

ROCHESTER

— *Minnesota* —

Memorandum

DEPARTMENT OF PUBLIC WORKS
201 4th Street SE, Room 108
Rochester, MN 55904-3740
(507) 328-2400
FAX (507) 328-2401

To: Mayor and City Council
CC: Richard Freese
From: John Wellner
Date: March 17, 2017
Re: City-Owner Contract - Two-year Pilot Program - First Year Report

The first year of a two-year pilot program modification is complete. This memorandum is a report on the findings for the first year of the program. As a result of the findings, several additional modification have been implemented to improve and clarify the pilot program. Most of the modification were improvement in communications that did not change the requirements of the process; but, will increase understanding and simplify the procedure used.

During 2016, there were 30 contracts issued for the construction of public infrastructure. The value of the contracts ranged in size from \$16,100 to \$1,708,561. Infrastructure includes public watermain, sanitary sewer, storm sewer, and street. The total value of the 2016 City-Owner Contracts is \$12,869,263 of infrastructure dedicated to the city. These costs are paid by the developers. During the construction phase, the contractor's activities are observed by qualified consulting engineering staff. These observation/inspection activities are contracted with the consulting engineer by the City; the costs of these services are prepaid by the developer. For the 2016 contracts, the total inspection service cost is \$1,051,614, prepaid to the city by the developers.

During the two-year pilot program, the city has agreed to pay for pavement design reports and for geotechnical services during construction whenever an unusual, unforeseen condition is encountered. For 2016 the pavement design reports cost \$12,036 and the unforeseen conditions cost \$2,541; totaling \$14,577.

In January 2017, city staff sent a 2016 C-O Contract Opinion Survey to various stakeholder groups. The results of the survey and the staff conclusions of the survey are attached. Conclusions were categorized into three groups; Impact, Communication / Understanding, and Benefits.

Memorandum

Summary Survey Results:

- a. Staff concluded from the survey results that there is an accumulative effect of additional observation / inspection costs. The stakeholders feel the total impact of the revisions is minor.
- b. Another survey result is that during the past year there has been several opportunities to meet with the design phase team members; however, there have been missed opportunities to communicate with inspection / observation team members that may have resulted in communication shortfalls. City Staff believes that efforts to improve communication and understanding should be enhanced in 2017.
- c. Survey results indicate Developers see some benefits of the revised program; however, they do not feel the cost is worth the benefit. It should be noted that the developer is paying for most of the increased cost. Contractors believe that the new program increases the timeline. They do see some benefit; but not at the cost of the project delays. For example; contractors previously started work without approved plans; or without signed contracts; or with less attention to construction details and quality. Designers/engineers believe that the quality of the infrastructure is improved through the revised C-O program and the benefit outweighs the cost. Staff has always recognized the program modifications would increase the cost and create some delays; however, the improved quality in the resulting infrastructure out-weighs the increases in costs.

2017 C-O Program Modifications

To improve communication several changes and improvements have been implemented.

- Staff has clarified and reorganized the Engineer Standards & Specifications and detail plates. These standards, specifications and details are posted on the city's website in a more convenient location.
- City-Owner contract templates are posted on the city website in a pdf fill-in format to reduce time for contract development and improve understanding.
- Checklists have been developed for various aspects of the program and are available to all stakeholders.
- A meeting with the field inspection / observation team members was held on March 14, 2017 to improve understand of the program and obtain feedback.

Memorandum

- Predesign meetings have been well received and will continue.
- City will be issue a formal Notice to Proceed (NTP) for City-Owner projects, making the Project scheduled start clearer.
- The survey from which this report is based and individual comments and letters are considered as adjustments are made to the C-O program.

During 2016 staff initiated a revised plan review format for construction plan reviews. Prior to 2016, plan reviews were accomplished using paper format and red pen written markups. A single plan set was passed among the 3 to 5 staff members conducting the reviews. Typically the review time was 5 to 10 days and the clarity of the comments sometimes was wanting. In the spring of 2016, Public Works phased in a computerized software program review process using BlueBeam pdf editing / comment program. The comments are typed/drawn on to pdf format plan file and each staff review occurs more promptly and with improved clarity. Plan review times have improved to 2 to 5 working days and, since all the exchange of plans are electronic files, the time in transit between the designers and the city reviewers is near instantaneous.

In some instances, the construction phases of projects has gone more smoothly than anticipated. Although the observation work is not fully complete, the city has more funds held for the project than will be required to complete the observation contract work and the developers have requested those extra funds be release back to them. Staff will address this request as follows:

- After the City certifies the project is substantially complete
- Developer requests, in writing, release of excess funds
- O&O engineer estimates the cost of the remaining O&O services, in writing
- The City will retain 200% of the O&O engineers estimated costs to conduct remaining tasks and release the remaining funds held for that project.
- At the end of the warrantee period, all un-spent funds will be released to the developer.

During 2016, it was recognized that the construction observation services do not end at the substantial completion of a project; but, are needed for projects during the warrantee period. The 2016 contracts had adequate funds to cover the costs of the warrantee period work; however, the completion date for the contract was set at the substantial completion of the project. In addition, the contracts fell short of adequately spelling out the services needed during the warrantee period. The engineers and city staff agreed that the addition of these provisions to the contract were beneficial. Modification of existing and future contracts will carry a more realistic completion date and define the project tasks and services more completely.

City-Owner Contract - Two-year Pilot Program - First Year Report

Memo to City Council

List of Attachments

- Memo to City Council dated December 27, 2016
- 2016 C-O Contract Opinion Survey Conclusions
- Graphic Presentation 2016 C-O Contract Opinion Survey
- SEH Comment to City of Rochester dated February 2, 2017
- WSB Comment to City of Rochester dated January 31, 2017

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Rochester, MN 55904-3740
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To: Mayor and City Council
CC: Richard Freese
From: John Wellner
Date: December 27, 2016
Re: City-Owner Contract Update

The first year of a two-year pilot program modification is nearly complete. The evaluation of the success of the City-Owner Contract program modifications are underway. In the first few months of 2016, there were some struggles with the details needed to implement the changes to the program. These struggles included developing the proper templates for the contracts required and also working with all the stakeholders (contractors, consulting engineers, developers, and city staff) to maximize the transition communication providing smooth transition into the new changes. The transition went smoothly crediting the excellent cooperation of all stakeholders.

During 2016, there were 30 contracts issued for the construction of public infrastructure. The value of the contract ranged in size from \$16,100 to \$1,708,561. Infrastructure includes public watermain, sanitary sewer, storm sewer, and street. The total value of the 2016 City-Owner Contracts is \$12,869,263 of infrastructure dedicated to the city. These costs are paid by the developers, not by the city.

During the construction phase, the contractor's activities are observed by qualified consulting engineering staff. These observation/inspection activities are contracted with the consulting engineer by the City; the costs of these services are prepaid by the developer. For the 2016 contracts, the total inspection service cost is \$1,051,614, prepaid to the city by the developers.

The city has agreed to pay for pavement design reports and for geotechnical services during construction whenever an unusual, unforeseen condition is encountered. This year the pavement design reports have cost \$12,036 and the unforeseen conditions have cost \$2,541, a total of \$14,577.

The total value of the 2016-City-Owner installed infrastructure is \$12,869,263 (paid by developers), inspected at a cost of \$1,051,614 (prepaid by developers), and \$14,577 of City cost.

2016 C-O Contract Opinion Survey Conclusions

This report is to capture the feedback from the end of the first year of the two year City – Owner pilot program. As such, in January 2017 Public Works conducted an opinion survey of City-Owner (C-O) contract program stakeholders. The survey was sent to developers, contractors, and engineers/architects that were involved in C-O contract work during 2016, the first year of the 2-year pilot program. A total of 53 surveys were sent and 31 were returned, a nearly 60% return rate. Based on this significant return rate, we believe the conclusions drawn from the survey reflect the overall opinions of stakeholder groups.

The evaluation of the survey results targeted three factors related to the revised C-O contract program; impact of the changes in the program, communications/understanding of the program, and benefits of the revised program in addressing the goals of the program changes. Although there is commonality in opinion among the three stakeholder groups; there are also differences between the opinions of the groups. All-in-all the opinions are positive as to the revised C-O contract program.

The city staff was not included in the survey. We will use the results to improve our program oversight. For example, staff realized that the quality of communication that staff has had with other stakeholders is not as good as it could be and improvements will be made.

Impact

The changes to the C-O contract program have had impacts on the stakeholders and on the costs of the program. All three stakeholder groups, developers, contractors, and engineers, believe the impacts are somewhat greater than minor but do not believe the impacts for the program changes were major.

An important factor in the modifications to C-O contract program is to maintain the relationships between the private parties. The teams of private companies have trust and confidence relationships that take time to grow and serve the program well. The opinion of the three stakeholder groups is that the relationships remain under this revised C-O process are mostly unchanged. Some believe the relationships are slightly better; some believe the relationships are slightly worse; but C-O program changes have not impacted the private teams in a significant way.

The cost impact on the C-O contract program was anticipated by most stakeholders. Any increase in cost is typically viewed negatively by the persons paying the bill. The most frequent cost impacts relate to the increase in inspection. Based on the average observation/inspection costs during 2016, the first year of the pilot program, the cost of observation/inspection was on average 8.5% to the value of the public infrastructure built. We do not have reliable cost of observation/inspection during previous year. Based on general conversations with engineers, these observation/inspection cost during previous years were less than 3%. The observation/inspection cost for C-O contract program compares favorably to city CIP project, which have average inspection costs of 9%. Although the cost increase for observation/inspection of C-O contract is a significant increase, it brings those cost in-line with city CIP program costs and industry averages.

We conclude that there is an accumulative effect of the cost impact of additional observation/inspection costs and some impacts to the private teams of stakeholders. Therefore; the stakeholders feel a somewhat greater than minor total impact.

Communication/Understanding

Communication and the resulting understanding are critical to effective implementation of program changes. There have been meetings and written communications throughout 2016 and into early 2017. Each of the stakeholder groups believe that they and the other stakeholders have a reasonable understanding of the C-O program. However, there is clearly room for improvement.

The developers believe that they and their contractor team members have a better than average understanding of the program as it relates to their role in the team. The developers are not as confident that the designers/engineers are as knowledgeable as they should be related to the C-O program. However, the less than desirable confidence in the designers/engineers understanding is offset by a belief that the designers/engineers are working diligently to meet the requirements of the program.

The contractors believe they understand the C-O program, however, they're less confidence in the understanding of the program by both the developers and the designers/engineers. Contractors do believe that all team members are working to meet the C-O program requirements.

The designers/engineers believe that all the team members have a better than average understanding of the C-O program and all are working to meet the requirements of the program. Staff believes the contractors' and developers' somewhat confidence in the designers may arise from the complexity of the designers/engineers duties.

During the past year there has been several opportunities to meet with the design phase team members. The observation team members, construction phase field staff have not had an opportunity to attend similar meetings. This missed opportunity to communicate with observation team members may have resulted in communication shortfalls during the field activities.

City Staff believes that efforts to improve communication and understanding should be initiated by city staff. To improve communication several changes and improvements have been implemented.

- Staff has reorganized the City Engineer standards and specification and detail plates. These standards, specifications and details are posted on the city's website in a more convenient location.
- City-Owner contract templates are posted on the city website in a pdf fill-in format to reduce time for contract development and improve understanding.
- Checklists have been developed for various aspects of the program and are available to all stakeholders.
- A meeting with the field observation team member is planned for early Spring 2017 to improve understand of the program and obtained feedback.
- Predesign meeting have been well received and will continue.

- The survey from which this report is based and individual comments and letters are considered as adjustments are made to the C-O program.

Benefit to Program Goals

The primary goal of the modification to the C-O program is to improve the quality of the public infrastructure. During the 2015 task force sessions, several construction deficiencies were highlighted. The most critical deficiency related to subgrade deficiencies; trench soil placement and compaction, and subgrade placement. In addition, the design and construction of appropriate street pavements sections were priorities. Several other less critical construction items were identified. Most of these less critical items related to a lack of care during installation of underground piping and connected structures (manholes, catch basins, and storm water outlet aprons).

During 2016, a change in observation/inspection procedures was implemented. The observation/inspection was conducted by private engineering staff; however, the city paid for the inspection costs from funds provided by the developer. A minimum level of inspection was required; this level of inspection is significantly more than inspection in previous years.

Geotech reports and pavement design reports were required during 2016. The results were recommendation of trench placement at a quality level and as recommended by the geotech engineer; often exceeding those levels previously implemented. The pavement sections recommended in 2016 were stronger than pavement sections previously required. These improvements increase the initial cost of the public infrastructure.

Developers see some benefits of the revised program; however, do not feel the cost is worth the benefit. It should be noted that the developer is paying for most of the increased cost.

Contractors believe that the new program increases the timeline. They do see some benefit; but not at the cost of the project delays. For example; contractors previously started work without approved plans; or without signed contracts; or with less attention to construction details and quality.

Designers/engineers believe that the quality of the infrastructure is improved through the revised C-O program and the benefit outweighs the cost.

Each of the three stakeholder groups tend to reflect the monetary position of their role in the program. City staff notes that the trench placement is better and the street pavements are more robust than in previous years. Also the design and inspection efforts are more comparable to City CIP projects. Historically, City CIP projects hold up better than C-O projects. To the extent the changes implemented in 2016 will extend the life of the public infrastructure to the desired age, can only be judged years in the future.

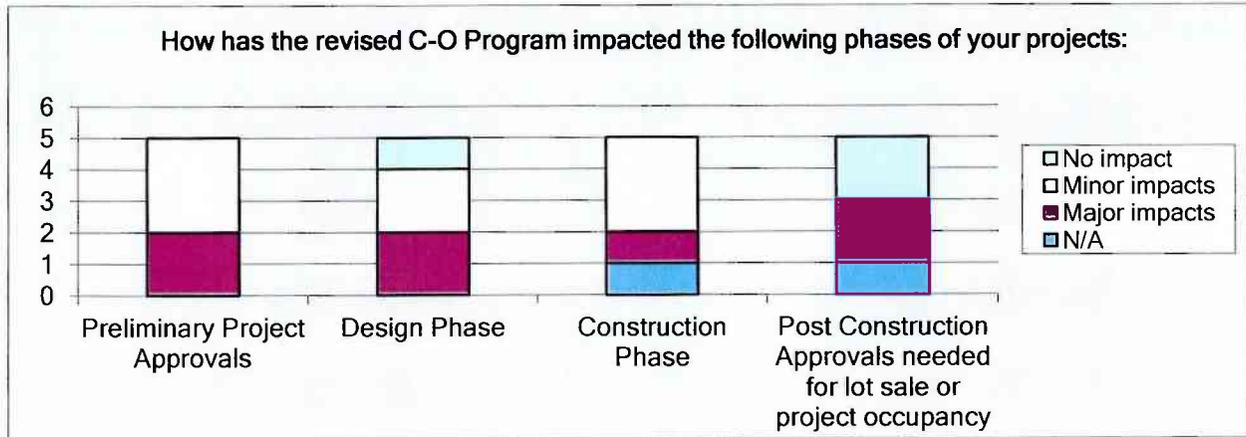
Summary

There have been impacts from the changes to the C-O program. The impact to the infrastructure has been an improvement to the quality of the infrastructure. There is disagreement as to the benefit versus the cost of the improvement.

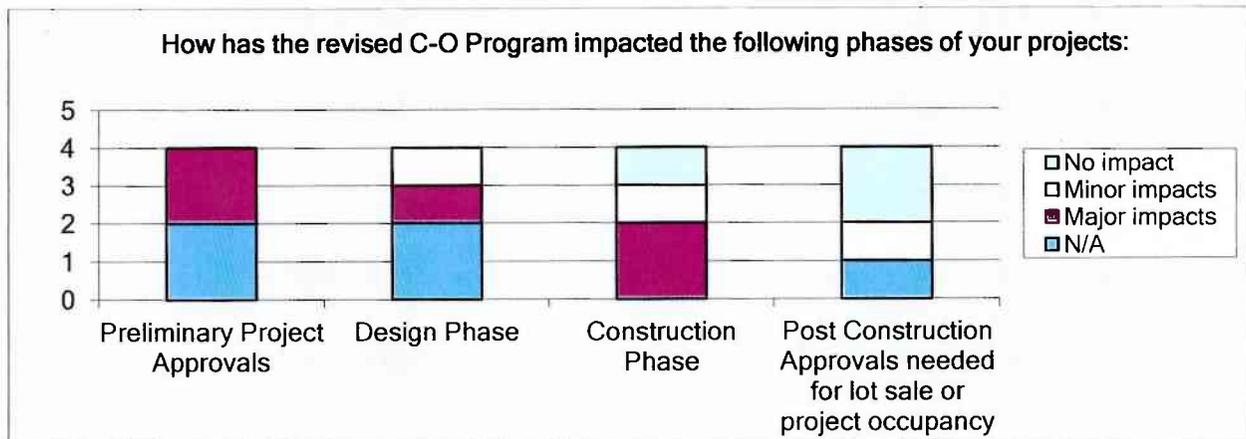
The communications related to the program have been good; however, improvements are needed. These improvement have been initiated by City staff and will be continued as the program continues.

Question 1: How has the revised C-O Program impacted the following phases of your projects?

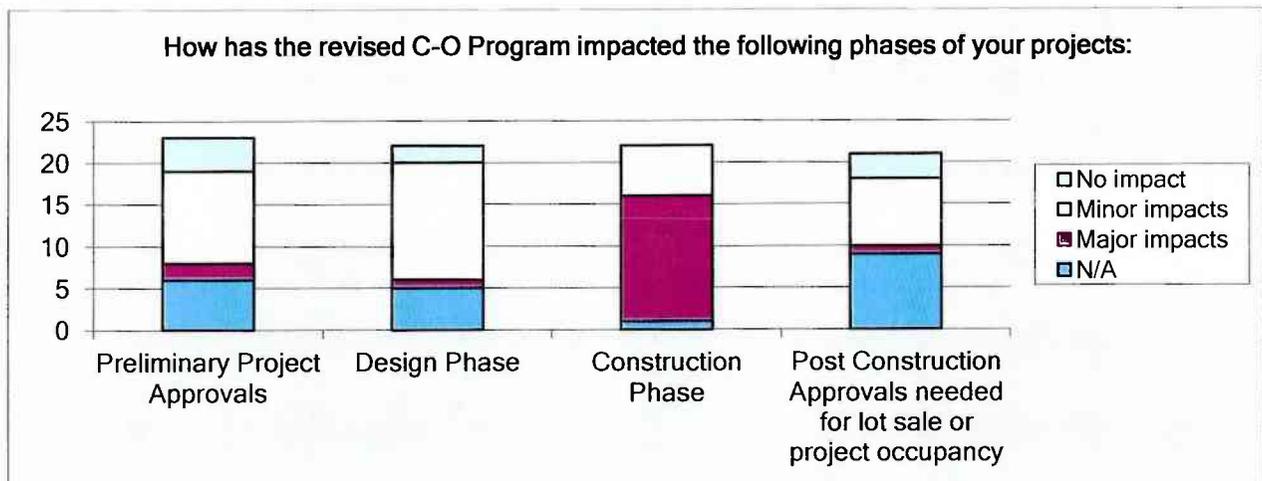
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Contractors:

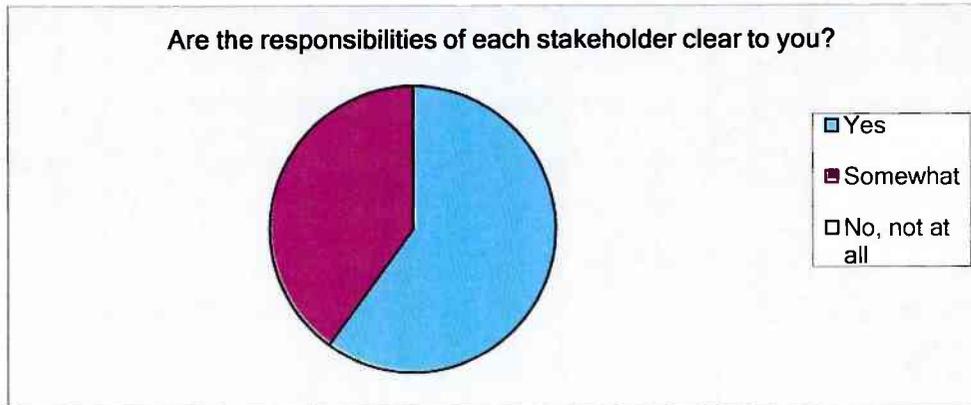


Engineers & Architects

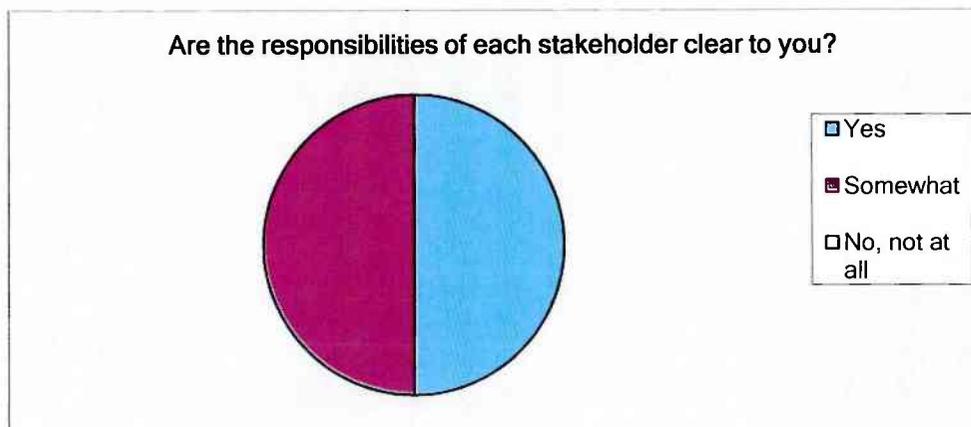


Question 2: Are the responsibilities of each stakeholder clear to you?

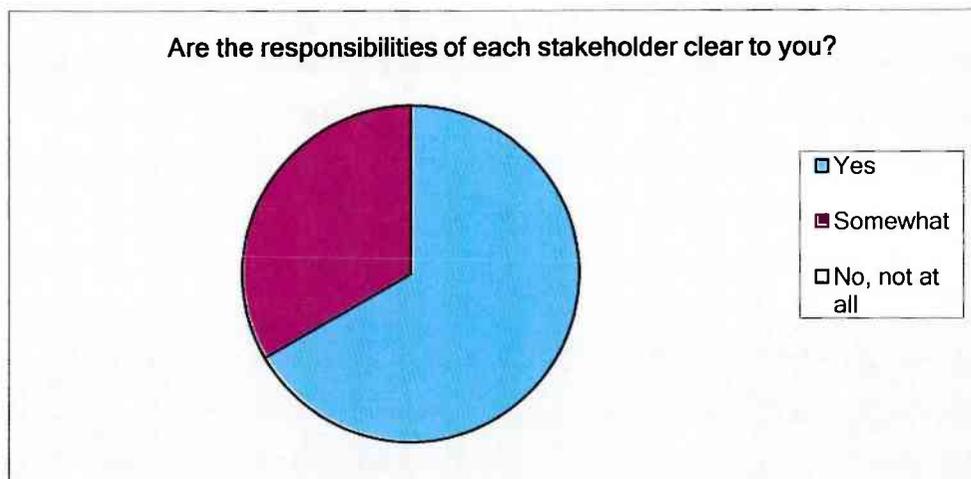
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Contractors:

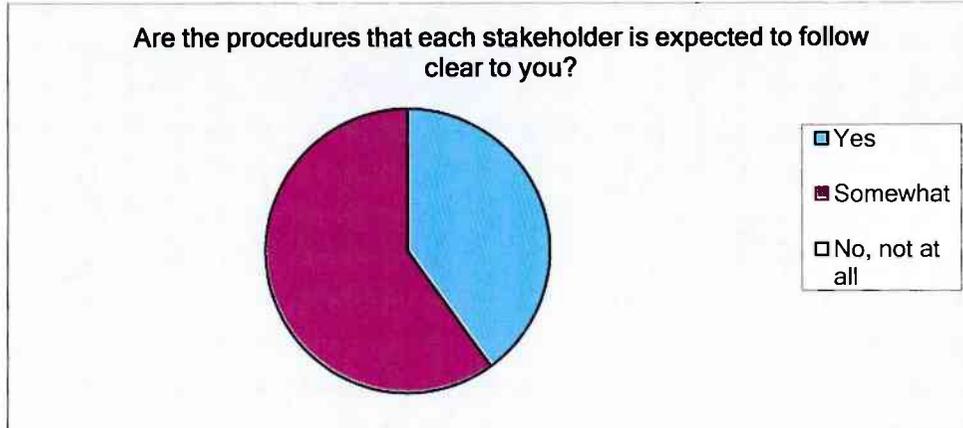


Engineers & Architects

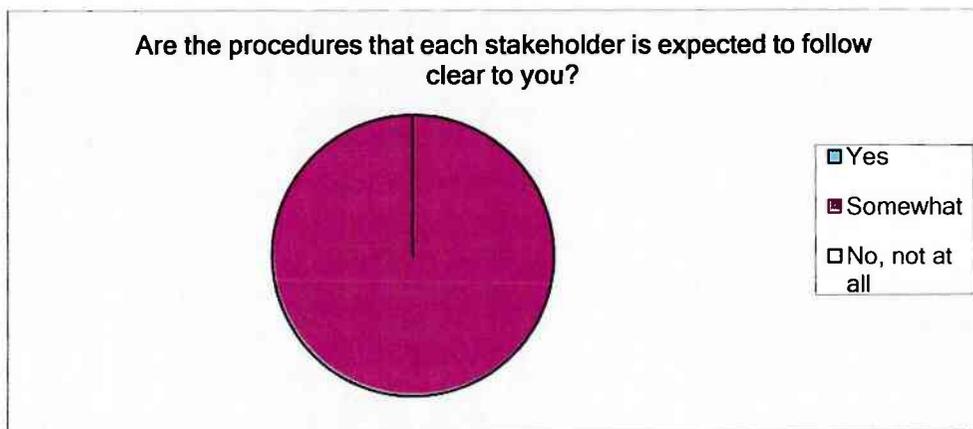


Question 3: Are the procedures that each stakeholder is expected to follow clear to you?

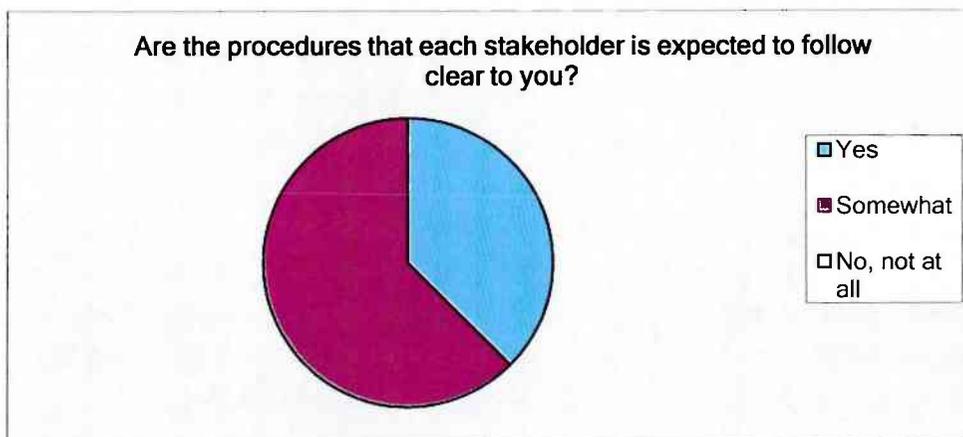
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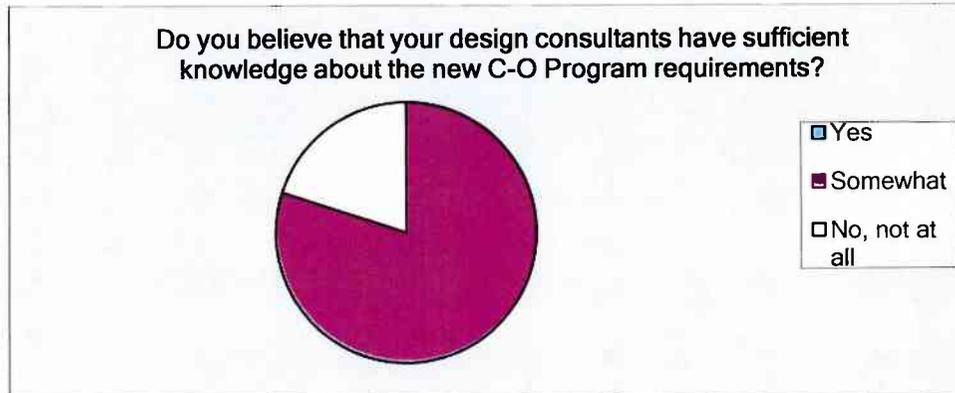


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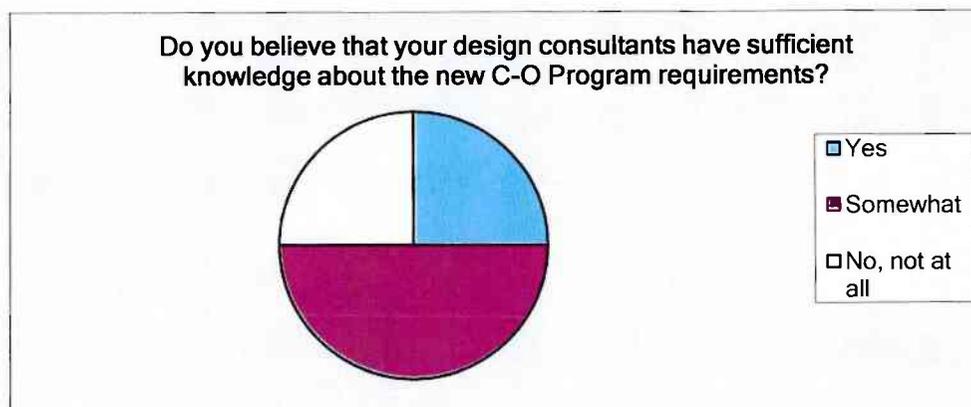


Question 4 Do you believe that your design consultants have sufficient knowledge about the new C-O Program requirements?

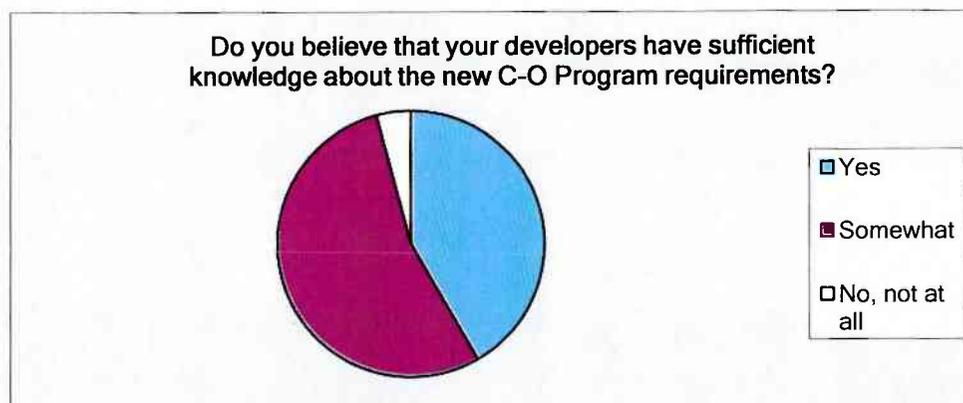
Developers:



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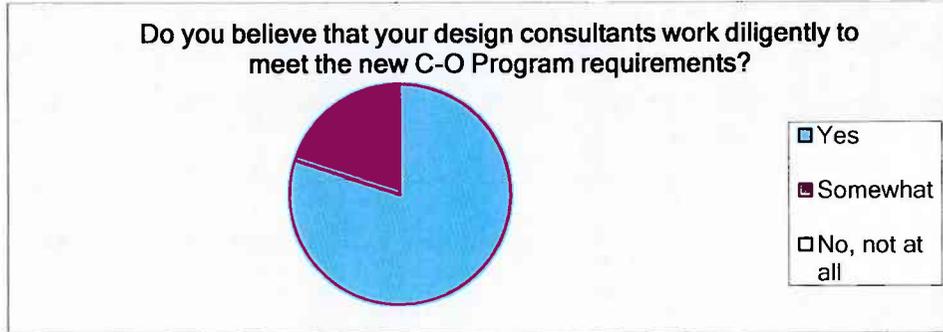


Engineers & Architects

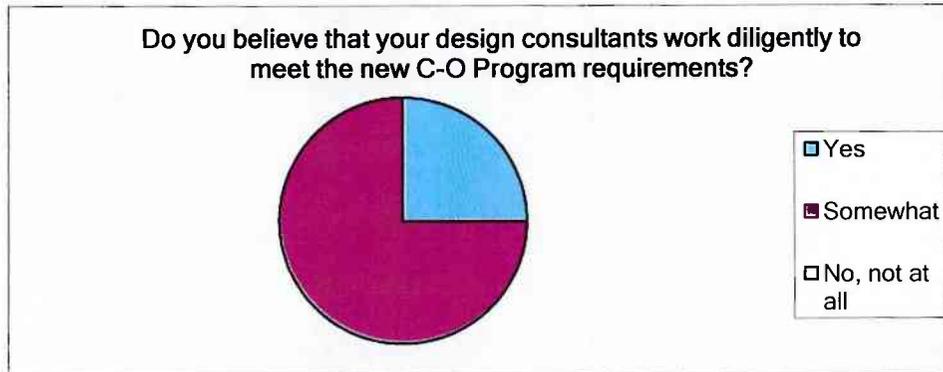


Question 5 Do you believe that your design consultants work diligently to meet the new C-O Program requirements?

Developers:



Contractors:

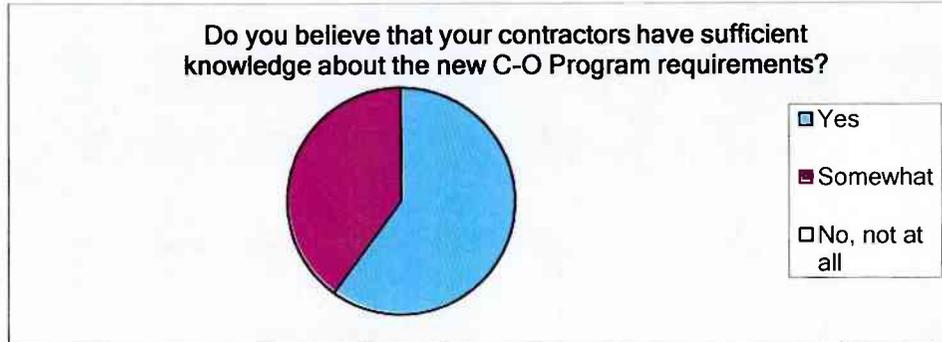


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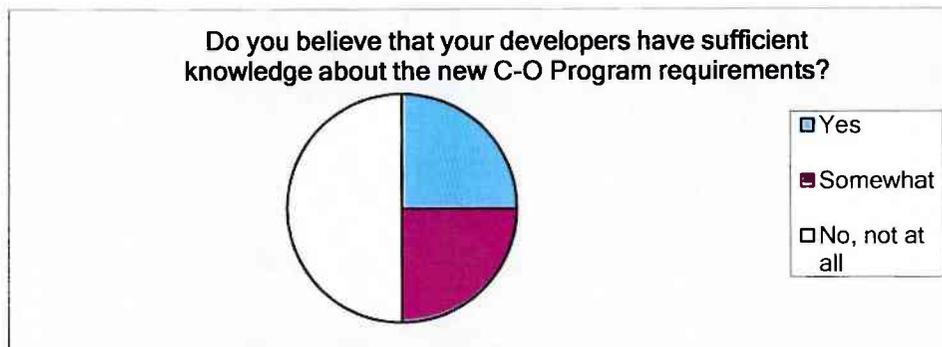


Question 6 Do you believe that your contractors have sufficient knowledge about the new C-O Program requirements?

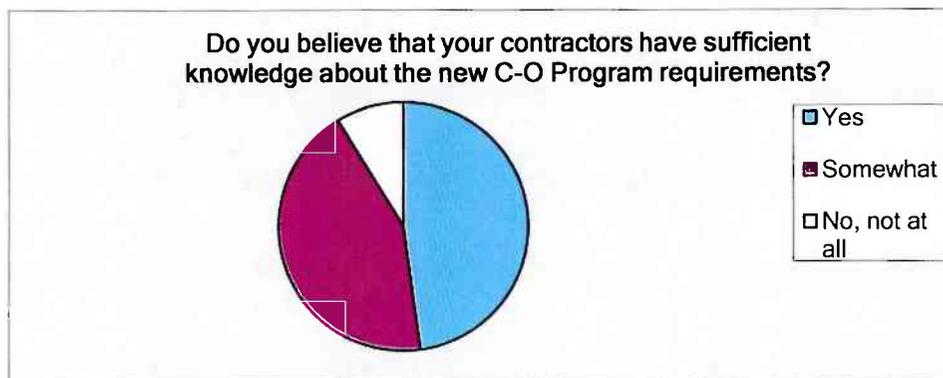
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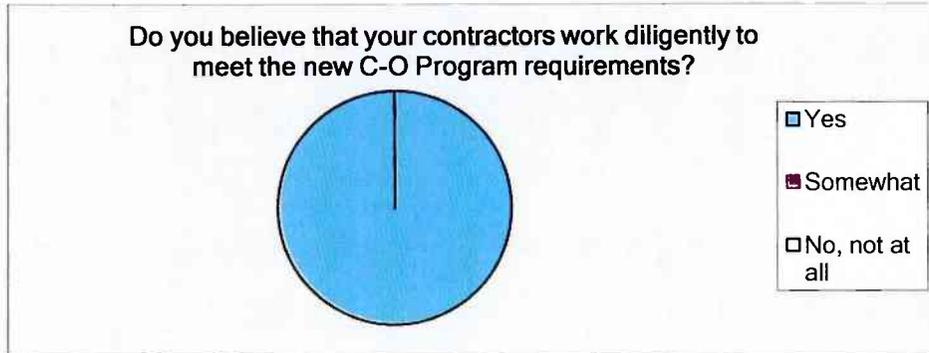


Engineers & Architects

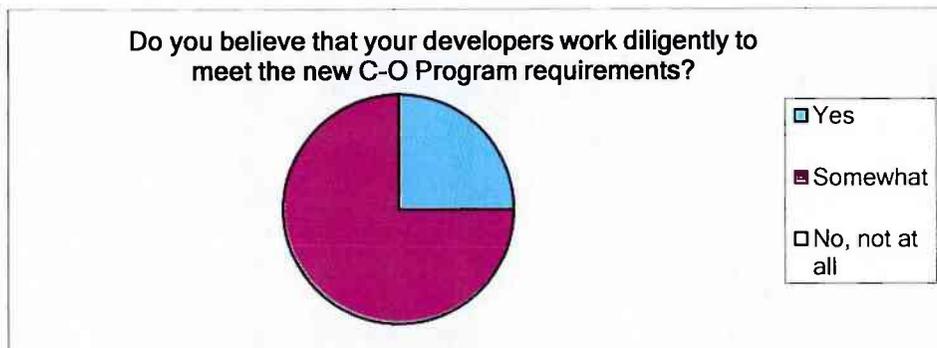


Question 7 Do you believe that your contractors work diligently to meet the new C-O Program requirements?

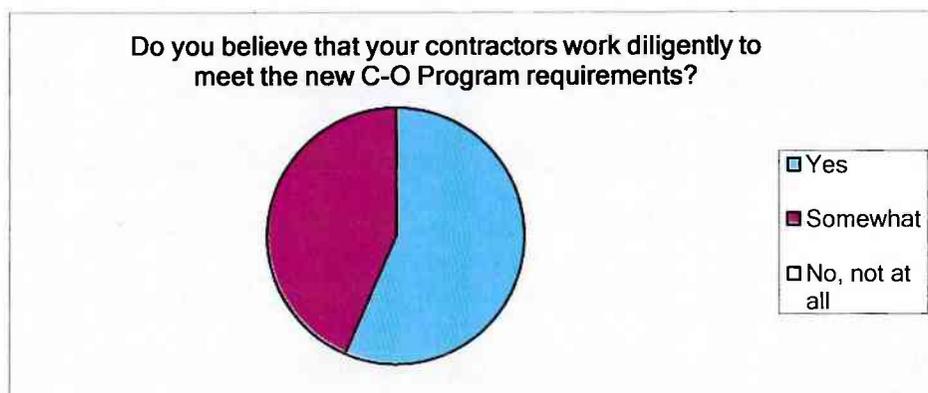
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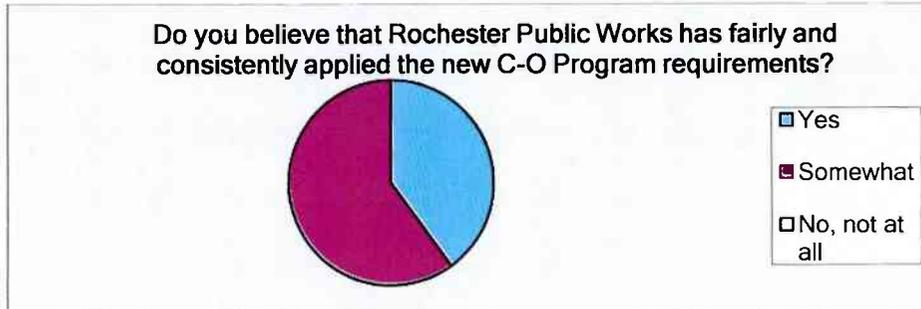


Engineers & Architects

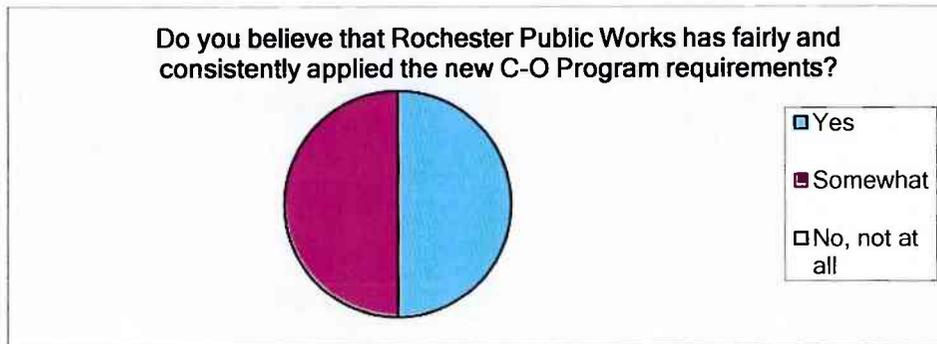


Question 8 Do you believe that Rochester Public Works has fairly and consistently applied the new C-O Program requirements?

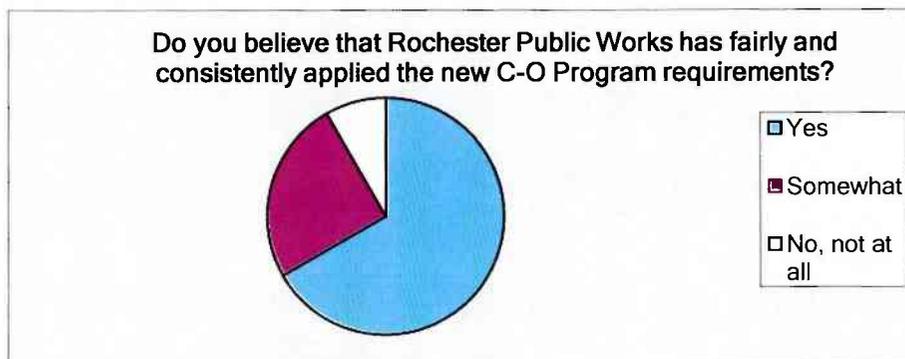
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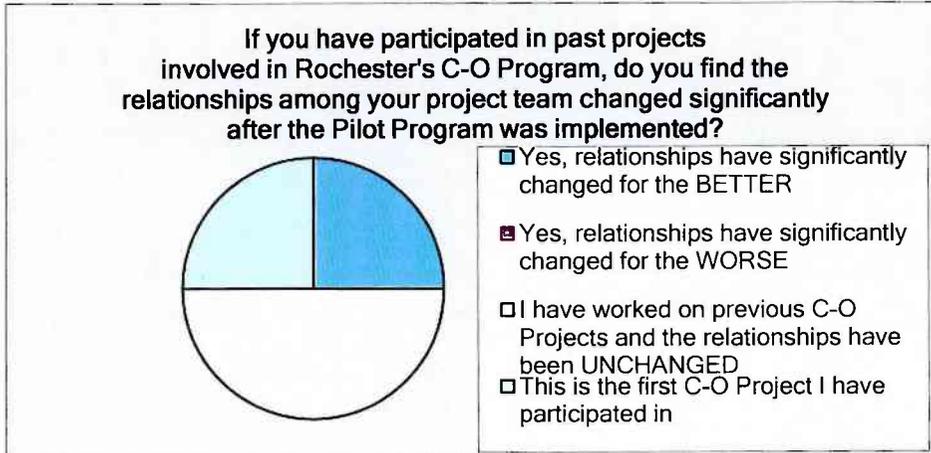


Engineers & Architects

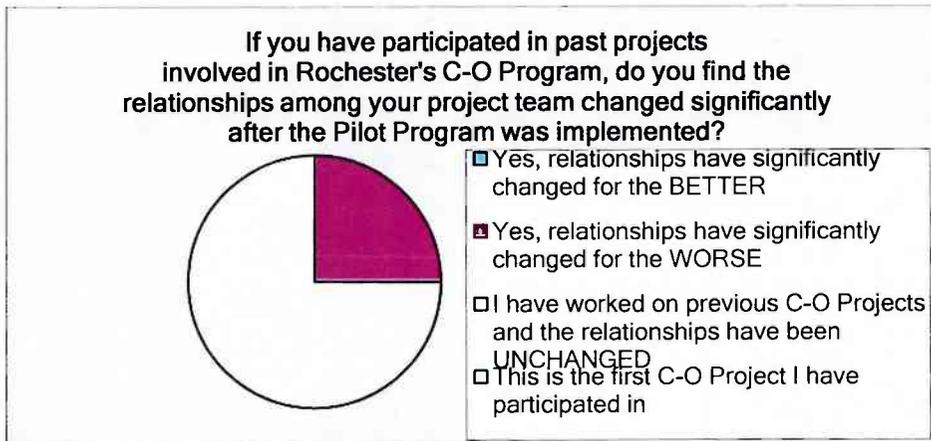


Question 9 If you have participated in past projects involved in Rochester's C-O Program, do you find the relationships among your project team changed significantly after the Pilot Program was implemented?

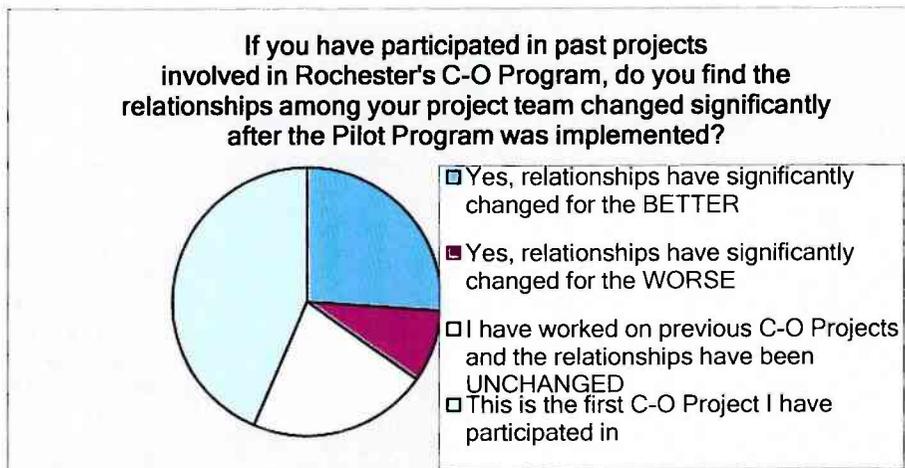
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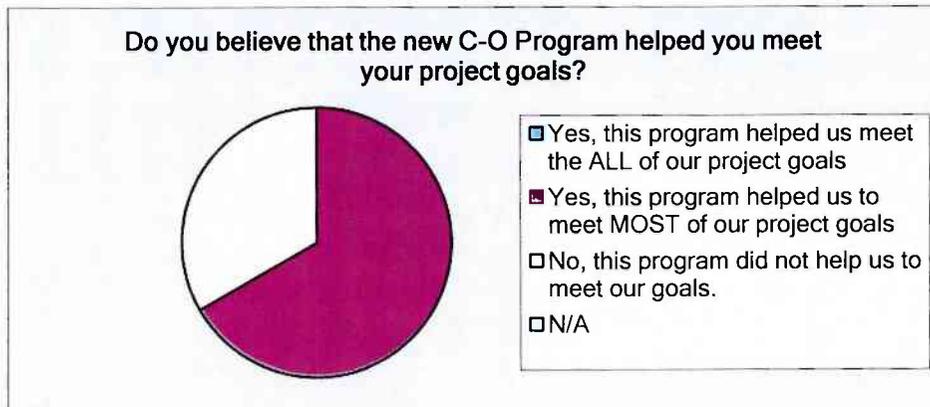


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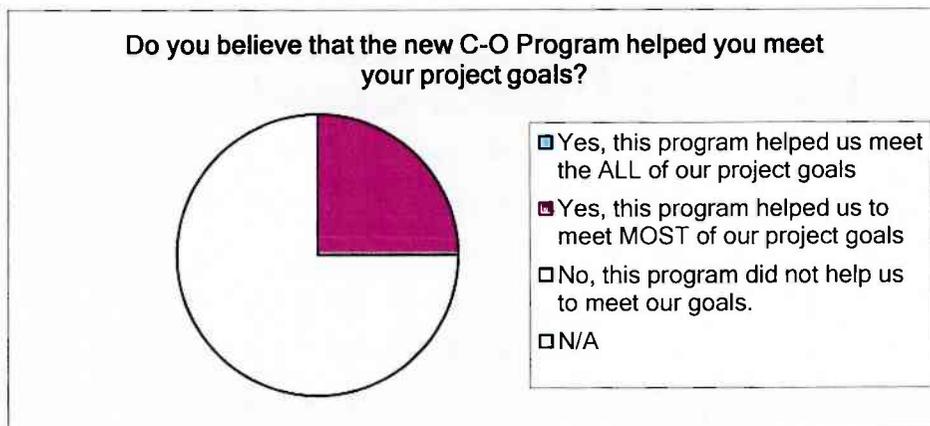


Question 10 Do you believe that the new C-O Program helped you meet your project goals?

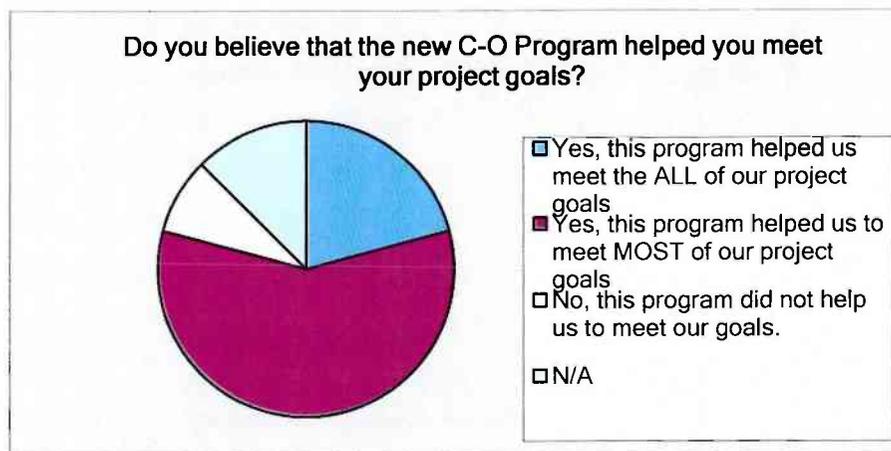
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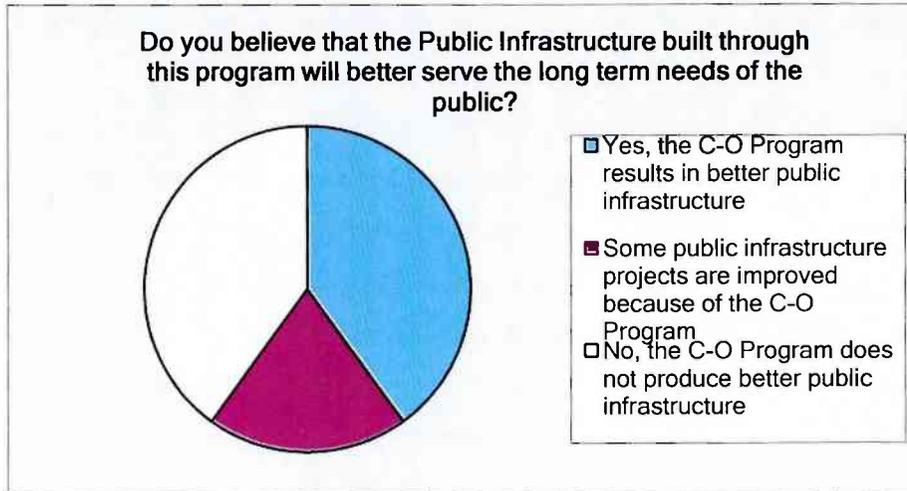


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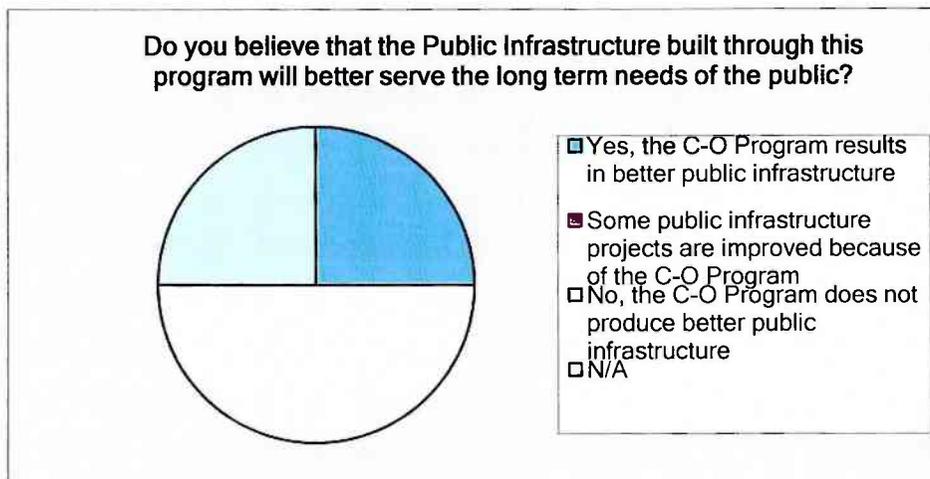


Question 11 Do you believe that the Public Infrastructure built through this program will better serve the long term needs of the public?

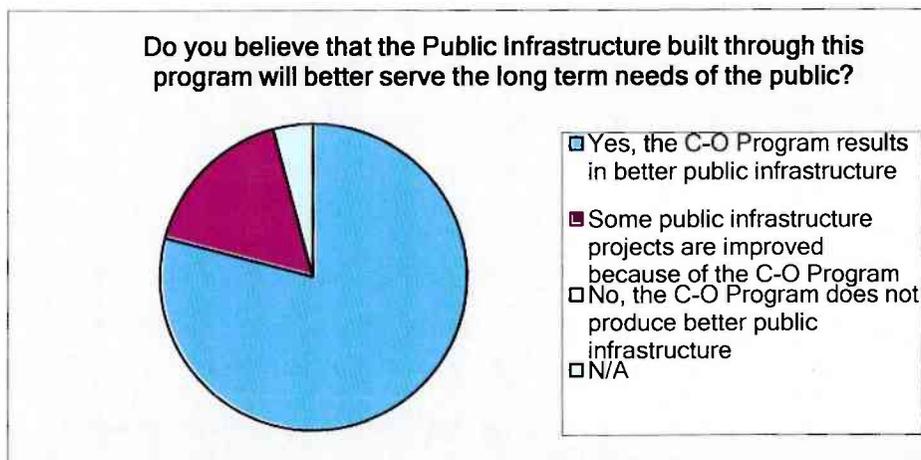
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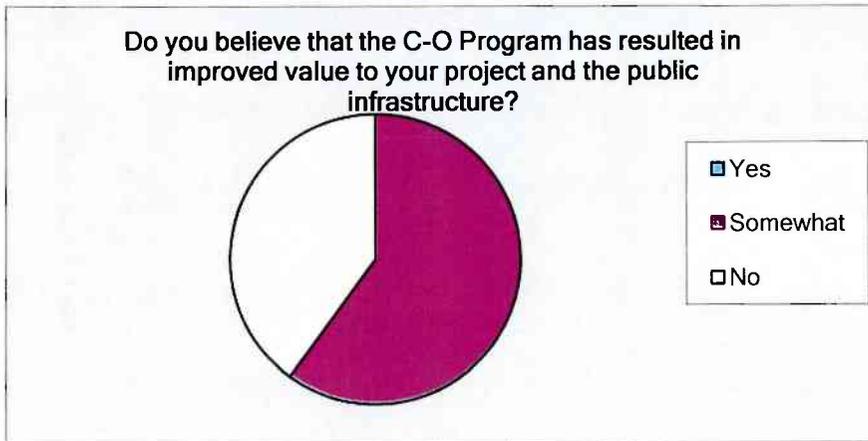


Engineers & Architects

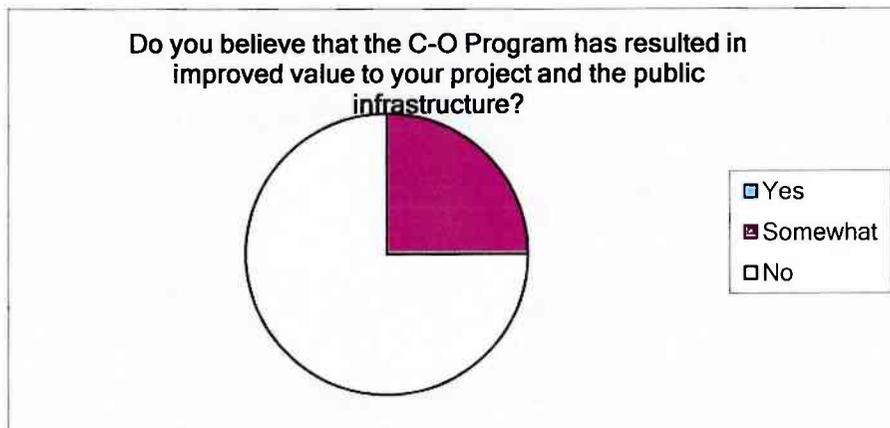


Question 12 Do you believe that the C-O Program has resulted in improved value to your project and the public infrastructure?

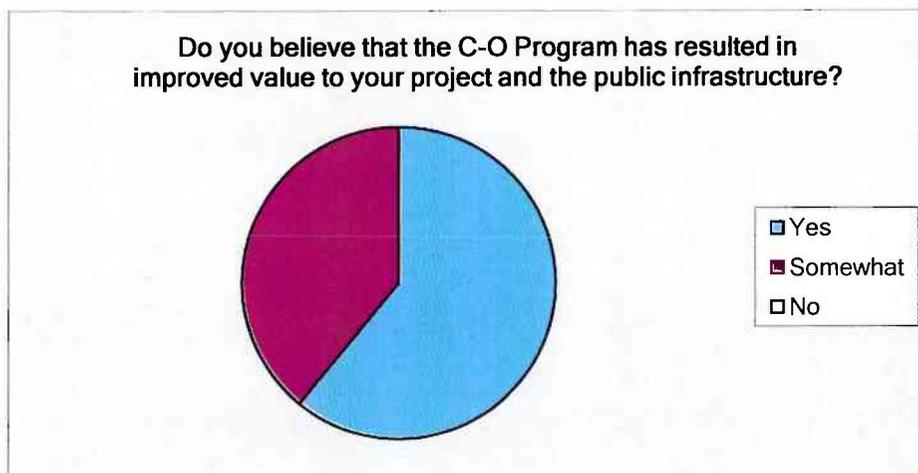
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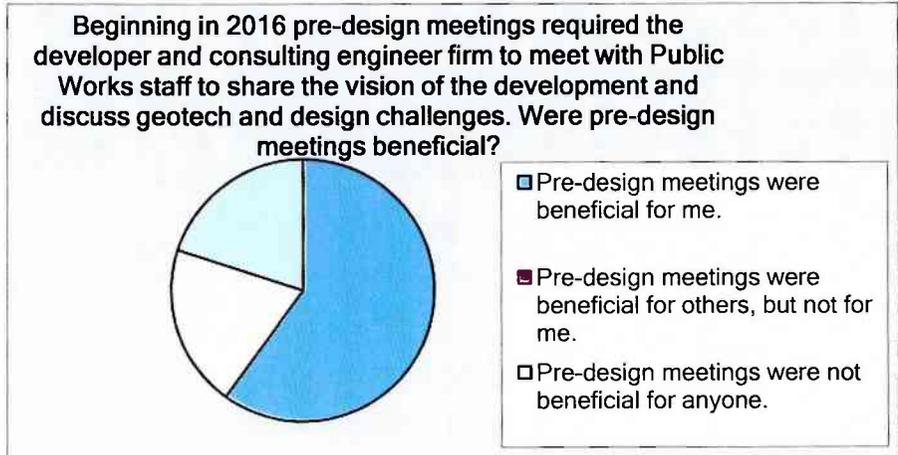


Engineers & Architects

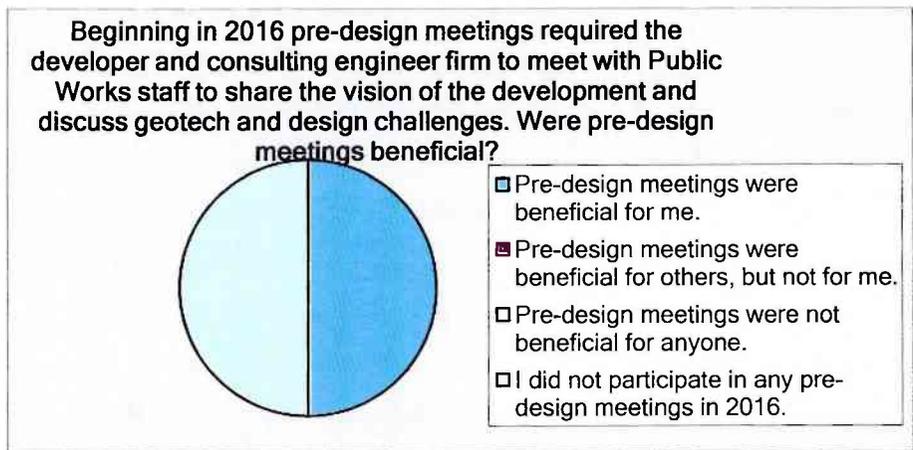


Question 13 Beginning in 2016 pre-design meetings required the developer and consulting engineer firm to meet with Public Works staff to share the vision of the development and discuss geotech and design challenges. Were pre-design meetings beneficial?

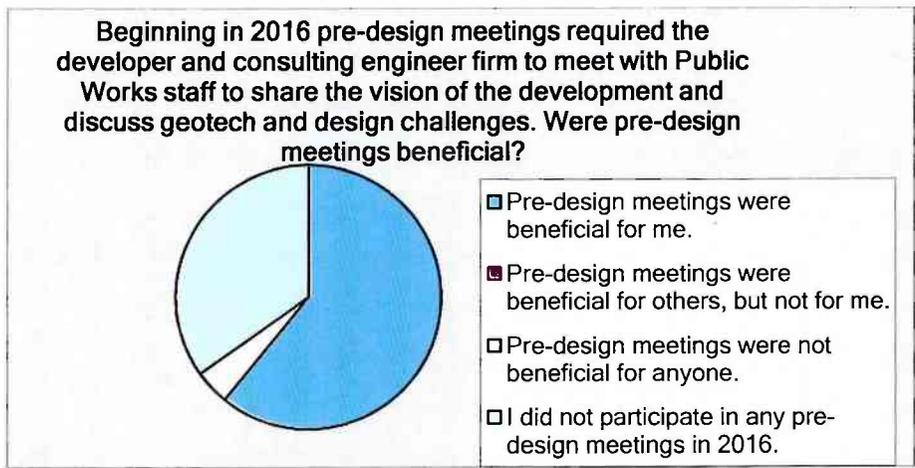
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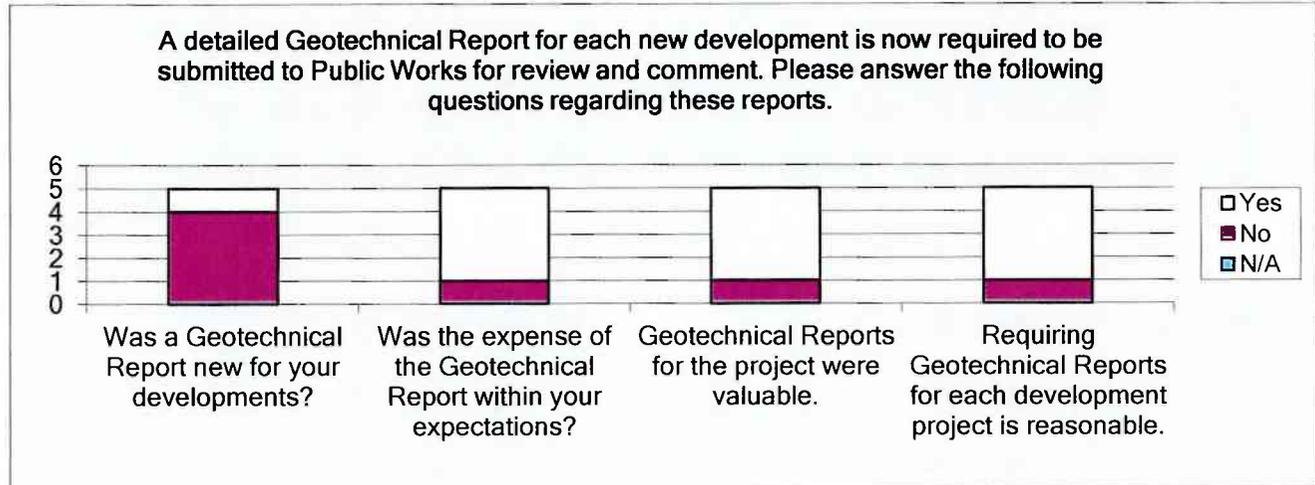


Engineers & Architects

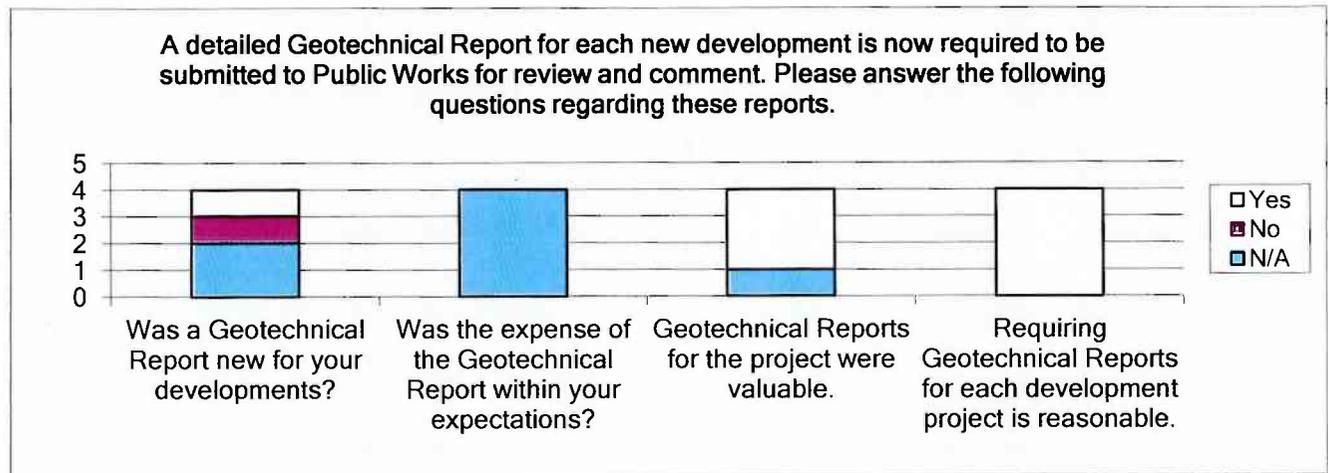


Question 14 A detailed Geotechnical Report for each new development is now required to be submitted to Public Works for review and comment. Please answer the following questions regarding these reports.

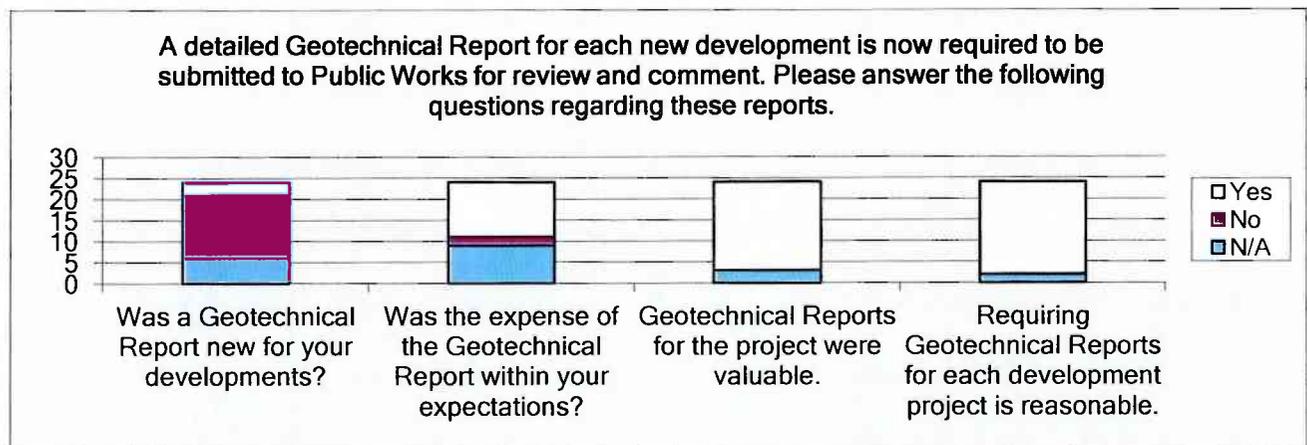
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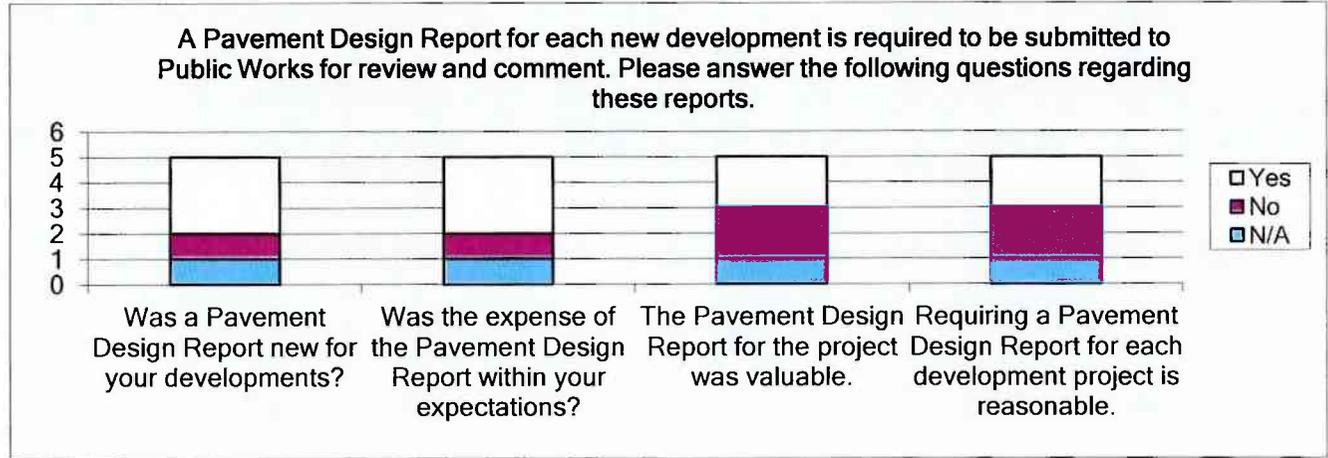


Engineers & Architects

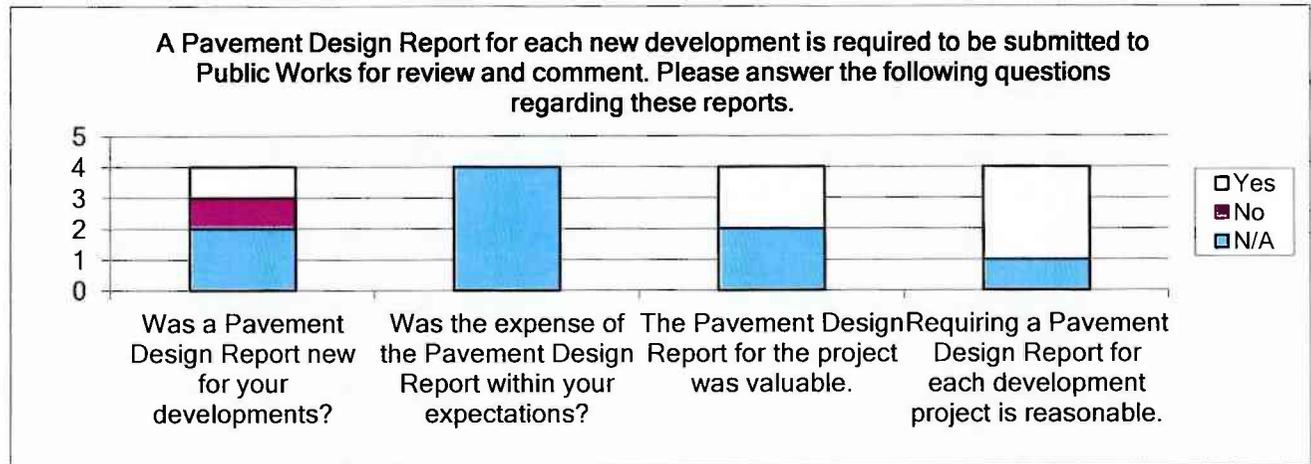


Question 15 A Pavement Design Report for each new development is required to be submitted to Public Works for review and comment. Please answer the following questions regarding these reports.

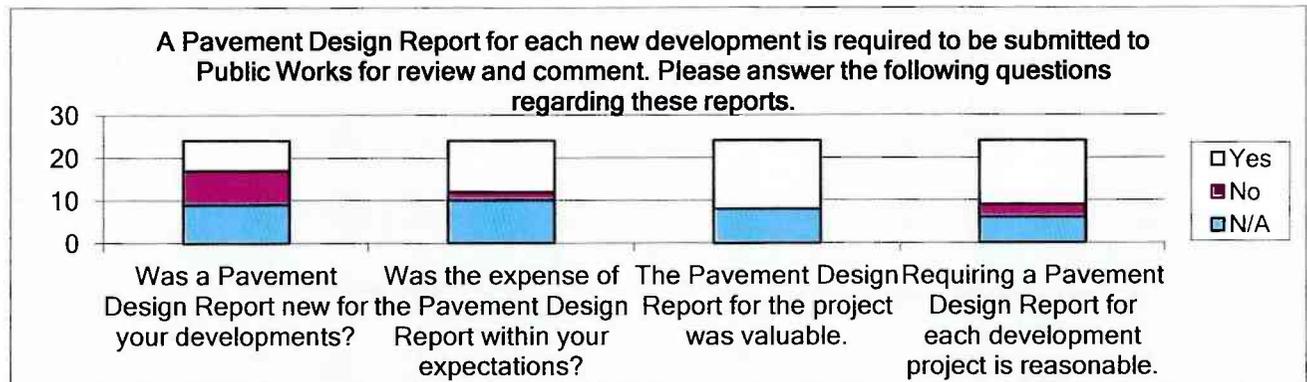
Developers:



Contractors:

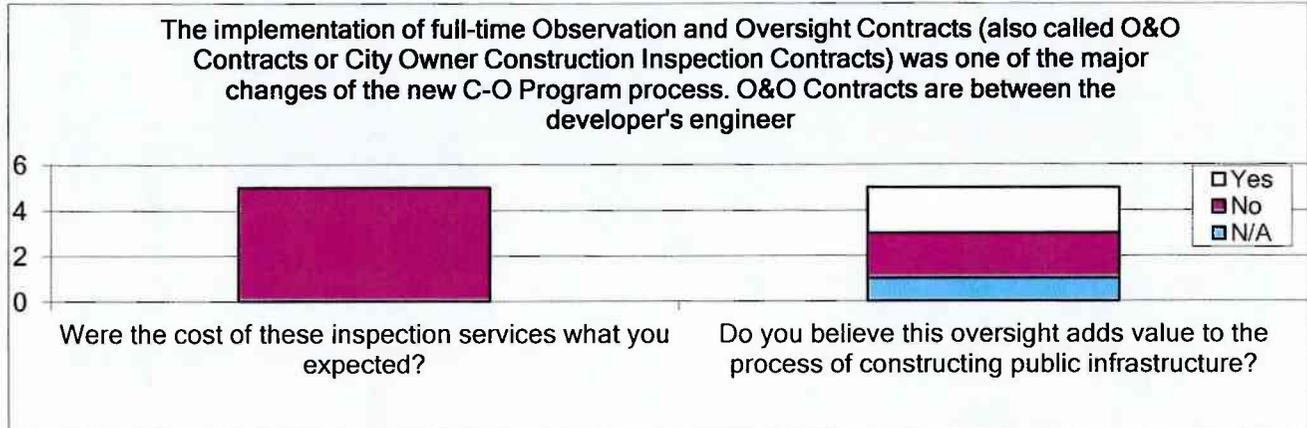


Engineers & Architects

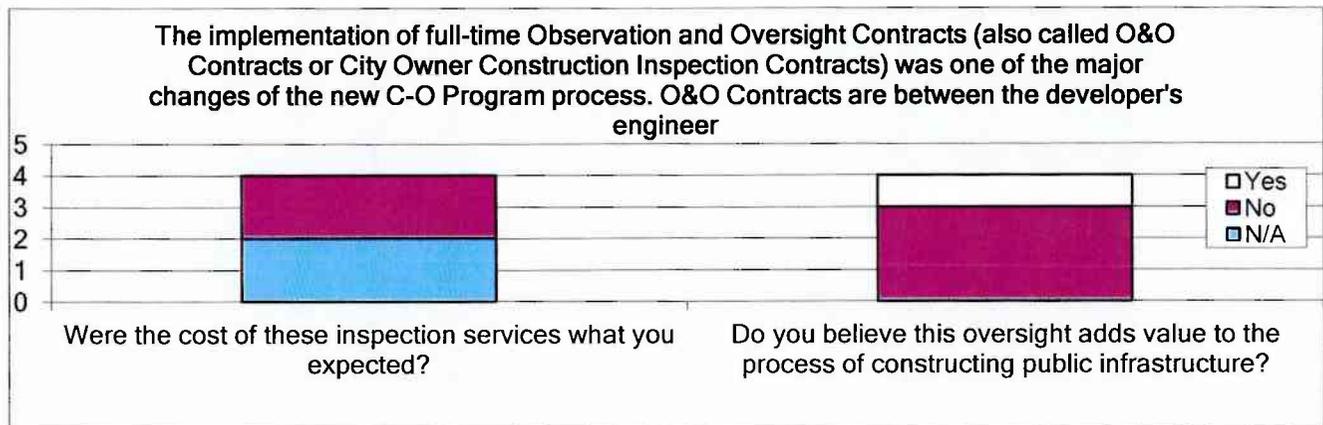


Question 16 The implementation of full-time Observation and Oversight Contracts (also called O&O Contracts or City Owner Construction Inspection Contracts) was one of the major changes of the new C-O Program process. O&O Contracts are between the developer's engineering firm and the City.

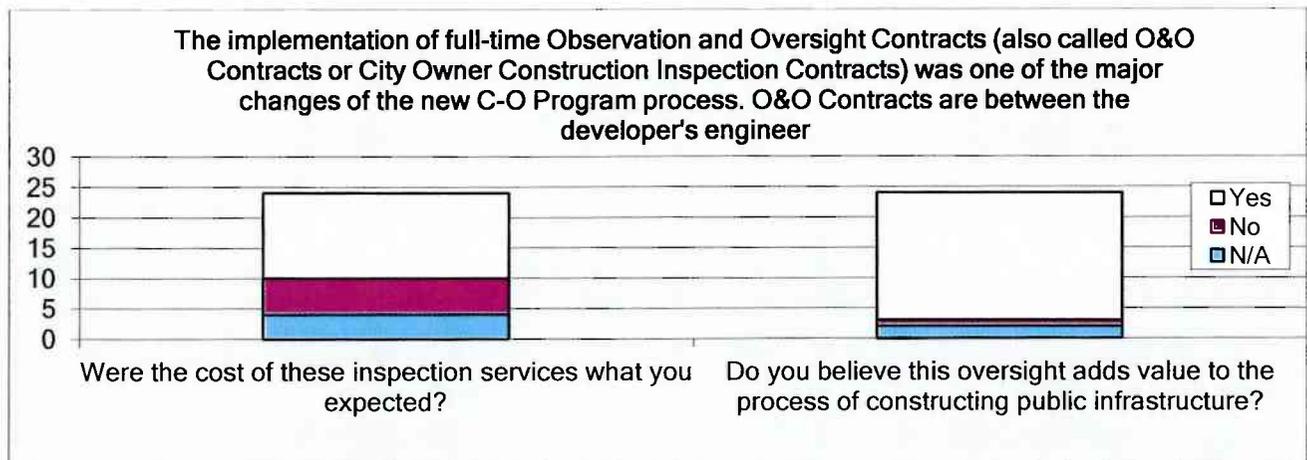
Developers:



Contractors:



Engineers & Architects





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MEMORANDUM

TO: Mr. Doug Nelson
City of Rochester

FROM: Scott Samuelson
Short Elliott Hendrickson, Inc.

DATE: February 2, 2017

RE: Feedback on Rochester City Owner Contract Pilot Program – Year 1

Mr. Nelson

First of all, thank you for requesting feedback on the Rochester City-Owner Contract Pilot Program now that we have completed its first year of implementation. We understand that you are seeking input from the variety of stakeholders involved with the program including Developers, Contractors, and Consultants such as SEH and we are eagerly waiting on hearing what you find via your surveys and request for feedback.

From my perspective serving as the SEH Regional Practice Center Leader of Construction Services, I believe the overall program was a success and should be continued in the future. The construction observation standards, certifications needed, and the level of observation requirements suggested for the various construction activities make it very easy for all parties to be on the same page with respect to level of effort and what should be expected on any particular project involving public infrastructure modifications. As a Consultant in the region, this is greatly appreciated when we are asked for competitive pricing from different clients as well as being an aide in anticipating our individual workload for a particular summer. In addition, the mentor requirements offers us a great opportunity to balance that workload and provide the City with properly trained staff for projects of this type, all in an effort to cover the construction activities as the City desires.

The contract process where the City held the contract directly with the Consultant for the construction observation resulted in less risk for our firm and is one of the more important aspects of the program for the consultant. In my opinion, the City was very open to our specific contract language issues and overall the contract process went very smoothly this past year, as did the coordination among the project team members and the City staff.

Last but most importantly, I fully believe the City-Owner Contract Pilot Program has helped with the goal of **“Improving the overall quality of the public infrastructure to achieve the expected infrastructure life cycles”**. This is difficult to gage at this time but I believe we will see the results in future years and will be pleased that this program was implemented in the City of Rochester.

Thank you again for requesting feedback and please contact me if you have questions or desire additional feedback.

Scott Samuelson, PE – Principal
Short Elliott Hendrickson, Inc.

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 1701 West Knapp Street, Suite B, Rice Lake, WI 54868-1350
SEH is 100% employee-owned | sehinc.com | 715.236.4000 | 800.903.6970 | 888.908.8166 fax



January 31, 2017

Richard Freese, PE
201 SE 4th Street
Room 108
Rochester, MN 55904

Re: City Owner Contract Recommendations

Dear Mr. Freese:

At our consultant review meeting with City staff on Wednesday, January 18, there was consensus among those in attendance for the following revisions:

1. Fold "Underground Utility Work," "Trench Compaction to 2-ft Over Pipe," and "Trench Compaction 2-ft Over Pipe to Surface" into a single category and renamed to "Underground Utility Placement and Backfill." Level of inspection should be 100%.
2. "Curb/Gutter String Line Check/Verification" change to 50%.
3. "Curb/Gutter Pouring" and "Bituminous Non-Wear" change to 100%. These activities are relatively short duration but important so we think the change to 100% is cost justified.

WSB offers the following recommended changes to the City-Owner Contract process:

The City should consider removing clearing and grubbing and grading from the City Owner observation contract. These two activities do not concern City infrastructure and legitimately lie outside the realm of other activities that the City Owner Contract covers. Additionally, a notice to proceed can then be given for these activities prior to the City Owner Contract being approved. This expedites the construction schedule.

The current process requires that project documentation be provided to both Mark Baker and John Wellner while copying the other. The paperwork has separate purposes but requires much of the same information. We recommend creating one form for simplicity that is sent to both individuals.

WSB is suggesting that the City invests time to educate local and out-of-town developers along with contractors on the importance the construction schedule has on the cost of the observation.

We are finding that projects that are near completion have a significant amount of observation budget remaining. The balance of the budget is greater than what is needed to conduct project closeout activities for the next year. Consequently, a methodology for refunds needs to be established.

The observation escrow deposits from a developer should be held in interest bearing accounts.

The City should provide to the developer monthly statements identifying how the money they have deposited is withdrawn to pay observation bills.

Pre-design meetings would be more effective if Public Works staff were better prepared for the meetings. Often, staff is seeing the project for the first time prior to the start of the meeting.

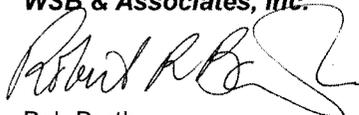
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Predesign meetings should require minutes to be taken and submitted. Discussion items are often forgotten.

Consultants are under contract to the City for City Owner contract work. Please clarify the change management process for 2017. In our opinion, permission for changes to the contract should be given by the City with the developer subsequently being informed. Seeking developer approval is difficult for the consultant working independently for the City.

Sincerely,

WSB & Associates, Inc.



Bob Barth
Group Manager for Land Development/Principal

MEM/RRB/cap

