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# Assembly Bill 401 Introduction

TO: Assembly Committee on Commerce and Labor  
FROM: Assemblyman Joe Hardy  
DATE: April 9, 2003

## Why are we modifying the current Design/Build (D/B) language?

The proposed modifications to the current NRS 338 and 408 will:

- Support the use of prevailing wages on D/B projects in the State of Nevada.
- Permit a public body or the NDOT to authorize a private entity to develop, construct, improve, maintain, or operate, or any combination thereof, a transportation facility.
- Define a "Transportation Facility" as a road, railroad, bridge, tunnel, overpass, airport, mass transit facility, parking facility for vehicles, or similar commercial facility used for the support of or the transportation of persons or goods, including, without limitation, any other property that is needed to operate the facility.
- Reduce processing and procurement time by allowing a single-step selection process on public or NDOT D/B projects, thereby saving the State of Nevada and local entities time and money. The proposed revisions incorporate the Federal Highway Administration's Final Rule on Design Build dated December 10, 2002.
- Enable a public body or NDOT to receive unsolicited proposals and public private venture proposals on projects that are currently prioritized in the Statewide Transportation Plan and the Regional Transportation Plan. The proposer is required to submit a detailed finance and operations plan identifying funding sources, risks, and any local, state, and federal resources the private entity contemplates using for the design, construction, operation, and maintenance of the transportation facility. If the public body or NDOT authorize the private entity, this bill enables the public body or NDOT to immediately begin the delivery of the project.
- Require private entity to provide long-term quality of the transportation facility meeting a level of performance over a sufficient duration of time to provide value to the public.
- Amend the limits of a D/B contract from \$5 M- \$30 M to \$2.5 M- \$20 million. Each public body, department, or NDOT can deliver one D/B transportation facility project in a fiscal year.

## Parties involved in developing AB 401:

### In Support:

- Regional Transportation Commission of Southern Nevada
- Association of General Contractors
- Clark County Public Works
- CH2MHILL (Private Entity - Design Build Contractor)
- Las Vegas Monorail Company

### Other Interested Parties:

- Clark County Department of Aviation
- American Consulting Engineers Council
- NDOT

## Examples of D/B or Public/Private ventures in Nevada and nearby states:

### Reno ReTrac, Nevada - Used current D/B law

- Best value selection (theoretically); all of the technical proposals scored within about 2 points, and it technically came down to low bid
- 3 design build teams spent roughly \$2M per team to submit proposals= \$6M total
- No limitations on the technical proposals (weighed approximately 25 lbs)
- Construction value = \$175 M
- Agency probably spent \$9 M for preliminary engineering and design, bid, procurement, negotiations, and staff time
- Construction schedule will be 2.5 years
- Rights of Way (ROW) was acquired concurrently with the procurement process, which caused some issues; cost \$60M
- Selection process took about 1 year
- Stipend offered to losing teams = \$300k (TOTAL)
- Just breaking ground so no real "lessons learned" or completion costs/schedule underruns to report yet

### CCPW Beltway through Summerlin, Nevada - Applied Public/Private Partnership Principle

- Public-private venture with Howard Hughes Development Corp., Sun City- Summerlin and Clark County Public Works (CCPW)
- All wanted the highway; Howard Hughes Corp. dedicated the real estate (\$45M ROW)
- Gravel/earthwork moved by Sun City-Summerlin (\$15M)
- Includes 6 miles of highway
- Accelerated schedule by 5-10 years
- Enabled CCPW to build a depressed Beltway rather than at-grade
- Four structures included for enhancements (Desert Inn, Sahara, Charleston, Park Centre) were \$100k a piece
- Approach allowed CCPW to build the final improvements instead of an interim Beltway
- Innovation was used to accelerate the schedule
- Saving \$60M and 5-10 years

### Las Vegas Monorail, Nevada - Applied D/B and Public/Private Partnership Principle

- Hotels (MGM-Bally's, LLC) set up Request for Qualifications (RFQ) with criteria to design, build, operate, maintain, and finance the project in 1996
- Legislature authorized Clark County government to create a franchise
- Selection process included private financing requirement
- From the RFQ in 1996 to 1999 the scope of work changed to include a more inclusive transit system that was ADA compliant
- The two bidders spent roughly \$2-3M each submitting proposals (= \$6M on high side)
- MGM-Bally's LLC spent \$8M preparing project for bid
- Whole process took roughly 2.5 years

- LV Monorail Team spent \$3-4M working to determine cost of design and construction
- \$350M construction cost (fixed fee - major milestones for payment dates)
- 40-month schedule from Notice to Proceed (NTP) (9/20/2000)
- Project office's central location extremely helpful in permitting and project delivery, as well as team cohesion; first few months the designer and architect were located off-site and this was slowing progress
- No outstanding claims on the project
- On time and on budget
- Good attorneys set up the D/B contract without loopholes, etc. to avoid claims

### **Eastern Transportation Corridor, California - D/B in California**

- 27 miles of new corridor, 75 bridges, 65 million cubic meters of dirt moved
- \$780M construction cost
- Selection was one step, best value; teams submitted their qualifications and bid at the same time
- Selection criteria including quality of previous work and knowledge of area were weighed in when prices were within 5%
- 4 teams submitted and spent \$1M each pursuing (total cost \$4M)
- Agency spent \$2-3M developing plans to 30% and procuring contract
- Qualifications did not have any page limitations
- Completed 14 months under schedule and opened to traffic within 5 years from NTP
- Conventional Design-Bid-Build would have taken 10-15 years to complete
- \$110M in change orders as a result of certain agency changes throughout the process
- 32 sub-consultants were used for the design
- 100 sub-consultants were used for the construction
- Over 90% of the sub-consultants were small, local firms familiar with state requirements
- Project office established with almost 200 staff working side by side; would have been more successful if agency staff working on the project were there too; project office increased communication and coordination
- Agencies need to streamline process of procurement by not giving program managers the ability to over run true time to procure
- Agency offered incentives for early completion (70% of net revenue from the toll collections during time from actual to planned completion)

### **ADOT US 60 Superstition Freeway, Arizona - D/B in Arizona**

- Best value selection
- Limits proposal size to 25 page technical and 200 pages of plans
- Contract value = \$183M
- Co-location of ADOT and D/B team improved delivery
- Design was complete in 10 months; due to an aggressive early start
- ADOT's legislation allows 2 D/B projects a year and a \$40M minimum construction cost
- 2 step RFQ and Tech/Price process
- Stipend paid to losing teams of 0.2% of cost estimate; roughly 25% of cost to prepare the proposal
- ADOT provides utility locations, environmental permits and geo-technical borings prior to D/B team starting; to lower risk to the team

- Pavement design and ROW are performed prior to award
- Payments made in alignment with milestones to avoid front loading pay schedule
- Construction duration shortened by one year; the total project duration was 26 months
- ADOT served as inspectors for Quality Assurance and D/B team responsible for Quality Control - very effective

### **CDOT I-25 T-REX, Colorado - D/B, Finance Principles**

- Best value selection
- Construction value = \$1.4B, low bid = \$1.1B
- Project includes light rail and highway improvements/development
- Procurement process lasted a little over 1 year - RFQ to shortlist (financial backing an important criteria to be short listed)
- Technical proposal had no page limitations (2-3 inch binders and 2 volumes for RFQ & technical proposal weighed probably 25-40 lbs)
- Industry review of request for proposal (RFP) took 6 months for the contract clauses
- CDOT met with contractors during process to review design
- Construction duration = 5 years, estimated completion 2006
- D/B teams spent approximately \$4M each pursuing project
- Stipend to unsuccessful proposers (1% or \$900k)
- CDOT completed drawings to 15% complete before project bid
- CDOT went through their state legislature to get the right language to support this project

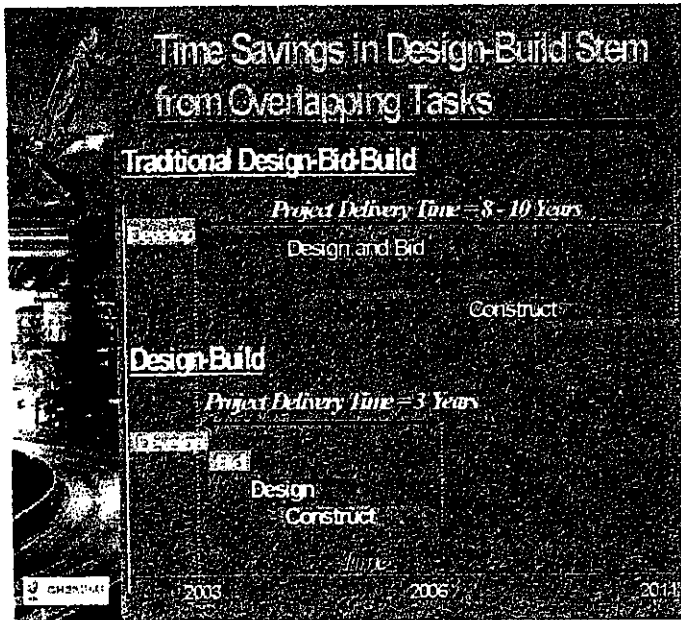
### Benefits to Design Build

The following table depicts a summary of benefits that can be achieved through the design-build contracting method:

<ul style="list-style-type: none"> <li>➤ Shortened project duration</li> <li>➤ Early establishment of fixed cost and schedule</li> <li>➤ Reduced cost</li> <li>➤ Constructibility/Innovation</li> <li>➤ Single point responsibility</li> <li>➤ Sole source liability</li> <li>➤ Better utilization of resources</li> </ul>	<ul style="list-style-type: none"> <li>➤ Design to constructor strengths</li> <li>➤ Partnering among Owner, Designer and Contractor</li> <li>➤ Focused project performance</li> <li>➤ Owner/Design-Builder risk sharing</li> <li>➤ Reduction of design error and omission impacts to the Owner</li> </ul>
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### Potential Schedule and Cost Savings

The following charts summarize the potential time saving and cost benefits that can be achieved using the design build approach. The slides depict a typical Design-Bid-Build project to a Design/Build project. In summary, employing the Design/Build process can reduce the time it takes to design and construct a project using traditional methods by nearly half the time and can achieve potential savings between 10% and 22% .



**Potential Cost Savings Stem From Reduction of Schedule and Effort**

Work Item	Saving Range	Total
Administrative reduction through shorter duration	= 3 to 4%	
Reduction in change orders	= 2 to 4%	
Designer cost reduction	= 1 to 3%	
Contractor innovation	= 2 to 5%	
Reduced construction cost from shorter duration	= 1 to 3%	
	= 10 to 22%	say 15%
<b>Total for \$350 M Project</b>		<b>\$50 M</b>