

Office of the Inspector General

Commonwealth of Massachusetts

Gregory W. Sullivan Inspector General

An Interim Report on Chapter 28 of the Acts of 2002:

A pilot program that suspends filed sub-bidding on certain school construction projects

Presented to the Special Commission on Public Construction Projects

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The Commonwealth of Massachusetts

Office of the Inspector General

GREGORY W. SULLIVAN INSPECTOR GENERAL JOHN W. MICORMACK STATE OFFICE BUILDING ONE ASHBURTON PLACE ROOM 1311 BOSTON, MA 02108 TEL: 1617) 727-9140 FAX: 1617) 723-2334

February 4, 2004

Senator Dianne Wilkerson Representative Martin J. Walsh Mr. Christopher Gordon Co-Chairs Special Commission on Public Construction Projects Room 312C State House Boston, MA 02133

Dear Senator Wilkerson, Representative Walsh, and Mr. Gordon:

Enclosed for your information is a copy of "An Interim Report on Chapter 28 of the Acts of 2002 and the Filed Sub-Bid Process in the Commonwealth." This interim report is being presented to you and other members of the Special Commission on Public Construction Projects ("Commission") as part of your consideration of potential reforms to regulations governing public construction projects.

The focus of the enclosed report is an examination by this Office of projects being done pursuant to Chapter 28 of the Acts of 2002. That act permits specified school construction projects to be done without the use of a filed sub-bidding process. The interim report provides a discussion of some of the key issues related to the filed sub-bid process used in the Commonwealth and potential pros and cons of amending that system. I hope that this interim report will provide some useful and balanced information and observations for discussion as the Commission continues its deliberations.

As is discussed in the interim report, this Office does not at this time believe the construction procurement method of Chapter 28 should be recommended as the cornerstone of potential reforms to construction contracting in the Commonwealth. There is still much information and analysis to be derived from projects on-going under Chapter 28. However, as discussed in the report, this Office believes our review of these projects is already providing some insights regarding the issues surrounding the construction bidding process.

If you, members of your staff, or any member of the Commission would like to raise questions, concerns, or suggestions pertinent to the contents of the interim report, please do not hesitate to contact this Office.

Sincerely,

Gregory W. Sullivan

Gregory W. Sullivan Inspector General

Encl.

An Interim Report on Chapter 28 of the Acts of 2002:

A pilot program that suspends filed sub-bidding on certain school construction projects in six Massachusetts communities.

Chapter 28 of the Acts of 2002 established a pilot program authorizing six municipalities to undertake school construction projects without soliciting filed sub-bids under M.G.L. c. 149, §44F. The six municipalities are Milton, Winchester, Brockton, Everett, Revere, and Waltham. As of January 2004, Milton and Waltham have undertaken Chapter 28 construction projects for three schools; Everett has undertaken one Chapter 28 school construction project and is contemplating another at this time; Winchester has recently undertaken one Chapter 28 project; Brockton will soon finalize a decision as to whether to go forward with a project that could be done under Chapter 28; and Revere has indicated it will not be utilizing the Chapter 28 procedures.

Under Chapter 28, all bidding documents and contracts prepared for Chapter 28 projects are subject to review and approval by the Inspector General. To assist the communities participating in the pilot program, the Office of the Inspector General has developed subcontracting procedures that protect awarding authorities and subcontractors from the risks of post-award bid-shopping.

The following table contrasts the major subcontracting requirements of the M.G.L. c. 149 filed sub-bid procedures with those of the Chapter 28 subcontracting procedures.

M.G.L. c. 149 Filed Sub-Bid Procedures	Chapter 28 School Construction Subcontracting Procedures
Awarding authority conducts multiple sealed bidding processes for up to 17 sub-bid categories of work. Awarding authority conducts a separate sealed bidding process to select the general contractor.	Awarding authority conducts one sealed bidding process to select the general contractor.
General contractors must use eligible filed subcontractors at their filed sub-bid prices submitted to awarding authority.	General contractors are free to select their own subcontractors and to negotiate subcontract prices prior to submitting their bids.
Sub-bidder protests are somewhat common.	Without sub-bidding, subcontractor protests are unlikely.
General contractors are not allowed to bid-shop after being awarded contracts.	General contractors are required to list their selected subcontractors at the agreed-upon subcontract prices. The subcontractor bid listing procedures prevent general contractors from bid- shopping after being awarded contracts.

As part of the Chapter 28 pilot program, the legislature required that the Office produce a report within six months of the completion of the final project bid pursuant to Chapter 28 procedures. Under Section 4 of Chapter 28, the Office is mandated to review the process by which subcontractors were selected to work on the school building program and to make recommendations concerning the continued use of exempting school building programs from the filed sub-bid requirements of M.G.L., c.149, §44F.

The earliest projects bid pursuant to Chapter 28 are now in the final "punch-list" stages and final data regarding costs, quantification of change order requests, compliance with projection completion dates, and other aspects of project performance and awarding authority satisfaction will soon be available. As part of its on-going, comprehensive look at all of the projects conducted under Chapter 28, the Office has already begun to review data from these projects and conducted interviews with awarding authority representatives, architects, project managers, general contractor representatives, subcontractor participants and their representatives, and others knowledgeable about both the specific projects governed by Chapter 28 as well as a broader array of issues which effect public construction projects.

The following interim report is intended both to report observations to date on the Chapter 28 program and to help facilitate broader discussions of reforms in the process of bidding and implementing public construction projects, such as is now taking place before the Special Commission on Public Construction Projects created pursuant to Chapter 46 of the Acts of 2003. Accordingly, in addition to information specific to Chapter 28, this report summarizes general concerns and observations regarding proposed reforms to the construction bid laws based on the input of multiple parties.

Summary Observations

Below are a few summary observations based on the Office's preliminary review of Chapter 28 projects:

- The filed sub-bid process is one of several factors related to the nature of public construction work that influence who participates in the system, but it is not necessarily the one that is most dominant or influential with regard to the cost effectiveness of project delivery. Increasing the pool of general contractors and subcontractors involved in public construction is an appropriate goal that needs to be addressed regardless of what method is used for the selection of subcontractors.
- 2. This Office has heard frequent reports of awarding authorities frustrated by poor relationships between subcontractors and general contractors, requiring awarding authorities to get involved in disputes as mediators. The perception that the filed sub-bidding process contributes to these poor relationships needs to be addressed by some reforms in the process. This Office in partnership with the Division of Capital Asset Management has recommended a series of such improvements to the Special Commission on Public Construction Projects (a copy is attached to this report).
- 3. Changes to the filed sub-bid process may result in modest savings on construction in the form of reduced change orders, delays, disputes over responsibility for scope of work, bid process administration, etc. However, claims that revocation of the process will result in savings of 20% or more are not justified. Wages for these projects, which are largely dictated by other statutes and public policies in the Commonwealth, have an effect on project costs that supersedes the impact of the filed sub-bid process.
- 4. There are many issues in addition to the filed sub-bidding process that effect public construction project delivery. Problems such as cost and delay can be

further addressed by examining alternative delivery methods, including providing improved opportunities for design and construction personnel to collaborate on the details of construction means and methods, as well as the expanded use of construction management techniques and personnel.

5. Any review of the sub-bidding system must address the potential pitfalls of increased "bid-shopping" and less open access to publicly funded projects in the context of the perceived advantages of general contractor selected teams and streamlined bidding procedures. How pernicious bid-shopping potentially is and whether it is inevitably deleterious to the interests of the awarding authority are issues which require further consideration.

Based upon this interim review, this Office does not recommend that the procedures used in the Chapter 28 pilot program be incorporated into any reform proposal at this time. This Office has not yet seen such a discernible, significant financial benefit by use of the subcontractor selection process used under Chapter 28 to warrant its use as the focal point for reform efforts. The largely positive response from the communities using the Chapter 28 procedures does, however, reflect the need to consider some revisions to public construction regulations and to providing municipal authorities with additional options for carrying out these vitally important projects.

Filed Sub-Bidding Pros and Cons

Since the 1950's, Massachusetts law has required a filed sub-bid system of selecting certain subcontractors on public building projects subject to M.G.L. c. 149. The Ward Commission strongly opposed the use of filed sub-bids, but its efforts to abolish the filed sub-bid system were unsuccessful. Opponents of filed sub-bidding, including the Ward Commission, raise the following criticisms:

 Filed sub-bidding effectively prevents the general contractor from assembling its own team of subcontractors. Instead, according to filed sub-bidding opponents, the system effectively forces general contractors to select the subcontractors submitting the lowest sub-bid prices.

- Filed sub-bidding requires the designer to prepare detailed plans and specifications for each filed sub-bid category of work. The argument is that by requiring this much specificity at the bidding stage, filed sub-bidding imposes an undue burden on the designer and sacrifices the opportunity for the contractor to consolidate subcontract work and use new technologies that could save money for the public owner.
- Filed sub-bidding imposes an administrative burden on the public owner. It requires multiple bid openings and selection of multiple sub-bidders, thereby adding time to the bidding period and increases the opportunities for bid protests.

The arguments in favor of filed sub-bidding can be summarized as follows:

- Filed sub-bidding prevents bid-shopping, which increases the likelihood of low-ball bidding. Bid-shopping occurs when the general contractor obtains bids or price quotations from subcontractors for sub-trade work and then shops the lowest bids to other subcontractors in an effort to induce them to submit lower bids or price quotations. Bid-shopping can take place just before the general bid opening and again after the general contractor has been awarded the contract. According to *Engineering News-Record*: "When bids are shopped, it plants a time bomb in the project" by provoking subcontractors to generate change orders and claims, and to substitute inferior materials for those specified.
- Filed sub-bidding requires the designer to prepare detailed plans and specifications for each filed sub-bid category of work. Proponents of filed sub-bidding argue that this requirement benefits the owner by producing a more fully developed design and more accurate cost projections than

Karman, Richard, "Shop Till They Drop," *Engineering News-Record*, March 9, 1992,

would be produced without filed sub-bidding. Moreover, proponents argue that because all the filed sub-bidders are bidding on the same fully specified design, filed sub-bidding generates competitive prices for the sub-trade work.

 Filed sub-bidding enables the owner to exercise control over the subcontractors by reviewing subcontractor qualifications and eliminating those that are not qualified. Proponents argue that without filed subbidding, the owner may have no information on the subcontractors and their responsibilities. This "don't ask, don't tell" policy on subcontractors can be regarded as risky and unwise.

Explanation of Procedures Used Under Chapter 28

The procedures used by the communities covered by Chapter 28 were promulgated by the Office (a copy is attached to this report). They were intended to achieve various objectives, including:

- a. allowing for a direct comparison with the sub-bid system by still requiring the delineation of specifications and subcontractors for seventeen (17) categories of sub-trades as now exist under M.G.L. c. 149, §44F;
- b. allowing general contractors the leeway to create their own "team" of tradespersons and thereby address one of the most common criticisms of the traditional filed sub-bid system (i.e. that general contractors lack control over the roster of project participants and this leads to managerial conflicts and lack of "harmony" during project implementation); and
- c. requiring general contractors to provide sub-bid prices at the outset of the bidding process in order to prevent the practice of "bid-shopping" which many subcontractors say would be rampant in the absence of a filed sub-bid requirement.

The preference to stay largely within the parameters of the current subcontracting system is indicated by the legislative decision to retain, even for Chapter 28 procedures, the statutory form of the subcontractor contract as provided under M.G.L. c. 149, §44F, as well as the direct payment provisions of M.G.L. c. 30, §39F.

Some parties involved in the Chapter 28 process have suggested that it does not differ to a great enough degree from the current filed sub-bid process to provide a clear contrast. The retention of the sub-bid categories for purposes of the specifications and listing of contractors has been identified as too restrictive and inhibits general contractors from structuring the projects as they would structure their private projects. There have also been suggestions that the existence of an additional layer of oversight by the Office and the requirement that general contractors certify subcontractor prices and submit the prices with their bid are cumbersome and may add to the "chaos" that already marks the day of bid submission.

While some of these concerns raise valid points for review, it should be noted that they also suggest the need for a "reality check" regarding the notion that absent the use of a filed sub-bid system, general contractors would be approaching projects with an established, cohesive team rather than a group of subcontractors put together as a result of the sub-bid process. In many cases, the reports on the subcontractor selection process used by the Chapter 28 general contractor participants mirrors a bidding process itself. Instead of simply using a given subcontractor, the general contractor is soliciting and/or receiving prices from multiple subcontractors until the day of the bid opening. Otherwise stated, the general contractors are often willing to reconfigure their "team" based on pricing factors. This is not necessarily surprising or inappropriate. It does, however, serve as a reminder of the need to be cautious in drawing the conclusion that in the absence of the filed sub-bid process, general contractors would always pick the best, most experienced subcontractors with which they are most familiar. In essence, a bid process is often taking place; but rather than one viewable and inuring directly to the benefit of the awarding authority, it is a privatized bidding process which may produce savings which will not necessarily be shared with the awarding authority.

The issue of whether more of the subcontractor selection and pricing process should be shifted from a public venue to a private one in connection with projects funded by public dollars is multi-faceted. One of the advantages of the current filed sub-bid system (and to a large extent the Chapter 28 process as well) is that it provides a useful pool of

information to awarding authorities regarding the costs of specific components of the project. Under the current system, that information is available to general contractors, as well as awarding authorities. In a private system, this scope and cost information is primarily the domain of the general contractor. Even more fundamentally, the degree to which subcontractors should have to depend on their connections to private general contractors in order to be able to get access to publicly funded projects is a public policy issue as much as it is one pertinent to procurement procedures and project delivery methods. Much of that issue centers on the degree to which general contractors should be empowered to act as "gate-keepers" with respect to subcontractors' access to public work.

Issue Area 1: Publicly Funded Contracts Open to All Vendors

A group of affected parties who cannot be overlooked in discussing Chapter 28 (and other alternatives to the filed sub-bid process) are those subcontractors who did not participate because they were never contacted by a given general contractor and invited to submit a bid. Some general contractors solicited sub-bids from a relatively large number of subcontractors whereas other general contractors relied upon contacts with a rather small pool of subcontractors with whom they were familiar. General contractors who have done multiple Chapter 28 projects appear to have been willing to use somewhat different groups of subcontractors on different school projects. Nonetheless, it must be acknowledged that the capacity of even high quality, reliable subcontractors to be shut out of public construction work is greater when the filed sub-bid system is not used.²

Any major change to the present subcontracting policies must confront the assertion by subcontractors that they should have the same rights as general contractors to

² Some subcontractors who worked on Chapter 28 projects did report that they took the initiative of using publicized lists of which general contractors had picked up bidding documents and thereafter initiated contact with those contractors regarding the possibility of working on a given project.

participate in an open, public, competitive bidding process.³ Similarly, the subcontractors can make a strong case that a system that requires them to put forth their best price on the bid due date inherently results in the best price to the awarding authority and an array of general contractors. The issues of low bids being submitted by under-qualified contractors or less scrupulous contractors who plan to pepper the awarding authority with change order requests must be treated as distinct from the mechanism by which the largest group of subcontractors can offer their best price to a wide range of contractors.

This Office reviewed spreadsheets on Chapter 28 projects and saw examples of general contractors choosing sub-bids that were not the lowest sub-bid prices offered. In some instances, this may reflect the fact that the particular general contractor was unaware of a given subcontractor's willingness to do the work for a lower price than offered. In other instances, the general contractors reported that they made a determination that it was in the best interest of project delivery to use a subcontractor with whom they were more familiar or whom they ranked more highly, even if it meant In other cases there was evidence that subcontractors some increase in price. (contrary to what happens under the filed sub-bid process) did not offer the same price to all general contractors. This may reflect their analysis of the efficiencies of working with one general contractor compared to another. In some cases it may reflect arrangements, inconsistent with the Chapter 28 procedures and the filed sub-bid process (but reportedly commonplace), between the general contractor and the subcontractor to make adjustments regarding scope of work.

One general contractor involved in multiple Chapter 28 projects has suggested that the requirement under Chapter 28 to list subcontractor prices inhibits subcontractors from offering a better price to one general contractor than it offers to another. Some

^a It is worth remembering here that many subcontracts on public projects procured through standard M.G.L. c. 149 procedures are awarded by the general contractor without a public bidding process. These include not only contracts valued at under the \$10,000 threshold for filed sub-bids, but also contracts for substantial items, such as structural steel and carpentry services, that fall outside of the 17 enumerated categories of work.

subcontractors reportedly have had concerns about being blacklisted by general bidders to whom they have quoted a higher price. Some general contractors suggest that this ultimately deprives the awarding authority of an opportunity to save money. Supporters of the filed sub-bid system may note that it forces all subcontractors to submit a bid that is free of any kind of side deals with general contractors and that by making the subcontract pricing information available to the awarding authorities, they are in a better position to evaluate how wisely public funds are being expended on different components of a construction project.

There are parallel issues related to the accessibility of publicly funded projects to minority-owned and women-owned businesses. As testimony presented to the Special Commission on Public Construction Projects on January 7, 2004 made clear, the issue of whether minority-owned and women-owned businesses are proportionately sharing in the benefits of publicly funded projects needs additional examination. Both systems, the current filed sub-bidding system as well as that offered under Chapter 28, are limited in the guarantees of access for small businesses, minority-owned businesses, and women-owned businesses. Providing assurances of access would require legislative changes. Pursuant to M.G.L. c. 7, §40N and Executive Order 23, minority-owned and women-owned business participation is required for capital construction projects undertaken by the Commonwealth. By contrast, there is no general law that requires minority-owned and women-owned business participation for municipal construction projects, even though many of these, particularly school construction projects, are heavily subsidized by state funding.

There is an argument to be made that the sub-bid system at least guarantees the fledgling contractor a chance to sub-bid and "get noticed" by the general contractor, rather than having to be invited into the process by a general contractor with whom it has had no prior relationship. We do not have empirical information on whether there are significant numbers of minority-owned and women-owned businesses that are available who are experiencing difficulties in accessing the public bidding system. The use of minority-owned and women-owned businesses on the Chapter 28 projects has varied considerably from project to project based on preliminary reports. Our review

shows that such businesses appear to have been better represented on some of the Waltham projects. This very well may have resulted from a level of commitment by the awardng authority, the project manager, and the construction companies involved to broaden the sources of participation in the project.

Issue Area 2: Bid Listing and Construction Team Formation

What does still make the Chapter 28 process distinct is the enhanced ability of the general contractor to assemble a team of subcontractors of its own choosing and thereby, at least in theory, promote a more cohesive and cost effective workforce. The result of the procedures promulgated for use on Chapter 28 projects is that awarding authorities are using what is often referred to as a "bid listing" system. The general contractor has the flexibility to recruit potential subcontractors and get prices from them and reach an agreement as to what that subcontractor will cost if that particular general contractor is the winning low bidder.

The process used under Chapter 28 and similar bid listing arrangements does not eliminate "pre-bid bid-shopping" -- i.e. an effort by the general contractor to get a given subcontractor to lower his or her price in order to be chosen by that general contractor. This is undoubtedly and understandably a source of concern to some subcontractors. However, the coercive nature of bid-shopping in this process is muted in that the general contractor is soliciting subcontractor prices at a point at which that particular general contractor is not assured of receiving the contract from the awarding authority. Consequently, a subcontractor who refuses to make adjustments on its price is not inherently locked out of the project since other general contractors are also in competition for the awarding authority's general contract. As will be discussed later, whether subcontractors are inevitably destined (absent the use of a filed sub-bid system) to be "squeezed" to a point by the community of general contractors that the use of poor quality materials or compromises on the quality of workmanship result, is a subject of much speculation. Parties differ significantly on their estimation of the ability of subcontractors to withstand bid-shopping and whether bid-shopping inevitably has a negative impact on the quality of project delivery.

A bid listing system does have a risk of a general contractor listing a subcontractor with an unrealistically low price in order to enhance that general contractor's ability to underbid other general contractors who have received and listed legitimate, realistic prices from subcontractors. There is considerable concern that unrealistic subcontractor prices may foreshadow change order requests or subcontractor refusals to honor subcontracts later in the process. The Office has attempted to limit this possibility under Chapter 28 by imposing limitations on the ability of a general contractor to seek substitution of a listed subcontractor, as well as limitations on the ability of the general contractor to pass on any increased costs associated with such substitutions. However, there have been a few reports to date of concerns by project managers on Chapter 28 projects related to such practices and how those matters are resolved is an issue for further inquiry when the projects are completed.

Issue Area 3: Sub-Bidding Procedures in the Context of Public Construction Costs and Challenges

It is worth noting that the Chapter 28 program only alters the method of subcontractor selection and does not address many other issues that affect the cost and success of public construction projects. There has been speculation by some critics of public contracting in Massachusetts that repeal of the filed sub-bid law could result in drastically reduced construction costs. The projects this Office has reviewed thus far do not indicate any clear pattern of significant price savings associated with the use of the alternative procedures. Some projects have been more costly than original estimates and others have been less costly. In explaining deviations from the anticipated costs, project participants identify myriad factors, such as the timing of the bid process in the context of changes in the competitive market, unanticipated site conditions, potential competitors having made commitments to projects in other communities, errors in architectural specifications, and various other factors. Project costs are closely tied to labor costs that are subject to the Commonwealth's prevailing wage law and this is a distinct matter from the method by which contractors are selected for the projects. Accordingly, when parties actively involved in the construction process, including some who advocate changes in the sub-bid process, are asked to estimate potential savings

from alternative procedures, they frequently talk about potential savings in amounts of one to five percent of the project costs, as compared to the claims of 10 – 20 percent (or even more) potential savings, sometimes claimed by critics of the filed sub-bid law. In addition to "hard cost" savings, of course, some participants would ascribe "soft cost" savings of fewer disputes, earlier project completion, less time spent on resolving conflicts between general contractors and subcontractors, etc.

Many factors more characteristic of public construction as compared with private projects, particularly those involving schools, also effect both project costs and the willingness of some general contractors and subcontractors to participate in the public construction arena. The relatively tight time lines on many public projects, the need to accommodate frequent public input on design and construction, lower profit margins, and restrictions on up-front payments are among various factors cited as discouraging some contractors from doing public work (particularly during periods when the private construction market is thriving). Accordingly, any alternatives to the current sub-bidding system and other proposed reforms must be evaluated in terms of their potential to increase the pool of contractors interested in public construction work, and thereby improve the system both in terms of the number of competitors as well as the quality of work product.

It must also be said that any analysis of the system must not presume that the current system is without its benefits and many success stories of public construction projects completed on time and on budget. The comments of many parties as well as the broader experiences of this Office reflect many of the inherent challenges of construction projects in general, and public construction in particular. There are few easy and no guaranteed solutions to improving project delivery. In the course of our review we have heard from parties involved with or familiar with previous projects that have been exempted from filed sub-bidding, used design-build rather than the conventional design-bid-build methodology, or otherwise deviated from traditional public construction methods. The anecdotal track record is mixed in terms of improvements and deficiencies in project outcome. Similarly, a review of professional literature relative to efforts in other states to exempt projects from prevailing wage law, use alternative

delivery methods, and adopt private-sector approaches in public construction provides a mixed bag of results.

In several interviews parties knowledgeable about the construction community in Massachusetts lamented that in certain sub-trades (both those subject to the filed subbid law and some that are not) there is a lack of a critical mass of competitors needed to produce healthy price competition. In some cases this shortage of contractors is particularly acute with respect to companies interested in public construction. Some observers even suggested that public work is not only less profitable, but is considered less prestigious and, for some companies, a temporary stepping stone to private construction work. This is an issue engulfing general contractors, subcontractors, architects, and project managers. This perception of a disparity between working in the public and private sectors is certainly not unique to the field of construction. To the extent that dissatisfaction or discomfort with the current filed sub-bid system is a factor that, justifiably or not, discourages some companies from wanting to be active in the public construction field, the latter loses the benefits of more robust competition. The early Chapter 28 projects have been marked by examples of well received general contractors and subcontractors who perform both private and public construction work and who indicate that they would be inclined to do more public work under a modified subcontracting system.

Issue Area 4: The Current System: How Much Reform Is Needed?

Amidst the clamor for changes to the extant contracting rules it should also be considered whether some problems arise from a failure by awarding authorities to take full advantage of the current rules to eliminate unqualified sub-bidders from projects. Both the current system and the Chapter 28 procedures allow for a combination of awarding authority and general contractor input regarding the approval of subcontractors working on projects. Absent the use of a sub-bidder qualification system (which, according to representations made to this Office, is not opposed by organized representatives of the subcontractors) and even with such a qualification system, it is incumbent on the awarding authority and its agent to use due diligence in evaluating everyone slated to work on their project.

There is a hint in some of the advocacy for a more open-market system for subcontractor selection that if the awarding authority could just select a general contractor without having to concern itself with subcontractors, the city or town could receive a better product with less oversight from the public sector. In effect there is a suggestion that the public entity's due diligence with regard to reviewing contractor qualification can be privatized and strict reliance placed on the general contractor to select qualified subcontractors. This is an approach that may not be in the awarding authorities' interests. It has indeed often been the recommendation of this Office that even for projects that do not require the use of filed sub-bidding, such as public works construction projects done pursuant to M.G.L. c. 30, §39M, the awarding authority reserve for itself some discretion to reject subcontractors that the general contractor plans to use on the job.

Under both standard bidding procedures and Chapter 28 procedures, it is clear that general contractors vary tremendously in their ability to create a harmonious team of participants. The "culture" that has developed around the filed sub-bid system may engender in some subcontractors an excessive and disruptive dissidence, often described by awarding authorities and their agents as acting as if they do not work for the general contractor and are not subject to its direction. A major issue is the perceived power imbalances between general contractors, subcontractors, and the awarding authorities. Under all systems the general contractor is in charge of the project and has the right to control the subcontractor. Nevertheless there is the strong perception that in a filed sub-bid system the subcontractors are more independent operators not answerable to the general contractors or the awarding authorities and that this can lead to performance problems, delays, etc. in the construction process.

In theory, there should not be such stark differences in managerial control in a filed sub-bid project as compared to either a Chapter 28 project or to a private sector construction system. A major issue is to what degree, if any, the filed sub-bid system

itself contributes to problems in general contractor-sub-contractor-awarding authority relationship management that need to be addressed. Alternatively, is there something about general contractor-sub-contractor relationships on public projects that can be equally or better addressed by looking at contractual provisions, contract administration practices, or the involvement of architects? Some have suggested that different reporting mechanisms whereby general contractors could provide input on their experiences with subcontractors (possibly as part of a certification or pre-qualification process and subject to reciprocal rights on behalf of subcontractors) would enhance the incentive of some subcontractors to provide appropriate responsiveness to and cooperation with general contractors.

Discussions with public officials and construction project participants reinforce the understanding that successful projects reflect a confluence of good planning, professional management, well-orchestrated teamwork and competence at the construction site, and realistic budgeting and expectations by public officials. As we review the Chapter 28 experiences of different communities, this Office has attempted and will continue to attempt to identify those lessons and experiences that suggest avenues for amending the current system.

The Project Labor Agreement Factor

To the extent that Chapter 28 was intended to open up the subcontracting process, there is an argument that one limitation placed on open competition was imposed by some of the communities participating in Chapter 28. This came in the form of the adoption (outside of the Chapter 28 legislation itself) of so-called Project Labor Agreements (PLAs). PLAs establish certain rules related to the staffing of projects and though their specific components vary, they may require that workers be hired through union halls, that non-union workers pay dues for the length of a project, and that union rules on issues such as work conditions and dispute resolution be adopted. In the case of Waltham and Milton, the most often cited reasons for adoption of the PLAs were a) the desire to assure no work stoppages throughout the duration of a multi-school program where timely openings of schools were of critical importance; and b) the belief

that the PLA increased the chance of having available a large number of skilled persons in specific trades essential to getting the projects completed.

Representatives of those projects have attributed the PLAs with actually having facilitated the staffing of the jobs with adequate numbers of workers at key junctures. It is their assertion (not readily subject to verification) that at times the projects needed large number of employees in specific trades and those numbers of employees would not have been available to "open shop" contractors unable to access the union halls as needed.

Discussions with subcontractors involved in these projects clearly indicate that the existence of a PLA was a significant factor in making the decision to bid on the projects. Several subcontractors indicated that by virtue of knowing the projects were under PLAs they felt they were on an even playing field with other bidders under the same set of rules. There is implied in the repeated references to the PLAs a suggestion that the subcontractors on these projects know that there are subcontractors who are able to underbid them because they are open shop contractors without some of the cost factors that apply to union contractors (e.g. apprenticeship programs, ratios of journeymen to apprentices, etc.). The union subcontractors know they are vulnerable to being underbid by these contractors and in same cases indicate they would be reluctant to even submit bids in circumstances where they would be competing against non-union contractors. Accordingly one might expect to see some different patterns of subcontractor selection when there are Chapter 28 projects without PLAs.⁴

There has been considerable debate over the impact of PLAs on project costs. That issue is beyond the scope of this report and this Office's role pursuant to Chapter 28.

⁴ The Waltham contracts also had the restrictions of a local ordinance which dictated that a certain percentage of the labor be performed by workers residing in the City of Waltham. Though the legality of such ordinances has been successfully challenged elsewhere in the Commonwealth (including cases brought against the cities of Lowell and Worcester) they again raise valid public policy issues regarding in what ways the rules governing public construction projects should or should not be used to achieve other objectives related to providing economic stimulation for identified groups of workers.

The reports of even parties supportive of PLAs suggest that they do have some inflationary effect on pricing, but there is little consensus on the degree of impact. Certainly critics of PLAs would say that since several of the Chapter 28 projects have been conducted pursuant to those rules, some of the potential savings of using an alternative to the filed sub-bid system may not have been realized.

Experiences of Project Participants

The experience of the communities who are doing Chapter 28 projects is a still unfolding story. Milton and Waltham are the furthest along in their participation in the program. Each community is involved in a multiple school program, which encompasses both new construction and renovation projects. In each case, the community is doing some projects pursuant to Chapter 28 and some through the standard M.G.L. c. 149 method, including the use of filed sub-bids.⁵ Representatives of each community have expressed satisfaction with the process and an interest in doing future projects under such a system.

The primary characteristics of the Chapter 28 projects identified by the managers of those projects include the perception that:

- a. The working relationship between the general contractor and subcontractors was better and willingness to resolve problems without change orders was greater;
- b. Some general contractors and subcontractors showed an interest in the project who do not consistently bid on public construction projects and who proved very capable;
- c. Fewer disputes arose regarding whether specific components of the project were the responsibility of a given sub-contractor or remained the responsibility of the general contractor; and

⁵ Chapter 28 is by the terms of the legislation only available to be used on up to three school facilities in each community and only applies to projects commenced during the two-year window established for the pilot program. Waltham had started its school construction program before the passage of Chapter 28. Milton did work on three facilities under Chapter 28 and is now continuing its school building program under the traditional method for selection of subcontractors. The varying experiences of the two communities under the different procurement methods are already providing, and should continue to provide, helpful comparisons.

d. The general contractors more readily assumed responsibility for all aspects of the job and the work of all subcontractors, and therefore the awarding authorities were less often drawn into disputes between these parties.

These observations largely parallel the concerns often voiced by critics of the sub-bid system. However, one must be cautious in drawing broad conclusions regarding the relationship between the use of the Chapter 28 procedures and the reports of the positive results in the communities' initial use of the Chapter 28 process. As is generally the case with construction projects, there were combinations of factors involved related to personnel, project timing, additional ground rules established for contractors, and the very status of these projects as parts of a legislated experiment, which undoubtedly influenced them both in terms of bidding procedures and project delivery.

A major concern expressed by many parties involved in public construction relates to the perception that on many projects done under the filed sub bid system, general contractors have failed to establish adequate control over and responsibility for work done by the subcontractors. Certainly one of the principal observations repeatedly made by the awarding authorities on these initial Chapter 28 projects is that the general contractors involved took charge of the projects, were approachable regarding owner issues, and were aggressive in solving worksite problems. Discerning how much of this experience was a product of the subcontractor selection process and how much the result of independent factors, is a difficult exercise.

It is evident that in conducting these initial Chapter 28 projects the awarding authorities were guided by experienced project management firms. The use of project managers is not without costs and is itself a topic for debate within the architectural and construction committees. Nonetheless, they undoubtedly bring to the projects on behalf of the owners some additional skills related to addressing challenges associated with constructability, scheduling, or disputes over task responsibilities. Accordingly, to the extent that there are positive results being reported on those projects, at least preliminarily, the active participation of project managers must also be identified as a likely contributing factor.

Some of those same project managers, while expressing a preference for the use of Chapter 28 procedures, acknowledged that they have participated in projects done under the traditional filed sub-bid process which have been marked by competent general contractors skillfully managing a team of subcontractors and providing the cohesion in that team often said to be missing on public construction projects. In such projects they observe a high degree of consistency and candor in communications with subcontractors, anticipation of problems, equity in the issuance of payments, and the assignment of the "A" level project managers to the public construction site. Those are the traits they say they would like to see regularly by participants in public construction in place of the more contentious relationships (caused by both subcontractors and general contractors) that they often witness.

Some of the positive experiences and observations relayed by participants in the Chapter 28 projects must be acknowledged as anecdotal and subjective in nature. Much of the debate that has taken place regarding construction reform in general and filed sub-bidding in particular is fueled by the anecdotal experiences of communities who have had problematic construction projects. Each case, when examined more closely, often demonstrates the unique combination of factors that effect the outcome of each construction project. The Chapter 28 projects themselves provide examples of projects that, despite the increased flexibility in subcontractor selection, were unable to stay under budget, ostensibly because of other factors.

From the perspective of some awarding authorities, the removal of the requirement to conduct a filed sub-bid process is its own reward in terms of administrative convenience. Simply not having to conduct a separate bid opening for each of the subtrades, with the attendant responsibilities of verifying completeness of bids, handling bid deposits, addressing potential protest issues, etc., represents a considerable savings in terms of administrative resources. From this perspective, the sub-bid listing approach of Chapter 28 becomes attractive simply in terms of reduced administrative burden. In contrast, some other suggested alternatives involving pre-qualification of subcontractors, may be viewed by local officials as increasing rather than streamlining the responsibilities they must assume or for which they must pay a project manager.

Experience of the Town of Milton

In 2000, the Town of Milton embarked on a massive (nearly \$130 million budget) school building upgrade project slated to involve all six of the district's schools. The Town's representatives were involved in advocating for the passage of Chapter 28 and were in the process of putting the Glover Elementary School out to bid when Chapter 28 was signed into law in February of 2002. Chapter 28 by its terms can only apply to half of Milton's school construction projects. The Glover School became the first school for which construction services were procured using Chapter 28 procedures.

Five general contractors bid on the Glover School project and the low bid was in the amount of nearly \$10.9 million. This amount was approximately \$1.2 million above the construction budget estimate. In retrospect the Town's representatives have offered that the original estimate was probably unrealistic in light of some of the features that were designed for the school. As of December 2003, the project was reported to have reached substantial completion on time and to have a final predicted construction cost of \$11.3 million. The Town ascribed most of the increase from the initial contract amount to owner approved upgrades to the cooling and lighting systems.

The project manager acknowledged a preference for using alternatives to the filed subbid system and described three projects the firm had done for the City of Boston which were exempted from filed sub-bidding and which reportedly came in under budget. While expressing a high level of satisfaction with the project in terms of general contractor and subcontractors relations, the project manager noted some distinct advantages of working with this particular contractor on a Milton-based project. The owner of the general contractor was a resident of Milton and was viewed as supporting whatever measures needed to be taken to get the project done on time and without additional cost to the community. The project manager also claimed the Town had benefited from the use of the PLA in terms of having a ready supply of skilled laborers. For example, on the Town's high school project there was a key juncture in the project where a staffing level of approximately forty masons was needed at one time and it was the view of the contractor that the PLA greatly facilitated access to the needed number

of employees. The project manager did acknowledge, however, that he believed there were general contractors as well as subcontractors who chose not to bid on the project because of the PLA.

The project manager reported that one of the most noticeable traits of the Chapter 28 projects was that they experienced far fewer instances of subcontractors claiming that they were not responsible for certain elements of the trade work. This was largely attributed to the general contractor, Suffolk Construction, directly resolving this issue with the subcontractors whenever possible. The impression given was that many of these subcontractors did have prior working relations with Suffolk Construction (or hoped to impress Suffolk Construction with an eye toward future work) and therefore were more willing to work out disputes over scope responsibility without resorting to formal change order requests. The architect on the Glover project reported a change order rate of less than three percent of the construction budget. He deemed this particularly low for a renovation project such as the Glover, since renovation projects are typically more susceptible to cost run-ups for conditions in the existing site which cannot be identified until gutting of the existing building has taken place. The architect also noted that the project was staffed by what he generally considered to be high caliber subcontractors who may have correspondingly provided prices somewhat above the market average.

Interviews with subcontractors who worked on the Glover project indicated that for some it was clear their interest in the project was related to positive experiences they had on prior projects working for Suffolk Construction. Some trades contractors talked about an increased level of willingness to submit a bid (to Suffolk) because they knew that they would only be committed to the project and to that price if Suffolk Construction was the low bidder.⁷ One subcontractor offered the fact that he had the home phone number of the head of the company's Special Projects Division as an example of Suffolk's reputation for resolving job-site issues in a rapid manner. They identified a

⁷ It should be noted that the filed sub-bid law does permit subcontractors to make their bids only applicable to certain general contractors or to exclude them from specific subcontractors.

generally high caliber of on-site project managers and clerks of the work as a defining characteristic of the companies for which they like to do work. Subcontractors reported that their basic pricing scheme was the same on public as well as private jobs but that on the latter they have greater flexibility to negotiate price and whether certain ancillary services are included in that price. Some subcontractors quoted prices to multiple general contractors (sometimes varying the price offered to different general contractors) whereas others only offered a price to a single contractor.

In identifying factors that are likely to cause cost run-ups during construction, several subcontractors (as well as general contractors) cite defects in architectural and engineering specifications as a factor more significant than whether the job was procured using filed sub-bidding. Some of these same parties, along with some architects, do point to the breaking down of the project into as many as 17 bid packages, as well as general conditions, as heightening the potential for omissions, duplications, sequencing problems, etc.

There was speculation by some parties involved in Milton's construction program that the PLA may have played a larger role in limiting the number of bidders for a second Chapter 28 project at Milton High School. That project, worth an estimated \$40 million, received rather surprisingly, bids from only two general contractors. Some observers hypothesized that competition for the project may have been inhibited by its relatively large size among public construction projects. It was further speculated that the number of bidders was effected by the fact that a couple of anticipated bidders had recently been awarded other large high school construction projects elsewhere in the state and were therefore unavailable (in terms of their companies' capacity) to bid on the Milton project. Regardless of the root cause, the project received limited competition and the bids that came in were approximately \$4.7 million over the construction cost estimate. The first phase of the project would eventually be completed close to the scheduled date but only after additional costs were incurred associated with the need to revise drawings, construction coordination issues, unknown site conditions, and the need to accelerate the project schedule.

While much is yet to be learned from Milton's Chapter 28 experiences, it is now known that the Town of Milton was more successful in generating competition for its other Chapter 28 projects, the multi-phased renovation of the Pierce Middle School. Nine general contractor bids were received for this on-going project and the winning low bid was \$19.8 million, approximately \$460,000 above the project estimate. The second phase of this project was also hit with approximately \$2 million in additional costs due to unforeseen site conditions (e.g. soil contamination, asbestos, etc.) (The original estimate for the project was based on a single project award but the school building committee subsequently decided to break the project into three separate phases). More information on this project will become available as it nears the completion date scheduled for July of 2004.

Experience of the City of Waltham

The City of Waltham came to its use of Chapter 28 procedures after having had other projects in its school rebuilding program be over budget and behind schedule. Conflicts between a general contractor and subcontractors on one of its projects reportedly necessitated repeated interventions by the awarding authority and its project management team. Claims for direct payment by subcontractors also arose from these disputes and the City was forced to request that the general contractor remove its own project manager due to a failure to respond to questions and issues raised by the subcontractors. The City noted that it seemed as if the general contractors and subcontractors were acting as if they were "two separate entities" rather than part of a cohesive operation. Subcontractors going directly to the City's own project manager rather than dealing with the general contractor and assuming liability for aspects of the project that properly placed with the general contractor.

The Northeast Elementary School, the first of the projects done by Waltham pursuant to Chapter 28, opened its doors last month and is reported by the City to be a success. The projected cost at completion is approximately \$120,000 under budget. The project manager reported a lower percentage of change orders than had marked the other

Waltham projects done under a filed sub-bid process and largely attributed this to a more "proactive" approach by the general contractor. As of this writing payment claims to the awarding authority by subcontractors have not been an issue (they remain a possibility while the project is being closed out) even though the City's project manager believes at times the general contractor could have managed its subcontractors more stringently. Nevertheless, the City also credited what it perceived to be a very positive relationship between the subcontractors and the general contractor to the ability of the general contractor to mobilize subcontractors in responding to the City's requests for minor changes in the project by the City without it resulting in significant additional costs.

The City's project manager observed that several subcontractors were involved in Chapter 28 projects that are not customarily involved in public construction work. Some subcontractors reported that being able to access a public project through a general contractor with whom they had a prior relationship, without having to submit an independent bid, increased their willingness to do a given public project. The prior working relationship with a given subcontractor was cited as not only being important for a positive working environment but important for practical reasons such as confidence in payments being made on a regular basis. A commonly expressed concern of subcontractors on public construction jobs is that some general contractors, particularly as a project nears its endpoint, begin to renege on payment obligations and/or attempt to impose "back charges" on subcontractors. This is sometimes viewed as an attempt by general contractors to compensate for having submitted a bid that was too low at the outset of the project and needing to squeeze on payments at the end of the project as funds begin to dry up. Subcontractors faced with such conflicts may be forced to take less than the full compensation to which they are entitled in order to get some payment from the general contractor. It is understandable that subcontractors who have a positive history with a given general contractor would be more willing to enter a project with that contractor and to quote a price that does not need to be inflated in order to cover for anticipated "squeezing" at the end of the project. It is also more likely that they

will view their relationship with that contractor as a more significant determinant of their opportunities to get future assignments.

Northeast Elementary School Case

From a variety of perspectives one of the most instructive circumstances involving the use of the Chapter 28 procedures involved the initial bidding process for the Northeast Elementary School in Waltham. In that case, the ostensible low bid general contractor (as well as another general contractor) made unilateral reductions in the prices offered to them by given subcontractors and then, after the City's notification that it was the low bidder, sought to obtain agreements from the affected subcontractors, to do the work at the price submitted by the general contractor. In most instances the prices submitted by the general contractor. In the eyes of many observers of the process, this technique amounts to the realization of the concerns subcontractors have regarding bid-shopping.

An argument put forth by the general contractor was that in many cases, in conjunction with the price reductions it was seeking from the subcontractors, it was prepared to make adjustments in the scope of the work performed by the given subcontractor. The general contractor offered that it had reviewed the various packages of specifications and had found areas of overlap, inefficient resource allocation, and/or work being required of the subcontractor which could just as well be handled by the general contractor. The general contractor asserted that by identifying these inefficiencies it had found a way to reduce project cost and, rather than the classic result associated with bid-shopping, the awarding authority rather than the general contractor would realize savings. The general contractor also noted that several contractors were willing to enter into subcontracts for less than the amount originally quoted once apprised of the modifications of project scope that would also take place.

It was the conclusion of the Office, the Attorney General's Business and Labor Protection Bureau, and a judge of the Middlesex Superior Court, that the actions of the general contractor described above were inconsistent with the intent and purpose of

both the Chapter 28 procedures and basic tenets of open competition and fair bidding. It was stated by the Office of the Attorney General that practices of the general contractor "... opens the process to browbeating and forcing subcontractors to choose between doing the job at the price the general contractor wants or not doing it at all. This was among the abuses that the Ward Commission, and the ensuing legislation, now contained in c. 149, intended to eliminate. The Legislature did not intend by enacting Chapter 28 to allow a return to abuses that the filed sub-bid law set forth in c. 149 was designed to prevent."

This Office also found the process used by the two general contractors in the Waltham case inconsistent with the Chapter 28 procedures in large part because those procedures, much like the traditional M.G.L. c. 149 process with filed sub-bids, requires general contractors and subcontractors to adopt the delineation of project specifications into discrete packages for subcontractors and general contractors. Those delineations are generally directed by the architect for the project and the process is not readily amenable to adjustments in the breakdown of the project scope and sequence that may be suggested by, agreed to, or deemed preferable by given general contractors and subcontractors. From a bidding perspective this assures an even playing field whereby all subcontractors and general contractors are presenting monetary bids based on the same scope of work. Supporters of filed sub-bidding have also noted that this delineation of work serves as a useful tool for helping awarding authorities to know "what they are paying for." It also reflects a desire for the awarding authorities to be in control of construction techniques and not to allow aspects of the construction project to be compromised by any shortcuts on means, methods, or materials that the contractors may find to their advantage but which may not benefit the awarding authority.

Although the process used by the general contractor in the Northeast Elementary School was inconsistent with Chapter 28, that process and the arguments the general contractor raised to support it, are indicative of broader issues that emerge from looking at the Chapter 28 projects to date. This deals with the matter of whether the mechanics of the current M.G.L. c. 149 process unnecessarily limit the ability of the general contractor to have a role in being involved in decisions related to the means and

methods of construction and how the project team may be most effectively organized. Even some of the architects interviewed offered that the current system puts them too much at the epicenter of project means and methods, which is not necessarily their area of greatest technical strength. Similar to comments made in connection with proposals for alternative delivery methods, such as construction manager at risk, it has been suggested by some that several job implementation problems that are reportedly common on some public construction projects could be averted if there was an opportunity, prior to the issuance of bids, for a general contractor and an architect to discuss gaps in specifications, construction sequencing issues, the scope of general conditions for recurring items (scaffolding, temporary electrical services, trash removal, etc.), and other details of the project prior to finalizing the sub-trade components. Many of these are issues that later in the project may become the subjects of disputes, change orders, claims, etc. Furthermore, to the extent that items are listed in the sub-bid packages, even if they are duplicative or possibly unnecessary, the sub-contractor must generally build them into its pricing structure.

There may indeed be a potential for both savings to the awarding authority as well as opportunities to prevent disputes by addressing some of these issues related to constructability, job scope, etc. at an earlier stage of the construction process. The challenge is to identify a system that would allow such collaboration between the parties prior to soliciting sub-bids. This is an appropriate objective whether the current filed sub-bid system is retained or a bid listing process is adopted. There have, for example, been concepts floated which might allow bidding for and selection of a general contractor before an awarding authority solicits bids from subcontractors. Similarly, it has been suggested that by making the bonding of subcontractors mandatory, general contractors will take a positive step toward two objectives: 1) additional protection in the event of subcontractor default; and 2) taking advantage of the due diligence efforts of the bonding industry to filter out some of the subcontractors with histories of financial instability, litigation claims, defaulting on projects, etc.

The use of so-called "bid registries" as used in Maine have also been mentioned by some observers as a vehicle for preventing the abuses of bid-shopping while allowing

for greater freedom by general contractors with respect to subcontractor selection and ability to have input into projects at an earlier point. This is definitely an area for further evaluation as the Commonwealth's reform efforts continue to examine the consequences of using a type of bid listing system developed through the Chapter 28 legislation and the attendant procedures implemented by the Office of the Inspector General.

Inspector General's Chapter 28 Subcontracting Procedures

The awarding authority's specifications shall contain a separate section for each of the following classes of work if, in the estimate of the awarding authority, the class of work will exceed ten thousand dollars: (a) roofing and flashing; (b) metal windows; (c) waterproofing, damp-proofing and caulking; (d) miscellaneous and ornamental iron; (e) lathing and plastering; (f) acoustical tile; (g) marble; (h) tile; (i) terrazzo; (j) resilient floors; (k) glass and glazing; (l) painting; (m) plumbing; (n) heating, ventilating and air conditioning; (o) electrical work, including direct electrical radiation for heating; (p) elevators; (q) masonry work. Such specifications shall also have a separate section for each other class of work for which the awarding authority deems it necessary or convenient.

Each separate section in the awarding authority's specifications shall specify by number each sheet of plans showing work to be done by the subcontractor under such section, and shall require the subcontractor to install all materials to be furnished by it under such section other than materials which, in the opinion of the awarding authority, it is not customary under current trade practices for such subcontractor to install and the installation of which is expressly required by another section of the specifications. Each class of work set forth in a separate section of the awarding authority's specifications pursuant to this section shall be a subtrade designated in the General Bid Form and shall be the matter of a subcontract.

The General Bid Form provided by the awarding authority shall provide a place for listing the names and prices of subcontractors for the seventeen classes of work specified above and for each other class of work included by the awarding authority pursuant to above procedures. The general contractor shall certify that each of the subcontractors listed on the General Bid Form will be used for the work indicated in the awarding authority's specifications at the amount agreed upon by the general contractor and subcontractor and so stated, unless a substitution is permitted by the awarding authority. The general contractor shall, with respect to each listed subcontractor, submit with its bid a certification, signed by the subcontractor, of the price agreed to by the subcontractor and the general contractor for the specified subcontract work.

The awarding authority shall have final right to make responsibility determinations with respect to subcontractors and to make the final determination as to whether a proposed subcontractor may work on the project. To facilitate the making of responsibility determinations the awarding authority may require the general contractor to provide reference information for some or all subcontractors. The awarding authority may require in the General Bid Form that the general contractor agree to perform a stated minimum percentage of work with its own forces.

General bids shall be for the complete work as specified and shall include the names of all subcontractors for any and all of the seventeen classes of work specified and for each other class of work for which the awarding authority has required a separate section pursuant to the above requirements and the dollar amounts of their subcontracts. The scope of subtrade work may not deviate from the scope as specified by the awarding authority in the bidding documents. If, in the opinion of the awarding authority, a general contractor has the experience and the capacity and capability to perform any of the seventeen classes of work

or any other class of work included by the awarding authority pursuant to the above section, the general bidder may list itself as a subcontractor together with his price in the space provided in the General Bid Form. No such sub-bid by a general bidder shall be considered unless the general bidder can show to the satisfaction of the awarding authority, based on objective criteria established for such purpose, that it customarily performs such subtrade work and is qualified to do the character of work required by the applicable section of the specifications.

The awarding authority shall not permit substitution of a subcontractor listed in the general contractor's bid, except for good cause. The term "good cause" includes but is not limited to a subcontractor's : (1) Death or physical disability, if the listed subcontractor is an individual; (2) dissolution, if a corporation or partnership; (3) bankruptcy; (4) inability to furnish any performance and payment bond shown on the bid form; (5) inability to obtain, or loss of, a license necessary for the performance of the particular category of work; (6) failure or inability to comply with a requirement of law applicable to contractors, subcontractors, on construction, alteration, or repair projects; (7) failure to perform the agreement with the general contractor to execute a subcontract at the price agreed upon prior to submission of the General Bid Form. "Good Cause" is determined by the awarding authority subject to review and approval by the Inspector General.

Any request by the general contractor for substitution of a subcontractor listed in the general contractor's bid shall be accompanied by a certification, signed by the proposed substitute subcontractor, of the price agreed to by the proposed substitute subcontractor and the general contractor for the specified subcontract work.

Within five days after being notified of the award of a general contract by the awarding authority, or, in the case of an approval of a substitute subcontractor by the awarding authority, within five days after being notified of such approval, the general contractor shall present to each listed or substitute subcontractor (1) a subcontract in the form set forth in paragraph (c) of subsection (4) of M.G.L. c. 149, §44F and (2) a notice of the time limit for executing a subcontract. If a listed subcontractor fails within five days, Saturdays, Sundays and legal holidays excluded, after presentation of a subcontract by the general contractor selected by the awarding authority, to perform his agreement to execute a subcontract with such general contractor, contingent upon the execution of the general contract, the general contractor shall select another subcontractor, with the approval of the awarding authority. When seeking approval for a substitute subcontractor, the general contractor shall provide the awarding authority with all documents showing (a) the general contractor's presentation of a subcontract to the listed subcontractor and (b) communications to or from such subcontractor after such presentation. The awarding authority shall adjust the contract price to reflect the difference between the amount of the price of the new subcontractor and the amount of the price of the listed subcontractor if the new subcontractor's price is lower and may, in the sole discretion of the awarding authority, adjust such contract price if the new subcontractor's price is higher. In no event shall the adjusted contract price exceed the total price bid by the second lowest responsible and eligible general bidder.

No contractor who is currently subject to debarment by the state or federal government shall be eligible to serve as a general contractor or subcontractor on the project.

The general contractor shall, with respect to each listed subcontractor or approved substitute subcontractor, file with the awarding authority a copy of each executed subcontract within ten days, Saturdays, Sundays, and legal holidays excluded, of presentation of a subcontract to such subcontractor. The general contractor shall retain all records pertaining to the project, including records pertaining to subcontractors, consistent with M.G.L. c. 66, §1 *et. seq.*

The awarding authority shall contract with a qualified project manager. All written communication, including without limitation electronic communication, between the architect and the general contractor shall be copied to the project manager. At a minimum, the project manager shall review, approve and monitor the general contractor's schedule, closely monitor the project budget, review and make recommendations on applications for general contractor payments, oversee project scheduling, maintain a central file for project documentation, establish procedures for approval of contractor submittals, and assist in conducting final inspections.

RECOMMENDATIONS FOR IMPROVEMENTS TO CONTRACTOR CERTIFICATION AND PREQUALIFICATION PROCESS FOR PROJECTS BID UNDER M.G.L, CHAPTER 149

- 1) Put in place a Two-Tiered System for Certification and Prequalification as follows:
 - a) DCAM certifies prime contractors at the state level.
 - b) Local Awarding Authorities have option to *prequalify* general contractors and trade contractors, based upon specific criteria for the particular projects being bid. This would be a project-specific prequalification. M.G.L. c. 149, § 44E would need to be amended to permit local prequalification of trade contractors.
 - c) If Contractor disputes local prequalification decision, DCAM or Inspector General could hear appeal and provide a review of the process the Awarding Authorities employed in reaching their decision. [The authority given to Awarding Authorities to disqualify contractors at a preliminary stage can be anticipated to lead to increased protests over the propriety of those decisions. Currently, all similar challenges are within the (non-binding) jurisdiction of the Attorney General's Office].
 - d) DCAM/Inspector General could make educational efforts to inform Awarding Authorities of their rights to establish and enforce quality standards for prequalification.
- 2) DCAM to Revise and Improve Standard Contractor Evaluation Form to Enhance Value of Contractor Evaluations
 - a) All responses must be substantiated with documentation and objective findings. Questions will be added that are designed to provide specific quantifiable information about the project including, Requests for Information, Change Orders, Budget, Time Schedule, Safety Record, and other information to be provided by reference with the Evaluation.
 - b) Make Evaluation Ratings one piece of the "Overall Rating" of the Contractor— Adopt additional criteria in determining qualifications for certification.
 - c) Require Evaluation Form to be completed jointly by professional Project Manager, Owner's Rep, and/or official from public agency who is directly responsible for oversight of the contract. No acceptance of evaluations from architects who are providing other services to the project, volunteers, or School Building Committees.
 - d) Add Affidavit Language (Signed and Sworn Under Pains and Penalties) to Evaluation Sign-Off.
 - e) Make submission of Preliminary Contractor Evaluations to DCAM mandatory on all projects at the 50% level.
 - f) Require more accountability from municipalities to properly assess Contractor's performance.

- 3) Adopt a "Three-Strikes and You're Out Policy," i.e. if a contractor has received three failing scores over the course of the past five years, then they will automatically be decertified by DCAM. DCAM will also reserve the right to decertify a contractor with less than three failing scores.
- 4) DCAM shall raise the passing "Average Rating" from 70% to 80% in order to obtain certification.
- 5) Mandate Hiring of Project Manager for Awarding Authorities at the Beginning of Project.
 - a) Require that Project Manager be the primary individual responsible for completion of Evaluation Form (with sign-off from one more professional responsible for oversight of the contract as stated above).
 - b) DCAM will set standards for Project Manager Qualification.
 - c) Some municipal employees may qualify as Project Managers by virtue of their education and experience.
- 6) DCAM to Establish Guidelines and Procedures for Awarding Authorities to use in Prequalification of General and Trade Contractors.
 - a) Must make change in statute to allow for Prequalification of Filed Sub-Bidders. Changes would be necessary to C. 149, § 44F to permit qualification on a projectby-project basis
 - b) DCAM/Inspector General to create model Evaluation Questionnaire for use by Awarding Authorities.
 - c) If Contractor disputes Awarding Authority's prequalification decision, DCAM or Inspector General could hear appeal (as outlined in Paragraph #1C above).
 - d) While offering Awarding Authorities the option of prequalification procedures, it is also necessary to consider further changes to Chapter 149, which would clarify Awarding Authority discretion and responsibility.
- 7) Review DSB Guidelines for selecting architects on municipal projects and create a new Designer Review Process for architect selection to ensure that all local awarding authorities follow the same selection process and qualified architects are considered.
- 8) Require Awarding Authorities to review DSB Architect Evaluation Files and DCAM Contractor Certification Files prior to selection.
 - a) Awarding Authorities must demonstrate that they have conducted due diligence prior to selection, including full review of Update Statement.
 - b) Require Awarding Authorities to review Contractor Certification files of Filed Sub-Bidders in instances where they are also DCAM-certified.