

BUILDING BLOCKS TO COMPLETION OF A PROJECT

- Identification of the need for a building project/renovation.
- Responsible Department prepares preliminary needs and cost assessments
 - Needs assessment includes background, projects, ADA, other special modifications and benefits to the Town
 - Cost assessments - Initial cost estimates for project
 - Funding sources identified (grants, bonding, capital accounts, LOCIP)
- Department refers project to Mayor and requests the Establishment of a Building Committee. Board of Education Projects are forwarded directly to the Town Council.
- Town Council appoints a Building Committee for project giving the following authorizations:
 - Authorization to complete the project
 - Authorization of start-up funding to hire architects, Clerk of Works etc
 - Authorization of hold organizational and regular meetings as necessary
 - Authorization to draft a resolution requesting approval of the project.
- Building Committee holds organizational meeting, and regular meetings as established in the founding resolution. Obtains more defined cost estimates and time schedule.
- Building Committee holds Public Hearings & Informational Hearings regarding the project to receive input from residents.
- Building Committee directs drafting of the resolution regarding the project. Requests the Mayor forward a request to the Town Council for Hiring of Bond Counsel.

The following meetings/public hearings must be held prior to the Town Meeting.

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- Presentation to the Planning Commission. Approval of commission must be majority vote. CSS 8-24, 8-22 and Town Charter Chapter IV, Section 3.
 - Presentation to the WPCA if the project involves sanitary sewers. WPCA must hold a Public Hearing as well on this project.
 - Plans and drawings are presented to the Zoning Official, Fire Marshal, Building Official for review and comment.

- Town Council approves the project and authorizes the Mayor to hire Bond Counsel. Town Council approves resolution appropriating funds, bonding and sale/purchase of land if appropriate. Town Council recommends passage of resolution to a Town Meeting. Mayor must approve appropriation. Town Charter Chapter VII Sections 7, 12, Chapter III Sections 1,2,3,4,12.

Note: If appropriation is > 1% of tax levy, approval at Town Meeting sufficient.
If appropriation is > 5% of tax levy, approval at Town Meeting adjourned to referendum is necessary.

- Notice of Town Meeting and Referendum. Town Meeting must be posted five (5) days prior to the Town meeting. Referendum must be held 30 days after posting of notice in newspaper. Experience has proven the timeframe from approval at Town Council meeting to referendum is at a minimum of 45 days.
- Upon approval of the project at a Town Meeting/Referendum the Building Committee meets with the Mayor, Director of Finance, Town Treasurer to discuss payment procedures, grants etc. Further meeting with Bond Counsel to discuss sale of bonds etc.

NOTE: School Projects = Board of Education, Building Committee and State Board of Education must approve site and plans. State Board of Education must approve grant commitment before construction bids are sought. CGS 10-291

MEMORANDUM

To: Town Council Chairman
From: Administrative Assistant
Re: Board of Education Building Committee

I have attached a copy of the memo from Mr. Depta that he presented to the full Town Council on his debrief from the Board of Education Building Committee.

GENERAL GUIDELINES FOR BUILDING COMMITTEES

Members of municipal building committees in most cases are appointed because of their interest in the project, political considerations, past experience in construction, or that, they are just available. THERE IS NO QUALIFICATION EXAMINATION AND NO TRAINING. The results of committees formed under these ground rules are not always predictable.

In an effort to provide some general guidance and pass on past experience this document has been assembled.

1. FINANCIAL CONTROL

- a. The dollars provided in the bonding package have been divided into a water project and a sewer project. Keep separate book on the two projects. The Chairman of the Building Committee must meet with the Town's Director of Finance to set up a chart of accounts, learn the proper use of the purchase order forms, and review bookkeeping in general. REMEMBER THESE ACCOUNTS WILL BE AUDITED BY THE STATE APPROVED AUDIT TEAM.
- b. Guard your spending very carefully in the front end of the project so you will have money at the end of the project. The tendency is to approve all recommendations by the Engineering Consultant in the early part of a project when you are flush. Unknown costs can creep in fast and start-up problems always take more money than forecast.
- c. Hold back 10-15% of all contract to assure satisfactory performance. You have to have leverage when things don't work out as planned.
- d. The Engineering Consultant must certify all bills submitted to the committee for approval. You are responsible to pay for all material delivered to the site as well as labor since the last billing date. MATERIALS DELIVERED TO THE SITE, EVEN SITTING IN THE CRATES, ARE YOURS, (THE OWNER.)
- e. Make sure you have lean wavers on all sub-contractor work performed for each billing period. The sub-contractor has the right to place a lean against the property if he is not paid. A supplier of materials or equipment that is delivered to the site has the same right.

- f. Resolve all disputes over money issues immediately. The longer it takes to reach agreement on a dispute the less people remember. IF YOU PUT OFF DISPUTES TO THE END OF THE PROJECT, YOU ARE ALMOST ALWAYS GUARANTEED A LEGAL BATTLE WITH THEIR ATTENDING COSTS.
- h. Change orders to any contract are costly. The best way to prevent change orders is to have outstanding Plans and Specifications. Spend lots of time reviewing your Plans and Specs. and have as many people as possible conduct independent reviews. WHEN THE BUILDING COMMITTEE SIGNS OFF ON THE PLANS AND SPECIFICATIONS YOU OWN ALL MISTAKES, ALL ERRORS, ALL MISUNDERSTANDING, AND ALL THE COSTS TO CORRECT THE PROBLEMS.
- i. The Building Committee must provide a person by name to make decisions in the field. YOU ARE RESPONSIBLE FOR TIMELY DECISIONS AND WILL BE CHARGED IF YOU HOLD-UP THE PROJECT.

2. DRAWINGS AND SPECIFICATIONS

- a. Drawings and specifications generated by the consulting engineering firm are the property of that firm unless the contract states differently. The Town of Ledyard has the right to use them and reproduce them as long as they are used on this project. THEY CANNOT BE SOLD OR GIVEN TO ANOTHER FOR USE ON DIFFERENT PROJECT.
- b. If a dispute exists between the drawings and specifications, then the data on the drawing takes president.
- c. Errors on the Drawings or Specifications which are very costly to correct will not be paid for by the consulting engineer unless you can prove it is an engineering error violating codes or good engineering practice.
- d. All drawings should be generated on AutoCad-10 or 11. This will allow you to store the drawings in the Town's computer and the Town engineer can update them in the future.

- e. A set of as-built drawings should be generated as the project progresses.
- f. Maintainability of the new plant starts with the Drawings and Specifications. Think, access to equipment, corrosion control, long term availability of parts, simplicity of operation, and etc. as you develop the documents.

3. PROJECT CONTROL

- a. During construction all on-site changes should first be approved by the consulting engineer. Only one member of the building committee should have authority to coordinate these changes. WARNING; IF A MEMBER OF THE BUILDING COMMITTEE VISITS THE SITE AND COMMENTS ON SOME ASPECT OF CONSTRUCTION, IT COULD BE TAKEN AS APPROVAL/CHANGE FOR SOMETHING DIFFERENT THAN IS ON THE DRAWING. If you see something on the site you don't like get the appointed building committee representative and the consulting engineer involved.
- b. The Waste Water Treatment Plant upgrade will require a lot of coordination because the existing plant has to continue to operate. The wording in the contract must provide for some reasonable delays and extra work when making inter-connections with old pipes or equipment. OLD PIPES AND EQUIPMENT ARE GOING TO BE DIFFICULT TO TAKE APART AND DIFFICULT TO JOIN TO NEW CONSTRUCTION.
- c. Early in the project establish an elevation datum in concrete and refer all elevations on the drawing to the one reference point. WHEN YOU TRY TO MAKE WATER RUN UP-HILL IT IS USUALLY AN ERROR IN ELEVATION ON THE DRAWINGS.
- d. Collect the manufacturers data sheets, equipment operating instructions, material specs. supplied with shipments, and any other paperwork you can get your hands-on throughout the project. DON'T WAIT UNTIL THE END OF THE PROJECT.

4. CONSTRUCTION CONSIDERATIONS

- a. The ground water table on the existing waste water treatment plant site is high. When the elevation of the bottom of the Sequential Batch Reactor, (SBR) is being determined it may be wise to keep it well above Ground water. The cost of de-water holes in the ground can get expensive and cause delays. Earth berms against the side of the SBR can be used to reduce heat loss if it has to be kept well above ground level.
- b. The SBR will use large blowers to force air through the liquid. Centrifugal compressors or two-impeller positive displacement blowers create very high noise levels and our plant is on the edge of a residential area. THE NEW AES CO-GENERATION PLANT IN MONTVILLE HAS SPENT LARGE SUMS OF MONEY TO CORRECT NOISE PROBLEMS. LET'S NOT MAKE THE SAME MISTAKE. Check State Statutes starting at 22a-67
- c. OSHA rules for construction sites must be enforced. Our own WPCA employees, and visitors to the site will be subject to these rules, and fines can be imposed.
- d. Most of the project's equipment will be installed in areas classified as "wet areas", and the National Electric Code has extensive detailed directions on the electrical wiring of this equipment. Some of the code applies to the wiring by the manufacturer, and some for the installer. You have to be sure this is detailed in the Drawings and Specifications, but the most difficult part is making sure you get what you pay for in the field.



TOWN OF LEDYARD CONNECTICUT

PLANNING COMMISSION

Ledyard, Connecticut

Post Office Box 38
Ledyard, Conn. 06339

MUNICIPAL IMPROVEMENT CHECK LIST

This check list is intended to guide Town building committees through the process of designing, building and completing municipal improvements. Please note that this list may not be all-inclusive, and that all items listed below may not be required for all municipal building projects. The necessity to consider a particular item is determined in consultation with the Town's development staff, including the Planner, Zoning and Wetlands Official, Building Official, Public Works Director, and Fire Marshal.

I. Site Plan Details:

- a) ☐ Compliance of lot with height, area, width, coverage, yard and setback requirements of Zoning Regulations;
- b) ☐ Establish datum, benchmark & contour map of site;
- c) ☐ A-2 boundary survey & boundary monumentation;
- d) ☐ Determine presence/absence of wetlands and ledge;
- e) ☐ Percolation tests & deep observation pits for septic;
- f) ☐ Provision of water supply;
- g) ☐ State Building Code & State Fire Code compliance;
- h) ☐ Design of stormwater management system, compliance with local Stormwater Management Ordinance;
- i) ☐ Evaluation of traffic impacts, compliance with local Road Ordinance;
- j) ☐ Off-street parking & loading requirements;
- k) ☐ Landscaping;
- l) ☐ Signage;
- m) ☐ Sediment & Erosion Control Plan;
- n) ☐ Flood protection (only if in Special Flood Hazard Zone);
- o) ☐ Impacts to historic resources & cemeteries;
- p) ☐ Energy efficiency & use of solar design;
- q) ☐ LCDD building design criteria;
- r) ☐ Notification of abutting property owners & easement holders.

II. Coastal Area Management review (see Zoning & Wetlands Officer).

III. Inland Wetlands Commission review (see Zoning & Wetlands Officer).

IV. Compliance with Plan of Development and other municipal planning documents (see Town Planner).

V. Report on fiscal impact to local taxpayers.