2011

The Impact of Fair Wage Policy on Competitive Tendering at the City of Toronto

August 2011

Competitive Tendering by the City of Toronto: Impact of Fair Wage Policy

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Appendices

1. Purpose of this Report and Description of Methodology

This report was commissioned by the Ontario Construction Secretariat (OCS). The OCS was established in 1993 through an amendment to the Ontario *Labour Relations Act*. The OCS represents the 25 building trades unions and their signatory contractors operating in the industrial, commercial and institutional (ICI) sector of the construction industry.[1]

The purpose of this report is to examine a full year of competitive tenders administered by the City of Toronto and to ascertain from tender submissions the impact of the City's Fair Wage Policy.

In May of 2011, Prism Economics and Analysis submitted a Freedom of Information Request asking for the details of bid submissions for competitively tendered construction work undertaken in 2010. The information set out in this report is based entirely on the data supplied to Prism Economics and Analysis by the City, in response to this request. We understand that the bid information was compiled at the time of the formal bid openings. To the best of our understanding, all work was awarded to the lowest bidder. We do not have information on any subsequent amendments to the construction contract ('change orders') which may have changed the costs from the bid amount. To simplify the analysis, we have restricted the presentation of data to the winning bid and the second and third lowest bids.

The data provided by the City covered 266 projects with a total awarded value of $413,023,171. In total, bids for this work were submitted by 555 contractors. Of these, 394 were contractors that were bound to a union, while 161 were non-union contractors. Unionized contractors performed 78.9% of the tendered work by value.
Sub-contracts by winning contractors were not analyzed.

2. Competitive Tendering and Fair Wage Policy

The City of Toronto's Fair Wage Policy covers five construction sectors:

(1) ICI (i.e., non-residential buildings),
(2) roads,
(3) sewer and water main construction,
(4) heavy construction, and
(5) utilities construction.

The Fair Wage Policy was first adopted by the City of Toronto in 1893, but has been altered many times since then. The current policy framework was adopted in 1998. The 1998 policy framework substantially replicates the fair wage policy that operated in the former Metropolitan Toronto, the Cities of Toronto, East York, Scarborough (roads and sewers), North York (1989-1995), York and Etobicoke.

The Fair Wage Policy establishes a schedule for minimum wages, based on the lowest rates negotiated in collective bargaining. Those rates are essentially the negotiated wage package minus contributions to certain funds. Until 2007, the rates in the Fair Wage Schedule were updated on a triennial basis.

[1] Additional information on the OCS can be found at: www.iciconstruction.com

In 2007, the Administrative Committee declined to make an adjustment. As a result, the current Fair Wage Schedule is based on union rates that were established in May 2003.

Relationship of Fair Wage Schedule to 2010-2011 Union Rates:

Figure No. 1 compares the rates set out in the current Fair Wage Schedules with the union rate (wages + benefits) for 2010-2011. The detailed calculations are shown in Appendix I.

Figure No. 1
Average Difference between 2010-2011 Union Rate and Fair Wage Rate

Road Building	24.2%
Sewer and Water	23.4%
Heavy Construction	24.5%
ICI	24.1%
Utility	28.9%

There is some variation from these averages across trades and across occupational groups within trades. Nevertheless, it can be conservatively estimated that the union rate in 2010-2011 was at least 24% higher than the rate specified in the Fair Wage Schedules. This difference will increase by approximately 2.0% -3.0% in 2011 and by a further 2.0% – 3.0% in 2012. New increases, of course, again will be negotiated in 2013 when the triennial bargaining cycle resumes.[2]

The Labour Share of Construction Costs:

The City has estimated that the labour share of construction costs is approximately 33.5%.[3] This is based on the direct labour cost, *i.e.*, wages plus benefits. There are, however, indirect costs, as well. These costs (usually termed 'burden') include employer contributions for WSIB, CPP and EI. Additionally employers also pay various premia for overtime, *etc*. Taking these additional costs into account raises the estimate of the labour share in construction costs.

The following table is based on 2007 data (most recent available) from Statistics Canada's input/output analysis of the Canadian economy. These are national data. The labour share of construction costs in Toronto is likely to be somewhat higher since GTA labour costs are moderately higher than labour costs in most (but not all) regions. Column three in the table makes a judgement-based estimate for the GTA. The shaded rows are the most relevant for this report.

[2] The bargaining cycle in the unionized sector is typically a triennial agreement, commencing on May 1st. In the ICI sector, this cycle is statutorily mandated. Other sectors have tended to follow this pattern. The most recent cycle commenced on May 1, 2010. In most agreements, rates are increased annually on May 1st. For this study, we have used the 2010-2011 rates as these rates correspond to the rates that were effective during most of the 2010 construction season.

[3] Staff Report to Executive Committee, "Labour and Training Costs in Construction Procurement," September 23, 2008 [public document]

Figure No. 2
Estimated Labour Share of Construction Costs
National: Statistics Canada GTA: Prism Economics

	Statistics Canada, 2007[4]	GTA Estimate[5]
Residential	30.3%	33%
Non-Residential	36.0%	39%
Transportation Engineering	32.2%	35%
Oil & Gas Construction	27.7%	26%
Electric Power Construction	25.2%	27%
Communications Engineering Construction	19.7%	23%
Other Engineering	31.7%	33%
Repair Construction	45.8%	49%
Other Construction	29.5%	32%

On average, the Statistics Canada estimates are around 36.4% for the types of construction relevant to this study. Our estimate, which adjusts for somewhat higher labour costs in Toronto, is around 39%.

Competitive Advantage of Non-Union Contractors Adhering to Fair Wage Schedule:
Consider a City project being bid by both a unionized contractor and a non-union contractor. Both contractors face similar non-labour costs. The unionized contractor must pay the negotiated wage and benefit rates. The non-union contractor is required to pay only the wage and benefit rates set out in the Fair Wage Schedule. On average, for 2010, as noted, the Fair Wage Schedule is 24% *below* the union wage package. A non-union contractor who pays only the rates required by the Fair Wage Schedule clearly has a competitive advantage in terms of labour rates.

The theoretical value of a non-union contractor's labour cost advantage is 24% times the labour share of construction costs. Using the City's 33.5% estimate of the labour share of construction costs, this represents a non-union competitive advantage of 8.0%. Using Statistics Canada's somewhat higher estimate of the labour share of construction costs, the competitive advantage is 8.7%. Using our estimate of a 39% labour share of construction costs, the competitive advantage is 9.4%. Thus the non-union contractor's competitive advantage is therefore somewhere between 8.0% and 9.4%.

City's Contractual Relations with the Building Trades Unions:
Separate and distinct from the Fair Wage Policy, the City of Toronto is contractually bound to several of the building trades unions. As a result of these contractual obligations, the City is barred from awarding work covered by those agreements to non-union contractors. This legal obligation has nothing to do with Fair Wage Policy and would not be affected by altering or eliminating the Fair Wage Policy. Figure No. 3 lists the building trades that are in contractual relations with the City.

[4] Statistics Canada, CANSIM Table 381-0009

[5] GTA estimates by Prism Economics to reflect higher construction labour costs in the GTA

Figure No. 3
Construction Trades in Contractual Relations with the City of Toronto

Type of Work	City of Toronto ICI	Exhibition Place
Asbestos/insulation	X	
Bricklaying/masonry	X	
Carpentry	X	X
Electrical	X	X
Glazing	X	
Labourers		X
Mechanical	X	X
Painting	X	X
Sheet Metal	X	
Iron Workers	X	

*ICI is 'Institutional, Commercial and Industrial' construction, i.e., non-residential buildings. ICI does not include 'civil' construction, such as roads, sewers, etc.

As can be seen from Figure No. 3, for a substantial portion of ICI work, the City is in contractual relations with construction trades unions. For engineering work (roads, sewers, heavy construction), the City is not in any contractual relations with trades unions.

3. Road Building

The City is *not* bound to any unions for road construction. Therefore, non-union contractors were not constrained in any way from submitting competitive bids.

In 2010, the City tendered 56 road building projects. Winning bid data were available for 55 of these projects. The total awarded value of these 55 projects was $94,482,756.37. Non-union contractors won only 7 of these competitive tenders for a total awarded value of $12,029,622.86. Thus, roughly 87-88% of road building work was awarded to unionized contractors.

Of the 48 road building projects that were awarded to unionized contractors, non-union contractors were the runner-up bidder in only 3 of the projects.

This is a striking finding. Non-union contractors who paid only the Fair Wage rates enjoyed a labour cost advantage of 24%. However, non-union contractors were successful in securing only 12-13% of the competitively tendered contracts and were the runner-up bidder in only 6% of the contracts that were awarded to unionized contractors.

Figure No. 4
Road Work Projects: Summary

Number of Projects	56	
Number of Projects with Winning Bid Information	55	
Total Awarded Value of Projects	$94,482,756.37	
Awarded to Unionized Contractors		
No. of Projects	48	87.3%
Awarded Value	$82,453,133.51	87.3%
Non-Union Contractors Second Lowest	3	
Awarded to Non-Union Contractors		
No. of Projects	7	12.7%
Awarded Value	$12,029,622.86	12.7%
Unionized Contractors Second Lowest	5	

4. Sewer and Water

Similar to road construction, the City is *not* bound to any unions for sewer and water related construction. Consequently, there are no impediments to non-union contractors in submitting competitive bids.

In 2010, the City tendered 61 sewer and water projects. Winning bid data were available for all of these projects. The total awarded was $144,094,046.59. Non-union contractors won only 15 of these competitive tenders for a total awarded value of $25,520,000.30. Thus, roughly 75% of sewer and water work was awarded to unionized contractors.

Of the 46 sewer and water projects that were awarded to unionized contractors, non-union contractors were the runner-up bidder in only 12 of the projects.

As in road construction, non-union contractors who paid only the Fair Wage rate can be presumed to have a labour cost advantage of around 24%. However, non-union contractors were successful in securing only a quarter of the tendered projects. On a value-of-work basis, non-union contractors secured only 18% of the work.

Figure No. 5
Sewer and Water - Related Work Projects: Summary

Number of Projects	61	
Number of Projects with Winning Bid Information	61	
Total Awarded Value of Projects	$144,094,046.59	
Awarded to Unionized Contractors		
No. of Projects	46	75.4%
Awarded Value	$118,574,046.29	82.3%
Non-Union Contractors Second Lowest	12	
Awarded to Non-Union Contractors		
No. of Projects	15	24.6%
Awarded Value	$25,520,000.30	17.7%
Unionized Contractors Second Lowest	14	

5. Heavy Construction

Heavy construction involves significant earth moving. It is usually undertaken in connection with major road or bridge work. Similar to road construction, the City is *not* bound to any unions for heavy construction. There are no impediments to non-union contractors in submitting competitive bids.

In 2010, the City tendered 10 heavy construction projects. Winning bid data were available for all of these projects. The total awarded was $41,688,272.28. Non-union contractors won none of these competitive tenders.

Figure No. 6
Heavy Construction Projects: Summary

Number of Projects	10	
Number of Projects with Winning Bid Information	10	
Total Awarded Value of Projects	$41,688,272.28	
Awarded to Unionized Contractors		
No. of Projects	10	100.0%
Awarded Value	$41,688,272.28	100.0%
Non-Union Contractors Second Lowest	1	
Awarded to Non-Union Contractors		
No. of Projects	0	0.00%
Awarded Value	n/a	0.00%
Unionized Contractors Second Lowest	n/a	

6. ICI (Non-Residential Building) Construction

Sub-contracting is an important aspect of all types of construction. However, sub-contracting is especially important in ICI construction. Figure No. 7 shows that the City awarded 139 contracts for ICI work. Of these 139 contracts, 76 involved the use of sub-contractors. These 76 contracts accounted for 74% of ICI work on a value basis. Data on sub-contracting is limited. The data provided by the City indicated who the sub-contractor was, but does not indicate the value of the work performed buy that sub-contractor. This significantly complicates the estimation of the share of ICI work performed by unionized contractors.

In this section of the report, the analysis is confined to a discussion of the union and non-union share of ICI work, based on the status of the prime contractor. Appendix II provides further information on the status of sub-contractors.

As noted in earlier in this report (Figure No. 3), the City is in contractual relations with a number of the building trades unions. Consequently, for some types of ICI work, the City is obliged to have that work performed by contractors that are in similar contractual relationships. For some types of ICI work, this does not bar a non-union contractor from being a prime contractor, but does require a non-union prime contractor to sub-contract to unionized contractors work that is in the jurisdiction of the construction unions to which the City is bound.

As noted above, in 2010, the City tendered 139 ICI projects. Winning bid data were available for all of these projects. These data are summarized in Figure No. 7. The total awarded work was valued at $132,758,095.97. Non-union prime contractors won 50 of these competitive tenders for a total

awarded value of $49,626,292.18. This represented a non-union share (based on prime contractors only) of 37.4%. It is to be stressed, however, that the 37.4% estimate over-states the non-union share since it does not take account of sub-contracting by non-union prime contactors to unionized sub-contractors. Appendix II shows clearly that when sub-contracting is taken into account, the unionized share rises. However, it is not possible to be precise about the amount of the increase in the unionized share since there is no data on the value of sub-contracted work.

Further examination of the data in Figure No. 7 shows that of the 89 ICI projects that were awarded to unionized prime contractors, non-union contractors were the runner-up bidder in 24 of the projects. Of the 50 projects awarded to non-union contractors, unionized contractors were the runner-up bidder in 17 of the projects. These data suggest a significant non-union presence in the competition for prime contracts.

Figure No. 7
ICI (Non-Residential Building) Construction Projects:
Prime Contractor Summary

Number of Projects	139	
Number of Projects with Winning Bid Information	139	
Total Awarded Value of Projects	$132,758,095.97	
Awarded to Unionized Contractors		
No. of Projects	89	64.5%
Awarded Value	$83,131,803.79	62.6%
Non-Union Contractors Second Lowest	24	
Awarded to Non-Union Contractors		
No. of Projects	50	36.0%
Awarded Value	$49,626,292.18	37.4%
Unionized Contractors Second Lowest	17	

7. Why does the Non-Union Labour Cost Advantage *not* translate into More Winning Bids for Non-Union Contractors?

As discussed earlier, non-union contractors who pay only the rates in the Fair Wage Schedule would have a labour cost advantage of approximately 24% over their unionized competitors. This, in turn, would translate into a cost advantage of somewhere between 8.0% and 9.4%. One would have expected this labour cost advantage to be reflected in a greater non-union share of City construction than is indicated by the data used in this study. The data collected in this study do not support any firm conclusions on why the non-union share is lower than might be expected. The explanations offered below, therefore, should be regarded as possible, but not proven:

First: some non-union contractors match (or almost match) union wages and also provide benefits, at least to their core employees. While these non-union contractors would still enjoy a labour cost advantage, that advantage would be less than the 24% difference between the Fair Wage Schedule and the unionized wage and benefit package

Second: non-union contractors may mark up their labour costs by a higher amount. That is to say, some non-union contractors may enjoy a higher profit margin on their work.

Their labour cost advantage therefore would translate into a higher profit margin, rather than a lower bid.

Third: unionized contractors invest heavily in training. Virtually all of the unionized trades in the GTA operate sophisticated training centres to improve and update the skills of their members. In most cases, these training centres are financed by a negotiated employer contribution and managed by a joint union/employer board of trustees. In construction, investment in training yields a productivity dividend. As a result, unionized contractors may enjoy a productivity advantage over their non-union competitors who often invest less in training and do not have access to training centres. For unionized contractors, this productivity advantage would translate into using less labour, paying for fewer hours, and doing less re-work.[6]

Fourth: related to their substantially greater investments in skills training, unionized employers are also significant investors in the apprenticeship system. In the long run, this investment also translates into a more productive labour supply and may support a union productivity advantage.

Fifth: there may be differences in health and safety performance between union and non-union contractors. Under the WSIB's experience-rating system, the net WSIB contributions of better performing contractors would be lower. It should be stressed however, that while there is some data to support this hypothesis, there is no comprehensive data that compares health and safety performance by union and non-union construction employers.[7]

8. How does the Fair Wage Policy affect Construction Procurement?

An important conclusion from this study is that the City's Fair Wage Policy might better be understood as a Fair Practices Policy. Understanding the Fair Wage Policy as a Fair Practices Policy could contribute to a constructive discussion on the Policy's future.

[6] 'Re-work' arises when a job is not performed according to specification or accepted quality standards. Eliminating the need for 're-work' is a major source of productivity gains in the construction industry.

[7] The only study of which we are aware is a comparison of lost-time claims in the electrical and mechanical rate groups. This study was conducted by the Ontario Construction Secretariat based on 1993-1998 data. The following table summarizes this research:

Lost-Time Injuries per 1,000 Workers				
	Electrical		Mechanical	
	Union	Non-Union	Union	Non-Union
1993	12.1	21.7	15.2	28.0
1994	10.6	21.6	15.0	30.0
1995	9.2	19.4	9.8	24.2
1996	8.7	18.0	9.0	21.8
1997	7.4	15.8	9.9	22.8
1998	5.5	14.2	7.7	20.6

A distinctive feature of the City of Toronto's approach to procurement is that it is proactive, rather than complaint based. Contractors who are bidding on City work know that their pay schedules and their payroll are subject to scrutiny. This has an important consequence. For contractors who comply with legislated labour standards and other statutory obligations (WSIB, CPP, EI, source deductions), this scrutiny poses no difficulties. However, contractors who are non-compliant are understandably reluctant to have their employment practices scrutinized lest this scrutiny trigger a subsequent review by the WSIB or Canada Revenue Agency. In other words, the City's proactive enforcement of its Fair Wage Policy has the unintended, but highly desirable effect, of being a proactive enforcement of fair practices, *i.e*., compliance with legislated labour standards and other statutory obligations. This is especially important in the construction industry where many contractors improperly style their workers as 'independent operators' to evade legislated labour standards and other statutory obligations associated with being an employer.[8] This practice is so widespread that it has become embedded in the construction industry.

Previous work undertaken by the Ontario Construction Secretariat has concluded that, in the construction industry, there is widespread non-compliance on the part of many construction employers with legislated labour standards, statutory requirements for making contributions to WSIB, EI and CPP, and requirements to deduct income tax at source.[9] In the renovation sector, the most common strategy is to pay workers in cash. In other sectors (*e.g*., civil and ICI), the most common evasion strategy is for an employer to style its workers as 'independent operators' rather than as employees, even though the actual substance of the relationship is an employer/employee relationship. By styling workers as 'independent operators', a construction employer can avoid contributions to WSIB, EI and CPP and also escapes obligations under the *Employment Standards Act* related to vacation pay, statutory holidays and overtime. While the improper styling of workers as 'independent operators' is not lawful, in the construction industry, it is exceedingly difficult to document and prove, given the transitory and project-based nature of construction work.

[8] 'Independent Operator' is a term used in workers compensation systems. An 'independent operator' is a person who is engaged as a 'sub-contractor' and who does not employ any other persons.

[9] Ontario Construction Secretariat, *Estimates of the Size of the Underground Economy in Ontario's Construction Industry* (2010)

In previously published studies, the Ontario Construction Secretariat, estimated that a construction employer who improperly styles workers as 'independent operators' can realize labour cost savings of 20% to 33% even against legitimate non-union contractors.[10] The Ontario Construction Secretariat estimated that the total losses to governments and government agencies from 'underground economy' practices such as styling workers who are actually employees as 'independent operators' is $1.4 to $2.4 billion annually.

It would be a serious mistake to believe that the practice of improperly styling workers as 'independent operators' is confined to a small minority of 'fly-by-night' contractors. The City had a vivid example on Christmas Eve 2009 of a mainstream contractor that styled its workers as 'independent operators' so as to evade legal obligations. Four construction workers employed by Metron Construction were killed when their scaffolding platform broke apart. The workers were not harnessed and consequently fell to their death. Metron Construction had a record of non-compliance with the *Occupational Health and Safety Act*. The company hired these workers (who were undocumented immigrants) as 'independent operators' rather than as employees. Managers in the company have since been criminally charged.[11]

The last thing a non-compliant contractor wants is a spot-light aimed at its hiring and compensation practices. By requiring prospective contractors to demonstrate compliance with the Fair Wage Policy, the City's current tendering practices discourage non-compliant contractors from bidding on City work. In other words, the City's proactive enforcement of its Fair Wage Policy functions like an enforcement of Fair Practices. If the City were to eliminate its proactive enforcement of Fair Practices, it is virtually inevitable that some City work would be awarded to contractors who improperly style their workers as 'independent operators'. In addition to sanctioning underground practices, this would erode health and safety practices on City work, weaken investment in skills training and apprenticeship, and provide scope for underground practices that improperly reduce contributions to WSIB, EI, CPP and the income tax system.

[10] The following table sets out the detailed calculations in support of this estimate:

	Electrician	Inside Finishing	Masonry	Roofer	Form Work / Demolition
Statutory Contributions:					
• WSIB premiums	3.25%	6.75%	11.15%	13.30%	16.50%
• CPP - employer contributions	4.95%	4.95%	4.95%	4.95%	4.95%
• EI - employer contributions	2.42%	2.42%	2.42%	2.42%	2.42%
• EHT (at maximum rate)	1.95%	1.95%	1.95%	1.95%	1.95%
Employment Standards Act:					
• Statutory Holidays	3.46%	3.46%	3.46%	3.46%	3.46%
• Vacation Pay	4.00%	4.00%	4.00%	4.00%	4.00%
Total Avoided Payroll Costs	**20.03%**	**23.53%**	**27.93%**	**30.08%**	**33.28%**

[11] A review of projects described on Metron Construction's website will confirm that the company is a mainstream contractor: www.metronconstruction.com

9. What would be the Effect of Eliminating Proactive Enforcement of Fair Practices?

In the construction industry, there are two categories of contractors. The first category – which includes union and many non-union contractors – complies with legislated labour standards, meets its obligations to the WSIB, EI and CPP, adheres to good health and safety practices, and invests in apprenticeship and skills training. These are the contractors that currently do City work.

There is a second category of contractors that evade legislated labour standards and circumvent obligations to WSIB, EI and CPP by improperly styling their workers as 'independent operators'. These contractors invest nothing in apprenticeship or skills training. As the Metron case shows, they often cut corners on health and safety. The City's proactive enforcement of its Fair Wage Policy discourages this second category of contractors from bidding on City work. These contractors rightly fear the possible consequences of proactive scrutiny of their employment practices.

Eliminating or weakening the City's proactive enforcement of Fair Practices would inevitably increase the likelihood that some of the City's competitively tendered work would be awarded to contractors that do not comply with their legislated obligations as employers. Metron Construction, after all, could just as easily have been working for the City if there were no proactive enforcement of fair practices.

In addition to transparency and a level playing field for competitive suppliers, procurement policy should also reflect the City's broader policy goals. These goals must surely include a strong and vital apprenticeship system to provide a career pathway for young workers. More broadly, the City, like any level of government, has an interest in fostering a culture of compliance, not a culture of evasion.

10. Conclusions and Observations

The core conclusion of this study is that the City's proactively enforced Fair Wage Policy functions like a 'Fair Practices Policy'. Understanding the Fair Wage Policy in this light changes how we understand its importance for the construction industry and for the workers who are employed in that industry.

By shining the light of public scrutiny on employment practices, the City's *proactive* Fair Wage Policy:

- encourages good health and safety performance,
- fosters investment in apprenticeship, and
- ensures compliance with all obligations under the *Workplace Safety and Insurance Act*, the Employment Insurance and Canada Pension Plan systems, the *Employment Standards Act*, and the *Income Tax Act*.

As a result, the City's proactive Fair Wage Policy is a powerful deterrent to 'underground' practices on City work. The importance of this cannot be underestimated. By ensuring that there is no room for 'underground' practices on City work, the City's proactive Fair Wage Policy maintains a level playing field on competitively tendered construction work. The proactive Fair Wage Policy ensures contractors compete on quality and efficiency, not by cutting corners on health and safety, training, and compliance with other statutory obligations.

The City of Toronto, on its own, cannot reverse the 'underground' economy in the construction industry. But there is an important role for the City, as there is for all levels of government, in combating 'underground' practices. The City's proactive Fair Wage Policy – which is best understood as a proactive 'Fair Practices Policy' – is at the heart of how the City of Toronto ensures a level playing field for competitively tendered construction work. It would be a serious error to under-estimate the consequences of dismantling this proactive 'Fair Practices Policy'.

Recognizing how the City's proactive Fair Wage Policy actually functions as a proactive 'Fair Practices Policy' fact may assist in framing future discussion on procurement policy.

This report also shows that the pervasiveness of sub-contracting in the ICI sector poses particular challenges. Unions that are in contractual relations with the City need to ensure that work that is within their jurisdiction is performed by unionized sub-contractors.

This report also shows that there is a significant non-union presence in the market for City of Toronto construction work. Fully 29% of the contractors that bid on City work in 2010 were non-union. In the ICI sector, 37% of the work awarded to prime contractors was awarded to non-union contractors, though the overall non-union share is almost certainly lower than 37% when sub-contracting is taken into account. The current predominance of unionized contractors should not be taken for granted. It would be appropriate, therefore, for the unionized sector to regularly review trends in City work and to remain focused on the need to strengthen competitiveness by continually investing in apprenticeship, skills upgrading, and health and safety training.

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Appendix I

Analysis of Sub-Contracting of Tendered ICI Work by the City of Toronto

1. Purpose of this Report and Description of Methodology

This report was commissioned by the Ontario Construction Secretariat (OCS). The OCS was established in 1993 through an amendment to the Ontario *Labour Relations Act*. The OCS represents the 25 building trades unions and their signatory contractors operating in the industrial, commercial and institutional (ICI) sector of the construction industry.[12]

In a previous report, *The Impact of Fair Wage on Competitive Tendering at the City of Toronto*, it was found that, in 2010, the City awarded 139 ICI projects with a total value of $132,758,095.97. Analysis of these projects showed that 89 (64.5%) were awarded to unionized contractors. On a value basis, unionized contractors were awarded 62.6% of the work. Two policy and legal factors influenced the competitive context in which these projects were awarded. First, the awarded work was all subject to the City's Fair Wage Schedule. The previous report showed, however, that the Fair Wage Schedule that applied to this tendered work was approximately 24.1% *below* the negotiated union wage schedule in the ICI sector. The second factor influencing the competitive context is the fact that the City is party to collective agreements with a number of the construction trades. These collective agreements restrict the City's ability to award work that is covered by the collective agreements to non-union contractors. Figure No. 1 shows the ICI construction trades that are in contractual relations with the City of Toronto.

Figure No. 1 Construction Trades in Contractual Relations with the City of Toronto for Performance of ICI Construction Work
Asbestos/Insulation
Bricklaying/Masonry
Carpentry
Electrical
Glazing
Mechanical
Painting
Sheet Metal
Iron Workers

A common feature of ICI construction is the use of sub-contractors. In many cases, projects are awarded to a General Contractor who sub-contracts various segments of the project to Trade Contractors. Some General Contractors are wholly unionized, in that they are in contractual relations with all of the construction unions in the GTA and therefore obliged to sub-contract work only to Trade Contractors that are unionized. Other General Contactors are in contractual relations with

[12] Additional information on the OCS can be found at: www.iciconstruction.com

only some of the construction unions. These General Contractors are restricted to using unionized Trade Contractors in some trades but are free to sub-contract to non-union Trade Contractors in other trades. Finally, there are General Contractors that have no contractual relations with any of the construction unions. These General Contractors are subject to no restrictions on their sub-contracting. It would be an error, however, to infer that non-union General Contractors only use non-union Trade Contractors. While some non-union General Contractors may operate in that way, many non-union General Contractors do award sub-contracts to unionized trade contractors.

The importance of sub-contracting in the ICI sector introduces a complicating factor into the analysis of awarded tenders. Work that was awarded to a non-union General Contractor may have been sub-contracted to unionized Trade Contractors. This would be required if the sub-contracted work was covered by one of the ICI collective agreements to which the City is a bound party.

The purpose of this report is to examine in greater detail the patterns of sub-contracting. As in the previous report, the analysis is based on bid information for projects performed in 2010. The bid information was supplied to Prism Economics and Analysis pursuant to a Freedom of Information request. We understand that the bid information was compiled at the time of the formal bid openings. To the best of our understanding, all work was awarded to the lowest bidder. We do not have information on any subsequent amendments to the construction contracts ('change orders') which may have changed the costs from the bid amount. The bid information identifies sub-contractors that were named in the original bid. We do not have information on any sub-contractors that may have been engaged, with City permission, subsequent to the awarding of the project. Nor do we have information on the value of the work in each project that was sub-contracted. The bid data provides only information on the total value of a project. The Prime Contractors and the Sub-Contractors that performed ICI construction for the City in 2010 are categorized as General or Trade Contractors and as unionized or non-union.

2. Terminology

The construction industry uses two sets of terms to characterize contractors' roles in a construction project. The first of these is 'Prime Contactor' and 'Sub-Contractor'. The second is the distinction between a 'General Contractor' and a 'Trade Contractor'.

Prime Contractors and Sub-Contractors

A 'Prime Contractor' is a contractor who is awarded overall responsibility for completing a construction project. The 'Prime Contractors' enters into a construction contract with the owner/developer. For the projects reviewed in this report, the owner/developer is the City.

A 'Sub-Contractor' enters into a contract with a 'Prime Contractor' to perform segments of the work awarded to the 'Prime Contractor'.

A 'Prime Contractor' may or may not use 'Sub-Contractors' for specific segments of construction work in a project. That is to say, in some cases, a 'Prime Contractor' performs all work associated with a project. Notwithstanding any sub-contracting, a 'Prime Contractor' always remains responsible for completion of the construction project, subject to the original terms on which the project was awarded.

In some construction projects, the 'Prime Contractor' formally tenders work that is to be sub-contracted. In other projects, the 'Prime Contractor' invites bids from a select number of 'Trade Contractors'. In still other projects, the 'Sub-Contractors' are 'carried' by the 'Prime Contractor'. That is to say, the 'Sub-Contractors' are identified in the Prime Contractor's original bid.

In the projects examined in this report, no information was obtained on the terms of the contracts between 'Prime Contractors' and 'Sub-Contractors'.

General Contractors and Trade Contractors

'General Contractors' are contractors that specialize in being 'Prime Contractors' on projects that usually involve multiple construction trades. Some 'General Contractors' directly employ construction workers to perform some of the construction work on a project, while sub-contracting other segments of the project to 'Trade Contractors'. Other 'General Contractors' operate solely in a project management capacity and sub-contract all of the construction work to 'Trade Contractors'.

'Trade Contractors' are contractors that specialize in a particular type of construction work, such as electrical work, mechanical work (plumbing, HVAC), interior finishing, excavation, forming, *etc*. In ICI construction, a large proportion of the work performed by 'Trade Contractors' is performed on the basis of being a sub-contractor to a 'General Contractor'. However, in some cases, ICI work is awarded directly to a 'Trade Contractor' who is, therefore, also a 'Prime Contractor', rather than a 'Sub-Contractor'.

'Trade Contractors' may sub-contract specific segments of work to other 'Trade Contractors'. This practice is sometimes captioned as 'sub-sub-contracting'. Some 'Trade Contractors' also act as 'General Contractors', although this is not the norm.

Categorizing Contractors for this Report

- 'Prime Contractors' are the contractors that were awarded ICI construction work by the City.
- 'Sub-contractors' are contractors that were carried by 'Prime Contractors' in the initial bid, *i.e*., they were identified in the initial bid documents as 'Sub-Contractors'.
- 'General Contractors' are contractors that either identify as such on their websites or who appear to have regularly employed 'Sub-Contractors' to perform City work for which they were the 'Prime Contractor'.
- 'Trade Contractors' are contractors that self-identify as delivering a construction service in a single trade or a narrowly defined service (*e.g*., mechanical).
- 'Other Contractors' refers to contractors that provide specialized technical services. In some cases, these specialized technical services involve employing construction tradespersons. In other case, the specialized services do not involve construction tradespersons.

3. Overview of ICI Construction Projects Tendered by the City in 2010

In 2010 the City of Toronto awarded 139 ICI contracts to 94 Trade or General Contractors. The value of this work totalled $132,758,095.97.

Figure No. 2 provides a summary of the 139 awarded ICI projects in 2010 and whether those projects were awarded to a 'General Contractor' or 'Trade Contractor'. Figure No. 3 provides the same summary in terms of the value of the awarded ICI projects.

Figure No. 2
Summary of the Number of ICI Projects Awarded

Prime Contractor Profile	Number of Awarded Projects	Percent of Total Projects	Average Project Value
General	**55**	**40%**	**$1,713,009**
Non-Union	27	49%	$1,351,349
Union	28	51%	$2,061,752
Trade	**78**	**56%**	**$447,984**
Non-Union	18	23%	$534,765
Union	60	77%	$421,950
Other	**6**	**4%**	**$599,977**
Non-Union	5	83%	$702,818
Union	1	17%	$85,775
Total	**139**	**100%**	
Non-Union	50	36%	2,588,932
Union	89	64%	2,569,476

Figure No. 3
Summary of the Value of ICI Projects Awarded

Prime Contractor Profile	Value of Awarded Projects	Union/ Non-Union Share	No. of Contractors
General	**$94,215,483**		**36**
Non-Union	$36,486,425	39%	19
Union	$57,729,059	61%	17
Trade	**$34,942,749**		**52**
Non-Union	9,625,779	28%	14
Union	25,316,971	72%	38
Other	**$3,599,864**		**6**
Non-Union	$3,514,089	98%	5
Union	$85,775	2%	1
Total	**$132,758,096**	-	**94**
Non-Union	49,626,292	37%	41
Union	83,131,804	63%	53

General Contractors compared to Trade Contractors

Figure No. 2 shows that General Contractors were awarded 40% of the total number of ICI projects, compared to 56% for Trade Contractors and 4% for Other Contractors. However, the average size of the projects won by General Contractors was substantially larger. Consequently, on a value basis, Figure No. 3 shows that General Contractors won 71% of the work compared to 26% for Trade Contractors and 3% for Other Contractors. The average value of a project awarded to a General Contractor was $1,713,009 while the average value of a project awarded to a Trade Contractor (as a Prime Contractor) was $447,984.

General Contractors: Union compared to Non-Union

Figure No. 2 shows that unionized General Contractors won 28 tendered projects compared to 27 for non-union General Contractors. On a value basis, however, Figure No. 3 shows that unionized General Contractors performed 61% of the work awarded to General Contractors. The tender data suggest that the unionized General Contractors may undertake somewhat larger projects. This is consistent with the scale advantages that arise from access to union dispatch systems which ensure an available supply of skilled, trained and certified labour. The average value of projects undertaken by unionized General Contractors was $2,061,752 compared to $1,351,349 for non-union General Contractors.

Trade Contractors: Union compared to Non-Union

Virtually three-quarters (77%) of the ICI projects awarded by the City to Trade Contractors were awarded to unionized Trade Contractors. On a value basis, unionized Trade Contractors performed 72% of the ICI work awarded to Trade Contractors. The average value of projects won by unionized Trade Contractors was $421,950 compared to $534,765 for non-union Trade Contractors.

Comparison of Work based on Prime Contractor Status: Union/ Non Union

Overall, looking only at the value of work based on the status of the Prime Contractor, the unionized contractor share of the City's ICI work was 63%. As will be shown below, however, the unionized contractor share appears to increase when account is taken sub-contracting by non-union Prime Contractors to unionized Sub-Contractors.

4. Sub-Contracting of ICI Construction Work

At least one Sub-Contractor was included on the successful tender for 76 (55%) of the 139 ICI projects. These 76 projects accounted for 74% of total ICI work tendered by the City.

Exhibit 4 provides a summary of the 76 projects that were awarded with a Sub-Contractor that was identified in the winning bid.

Figure No. 4 Summary of the Number and Value of ICI Projects Awarded to a Prime Contractor with an Identified Sub-Contractor		
Prime Contractor Profile	**Awarded Project Value**	**No. of projects**
General	**$83,649,015**	**42**
Non-Union	$30,481,785	23
Union	$53,167,231	19
Trade	**$14,224,154**	**32**
Non-Union	$6,801,080	11
Union	$7,423,075	21
Other	**$763,565**	**2**
Non-Union	$763,565	2
Total	**$98,636,735**	**76**
Non-Union	$38,046,430	36
Union	$60,590,305	40

Comparing Figure No. 2 and Figure No. 4, it can be seen that of the 55 projects awarded to General Contractors, three quarters (42) of these involved a sub-contractor. Conversely, in a quarter of the projects awarded to General Contractors, all of the work was performed by the General Contractor. Figure No. 3 shows that the total value of work awarded to General Contractors was $94,215,483. Of this work,, 88% ($83,649,015) entailed the use of Sub-contractors.

The picture is different for Trade Contractors: 78 projects were awarded to Trade Contractors, but only 32 of these involved sub-contractors. On a value basis, Figure No. 3 shows that Trade Contractors were awarded $34,942,749 of the work. Only 41% of this work ($14,224,154) involved Sub-contractors. Non-union Trade Contractors engaged Sub-contractors on about half of their projects (11 out of 21); unionized Trade Contractors engaged Sub-Contractors on a somewhat smaller proportion of their projects – 21 out of 57.

Figure No. 5 shows that of the 76 ICI projects identified in Exhibit 4, where Sub-contractors were used, 57 of these (75%) involved using *only* unionized contractors. On a value basis, these projects accounted for 65% of the total value of projects which involved sub-contracting. Figure No. 5 also shows that of the 57 projects where all sub-contracting was to unionized contractors, the Prime Contractor was a non-union General Contractors in 19 of the projects, a non-union Trade Contractor in 7 of the projects, and a contractor classed as 'Other' in 2 projects. In more than three-quarter (77%) of cases where a *non-union* contractor is the Prime Contractor and there is a Sub-Contractor carried by the Prime Contractor's bid, the Sub-Contractors are exclusively unionized contractors.

Figure No. 5a ICI Projects in which Sub-Contracting was Exclusively to Unionized Sub-Contractors			
Prime Contractor Profile	**Awarded Project Value**	**No. of Projects**	**No. of Union Sub-contractors**
General	**$54,728,693**	**28**	**116**
Non-Union	$26,931,009	19	75
Union	$27,797,684	9	41
Trade	**$8,627,038**	**27**	**47**
Non-Union	$1,396,213	7	15
Union	$7,230,825	20	32
Other	**$763,565**	**2**	**6**
Non-Union	$763,565	2	6
Total	**$64,119,296**	**57**	**169**

Figure No. 5b ICI Projects with No Sub-Contracting				
Prime Contractor Profile	**Awarded Project Value**	**% of Total Value**	**Number of Projects**	**% of Total Number**
General	**10,566,468**	**31%**	**13**	**9%**
Non-Union	*6,004,640*	57%	*4*	31%
Union	*4,561,828*	43%	*9*	69%
Trade	**20,718,595**	**61%**	**46**	**33%**
Non-Union	*2,824,699*	14%	7	15%
Union	*17,893,896*	86%	*39*	85%
Other	**2,836,299**	**8%**	**4**	**3%**
Non-Union	2,750,524	97%	3	75%
Union	85,775	3%	1	25%
Total	**$34,121,361**	**100%**	**63**	**100%**
Non-Union	11,579,863	34%	14	22%
Union	22,541,498	66%	49	78%

As noted earlier, Figure No. 2 shows that 55 projects were awarded to General Contractors. Figure No. 5b shows that of these 55 projects, only 13 (24%) did not involve any Sub-Contractors.

In the 46 cases (of a total 78) where Trade Contractors were the Prime Contractor *and* there was no Sub-Contracting , unionized Trade Contractors accounted for 85% of the total number, and 86% of the value of awarded tenders.

Figure No. 6 shows that there were 276 Trade Contractors that operated as Sub-Contractors across the 76 ICI projects where a Sub-Contractor was identified in the initial bid. On average, each the 76 projects had 3.6 Sub-Contractors.

Of the 276 Trade Contractors who sub-contracted work from Prime Contractors, 254 were unionized and 22 were non-union.

Figure No. 6 ICI Projects in which Sub-Contractors were identified in the Initial Bid of the Winning Prime Contractor						
Prime Contractor Profile	**Number of Sub-Contractors**		**Average Number of Sub-Contractors**		**Sub-Contractor Totals**	
	Union	**Non-union**	**Union**	**Non-union**	**Total Number of Sub-Contractors**	**Average Number of Sub-Contractors**
General	**193**	**16**	**4.6**	**0.4**	**209**	**5.0**
Non-Union	102	4	4.4	0.2	106	4.6
Union	91	12	4.8	0.6	103	5.4
Trade	**55**	**6**	**1.7**	**0.2**	**61**	**1.9**
Non-Union	22	5	2.0	0.5	27	2.5
Union	33	1	1.6	0.0	34	1.6
Other	**6**	**0**	**3.0**	**0.0**	**6**	**3.0**
Non-Union	6	0	3.0	0.0	6	3.0
Total	**254**	**22**	**3.3**	**0.3**	**276**	**3.6**

Figure No. 6 also shows that both unionized and non-union General Contractors sub-contracted work to *non-union* Trade Contractors. Specifically, the unionized General Contractors sub-contracted work to 91 unionized Trade Contractors and 12 non-union Trade Contractors. The non-union General Contractors sub-contracted work to 102 unionized Trade Contractors and 4 non-union Trade Contractors. In relative terms, the unionized General Contractors were greater users of non-union Trade Contractors than were the non-union General Contractors.

Figure No. 7 breaks down the City's tendered ICI Projects by the type of work performed.

Figure No. 7 Awarded ICI Projects by Type of Construction				
			Bids with Sub-Contractors	
Type of Contractor Work	**Awarded Project Value**	**No. of Projects Awarded**	**No. of Successful Bids**	**% of Successful Bids by Construction Type**
ICI Building Construction	$45,434,830	37	33	89%
Consortium (Atlas Corp)	$30,686,450	3	3	100%
Water, Wastewater	$8,784,823	7	4	57%
Masonry/Restoration	$7,198,837	9	7	78%
Civil, Site Preparation	$7,154,677	9	5	56%
Electrical	$6,942,939	17	3	18%
Mechanical	$6,582,062	20	14	70%
Non-construction	$5,556,889	10	2	20%
Environmental	$4,339,817	2	1	50%
Mechanical/Electrical	$3,363,708	8	0	0%
Heavy Civil	$1,535,335	2	1	50%
Demolition	$1,516,880	2	0	0%
Roofing	$1,514,712	5	2	40%
Elevator	$1,127,511	1	0	0%
Sheet Metal Restoration	$245,296	1	1	100%
Fire Protection	$234,500	1	0	0%
Painting	$142,150	1	0	0%
Glass	$36,757	1	0	0%
Insulation	$20,000	1	0	0%
Total	**$132,418,172**	**137**	**76**	**55%**

As can be seen in Figure No. 7, sub-contracting is most evident in general ICI building construction (33 projects out of 37), mechanical work (14 projects out of 20), masonry/restoration (7 projects out of 9), and water/wastewater (4 projects out of 7).

5. Conclusions and Observations

The foregoing analysis of ICI work tendered by the City shows that sub-contracting is central to ICI construction: on a value basis, projects that involved sub-contracting accounted for 74% of tendered ICI construction. These projects had a total value of $98,636,735. Two thirds of this work (65%) involved sub-contracting exclusively to unionized Sub-Contractors.

It is important to note that sub-contracting to unionized contractors is a common practice of both non-union General Contractors and non-union Trade Contractors: in more than three-quarter (77%) of cases where a *non-union* contractor is the Prime Contractor and there is a Sub-Contractor carried by the Prime Contractor's bid, the Sub-Contractors are exclusively unionized contractors.

As noted at the beginning of this analysis of sub-contracting, data are not available on the value of work performed by Sub-Contractors. In many cases, this information is proprietary to the respective Prime Contractors and Sub-Contractors. It is not possible, therefore, to calculate the amount of sub-contracted work performed by unionized contractors and non-union contractors. However, the data strongly suggest that the share of unionized contractors in the total value of ICI work is *greater* than the 62% share that can be computed by looking at only the union/non-union share of Prime Contractors (Figure No. 3). The unionized share of ICI work is likely over 75% and may be in the same range as other sectors, *i.e.*, over 80%.

It is clearly important to Fair Wage policy – and more broadly to a Fair Practices policy – for the City to continue to monitor and audit sub-contracting.

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Appendix II

List of Winning Contractors for Tendered ICI Work

Contractor Name	Total Value of Awards	Number of Awards	Union Status
The Atlas Corp	$30,686,450	3	Union
Kenaidan Contractors	$7,661,200	1	Non-Union
Frank Pellegrino General	$6,613,370	3	Union
New Resources General	$5,710,476	1	Non-Union
CIR General Contracting	$4,348,760	2	Non-Union
Alba Tech Building Restoration	$4,173,966	1	Non-Union
Terrasan Environmental	$4,121,817	1	Union
Steelcore Construction	$3,858,000	1	Non-Union
Somerville Construction	$3,280,705	1	Union
Dig-Con International	$3,124,010	2	Union
Dineen Construction	$2,972,000	1	Union
Heddle Marine Service	$2,514,112	1	Non-Union
A-Plus General Contractors	$2,276,400	1	Union
Orion Construction	$2,074,640	1	Non-Union
Mopal Construction	$1,998,929	4	Union
Beacon Utility	$1,873,461	4	Union
Ozz Electric	$1,859,197	2	Union
Laurin General Contractor	$1,835,586	1	Non-Union
Black & McDonald	$1,754,279	4	Union
HN Construction	$1,624,900	4	Non-Union
Guild Electric	$1,617,520	4	Union
Cedar Springs Landscaping	$1,552,449	3	Non-Union
Trade Mark Industrial Inc	$1,500,838	2	Union
Pop's Restoration	$1,444,761	3	Non-Union
Martinway Contracting Ltd	$1,438,520	2	Non-Union
JMX Contracting	$1,392,880	1	Non-Union
Loc-Pave Construction	$1,341,700	1	Union
Brown Daniels	$1,323,736	1	Non-Union

W.A. Stephenson	$1,320,000	1	Union
Phoenix Restoration	$1,245,525	3	Union
Ranking Construction	$1,181,513	1	Non-Union
Morosons Construction	$1,149,749	1	Union
Kone Elevator	$1,127,511	1	Union
Servocraft Ltd	$1,110,429	3	Union
Joe Pace & Sons	$1,026,695	2	Non-Union
Semple Gooder Roof	$1,016,710	1	Union
Ferdom Construction	$930,288	3	Non-Union
LCD Mechanical	$905,005	3	Union
Clane Restoration	$894,210	2	Union
Grenwitch General Contracting	$783,400	1	Union
B&B Electric Co	$765,086	3	Union
Bomben Plumbing	$713,395	4	Union
Davroc Test Lab	$711,500	1	Non-Union
Active Mechanical	$703,150	2	Union
Beta & Associates	$689,075	1	Non-Union
Universal Engineered Restoration	$591,155	1	Non-Union
Huber Technology	$549,594	1	Non-Union
Vantage Electric	$499,000	1	Union
H.S.I. Services	$496,377	1	Union
Taylor Wakefield	$468,670	1	Non-Union
Pine Valley Enterprises	$465,870	1	Union
Royal Windsor Mechanical	$465,700	1	Union
Stacey Electric	$463,029	1	Union
Pegah Construction	$393,389	1	Non-Union
Clifford Restoration	$353,000	1	Union
Dufferin Roofing	$342,200	1	Non-Union
Sanscon Construction	$322,594	1	Non-Union
Kudlak-Baird Ltd	$304,745	2	Union
Continental Air Systems	$297,300	1	Union
GL & V Canada Inc	$269,300	1	Non-Union
Canada Construction	$264,000	1	Union
R. Chad General Contracting	$263,000	1	Non-Union

Cosar Construction	$258,820	1	Union
Heather & Little Ltd	$245,296	1	Union
Vipond Inc	$234,500	1	Union
The Ron Boyko Group	$218,000	1	Union
Aslo Power Technology	$194,012	1	Non-Union
Marbridge Construction	$193,635	1	Union
Superior Air Systems	$190,299	1	Union
Brook Restoration	$185,100	1	Union
Limen Group	$173,424	1	Union
Trisan Construction	$166,500	1	Union
Air Heat Mechanical Services	$163,495	1	Non-Union
Brady & Seidner Associates Ltd	$159,500	1	Union
Decora Building Restoration	$147,800	1	Non-Union
P.S. Painting	$142,150	1	Union
Priestly Demolition	$124,000	1	Union
Municipal Mechanical Contracting	$104,400	1	Union
Gerrits Drilling & Engineering	$92,233	1	Non-Union
Bell Canada	$85,775	1	Union
Cooksville Interiors	$74,490	1	Non-Union
A-Seal Roofing	$65,900	1	Union
Northern Well Drill	$60,390	1	Non-Union
Zerem Electrical	$59,900	1	Union
T. Hamilton & Son Roofing	$59,000	1	Non-Union
Van Bots	$45,000	1	Union
Butler Inspection Group	$42,400	1	Non-Union
MN Dynamic Construction	$40,422	1	Non-Union
Dart Glass	$36,757	1	Union
Direct Energy Service	$35,866	1	Union
Solar Roofing	$30,902	1	Non-Union
R. Galati Contracting	$28,190	1	Non-Union
York Sheet Metal	$23,114	1	Union
Furcon Insulation	$20,000	1	Union

Appendix III

Comparison of Union Wage Package (2010-2011) to The Wage Package mandated by the City's Fair Wage Schedules

		Fair Wage	Union	$ Difference	% Difference
Heavy Construction					
1	Labourer	$38.85	$48.09	$9.24	23.8%
2	Scootcrete, Sheeting and Shoring	$39.12	$48.36	$9.24	23.6%
3	Reinforced Concrete, Formsetter, Jackhammer	$39.18	$48.42	$9.24	23.6%
4	Pipe Installation	$39.29	$48.52	$9.23	23.5%
5	Carpenter, Form-Builder	$41.05	$50.29	$9.24	22.5%
6	Welder	$62.48	$71.72	$9.24	14.8%
7	Flag person	$24.65	$33.89	$9.24	37.5%
8	Casual Watchperson (50 hours/ hourly equivalent)	$22.89	$28.98	$6.09	26.6%
	Heavy Construction Average		Average	$8.85	**24.5%**
Road Building					
	Labourers				
1	Labourers	$35.80	$44.88	$9.08	25.4%
2	Concrete Workers, Screed	$35.80	$46.54	$10.74	30.0%
3	Grade, Asphalt Raker	$37.45	$46.54	$9.09	24.3%
4	Traffic Control	$27.00	$36.09	$9.09	33.7%
5	Truck Driver	$38.87	$45.47	$6.60	17.0%
	Operating Engineers				
6	Shovels, Backhoes	$39.26	$47.00	$7.75	19.7%
7	Clam Operator	$38.97	$47.97	$9.00	23.1%
8	Pitman Operator	$38.75	$47.75	$9.00	23.2%
9	Bulldozer (D and over)	$38.60	$47.60	$9.01	23.3%
10	Concrete Paver	$38.49	$47.49	$9.01	23.4%
11	Tractor (Operator Grade B)	$38.31	$47.31	$9.00	23.5%
12	Roller	$37.91	$46.91	$9.00	23.7%
13	Bulldozer (under D4)	$37.83	$46.83	$9.01	23.8%
14	Tractor	$35.96	$44.96	$9.01	25.0%
	Road Building Average		Average	$8.88	**24.2%**

		Fair Wage	Union	$ Difference	% Difference
Utility					
1	Labourers (unskilled)	$35.87	$45.62	$9.75	27.2%
2	Powderperson	$35.92	$45.67	$9.75	27.1%
3	Labourers (semi-skilled)	$35.98	$45.72	$9.74	27.1%
4	Labourers - Skilled - Group 1	$36.03	$45.80	$9.77	27.1%
5	Labourers - Skilled - Group 2	$36.09	$45.83	$9.74	27.0%
6	Labourers - Skilled - Group 3	$36.42	$46.16	$9.74	26.7%
7	Labourers - Skilled - Group 4	$36.97	$46.71	$9.74	26.3%
8	Working Forepeson	$36.80	$46.55	$9.75	26.5%
9	Flagperson	$27.21	$36.97	$9.76	35.9%
10	Watchperson	$25.86	$35.60	$9.74	37.7%
	Utility Average		Average	$9.75	**28.9%**
Sewer					
	Open Cut				
1	Labourers - Pump Person	$36.22	$44.77	$8.55	23.6%
2	Small Mixer Driver	$36.88	$45.43	$8.55	23.2%
3	Pipelayer's Helper, Concrete Finisher	$37.03	$45.59	$8.56	23.1%
4	Caulker	$37.32	$45.87	$8.55	22.9%
5	Pipelayer	$38.42	$46.97	$8.55	22.3%
6	Watchpeson	$25.08	$34.12	$9.04	36.1%
7	Traffic Control	$30.28	$39.33	$9.05	29.9%
	Truck Drivers				
8	Dump Trucks	$36.79	$45.24	$8.46	23.0%
9	Fuel Trucks	$36.90	$45.35	$8.46	22.9%
10	Float Drivers	$37.23	$45.68	$8.46	22.7%
	Operating Engineers				
11	Cranes, Clams	$40.29	$48.39	$8.10	20.1%
12	Grade A Fine Bulldozer	$40.02	$48.12	$8.10	20.2%
13	Heavy Duty Field Mechanic	$39.74	$47.84	$8.10	20.4%
14	Bulldozer, Tractor	$39.63	$47.73	$8.10	20.4%
15	Service Person, Shovel, Compressor	$38.81	$46.91	$8.10	20.9%
16	Rollers	$36.47	$44.58	$8.10	22.2%
	Sewer Average		Average	$8.43	**23.4%**

		Fair Wage	Union	$ Difference	% Difference
ICI					
1	Bricklayers & Stonemasons	$40.55	$48.61	$8.06	19.90%
2	Carpenters	$39.86	$47.63	$7.77	19.50%
3	Cement (Masons)	$37.23	$46.33	$9.10	24.40%
4	Demolition Labourers	$27.17	$39.37	$12.20	44.90%
5	Electrical Workers	$41.65	$54.04	$12.39	29.80%
6	Elevator Constructors	$44.52	$54.08	$9.56	21.50%
7	Glaziers	$36.84	$45.87	$9.03	24.50%
8	Insulators - Asbestos Mechanics	$40.40	$48.91	$8.51	21.10%
9	Iron Workers (Structural)	$39.94	$48.67	$8.73	21.80%
10	Labourers - Builders	$35.62	$43.76	$8.15	22.90%
11	Millwrights	$39.94	$50.14	$10.20	25.50%
	Operating Engineers				
12	1.2(B) Pitman type cranes of 10-ton capacity and over.	$39.58	$49.18	$9.60	24.30%
13	1.3 Operators of: air tuggers used for installation of vessels...	$39.06	$47.62	$8.56	21.90%
14	1.4 Operators of: bulldozers (including 815 type)...	$38.88	$45.77	$6.89	17.70%
15	1.5 Operators - batching & crushing plants, 6 discharge pumps+	$36.31	$43.69	$7.38	20.30%
16	1.6 Operators of: boom trucks, A" Frames	$35.21	$42.94	$7.73	21.90%
17	Drywall Taper (Plasterer)	$38.26	$44.33	$6.07	15.90%
18	Plumbers & Steamfitters	$42.32	$55.77	$13.45	31.80%
19	Refrigeration Mechanics	$44.91	$54.38	$9.47	21.10%
20	Rod Installer	$38.96	$47.21	$8.25	21.20%
21	Roofers	$37.41	$48.78	$11.38	30.40%
22	Sheet Metal Workers	$39.92	$48.59	$8.67	21.70%
23	Sprinkler Fitters	$41.88	$52.93	$11.05	26.40%
24	Restoration Steeplejacks	$29.99	$40.09	$10.10	33.70%
25	Tile & Terrazzo Mechanics	$36.47	$45.34	$8.87	24.30%
26	Painters & Decorators	$36.04	$42.66	$6.62	18.40%
	ICI Average		Average	$9.15	**24.1%**

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