

## **Workshop W2**

**Wednesday, November 4, 9:00 a.m.–noon**

### **GETTING UP TO SPEED ON ALTERNATIVE PROJECT DELIVERY SYSTEMS**

**Presented by**

**David J. Hatem, PC**  
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Public-private partnerships (P3s) and integrated project delivery (IPD) are buzzwords that many in construction risk and insurance circles have heard but few fully understand. Having gained acceptance as an alternative method of funding public infrastructure projects overseas, the P3 concept is gaining traction in the United States as many government entities grapple with insurmountable gaps between infrastructure needs and funding for these projects. Likewise, in an economically challenging time, IPD offers the potential for improvements in efficiency and cost-effectiveness by integrating design and construction. This workshop will first provide an overview of the P3 concept, then examine the various facts and myths of P3 construction and outline the unique and increased design and construction risks participants face, as well as potential gaps in conventional liability insurance coverages.

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**David J. Hatem, PC**  
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**Donovan Hatem LLP**

Mr. Hatem is one of the speakers for Workshop W2, "Getting Up to Speed on Alternative Project Delivery Systems," on Wednesday morning. He is a founding partner of the multi-practice law firm, Donovan Hatem LLP. He leads the firm's Professional Practices Group, which represents engineers, architects, and construction management professionals. Mr. Hatem has been practicing over 30 years and is nationally recognized for his expertise in law related to the design and construction industry. He is regularly called upon by this country's leading architect-engineering firms to provide procurement advice to public owners contemplating major projects and to propose risk management strategies and solutions, especially on major subsurface projects.

In addition, Mr. Hatem has been retained by professional liability insurers under owner-controlled insurance programs to represent engineering consultants and construction program management professionals on major underground projects throughout the United States, including: New York City's East Side access project and Second Avenue subway project; L.A. Metro's Red Line and East Side extension projects; Seattle's Sound Transit project; Milwaukee Metropolitan Sewage District's Deep Tunnel project; Dallas's DART Light Rail Transit project; and Houston's Rapid Transit project.

Mr. Hatem frequently lectures on issues of professional liability for design and construction management professionals, risk management, and design-build procurement issues, and he has authored numerous related articles. He is a chapter contributor and editor of a new book, *Megaprojects: Challenges and Recommended Practices*, scheduled for publication in 2009 by American Council of Engineering Companies. This publication will provide an objective, informed, and realistic study of the important issues which can be anticipated in the planning and successful delivery of megaprojects. Previous books he has edited include *Design-Build Subsurface Projects*, Zeni House, 2002; and *Subsurface Conditions: Risk Management for Design and Construction Management Professionals*, Wiley, January 1998.

In 2008, Mr. Hatem received the 2008 American Council of Engineering Companies of Massachusetts Distinguished Service Award. ACEC/Massachusetts presents this award only in years in which a candidate distinguishes himself or herself through the extraordinary support of the engineering profession. He was also selected by his peers for the fifth year running for inclusion in *The Best Lawyers in America @ 2008* in the fields of Construction Law and Professional Malpractice. Because *Best Lawyers* is based on an exhaustive peer-review survey in which more than 25,000 leading attorneys cast almost 2 million votes on the legal abilities of other lawyers in their specialties, inclusion in *Best Lawyers (The Best Lawyers in America @ 2008)*, copyright 2007 by Woodward/White, Inc., Aiken, SC) is considered a singular honor.

Please visit <http://www.donovanhatem.com/attorneys/hatem.html> for a comprehensive list of articles authored and presentations delivered by David J. Hatem, PC.

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**Conventional Liability Insurance Coverages  
Confront the Brave New World of Integrated  
Project Delivery and Public-Private Partnership:  
*Risk Allocation and Insurance Coverage Issues, Challenges  
and Solutions***

**PRESENTED BY:**

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Architects and Engineers Professional Liability,  
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**David J. Hatem, PC, Partner,  
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## Introduction

### Integrated Project Delivery (IPD) and Public-Private Partnerships (PPPs):

- Risk
- Liability exposure
- Liability insurance coverage

# Introduction

What is IPD?

What is PPP?

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# New Project Delivery Approaches

## Increasing Interest in and Utilization of New Project Delivery Approaches

- Integrated project delivery
- Public-private partnership

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## New Project Delivery Approaches

While conceptually distinct—and fundamentally different from traditional project delivery roles, responsibilities, relationships, and risks for design professionals—these new project delivery approaches are premised on, and driven by, the objectives of (a) achieving more integration and collaboration in the design and construction processes, and (b) reducing adversity and conflicting interests of project participants.

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## Need for Change?—What Drives the Movement to an Increasing Interest in IPD?

### Perception and Experience That Traditional Project Delivery Approaches Are

- Dysfunctional
- Fragmented
- Wasteful
- Inefficient
- Conflict and dispute-prone

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# New Project Delivery Approaches

The motivations underlying the movement toward these new project delivery approaches have been summarized as follows:

"Many trends in the U.S. and global construction markets are forcing all construction stakeholders – owners, contractors, designers, subcontractors, suppliers and end users – to develop alternative project delivery systems that encourage higher levels of collaboration throughout the project life cycle. High levels of litigation and confrontation among the parties over the last several decades have led to management practices that inhibit industry productivity and discourage optimal solutions to design and construction problems. Traditional design-bid-build approaches to the completion of projects have created adversaries among project team members whose individual profitability frequently is only attainable at the expense of another party to the contract. Much time and expense is exhausted protecting one's own interest rather than developing creative solutions that improve productivity, enhance design intent, accelerate delivery time, increase quality, and, in general, provide more value for the capital investment made by the owner. All of these forces have left many seeking alternatives to 'business as usual' and experimenting with new, more collaborative ways to deliver projects." A. Hauck, et al., Project Alliancing at National Museum of Australia – Collaborative Process, Journal of Construction Engineering and Management, ASCE, January/February 2004, p. 143.

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# New Project Delivery Approaches

## Realistic Expectation

These new project delivery approaches may be considered and utilized:

- On both horizontal (civil) and vertical (building) projects
- On both private and public (subject to removal of legislative inhibition, or authorization) projects
- On primarily \$50 million plus construction value projects but, over time, on projects having lesser construction value amounts
- In conjunction with both the design-bid-build and design-build delivery methods

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# New Project Delivery Approaches

## General Observations

- Roles, responsibilities, risk and relationships—“four Rs.”
- The new project delivery approaches—to a greater or lesser degree and by different conceptions—place increased emphasis on integration and collaboration among primary project participants, including the design professional.
- Traditional project delivery approaches are based upon “current business models ... legal relationships [that] assume precisely defined boundaries of responsibility and liability. The standard contract forms agonize over the responsibility division between owner, contractor and designer. Insurance has evolved to match these boundaries with different types of coverage aligned to each party. But the integrated, collaborative vision blurs the boundaries. If many participate in a decision, who is responsible? And if all participate, can anyone be responsible?” H. Ashcraft, “Building Information Modeling: A Framework for Collaboration” (2007).

*(continued...)*

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# New Project Delivery Approaches

## General Observations

*(...continued)*

- More integration and collaboration in the design and construction processes present opportunities for reduction of both risk and potential liability exposure for project participants.

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## New Project Delivery Approaches

- How do these new project delivery approaches differ from the more traditional project delivery methods?
  - Risk allocation
  - Risk and liability exposures for project participants
  - Insurability of risk and liability exposures
- Focus of presentation
  - Risk and liability exposures
  - Liability insurance implications
- Not emphasized or excluded
  - Benefits and opportunities
  - Procurement issues
  - Project participant selection

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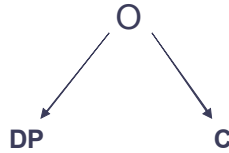
## Traditional Project Delivery Approaches

- Design-Bid-Build
- Design-Build

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# Traditional Project Delivery Approaches Design-Bid-Build

## Design-Bid-Build



## Risk Allocation

- Determined by roles, responsibilities, and contractual relationships
- Typically risk is allocated to the party having the optimum ability to control that risk
- Some risks are exclusively allocated—others shared

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# Traditional Project Delivery Approaches Design-Bid-Build

## Specific Examples of Risk Allocation

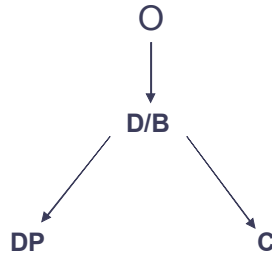
- Design risk
  - Owner implied warranty or Spearin obligation
  - Design professional: typically negligence-based liability standard
- Construction means/methods
- Safety
- Differing site conditions
- Environmental
- Funding

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# Traditional Project Delivery Approaches

## Design-Build

### Design-Build



### Risk Allocation

- Single point responsibility for design and construction—risk allocation implications

### Specific examples of risk allocation

- Design performance standard—warranty
- Cost/quantity estimating
- Design development approval
- Adequacy of design – builder design development and construction cost contingency

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# Traditional Project Delivery Approaches

## Principal Defenses for Design Professionals in Design-Bid-Build and Design-Build

- Defined service scope, roles, and responsibilities
- Professional standard of care: negligence standard
- Indemnification
- Independent contractor status
- Agent of owner
- Construction means and methods/safety
- Exclusive responsibility of construction contractor for contract document compliance
- Privity
- Economic loss rule: limited obligations to parties not in contractual privity with design professional
- Limitations on third-party reliance
- No fiduciary obligations

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## Traditional Project Delivery Approaches

Most of these defenses derive from:

- Assignment of specific and independent roles and responsibilities among project participants
  - Risk allocation among those project participants
  - Individual and distinct project participant control related to risk and liability exposures
  - Independent contractual relationships

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## Traditional Project Delivery Approaches

### Lessons Learned

1. Blurred roles and responsibilities and unclear risk allocation = increased risk exposure for all project participants.
2. Traditional project delivery approaches are confrontational and adversarial.
  - Competitive low bid procurement
  - Unrealistic owner professional standard of care and other unreasonable expectations
  - Fixed price—GMP
  - Unrealistic risk allocation
    - Differing site conditions
    - No damages for delay

### Bottom Line

Project delivery becomes participant-interest centered and zero-sum in nature.

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## Traditional Roles, Responsibilities, and Risk Allocation

- Permanent project design versus construction means and methods distinction
- Contractual independence and compounds
- Spearin implied warranty
- Traditional emphasis on clarity and precision in role and responsibility definition and distinction, and risk allocation among project participants
  - Blurring of roles and responsibilities
  - Conduct in contravention of contractually defined roles and responsibilities

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## Traditional Roles, Responsibilities, and Risk Allocation

- Traditional risk allocation principles:
  - Control = Responsibility
  - Control and responsibility drive risk allocation decision-making
- Design delegation experience
- Liability insurance—tracks legal liability and, therefore, focuses on individual project participant roles and responsibilities and risk allocation
- Economic loss defense
- Sequential and segmented design and construction functions and processes
- Tension and adversity—claims and disputes

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## Traditional Project Delivery Approaches

### Traditional Application of Professional Liability Insurance in Design-Bid-Build and Design-Build

- Definition of professional services
- Definition of insured
- Negligence-based
- Fault-based trigger or standard for coverage
- Contractual liability exclusion
- Construction work not covered

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## Traditional Project Delivery Approaches

### Traditional Application of Commercial General Liability Insurance in Design-Bid-Build and Design-Build

- Professional services exclusion
- Modifications to professional liability exclusion
- Contractual liability coverage
- Economic damage generally not covered
- Pollution exclusion

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# Integrated Project Delivery

- Integrated project delivery (“IPD”) approach involves a three-way agreement between Owner, Design Professional, and Contractor, and potentially other lower-tier project participants
- Various forms of IPD agreements, including one prepared and issued by the Lean Construction Institute, are available
- Like project alliancing, IPD is premised on the principles of risk sharing and no fault or blame
- However, in contrast to project alliancing, typically only certain risks are shared in IPD, and the no fault principle applies only to certain degrees or levels of risk assumption

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# Integrated Project Delivery

The purpose and functioning of the IPD agreement relative to the design and construction processes has been stated as follows:

"The Integrated Agreement seeks to create a system of shared risk, with the goal of reducing overall project risk, rather than just shifting it. In part, this goal is supported by investing significant efforts in up-front collaboration, with the Owner funding early involvement of the project team in an effort to eliminate ambiguity in the documents and maximize the collective understanding of the project's conditions of satisfaction. The Integrated Agreement also strives to raise the quality of design by insisting that design fees be supported by a resource-loaded work plan. The CM/GC is compensated on a cost plus fee basis with a guaranteed maximum price ("GMP")...

Historically, Project Owners have established separate contingency amounts for design issues and construction issues. The Integrated Agreement combines these contingencies into one IPD Team Performance Contingency. The benefit of this shared contingency is that it focuses each team member not only on its own performance, but on the quality of other team member's performance, as well. In this way, the success every team member is directly tied to the performance of all members of the IPD Team. Furthermore, access to contingencies is jointly managed throughout design and construction by the Core Group.

*(continued...)*

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# Integrated Project Delivery

(...continued)

In addition, as a result of their early involvement, the CM/GC and trade contractors agree to a limited basis for change orders - material scope changes, changed site conditions or unforeseen regulatory or code interpretations. The traditional bases for many change orders - lack of document or discipline coordination - are eliminated as a result of the coordination efforts during the design phase. Despite its lean ideals, the Integrated Agreement does not contemplate perfection; the IPD Team Performance Contingency is made available to address work that was inadvertently omitted from the GMP estimate or results from coordination mistakes.

The Integrated Agreement also eliminates the traditional 'negligence' standard as the measure of the designers' financial responsibility. Instead, the Owner and the Core Group Members negotiate a deductible as a percentage of construction costs for 'errors & omissions', even those resulting from negligence, that the Owner will fund out of a portion of the IPD Team Performance Contingency. Above that 'deductible', the parties negotiate a percentage for which the designer will be responsible without proof of negligence ("non-negligent cap"). Above these combined percentages, the Owner must show negligence to recover. This system allows the parties to establish an agreed level of quality and share the risk without being forced into an adversarial system that creates significant waste. With the level of quality established, the Architect is able to prepare its resource loaded plan accordingly." McDonough Holland & Alan PC

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# Integrated Project Delivery

- IPD Agreement

- Parties: The Owner, CM/GC and Design Professional are all parties to the same agreement
- Intent: The declared intent "is to insure effective high quality delivery of the project through elimination of redundancy, errors and waste"
- Objective: Increasing the relatedness of the design professional's and CM/GC's collaboration throughout design and construction
- Realization: The declared intent is accomplished by (a) "aligning the interests of owner/user, builder/fabricator and designer/consultants with a mutually agreed definition of project success," (b) the alignment of risk and reward "to optimize project success over individual entity success," and (c) the "alignment of risk and reward with a party's ability to control risk"

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# Integrated Project Delivery

## Principal IPD Agreement Provisions

- Delivery team project contingency
- Limitations on change orders
- Core group root-cause assessment
- Design errors/omissions
- Standard of care
- Limitation on liability: “Significant portion of putative profit”
- Indemnification
- Consequential damages
- Differing site conditions
- Standard roles and responsibilities provisions

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# Integrated Project Delivery

Project Outcome Risk—Waiver of some (consequential) claims among IPD agreement parties? Limit of liability? Indemnification? Waivers and liability limits only apply if no insurance available; indemnification limited to available insurance.

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# Integrated Project Delivery

## Approaches to Risk and Liability

- Risk sharing
- Risk and liability distinctions
  - Project outcome risk—cost and schedule
  - Project performance risk—design or construction defects in completed project work
  - Third-party claims—claims by non-parties to IPD agreement, injured construction workers

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# Integrated Project Delivery

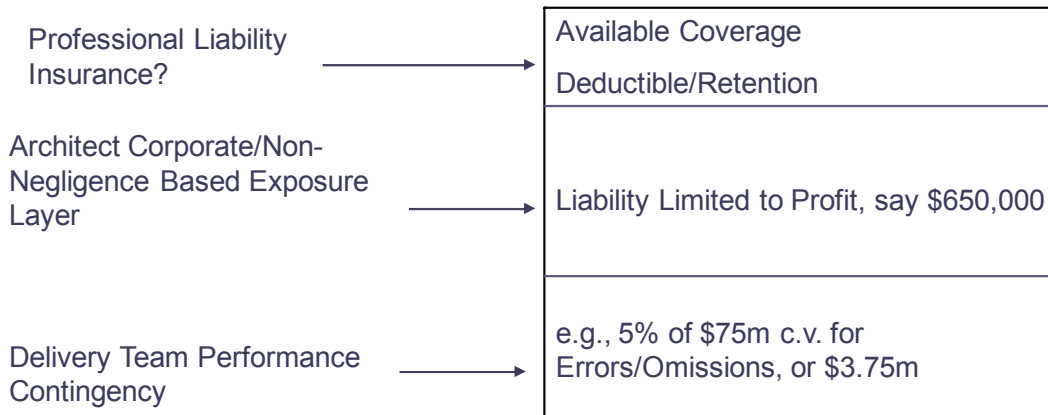
Performance Risk—If manifesting after termination of IPD Agreement, traditional liability principles apply with expectation that conventional liability insurance coverage would respond.

Third-Party Risk—Whether occurring during or after project completion, assumption is that traditional liability principles apply and conventional liability insurance coverage would respond.

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# Integrated Project Delivery Project Outcome Risk

Example  
\$75m Construction Value Hospital Project (New Construction)



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## IPD—Risk, Liability Exposure, and Liability Insurance Issues and Challenges

- Does IPD alter the traditional roles, responsibilities, and risk profiles of design professionals, constructors, and other project participants?
- Does IPD increase risk and potential liability exposure for those project participants?
  - Construction means and methods
  - Product and system deficiencies and failures
  - Constructability issues
  - Design of permanent project work
  - Joint control and collaborative design-making—risk and liability implications

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## IPD—Risk, Liability Exposure, and Liability Insurance Issues and Challenges

- Should collaboration in design development result in collective and shared responsibility for the adequacy and constructability of final project design?
- Does IPD result in loss of traditional rights (e.g., Constructor's Spearin Implied Warranty) and defenses (Economic Loss Doctrine)
- Does IPD require new liability insurance products?

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## IPD—Design Responsibility Issues

- Who is in “responsible charge” of the design process?
- Design delegation versus design distribution
- Risk allocation versus risk sharing
- Reliance rights and limitations (design professional of record remains responsible notwithstanding any right to rely on performance or work product of others)
- Blending and blurring of roles and responsibilities
- Privity and economic loss
- Spearin Implied Warranty

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## IPD—Looking Back: Design Distribution and Delegation Experience

On November 5, 2007, the American Institute of Architects (“AIA”), in conjunction with the AIA’s California Council, published Integrated Project Delivery: A Guide. This guide “is offered as a tool to assist owners, designers and builders to move toward integrated models and improved design, construction and operations processes. The goal of the Guide is to identify the characteristics of IPD and to provide specific information and guidance on how to utilize IPD methods to achieve enhanced design, construction and operations processes.”\*

\*American Institute of Architects Web site

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## IPD—Looking Back: Design Distribution and Delegation Experience

Section 4.4.2 of Integrated Project Delivery: A Guide

“Because project participants remain responsible for individual scopes of work, an IPD approach should not alter traditional requirements with respect to professional or business licenses. Collaboration between designers and constructors does not inherently result in a blending of disciplines. Where assigned work scopes require a constructor to perform design services, it will need to handle that task consistent with registration requirements. This is no different than in the case under a non-integrated approach.” (Emphasis added.)

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## IPD—Looking Back: Design Distribution and Delegation Experience

### Insurance Coverage

- Availability and adequacy of insurance coverage
  - Varied with relative degrees of unpredictability and heightened risk exposure for all project participants, especially the design professional if other project participants do not have adequate, or any, coverage for design risk exposure
  - Contractors and trade subcontractors to whom design responsibility for portions of permanent project work is delegated have vicarious responsibility for defects in the design
    - Coverage is restricted to exposures for construction means and methods design as distinct from design of permanent project work
    - No coverage is afforded under such policies for claims involving purely economic loss or damage

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## IPD—Looking Back: Design Distribution and Delegation Experience

### Insurance Coverage

- In instances in which insurance coverage for defective delegated design is not maintained by the constructor, trade subcontractor, or specialty designer, the design professional's professional liability insurance is often called upon to defend and indemnify claims even though the design professional may not be legally (public law) or contractually (private law) responsible for the final and delegated design
- The design professional's professional liability exposure therefore is increased if other project participants to whom design responsibility is distributed or delegated do not maintain adequate, or any, insurance coverage for defective delegated design

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# Integrated Project Delivery

## Liability Insurance Issues and Challenges

- Blurring of roles and responsibilities
- Risk sharing—especially for design and construction liability exposures
- Professional services exclusion/limited coverage under CGL
- Construction work/product liability exclusion under PLI
- CGL contractual liability coverage—“your work,” and risk sharing
- PLI contractual liability coverage—risk sharing

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# Integrated Project Delivery

- Common ownership/management coverage exclusions or limitations
- Corporate assumption of risk and liability exposures traditionally covered by liability insurance
- Contractual limitations on risk and liability exposure—
  - Limitation of liability
  - Consequential damage disclaimer
- Breadth of inclusion of IPD contractual parties
- Contractual duration of risk sharing/limitation provisions

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# Integrated Project Delivery

## Liability Insurance Implications

- Coverage trigger—breach of professional duty, wrongful act or negligence
- “Claim”
- Insured
- Professional services
- Contractual liability exclusion
- Admission of liability—prejudice to defense
- Construction work—construction management (at risk) exclusion

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# Integrated Project Delivery

## Liability Insurance Solutions

- Integrated CGL, PLI, and builder’s risk coverages
- Project-specific, wrap-up in nature
- All IPD project participants covered
- Duration (policy period) of coverage aligns with contractual risk sharing and limitation provisions
- Coverage conflict resolution
- First-party indemnity coverage
- Third-party coverage—defense and indemnity; resultant BI/PD

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# Integrated Project Delivery

## Liability Insurance Solutions

- Most standard IPD agreements treat liability insurance as extraneous to contractual risk sharing, risk allocation (indemnification and limitation liability), and liability waiver provisions
- The key to a successful liability insurance solution is to integrate insurance into the integrated project delivery contractual model for risk sharing, risk allocation, and liability waiver provisions

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# Integrated Project Delivery

## Liability Insurance Coverage

### Underwriting Considerations

- Project-specific/wrap-up in nature
- Sophistication, experience, capabilities of IPD team members
- Financial strength/resources of project owner
- Breadth of inclusion of IPD agreement parties

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## Integrated Project Delivery

- Agreement Terms
  - Project scope definition
  - Cost target—realism
  - Schedule target—realism
  - Contingency—adequacy
  - Core group management and decision-making
  - Dispute resolution
  - Risk sharing—differential terms/duration for outcome risk, performance risk, third-party?
  - Liability waiver, limitation, and indemnification
  - Project/target performance monitoring

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## Integrated Project Delivery

### Liability Insurance Coverage

#### Underwriting Considerations

- Who is/are the insured(s)
- How is “third-party” defined for coverage purposes?
- What is the coverage attachment point and how does it correlate with contractual risk sharing and contingencies?
- How should the standard contractual liability exclusion be modified?

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## Public-Private Partnership

- The Public-Private Partnership (“PPP”) is a public sector project delivery approach in which a governmental entity (i.e., the Public Partner) and at least one private sector participant—the “Concessionaire”—by contract agree that the Concessionaire is obligated to develop, finance, design, construct, operate, and maintain a public use project.
- PPP Approach: Operates by definition, only in public sector construction project context, and primarily utilizing the design-build delivery method.

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## Public-Private Partnership

### What drives the increasing use of the PPP approach?

- Funding constraints of public sector participants
- Ability to deliver project without recourse to public funding
- Objective of public sector participant to transfer substantial project risk—funding, design, construction, operational, and maintenance—to the private sector participant(s)
- Improve the quality and efficiency of project delivery and operational service to the public
- Depends upon legislative authorization—either affirmative or modification of inhibiting laws

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# Public-Private Partnership

## What types of public projects are candidates for use of the PPP approach?

There is a vast array of horizontal and vertical project types, including:

- Toll roads
- Water and sewerage treatment plants
- Sewerage outfall tunnels
- Roadway and other transportation-related tunnels
- Powerstations
- Hospitals
- Schools
- Prisons

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# Public-Private Partnership

## Increasing Interest

- Approximately 23 states have some form of legislation authorizing PPPs
- More states are aggressively investigating the potential for PPPs
- The federal government is encouraging PPPs for federally funded transportation projects
- Expect even more interest in PPPs in challenging economic times

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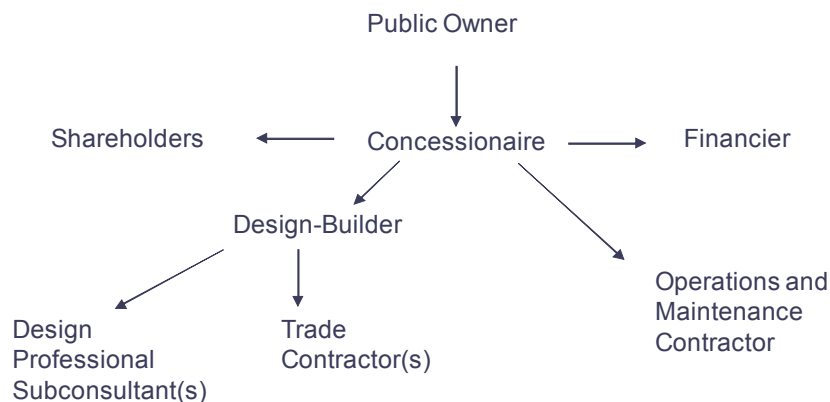
## PPPs and the Stimulus Act

- Funding periods and limitations point in the direction of funding for “off the shelf” projects.
- More significant and complex capital improvement projects requiring longer planning, design, and construction schedule are not likely to fall within the scope of available stimulus funding.
- PPPs allow for maximization of deployment and disbursement of available state and stimulus funding to smaller projects with demonstrated present need due to deferred maintenance or other pressures or considerations.
- Design-Build: Common denominator between stimulus funding project candidates and PPPs.
- Public Owner Project Controls: Transparency, accountability, cost, and schedule pressures.

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## Public-Private Partnership

### Who Are the Typical Project Participants in a PPP?



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## Public-Private Partnership

### What are representative relationships among the PPP project participants?

- Independent or arms-length (no common equity or management) between concessionaire, design-builder, and design professional(s)
- Shared or common equity and/or management between concessionaire and design-builder and design professional(s), or some of them

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## Public-Private Partnership

### Risk Allocation

FHWA Public Private Partnerships include the following table identifying general approaches to risk allocation between public and private partners.

[www.fhwa.dot.gov](http://www.fhwa.dot.gov)

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# Public-Private Partnership

Typical PPP Risk Allocation			
Risk Type	Describe	Allocation	Mitigation
<b>Technology Performance</b>	Existing technology unproven in terms of revenue service	Private (vendors)	Warranties
<b>Environmental Flaws or Delay</b>	Lengthy studies Permitting delays Regulatory approval periods	Public	Strong process management Private partner assistance
<b>Market Revenues</b>	Customer willingness to pay for level of service (LOS) unknown; affects interest rate and marketability for project-based revenues financing  Traffic and revenue below projections  Competing/alternative projects  Excessive capital maintenance  Insufficient revenues to fund ongoing O&M	Public and Private (funders/lenders)	Investment grade traffic and revenue studies accepted by rating agencies  Adequate debt coverage ratios  Adequate reserves  Credit enhancement, insurance  Toll flexibility  Careful budgeting processes and O&M controls  Non-compete protections

# Public-Private Partnership

Risk Type	Describe	Allocation	Mitigation
Completion Costs	Cost and schedule overruns	Private (construction contractor) and public	<ul style="list-style-type: none"> <li>Use of fixed price/guaranteed maximum contract</li> <li>Adequate contingency funds</li> <li>Liquidated damages</li> <li>Force majeure insurance</li> <li>Design and construction management/oversight by public partners (which may be outsourced)</li> <li>Financially viable private partners</li> <li>Specialized surety products</li> <li>Allowing private partners to undertake majority of design</li> </ul>

# Public-Private Partnership

Risk Type	Describe	Allocation	Mitigation
<b>O&amp;M Costs</b>	<p>Excessive costs of operations</p> <p>Excessive capital maintenance expenditures</p> <p>Unpredictability of costs</p> <p>Regulation of DUC rates and contractor ROR</p>	<p>Private (O&amp;M contractor) and public</p>	<p>Non-recourse financing</p> <p>Minimum guarantees</p> <p>Toll adjustment flexibility</p> <p>Credit enhancement, insurance</p> <p>Careful budgeting processes</p> <p>Capital asset replacement assurances</p> <p>Warranties, incentives, and penalties</p> <p>Financially viable private partners</p> <p>Use of private O&amp;M contract</p> <p>Use of fixed price/guaranteed maximum pricing, with escalations and adjustments over time</p>

# Public-Private Partnership

Risk Type	Describe	Allocation	Mitigation
<b>Policy/Political Constraints/Support</b>	Excessive costs of operations Uncertainties regarding public policy and change in law  Regulatory uncertainties  Funding support	Public and private	Persuasive and supported arguments for project  Early regulatory agency involvement  Public relations and citizen/policymaker education campaign  Community engagement and buy-in strategy
<b>Phasing Timing and Resources</b>	Uncertainties regarding initial vs. subsequent phase economics	Public and private	Strong process management  Early regulatory agency involvement  Expedited and streamlined procurement process  Early and continuous contact with other states and local governments
<b>Liability</b>	Construction defects  Day-to-day operational  Subcontractor claims  Environmental	Public and private	Warranties  Insurance  Well-thought-out allocation of liability in contract based upon party best able to control and mitigate  Innovative insurance products

# Public-Private Partnership

Risk	Definition	Allocation		
		Public Sector	Private Sector	Shared
<b>Failure to</b>	Failure to translate design to brief requirements of the client into the design		✓	
<b>Continuing development of design</b>	The detail of the design should be developed within an agreed framework and timeline		✓	
<b>Change of client's requirements</b>	Changes made by the client leading to additional design costs	✓		
<b>Change in design requested by the operator</b>	Changes of this nature could lead to additional design costs		✓	
<b>Changes to design required by external influences specific to the public sector client</b>	Changes required under this category could result in additional costs	✓		
<b>Failure to build to the brief</b>	Misinterpretation of design or failure to build to the specification during the construction can lead to both additional design and construction costs		✓	
<b>Note</b> ✓ denotes ownership				

D. Cartlidge, Public Private Partnerships in Construction (Taylor & Francis New York 2006)

# Public-Private Partnership

- Those are general risk allocation approaches
- The specific risk allocation approaches relevant to any particular project typically are derived from the roles, responsibilities, and relationships among the primary project participants
- There are a number of PPP agreements that establish or pertain to risk allocation terms for the design professional

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# Public-Private Partnership

## What are the principal contractual relationships?

- Public Owner—Concessionaire
  - Concessionaire: Special purpose entity or vehicle with no assets other than capital investments from shareholders and/or loan proceeds from financier, and expectation of revenue stream from project post-completion operations (e.g., tolls)
  - Concession Agreement:
    - Concessionaire to assume responsibility for financing, design, construction, operations, and maintenance—fixed price
    - Legal obligations (including performance requirements and standards, indemnity, and warranty) influence “downstream” provisions to be contained in other PPP agreements
    - Significant risk assumption that will influence concessionaire objective (requirement) of transferring downstream and/or to insurance as much of that risk as possible
    - Equitable adjustment to fixed price and timing of payment of claims
    - Dispute resolution

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# Public-Private Partnership

## Concessionaire-Design-Build Agreement

- Fixed price
- Downstream risk transfer
- Shares characteristics of owner-design build agreement, except typically more aggressive pressure in terms of downstream risk transfer
- Equitable adjustment of fixed price and timing of payment of such adjustments
- Insurance requirements

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# Public-Private Partnership

## Design/Build-Design Professional Subconsultant Agreement

- Responsibility for cost estimating/quantity surveys

The Engineer shall provide the following specific services solely for the use and benefit of the Design-Builder in connection with preparation of the response to the RFP: [here define services]. The Design-Builder shall be solely responsible for all cost estimating, quantity surveys or other predictions of expected project cost. While the engineer may provide estimates regarding quantities or units of scope components, the Design-Builder acknowledges that such estimates are (a) based upon only limited and conceptual design development derived from the contents and requirements of the RFP and (b) likely to significantly increase based upon the post award design development and finalization process.

*(continued...)*

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# Public-Private Partnership

(...continued)

The Design Builder shall verify quantities or other information furnished by the Engineer and shall use its knowledge and experience as a construction professional in developing its bid and pricing for the work, and shall include in such bid an appropriate degree of contingency for additional cost resulting from the post-award design development and finalization process. The Engineer shall not be responsible for project costs, direct, indirect or consequential, that result from the design development and finalization process.

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# Public-Private Partnership

## Liability Threshold

Agreement Not to Claim for Certain Costs. Design/Builder recognizes and expects that (a) it may incur or expend direct or indirect costs in excess of the fixed contract amount specified in its Agreement with the Owner due to a number of reasons, including (i) the design development process; (ii) Owner review of design development submissions; (iii) quantity or cost estimating issues or variations; (iv) inaccurate or otherwise unattainable concepts, assumptions, details or other information underlying or embodied in deliverables, including schematic design, prepared by Engineer during the Proposal Phase; or (v) for other reasons, and for which the Design/Builder may be unable to obtain any cost or time adjustment or relief from the Owner (the "Additional Costs") Design/Builder agrees not to assert any claim against the Engineer unless and until such Additional Costs exceed \_\_\_\_\_; and, in such event, the Design Builder's entitlement to any recovery shall be based on a breach of the professional standard of care.

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## Public-Private Partnership

- Standard of care/warranty
- Indemnification
- Scope of design review
- Dispute resolution

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## Public-Private Partnership

### Concessionaire-Financier Agreement

- Limited recourse to project assets and revenue stream
- Subrogation and assignment
- Indemnification
- Insurance requirements; additional insured status and contractual liability coverage
- “Events” of default—maximum objective and requirement of risk transfer to other PPP project participants and/or insurance, as condition to secure financing commitment

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# Public-Private Partnership

## Concessionaire-shareholder agreement

- Subrogation and assignment
- Indemnification
- Insurance requirements; additional insured status and contractual liability coverage

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# Public-Private Partnership

## Concessionaire Risk and Liability Exposures

Arising out of design and construction process

- Vicarious responsibility
- Cost overrun and delay
- Business/commercial risk

Concessionaire risk and liability exposures arising out of completed project and operation and use of completed project

- Defective design
- Defective construction
- Public liability/completed operations

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## Public-Private Partnerships

### Design-Builder Risk and Liability Exposures Arising Out of Design and Construction Process

- Vicarious design risk
- Construction defect

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## Public-Private Partnership

### Design Professional Risk and Liability Exposure Issues Arising Out of the Design and Construction Process

- Scope definition
- Contract terms
- Third-party (financier/shareholder) claim risk exposures
- Subrogation

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# Public-Private Partnerships

## Liability Insurance Issues and Challenges

- Duration of risk and liability exposures
- Business/commercial risk v. insurable risk
- Vicarious design risk and liability exposure for concessionaire and design-builder
- Completed operations
- Public law liability—derivative sovereign immunity
- Extended duration of post-completion coverage

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# Public-Private Partnership

## Professional Liability Insurance Implications

- Breach of professional duty v. warranty obligation
- Contractual liability exclusion
- Common ownership/management exclusion
- Alignment of contractually assumed risk with coverage scope and terms
- Project-specific insurance is best response: underwriting intensive

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# Public-Private Partnership

## Role of Project-Specific Insurance and Surety

- There are short- and long-term performance risks that require the procurement of project-specific insurance and surety. For example:
  - Adequacy of performance: measured by contractual, warranty, standard of care or other standards
  - Cost overruns due to deficient professional performance
  - Timeliness of performance and project completion
  - Quality of the completed project work

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# Public-Private Partnership

- Concessionaires, financiers, shareholders, design-builders, and design professionals need insurance and surety protection on a project-specific, dedicated, and duration guaranteed basis
- The process of underwriting project-specific insurance and surety on a PPP project is generally more intensive and protracted than on a more traditional delivery method project given the expanded roles and responsibilities of project participants; more complex relationships among some or all of them; the nature and degree of risk assumption; and the volume of documents and agreements that must be evaluated relevant to liability exposure of the design professional

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## Public-Private Partnerships

- Primary general liability question to address is whether concessionaire/contractor group will be given sovereign immunity for third-party incidents on roadway projects by DOT/state?
- Determine whether P3 contracting is allowed as a delivery method in the applicable state in question

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## Public-Private Partnerships

### Liability Insurance Solutions under Lexington P3 Product

P-3 coverages include general liability, professional liability, and builder's risk during construction and operational general liability and property after the project is complete.

- General Liability
  - Coverage for premises liability and completed operations liability
  - Extended completed operations coverage to the date of the applicable statute of repose (usually capped at 10 years)
  - Potential for "means and methods" exception (i.e.: BI/PD) to the professional liability exclusion
  - Coverage available for operations and maintenance (O&M) (i.e.: before/after construction exposure)

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## Public-Private Partnerships

- Project-specific professional liability
  - Coverage for design team
  - Includes owner and concessionaire indemnification provisions
- Builder's risk
- Operational GL and operational property

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## Public-Private Partnerships

- P-3 products are offered on a stand-alone or combined basis
- Workers compensation, environmental liability, surety, and additional excess capacity can be added
- Tailored risk management and insurance solutions to respond to the entire life cycle of a P-3 project

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# Public-Private Partnerships

## Liability Insurance Coverage

### Underwriting Considerations

- Project-specific/wrap-up in nature
- Experience and financial strength of PPP team members
- Contract review
  - Project owner-concessionaire
  - Concessionaire—financier, shareholders, investors
  - Concessionaire—design/builder
  - Design-builder/design professional
- Contract terms
  - Risk allocation
  - Warranty
  - Standard of care

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# Public-Private Partnerships

## Liability Insurance Coverage

### Underwriting Considerations

- Design professional cost/quantity estimating responsibility
- Indemnification
- Subrogation
- Assignment
- Third-party beneficiary
- Public law—derivative sovereign immunity
- Intensive, interactive, and potentially protracted underwriting process

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## Summary

- These new project delivery approaches are here to stay
- Expect increasing interest and utilization over next few years, into next decade and beyond
- Expect the need to address liability risk exposures through appropriate contract terms and risk management practices
- Expect the need for “behavioral” adjustment required for functioning in an integrated and collaborative mode
- Expect the need for liability insurance solutions to the issues and challenges associated with risk and liability exposures under these new project delivery approaches
- Stay tuned!