discussions and visits with Rodgers. Every step of the way we were reminded of Allen's superior product. Although Rodgers' price point was lower than Allen's, there were compelling reasons for the added cost.

DIGITAL ORGAN ANALYSIS

Having been through the many years of frustrations with the lowest cost organ builder (Gawthrop), the committee recognized the following reasons for favoring Allen. 1) Quality of construction, 2) Parts manufactured in-house, 3) Sound quality, 4) Maintenance and installation by a Johnson City, TN company, 4) No Chancel construction needed.

Allen RL-66a - \$155,000 RECOMMENDED ELECTRONIC ORGAN

Rodgers G350 - \$136,000

SEARCH COMMITTEE'S RECOMMENDED ORGAN

The Allen RL-66a

