



**NECA**  
2013  
WASHINGTON

Recent Developments in Integrated Project Delivery (IPD) for NECA Members  
October 14, 2013—9:00-9:50 AM

Following this session, you will be able to:

- Explain the concept and structure of an IPD project.
- Identify the issues and risks for electrical contractors to participate in projects using IPD.
- State recommendations for those in the electrical construction industry to address the identified issues and risks and become involved on an IPD project.

## Continuing Education Credits

NECA has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET) and is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

**This session is eligible for 0.1 IACET CEU**

To earn these credits you must:

- Have your badge scanned at the door
- Attend 90% of this presentation
- Fill out the online evaluation for this session

2


NECA 2013 WASHINGTON D.C.

## SPEAKER INFORMATION

- **Allen W. Estes, III**
- **OLES MORRISON RINKER & BAKER, LLP**
- Main Phone (WA): 206.623.3427  
Fax (WA): 206.682.6234  
Main Phone (CA): 510.903.2001  
Fax (CA): 510.903.2015
- Cell Phone (253) 861-4071
- Email: [estes@oles.com](mailto:estes@oles.com)

NECA 2013 WASHINGTON D.C.

## What is Integrated Project Delivery (IPD)?



visualphotos.com

4729 [87] © www.visualphotos.com

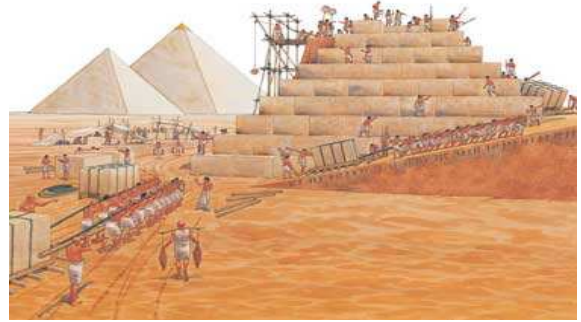
NECA 2013 WASHINGTON D.C.

### Definition of IPD

- Integrated Project Delivery (IPD) has been defined by the AIA (American Institute of Architects) as a project delivery approach that integrates people, systems, business structures and practices into a process that collaboratively harnesses the talents and insights of all participants to optimize project results, increase value to the owner, reduce waste, and maximize efficiency through all phases of design, fabrication and construction.

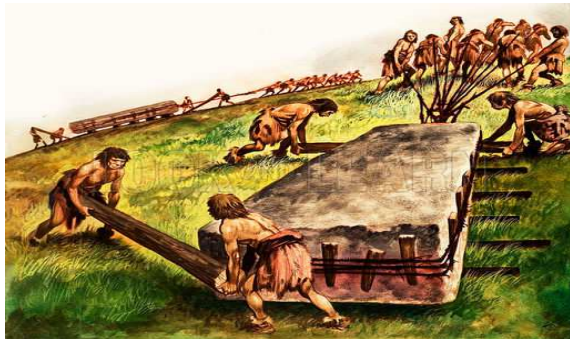
NECA 2013 WASHINGTON D.C.

### Example of IPD



NECA 2013 WASHINGTON D.C.

### Example of IPD



NECA 2013 WASHINGTON D.C.

### Example of IPD



NECA 2013 WASHINGTON D.C.

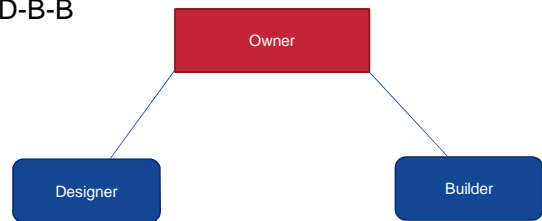
## TRADITIONAL PROJECT DELIVERY METHODS



NECA 2013 WASHINGTON D.C.

## Traditional Methods of Project Delivery Design-Bid-Build

D-B-B



NECA 2013 WASHINGTON D.C.

## Traditional Project Delivery Methods Design-Bid-Build

### Pros

- 1) Owner hires Designer to be his/her advocate on the project
- 2) Designer is selected based on his/her specific experience with the type of project being built
- 3) Designer is conflict resolution and quality assurance manager for Owner
- 4) Open bidding of multiple general contractor allows for the lowest initial cost for the plans and specifications

NECA 2013 WASHINGTON D.C.

## Traditional Project Delivery Methods Design-Bid-Build

### Cons

- 1) The actual cost of the project is not guaranteed until the design is complete and the general contractor's bids are received
- 2) The Designer's estimate to establish budgets may not be accurate due to lack of Contractor involvement
- 3) The lack of team work between the Designer and the Contractor during the design process results in more costs than if a team approach were utilized during the design process
- 4) An adversarial relationship exists between the Designer and the Contractor resulting in more litigation

NECA 2013 WASHINGTON D.C.

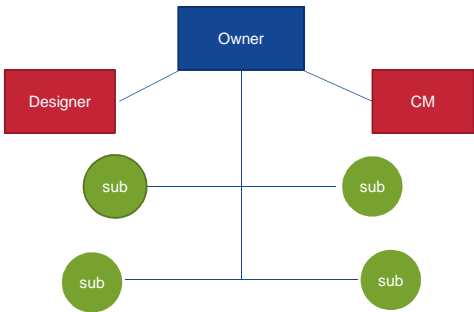
### Traditional Project Delivery Methods Design-Bid-Build

**Cons Continued**

- 5) Lack of communication between owner, designer and builder often exists. Increases the likelihood of litigation.
- 6) Change Orders are likely due to lack of contractor input during design process.
- 7) Trade and specialty contractors are usually in the best position to influence the design to improve constructability and productivity but they are excluded from the design process
- 8) The party responsible for the design is often also responsible for determining whether there are any mistakes in the design
- 9) Each participant is encouraged to look after its own interest rather than the interest of the project as a whole

### Traditional Project Delivery Methods Construction Management

CM



### Traditional Project Delivery Methods Construction Management

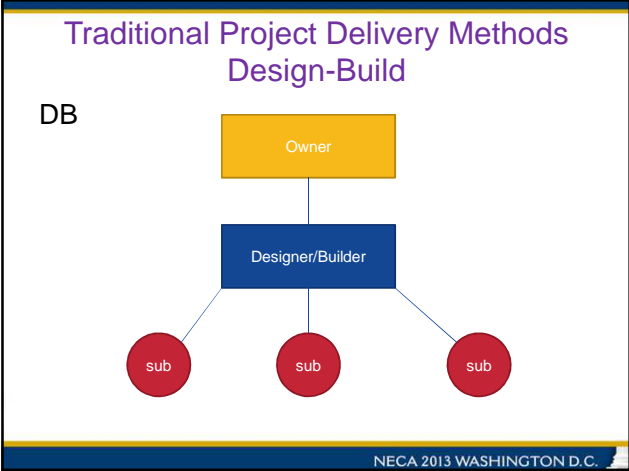
**Pros**

- 1) The Designer and Construction Manager are selected based upon their specific experience with the type of project being constructed.
- 2) The Designer and Construction Manager are the Owner's advocate
- 3) The Designer and Construction manager are the quality assurance and conflict resolution managers for the Owner
- 4) Open bidding of each individual subcontractor allows for the lowest initial costs for the plans and specifications by trade
- 5) The Designer and Construction Manager provide checks and balances for the Owner throughout the construction process
- 6) The integration of the Designer and Construction Manager increase the level of communication at the earliest and most critical time of the design process

### Traditional Project Delivery Methods Construction Management

**Cons**

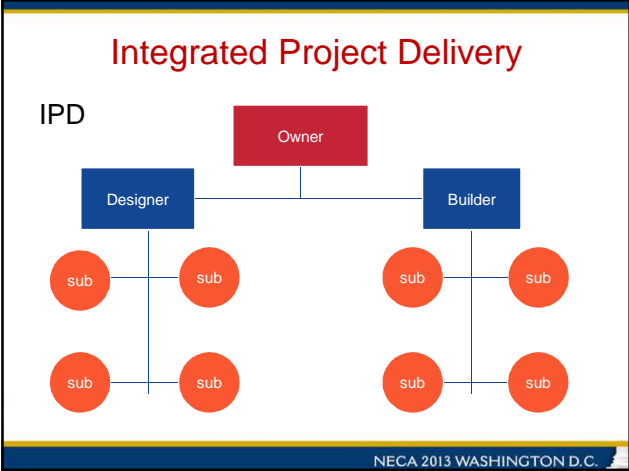
- 1) The Owner takes risk of the Subcontractors by contracting with them
- 2) Direct contracting with subcontractors results in more cost than a team approach
- 3) The actual cost of the project is not guaranteed until the design is complete and the subcontractor's bids are received
- 4) An adversarial relationship often exists between the Construction Manager and the Subcontractors due to lack of contractual privity
- 5) A conflict of interest can exist when the Designer and the Construction Manager because as construction costs escalate so does their fee
- 6) The Owner is at risk to the subcontractors that the plans and specifications are correct and bears the risk of errors and omissions
- 7) Change orders are common and often result in a 10% increase in contract price due to error or omission



- Traditional Project Delivery Methods  
Design-Build**
- Pros**
- 1) There is single source of responsibility
  - 2) The design build approach delivers a project at lower costs than other traditional methods
  - 3) Design fees are lower due to higher level of builder involvement
  - 4) Preconstruction estimates are highly accurate due to early builder involvement
  - 5) Communication is greatly enhanced by involving critical team members early
  - 6) A guaranteed maximum price can be established early
- NECA 2013 WASHINGTON D.C.

- Traditional Project Delivery Methods  
Design-Build**
- Pros continued**
- 7) The design-builder represents to the subcontractors that the plans and specifications are fit for their intended purpose and bears the risk of errors and omissions
  - 8) Subcontractors have contractual privity with the design-builder
- NECA 2013 WASHINGTON D.C.

- Traditional Project Delivery Methods  
Design Build**
- Cons**
- 1) The designer is often the employee of the builder which eliminates important checks and balances on the project
  - 2) The design-builder may not have the requisite experience to design and build the particular project
  - 3) Often, the builder can direct the designer to decrease the quality of materials in order to maximize builder profit
  - 4) Many design-build companies also self perform major portions of the project, thus increasing builder profit by eliminating competitive bidding of major scopes of work
  - 5) Many design-build companies do not share the results of subcontractor bidding with the owner
  - 6) There is often a high number of change orders due to errors and omissions
- NECA 2013 WASHINGTON D.C.



### How is Integrated Project Delivery Different than Traditional Project Delivery Methods?

- IPD is a hybrid of the Design-Bid-Build, Construction Management and Design Build project delivery systems which promotes transparency of costs, open communication between the owner and various professionals and protects the owner from risk through team ownership of the design and build solution

NECA 2013 WASHINGTON D.C.

- ### Integrated Project Delivery
- Principals of Integrated Project Delivery:**
- 1) Mutual respect and trust;
  - 2) Mutual benefit and reward;
  - 3) Collaborative innovation and decision making;
  - 4) Early involvement of key participants;
  - 5) Early goal definition;
  - 6) Intensified planning;
  - 7) Open communication;
  - 8) Appropriate Technology;
  - 9) Organization and leadership
- NECA 2013 WASHINGTON D.C.

- ### Integrated Project Delivery
- Project Team Formation**
- 1) Project team is formed as close as possible in time to the project's inception;
  - 2) Project team is made up of two types of participants: primary participants and key supporting participants .
    - 1) Primary participants have substantial responsibilities throughout the project. Typical examples are designer, builder and owner.
    - 2) Key supporting participants perform more discrete functions than primary participants. Typical examples are design consultants and subcontractors.
  - 3) Whether a team member is primary or key supporting participant depends on the primary concern of the project.
  - 4) Collaboration and open communication are essential to team atmosphere. In order to foster this environment the project team is often housed in a joint facility.
- NECA 2013 WASHINGTON D.C.

## Integrated Project Delivery

### Project Team Decision Making

- 1) Ultimate decision making abilities are not vested in a single team member
- 2) Decisions are usually unanimous and are made by a decision making body
- 3) Primary participants usually part of project decision making body. Key supporting participants are typically not part of the decision making body but serve as advisors on topics concerning their expertise
- 4) Decision making body meets regularly
- 5) All decisions are made in the best interest of the project

## Integrated Project Delivery

### Team Communications

- 1) All successful team communication relies on collaboration
- 2) Building Information Modeling (BIM) is a common tool used to support IPD projects
- 3) Communication protocols are essential to team collaboration
- 4) Confidentiality Agreements are often used to protect the dissemination of proprietary information between team members

## Integrated Project Delivery

### Service Scope

- 1) Traditional methods of construction allow participants to operate within their own silo of responsibility
- 2) IPD attempts to change the silo approach by making the major participants focus on achieving shared goals
- 3) A matrix of parties roles and responsibilities is typically used to define scope of work. A well written IPD Agreement clearly defines individual work scopes.

## Integrated Project Delivery

### Risk

- 1) Collaboration is not a substitute for accountability in the IPD project model
- 2) Current legal standards of care for design and construction remain in tact despite collaborative environment
- 3) However in order for IPD to work there must be some shared level of responsibility for risk of non-performance
- 4) Direct participants (Owner, Designer, Constructor) negotiate the level of risk for non-performance that they share.
- 5) IPD Agreements often spread the risk of non-performance amongst all direct participants



## Integrated Project Delivery

### Project Performance:

- 1) Well crafted IPD Agreements clearly spell out project goals and the consequences of success or failure
- 2) An IPD project plan usually includes metric values and reporting intervals to monitor progress of the project
- 3) Project goals remain the province of the Owner, but standards to measure the goals are jointly agreed upon by the principal project participants
- 4) The common goals of most IPD projects are a reduced price of construction and a reduced construction time due to the extensive planning and collaboration amongst the project team

## Integrated Project Delivery

### Team Member Dispute Resolution

- 1) In order to preserve team environment internal disputes are usually avoided. Disputes destroy the team environment because they destroy collaboration.
- 2) If disputes occur they are resolved by the project's decision making body unanimously and in the best interest of the project
- 3) Team members usually sign contracts which contain "no suit" provisions which waive their right to litigate or arbitrate and adopt the decision making body's dispute resolution process as the only means to resolve disputes between the team members
- 4) In the absence of a "no suit" provision, the contract will contain a means for resolving the dispute externally such as a mediation, arbitration/litigation mechanism to resolve disputes

## Integrated Project Delivery

### Pros (from Owner's Perspective)

- 1) There is a single source of responsibility
- 2) An accurate guaranteed maximum price (GMP) is established early in the process
- 3) The team-build approach delivers projects at a lower cost than the design-bid-build approach
- 4) The team build approach allows design services to be performed at a lower cost than other delivery systems
- 5) The owner has direct access to all team professionals
- 6) Shared risk
- 7) All critical team members are involved in the design process
- 8) Open bidding of individual subcontractors allows the owner to be involved with the selection of every subcontractor on the project while the builder remains responsible for the subcontractor's performance
- 9) Change orders due to errors and omissions in the design do not usually occur
- 10) Modified dispute resolution process

## Integrated Project Delivery

### Pros (from Contractor's perspective)

- 1) Process allows constructors to contribute their expertise in construction techniques early in the design process resulting in improved project quality and financial performance during the construction phase
- 2) Participation during the design phase provides the opportunity for strong pre-construction planning, more timely and informed understanding of the design, anticipating and resolving design-related issues, visualizing construction sequencing prior to construction start and improving cost control and budget management
- 3) Shared risk for project performance



### Integrated Project Delivery

**Pros (from Designer perspective)**

- 1) Integrated delivery process allows the designer to benefit from the early contribution of contractor's expertise during the design phase. For example preconstruction resolution of design-related issues
- 2) Improved cost control and budget management
- 3) Increased likelihood that project goals will be achieved
- 4) Shared risk for project performance

### Integrated Project Delivery

**Cons**

- 1) Team-Build is a new concept and sharing is counterintuitive to a historically closed industry
- 2) Unclear how risk flows between specialty/trade contractors and the designer if specialty/trade contractors assist in the design of their scope of work
- 3) Integrity of claims process could be jeopardized
- 4) Waiver of right to litigate/arbitrate claims

### Sample IPD Agreement

**AGC ConsensusDocs™300**

Standard Tri-Party Agreement for Integrated Project Delivery 2007, Revised 2012

**Key Provisions:**

- 1) **Article 3 – Collaborative Principles:** project objectives are defined (3.1), Collaborative Project Delivery (CPD) Team is created (3.3), collaborative relationship is defined (3.4), Owner's responsibilities are set forth (3.5), Designer's responsibilities are set forth (3.6), Constructor's responsibilities are set forth (3.7), Collaborative risk allocation set forth (3.8)
- 2) **Article 4 – Management by the Management Group:** parameters for management and decision making function for project set forth. Communication protocols established

### Sample IPD Agreement

**Key Provisions Continued:**

- 3) **Article 5 – Owner Provided Information:** site investigation plan is developed (5.1), Owner-provided preconstruction information is established (5.2) and access to the same is determined (5.3)
- 4) **Article 6 – Development of Design and Collaborative Preconstruction Services:** collaborative design principles are established (6.1), scope is defined (6.2), law and regulations governing the design services are set forth (6.4), Use of BIM is permitted (6.9), ownership and use of documents is established (6.10), target value design concept incorporated (6.13), responsibility for constructability reviews established (6.15), RFI process explained (6.16)
- 5) **Article 7 – Project Planning and Schedule:** preliminary planning (7.1) and project planning (7.2) protocols are established, schedule protocols are established (7.3)

### Sample IPD Agreement

**Key Provisions Continued:**

- 6) **Article 8: Construction Budget and Cost Modeling and Project target Control Estimate:** budgeting rules are established for the Owner, Designer and Contractor (8.1), cost modeling is established for the project (8.2) project target cost estimate (PTCE) parameters are defined and applied to project (8.3)
- 7) **Article 9 and 10:** rules for compensation for the Designer and the Constructor are established.
- 8) **Article 11: Incentives and Risk Sharing:** financial incentives for project are set forth.

### Sample IPD Agreement

**Key Contract Provisions Continued:**

- 9) **Article 12: Trade Contractors, Subcontractors, Suppliers and Design Consultants:** rules for participation in collaborative process set forth (12.1), rules for coordination drawing work (12.5) and design-build work (12.6) by trade and subcontractors set forth, application of IPD Agreement to trade contractors and subcontractors explained (12.10), any provisions for labor relations set forth are set forth here (12.11)
- 10) **Article 13: Construction Personnel and Supervision:** Rules governing the contractor are set forth. Warranty (13.6), correction of work (13.7) correction of covered work (13.8) requirements are set forth. Requirements for submittals are set forth (13.13).

### Sample IPD Agreement

**Key Contract Provisions Continued:**

- 11) **Article 15: Time:** rules governing delays on the project set forth (15.6), rules governing notice of delay claims set forth (15.7)
- 12) **Article 17: Cost of Work:** rules governing reimbursable costs established (17.1),
- 13) **Article 19: Right to Audit:** Owner's right to audit project records set forth.
- 14) **Article 20: Changes:** Rules governing change order work and allowed compensation for change order work explained. Management Group's assessment process regarding change orders is explained (20.6).
- 15) **Article 22: Suspension, Notice to Cure and Termination of Agreement:** rules set forth for default, termination for convenience and contractor's/designer's rights to terminate.

### Sample IPD Agreement

**Key Contract Provisions Continued:**

- 17) **Article 23: Dispute Resolution:** dispute resolution process is explained.

**Process:** Mitigation (Project Neutral or a DRB), Mediation (AAA) and finally binding dispute resolution (before arbitrator(s) or court).

**Note:** Parties do not waive their rights to litigate or arbitrate their disputes under this agreement. Contrast this with other IPD Agreement which require the parties to submit their disputes to the Management Team for their binding decision.

## Resources

Publications:

**Managing Integrated Project Delivery**

CMAA, Chuck Thomsen, FAIA, FCMAA; Joel Darlington, Esq.; Dennis Dunne, FCMAA; Will Lichtig, Esq.

**Integrated Project Delivery: A Guide**

The American Institute of Architects

Sample Document:

**AGC ConsensusDocs™ 300** – Standard Tri-Party Agreement for Integrated Project Delivery – 2007, Revised July 2012

Speaker Contact Info:

- **Allen W. Estes, III**
- **OLES MORRISON RINKER & BAKER, LLP**
- Main Phone (WA): 206.623.3427
- Main Phone (CA): 510.903.2001
- Cell Phone (253) 861-4071
- Email: [estes@oles.com](mailto:estes@oles.com)

NECA 2013 WASHINGTON D.C.

## QUESTIONS



NECA 2013 WASHINGTON D.C.