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**ASSESSMENT OF THE NEED FOR A PROJECT LABOR  
AGREEMENT COVERING THE SCUDDER FALLS BRIDGE  
REPLACEMENT PROJECT**

PREPARED FOR  
the Delaware River Joint Toll Bridge Commission

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## A. Executive Summary

This report assesses the appropriateness of a Project Labor Agreement that would cover the construction portion of the Scudder Falls Replacement Bridge project, the total cost of which is projected at \$327M, including construction and soft costs (e.g., design).

The report finds that a PLA would be appropriate on this project because it would serve the following objectives of the owner:

- Lock in through union referral services – or “hiring halls” – an adequate supply of consistently high quality skilled labor for the project in a period when local demand for construction trades labor is expected to continue growing and a shortfall could emerge.
- On a project that is over six times the typical annual capital budget of the Bridge Commission, the PLA could help ensure regular and effective communication among owner, contractors, and building trades, especially if supported by a formal structured communication process such as the Pennsylvania Area Labor Management Committee’s Built-Rite process.
- A PLA would prohibit work stoppages and other disruptions, an advantage that could grow in importance if unemployment falls further. This and other benefits of the PLA could also help ensure on-schedule progress ensuring that toll collection necessary to repay project debt can begin while the second half of the bridge is completed.
- The PLA would also help ensure standardization and consistency of work rules across all of the participating trades, promoting efficiency and smooth project operation.
- A PLA and Built-Rite or an equivalent process could also help ensure an increased awareness of safety and the achievement of low incident rates that allow use of an Owner Controlled Insurance Program (self-insurance) that saves costs compared to contractors incorporating their own insurance rates into their bids.
- A PLA could also support an effective workforce diversity (or “economic opportunity”) program on the project, with owner, contractor, and trades buy in, and with the establishment of ambitious but attainable workforce diversity goals and the collection of data and monitoring of progress to ensure achievement of those goals.

## B. PLA Background and Legal Precedent

This report considers whether and how a Project Labor Agreement would contribute to achieving the owners’ objectives on this project, including:

- On-budget project completion
- On-time project completion
- Ensuring a sufficient pool of skilled labor necessary to complete the project on-time and on-budget

- Maintaining an expedited and uninterrupted construction schedule to ensure project completion and use on schedule
- Standardization and consistency of work rules across all trades
- A heightened awareness of safety, low incident rates and resulting cost savings
- Allowing all contractors and subcontractors to compete for contracts and subcontracts without regard to whether they are otherwise parties to collective bargaining agreements
- Increased opportunities for a diverse workforce

This study also considers whether a PLA could advance other objectives which were not explicitly articulated by owner's representatives:

- Increased investment in apprenticeship to help ensure a sufficient pool of skilled labor on future projects
- Increased reliance on local labor

### ***PLA Background and Legal Precedents***

Project Labor Agreements (PLAs) are collectively bargained agreements in which the owner of a proposed project of site preparation, construction, renovation, alteration, modification and/or demolition, in its capacity as a market participant, sets certain minimum terms and conditions of employment applicable to the skilled construction workers performing work on the project. PLAs are often, but not solely, used on large, lengthy projects in both the private and public sector.

While there have been a handful of legal challenges to the use of PLAs in the public sector in Pennsylvania, the courts have generally upheld their use on projects where factors such as the size and complexity of the project, the nature of the local labor market environment, the timing needs of the project, access to an adequate and adequately trained workforce, and total costs savings that could be generated by a PLA have been considered by a public entity in evaluating the appropriateness of a PLA. In Pennsylvania, the Luzerne and Berks County Convention center PLAs were judicially determined to be valid and not in violation of the Pennsylvania competitive bid statute. Similarly, the Forest County State Prison Construction PLA was found by the courts to be valid. Most PLAs have not been the subject of any form of litigation.

### ***PLA Projects in Pennsylvania***

In reviewing information from interviews or the research literature on PLAs it is important to keep in mind three realities. First, the inherent difficulty of evaluating PLA impacts given the uniqueness of each construction project. The Government Accountability Office (GAO) made this point when analyzing PLAs on federal government projects: "Proponents and opponents of the use of PLAs said it would be difficult to compare contractor performance on federal projects with and without PLAs because it is highly unlikely that two such projects could

be found that were sufficiently similar in cost, size, scope, and timing.”<sup>1</sup> A second reality is that PLAs, by their very nature as collectively bargained agreements, are highly flexible. The impact of any particular PLA – on costs and other outcomes – depends on the specific terms of the PLA and on how these compare with the terms that would exist in the absence of the PLA. Owners that want to ensure that a particular PLA advances their goals are well advised to capitalize on the flexibility of PLAs to achieve terms that meet their needs. Third, views of PLAs tend to be highly polarized into camps strongly supportive or strongly opposed to the agreements. As in other cases where stakeholders come to an issue with a strong lens, their interpretations of outcomes on particular projects, and of other information, often reflects their lens, reinforcing the challenge of deciding on objective grounds whether a PLA is a good idea on any project.

The use of PLA agreements appears to have grown over time and is extremely common in the Philadelphia area. For example, a 2011 Executive Order in the city of Philadelphia stipulates that agencies should use PLAs for all projects over \$5 million if any of a list of five criteria are met and unless “clear countervailing considerations are present.”<sup>2</sup> Agencies are also “encouraged” to review projects with budgets below \$5 million for use of PLAs. Prior to the executive order, a multi-project PLA, the Philadelphia School District Partnership Agreement, covered school construction projects over a four-year period from 2006 to 2010.

To date, there has been no systematic effort to collect data on the characteristics of public and private sector PLAs in Pennsylvania and their impact on project outcomes like cost and on-time delivery.

### ***Findings on PLA Impacts from Research Literature***

Along with the use of PLAs, the research literature on PLAs has also grown in recent years.<sup>3</sup> A 2011 Cornell University study concluded that PLA's lead to substantial cost savings and provide broad social and economic benefits. The study cites the example of an innovative private-sector “Economic Recovery PLA” negotiated in New York City to achieve cost savings that would help maintain construction activity during and after the Great Recession. This PLA reduced construction costs by an estimated 16%-21%, primarily as a result of work rule changes.<sup>4</sup>

Richard Parker and Louis Rea analyzed school construction under a San Diego School District multi-project PLA (or “project stabilization agreement”) executed in July 2009. The study found that construction costs under the PLA were comparable to non-PLA projects that took place prior to the PLA.<sup>5</sup> Projects covered by the PLA enjoyed a “clear advantage” on completion time over those cover by the PLA, taking 28 days less relative to estimated

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<sup>1</sup> United States Government Accountability Office, *Project Labor Agreements: The Extent of Their Use and Related Information*, May 1998; online at <http://www.gao.gov/assets/230/225719.pdf>.

<sup>2</sup> This Philadelphia Executive Order is online at [http://www.phila.gov/ExecutiveOrders/Executive%20Orders/2011\\_EO15-11.pdf](http://www.phila.gov/ExecutiveOrders/Executive%20Orders/2011_EO15-11.pdf).

<sup>3</sup> For a recent review, see as cited in Gerard M. Waites and Scott M. Seedorf, *Project Labor Agreements White Paper*, O’Donoghue and O’Donoghue, LLP, Washington D.C., August 2013; electronic or paper copy available from Keystone Research Center.

<sup>4</sup> Fred B. Kotler, *Project Labor Agreements in New York State II: In the Public Interest and of Proven Value*, Ithaca, NY, Cornell University School of Industrial and Labor Relations, 2011, online at <http://digitalcommons.ilr.cornell.edu/reports/36/>, pp. 49-55.

<sup>5</sup> Richard A. Parker, Ph.D. & Louis M. Rea, Ph.D., *San Diego Unified School District Project Stabilization Agreement: A Review of Construction Contractor and Labor Considerations*, November 2011, pp. iii and 172; online at <http://www.sandi.net/cms/lib/CA01001235/Centricity/Domain/138/psastudy12-7-11.pdf>.

completion dates (p. 177). The PLA-covered projects also outperformed the earlier projects in promoting use of local and low-income workers, hiring 35% of workers from economically disadvantaged zip codes and 70% of labor from the School District.

A presentation by Deputy City Attorney Hugo S. Rossitter and Inspector of Public Works John L. Reamer (“Paving the Way: Using Project Labor Agreements—the City of Los Angeles Experience”) summarizes experience with PLAs in Los Angeles. The presentation reports that most bid prices coming in near or below engineers’ pre-bid estimates. (Since the period of implementation of PLAs coincided in part with the Great Recession, it is difficult to separate the impact on bid costs of PLAs vs. the industry slowdown.)

In October of 2001, a comprehensive survey of PLAs was produced for the California legislature.<sup>6</sup> Based on a review of 82 PLAs, 59 of them private sector agreements, the study found (p. 59) that “Owners increasingly want PLAs in order to meet their speed-to-market demands and to ensure against delays that can be caused by worker shortages, work stoppages, or collective bargaining negotiations.” The study also concluded that, “from a contractor’s point of view, a PLA can provide the stable, uniform labor-management foundation on which to build methodical planning and scheduling on a project.” It added that “Contractors that use PLAs maintain that on complex, long-term projects, a PLA fosters positive communication channels to address worker concerns, grievances or disputes and resolve them quickly, thereby creating continuity and stability of the work force at the job site.” Ken Hedman, Principal Vice President, Labor Relations, Bechtel Construction Company, maintains that, in his experience, he has “never seen anything to indicate that a PLA was the cause of increased costs or delays.”

Evidence for economic advantages of PLAs is their extensive use in the private sector. James O’Neill and Michael Griffin of Hill International conclude:

“Probably the best argument for PLAs in the public sector is that they have been for decades, and still are, used in the private sector by large, sophisticated, experienced developers, owners, construction managers and contractors, all of whom are driven by the profit motive. They want the best job for the lowest price in the shortest period of time. Disney World, the GM Saturn Facility, and the TransAlaska Pipeline are but a few examples of major private projects where PLAs have been successfully employed. Currently, the Goldman Sachs Group, Inc. is proceeding with a billion-dollar multi-building project in Jersey City, New Jersey, called Project Phoenix. It will include an 840-foot tall office building (the tallest in New Jersey), a global conference and training facility, and a 250-room hotel. The project will be on a fast-track construction schedule and the multiple contractors will be required to execute a PLA with the appropriate members of the local Building and Construction Trades Council. It is obvious that the owners, after due diligence, determined that requiring a PLA in the bid specifications for Project Phoenix was in their best interest, i.e., it would give them the best job, at the best price, in the shortest period of time. If Project Labor Agreements continue to be utilized by the profit-oriented private sector after all these years, there must be a reason. Clearly, the reason is that they work. If they work for the private sector owners, they will work for public sector owners...”<sup>7</sup>

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<sup>6</sup> Kimberly Johnston-Dodds, *Constructing California: A Review of Project Labor Agreements* (Sacramento: California Research Bureau, California State Library, October 2001), CRB 01-010.

<sup>7</sup> James M. O’Neill, Esq. and Michael V. Griffin, P.E., Hill, International, Inc., *The Case for Public Owner Project Labor Agreements (PLAs)*, no date; available at

O'Neill and Griffin's conclusions underscore that the specifics of the PLA and the context of the PLA matter to their impact on costs. These authors are writing about cases where union strength and/or unionized contractors' highly specialized skills could, absent a PLA, lead to costly wage, benefit, work-time, and other provisions. In that context, using a PLA to harmonize labor standards and work rules to make them more favorable to the owner can reduce costs substantially.

Researchers have examined statistically the indirect or direct impact of PLAs on school construction cost. In one study, Belman, Bodah, and Philips (BBP) estimated the impact of PLAs on the number of bidders – and thus potentially on cost – in California school districts.<sup>8</sup> The study capitalized on natural experiments that resulted when neighboring school districts in California undertook construction projects that had a PLA in some cases and did not have a PLA in the other.<sup>9</sup> Controlling also for other factors (such as the business cycle) that might influence the number of bidders, Belman, Bodah, and Philips (BBP) found no statistical relationship between the presence of a PLA and the number of bidders in their sample of school construction projects.

Researchers for the Beacon Hill Institute (BHI) have also used school construction as the basis for an attempt to examine the cost impact of PLAs statistically.<sup>10</sup> As BBP point out, however, the BHI research is plagued by a lack of adequate data and poor statistical modeling. In particular, the BHI researchers fail to “control” for other factors besides PLAs that impact costs. BHI researchers only control for project size, whether the project was new construction or a renovation, the number of stories, and whether the project was an elementary or high school. Without adequate controls the authors attribute cost differences to PLAs that are really the result of missing controls such as whether the project was in an urban area. Without controls for whether a project is urban, if PLAs are more commonly used in urban areas and (both construction on overall living) costs are usually higher in urban areas, statistical analysis will attribute what is really an urban effect to using a PLA. BBP replicated BHI's work with a study of 108 school construction projects in New England but include 30 controls. They find no relationship between the presence of a PLA and construction costs.<sup>11</sup>

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<http://www.hillintl.com/PDFs/Project%20Labor%20Agreements%20%28PLAs%29%20-%20O%27Neil.pdf>

<sup>8</sup> Dale Belman, Matthew M. Bodah, and Peter Philips, *Project Labor Agreements* (Bethesda: MD, ELECTRI International, January 2007), Chapter 1. See also Dale Belman, Kenneth A. Frank, Richard Kelso, Russell Ormiston, and William Schriver, “The Effect of Project Labor Agreements on the Cost of School Construction in Massachusetts,” *Industrial Relations*, forthcoming; and Dale Belman, Russell Ormiston, William Schriver, and Richard Kelso, “The Effect of Project Labor Agreements on the Cost of School Construction,” Sloan Industry Studies Working Papers, 2005 Number WP-2005-01; online at <http://www.industry.sloan.org/industrystudies/workingpapers/index.php>.

<sup>9</sup> The benefit of a sample that aggregates paired projects within a homogeneous geographical area is that researchers do not need to include separate “controls” for geographical impacts on construction costs such as the cost of living and whether the project took place in a city, suburb, or rural area. Since such factors are the same for each paired sets of projects they are “taken out of the equation.”

<sup>10</sup> Belman, Bodah, and Philips, *Project Labor Agreements*; Belman et al., “The Effect of Project Labor Agreements on the Cost of School Construction in Massachusetts,” and Belman, et al., “The Effect of Project Labor Agreements on the Cost of School Construction.”

<sup>11</sup> For similar results, see Belman et al, “The Effect of Project Labor Agreements on the Cost of School Construction in Massachusetts,” and Belman, et al., “The Effect of Project Labor Agreements on the Cost of School Construction.”

### ***Evidence on Whether Non-Union Companies Bid on Projects with PLAs***

One issue raised about public sector PLAs is whether they prevent (they do not) or discourage non-union companies from bidding. This is important because the number of bidders can impact project costs. Direct evidence on whether non-union companies get contracts on projects with PLAs exists for a few large projects:

- On the Boston Harbor Project, ICF Kaiser found that 55 prime contracts went to union contractors and 16 to nonunion contractors; adding in subcontracts, 155 went to union firms and 102 to nonunion firms.<sup>12</sup>
- On the Central Artery/Tunnel Project in Boston, 13 of the original 55 contracts let were to non-union contractors.<sup>13</sup>
- On the Southern Nevada Water Authority Project, Michael D’Antuono, president of Parsons Construction Company, said that six of 16 prime contracts and 26 of 70 prime contracts and subcontracts went to nonunion firms.<sup>14</sup>
- In 1991, the General Accounting Office (GAO) found that 86 of 286 contractors on the Idaho National Engineering Laboratory project covered by a PLA were nonunion.
- Under the 2005-2009 New York School Construction Authority PLA, an estimated 20% of successful bidders were non-union companies.<sup>15</sup>

We do not know of any statistical study of the number of non-union bidders on PLA projects, or the share of bidders that are non-union on PLA projects, controlling for other factors that impact this number and share.

### ***Impact of PLAs on Project Outcomes Based on Stakeholder Interviews***

Asked in interviews what factors determine whether projects are completed on time and on budget, stakeholders never mentioned PLAs in their initial responses. Most contractors and other stakeholders highlighted factors related to project oversight and coordination, such as “good cooperation, good teaming.” Stakeholders also emphasized the clarity of the construction design documents and the staging plan. One stakeholder said “We look for a final design consultant who has some sense of construction realities in the field, not a pure egghead designer.” One contractor said “Projects that haven’t gone well are where pre-planning has not gone well – the owner and designer are not engaged, and no one has figured out the phasing.”

Another common theme was the importance of the prime contractors. “At the bid opening, we hold our breath for two things: the price and the contractor is. Contractors have different MOs: some contractors bid low and change order you to death. Others anticipate unforeseen conditions and are competent and cooperative.”

One way to improve the chance of a good contractor on a big project is through a qualifications process “that gets us in line with the contractors.” Such a process is likely to be used on the Scudder Falls project.

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<sup>12</sup> Dale Belman and Matthew M. Bodah, *Building Better: A Look at Best Practices for the Design of Project Labor Agreements*, Economic Policy Institute Briefing Paper, p. 33; online at [http://www.epi.org/publication/building\\_better\\_a\\_look\\_at\\_best\\_practices\\_for\\_the\\_design\\_of\\_project\\_labor/](http://www.epi.org/publication/building_better_a_look_at_best_practices_for_the_design_of_project_labor/)

<sup>13</sup> O’Neill and Griffin, *The Case for Public Owner PLAs*, p. 15.

<sup>14</sup> This and the next bullet are from Belman and Bodah, *Building Better*, p. 33.

<sup>15</sup> Kotler, *Project Labor Agreements in New York State II*, p. 31.

Another issue that impacts project success several engineers and contractors said is the availability and cost of materials. In and after the Great Recession, projects benefited from a significant decrease in the cost of steel and concrete. While that situation is now changing, an economic slowdown in China could mitigate the impact of U.S. recovery on commodity prices.

Stakeholders interviewed had varying levels of experience with PLAs and a range of views on their use. One common view is PLAs are more important on big projects. “On smaller projects on which contractors use their own people, a PLA has no advantages – you are not going to go to the bench” for additional labor. On a larger project such as the Scudder Falls Bridge, especially in a tightening labor market, a PLA has more benefits: “. . .in a market such as this, in a region getting to full employment, if we essentially reserve a workforce for our project through a PLA, it can lock in the timing of the project, get us in the queue.” A project designer said “It’s important to have good qualified labor from the superintendent all the way to skilled workers on the job. There’s less chance of technical problems or glitches or hold ups. From that point of view – if a the PLA that requires hiring most trades from union referral systems gives you good people, so be it.” Another contractor said, with a PLA, you know you are going to get skilled journey-workers who have graduated from a good apprenticeship program. “We would get a quality workforce and the project would hopefully run smoother on the site and on budget.”

Some sources expressed concern that a PLA might limit the number of bidders on the project: “how is a PLA going to affect the number of bidders we get, local and national, and what will it do to our prices?” Other stakeholders, however, said that the non-residential construction market has not yet fully recovered and that a still-soft market plus the size of the project should ensure enough bidders. Stakeholders noted that since the market has been soft in recent years, projects have received more and lower price bids than usual. Another contractor, however, said: “Things are finally on an upswing. . . There were days when there was no work, on a big project you were going to get an awesome price.”

One non-union contractor who said PLAs increase costs gave an example of school districts spending unnecessary funds on architects for new schools – “every district wants to build a Taj Mahal when the state should just have a limited number of standard school designs.” Before the contractor could be asked another question he volunteered “actually that has nothing to do with PLAs.”

Another potential advantage of a PLA according to some interviewees was that “on a larger project, a PLA provides consistency – of work times and other work rules – and also ensures no stoppages.” The advantage of a PLA can be greater in Pennsylvania when the separations act requires multiple prime contractors and one of the prime contractors is not a traditional prevailing wage contractor. The PLA in that context provides a way for everyone to get on the same page and can help ensure that owner doesn’t end up needing additional staff to problem solve among all the contractors, trades, and other project parties.

Several stakeholders spoke positively about Built Rite, a program of structured communication on larger projects established over three decades ago by the Philadelphia Area Labor-Management Committee (PALM). In Philadelphia PLAs on large projects Built Rite has now become a standard feature that helps realize the potential for a PLA to ensure regular communication among other parties, identification of potential problems early, and effective problem-solving.



Wages and benefits are not likely to be impacted by a PLA because the Bridge Commission has a policy of using the higher of federal and state prevailing wage and benefit standards. In the project region, this ordinarily means that the project wage and benefit standards will be the same as the collectively bargained wages and benefits required under a standard PLA.

The Bridge Commission executive team has extensive experience with PLAs in Philadelphia. As a result, the Commission recognizes more than many owners that PLAs are project-specific agreements that can be customized to meet owner's needs. Two specific areas where the Commission recognize the potential of customized PLA's are safety and workforce diversity. On interviewee said: "An increased awareness of safety can be baked into the PLA." Typically, this approach involves a combination of a committee on safety including owner, contractor, and trade representatives and a system for monitoring incidents and problem-solving to ensure that problems don't recur. This can help ensure success for an "Owner-Controlled Insurance Program" (self-insurance) that reduces insurance costs below those of contractors' own insurance, reducing project costs. "We buy the policies for the project – and control our own destiny – and so we don't pay for higher costs in the bid. We take away those costs as well as require heightened safety awareness."

A second area where the Bridge Commission recognizes the value of customized PLAs is workforce diversity – what in Philadelphia tends to be called an "Economic Opportunity Plan" within a PLA. The benefits of including workforce diversity provisions in a PLA is that it can help ensure that contractors and trades "own" shared responsibility for achieving diversity outcomes – not on the "outside" resisting interference in their recruitment and referral mechanisms. As well as simple language establishing a committee on diversity under the overall PLA Oversight Committee, the standard mechanisms inside a PLA can include goal setting (goals can be set in the PLA or later by the committee), data gathering/monitoring to track progress towards the goals, and actions as necessary to improve workforce diversity outcomes. "A program or policy for diversity on a project, the only place to do that is in a document signed by the owner, contractor, and trades."

## **C. Project Description**

Details on the Scudder Falls Project are available online at <http://www.scudderfallsbridge.com/background.htm>. This project description is an abbreviated version of text available at that link.

The Project includes adding a travel lane and adequate outside and inside shoulders in each direction on I-95 with auxiliary lanes to accommodate entry and exit from adjoining interchanges on the I-95/Scudder Falls Replacement Bridge. The Proposed Action also includes improvements to the Taylorsville Road interchange in Pennsylvania and to the NJ Route 29 interchange in New Jersey; highway improvements necessary to transition to the existing six-lane section of I-95 extending approximately 1.5 miles east from NJ Route 29 to the Bear Tavern Road (County Route 579) Interchange; a pedestrian/bicycle facility, contiguous with the new I-95/Scudder Falls Bridge southbound structure across the Delaware River, connecting the Delaware Canal towpath in Pennsylvania with the Delaware and Raritan Canal towpath in New Jersey; and tolling of the I-95/Scudder Falls Replacement Bridge through all electronic cashless tolling (AECT).

To facilitate the development and evaluation of these various alternatives, the project was divided into four segments:

1. I-95 from PA 332 to Taylorsville Road (Pennsylvania)
2. Taylorsville Road Interchange (Pennsylvania)
3. Scudder Falls Bridge
4. NJ Route 29 Interchange and corresponding I-95 approach (New Jersey)

A set of improvement options was developed and evaluated for each segment. Options were evaluated based upon criteria that included potential impacts to the natural environment and local communities. At each step of the decision-making process, The DRJTBC has chosen the following best options for each segment; these options combined constitute the agency's Preferred Alternative:

**Segment 1: I-95 from PA 332 to Taylorsville Road - Widening I-95 to the Inside of the Highway**

The recommended option for the segment on I-95 from PA 332 to Taylorsville Road is widening to the inside of the highway's corridor - namely converting the wide existing median strip to travel lanes.

The option would result in the addition of one travel lane in each direction, one lane northbound and one southbound. West of Taylorsville Road, with the proposed improvements, I-95 will consist of three travel lanes in each direction. With the inside widening, the grassed median will be replaced by travel lanes and shoulders, a paved median, and a concrete barrier. An illustration of how I-95 looks now and after the proposed improvement is presented below:

Please click on the image below to view a larger pdf.



**Segment 2: Taylorsville Road Interchange at I-95 in Pennsylvania - Option 2**

The recommended option for the Taylorsville Road Interchange will eliminate the existing eastern southbound off-ramp from I-95 and combine it with the existing western southbound off-

ramp. All other existing ramps at the interchange -- the northbound off-ramp, the two northbound on-ramps, and the southbound on-ramp -- would be retained with minor alignment modifications made to these ramps. Modifications will be made to I-95 acceleration and deceleration lanes in the interchange area to improve traffic safety and flow. In addition to these modifications of on- and off-ramps at the interchange, Taylorsville Road would be widened to provide two lanes in each direction plus turning lanes within the interchange. Woodside Road would be widened on the approaches and exit legs to its intersection with Taylorsville Road.

**Segment 3: Scudder Falls Bridge - Addition of Travel Lanes, Upstream Alignment**

The current Scudder Falls Bridge consists of two travel lanes in each direction with no shoulders and it is insufficient to meet future traffic demands.

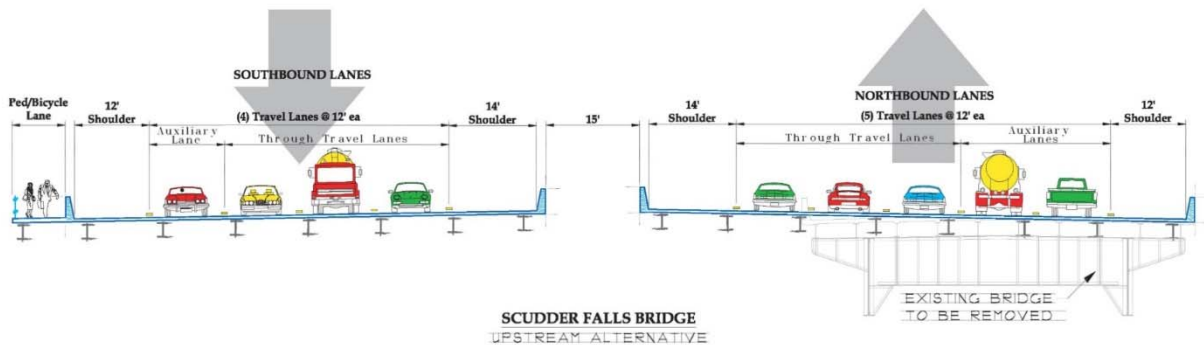
The DRJTBC has concluded that the existing bridge must be replaced to meet future traffic and public safety needs. The Commission is recommending that a new bridge be constructed upstream overlapping the current bridge footprint. The new structure will have five lanes northbound (three for through traffic and two for auxiliary entry/exit travel) and four travel lanes southbound (three for through traffic and one for auxiliary entry/exit).

Auxiliary lanes provide vehicles with a way to safely access and egress the interstate particularly when interchanges are closely spaced. Full inside and outside shoulders will be provided on the bridge.

The inside shoulder of I-95 throughout the project area will be 14 feet wide to accommodate potential Route 1 Bus Rapid Transit (BRT) service that would operate during congested conditions. The Commission will include the construction of a 10 - 12 feet wide pedestrian/bike path on the southbound side of the bridge as part of the planned replacement of the bridge.

An illustration of the proposed improvement of the Scudder Falls Bridge is presented below:

Please click on the image below to view a larger pdf.



#### **Segment 4: NJ 29 Interchange and corresponding I-95 approach in New Jersey - Roundabouts**

The recommended option for this project segment calls for the reconstruction and realignment of the Route 29 interchange through the use of roundabouts. This option would result in a folded diamond interchange with two roundabout intersections at the ramps with I-95. This option eliminates all traffic signals through the interchange to allow for a free flow of traffic. The option also retains the bypasses for NJ Route 29 northbound and southbound traffic. Adequate acceleration and deceleration lanes will be provided on to I-95. The stop-sign at the southbound I-95 on-ramp will be eliminated as will the existing I-95 on-ramp from NJ Route 175 (Upper River Road). This latter movement will be accommodated with the NJ Route 29 interchange.

#### **Construction Challenges on the Project**

The project has a series of particular challenges, most of which a PLA will not materially impact except to the extent that it promotes cooperation and teamwork in general. Some of these challenges connect to the fact that this is a bridge project. These include protecting threatened and endangered species during the process of putting construction equipment in the water. The hydraulic constraints on construction. The potential for flooding, including when New York state dams have water releases in anticipation of projected heavy rainfall – which can mean the river at the bridge is fully charged before a storm.

Another project-specific feature is the commitment to having two lines of traffic flowing throughout the project. This could relieve some pressure and time sensitivity: “it gives us the ability to not have a hard start or hard stop and to determine the schedule without the pressures of traffic impacts or external influences.” Timeliness on the project is critical, however, because of its connection to project financing. Debt service for the project will begin partway through the project, and a financing assumption is built in that tolling will begin in the northern half of the new bridge once it is complete. “Project financing would be impacted by a long delay because anticipated toll revenues are baked into the overall financing for the Commission. A minor hiccup could have a major influence on the rest of the balance sheet.” This consideration increases the potential PLA benefits from avoiding work stoppages and promoting overall cooperation.

## **D. Construction Industry and Labor Market Analysis**

### ***Current and Projected Supply and Demand in the Construction Industry and Its Craft Skills Labor Market***

The supply-demand situation in the non-residential construction industry and its labor market have an important impact on the availability of labor to complete the project on time and on budget. The analysis that follows indicates that Pennsylvania, New Jersey and the local Scudder Falls Bridge region are finally beginning to rebound from the trough of the recent recession, with employment having recovered a third to a half of the jobs lost in the Great Recession and in the prolonged construction downturn that lasted years beyond the overall recession. The rebound in the industry and expectation of continued growth has heightened concerns about skill shortages. Given these concerns, access to skilled labor through the union hiring hall could be more critical to the success of the project.

*Construction employment trends in the United States, Pennsylvania, and New Jersey.* Six years since the end of the Great Recession the U.S. economy is growing but remains well short of full employment.<sup>16</sup> The epicenter of the recession was the residential housing market which shed 1.4 million jobs in the United States (a decline of 43%) between its April 2006 peak and its January 2011 trough. Employment in non-residential construction continued to grow in 2006 and 2007 before reaching its peak in February 2008. From that peak to its February 2010 trough non-residential construction shed just shy of a million jobs (a decline of 23%). From their respective troughs to August 2015, employment in residential and non-residential construction in the United States as a whole has increased by 469,400 (24%) and 499,600 (15%) respectively.

Examining employment trends in Pennsylvania and New Jersey within in the residential and non-residential sector requires the use of another data source<sup>17</sup>– the Quarterly Census of Employment and Wages (Quarterly Census) – which is only available through the fourth quarter of 2014. The Quarterly census reveals a decline from peak to trough in residential construction of 26% and 31% in Pennsylvania and New Jersey respectively (Table 1).<sup>18</sup>

**Table 1.**

<b>Employment change in construction overall and by subsector as a result of the recession (peak to trough – 2007 to 2010)</b>			
	overall	residential	non-residential
<b>Pennsylvania</b>			
Change	-44,516	-28,692	-22,488
Percent Change	-17%	-26%	-14%
<b>New Jersey</b>			
Change	-42,272	-26,335	-17,157
Percent Change	-24%	-31%	-19%

Following patterns, the residential did not much, 14% of its in

national non-construction shrink as shedding employment

**Table 2.**

<b>Employment change in construction overall and by subsector since the start of the recovery (2010 to 2014)</b>			
	overall	residential	non-residential
<b>Pennsylvania</b>			
Change	17,006	4,505	13,405
Percent Change	8%	5%	10%
<b>New Jersey</b>			
Change	14,673	8,988	5,684
Percent Change	11%	15%	8%

Source. Keystone Research Center based on Quarterly Census of Employment and Wages data

<sup>16</sup> The simplest metric of whether the economy is near full employment is the percentage of workers with a job. By this statistic 59.4% of the population had a job in August 2015 a figure that stands about 3.5 percentage points below pre-recession levels. The situation improves little when you narrow your focus to prime age adults (age 25 to 54) where 77.2% of this population had a job in August a figure that is 2.7 percentage points below pre-recession levels.

<sup>17</sup> Currently at the state level only the Quarterly Census of Employment and Wages allows a decomposition of construction employment into its residential and non-residential components.

<sup>18</sup> Because QCEW data is not adjusted for seasonality we conduct our analysis focusing on the 4<sup>th</sup> quarter of each year, as result peak and trough years will differ slightly from analysis of annual averages.

Pennsylvania and 19% in New Jersey. Since 2010 residential construction is up 5% in Pennsylvania and 15% in New Jersey. Non-residential construction employment since 2010 is up 10% in Pennsylvania and 8% in New Jersey.<sup>19</sup>

Turning our attention to the region's metropolitan statistical areas we rely again on Current Employment Statistics (the source for our summary of national employment trends) which provides more current data (through the 2<sup>nd</sup> quarter of 2015) but from which only data on total (residential plus non-residential) construction employment is available.

We find (see Table 3) that:

- Between the 2<sup>nd</sup> quarter of 2007 and of 2013 (the lowest-employment year for this area), construction<sup>20</sup> employment in Trenton area (Mercer county) was down by nearly a quarter, 1,500 jobs. Employment has recovered by almost half this amount (700 jobs) in the last two years.
- Construction employment in the Montgomery-Bucks-Chester declined by 22% (a decrease of 12,700 jobs) between 2007 and 2010. After staying low for three years, construction employment is up 12.8% since 2013.
- In the Camden MSA construction employment fell by more than a fifth, 5,800 jobs from 2007 to 2012. Since 2012, the region has regained over three quarters of the construction jobs lost.
- Overall construction employment fell by nearly 30% in the Middlesex-Monmouth-Ocean MSA from 2007 to 2012 (12,000). The region has recover nearly half these jobs since 2013 (5,400 jobs).
- Construction employment in the City of Philadelphia fell a relatively modest 14% as a result of the recession and has added back just over a 1000 jobs (a gain of 10%) since the start of the recovery.

In none of the five MSAs that are nearest the project site is construction employment returned to the peak levels reached in 2007. On average across the five MSAs construction employment in the 2<sup>nd</sup> quarter of this year was 90% of its 2007 levels. In Trenton, Montgomery-Bucks-Chester, and Camden MSAs most of the gains since the recovery began have occurred in the last 12 months.

The bulk of the labor used to complete this project will be drawn from the non-residential construction labor market, a labor market that has not seen as deep of job loss as the residential market but one that remains below peak employment levels in both Pennsylvania and New Jersey. If recent job growth trends in construction persist we can expect the construction labor market in the region to tighten substantially by the end of this project.

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<sup>19</sup> Over the last decade non-residential construction employment represented 61% of all construction employment in Pennsylvania and 53% of all construction employment in New Jersey.

<sup>20</sup> Construction employment is defined as total employment in construction, natural resources, and mining – employment in just construction is not available by Metropolitan area. Construction accounts for the vast majority of employment this aggregate.

Area	2nd Quarter							2013 as percent of 2007
	2007	2010	2011	2012	2013	2014	2015	
Pennsylvania†	267.0	221.6	225.4	228.7	229.4	235.4	246.5	92.3%
New Jersey†	175.0	131.9	130.7	130.1	138.9	142.5	152.0	86.8%
Trenton, NJ	6.2	5.5	5.0	5.1	4.7	5.0	5.4	87.6%
Montgomery-Bucks-Chester, PA	58.4	45.7	46.2	45.7	45.7	48.5	51.5	88.3%
Camden, NJ Metropolitan Division	25.6	20.6	19.8	19.4	21.1	20.8	24.0	93.6%
Middlesex-Monmouth-Ocean, NJ	42.8	31.0	30.9	30.8	34.7	35.6	36.2	84.6%
Philadelphia City, PA	11.8	10.2	10.3	10.1	10.8	11.0	11.2	94.9%
Delaware County, PA	11.9	9.7	9.7	9.3	9.7	10.5	10.6	89.3%
Atlantic City-Hammonton, NJ	7.3	4.8	5.7	4.7	5.1	4.9	6.0	81.8%
Vineland-Bridgeton, NJ	3.3	2.4	2.8	2.4	2.3	2.5	2.7	82.8%
Dover, DE	3.8	2.2	2.2	2.2	2.4	2.8	3.0	78.8%
Allentown-Bethlehem-Easton, PA-NJ	16.9	12.5	12.7	12.5	12.6	13.5	14.0	82.6%
Newark, NJ-PA Metropolitan Division	52.1	38.9	38.5	38.8	40.0	41.3	46.2	88.7%
Bergen-Hudson-Passaic, NJ	33.5	26.2	25.9	26.4	27.6	29.2	28.7	85.7%
¥ Construction employment unless specified otherwise is defined as total employment in construction, natural resources, and mining. Construction accounts for more than 90% of this aggregate								
† Construction employment only								
Source. Keystone Research Center based on the Bureau of Labor Statistics-Current Employment Statistics								

*Contractor and union views of the supply-demand situation in the construction industry and its craft skills labor market currently and in the near future.* Contractors, unions, and owners agreed demand in the construction industry was growing and its labor market tightening. Industry stakeholders observed that bid prices have risen in the past year. In addition, demand is expected to grow further in heavy/highway construction because of the continued rollout of construction paid for by Pennsylvania's the transportation infrastructure package approved by the Pennsylvania legislature in late 2013 and also because of widening and other construction on the Pennsylvania Turnpike. Offsetting, these sources of demand, New Jersey is at the tail end of a \$3 billion widening program, freeing up consultants, engineers, and labor for other work.

According to several sources, the depth and length of the recession have had what is likely to be an enduring impact on labor unions. For example, one experienced industry leader said: "My impression of the labor market is that the historic confrontational nature of labor in general has eased a great deal. The quality of work and safety have gotten better; the trades have adjusted to the recession; they know they have to be a proponent of the projects, to make them successful. Prior to the recession, they wanted the biggest slice of the last pie. Since the recession, the trades, owners, and contractors want to figure out how to bake another pie."

**Workforce Age and Experience**

As well as the overall level industry and labor demand, two other, closely intertwined, factors that impact labor quality and the potential for near-term skill shortages are workforce age and experience. The analysis below documents two realities. First, the unionized workforce is substantially older than the non-union, a reflection, in part of wages and benefits that lead to more unionized trades being career construction workers. In particular, the share of the unionized workforce 30 and under, some of whom will have very little experience, is significantly smaller than the share of non-union workforce in that age cohort. Second, the industry – union and non-union – has aged over time, which will increase retirement rates over the next decade. This is another warning sign that skill shortages could reappear quickly at some point during the industry recovery.

Figure 1 shows that the construction industry workforce in Southeastern Pennsylvania and all of New Jersey is older now than in 1980. (We pool three years of data in the second period shown in Figure 1 to enlarge the sample enough to estimate the age profile of the workforce reliably.) In 1980, 38 percent of blue-collar construction workers in this region were 40 years or older. By 2011-2013, that share had grown to 50 percent (see Figure on the next page). This figure underestimates the age of the non-residential construction industry, which is older (and more unionized) than the non-union construction industry.

**Figure 1.**

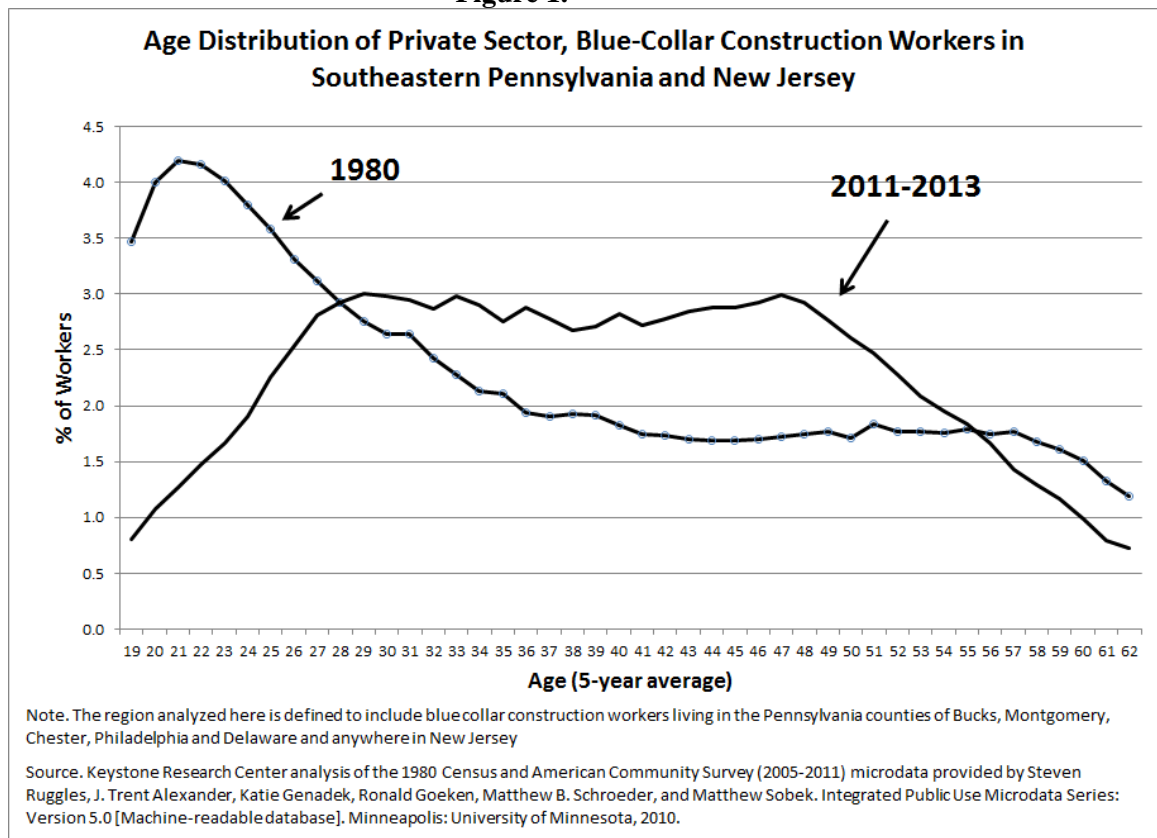




Table 4 shows a more detailed breakdown of the age of the union vs. non-union construction workforce. This table shows that 33% of non-union workers are aged 16 to 30 as compared to 18% of union workers. Over a quarter of union workers are 51 or older compared to only 16% of non-union workers.

<b>Table 4.</b>		
<b>Union membership among blue-collar construction workers living in Southeast Pennsylvania and New Jersey, 2010-2014</b>		
Age	Union %	Non-Union %
16 to 30	18%	33%
31 to 40	25%	28%
41 to 50	31%	23%
51 to 54	14%	9%
55 and older	12%	11%
Note. Sample is private sector blue-collar construction workers in the following region: Pennsylvania -- Bucks, Chester, Montgomery, Delaware and Philadelphia; in New Jersey -- Mercer, Hunterdon, Somerset, Middlesex, Monmouth, Ocean, Burlington, Camden, Gloucester, Cumberland, Salem, Morris, Essex, Union and Sussex; in Maryland: Cecil; in Delaware -- New Castle.		
Source. Keystone Research Center analysis of the Current Population Survey		

### *Investment in Apprenticeship Training at Union and Non-union Contractors*

In the context of a large project that will take place in a period in which accessing a sufficient quality of labor could become a major issue, one way to gauge skill levels at union and non-union contractors is based on their respective investment in apprenticeship training. According to a 2012 study, enrollment in Pennsylvania joint apprenticeship and training programs was about 12 times higher than in management-only apprenticeship programs operated by non-union affiliates of the Pennsylvania Associated Builders and Contractors.<sup>21</sup> An earlier, more detailed study focused on Pennsylvania also found that most apprenticeship training takes place through labor-management programs.<sup>22</sup> Joint programs had 10,163 active apprentices in 2002, compared to 1,731 in employer-only programs. Since more training takes place via joint labor-management programs, this reinforces the likelihood that skilled workers will be more accessible via hiring halls and a PLA.

The Great Recession led to a dramatic decline in apprenticeship training in joint labor-management construction apprenticeship programs. Among Philadelphia building trades, many of whose locals have a geographic jurisdiction that includes Bucks County, the estimated number of apprentices taken into apprenticeship programs plummeted from a peak of 756 in 2006 to 239 in

<sup>21</sup> Thomas J. Kriger, *Analysis of Associated Builders and Contractors*, National Labor College Working Paper, May 31, 2012, pp. 105-112, online at [http://www.knowyourabc.com/ULWSiteResources/abc/Resources/file/TJK\\_Reports/ABCResearchReport-FINAL5-31-12.pdf](http://www.knowyourabc.com/ULWSiteResources/abc/Resources/file/TJK_Reports/ABCResearchReport-FINAL5-31-12.pdf).

<sup>22</sup> David Bradley and Stephen Herzenberg, *Construction Apprenticeship and Training in Pennsylvania*, (Harrisburg: Keystone Research Center, 2002).

2009 and has only begun to recover in the last two years.<sup>23</sup> In addition, when the market is slow apprentices tend to struggle to find work, reducing retention and graduation rates. The reduction in apprenticeship training since 2007 increases the potential for skill shortages as the market recovers: disinvestment in apprenticeship in the slow economies of the early 1980s and early 1990s contributed to the skill shortages that appeared in the industry during the 2002-2007 expansion. When these skill shortages occurred in Pennsylvania, joint labor-management apprenticeship programs ramped up apprenticeship to meet the industry need more substantially than did employer-only apprenticeship programs.<sup>24</sup> Anecdotal reports indicate a similar ramp up of apprenticeship intake may be beginning now.

### ***Potential for Near-term Skill Shortages***

Prior to the recession, an industry consensus existed that pervasive skill shortages existed in the construction industry. For example, the Philadelphia Regional Construction Industry Education Partnership (PRCIEP), which is affiliated with the main non-union industry association (the Associated Builders and Contractors), noted that the upcoming retirement of "baby boomers" will increase the need for replacement workers. This Industry Partnership also noted that, with society's emphasis on "college" after high school rather than trades, the share of youth who explore construction-related training was declining.

Echoing PRCEIP, Neill and Griffin (also writing before the Great Recession) noted: "In urban areas nationwide and particularly in the Northeast Corridor, there is not only full employment but continuing shortages of skilled labor."<sup>25</sup>

Skilled labor shortages in construction have been alleviated temporarily by the slow economy since 2007, but at the same time recent economic trends make the industry highly vulnerable to a quick reappearance of skill shortages. The depth of the recession and length of the slow recovery mean that skilled trades workers with a good work ethic who found themselves unemployed or underemployed have been forced to find other careers, whether using their construction skills (e.g., working at Home Depot, in maintenance or other technical occupations, or as crafts workers in industry) or in other fields. The economic pressure that underemployed non-union workers feel to move out of construction means that the supply of non-union labor has likely contracted in proportion with the over 20% decline in industry employment (or somewhat smaller decline in non-residential construction) (see Table 1). This contraction means that non-union contractors who want to expand quickly may struggle to find a pool of workers. After five or six slow years, the *only* substantial surplus pool of skilled and experienced workers in the construction industry are trades affiliated with hiring halls. For these workers, good wages plus the ability to retain health and pension benefits despite not working full-time, full-year, make it possible to remain "on the bench," ready to return to full-time work when the construction industry more fully recovers.

In neighboring Maryland, a recent report by the Maryland Center for Construction Education and Innovation documents broadly shared industry concern about severe skill

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<sup>23</sup> Mark Price and Stephen Herzenberg, *The Supply and Demand for Craft Workers in the Philadelphia Construction Labor Market*, report prepared for the Philadelphia Area Labor-Management Committee, May 20, 2010.

<sup>24</sup> For details on the increase in apprenticeship intake in union and non-union apprenticeship programs during the expansion of the second half of the 1990s, see Bradley and Herzenberg, *Construction Apprenticeship and Training in Pennsylvania*.

<sup>25</sup> O'Neill and Griffin, *The Case for Public Owner PLAs*, p. 17.

shortages in the industry.<sup>26</sup> Based on a survey of industry stakeholders, the study found that “...With retirement expected to be even more elevated going forward, skills shortages could become debilitating. One survey participant summed it best by stating ‘if senior owners are not petrified by continuity, they should be.’” Seventy percent of respondents to the Maryland survey identified “skilled trades and crafts” as the likely “top area of labor and/or skill shortages over the next decade” with the second-place (of four) categories at 13% (“engineering and technology”). (“Project management” was third at 10%.)

In light of these labor-market dynamics, a PLA could be particularly valuable over the next several years because it guarantees access to the only skilled surplus labor pool in the construction industry. This pool of labor is also likely to be high in quality because of the higher investment in apprenticeship training by the unionized part of the construction industry and also because workforce age, experience, and occupational tenure are relatively high among unionized blue-collar skilled trades. Lastly, the fact that non-union contractors can access this pool of labor thanks to a PLA may make it possible for them to bid on some projects on which they could not bid if they had to find their own additional labor supply.

### ***Workforce Diversity and to Apprenticeship Access for Minorities and Women***

Table 5 shows the minority share of the construction trades workforce in New Jersey, Southeastern Pennsylvania, and northern Delaware. These figures also include residential as well as non-residential construction, because the only source with information on workers’ union status reports data for construction as a whole, not for residential and non-residential separately.) The figure shows that Hispanics make up nearly 40% of the non-union workforce. By contrast, the African-American share of the union workforce is roughly as high as that of the non-union (11% versus 5%). The overall minority share of the non-union workforce is 44%, far in excess of the minority share of the region’s overall workforce.

<b>Table 5.</b>		
<b>Union Membership By Race and Ethnicity Among Blue-Collar Construction Workers living in Southeastern Pennsylvania and New Jersey, 2010-2014</b>		
<b>Race &amp; Ethnicity</b>	<b>Union</b>	<b>Non-Union</b>
<b>Overall</b>	100%	100%
White	79%	55%
Black	11%	5%
Hispanic	9%	39%
Other	1%	1%
<p>Note. Sample is limited to private sector blue-collar workers employed in the construction industry living in the region. The region is defined here to include in Pennsylvania: Bucks, Chester, Montgomery, Delaware and Philadelphia; in New Jersey: Mercer, Hunterdon, Somerset, Middlesex, Monmouth, Ocean, Burlington, Camden, Gloucester, Cumberland, Salem, Morris, Essex, Union and Sussex; in Maryland: Cecil; in Delaware: New Castle.</p>		
<p>Source. KRC analysis of the CPS</p>		

<sup>26</sup> Maryland Center for Construction Education and Innovation, *The Critical Path: Positioning Maryland as an Innovation Leader in the Global Construction Industry –Key Findings and Recommendations*, p. 9; online at <http://www.mccei.org/mccei/Resources/TheCriticalPath.aspx>

Statistics on apprenticeship intake help explain why the African-American workforce share is twice as high among union relative to non-union trades. In 2001, for example, joint labor-management programs in Pennsylvania registered 319 additional male minorities and 76 female apprentices.<sup>27</sup> This compares with 33 male minorities and five women in non-union apprenticeship programs. Extensive workforce diversity efforts (also known as “economic opportunity plans”) linked with PLAs on large projects in the Philadelphia area (some of it reviewed below) also help explain the higher African-American share in the unionized trades in Eastern Pennsylvania. National research (some of it by the second author) indicates that the higher Hispanic share among non-union contractors reflects incorporation of Hispanics into low-wage, low-benefit jobs, often in residential construction.

One opportunity on a workforce diversity plan for the Scudder Falls project would be to focus on expanding the outreach to Hispanics with some construction workforce.

## **E. Analysis of Standard Project Labor Agreement Provisions**

While no draft PLA yet exists for this project, the potential benefits of a PLA can be considered using the standard provisions of most PLAs. These have been analyzed in conjunction with the Collective Bargaining Agreements (CBAs) of many of the building trades in the project region.

### **1. Intent, Purpose, and Benefits of the Agreement**

These provisions of a PLA enumerate the intent, purpose, and benefits of the agreement. They typically establish the purpose of the PLA as promoting the public interest, “efficiency,” and on-time, on-budget completion and also:

- (a) avoiding work stoppages or other disruptions;
- (b) standardizing terms and working conditions;
- (c) flexibility in work scheduling, shift hours, and starting times;
- (d) adjusting work rules and staffing requirements to benefit the owner;
- (e) providing comprehensive and standardized labor/management dispute settlement;
- (f) ensuring a reliable source of skilled and experienced labor; and
- (g) improving employment opportunities for minority, female, and veteran apprentices and journeymen, as well as minority, women, and disabled owned business enterprises.

These types of provisions are aligned with the objective of the owner on the Scudder Falls project.

### **2. Scope of the Agreement**

The standard scope of the agreement clauses allow owners to exempt particular aspects of the project from the PLA if the owner believes a specialized contractor is required that might not be obtained through a PLA.

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<sup>27</sup> Bradley and Herzenberg, *Construction Apprenticeship and Training in Pennsylvania*, op. cit.

### 3. Joint Administrative Committee

Most PLAs provides for the establishment of a “Joint Administrative Committee” with representatives from the General Contractor, City, and Unions. These provisions also allow for the creation of an “Economic Opportunity Oversight Committee” (or “Workforce Diversity Committee” that reports to the Joint Administrative Committee and monitors effort to promote local, veteran, minority, and female hiring on the project. Other committees, e.g., on safety, can be established by the JAC as it sees fit.

### 4. Access to Union Referral Systems

These provisions provide for unions to refer applicants to all contractors on the project, using the union referral or hiring hall systems or other mechanisms (with the unions typically having 48 hours to refer applicants). This provision provides both union and non-union contractors with access to the largest pool of available skilled craft labor in the construction industry.

### 5. Core Employee Provision

Some employees give contractors the right to use their own “core employees” for some number or percentage (e.g., up to 10%) of non-supervisory employees. Such provisions are not common in the city of Philadelphia.

### 6. Disputes/Grievances, Jurisdictional Disputes, and Work Stoppages

In combination, Articles on “Disputes and Grievances,” “Jurisdictional Dispute,” and Work Stoppages”) insure PLA Projects against stoppages or other disruptions. These provisions standardize dispute settlement and grievance procedures, which vary across the collective bargaining agreements. They also standardize resolution of jurisdictional disputes.

### 7. Management Rights

Some local union contracts in the region identify specific management rights but others do not. Of those that do, all specify management’s right to hire/fire but only some specify management’s right to direct the workforce, management’s rights over the methods of technology, management’s rights over their use of equipment, and management’s rights to direct and control operations.

A comprehensive Management’s Rights clause applicable to all contractors and all unions can ensure uniform management rights on the Project. Such a clause enumerates the powers and exclusive authority of the contractors for management and control of project operations including: planning, directing, and controlling of the workforce; selection of foreman and the size and make-up of the crew; assignment and scheduling of work, promulgation of work rules; determination of equipment and number of employees needed; regulation of overtime work; and determination of methods and techniques of construction. Management also controls the choice of materials and the use of new technology, equipment, machinery, tools and/or labor-saving devices.

### 8. Wages and Benefits

The wage and benefit provision of most PLAs in the project region provide that contractors shall pay prevailing wage and benefit standards as established by the area collective bargaining

agreements. These provisions should be consistent with the Commission's policy of paying the higher of the state or federal prevailing wage and benefit levels to each trade.

#### 9. Hours of Work, Overtime, Shifts, and Holidays

There is some diversity among local agreements in terms of start and quit times, rules governing the establishment of additional shifts outside the standard work day, whether work starting outside the standard work day requires premium pay, and the number of observed holidays.

With regard to start and quit times, some contracts establish an eight to 12 hour window of time in which the shift can be worked, where the start time can occur anytime within that window. A few contracts specify a precise start and quit time where these start and quit times vary. Since it is quite common in the normal course of construction that one trade will require the support and/or assistance of one or more other trades in the performance of routine work, it is imperative that for efficient scheduling and cost control purposes, the contractor can depend upon the entire workforce being on the job on the same days, with predictable start and quit times and clear rules regarding premium pay for work scheduled outside the normal shift. Most PLAs provide uniformity on the work day, work week, and starting times.

With regard to overtime, some PLAs provides flexibility by allowing for four 10-hour days (Monday to Thursday) at straight time and then (in Section 3) a make-up 10-hour Friday at straight time to make up for a lost day.

The standardization of hours of work, shifts, premium pay and observed holidays across the various trades creates both potential cost savings and flexibility to aid in the on time completion of a project.

#### 10. Workforce Diversity/Economic Opportunity

As noted, workforce diversity provisions of a PLA can help ensure trade and contractor commitment to achieving the owner's diversity objectives. Such provisions can include a committee and a data collection and monitoring process. Some PLAs also designate a trusted partner (e.g., local non-profit) to work with contractors, unions, and apprenticeship programs on recruitment and training of diverse workers. Alternately, some of the details of implementing an Economic Opportunity plan can be left to be worked through by the committee.

#### 11. Safety

As noted, safety is another area of opportunity that can be advanced through a PLA commitment implemented through a committee in conjunction with data collection and tracking plus a system for diagnosing the root cause of incidents when they occur and so that they do not recur.

#### 12. Apprentices

Some PLAs specify specific goals for investment in apprenticeship (e.g., 20% of the hours on the project). This could also include diversity goals for apprentices separate from journeyworkers. Such features are completely at the discretion of the owner. Given past challenges with finding qualified female trades employees and also the increase in the Hispanic share of the industry,

these could be particular targets of apprenticeship recruitment. With regard to female apprentices, PALM has an effort ongoing with Temple University on which the Bridge Commission could consider piggybacking.

### 13. Drug and Alcohol Policy

Many PLAs provides for the incorporation of substance abuse program for all work performed on the agreement. Unionized contractors have successfully used such programs to largely eradicate substance abuse problems of workers referred by unions to contractors. The extension of this program to all contractors should help ensure that workers' generally on the Project are free of substance abuse problems. This should enhance health and safety, productivity, and on-time, on-budget project completion.

### 14. Openness to Non-Union Contractors

The PLA also ensures that the Project will be open to both non-union and union contractors, consistent with public bidding laws.

## F. Findings and Recommendations

Based on the prior analysis, we find that a PLA would be appropriate on this project because it would serve the following objectives of the owner:

- Lock in through union referral services – or “hiring halls” – an adequate supply of consistently high quality skilled labor for the project in a period when local demand for construction trades labor is expected to continue growing and a shortfall could emerge.
- On a project that is over six times the typical annual capital budget of the Bridge Commission, the PLA could help ensure regular and effective communication among owner, contractors, and building trades, especially if supported by a formal structured communication process such as the Pennsylvania Area Labor Management Committee’s Built-Rite process.
- A PLA would prohibit work stoppages and other disruptions, an advantage that could grow in importance if unemployment falls further. This and other benefits of the PLA could also help ensure on-schedule progress ensuring that toll collection necessary to repay project debt can begin while the second half of the bridge is completed.
- The PLA would also help ensure standardization and consistency of work rules across all of the participating trades, promoting efficiency and smooth project operation.
- A PLA and Built-Rite or an equivalent process could also help ensure an increased awareness of safety and the achievement of low incident rates that allow use of an Owner Controlled Insurance Program (self-insurance) that saves costs compared to contractors incorporating their own insurance rates into their bids.
- A PLA could also support an effective workforce diversity (or “economic opportunity”) program on the project, with owner, contractor, and trades buy in, and with the

establishment of ambitious but attainable workforce diversity goals and the collection of data and monitoring of progress to ensure achievement of those goals.