



RESERVE STUDIES 101 – THE COMPONENT LIST

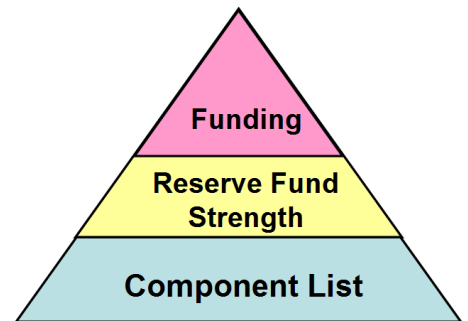
by Robert M. Nordlund, PE, RS

www.reservestudy.com

April 2018

Miss the webinar? Watch it [here](#).

Set your association up for success and an improved future by spreading contributions fairly over the owners, avoiding unsettling surprises, and having the \$ to do projects on time (eliminating the high cost of deferred maintenance!). An accurate Reserve Component List gives you years or decades to prepare gradually & responsibly for the needs of the association. It is on the solid foundation of the Component List that Reserve Fund Strength and Funding Plans are calculated.



Only components that meet the [National Reserve Study Standards](#) (NRSS) four-part test (see below) should appear in the Reserve Study:



RESERVE COMPONENT “FOUR-PART TEST”



Tip: focus your review of your Reserve Component List on the few components that are the most influential – often only five components or less. Remember – the significant components are often not the components with the largest repair or replacement cost, they are the components with the largest cost/yr (Replacement cost divided by Useful Life).

How does one apply the [NRSS](#) four-part test in actual practice? Look around your association for those components that are a common area maintenance responsibility, with a defined Useful Life, a predictable Remaining Useful Life, and above a minimum threshold cost of significance (for the typical association, this threshold is board member or manager signature authority, or often in the range of .5% - 1% of the association's total annual budget).

Decisions through the year:

Can I spend Reserves on something not appearing in the Reserve Component List? Yes – if it passes the four-part test. Add that project to your Reserve Study at your next opportunity.

Can I do a portion of a component? Yes – that is very common. Have multiple components for each “phase” of the project.

Can I develop an allowance for partial repairs/replacements here & there? Yes – schedule *partial replacement* on a defined interval, with a reasonable cost (this often works well for extensive sidewalks or fencing).

Can I spend Reserves for maintenance? Yes, if that maintenance is predictable (like teardown or rebuild of a major chiller or boiler) or if that maintenance projects extends the Remaining Useful Life of the component (repairing a portion of a fence, delaying entire replacement of the fence another year or two).

Can/Should I spend Reserves on insurance deductibles? No, as those expenses are not predictable, thus failing tests #2 and #3 of the four-part test.

How much detail do I need or how much is optimum? Effectiveness is the objective. It is best practice to group similar components together to allow for minor flexibility (# of chairs/tables, etc) and to coordinate styles, materials, and similar work efforts.

What about tax guidelines that say painting (and tree trimming, asphalt seal coating, etc.) are not capital projects? These are tax guidelines, not Reserve Study guidelines. Prepare your taxes per IRS guidelines, and prepare your Reserve Study according to [NRSS](#). See an article on this topic [here](#). The same is true for State Laws requiring that a few specific components be in the Reserve

Study. Include all appropriate components per NRSS, not just the minimum required by State Law.

Updating: Every Reserve Study looks forward 20-30 years, but is only accurate for the first year. After that point, it needs updating. Regular Update With-Site-Visit or Update No-Site-Visit projects are valuable and minor expenses.

Recommended Links:

Know the [five ways a component can fail](#).

[Is it a Reserve project or Capital Improvement?](#)

[What is a Capital Improvement?](#)

[National Reserve Study Standards](#)

[eBook on Reserve Components](#)



Need more expertise at your association? Click to visit our extensive [Learning Center](#), or contact your most convenient [Association Reserves office](#). Don't expose your association to unsettling surprises because of poor Reserve planning, or misspend your precious Reserves due to unwise spending decisions!



****Note: This course is approved for continuing education credit by:**

The Community Association Managers International Certification Board ([CAMICB](#)) to fulfill one CE credit for the CMCA® certification,

the State of Florida Department of Business and Professional Regulation for licensed Community Association Managers for one CE credit related to the CAM certification, and

the State of Colorado Division of Real Estate for licensed Community Association Managers for one CE credit related to the CAM certification.

Webinar Questions Asked by Attendees

Q: Are there laws that restrict the use of Reserve funds to specific types of projects?

A: No. The definition of what you can/should spend Reserve funds on is defined by the National Reserve Study Standards ([NRSS](#)) four-part test. Some states like Washington & Florida require Reserve Studies address at least a short list of specific components (or disclose the reason for their omission). But those are minimum standards. You can and should create components for all items/projects that are appropriate for Reserve designation, and you should not spend precious Reserve funds on non-Reserve expenses. Note that some states have appropriate laws requiring Reserve funds be used only for Reserve projects, unless those funds can be repaid to Reserves within a stipulated period of time.

Q: Can we pay for a Reserve Study with Reserve Funds?

A: Typically the cost of a Reserve Study fails the NRSS 4-part test due to not being a common area maintenance responsibility and falling under the minimum cost threshold of significance. A Reserve Study is a professional service, more akin to accounting, tax, or legal services best handled in the ongoing Operational Maintenance budget.

Q: Should we Reserve for entire building replacement in addition to component (roof, siding) replacement projects?

A: No, only components/projects that meet the NRSS 4-part test.

Q: Do you have and use a master component “punch list” with typical Useful Life expectancies and Replacement Costs?

A: We have company guidelines based on our experience, but each Reserve Study we prepare is a custom document, with the Component List based on the NRSS 4-part test, with Useful Life and Current Replacement Costs based on the local environment, weather, maintenance patterns of the association, owner usage patterns, economies of scale, quality of materials, etc. We have some competitors who quickly move through an association with a “punch list” and as quickly pop out a cookie-cutter Reserve Study, but it doesn’t approach our accuracy and it’s not considered “best practice” in our industry.

Q: Is it best to do a large project a piece (phase) at a time?

A: It depends on cost and the association’s Reserve Fund. In many cases, doing a large project yields discounts due to economies of scale, but it requires the association have

significant funds to get it all done at once. If cash is tight, a large project can be phased, but it often results in higher costs and longer periods of physical disruption at the association.

Q: If a credentialed Reserve Study provider is asked to perform a reserve study without viewing the property using only Assoc. provided data, should they accept?

A: A credentialed professional should not accept an assignment which they feel they cannot complete reliably and responsibly. The scope of work of a “Full” or “With-Site-Visit Update” Reserve Study is that it is to be based on a diligent visual site inspection. If the scope of work is a “No-Site-Visit” update to a Reserve Study prepared by another credentialed professional, lack of a site inspection should not be a problem.

Q: Once you have a reliable Reserve Study, can a different Reserve Study provider “update” that report?

A: If the initial report was based on NRSS, yes.

Q: In changing Reserve companies, how much information should be transferred from one to the other, or should a new “Full” Reserve Study be performed?

A: If the prior Reserve Study was prepared according to NRSS, then any credentialed Reserve Study professional should be able to perform an update as one of their normal engagements. Simply provide the new provider with a copy of the last Reserve Study. There are enough disclosures required by NRSS that movement from one provider to another is quite possible.

Q: Is it in the best interest of the association to have one company consistently prepare/update the Reserve Study?

A: Consistency typically provides the association with efficiency, which often results in cost-savings. Yet if there are quality concerns or if the current provider is not credentialed or following NRSS, it may be wise to upgrade to a more capable provider.

Q: We’ve never had a Reserve Study performed, and don’t think we have the funds to have one performed. What should we do?

A: Raise the funds to have one performed. It is part of the cost of running the association.

Q: Can a board ask a credentialed Reserve Study provider to include tree maintenance and plumbing repairs as reserve components?

A: Yes. We welcome suggestions from our clients. We will evaluate including those suggestions on the basis of NRSS and our experience with the property.

Q: What do we do if re-piping does not appear on our Reserve Component List?

A: Check with your Reserve Study provider. It may be because the scope of the potential project, Useful Life, Remaining Useful Life, and Repair/Replacement cost has not reached the level of a reasonable certainty. As long as it is still just a “guess”, it doesn’t belong in the Reserve Study. Remind your Reserve Study provider to re-evaluate the project for inclusion at the time of your next update.

Q: Does having a Reserve Study bind the Board to legally follow its recommendations?

A: No. A Reserve Study is a third-party professional’s recommendation. It is not binding, but the board should have a good reason to not follow its recommendations or there may be significant liability exposure. See [this webinar](#) which addressed that question, and the [Outline](#) for that webinar.

Q: If the association has a windfall of funds, should those funds be deposited in the checking (operating) account or Reserves?

A: Wherever the budget deficit is greater. If the association has a balanced budget (able to pay their Operational Budget bills), then the funds should go into the Reserve Fund. Additional funds are regularly welcome there, as most associations have underfunded Reserves (see article [here](#) on underfunded associations).

Q: What if you have a complicated facility like ours, with Resort/Conference and part fractional/residential? Are there software solutions?

A: Every ownership group should be funding to offset deterioration of the components they are responsible to maintain. This may mean for your association you may need two or more separate Reserve Studies (Resort/Conference, fractional/residential, etc.). No specialized software is needed. Just create separate Reserve Studies so each ownership group can see and understand its upcoming financial obligations.

Q: What do you do with very long life components, over 30 years away (concrete drain pipes, concrete seawall, etc.)?

A: If there is no reasonable or foreseeable end-of-life, the project doesn’t qualify for Reserve Funding. If there is deterioration due to wear and tear (or maintenance or

abuse), there should be a Reserve Component for repairs or partial replacements so owners can offset the cost of deterioration over the (long) life of the component. There is no threshold limit to how far away one should plan for a Reserve project. As soon as the four-part test is satisfied with a reasonable certainty, you should begin planning for (and contributing towards!) that far away project.

Q: Our HOA is responsible for the water pipes and sewer pipes. Is it true that because the useful life is so long those are not part of our component list?

A: No. Remember that an asset must pass the NRSS 4-part test to be considered appropriate for Reserve Funding. If you can reasonably establish the Useful Life, Remaining Useful Life, and Current Cost of a repair/replacement project, it should appear as Reserve Components no matter how long the Useful Life or Remaining Useful Life.

Q: What do you do about an “Insurance Reserve” budget line item?

A: Typically an “Insurance Reserve” is a set-aside from the monthly budget to pay for insurance premiums that are irregularly spaced through the year. Those are operating budget cash flow issues, not Reserve Fund issues.

Q: Is it appropriate to Reserve for out of date finishes or aesthetics?

A: Absolutely. See an article [here](#) on different types of Reserve component “failures”, such as aesthetic failure.

Q: What is deferred maintenance?

A: A project that is delayed, typically due to inadequate funds or indecision. The typical result is a higher project cost due to greater deterioration.

Q: What would a professional Reserve Study cost for our association?

A: Spend 3-5 minutes at your convenience providing us some basic information on our online [proposal request](#), and you’ll likely be pleasantly surprised how cost-effective a professional Reserve Study can be. Remember that most associations only need one “Full” Reserve Studies (the most expensive Level of Service). After that, the association can enjoy one of two less expensive types of updates.

Q: Should we have multiple Components for our complex roofing system?

A: You should have separate Components for each aspect of your roofing system with a different Useful Life or Remaining Useful Life. This may mean different components for

different phases, different components for different roof types/materials, or different components for different projects (replacing the roof, replacing the gutter, reseal, replace snow-melt, etc.).

Q: You indicated in the fourth test for a Reserve Component, that it is often above the range of .5% - 1% of the association's total annual budget (Reserve contributions included). Is that the same for an association with a tight budget?

A: Yes. All association budgets are tight.

Q: Do you have more content... more detailed information on calculating Reserve Fund Strength, or calculating an appropriate Reserve Funding Plan?

A: Yes. Please visit our [Library](#) for articles on the above subjects, or visit our [Webinars](#) page for recorded webinars on those topics. I recommend our Reserve Study Basics webinar, Reserve Studies 102 (the Financial Analysis) or Reserve Studies 103 (the Funding Plan). All three of those recorded webinars compliment this program.

Q: How do you identify Current Replacement Cost?

A: Typically we have enough clients that we track a database of "actual" client projects, so we can apply those true "actual" costs to another local association. In the absence of that information, we research costs with trusted local vendors (those serving the association are often very helpful), or as a last resort, national construction or remodeling estimating pricing guidebooks.

Q: How do you establish Useful Life and Remaining Useful Life?

A: Our experience, observed condition, level of maintenance, and age, to name a few considerations.

Q: When a component reaches a RUL=0, must you replace it? For example, a pool heater that has RUL=0 but is still working.

A: No, you don't automatically replace a component when the RUL hits zero. Please see [this](#) document and [this](#) document, on our website, discussing what to do with different types of components when they approach or hit RUL=0.

Q: Our Reserve sub-accounts appear to be tailored to the Component List of an earlier Reserve Study. The accounts do not match the latest Component List. Can sub-accounts be eliminated and have just one account for all Funds?

A: We recommend every association consider their Reserve Fund as one pool of cash available to all Reserve projects, not subdivided it into different accounts or funds. See an article [here](#) on the subject.

Q: Can landscaping renovation be included as a Reserve project?

A: Yes, if it fits the four-part test (Landscape – Renovate, or Trees – Trim, Boundary Hedge – Remove/Replace, etc.), but it should not be considered a Reserve component if that project is currently in the scope of work of the ongoing landscape maintenance contract.

Q: Should we Reserve for plumbing in the common area, possibly exclusive common area wall?

A: That may need some legal clarification depending on your type of association, but for condominium ownership, generally assets that join together with other common area assets in common areas (not just the drain trap under your sink, or your toilet, which are both within your unit), are the maintenance responsibility of the association. So if it passes the NRSS 4-part test, it should be included in the Reserve Study.

Q: If I find out something new about a component, or if something changes, should I update my Reserve Study mid-year?

A: No. A Reserve Study is an annual document. We recommend keeping a file of Reserve expenditures and suggested changes (additions or deletions), that would be used in the process of updating the Reserve Study for the next year.

Q: Here in Colorado we get a fair amount of hail and very rarely actually pay for a new roof. Should we therefore reserve for the insurance deductibles or the entire cost?

A: The entire cost. Set aside funds for projects that are appropriate for Reserve funding (per the NRSS four-part test). You may not be so lucky (?) to have a severe storm that yields new roofs funded by your insurance company. Because a storm's timing can't be predicted, an insurance deductible fails NRSS test #3, so a large insurance deductible shouldn't appear in your Reserve Study. If a storm does happen, a proportion of your Reserves that have already been collected for the purpose of roof replacement could be used to pay the insurance deductible.

Q: If you don't know the cost of a component, do you recommend asking a vendor?

A: Absolutely. Take advantage of the knowledge of the vendors who serve your association. Your roofer, painter, or elevator service company should have no problem giving you a rough figure for budget purposes.

Q: How often should you update your Reserve Study (including the comp list)?

A: Annually, because components and costs are continually changing on an ongoing basis. By the way – associations that update their Reserve Study every five years enjoy a 35.1% drop in special assessment frequency when they begin updating annually, and associations updating their Reserve Study every three years enjoy a 28.5% drop in special assessment frequency when they begin updating annually.

Q: Can our association choose to perform a Reserve Study in-house, and if so, what are the pitfalls to watch out for?

A: Can you do it yourself, absolutely. An Update is much easier to do in-house than the original "Full" Reserve Study. Presuming you use some commercial software compliant with NRSS, the pitfalls are getting all the right components and getting accurate information for those components (skills the Reserve Study professional provides naturally), and lack of independence and credibility that help Reserve Study results get adopted so they provide some benefit to the association.

Q: How do you determine whether an asset is the responsibility of the association, the individual homeowner, or perhaps a neighboring property?

A: Check your Governing Documents. If that doesn't provide an answer, meet with your attorney and establish a well-documented precedent to answer that question from that point forward.

Q: Reserve study standards seem to say if you can't accurately predict a replacement cost/time, you should ignore it rather than risk being wrong. Common sense tells me that a best guess about replacement cost/life of an underground plumbing system is likely far fairer to owners and more prudent especially for costly items. Why not make a best guess?

A: If you have reasonable confidence of the Useful Life, Remaining Useful Life, and Current Replacement Cost as a "good estimate", then include it in your Reserve Study. Don't feel you have to know things with "certainty". Good estimates are welcomed in the Reserve Study. But the Reserve Component List is no place for guesses. Guesses only devalue the credibility of the other components by association. Besides – where do you

stop with guesses? Anything that “could” happen? A Reserve Study is not perfect, it needs to be updated each year, but it should not contain guesses or wishful thinking.

Q: Should a Reserve Study have a contingency line item for unanticipated projects?

A: No. The Reserve Component List should be comprised of projects that meet the four-part test.

Q: What do you think of components that have been ascribed allowances - say a portion of the total cost?

A: Allowances are a great way to stay on top of repairs and replacements of some large association components.

Q: Should Special Assessment funds always be used for a reserve study item (i.e. Roof replacement)?

A: Special Assessments should be for surprises only, not a regular way to fund predictable Reserve projects where the Board irresponsibly failed to collect sufficient Reserves from the members on an ongoing basis. Special assessments are also sometimes used for unbudgeted Operational expenses or Operational budget overruns or surprises such as snow removal or repairs, insurance deductibles, legal bills, or unanticipated cost increases to major budget line items.

Q: If an HOA is in a deficit situation, unable to pay existing bills. Should we ever expend Reserves?

A: Questions like this will be addressed in Reserve Studies 102 and 103, but the quick answer is yes. Spending Reserves on an Operating expense is a key indicator that your assessments need to be increased to a sustainable level – to pay for ongoing bills and to make appropriate Reserve contributions which offset the cost of Reserve component deterioration. Reserve projects get expensive if deferred, so spend Reserves to repair/replace the component and keep the project scope from growing. Bottom line... raise your assessments.

Q: If an expense turns up that isn't listed on your Reserve Study, can you spend Reserve Funds on it?

A: Yes. If a project turns up that meet the NRSS 4-part test that doesn't currently appear on your Reserve Study, spend the funds from Reserves, and add the project to your Reserve Component List the next time the Reserve Study is updated. Note that this will likely result in an increase to your Reserve contribution rate.

Q: Could you comment on investment strategy of reserves from traditional "safe" investments versus moderate risk for a small percentage of our reserves.

A: This is covered in our Reserve Studies 103 curriculum, but the short answer is that your Reserve Funds should always and only be invested where there is Protection of Principal (POP) meaning no chance the value of the asset can go down.

Q: What is difference between statutory vs non-statutory reserves?

A: Statutory Reserves typically describe associations that are responsible to comply with state-required Reserve regulations. In some states, having to comply with state Reserve regulations has to do with your type of association, when it was created, if the homeowners have voted to comply with state laws, or a short list of components that must appear in your Reserve Study. Either way, components deteriorate, and the board is responsible to provide for the needs of the association. Every association needs a Reserve Study, and every association needs a Reserve fund.

Q: What are the considerations for moving excess in the Operating fund over to the Reserve Fund?

A: Many responsible association accountants have taught me that a healthy Operating Fund balance is generally the size of two or three months income. Over that, it is prudent to consider transferring those "excess" funds into the Reserve Fund. Check with your tax preparer before doing so, as there may be some steps or resolutions involved in moving those funds.

Q: How do you convince a Board that a reserve study is necessary?

A: It is financially reckless to attempt to run a significant corporation like a community association without a Reserve Study, and such board members have a *significant liability exposure*. On a practical level, the recklessness of attempting to run an association without identifying the current state of their physical and financial assets, and how much the association should be responsibly setting aside to offset current deterioration often results in special assessments or deferred maintenance, or both! It is like attempting to pilot a ship into harbor on a foggy night without radar or a map. You're going to hit the rocks!

Q: What experience do you have with Florida communities and how familiar are you with applicable Florida law ?

A: We have 14 offices scattered across the country, with one in Florida specializing in associations of that state.

Q: When it comes to plumbing (such as your garage example), is the current condition the determining factor in deciding if it is appropriate for Reserve funding even if it did not pass the four part test in the past?

A: The NRSS 4-part test is the determining factor for inclusion as a Reserve component.

Q: Who typically determines the preventive maintenance that must be done?

A: Preventive maintenance recommendations are beyond the scope of your Reserve Study. Appropriate, professional maintenance is presumed in the preparation of your Reserve Study. Preventive maintenance recommendations are typically provided by your knowledgeable manager or your association vendors.

Q: When good maintenance extends the life of a component more than stated in the Reserve Study, what do you do?

A: First, congratulate yourself. But make sure you are not extending the component's service inappropriately (optimistically!), which can get very expensive. But if the component is continuing to serve well, extend the Useful Life and Remaining Useful Life in the next update. There is no reason to replace something prematurely (just because the RUL hit zero). Read more [here](#) about how a component fails, and how to make appropriate replacement decisions.

Q: Do we need to document the good maintenance that is leading towards what we believe will be extended life, to "prove" it?

A: No "proof" is needed. Doing great maintenance is for your own benefit. Keep records, of course, so future boards are reminded to keep up this good practice, but there is no outside entity that you need to prove anything to.

Q: What is the typical percentage of total budget that associations typically need to set aside towards Reserves?

A: Almost all associations are need to be setting aside 15-40% of their total budget towards Reserves to offset the cost of common area deterioration.

Q: Can you elaborate more on the minimum threshold cost?

A: Certainly. It is inappropriate to clutter your Reserve Study with components that are "trivial" ... projects very capably handled through the ongoing operational maintenance budget. The threshold of significance is often in the range of .5%-1% of an association's total budget, or the board or manager "signature authority" to execute a project. Note that this "rule of thumb" does not scale well for very large or very small associations.

Q: Can we have a component with a Useful Life of one year?

A: Absolutely. There is no minimum or maximum Useful Life limit in NRSS. If it is reasonably anticipated and meets the four-part test, a one-time expense each year for an annual project (drain cleaning, gutter cleaning, tree trimming, etc.) may fit better into the annual Reserve budget than 12 months of the operating budget.

Q: Can/should all members see the complete Reserve Study?

A: Since most members don't care and the typical Reserve Study may be voluminous, it is best to not put so much paper into an annual mailing to the members. In some states it is required that the board send out a summary of the Reserve Study, and doing so is just plain good practice. Most credentialed Reserve Study providers have an "Executive Summary" suitable for distribution to the homeowners. You can make the complete Reserve Study available to those homeowners who wish to see it (perhaps for a nominal reprint fee).

Q: How do we know how the quantities appearing in the Reserve Study were established?

A: Ask your Reserve Study provider. Common methods are on-site measurements (as done by Association Reserves), satellite mapping tools, reports or invoices from vendors, or "takeoffs" from blueprints.

Q: We have enclosed balconies and our hidden damage only became apparent when the balcony above started leaking onto the balcony below. Further testing revealed all balconies needed a total rebuild, something not included in our Reserve Study. What do we do?

A: Just like any other "missing" project, swallow hard, and evaluate the project according to the NRSS four-part test. If it passes the test, spend the \$ from Reserves, with a close eye on cash flow. Contact your Reserve Study provider for a consultation, as you may need a special assessment before increased contributions from the addition of the project to the Reserve Component List can begin to generate sufficient cash flow to keep your Reserve Fund solvent.

Q: How long should a reserve study take to prepare and deliver to a new client in a 33 unit condominium?

A: At Association Reserves we offer different turnaround time options, to fit the budget and timing requirements of each client. The typical range is a two-week "rush" to our eight week "economy" engagement.

Q: Is removal of concrete tile roof after say 20 years to replace the underlayment common?

A: Yes. The underlayment loses its waterproofing characteristics over 20-30 years and will need to be replaced. In most cases, the vast majority of tiles can be re-used (85% or so).

Q: If you pay taxes due to interest gain from the reserves, can you pay the taxes from the reserve funds?

A: I've seen it done both ways (paying taxes from Operating or Reserves). Check with your tax professional for advice specific to your association.

Q: Is entrance lighting a component for the reserve study?

A: If it passes the four-part test, yes. Simple entry lighting often only passes the "threshold of financial significance" test for small associations, unless there are many entryways and many sets of lighting.

Q: Can/should you include the reserve update cost in the reserve study?

A: Typically no. A Reserve Study itself doesn't fit the four-part test very well, A Reserve Study is more properly characterized as a professional expense like legal, accounting, or tax preparation services.

Q: Do you serve the TX Gulf Coast (or the Florida panhandle, or...)

A: Yes, we have clients in all regions, in all 50 states, served very capably from our network of [14 regional offices](#).

Q: Do you serve commercial condominiums?

A: Yes, and other types of organizations (worship facilities, municipalities and commercial properties, camp/retreat centers, private clubs and recreation centers, private schools, timeshares and fractionals, etc.)

Q: How do we handle a situation where we are responsible for 75% of the cost of an asset (25% is the responsibility of a different organization)?

A: Make a component planning for 75% of the total replacement cost. That way you'll have your portion of the funds ready when it is time to execute the project.