

PROJECT ANALYSIS & DECISION DOCUMENT

DETERMINATION OF WHETHER OR NOT TO CONTINUE THE USE OF METRIC UNITS OR CONVERT TO ENGLISH UNITS

(Documentation for projects to be advertised on the State Highway System after June 30, 2011)

Project Data:

Date of Analysis: _____

District/County/Route/PM Limits: _____

Expenditure Authorization: _____

Project Location:

Work Description:

Proposed Advertisement Date: _____

Estimated Project Construction Costs: _____

Project Manager: _____ Phone No.:

Project Engineer: _____ Phone No.:

1. Current Project Status

>> Use as much space as necessary to summarize pertinent information to this decision <<

2. Costs Needed to Convert this Existing Metric Project into an English Project

a) Survey Data & Base Mapping:

Region/District Resources

Digital terrain model => _____ hours x \$____ per hour for labor to convert = \$_____

Survey Notes = _____ hours x \$____ per hour for labor to convert = \$_____
 Region/District total to convert Survey Data = \$_____

Corporate Headquarters (HQ) Resources

Digital terrain model => _____ hours x \$____ per hour for labor to convert = \$_____
 Survey Notes = _____ hours x \$____ per hour for labor to convert = \$_____
 HQ total to convert Survey Data = \$_____

Sub-total for 2a: Conversion of Survey Data and Base Mapping into English Units = _____

b) Project Plan Sheets:

Region/District Resources

Number of plan sheets = _____
 x _____ average number of hours to convert per plan sheet
 (layout sheets, construction details, etc.)
 = _____ total hours to convert plans
 x _____ \$ per hour for labor to convert plans
 = \$_____ Region/District total to convert project plan sheets

Division of Engineering Services (DES) Resources

Number of plan sheets = _____
 x _____ average number of hours to convert per plan sheet
 (structure site plans, structure details, etc.)
 = _____ total hours to convert plans
 x _____ \$ per hour for labor to convert plans
 = \$ _____ DES total to convert project plan sheets

Sub-total for 2b: Conversion of Project Plan Sheets into English Units = _____

c) Project Special Provisions:

Region/District Resources

Number of SSPs & nSSPs to re-edit = _____
 x _____ average number of hours to re-edit an SSP
 = _____ total hours to re-edit the Special Provisions
 x _____ \$ per hour for labor to re-edit the Special Provisions
 = \$ _____ Region/District total to re-edit the Special Provisions

Division of Engineering Services (DES) Resources

Number of SSPs & nSSPs to re-edit = _____
 x _____ average number of hours to re-edit an SSP
 = _____ total hours to re-edit the Special Provisions
 x _____ \$ per hour for labor to re-edit the Special Provisions
 = \$ _____ DES total to re-edit the Special Provisions

Corporate Headquarters (HQ) Resources

Number of nSSPs to re-review & approve = _____
 x _____ average number of hours to re-review & approve a nSSP
 = _____ total hours to re-edit the Special Provisions
 x _____ \$ per hour for labor to re-edit the Special Provisions
 = \$ _____ Corporate HQ total to re-edit the Special Provisions

Sub-total for 2c: Conversion of Project Special Provisions into English Units = _____

d) Conversion of Right of Way Data:

Region/District Resources

Number of R/W map sheets = _____
 x _____ average number of hours to convert/map
 = _____ total hours to convert mapping
 x _____ \$ per hour for labor to convert mapping
 = \$ _____ Region/District total to convert R/W maps

Sub-total for 2d: Conversion of R/W Data into English Units = _____

e) Impacts Associated with Project Delivery (Time) Delay to Convert to English Units:

1. Changes in Estimated Project Construction Costs

Estimated Project Construction Costs = _____ Date of Estimate: _____

Estimated Schedule delay associated with Conversion to English Units = _____ (days or months)

Estimated Change in Construction Costs Due to additional time to deliver the Project =

\$ _____ x _____ = \$ _____
 (Project Cost on date above) (Cost Escalation Factor*)

* \$ or % per day or month

2. Changes in Estimated R/W Costs

Estimated Cost of R/W Acquisitions = _____ Date of Estimate: _____

Estimated Schedule delay associated with Conversion to English Units = _____ (days or months)

Estimated Change in R/W Costs Due to additional time to deliver the Project =

$$\begin{matrix} \$ \text{_____} & \times & \text{_____} & = & \$ \text{_____} \\ \text{(Project Cost on date above)} & & \text{(Cost Escalation Factor*)} & & \end{matrix}$$

* \$ or % per day or month

3. Costs Associated with Continuing to Deliver this Project in Metric Units:

a) Incorporation of Current Standard Plans/Details into Project Plans to be consistent with current Standards:

Region/District Resources

$$\begin{matrix} \text{Number of Standard Plans/Details} & = & \text{_____} \\ \text{plan sheet/detail} & \times & \text{_____} \text{ average number of hours to convert per} \\ & & \text{details for project} \\ & = & \text{_____} \text{ total hours to convert into construction} \\ & \times & \text{_____} \$ \text{ per hour for labor to convert into plan} \\ \text{sheet/details} & & \text{sheet/details} \\ & = & \$ \text{_____} \text{ Region/District total to convert into plan} \\ \text{sheets/details} & & \end{matrix}$$

Division of Engineering Services (DES) Resources

$$\begin{matrix} \text{Number of Standard Plans/Details} & = & \text{_____} \\ \text{plan sheet/detail} & \times & \text{_____} \text{ average number of hours to convert per} \\ & & \text{details for project} \\ & = & \text{_____} \text{ total hours to convert into construction} \\ & \times & \text{_____} \$ \text{ per hour for labor to convert into plan} \\ \text{sheet/details} & & \text{sheet/details} \\ & = & \$ \text{_____} \text{ DES total to convert project plan} \\ \text{sheets/details} & & \end{matrix}$$

Sub-total for 3a: Incorporating Current Standard Plans/Details into Metric Project Plans = _____

b) Incorporation of Current Specifications into Metric nSSPs to be consistent with current Standards:

Region/District Resources

Number of Standard Specifications (SSs) to rewrite = _____

rewrite an SS	x	_____	average number of hours to
	=	_____	total hours to rewrite the SSs
the SSs	x	_____	\$ per hour for labor to rewrite
the SSs	=	\$ _____	Region/District total to rewrite
Number of SSPs & nSSPs to rewrite =	=	_____	
	x	_____	average number of hours to rewrite an
SSP or nSSP	=	_____	total hours to rewrite the SSPs and nSSPs
	x	_____	\$ per hour for labor to rewrite the SSPs
and nSSPs	=	\$ _____	Region/District total to rewrite the SSPs and
nSSPs			

Division of Engineering Services (DES) Resources

Number of SSPs & nSSPs to rewrite =	=	_____	
	x	_____	average number of hours to rewrite an SSP
	=	_____	total hours to rewrite the SSPs and nSSPs
	x	_____	\$ per hour for labor to rewrite the SSPs
and nSSPs	=	\$ _____	DES total to rewrite the SSPs and nSSPs

Corporate Headquarters (HQ) Resources

Number of nSSPs to review & approve =	=	_____	>>Potentially the sum of all SSs, SSPs, and
			nSSPs shown above<<
	x	_____	average number of hours to review &
approve an nSSP	=	_____	total hours to review & approve the nSSPs
	x	_____	\$ per hour for labor to review & approve an
nSSP	=	\$ _____	HQ total to review and approve the nSSPs

Sub-total for 3b: Incorporating Current Specifications into Metric nSSPs = _____

c) Additional Cost to Bid and Construct a Metric Project:

Current estimated cost of project = \$ _____
x 0.03*

Estimated additional cost of project = \$ _____

*Use 3% unless otherwise justified in this document.

4. Summary of Economic Analysis

Costs Needed to Convert this Existing Metric Project into an English Project

1) Total of Estimated Support Costs Needed to Convert Project to English [Sum of 2a, 2b, 2c, and 2d] = \$ _____

2) Change in Estimated Construction Costs due to additional Delivery time [See 2e] = \$ _____

-

3) Change in Estimated R/W Costs due to additional Delivery time [See 2e] = \$ _____
=====

(A) Total Financial Impact related to converting this Metric Project to English Units [Sum of 1, 2 & 3]= \$ _____
=====

Costs Associated with Continuing to Deliver this Existing Metric Project in Metric Units

Total of Estimated Support Costs Needed to Convert Project to English [Sum of 2a, 2b, 2c, and 2d] = _____

Change in Estimated Construction Costs due to additional Delivery time [See 2e] = _____

Change in Estimated R/W Costs due to additional Delivery time [See 2e] = _____
=====

(B) Total Financial Impact related to keeping this Metric Project in Metric Units = _____
-
=====

**The Alternative with the least Financial Impact is: _____ .
(A) or (B)**

5. Any Other Project Delivery Issues

>> Use as much space as necessary to discuss any issues with Environmental, Project Management, etc. <<

6. Recommendation

>> Use as much space as necessary to discuss and provide a recommendation <<

7. Signatures

I certify that the information on this form is complete and to the best of my knowledge accurately reflects the input received from DES-OE and the Corporate (HQ) units working on this project.

< Name of Person Completing this Document >
< Title >

Date

I certify that I have reviewed all of the information provided in this document and that it is accurate and complete to the best of my knowledge.

< Name of Design Senior >
< Title >

Date

I certify that all the DES-OE and Corporate (HQ) units associated with delivering this project have been contacted to discuss the costs associated with converting this metric project to English units and the costs associated with continuing to deliver this project in metric units.

I further certify that I have reviewed all of the information provided in this document and that it is accurate and complete to the best of my knowledge.

< Name of Project Manager >
< Title >

Date

**Include Additional Signature Blocks for Management
Reviews/Concurrences
As Required per Region/District Procedures Using this Statement:**

I have reviewed this document and certify that the information shown is true and correct to the best of my knowledge.

< Name of District Manager >
< Title >

Date

I request that the recommendation provided and discussed in Section 6 of this document be approved.

< Name >
District Director

Date

Approved By:

RICHARD D. LAND
Chief Engineer
Deputy Director, Project Delivery

Date