Design Build: How Are Utilities Addressed

2012 AASHTO Subcommittee on R/W & Utilities
May 2, 2012
Terry L. Brigman
GDOT Assistant State Utilities Engineer
Design-Build

• Design-Build combines design engineering and other preconstruction related services with construction services into a single contract.

• Governed by:
  o 23 Code of Federal Regulations (CFR) Part 636 (Design-Build Contracting)
  o Georgia Code Section 32-2-81 (Enacted 2004)
  o Board Rules, Chapter 672-18 (Adopted 2006)
Design-Build Code and Rules

• **Georgia Code Section 32-2-81 (Enacted 2004)**
  o Two phased process (SOQ, price proposal)
  o Awarded to “lowest, qualified bidder”
  o 50% of total amount of construction projects awarded in previous FY (HB 817 – 2012 Legislative Session)
  o Required the Department to adopt procedures (Rules) for administering design-build contract

• **Board Rules, Chapter 672-18 (Adopted 2006)**
  o Generally describes Design-Build procurement process
Design-Build Manual

- Developed for use on a staff level
- Outlines process for project selection, procurement, and management of Design-Build projects
- Collaborative effort:
  - GDOT Offices and FHWA GA Division
Design-Build Manual (cont.)

- Published September 1, 2010
- Update as experience is gained
  - Anticipated Summer 2012
  - Updates to include flow charts, additional information on procurement, R/W, utility coordination and administration
Design-Build Manual
Design-Build Benefits in Georgia

- Speed of delivery
- Early price and schedule certainty
- Efficiency through designer/contractor collaboration
- Efficiency through designer/contractor coordinating with utility owners
Awarded Design-Build Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>P.I. Number</th>
<th>County</th>
<th>Letting Date</th>
<th>Design-Build Firm</th>
<th>Contract Award Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-85 at CR 98/Gabbetville Road (KIA Interchange)</td>
<td>0008232</td>
<td>Troup</td>
<td>April 20, 2007</td>
<td>C.W. Matthews/Arcadis</td>
<td>$80,857,486.98</td>
</tr>
<tr>
<td>I-75 Southbound Auxiliary Lane (From I-675 to Eagles Landing Parkway)</td>
<td>0008274</td>
<td>Henry</td>
<td>Sept 21, 2007</td>
<td>C.W. Matthews/LPA Group</td>
<td>$11,541,886.06</td>
</tr>
<tr>
<td>SR 400 @ Hammond Drive (Half Diamond Interchange)</td>
<td>0008415</td>
<td>Fulton</td>
<td>December 12, 2008</td>
<td>C.W. Matthews/LPA Group</td>
<td>$17,128,865.41</td>
</tr>
<tr>
<td>SR 204 Spur Bridge Replacement over Skidaway Narrows</td>
<td>0008651</td>
<td>Chatham</td>
<td>October 16, 2009</td>
<td>United Contractors/LPA Group</td>
<td>$22,489,997.00</td>
</tr>
<tr>
<td>I-575 @ Rope Mill Connector/Ridgewalk Pkwy Interchange</td>
<td>0006043</td>
<td>Cherokee</td>
<td>March 19, 2010</td>
<td>C.W. Matthews/LPA Group</td>
<td>$17,103,631.18</td>
</tr>
<tr>
<td>I-20 EB from I-285 to Panola Road (Collector Distributor)</td>
<td>0009542</td>
<td>DeKalb</td>
<td>January 21, 2011</td>
<td>C.W. Matthews/LPA Group</td>
<td>$30,954,796.73</td>
</tr>
</tbody>
</table>
## Awarded Design-Build Projects

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</thead>
<tbody>
<tr>
<td>SR 400/I-85 Connector Ramps</td>
<td>762380</td>
<td>Fulton</td>
<td>May 20, 2011</td>
<td>Archer Western/Heath &amp; Lineback</td>
<td>$21,423,500.00</td>
</tr>
<tr>
<td>I-20 @ SR 28/Washington Rd (Interchange Lighting)</td>
<td>0010210</td>
<td>Richmond</td>
<td>June 17, 2011</td>
<td>Brooks Berry Haynie/Gresham Smith</td>
<td>$1,113,176.00</td>
</tr>
<tr>
<td>Jimmy Deloach Connector (South of I-95 to SR 307/Bourne Avenue)</td>
<td>0008690</td>
<td>Chatham</td>
<td>November 18, 2011</td>
<td>Archer Western/LPA Group</td>
<td>$72,772,000.00</td>
</tr>
<tr>
<td>I-75 NB Auxiliary Lane including Walt Stephens Bridge Replacement</td>
<td>0010126</td>
<td>Henry</td>
<td>December 16, 2011</td>
<td>E.R. Snell/Moreland Altobelli</td>
<td>$7,488,610.00</td>
</tr>
</tbody>
</table>
### Approved Design-Build Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>P.I. Number</th>
<th>County</th>
<th>Approx Length (miles)</th>
<th>Tentative RFP Advertisement</th>
<th>Tentative Letting</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 400 NB Ramp Extension (At Abernathy Rd)</td>
<td>0010311</td>
<td>Fulton</td>
<td>0.4</td>
<td>March 23, 2012</td>
<td>April 20, 2012</td>
</tr>
<tr>
<td>SR 400 NB Lane Extension (McFarland Rd to Big Crk Greenway)</td>
<td>0010290</td>
<td>Forsyth</td>
<td>1.8</td>
<td>March 23, 2012</td>
<td>April 20, 2012</td>
</tr>
<tr>
<td>Signing and Pavement Marking (Various Locations in District 3)</td>
<td>0010751</td>
<td>Various (District 3)</td>
<td>NA</td>
<td>April 20, 2012</td>
<td>May 18, 2012</td>
</tr>
<tr>
<td>SR 400 @ Northridge Rd</td>
<td>751580</td>
<td>Fulton</td>
<td>0.5</td>
<td>TBD</td>
<td>December 14, 2012</td>
</tr>
</tbody>
</table>
## Approved Design-Build Projects

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</tr>
</thead>
<tbody>
<tr>
<td>I-75 Managed Lanes (SR 138 to Eagles Landing Pkwy)</td>
<td>0009157</td>
<td>Henry</td>
<td>4</td>
<td>September 21, 2012</td>
<td>December 14, 2012</td>
</tr>
<tr>
<td>I-75 Managed Lanes (Eagles Landing Pkwy to SR 155)</td>
<td>0009156</td>
<td>Henry</td>
<td>7.8</td>
<td>September 21, 2012</td>
<td>December 14, 2012</td>
</tr>
<tr>
<td>I-85 Managed Lanes Extension (Old Peachtree Road to CR 134/Hamilton Mill Road)</td>
<td>110600</td>
<td>Gwinnett</td>
<td>10</td>
<td>Winter 2014</td>
<td>Summer 2014</td>
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<tr>
<td>I-85 Managed Lanes Extension (CR 134/Hamilton Mill Road to SR 211)</td>
<td>110610</td>
<td>Barrow/ Gwinnett</td>
<td>6.3</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>
Design-Build Selection Process

Pre-Solicitation → Public Notice Advertisement (PNA) → RFQ Advertisement → SOQ Submittal

SOQ Evaluation → Selection of Finalists → RFP Advertisement → Letting

Technical Proposal Evaluation → Bid Review Committee → Award → Notice to Proceed 1
# Design-Build Utility Coordination

<table>
<thead>
<tr>
<th>Pre Let</th>
<th>Post Let</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept Report/Costing Plans</td>
<td>DB firm award (low bid) and GDOT issues NTP 1</td>
</tr>
<tr>
<td>Environmental Document</td>
<td>DB firm facilitates a Utility/SUE kickoff meeting</td>
</tr>
<tr>
<td>SUE</td>
<td>DB firm coordinates with Utility Owners</td>
</tr>
<tr>
<td>Utility Workshop</td>
<td>DB firm coordinates and/or performs relocations (as specified in executed MOU)</td>
</tr>
<tr>
<td>Targeted Utility Outreach (as needed)</td>
<td></td>
</tr>
<tr>
<td>MOUs</td>
<td></td>
</tr>
<tr>
<td>Special Provision 999</td>
<td></td>
</tr>
</tbody>
</table>
Design-Build Utility Coordination

- Utility Workshop (White Paper)
  - Pre-let activity
  - Not required, but was conducted on previous projects (2)
  - Scheduled when GDOT approves the SUE QL-B and when MOUs are ready to be provided to utility owners
  - GDOT led discussion to generally review:
    - Project scope and tentative Design-Build schedule
    - MOU
    - Potential utility conflicts or avoidance measures in order to identify possible Design-Build scope items
    - Utility owner questions and/or concerns
Design-Build Utility Coordination

● Utility MOU’s
  o Pre-let activity
  o Outlines Design-Build firm’s and Utility Owners responsibilities
    ➢ A – prior rights
    ➢ B – do not have prior rights
    ➢ C – owner to perform utility relocations
Design-Build Utility Coordination

- Utility MOU’s (cont.)
  - O.C.G.A. § 32-6-170(b) and Public Interest Determination (PID)
  - Executed MOU’s included in the Design-Build RFP Package
  - Utility Owner must provide pre-qualified vendor list and any special requirements
Design-Build Utility Coordination

● Special Provision 999
  o Developed as a pre-let activity
  o Scope of services for awarded Design-Build firm who shall:
    ➢ Have the responsibility of coordinating project construction with all utilities that may be affected
    ➢ Initiate early coordination (discuss project, Env and R/W status)
    ➢ Perform to GDOT standards by having prequalified firm in Area Class 3.10 – Utility Coordination
Design-Build Utility Coordination

● Special Provision 999 (cont.)
  o Scope of services for awarded Design-Build firm who shall: (cont.)
    ➢ Supplement SUE QL-B
    ➢ Endeavour to design project to avoid conflicts when feasible, and minimize impacts where conflicts cannot be avoided
    ➢ Submit a SUE Utility Impact Analysis (UIA)
Design-Build Utility Coordination

● Utility Owner Responsibilities

  o Pre-Let
    ➢ Participate in the utility workshop
    ➢ Review and execute MOUs
    ➢ Provide GDOT with pre-qualified vendor list and/or special requirements
    ➢ Field questions from prequalified Design-Build firms

  o Post-Let
    ➢ Participate to the degree possible in utility meetings
    ➢ Submit through GUPS
Design-Build Utility Coordination

- Design-Build Firm Responsibilities

  - Pre-Let
    - **Read and understand** Special Provision 999 and MOU
    - Develop preliminary design plans to avoid conflicts
    - Prepare draft schedule for the project
    - Prepare a bid and corresponding technical proposal

  - Post-Let
    - Facilitate utility coordination/SUE kickoff meeting
    - Perform work in accordance with the contract e.g. SP 999
    - Coordinate with Utility Owners
Design-Build Utility Coordination

● GDOT’s Responsibilities

  o District Utilities/State Utilities Office
    ➢ Schedule utility workshop execute MOUs
    ➢ Participate in utility meetings
    ➢ Review and approve permits submitted through GUPS

  o Innovative Program Delivery
    ➢ Partner with Utilities Office
    ➢ Develop Design-Build RFP package which includes SP 999 and MOU’s
    ➢ Administer Design-Build contract
Lessons Learned

• Three Special Provision 999s
  o Full SUE & 3.10 Coordination
  o 3.10 Coordination with “White Lining”
  o “White Lining”
    (Options 2 & 3 require exception approval by State Utilities Engineer)

• Pre-Let Utility Owners’ Coordination Meeting(s)
• Railroads
• MOUs
• Upcoming Legislation? (Best Value vs Low Bid)
Questions?
State Utilities Office
404-631-1354
tbrigman@dot.ga.gov
web site:
www.dot.ga.gov
(Doing Business > Utilities)
I-85 KIA Interchange

- Expedited delivery to support economic development
- April 20, 2007 letting date
- $80,857,486.98
- December 31, 2008 completion date
- Completed 30 days early, included incentive
- 18 months to complete Design-Build contract
- “Highways for Life” grant
I-85 KIA Interchange
Hammond Dr at SR 400

- Expedited delivery
- Half diamond interchange
- December 12, 2008 letting date
- $17,128,865.41
- August 31, 2011 completion date
- High number of utilities to relocate
- PCID funded PE and contributed portion of funds for construction
Hammond Dr at SR 400
Hammond Dr at SR 400
Skidaway Narrows Bridge Replacement

- Innovative solutions
- Complex Bridge crossing (2,660 LF, spliced girder center span)
- October 16, 2009 letting date
- $22,489,997.00
- July 31, 2013 scheduled completion date
Skidaway Narrows Bridge Replacement
Skidaway Narrows Bridge Replacement
I-575 at Ridgewalk Pkwy

- Expedited delivery
- March 19, 2010 letting date
- $17,103,631.18
- December 31, 2012 scheduled completion date
- City of Woodstock funded portion of PE and acquired R/W
I-575 at Ridgewalk Pkwy
I-20 Eastbound CD

- Expedited delivery
- January 21, 2010 letting date
- $30,954,796.73
- July 31, 2013 scheduled completion date
SR 400 at I-85 Connector Ramps

- Expedited delivery
- May 20, 2011 letting date
- $21,423,500.00
- December 31, 2013 scheduled completion date
- SRTA funded
SR 400 at I-85 Connector Ramps
I-20 at Washington Road - Lighting

- Expedited delivery
- June 17, 2010 letting date
- $1,113,176.00
- June 30, 2012 scheduled completion date
Jimmy Deloach Connector

- Expedited delivery
- November 18, 2011 letting date
- December 31, 2015 scheduled completion date
- State funded
- DB contract includes:
  - Design,
  - Construction,
  - Mitigation credit purchase,
  - Preparation of Individual Permit (IP)
  - R/W acquisition services
2011 FHWA Every Day Counts

• Deploy innovation aimed at shortening delivery
• Increase number of federal-aid Design-Build contracts by 50% (based on 3 year average)
• Goal
  o Award two Design-Build contracts in CY2011
• Results (federal-aid contracts)
  o Four Design-Build contracts awarded in CY2011