



# amy green design

# **Understanding Consultants Needed for Your Building Project**

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# **01**Your Architect as the Lead Building Consultant

Someone needs to function as the lead on a project to organize all your project goals, requirements, and schedules across all parties of your project. Who decides where the equipment room is for your building will be located for example? What equipment is to be located that equipment room? What are its wall built of? How much room will that space take in your building? What space is dedicated there for the mechanical equipment? Electrical equipment? Plumbing? The person to help organize all of that and more for your project is your Architect; your lead consultant for your building project.

Your Architect will function as your **key project manager and liaison** for you and all contractors, consultants, inspectors, agencies, and vendors on the project while helping recommend those parties to you and coordinating and reviewing their work accordingly as well as resolving any conflicts between the work of those parties.

Your Architect will lead and direct all the consultants on your project helping keep them on schedule while also ensuring the work between all various consultants is coordinated. Your Architect ensures all parties on the project are working collectively to meet your goals for your building project.

You will contract your Architect directly with you. Each of the consultants, specialists, and contractors needed for your project will then also be contracted directly by you and their services paid directly by you, but your Architect, with their knowledge, expertise and experience will manage those consultants, contractors and specialists for you as part of the Architect's services.

Architects are typically needed on a building project whenever you are building a new building, moving or removing walls in a building, or signed and sealed drawings are needed for permits required by your local building jurisdictions.



#### Consultants Needed for Renovations

The scope and complexity of your remodel will determine how many and what types of professionals, Architects, consultants, contractors, and engineers are needed for your project.

Your Architect can help you determine and recommend the professionals that will be needed for your unique project needs and assist you in gathering proposals for those services to help you fully understand the soft costs associated for the architect, engineer, and other consultants needed on the project.

# Consultants For New Buildings & Expansions New Buildings require additional consultants that are not often not needed on simple remodel projects.

Examples of these additional consultants may include a geotechnical engineer that maybe required to assess the existing soil conditions to determine how to approach the new structure based on soil conditions on site. A surveyor would also be needed to document the existing site conditions.

Your Architect can help recommend what consultants will be needed on your project and help you select them and contract with them for their services.



# Consultants for Asbestos Testing Agency Asbestos was banned in 1977 so buildings are required to have certain materials tested for asbestos prior to construction

or demolition proceeding.

If possible asbestos containing materials maybe disturbed during construction or renovation; which can happen if a material containing asbestos is sanded, drilled, or cut for example; then measures need to be taken as asbestos is most harmful when its fibers are airborne which may happen if it is cut, drilled, sanded or otherwise disturbed.

Materials in buildings that may contain asbestos include insulation, spray fire proofing, ceilings, patching compounds, door gaskets, resilient flooring tiles, flooring adhesives, underlayments, and cement boards.

If asbestos is found on site it can be left undisturbed and encapsulated by putting a new material over it without disturbing the asbestos containing material, or can be abated by a certified professional.

Your Architect can help you determine when your building was built, if asbestos testing is needed, recommend testing agencies, and if asbestos is discovered in the area of work then they can recommend the necessary abatement or encapsulation appropriate for your project.

#### Consultants for Lead Paint Testing

Lead paint was banned in 1960 so buildings built prior to that date need to have paint tested for lead if paint maybe disturbed during construction or renovation as lead paint is toxic to humans and causes severe developmental issues to children.

Lead paint is most harmful when it comes off the wall, which can occur if the paint peels off or is sanded, drilled or cut and then inhaled or ingested.

If lead paint is discovered by the Testing Agency it can either be removed and abated by a certified professional or encapsulated.

Abatement is the safest option as leaving the lead paint encapsulated leaves for the opportunity for it to peel or become disturbed down the road which could harm the occupants of the space in the future.

Your Architect can help you determine when your building was built, if lead paint testing is needed, recommend testing agencies, and if lead paint is discovered in the area of work then they can recommend the necessary abatement or encapsulation appropriate for your project.



# When Historians Are Needed For Your Project Some projects are landmarked or registered as national historic places and as such must meet additional requirements,

reviews, and regulations in order to preserve its historic character.

If your building or space falls into such categories your Architect will help you determine if your space meets such requirements and may prepare the historical documentation necessary for the historical review or they may recommend a historical specialist to prepare it and submit it for review to the appropriate authority.

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### When Engineers Are Needed For Your Project

There are several types of engineers that might be needed on your building project. Just as an Architect takes responsibility for signing and sealing their drawings to comply with building codes, engineers sign and seal drawings taking responsibility for their specific contributions and unique drawings on a project.

A **plumbing engineer** for example will sign and sealing plumbing drawings for the project indicating plumbing risers, gas lines, and other plumbing aspects of the project.

A **mechanical engineer** will prepare the mechanical drawings such as those needed for heating and cooling systems for the space.

The **electrical engineer** will prepare electrical drawings including switching, circuits, breakers, etc.

Fire alarm engineers will prepare sprinkler, fire alarm and detection drawings for the project.

**Structural engineers** prepare structural drawings such as foundation plans, column sizes, structural connection details, and more.

Each engineer needed for your project adds time, costs, and often additional permits that will be needed for your project. Simplifying your project scope can help reduce the number of engineers and permits needed for your project.

If you simply replace plumbing fixtures with new ones in the existing locations, then a **plumbing engineer** may not be needed for your project.

If you do not plan to add nor revise the HVAC nor mechanical systems then a **mechanical engineer** may not be needed for your project.

If you can reuse existing fire alarm and sprinkler systems or if your building use does not require them then your project may not need a **fire alarm engineer**.

If you do not plan on adding electrical devices or are simply replacing existing electrical devices such as lights with new in the existing locations then you maybe able to avoid bringing an **electrical engineer** onto the project.

If you do not need new structure in your project then you maybe able to avoid bringing a **structural engineer** onto the project.

Likewise their are certain project scopes that will require certain engineers be brought into the project. For example if you plan to add plumbing fixtures to your project then a **plumbing engineer** will be required. If you plan to add heating or cooling to your project then a **mechanical engineer** will be required. If you plan to add electrical devices then an **electrical engineer** will be required. If you plan to add or remove structure then a **structural engineer** will be required. If you plan to move, shift or add walls then a **fire alarm engineer** will be required to rework the systems to suit the revised layout of the spaces.

There are other more **specialized engineers such as civil engineers** that maybe brought into more complex projects such as infrastructure projects. Your Architect can help you determine the engineers that will be needed for your project based on your project scope and help recommend those engineers to you and help you contract them for their services.



### When Environmental Consultants are Needed

An environmental assessment or other environmental testing maybe needed for your site if your project is located on a brownfield, hazardous site, or location where the building or soil maybe contaminated through activities such as an oil spill or slow contamination over time such as a dry cleaning establishment slowing leaking chemicals.

You may also have sustainability goals for your project that could require a consultant such as a LEED Accredited Professional who would complete the necessary documentation and LEED project administration fir your project to achieve LEED certification. Some Architects provide these services while other Architects will recommend a consultant to contract with to perform the services.

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# When Specialized Consultants are Needed Some specialized building projects require specialized consultants. Examples of this include specialized acoustic

Some specialized building projects require specialized consultants. Examples of this include specialized acoustic consultants for musical performance spaces, kitchen consultants for large restaurant projects, landscape architects for green roof projects, elevator consultants and other specialized consultants based on your project's unique needs.

Your Architect can identify for you what specialized consultants could best be utilized for your project and recommend those consultants for you to contract with on the project.

amy green design performs LEED Project Administration as well as other environmental consulting. contact us today to discuss how we can assist you on your building project. amy@amygreendesign.com 503.438.5411



### When Specialized Vendors are Needed

Some vendors provide their services for your building project, often free of charge, when you purchase products from them based on their recommendations. Examples of this include security vendors, lighting vendors and more. A security vendor for example can recommend the best security features for say a store renovation to help reduce theft and will provide their recommendations for free in exchange for you purchasing and having them install their recommended security products in your building project. Your Architect can help recommend and select these vendors for you to include on your building project.

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# When Special Inspectors are Needed Most building jurisdictions, including NYC, require Special Inspections to be performed during construction by a

Most building jurisdictions, including NYC, require Special Inspections to be performed during construction by a professionally certified inspector during construction. These inspections are required for construction of items such as high strength bolt connections, steel construction, concrete construction and more --- which are required to be inspected during construction by a certified special inspector. Your Architect will help you determine which special inspections will be required for your project and can help you select certified inspectors which you can contract with directly to complete the inspections.



### When Expeditors are Needed

Expeditors are certified professionals who help oversee and coordinate the permitting process for building projects.

Some jurisdictions have permitting processes that are so simple an Expeditor is not needed, however when dealing with complex building departments, such as NYC, then an expeditor is brought into the project to complete the forms, paperwork and filing for the permits necessary and their work often occurs over the course of several months as they also often assist with the building department during construction when expeditors may help coordinate inspections and sign offs for the project with the building department and other local jurisdictions.

If a permit is not required for your project by the local jurisdiction then an Expeditor may not be necessary but in jurisdictions such as NYC, permits are required for almost every scope of work including if you plan to demolish a wall or add just a single wall then a permit would be required for that scope of work.

In NYC permits fall into Alteration type I, II & III ascending from most complex scope of work in type I to least complex in type III.

Scope for type I for example would be for a new building while type III is something as simple as a new sidewalk fence.

In complex jurisdictions such as NYC approval from jurisdictions beyond the department of buildings such as FDNY, landmarks, department of transportation, department of health, and approval by other jurisdictions maybe required and your Expeditor will work with your Architect and Consultant team to help acquire all the necessary approvals.

There are also special permits and approvals for items such a Certificates of Occupancy, Public Assemblies, Equipment Permits, Scaffolding Permits, and more that are required on more complex building projects.

Your Architect and Expeditor will help advice which types of permits and jurisdictional approvals will be necessary for your project and will work together with you to ensure your project receives all the necessary permits and approvals.



Legal Consultant Coordination

You may have an Attorney on your project because your project has fallen under violation of a law effecting your building such a building entrance for example that was cited with a violation of the Americans With Disabilities Act.

Under such circumstances your Architect can work with you and your Attorney to provide the solutions, drawings, documentation and coordination necessary to ensure such violations are corrected and resolved.

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# Bank, Loan and Grant Funding Coordination A grant or bank you're requesting financing from for your building project may require you to submit documentation for

their review in order for them to review and approve your request for funding.

Such requests may include a document summarizing the building materials in each space, summaries of the square footages of the space and how they will be used, or energy use anticipated for the space.

Your Architect can prepare those documents and summaries for you as well as review materials you receive from the banks and grants to ensure the space is designed to meet any requirements put on you by the financiers.



### When General Contractors Are Needed

There are some unique cases where a contractor might not be required on your project such as if you're working with an Architect just to resolve simple violations placed on your building or if you are completing the construction yourself.

However, in most cases a contractor is necessary and the local jurisdictions will often require the contractors be registered with the local building authority and be licensed, bonded and insured.

You may elect to work with a general contractor who will manage all trades and subs during the process, or work with different tradesmen, sub-contractors, vendors, and installers --- though AGD only recommends this if you, AGD, or another qualified professional function as a construction manager during construction in order to coordinate, oversee, schedule, and ensure work by all trades is properly completed.

Your Architect can help determine if a contractor is needed on your project and help recommend contractors to you.



# 18 Summary

In summary it's typically not just a contractor nor just an Architect that is needed for your new building project but rather a team of qualified professionals working together under the direction of your Architect to achieve your project goals.

Your Architect is your liaison and first step in helping you form the best team for your unique project needs.

contact amy green design today to discuss how we can assist you as the Architect on your building project and work with you to form a great building team and ensure the success of your next building project.

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