



CITY COUNCIL MEETING STAFF REPORT

Meeting Date: April 6, 2020		Subject: Alternative Project Delivery Methods Presentation by Tom Hickmann, CEO, Tualatin Valley Water District (TVWD)	
		Staff Member: Nancy Kraushaar, PE, Civil Engineer	
		Department: Community Development	
Action Required		Advisory Board/Commission Recommendation	
<input type="checkbox"/> Motion <input type="checkbox"/> Public Hearing Date: <input type="checkbox"/> Ordinance 1 st Reading Date: <input type="checkbox"/> Ordinance 2 nd Reading Date: <input type="checkbox"/> Resolution <input type="checkbox"/> Information or Direction <input checked="" type="checkbox"/> Information Only <input type="checkbox"/> Council Direction <input type="checkbox"/> Consent Agenda		<input type="checkbox"/> Approval <input type="checkbox"/> Denial <input type="checkbox"/> None Forwarded <input checked="" type="checkbox"/> Not Applicable Comments: N/A	
Staff Recommendation: Staff recommends Council become more informed about alternative project delivery methods.			
Recommended Language for Motion: N/A			
Project / Issue Relates To:			
<input type="checkbox"/> Council Goals/Priorities	<input type="checkbox"/> Adopted Master Plan(s)	<input checked="" type="checkbox"/> Not Applicable	

ISSUE BEFORE COUNCIL:

Staff will provide information about alternative project delivery methods that may be considered appropriate for future capital projects; for example, the Boeckman Road Dip Project.

EXECUTIVE SUMMARY:

Agencies and jurisdictions throughout Oregon and the country are increasingly implementing alternative contracting methods for capital projects rather than the traditional Design/Bid/Build (low bid) approach. Alternative project delivery methods have been shown to improve project outcomes that may relate to schedule; innovation; contractor qualifications; collaboration between the City, designer (consultant), and contractor; scope flexibility; cost savings; and risk assignment.

Staff is looking into implementing an alternative delivery method for the Boeckman Road Dip Project. Therefore, Staff would like to provide City Council with information about these alternative processes.

Staff invited Tom Hickmann, CEO, TVWD, to discuss his experience with such project delivery methods, having implemented them on numerous projects. The following project delivery methods will be discussed:

- Design/Bid/Build (Low Bid)
- Pre-Qualification
- Best Value/Multiple Parameter
- Construction Management/General Contractor (CM/GC)
- Progressive Design Build
- Design Build

EXPECTED RESULTS:

Council gains knowledge about alternative project delivery methods.

TIMELINE:

N/A

CURRENT YEAR BUDGET IMPACTS:

N/A

FINANCIAL REVIEW / COMMENT:

Reviewed by: CAR Date: 3/24/2020

LEGAL REVIEW / COMMENT:

Reviewed by: BAJ Date: 3/25/2020

COMMUNITY INVOLVEMENT PROCESS:

N/A

POTENTIAL IMPACTS or BENEFIT TO THE COMMUNITY:

Potential for improved capital project outcomes that may result from schedule, cost, innovation, contractor expertise, etc.

ALTERNATIVES:

N/A

CITY MANAGER COMMENT:

N/A

ATTACHMENTS:

N/A

THE BASICS OF ALTERNATIVE DELIVERY

Tom Hickmann

CEO of Tualatin Valley Water District



A LITTLE ABOUT ME

- ▶ Licensed Engineer in Oregon and California
 - ▶ Oversaw the CIP for the City of Bend for nearly a decade
 - ▶ Brought alternative delivery to the City of Bend to both expedite projects and bring better cost controls
 - ▶ Have used alternative delivery on water, sewer, stormwater, and transportation projects and a number of multidisciplinary projects
 - ▶ Up to last year had done more progressive design build and other alternative deliveries than any other entity
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PROJECTS USING ALTERNATIVE DELIVERY

▶ **City of Bend water supply project - \$72M CMGC**

- Membrane Treatment Plant
- 11 Miles of Pipeline
- New Water Intake

▶ **Murphy Road Corridor - \$40+M Progressive Design Build**

- Water, Sewer, and Stormwater Components
- Bridge over railway
- Large intersection improvements on artillery corridors
- Large traffic disruption in close proximity to homes
- Coordination with emergency services

▶ **Empire Road Corridor - \$30+M Progressive Design Build**

- Water, Sewer, and Stormwater Components
- Bridge over federal controlled facilities
- Large intersection improvements on artillery corridors
- Large traffic disruption in close proximity to homes and schools
- Coordination with emergency services

▶ **South East Sewer Interceptor - \$60+M Best Value**

- Water, Transportation, and Stormwater Components
- Significant Utility Conflicts
- Deep excavation in solid rock near homes
- Large intersection disruptions on artillery corridors
- Significant traffic disruptions to business
- Coordination with emergency services

▶ **North Sewer Interceptor - \$60+M Progressive Design Build**

- Deep excavation in solid rock
- Needed to prevent moratorium
- Federal coordination required
- Needed to tie into operating plant without disruption

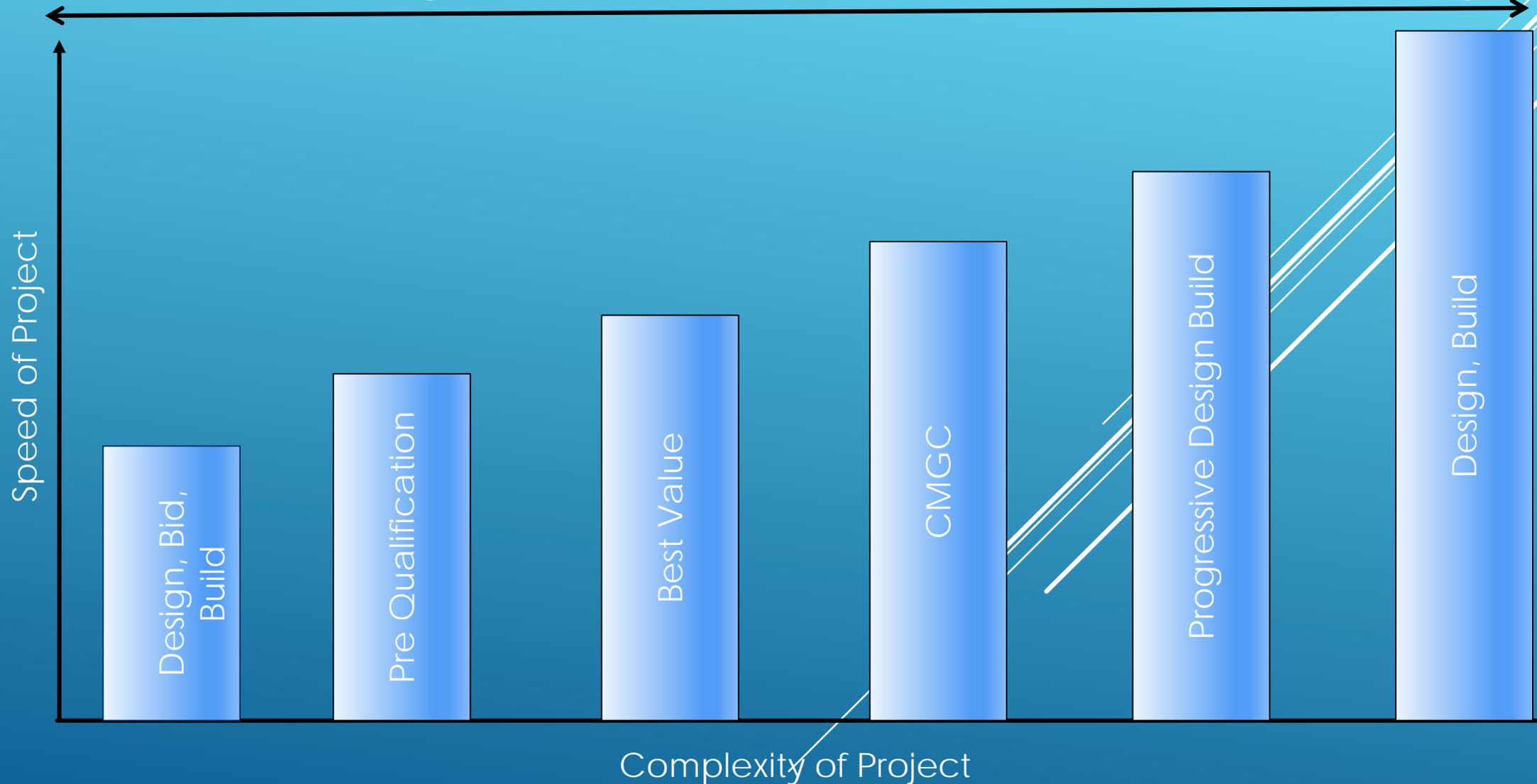
BIGGEST LESSONS LEARNED WITH ALTERNATIVE DELIVERY

- ▶ Legal and purchasing concerns are no less important than the engineering and construction points of view
- ▶ If public input on a project is desired, do it early. You can have public input in most alternative deliveries but it comes with restrictions
- ▶ Need empowered and trusted staff for quick decision making
- ▶ Alternative delivery is not necessarily a cost savings tool. It's a team coordination tool that can result in cost savings..... Maybe!
- ▶ Traditional delivery methods of design, bid, build is not necessarily the lowest cost. It is the lowest initial offering that nearly always has change orders and creates the highest amount of conflict with the contractor.
- ▶ Design, bid, build is the poorest delivery tool for complex multidisciplinary projects

Alternative Delivery Decision Graphic

Owner Risk is High
Owner Control is High

Contractor Risk is High
Contractor Control is High



- ▶ Good for small easy jobs low in complexity and conflicts
- ▶ Consider issues like little impact to the public, small conflicts
- ▶ Responsibility is high on the owner to know the issues
- ▶ Expect change orders
- ▶ Comfort level for purchasing is high, and comfort for legal is high
- ▶ Lots of elements to manage and takes a long time for each contract to be developed and approved (It can easily add a year)

DESIGN, BID, BUILD

- ▶ Good for jobs with some minimal complexity and conflicts
- ▶ Consider issues like the amount of impact to the public, some conflicts
- ▶ Responsibility is high on the owner to know exactly what are you basing the pre qualification on (you can get yourself in trouble if you are trying to weed out contractors this way, and you will likely have a hard time weeding out a bad contractor)
- ▶ Expect change orders
- ▶ Comfort level is high for purchasing and legal, but concern of how qualification was determined
- ▶ Adds another step in Design, Bid, Build that can take additional time

PRE QUALIFICATION

- ▶ Good for jobs with moderate complexity and conflicts
- ▶ Consider issues like the amount of impact to the public, and types of conflicts
- ▶ Scoring criteria needs to be carefully considered (the more complex the more scoring goes to past experience)
- ▶ Gives owner a way to put things in scoring criteria and require contractor to address specifics (RFP that contractor responds to becomes part of the contract)
- ▶ Expect fewer change orders
- ▶ Comfort level is moderate for purchasing and legal, but concern of how RFP is written
- ▶ Adds another step in Design, Bid, Build that can take additional time

BEST VALUE

- ▶ Good for jobs that have complexity and conflicts
- ▶ Consider timing of when to bring contractor on board
- ▶ Consider carefully issues about self perform work and how pre qualifications will be handled
- ▶ Gives owner a way to put things in scoring criteria and require contractor to address specifics (RFP that contractor responds to becomes part of the contract)
- ▶ Expect fewer change orders, and even less once GMP is established
- ▶ Comfort level is low for purchasing and legal, lots of concern on how RFP is written
- ▶ Adds another contract to design contract that can be messy if not carefully considered (consider having an owners rep)

CMGC

- ▶ Good for jobs that have complexity and conflicts, but you want to move quickly
- ▶ Consider what are the things of greatest importance
- ▶ Consider carefully issues about self perform work and how pre qualifications will be handled
- ▶ Requires quick and decisive decisions that can make owners uncomfortable
- ▶ Expect fewer change orders, and even less once GMP is established
- ▶ Comfort level is very low for purchasing and legal, lots of concern on how RFP is written, and how contract is managed
- ▶ Reduces number of contracts that you need to manage (maybe, consider having an owners rep and quality control responsibility)
- ▶ This can move rapidly and allows for early work packages to get started while other elements still in design

PROGRESSIVE DESIGN BUILD

- ▶ Good for jobs that have complexity and conflicts, but you want to move quickly
- ▶ You must know exactly what you want (things you don't define are left to the contractor to choose)
- ▶ Once contract is approved, owner has very little control
- ▶ Requires quick and decisive decisions that can make owners uncomfortable
- ▶ Expect few change orders, unless you start changing things
- ▶ Comfort level is very low for purchasing and legal, lots of concern on how RFP is written, and how contract is managed
- ▶ Reduces number of contracts that you need to manage (you need an owners rep and quality control)
- ▶ This can move rapidly and allows for early work packages to get started while other elements still in design

DESIGN BUILD

- ▶ It's a suite of tools that should all be considered
- ▶ Decision needs to be made before you start the project (If you follow PMI you should have a charter and the question of how to deliver the project should be on the charter)
- ▶ You must spend time with your purchasing and legal staff to decide on approach (don't expect them to get excited at new approaches)
- ▶ Get help, but don't be afraid to try different approaches
- ▶ Each one has different risks and trade offs, think about those carefully
- ▶ Design, Bid, Build should not be your default (it's not low cost, it's low initial offer)
- ▶ You can't get work done for free! Just because a contractor missed it, does not mean they now do the work for free
- ▶ One lawsuit and you will wish you thought through the approach you picked a lot more

ALTERNATIVE DELIVERY SUMMARY (TOM'S WORLD VIEW)