Project Labor Agreement Feasibility Study

Poughkeepsie City School District
Capital Construction Project

ARACE & COMPANY
PLA CONSULTING SERVICES

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Section One

Introduction and Background

Executive Summary

Poughkeepsie City School District's Capital Construction Project (Project) is an eight year, multi-phase program of renovation construction to develop and improve the instructional infrastructure of all District school facilities.

Limits of this Study

Potential cost savings cited in the PFS are intended only as indicators of what might be achieved based on verifiable concessions granted by local unions on prior area PLAs. The goal of the Study is to take a pre-bid snapshot of key labor metrics in the Project's proposed work plan at the time the Study was conducted. This completed PFS does not reflect non-material changes that occur after the Assumptions for the PFS process were accepted by the Client. These changes may include the number of prime trades, duration, Scope or other factors.

Metrics

The total remaining hard construction cost* for the Capital Construction Project, Poughkeepsie City School District (Project), is estimated to be $69.711m, of which 45% ($31.369m) is labor cost**. The Project is expected start construction June 27, 2022 and end August 31, 2028, a duration of 75 calendar months with the actual construction scheduled for 31 of those months.

The 11 primary building trades involved in this Project are carpenter, electrician, iron worker, laborer, mason, operating engineer, painter, plumber, roofer, sheet metal, teamster. The average hourly wage for this Project is $99.54, including the payroll burden (payroll taxes, worker's compensation, unemployment insurance and overhead).

Findings

Based on review of prior local area PLAs, there is precedent under a PLA for this Project to generate approximately $1,920,857 in potential savings. This represents approximately 6.1 % potential savings on labor cost. See page 17 for details.

Additionally, in our view, employing a PLA for the Project would increase labor force continuity and stability, mitigating the potential for labor unrest. By fostering greater labor harmony, a PLA may increase productivity and reduce the risk of accident and injury on the job site.

Arace recommends a PLA for this Project.

**Hard costs exclude escalation, phasing, overhead and profit, insurance, bonds, design and contingencies*

***The roofing contract, Phase 1A of the Project, was bid in June 2021. It's Scope and dollar value are not included in the hard cost cited above. Phase 1B and all subsequent phases constitute the entirety of the subject Project as described above.*

Vendor

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Qualifications

Arace is qualified to conduct this Study because it has delivered 52 Project Labor Agreement (PFS) for public entities including New York State Department of Transportation, Office of General Services and SUNY as well as various county and local governments. The firm has recommended both for and against the use of PLAs, and advised state and county agencies on their use. Arace has negotiated 43 executed PLAs.

Agreement

The Poughkeepsie City School District (PCSD), through its Board of Education (BOE), retained Arace & Company Consulting, LLC (AC) to conduct a Project Labor Agreement Feasibility Study (PFS) regarding utilizing a Project Labor Agreement (PLA) for the District's Capital Construction Project (Project), the subject of this Study.

Scope

The purpose of this PFS is to make a recommendation, based on the research matrix defined below, whether utilizing a Project Labor Agreement (PLA) for the Project would have a positive, negative or neutral impact on its construction, be economical and comply with NYS Labor Law.

Prior area PLAs are reviewed to identify possible concessions on the following:

- Work rules and schedules
- Overtime
- Shift differentials
- Use of apprentice labor
- Saturday make-up at straight time

In compliance with prevailing legal definitions of what constitutes a valid PLA, we verify:

- Positive record on Minority/Women/Disadvantaged Business Enterprise participation
- An urgent need to complete the Project
- An open bidding process

Local market conditions are assessed and inventoried:

- Labor pool, skill sets and performance
- Labor unrest
- Other factors relevant to the timely completion of this Project
- Concurrent construction projects competing for labor force

Project Labor Agreements

Project Labor Agreements (PLAs) are single-site craft labor agreements, unique to the construction industry, which have the potential to facilitate timely, cost-effective construction. Under a PLA, concessions may be negotiated off Prevailing Wage standards and supersede them for the duration.

On public projects employing a PLA, it is typically mandatory that both union and open shop contractors and subcontractors must accept the Agreement as a condition of work. PLAs typically provide for standardized work practices, work hours, holidays and the like as well as including provisions which preclude strikes, lockouts, work stoppages and/or any other disruption of work for the duration. See pages 18-19 for more about PLAs.

Project Description

Overview

Poughkeepsie City School District's Capital Construction Project (Project) is a $69.711m, eight year, multi-phase program of new and renovation construction to develop and improve the instructional infrastructure of all eight of the District's school facilities. Labor cost is estimated to be $31.369m, 45% of the total hard cost.

Scope

The Project is funded by a referendum approved by voters October 20, 2020 to provide building security, infrastructure and site projects for all facilities. The Scope includes roof replacements, renovations to restrooms, mechanical equipment upgrades and security enhancements.

Proposition One

New security entrances, bathroom and boiler replacements and roof restorations at each building; heating system repairs at Morse Elementary; ceiling repairs at Krieger Elementary; plumbing fixes at Poughkeepsie Middle School; locker room renovations at Poughkeepsie High School.

Proposition Two

Complete renovation of the interior and exterior of Warring Elementary School; new cafeterias at Poughkeepsie Middle School and Smith Early Learning Center; and instructional and technological improvements.

HVAC improvements are part of both Propositions: a system upgrade at Poughkeepsie High School in the first proposition; and, under the second proposition, there will be system upgrades in Smith Early Learning Center and the Clinton and Warring Elementary schools.

Schedule

The Project is expected to June 27, 2022 and end August 31, 2028 with a significant volume of Project work limited to the summer months when school is not in session in order to eliminate most of the noise and disruption of the construction process. In the period 2022-2025 and again in 2028, the work schedule calls for construction to start in the last week of June and continue through the last day in August of each of the three years; no construction is planned while school is in session or during holiday breaks. Starting in the last week of June 2026, Project work is expected to follow a 5 days a week, 8 hours a day schedule until September 8, 2027.

Labor Conditions

Market Conditions

In August 2021, the last full month for which statistics are available as of this writing, private sector unemployment in NYS Department of Labor's (DOL) Dutchess-Putnam catchment area was 4.9% in August 2021, down from 8.5% in a year ago. Although the Hudson Valley economy shows an increase of 41,300 jobs, or 5.7 percent, to 759,800 over the past 12 months, the construction sector (which includes natural resources and mining in DOL's classification) shows a loss of 1,200 jobs.

Local Unions

Todd Diorio, President of the Hudson Valley Building and Construction Trades Council (BTC), estimates the local current union unemployment rate at +/- 15%. For mechanical/electrical trades the rate is higher; for heavy highway it's lower.

Mr. Diorio and Alan Seidman, President of Construction Contractors Association, have frequently partnered in providing contractors and workforce for construction in the Hudson Valley through their strong working relationships with local officials, contractors and vendors. Research verifies that local union workforce has substantial PLA experience in all known areas of the Project's construction. See below for examples of recent area PLAs.

Workforce

Even given increasing demand for labor in the post-Covid construction boom (see 'Concurrent Construction' inventory below) as new construction projects come on-line, the Project should be able to secure its requisite labor force. Under a PLA, if any labor need cannot be filled, the local BTC guarantees a priority search of its regional membership data base for the required trades. This procedure has been successfully employed, as needed, by the local BTC for many years.

Educational Sector Experience

Research verifies that local union workforce has substantial PLA experience in all known areas of the Project's construction, including the following completed educational sector projects: Kingston High School; SUNY Orange Middletown, Phases 1, 2 and 3; SUNY Orange Kaplan Hall; SUNY New Paltz Science Building; Dominican College; Ramapo School; North Rockland Schools; Marlboro Central Schools; Mt. St. Mary's Aquinas Hall; Rockland County Community College. Research discovers a good record of successful project delivery. See page 22 for an inventory of all completed Hudson Valley PLAs.

Examples Major Construction Concurrent with Subject Project

Newburgh Enlarged City School District Capital Construction ($214m)
Catskill Aqueduct Repair and Rehabilitation Project ($158m)
Former Mid-Hudson Psychiatric Center ($300m)
Various West Point projects: Cyber Building, golf course, cemetery, Waste Water Treatment Plant, Lee Barracks ($1bn)
Re-decking Newburgh-Beacon Bridge ($95m)

Section Two

Economic Analysis - Direct Savings

Assumptions

Total hard construction cost for the Capital Construction Project, Poughkeepsie City School District (Project), is estimated to be $69.711m, of which $31.369m (45%) is labor cost.

The 11 primary building trades involved in this project are carpenter, electrician, iron worker, laborer, mason, operating engineer, painter, plumber, roofer, sheet metal, teamster. The average hourly wage for this Project is $99.54, including the payroll burden (payroll taxes, worker's compensation, unemployment insurance and overhead).

The Project is expected to June 27, 2022 and end August 31, 2028 with a significant volume of Project work limited to the summer months when school is not in session in order to eliminate some of the noise and disruption of the construction process.

The total construction time is estimated to be 31 months over the 74 month duration of the Project. It is expected that most of the work schedule will be one 8-hour per day shift, five days a week with 10% of the construction as second/irregular shift work, and 7.5% overtime. Assuming six annual holidays, and excluding weekends and holidays, 535 workdays will be needed to complete the Project.

PROJECT METRICS

- Project Budget (hard cost): $69.711m
- Labor cost: $31.369m
- Duration: 31 months
- Work days: 535
- Total Work Hours: 315,149
- Work hours per day: 589
- Labor Cost per day: $58,629

Shift Work

The Project Management team expects 15% of the Project's schedule to be performed as either second or irregular shift work. The local building trades have different premiums for irregular, second and third shifts as part of their Prevailing Wage agreements. Utilizing a Project Labor Agreement for the Project provides the opportunity to organize and schedule shift work as required under a uniform wage standard that applies to all signatory unions and supersedes the different premiums of participating trades for off-shift work.

Analysis of recent PLAs in the Hudson Valley discovered a precedent for a for a 50% reduction of the Prevailing Wage Rate premium for all second and irregular shift work on PLA projects. We note that this provision cannot be negotiated after the PLA has been signed.

NON-PLA PREMIUM RATES 2ND/OFF-SHIFT

Laborer, Carpenter, Mason, Plumber, Operator
15% of wages is added to straight time pay
Iron Worker
28% of wages added to straight time pay
Electrician
17.35% added to straight time; 31.5% off-shift
Mason
15% premium for 2nd shift; 25% for off-shift

Basis for Potential Savings Calculations
Assuming 15% of all work is second or off-shift (47,272 work hours) x $49.57 average hourly rate = $2,343,273. Potential savings = 6.5% of this number

POTENTIAL SAVINGS
$152,312

Apprentice Workers

Proposed Change in Formula

A PLA for the Project could provide contractors with the opportunity to utilize a single, minimum apprentice ratio for all trades. There is clear precedent for utilizing this provision in BTC PLAs.

Maximizing apprentice participation expands craft apprenticeship and training opportunities for women, minorities, veterans, those with disabilities, economically-disadvantaged, non-minority males and military personnel transitioning from active duty. We note that increasing apprentice workforce typically increases Minority/Women/Disadvantaged Business Enterprises (M/W/DBE) and Service Disabled Veteran-Owned Businesses (SDVOB) participation.

Potential Savings

Utilizing more apprentices holds the potential for cost savings because apprentices, on average, are paid 60% of a journeyman's wages and benefits. This can result in potential savings of 40% off journeyman pay rates, per apprentice man hour. See box below for the basis used in calculating potential savings for this category.

Certified Apprentice Programs

We note that Article 8 of the New York State Labor Law states that only apprentices individually registered in a New York State Department of Labor certified program may be paid apprenticeship rates on a public works project. Additionally, per NYS Labor Law § 222(2)e, if a PLA is used in lieu of Wicks Law requirements, all participating contractors must demonstrate that they have participated in NYS Department of Labor apprentice training programs for at least three years. Otherwise, apprentice-level workers are paid at journeyman rates.

The mandatory union apprentice programs in Hudson Valley jurisdiction fulfill all the Project's requirements for union contractors. Some open shop contractors also meet this test, but despite recent efforts to increase open shop apprenticeship programs, the majority do not.

Apprentice Ratios

Listed below are the allowable ratios of registered apprentices to journey-workers for the specific job categories of the prime trades required for the Project. The minimum apprentice to journey-worker ratio is set as part of the Prevailing Wage schedule for each trade; these ratios vary widely among the different trades. See below to learn how the formula works on the job site*

APPRENTICE TRAINING RATIOS

Trade	Ratio	Trade	Ratio
Carpenter	1:1, 1:4	Painter	1:1, 1:3
Electrical	1:1, 1:3	Plumber	1:1,1:3
Iron Worker	1:1, 1:4	Roofer	1:1, 1:2
Laborer	1:1, 1:3	Sheetmetal	1:1, 1:3
Mason	1:1,1:4	Teamster	unknown
Operator	1:1, 1:5		

Basis for Potential Savings Calculations

Assuming apprentices are paid an average of 60% journeyman's wages and benefits, the potential cost savings are 40% of the average hourly journeyman's wage ($49.57) = $19.82. Assuming 5% apprentice labor on 315,149 w/h = 15,757 hours x $19.82 =

POTENTIAL SAVINGS
$309,152

** The ratio 1:1,1:3 indicates the allowable initial ratio is one apprentice to one journey worker after the journey worker is in place on the project. Then three additional Journey workers are needed before a second apprentice is allowed. The last ratio repeats indefinitely.*

Overtime

Hudson Valley trades have varying overtime rates in their CBAs. For example, masons, operating engineers and plumbers are paid double the hourly rate on Saturday including benefits at time and one half for overtime.

Under a PLA, the rate of pay is time and one-half the regular hourly rate for all overtime hours worked outside the eight hour work day (or ten hour work day when a 4-1O's schedule is established). All time on Saturday, regardless of the number of hours worked, is paid at time and one -half with benefits paid only on the straight time rate, not at the premium rate as is required by some trades.

For more details, see the Prevailing Wage Overtime Analysis on page 21.

Basis for Potential Savings Calculations
5% overtime or 15,757 overtime hours over the schedule for the project, with 30% of trades exceeding time and one half and requiring time and one half on benefits, saving would be $16.81 per hour on benefits and $24.78 per hour for OT = $41.59 x 4727 hours =

POTENTIAL SAVINGS
$196,596

Saturday Make-Ups

When inclement weather or other factors causes missed work days during the regular work week, there are provisions that can be incorporated into a PLA where a Saturday work schedule will make up for a missed week day and be paid at a straight time. Over the Project's 31 month duration there will inevitably be times in the Northeastern United States when severe weather forces a work stoppage on the job site, even on the subject where almost all the work is not performed outdoors. Such days missed from the standard work week may require Saturday work with standard time and one-half overtime rates to make up for lost man-hours.

We note that only laborers, painters and operating engineers allow for Saturday make-up work at straight time. But there is precedent for the Project's other eight prime trades to agree to Saturday make-ups at straight time. This concession, if granted, has the potential to generate cost savings.

For the purpose of this Study, we estimate a conservative number of four days over the 31 month duration when Saturday make-up might be required.

Basis for Potential Savings Calculations
Assuming 4 lost work days over the duration when Saturday make-up could be required : 70% 0f 589 w/hr/ day = 412 work hours x 4 days = 1648 work hours x $24.78 (half hourly rate) =

POTENTIAL SAVINGS
$40,837

Holidays

If the varying holiday schedules of the Project's participating trades are not in perfect alignment, it can lead to conflicting work schedules, loss of productivity and added cost. Research shows that while Dutchess County unions share many of the same holiday schedules, they differ on others and which are paid holidays and which are not. See Holiday Analysis Chart on page 20 for more specifics.

According to DOL's Prevailing Wage schedule for September 2021, the Project's 11 prime trades are scheduled for a total of 56 holidays over the 53 month duration; under a PLA there are 31 holidays for the same period. This reduction in the number of holidays is based on a local PLA precedent to observe seven annual holidays (New Year, Presidents Day, Memorial Day, July 4th, Labor Day, Thanksgiving, Christmas) and, for this Project, to eliminate five others (day after Thanksgiving, Veterans Day, Good Friday, day before Christmas, Martin Luther King Day). Holiday concessions are only permissible under a PLA.

With a PLA, all trades, union and open shop, are paid at the overtime rate if they are required to work the holiday as called for in their Prevailing Wage schedule. No benefits are paid on holiday pay unless that day is worked. See below for examples of non-PLA holiday pay rates.

EXAMPLES NON-PLA HOLIDAY PAY RATES

Plumber, Electrician, Elevator, Glazier, Mason, Sheet Metal
Overtime if they work the day after Thanksgiving. Elevator and mason are paid for that day even if they don't work; if they work they also receive double pay for overtime plus benefits.

Operator
Paid for Martin Luther King Day. If required to work that day, they receive additional overtime of double pay plus benefits.

Electrician, Operating Engineer, Sheetmetal
Paid at the overtime rate if they work on Veterans Day.

Basis for Potential Savings Calculations
$83.19 wage and benefit per hour x 8 hours =$665 cost per day. Calculations on total savings derived from our holiday work sheet matrix

POTENTIAL SAVINGS
$61,272

Section Three

Economic Analysis - Indirect Savings

Collective Bargaining Agreements

On public works projects, all contractors, union and open shop, are required by law to pay workers Prevailing Wage rates. These rates are derived from each local trade's Collective Bargaining Agreements (CBAs). CBAs contain provisions governing every aspect of work, and each contains a significant number of miscellaneous clauses unique to that trade. A PLA supersedes all individual CBA schedules and terms for the duration of the Project, establishing one standard which applies uniformly to all trades.

Under a PLA for the Project, for example, there would be no requirement for payments for travel expenses, travel time, subsistence allowance or other such reimbursements regardless of any language in individual CBA's. Similarly, the selection of craft forepersons and the number of forepersons required, are at the discretion of the contractors, and all forepersons take orders exclusively from the contractor. All craft forepersons are designated as working forepersons.

Renegotiated CBAs

Over the 74 month duration of the Project, all of the participating trades' CBAs will expire at least once and have to be renegotiated. See more details in the chart below. Not uncommonly, some CBAs may not be renewed on schedule and this can, although rarely, result in legal strikes, slowdowns or work stoppages. Depending on their duration and intensity, such actions may disruptive impact on work flow and project delivery. Under a PLA, strikes or work stoppage of any kind are prohibited. A PLA guarantees that all unions already on a job at the time their CBA is not renewed continue to work for the duration without change or interruption.

Other Terms

If the standard work week of any participating trade's CBAs is renegotiated to less than 40 hours, under the terms of a PLA their work week would remain at 40 hours per week. The same applies to any other new CBA provisions if they are less favorable to the project then those uniformly required of contractors for construction work normally covered by these Agreements.

CBA Expiration Dates

Carpenters	4/30/22	Painters	4/30/23
Electrician	3/31/22	Plumber	4/30/22
Iron Worker	5/30/24	Roofer	4/30/24
Laborer	4/30/23	Sheetmetal	4/30/24
Mason	7/31/23	Teamster	4/30/23
Operator	4/30/23		

Basis for Potential Savings Calculations

We assign a potential savings value of one quarter of one percent (.0025) of labor cost for the PLA's direct ability to standardize and adjust the CBA provision and its indirect impact of remaining in full force and effect even if any CBAs expire over the duration..

$31,369m labor cost x .0025% =

POTENTIAL SAVINGS
$78,425

Uniform Standards

PLAs were designed to add layers of greater labor force stability to the construction process and they include many management tools to achieve this goal. Under a PLA the varying standards of individual trades' CBAs may be adjusted to create a single set of operating standards for the duration. In this section we will assess the value of the bulleted provisions below toward the goal of creating a more efficient construction process through improving coordination of the trades and empowering management.

- Work Day
- Work Rules
- Management Rights

Work Week

Dutchess County trades tend to all have standard 40 hour weeks but almost all have different work rules such as start times, lunch periods, work breaks, reporting pay, management rights and premium and overtime rates. Adopting a PLA for the Project would immediately establish a standard work week for all trades (union and non-union), overriding their individual agreements for the duration.

Work Rules

Standardizing the work day for all trades increases productivity on the job site by providing a predictable framework for coordinating the times different trades use for breaks, lunch, set up and close down time. Construction projects routinely incur overtime hours due to the inevitable slippages in coordinating work hours so one trade can keep up with or ahead of a coordinating work trade. A good construction manager with strong organizational skills can significantly mitigate these impacts but not eliminate them.

Under a PLA contractors/subcontractors have the flexibility to alter CBA work and schedule standards to fit the sometimes varying workforce needs of the project. Standardizing all time-related workflow facilitates greater coordination of the construction process and contributes to the goal of on-time completion.

Management Rights

Many of the participating trades' CBAs do not contain a "Management Rights" clause. Those that exist are often ambiguous or inadequate to offer the contractor the authority and flexibility required for efficient control and management of project work.

Under a PLA the management rights clause gives the contractor full authority to direct work force and work site activities. Specific items include:

- Determining the number of employees to be hired and their requisite qualifications
- Promotion, transfer, and layoff of employees
- Discipline or discharge of employees
- Assignment and schedule of work
- Promulgation of reasonable program work rules
- Determining the requirements, timing, and number of employees for overtime work

We note that all the management rights tools outlined above are built into the PLA framework. They may prove useful in the quest to deliver the Project on time and on budget.

Basis for Potential Savings Calculations
We assign a small, one quarter of one percent potential savings value (.0025) of total labor cost to these efficiency provisions

$31.369m labor cost x .0025% =

POTENTIAL SAVINGS
$78,425

Labor Productivity

Independent studies have consistently shown that well-trained workers are more likely to be productive and safely conscious than less well-trained workers. An estimated 90% of union workers and 35% of open shop workers are graduates of rigorous state-certified apprentice programs.

This is not to imply that the majority of open shop work force are not highly skilled and productive. It is only to suggest that the more thorough training and education of union workforce tends to increase the likelihood of a more stable and productive labor force, an important factor for a complex project like the subject Project. Union emphasis on continuing safety training also tends to reduce the incidence of job-related injuries, and lawsuits, with their negative impact on workflow and morale.

Perspective

Under long-established PLA practice, 85% of the work force is drawn from the local union hall. Open shop contractors are typically allowed to bring 10-20% of their regular crew onto a PLA job. This means that 80-90% of his crew is new to him and his core team. The open shop trade group, Associated Building Contractors (ABC), states that this is one of the main reasons open shop contractors do not bid PLA projects.

No doubt this arrangement may initially reduce the productivity of a team working together for the first time. But over time it is reasonable to assume that any initial loss of efficiency would be reduced as work proceeded and routines emerged. We estimate 30-40% of craft workers on Dutchess County construction projects, both union and open shop, are part of mixed crews and have a long history of accommodating diverse working arrangements.

Basis for Potential Savings Calculations
We assign a one-quarter of one percent potential savings value (.0025) to union training programs

$31.369m labor cost x .0025% =

POTENTIAL SAVINGS
$78,425

Section Four

Economic Analysis - Options

Introduction

This section includes two PLA project management tools not typically negotiated as part of most Hudson Valley PLAs. But given this Project's scope and duration we recommend adding both of them to the PLA if one is ultimately negotiated as they may generate substantial potential cost savings.

We identify these provisions as 'Options' in this section because the Project management team may or may not elect to use one or both of them. We note that these Options cannot be included in the PLA after the Agreement is executed and need not be used if included in the PLA. We assign no potential savings value to either Option because it is unknown to what extent, if any, they may be employed during the Project.

Alternative Dispute Resolution

Background

Alternative Dispute Resolution (ADR) is a collectively bargained insurance program, authorized by the NYS Legislation in 1995 (Chapter 491). It has proved to be a more cost-effective insurance option on complex construction projects of long duration like the subject Project. Legislation in eleven states, including New York, authorizes ADR procedures for Workers Compensation Insurance within the context of current construction industry agreements, including PLAs.

Benefits

ADR is associated with lower Insurance costs, but not lower benefits. The primary benefits are:

- Injuries occurring under ADR are less likely to lead to disputes
- Cases are concluded more quickly and at lower cost
- Supports union managed care and return to work programs

Basis

A 2012 study of ADR programs in the Hudson Valley by Fred Kotler, J.D., Research Associate at the Cornell ILR School, estimated savings of 10-40% off traditional "Expected Loss Factors."
According to Jack Frazier, an Alternative Dispute Resolution practitioner since NYS's ADR law was enacted, potential savings under ADR on the Project's Workers' Compensation Insurance premiums would be in the $800,000 range. An additional $1.2m in potential savings is estimated from working within ADR's more efficient process of mitigating third party Labor Law Claims, a common problem in New York State.

Area ADR Projects

There are three Hudson Valley PLA which have recently utilized the ADR program: the Competitive Power Ventures project in Dutchess County; LEGOLAND New York in Goshen; and Westchester Medical Center Ambulatory Pavilion Project. There is no basis for evaluating the benefits of any of these programs at the time as close out on loss sensitive programs of this type usually takes years.

We discovered two prior public projects in the Hudson Valley region which have completed close out: New York City Department of Environmental Protection's Ultra-Violet Light Disinfection Facility and the New York State Department of Transportation I-287 project. Industry sources report a $168m combined payroll between these two programs with a projected total ultimate loss in the range of $4m. The industry expectation for loss costs on projects of this type through tradition insurance is $18m. We note these results are an example of ADR's potential benefits, not a demonstrated standard. The percentage reduction under ADR in total ultimate loss for the projects cited above may not be the same for the subject Project which has less than 20% of the labor cost of the example cited above.

Basis for Potential Savings Calculations
We do not assign a potential cost savings value to this provision because it is unknown if this little known provision will be used for this Project

4-10's Work Schedule

The work week currently planned for the Project is a five day, eight hours per day schedule. If at some point in the construction process the CM and project management team determine that it will take more than 40 hours a week to deliver the Project, an optional schedule of four days at 10 hours per day (4-10's) can be implemented with appropriate notice to labor force.

The 4-10's schedule can be utilized without a PLA. But implementing this schedule increases labor cost because, under New York State's Prevailing Wage law, all trades are paid their overtime rates for the additional two hours per working day (eight hours per week). None of the Prevailing Wage classifications for the Project's trades allow a dispensation or variance on overtime under a 4-10's schedule.

Under a PLA, however, it is permissible for the additional two hours per day in the 4-10's schedule to be worked at the straight time rate. It is noted that there is local precedent under a PLA using the 4-10's schedule to also work Friday as a make-up day at a straight time. Both of these provisions hold the potential for labor cost savings.

Perspective

We note that some CM's find the 4-10's schedule useful in accelerating delivery. Others say that working crews an extra two hours per day, four consecutive days, sometimes over weeks or even months, tends to fatigue workers and reduce their productivity and safety-consciousness.

Basis for Potential Savings Calculations
We do not assign a potential cost savings value to this provision because the number of work hours a 4-10's schedule may be used is unknown

Section Five
Economic Analysis - Cost Avoidance

Wicks Law Exemption

Background

NYS law provides public owners the opportunity to utilize a PLA in lieu of Wicks bidding and construction requirements. The subject Project qualifies for this opportunity. Under New York State's Wicks Law enacted in 1912, a state or local government entity awarding a contract for the construction of a building must separately and independently bid the work for plumbing, electric wiring, and heating/ventilation/air conditioning if the cost of the project exceeds the area threshold. As the current Wicks Law threshold for Dutchess County is $500,000 and the Project's construction cost is $69.711m, Wicks Law requirements are in play. In 2008, NYS Legislature amended Wicks Law to provide project owners the opportunity to avoid mandated requirements by constructing their project under a PLA. A PLA is currently the only legal alternative to Wicks Law for state and local government construction above the area qualifying threshold.

Rationale

The most frequently cited reason why state or local government entities seek to avoid Wicks Law requirements is to eliminate inevitable gaps, overlaps and redundancies in scheduling and coordinating the labor force of four independent prime contractors. Under a PLA, a single prime contractor is typically hired to manage all other contractors. This change in management structure creates a more efficient construction process - and potentially leads to cost avoidance savings. Many authoritative Studies have confirmed that Wicks projects increase the cost of construction by 10-30% (see examples next page).

Studies

In May 1987, the New York State Division of the Budget issued a report concluding that Wicks projects were approximately 13% more expensive than comparable non-Wicks projects. In 1993, the NYC School Construction Authority issued reports concluding that Wicks projects took an average 60% more time to complete than non-Wicks projects, and increased cost by 13%. Other studies and reports had similar findings, including New York State School Boards Association (1991) and Niagara Falls School District (1996).

Requirements

We note that if a PLA is ultimately used in lieu of Wicks, in accordance with NYS Labor Law § 222 (2)(e), all qualifying contractors must demonstrate that they have participated in NYS-approved apprentice training programs for at least three years. Further, the contractors' apprenticeship-training programs must have graduated at least one journey worker in the last three years and have used affirmative action efforts to retain minority apprentices. The union apprentice programs in Dutchess County fulfill all these requirements. Some local open shop contractors meet these standards, but the majority do not. See page 7 for more about State Certified Apprentice Programs.

Advantages

Wicks Law avoidance tends to generate potential savings on labor cost through the eliminating the overlaps and redundancies in scheduling and coordinating different prime contractors' labor forces. It also gives the County greater flexibility to manage the Project as they see fit, seeking bids for as many or as few prime contractors as is in the best interests of the Project.

Basis for Potential Savings Calculations
We conservatively estimate a 3% reduction in indirect costs as a consequence of avoiding Wicks requirements by utilizing a PLA

3% of total labor cost ($31.369m) =

POTENTIAL SAVINGS
$941,098

Avoidance of Work Stoppage

All PLA's include a commitment to swift, mandated resolution of all disruptive labor activity at any time during the project, including strikes, slow downs, walk-outs and the like. All contractors and workforce, union and open shop, must abide by these rules. At minimum, this provision provides the Project with the assurance of labor continuity for the duration and increases the likelihood of on-time completion. These are important considerations for a Project with high public visibility and a $58,629 daily cost of operations.

We reviewed the record of Hudson Valley work stoppage incidents over the prior two year period and discovered no labor actions which negatively impacted the completion of an area PLA. But such things can and do happen from time to time and there are procedures baked into a PLA designed to quickly restore labor peace when it occurs.

We assign no dollar value to potential cost avoidances in this category because it cannot be predicted with any certainty if and when, and for what duration, labor unrest might occur.

Section Six
Compliance

M/WBE and SDVOB Goals

Poughkeepsie City School's Capital Construction Project is 67% funded by a Capital Bond Referendum underwritten by New York State Education Department. As such, participation goals for the subject Project, in alignment with current NYS standards, are 15% Minority Business Enterprises (MBE), 15% Women Business Enterprises (WBE) and 6% Service Disabled Veteran Owned Businesses (SVDOB). State and local officials confirm that Hudson Valley PLAs have a long record of good faith efforts in M/WBE and SDVOB participation. This statement is based on review of contractor and vendor participation data required on public works construction. We consider local PLAs to be in compliance because we did not discover any evidence to the contrary.

We note that PLAs can be negotiated which allow M/WBE and SDVOB contractors to bring more of their crew onto the job than standard rules permit.

Urgency

One of the requirements of a PLA, as determined by the U.S. Congress in the 1930's, was to provide a set of construction rules which facilitate more rapid completion of public works projects. This is one of the criteria for a valid PLA today.

Poughkeepsie City School District's Capital Construction Project (Project) is an eight year, multi-phase program of new and renovation construction to develop and improve the instructional infrastructure of all eight of the District's school facilities. In an effort to eliminate most of the noise and disruption of the construction process the majority of Project work is limited to the summer months when school is not in session. If scheduled work is not completed on time during one summer there may be a cascading effect on the overall schedule and increase the difficulties of coordinating purchase and delivery of materials and recruiting requisite labor for later phases of construction.

The construction efficiencies built into the PLA structure, along with its added layer of labor stability, are likely to benefit a Project with a complex, long duration schedule where delays in completion may negatively impact hundreds of students, teachers and other staff, and disrupt learning. A PLA is therefore warranted and justified for this Project.

Open Bidding

By law, PLAs must guarantee an open bidding process for all contractors, union and open shop. Research discovered open shop participation in prior Dutchess County PLAs, mainly as subcontractors. Based on this anecdotal analysis, the local BCTC has a demonstrated commitment to the PLA's provision for open bidding. There is no reason to assume that open shop bidders will not have an opportunity to bid and win contracts for the Project.

Perspective

It is noted that some open shop trade associations state that their members do not bid PLA projects due to mandatory compliance with union administrative and reporting procedures. Legal challenges have been made on this issue, but courts have consistently upheld the validity of extant PLA terms and conditions. See pages 18 and 19 for more about PLAs.

Section Seven
Conclusion

Conclusion

After conducting a PLA Feasibility Study for Poughkeepsie City School District's Capital Construction Project, Arace concludes that using a Project Labor Agreement may be of material benefit to the Project Owner.

Research indicates there is precedent for potential cost savings* on the Project, primarily though utilizing the PLA provisions below:

- Expanded use of apprentice labor
- Uniform standards for holidays, overtime, shift work, etc
- Wicks Law Exemption

A PLA also provides several important layers of labor stability, increasing the likelihood of more efficient construction and mitigating the risk of accidents/injuries on the job site.

- A single set of rules and conditions for all workers
- Eliminates work stoppage
- Provides priority access to the local union member network
- Ensures a well-trained and safety-conscious work force

Review of prior Hudson Valley PLAs discovered precedent for potential savings of approximately $1,936,542 (6.1% of labor cost) off the Prevailing Wage standards mandated by law for public works construction.

Economic Summary

Potential Direct Cost Savings

Direct Cost Savings		
	Shift Work	152,312
	Apprentice Workers	309,152
	Overtime	196,596
	Holiday Schedules	61,272
	Saturday Make-Ups	40,837
Indirect Cost Savings		
	CBAs	78,425
	Labor Productivity	78,425
	Uniform Standards	78,425
Cost Avoidance Savings		
	Wicks Law Exemption	941,098
	TOTAL POTENTIAL SAVINGS	**$1,936,542**

**Potential cost savings cited in this Study are intended only as indicators of what might be achieved based on verifiable concessions granted by local unions on prior area PLAs. The goal of the Study is to take a pre-bid snapshot of key labor metrics in the Project's proposed work plan at the time the Study was conducted. This completed PFS does not reflect non-material changes that occur after the Assumptions for the PFS process were accepted by the Client. These changes may include the number of prime trades, duration, Scope or other factors.*

Section Eight
Appendix

PLA BACKGROUNDER

Boston Harbor Decision

Although there is a history of PLAs on large public works, such as the Grand Coulee Dam, dating back to the 1930's, the first legal challenge did not occur until the Boston Harbor project in the early 1990s. The public entity owner of the project stipulated a PLA for this multi-billion dollar, multi-year clean-up of Boston Harbor, a project involving scores of contractors and unions, each of which was required to become a signatory to the PLA.

The challenge was made on a federal preemption theory, arguing that the government entity-owner requirement that all successful bidders become parties to that PLA constituted an impermissible state intrusion into the labor relations of project contractors, and was pre-empted by the National Labor Relations Act (NLRA).

The U.S. Supreme Court, in its landmark decision, *Associated Builders and Contractors of Massachusetts/Rhode Island, Inc. v. Massachusetts Water Resources Authority* (commonly known as Boston Harbor), 507 U.S. 218 (1993), that although the government could not impose a PLA in its regulatory capacity, it was not prohibited from benefiting from a PLA wherein the government entity was acting in its proprietary capacity as an owner or a purchaser of construction services in the construction industry marketplace. This decision subsequently provided the impetus for public-sector PLAs across the nation. It forced opponents of PLAs to base their challenges primarily upon a theory that a PLA violates a state's competitive bidding statutes because it allegedly favors union over non-union bidders.

Soon after the Boston Harbor decision, then-NY Governor Mario Cuomo issued a memorandum referencing the "Boston Harbor Agreement" and directing that all state construction agencies and authorities evaluate the benefits of negotiating a PLA where the benefits may include labor stability, timely delivery and efficiency.

New York State Thruway Authority Decision

New York State's standards for utilizing PLAs were established in the 1996 Court of Appeals decision in the combined case involving PLAs authorized by the New York State Thruway Authority (NYSTA) and the Dormitory Authority of the State of New York (DASNY). The Court of Appeals ultimately upheld the PLA for the $130 million, four-year Thruway Authority (Tappan Zee Bridge) project but rejected it for the $170 million, five-year Dormitory Authority project (Roswell Park Cancer Institute).

The court upheld the NYSTA PLA based its authorization on the recommendation of its project manager, Hill International, Inc., pursuant to a pre-bid cost analysis which indicated the value of a uniform agreement like the PLA. The DASNY decision, on the other hand, was made after bids were opened, and was not supported by a detailed review and analysis similar to that used by NYSTA.

In its Thruway decision, *New York State Chapter AGC, Inc . v. New York State Thruway Authority,* 88 N.Y. 2d 56, 643 N.Y.S. 2d 480, 666 N.E.2d 185 (1996), the court established the following criteria for determining the validity of PLAs on a case-by-case:

- A PLA could be sustained for a particular project where the record supporting the determination to enter into the PLA was justified by the interests underlying the competitive bidding laws

- The public authority bears the burden of showing that the decision to utilize a PLA had as its purpose and likely effect the advancement of the interests embodied in the competitive bidding statutes

Two central purposes of New York's competitive bidding statutes, as restated within the Thruway decision, are protection of the public fisc by obtaining the best possible work at the lowest possible price, and prevention of favoritism, improvidence, fraud and corruption in the awarding of public contracts.

An agency decision based on a consultant/construction manager's report is the key element for having that decision upheld by New York courts. The report should show, regardless of the size or complexity of the project, that a PLA is justified based on specified cost savings - both the direct and indirect benefits of a uniform agreement - taking into account such unique factors as the project's timetable and a history of labor unrest.

PLA BACKGROUNDER

Executive Order No. 49

On February 12, 1997, then-Governor George Pataki promulgated Executive Order No. 49 'Project Labor Agreements' validating PLAs as one of many tools that may be used in the construction process by management and labor to achieve the goals of timeliness, cost-effectiveness, fairness, equity and conformity to the law. It was continued by Governors Spitzer, Paterson and Cuomo through Executive Orders No. 5 (2007), No. 9 (2008) and No. 2 (2011) respectively. It sets forth the policies and procedures to be followed by state agencies in determining whether a PLA should be utilized and, if so, the interaction between Article 8 of the Labor Law and the PLA. Executive Order No. 49 has been often cited with approval by the New York Courts.

New York Labor Law, Section 222

In 2008 the New York State Legislature codified the guidelines set forth in E.O. 49 and by the Court of Appeals by enactment of New York Labor Law, Section 222, Project Labor Agreements. Section 222 defines a PLA and provides that any state agency or department may require a contractor awarded a contract for a project to enter into a PLA during or for work involved when the agency or department determines that its interest in obtaining the best work at the lowest possible price while facilitating timely completion.

PLAs in Metro NYC

PLAs have been used extensively in construction of publicly financed bridges and roadways, office complexes, airports, highways and transit systems in the Metropolitan area. Current projects include LaGuardia and Kennedy airports. Completed projects include both the new and original Tappan Zee Bridge and World Trade Towers. To date, more than 300 PLAs have been completed in the New York City metropolitan area.

PLAs in the U.S.A.

PLAs have been utilized in all 50 states and in the District of Columbia. They have been upheld by appellate courts in every state in which they have been challenged and at the federal level. In February 2001, President Bush signed an Executive Order (E.O.) banning the use of PLAs on all federally funded projects, effectively precluding PLAs on major highway and bridge projects nationwide for eight years. In February 2009, President Obama signed E.O. No. 13502 rescinding the Bush Executive Order and promoting the use of PLAs on major capital projects ($25m+) where a PLA will enhance economy and efficiency. To date, numerous federal building projects from Hawaii to New Jersey are in various stages of completions and/or have been completed utilizing PLAs pursuant to E.O. No. 13502. This E.O. is still in effect under President Biden.

UNION HOLIDAY ANALYSIS FOR DUTCHESS COUNTY, NY (SEPTEMBER 2021)

Union	Classification	Paid*	Overtime**
Carpenter	Heavy/Highway	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day, Presidents Day	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day, Presidents Day
Laborer	Heavy/Highway	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day, Veterans Day, Presidents Day	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day
Painter		None	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day
Roofers		None	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day
Electrician	Wireman/ Tech	None	New Year, Memorial Day and July 4th Labor Day, Thanksgiving, Christmas, Presidential Election Day, Veterans Day, Presidents Day, day after Thanksgiving
Mason	Heavy/Highway	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day, Veterans Day, Presidents Day	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day, Veterans Day, Presidents Day
Plumber		None	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day, Veterans Day, day after Thanksgiving
Operating Engineer		New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day, Washington's Birthday, Veterans Day, Presidents' Day, Martin Luther King, Jr. Day	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day, Washington's Birthday, Veterans Day, Presidents' Day, Martin Luther King, Jr. Day
Sheetmetal		None	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day, Good Friday, Veterans Day, day after Thanksgiving, day before Christmas.
Teamster	Heavy/Highway	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day, Veterans Day, President's Day	New Year, Thanksgiving, Christmas, Memorial Day, July 4th, Labor Day, Veterans Day, President's Day

** Paid Holidays are days for which an eligible employee receives a regular day's pay but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.*

*** Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays.*

PREVAILING WAGE RATES FOR DUTCHESS COUNTY, NY (SEPTEMBER 2021)

Union	Classification	Hour	Benefits	Overtime Rate
Carpenters	Building H/H	$39.04	$28.81	Time and one half of the hourly rate after 8 hours per day, Time and one half of the hourly rate on Saturday, Double the hourly rate on Sunday and Holidays.
Laborers	Building H/H	$49.10	$25.05	Time and one half of the hourly rate after 8 hours per day, Time and one half of the hourly rate on Saturday, Double the hourly rate on Sundays and Holidays Saturday may be used as a make-up day at straight time when a day is lost during the week due to inclement weather. Benefits on paid holiday at straight time.
Painters		$37.59	$24.79	Time and one half of the hourly rate after 8 hours per day, Time and one half of the hourly rate on Saturday, Double the hourly rate on Sunday and Holidays, Saturday may be used as a make-up day at straight time when a day is lost during the week due to inclement weather.
Roofers		$52.25	$28.62	Time and one half of the hourly rate after 8 hours per day, Time and one half of the hourly rate on Saturday, Sunday and Holidays.
Electrician	Wireman/Tech	$55.50	$34.04	Time and one half of the hourly rate after 8 hours per day, Time and one half of the hourly rate on Saturday, Double the hourly rate on Sunday and Holidays.
Masons	Building H/H	$41.82	$34.43	Time and one half of the hourly rate after 8 hours per day. Double the hourly rate on Saturday, Sunday and Holidays. Time and one half for benefits on all overtime hours.
Plumbers		$47.80	$39.72	Time and one half of the hourly rate after 8 hours per day. Double the hourly rate on Saturday, Sunday and Holidays, including benefits at same premium as shown for overtime.
Operating Engineers	Building H/H	$53.12	$33.70	Time and one half of the hourly rate after 8 hours per day. Double the hourly rate on Saturday and Sunday, and four times the rate on the hourly rate on Sunday including benefits at same premium as overtime.
Sheetmetal		$47.52	$44.20	Time and one half of the hourly rate after 8 hours per day, Time and one half of the hourly rate on Saturday. Double the hourly rate on Sunday and Holidays.
Glaziers		$59.85	$36.04	Time and one half of the hourly rate after 8 hours per day, Time and one half of the hourly rate on Saturday, Sunday and Holidays, including benefits at same premium as shown for overtime.
Totals		$644.40 $49.57	$437.10 $33.62	Wage + Benefits = $83.19 average hourly rate
Payroll burden on hourly wages ($43.21 per hour x 33%) = $14.25 + $ 78.76 hourly + benefits = $93.01 per hour				

COMPLETED HUDSON VALLEY PLAs (since 2000)

CPV Energy Center
Resorts World Casino
Woodbury Commons
Kingston School
Ulster County Bundled Bridges
Ulster Family Court House
Narrowsburgh PA/NY
Sullivan County Jail
NY 17 Inlay
Rt. 6
Sullivan County Infirmary
Sullivan County Courthouse
Super K-Mart Sullivan Plaza
Mount Alverno Health Care Facility
Woodbury Commons
Stewart Airport—National Express (four projects)
Stewart Airport—First Columbia (several projects)
Home Depot Distribution Center
Newburgh Enlarged School District
NYS Thruway/Stewart Interchange
Kingston City Hall
GAP Distribution Warehouse (Phase 1)
GAP Distribution Warehouse (Phase 2)
Concord Hotel Reconstruction, Phase 1 (current)
Mario Cuomo Bridge Renovation
Palisades Center Mall
Rockland County Courthouse
Rockland County Correctional Facility
Letchworth Village
Stop and Shop Rockland County
Dominican College
Putnam Hospital
East Ramapo School
North Rockland Schools
Home Depot Nanuet
Empire Resorts — Monticello Raceway
Marlboro Central Schools
Harriman Commons
IBM 323 Annex
Harriman Waste Water Treatment Plant
Ulster County Law Enforcement Facility
St. Luke's Hospital Parking Garage
Sullivan County Emergency 911 Center
Newburgh City Court House
Mt. St. Mary's Aquinas Hall
Fishkill Rombout Waste Water Treatment Plant
Rockland County Community College
Kingston Court House and Police headquarters
Kaplan Hall (SUNY Orange)
HEAL Grant Renovations at St. Luke's Newburgh
Sullivan County Materials Recovery Facility
911 Building Orange County
Various Projects St. Luke's /Cornwall Hospital
Re-decking Newburgh-Beacon Bridge, South Span
Orange County Court House
Shops @ Nanuet Mall
SUNY New Paltz Science Building
Orange County Board of Elections
SUNY Orange Middletown, Phases 1,2 and 3

HV PLAs Currently In Progress

Green Thumb Industries
Warwick Resorts World, Newburgh
Wurts Street Bridge/NYS DOT, Kingston
Justice & Transition Center, Dutchess County
Newburgh/Beacon Bridge North Span Deck Replacement
Rondout Water By Pass Tunnel Project, Orange/Dutchess
Cooper Lake Dam Project, Kingston
Marlboro Central School District, Marlboro
Newburgh Schools Capital Project, Newburgh
Vails Gate Fire House, Orange County