Project:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DECISION MATRIX

|  |  |  |
| --- | --- | --- |
| **1** | Does the project have the appropriate scale to consider alternative delivery? | **Yes No** |

|  |  |  |
| --- | --- | --- |
| **2** | **3** | **4** |
| Will means and methods have a significant influence on cost and schedule? | Is procurement schedule a significant driver of the project? | Are there technical complexities on the job? |



Recommended Delivery Method: ­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Comments:

VTRANS ALTERNATIVE CONTRACTING

DECISION MATRIX COMMENTARY

# Notes/Instructions:

1. Answer question 1 first. If the answer is yes, then move onto questions 2, 3, and 4. If the answer is “No”, Design-Bid-Build (DBB) is likely the best delivery method. It is suggested that projects greater than $5,000,000 are the appropriate scale for considering Alternative Delivery.
2. Answer questions 2, 3, and 4. If the answer to any of the questions is “Yes”, then move onto completing the matrix in the table. If the answer to all of them is “No”, DBB is likely the best delivery method.
3. Complete the matrix table below. Weight each Item from 0-10 (or 1-5), where 0 is not applicable and 10 (or 5) is most important to the project. See Commentary below for additional information for each Item.
4. The same weighting can be given to more than one Item. For example, both Construction Cost and ROW Risk can be given a weight factor of 9, if they are both very important to completing the project successfully.
5. The different delivery methods, Design-Bid-Build, Design-Build (DB), and Construction Manager/General Contractor (CMGC), are pre-populated with importance factors for each item indicating the delivery method that is best suited, with “3” representing most advantageous and “1” representing least advantageous. The importance factors are not to be modified by the user.
6. Once each Item has been weighted, compare the scores at the bottom of the chart. Consideration should be given to the delivery method with the highest score. Final determination of the delivery method should be made by the project team and the management of the Agency. The delivery method should be documented in the “Comments” section below.

# Technical

## Overall Project Schedule

|  |  |  |
| --- | --- | --- |
| DBB | Does not allow for any concurrent design and construction activities. |  |
| DB | Generally reduces overall project schedule by allowing early construction elements to be started prior to completion of final design. Allows for more concurrent activities |  |
| CMGC | Allows for some concurrency of design and construction activities with early release packages, but includes significant risk to overall schedule due to delays in negotiating final TMP and potential to end the process and go back to DBB. |  |

## Overall Construction Cost

|  |  |
| --- | --- |
| DBB | Low bid contractor is typically selected which can motivate contractors to bid aggressively but not having early contractor input can negatively influence overall construction cost, often due to additional work and claims. |
| DB | Price is still a factor in selection which motivates contractors to bid aggressively and early Contractor input into design can reduce construction cost through innovation |
| CMGC | Early contractor input can positively impact cost but can be offset by lack of competitive bid environment. The only cost check for the CMGC is the ICE. |

## Permitting Risk

|  |  |
| --- | --- |
| DBB | Agency can use their standard permitting process and address issues as they arise |
| DB | DB team has little control over permitting risk  Permitting risk can create major schedule impacts |
| CMGC | Agency can use their standard permitting process and address issues as they arise. CMGC can also advise on means and methods which could help minimize environmental impacts. |

## Design Innovation Potential

|  |  |
| --- | --- |
| DBB | Design innovation potential is limited to the single designer and does not have the benefit of contractor input which can spur design innovation. |
| DB | Allows for early contractor input which can spur design innovation. Agency gets the benefit of three shortlisted design teams looking for innovative solutions which can lead to cost and schedule savings. |
| CMGC | Allows for early contractor input which can spur design innovation. Agency does not get the benefit of multiple design teams. |

## Means and Methods (Construction)

|  |  |
| --- | --- |
| DBB | Lack of early contractor input does not allow for streamlining the design based on innovative means and methods. |
| DB | Allows for input from Contractor during procurement phase which can lead to innovative solutions and potential cost or schedule savings. Potential for additional savings having multiple shortlisted contractors competing. |
| CMGC | Constant input from the CMGC during the process allows for innovative solutions and potential cost or schedule savings. |

## Design Control

|  |  |
| --- | --- |
| DBB | Agency has full control over design |
| DB | Agency has less control over design |
| CMGC | Agency has full control over design |

## Early Construction Work Potential

|  |  |
| --- | --- |
| DBB | No possibility of construction work prior to design completion |
| DB | Contractor can begin work in discrete packages as design continues |
| CMGC | Early work must be in completely severable packages in case a final construction cost cannot be agreed upon and project goes out to bid |

## ROW Risk

|  |  |
| --- | --- |
| DBB | Agency can use their standard ROW process and address issues as they arise |
| DB | Given the potential for significant delays in the ROW process, it is generally advised not to procure a DB Contractor prior to obtaining required ROW |
| CMGC | Agency can use their standard ROW process and address issues as they arise. Also allows input from CMGC on needs for easements to facilitate construction which could help minimize land takings and associated costs. |

## Railroad Risk

|  |  |
| --- | --- |
| DBB | Railroad negotiation and agreements are already in place with no contractor input |
| DB | Railroad negotiation and agreements are already in place with no contractor input however the contractor still has ability to renegotiate elements of agreement to fit their design and construction methods. |
| CMGC | Agency and contractor can work together to develop an agreement with railroad to best suit the project needs |

## Utility Risk

|  |  |
| --- | --- |
| DBB | Utility negotiations and agreements are already in place with no contractor input |
| DB | Utility negotiations and agreements are already in place with no contractor input however the contractor still has ability to renegotiate elements of agreement to fit their design and construction methods. |
| CMGC | Agency can use their standard utility process and address issues as they arise. CMGC can also advise on means and methods which could help minimize utility impacts. |

## Geotechnical Risk

|  |  |
| --- | --- |
| DBB | Allows for completion of full geotechnical program prior to bidding which minimizes geotechnical risk for the contractor. |
| DB | Generally pricing is completed prior to completion of the geotechnical program which generally shifts a portion of that risk to the DB Team. |
| CMGC | Allows for completion of full geotechnical program prior to developing the final TMP which minimizes geotechnical risk for the contractor. CMGC also allows for a discussion of risk and specific assignment of geotechnical risk to either party. |

## Traffic Management / Mobility Impacts

|  |  |
| --- | --- |
| DBB | Allows for development of a full Transportation Management Plan by VTrans prior to construction. No input from a contractor. |
| DB | Development of a Transportation Management Plan by a Design-Build Team based on the requirements of the RFP. Limited review input from VTrans beyond the RFP. |
| CMGC | Constant input from VTrans and the CMGC during the design development allows for efficient and innovative solutions reducing the need to make adjustments but allowing for flexibility during construction. |

# Process

Timing for Contractor Procurement

|  |  |
| --- | --- |
| DBB | This is the longest time from programming the project to procurement of contractor as the schedule is driven by the amount of time needed to complete design. This results in the longest time for obligation of construction funds. |
| DB | This allows for a faster procurement of contractor than DBB or CMGC which can be a benefit if timing of funding is critical. This is the shortest duration for obligating construction funds. |
| CMGC | Similar to DBB, the schedule is driven by the amount of time needed to complete design, and has additional time needed to complete cost reconciliation with the Independent Cost Estimator (ICE). |

VTrans Alternative Contracting Staff Availability

|  |  |
| --- | --- |
| DBB | Staff hours required to manage the project is standard for the Agency |
| DB | Staff hours required to manage the project can be slightly more than DBB for TEC process and submittal reviews |
| CMGC | Staff hours required to manage the project and cost negotiation are much greater than DBB |

Public Involvement/Outreach

|  |  |
| --- | --- |
| DBB | Agency has full control over public outreach |
| DB | Agency can require certain public outreach criteria of the DB team as part of the procurement process |
| CMGC | Agency and CMGC can work together to develop a public outreach program based on CMGC construction schedule |

Contractor Qualifications

|  |  |
| --- | --- |
| DBB | Contractor is procured via Low Bid therefore Agency has little control over the contractor selection |
| DB | DB team is procured via Best-Value, a combination of qualifications and cost giving the Agency more control over the selected contractor. |
| CMGC | Agency has full control and can select CMGC via Best-Value or Qualifications only |