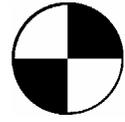




# Highway Division Project Delivery Leadership Team Operational Notice



.NUMBER	REVISION #	SUPERSEDES	EFFECTIVE DATE	LAST REVIEW	RESCINDED DATE
PD-17	New	N/A	March 2007	N/A	N/A
SUBJECT			ISSUING BODY		
Incentive/Disincentive Contracting Provisions			Project Delivery Leadership Team (PDLT)		

**PURPOSE:** To provide guidance and clarification on the use of Incentive/Disincentive (I/D) contracting provisions, excluding those pertaining specifically to quality (as identified in the standard specifications).

**BACKGROUND:** Incentive/Disincentive (I/D) contracting is an industry standard practice typically used to maintain construction completion dates, encourage innovation in work sequencing and accelerate project delivery. The decision to accelerate a project involves the consideration of many factors, such as:

- political pressures
- legal constraints
- legislative priorities
- community interests
- project goals
- context sensitivities
- any other factors impacting scope, schedule and budget
- funding availability
- staffing capacity
- mobility issues
- project complexity
- social and physical environment

Implementation of I/D includes several decision-making processes throughout the life of the project:

- 1) Identification of goals and needs for a “fixed completion” date and/or the opportunity to benefit from accelerating a project schedule
- 2) Evaluation of project suitability for I/D methods
- 3) Selection of the contract type
- 4) Determination of key project parameters and context
- 5) Preparation of specifications
- 6) Procurement
- 7) Contract administration

See Figure 1 – [I/D Decision & Implementation Process Flowchart](#)

**RATIONALE:** There are several benefits to implementing I/D on projects:

- 1) **Reduce mobility impacts:** Shortened project durations can improve mobility during construction.
- 2) **Ensure context sensitivity:** Shortened project durations can lessen the impact on local businesses and communities by reducing the time that business and/or residential access is potentially disturbed or restricted.

- 3) **Improve public relations:** Shortened project durations can demonstrate consistent and continuing work observable to the traveling public.
- 4) **Reduce overall project costs:** I/D provisions can be less costly than lengthier project durations.
- 5) **Increase overall project delivery:** Shortened project durations may allow more projects to be completed in a construction cycle.

### I/D DECISION PROCESSES:

Key Roles in the decision-making process:

Region Mobility Team	consider region/corridor mobility issues
Team Leader	consider context of project, community/stakeholder concerns/impacts, mobility issues; document decisions; use I/D Calculator Tool to determine I/D values
Project Team	consider options, context, mobility, environment and make recommendation
Project Manager	as part of project team, provide input and information on staffing needs and options
Area Manager	decision to use or not use I/D
Region PDLT	determine appropriate use of I/D
Technical Services	provide technical review of I/D amounts/specs (as part of PS & E submittal)

**Project Initiation Milestone** - While the decision to use I/D provisions may be introduced at later project stages, it is at the Project Initiation stage that the recommendation to use I/D will be most effective. I/D should be included when analyzing mobility considerations (see PD-16, Mobility Management).

Identification of goals and needs for managing work for a “fixed completion” date requirement or the opportunity to benefit from accelerating a project schedule – The Region Project Delivery Leadership Team (RPDLT) identifies the element(s) of the project that could potentially benefit from maintaining fixed construction delivery times or that could potentially benefit from acceleration. Generally, the implementation of I/D provision adds additional administrative overhead to a project; therefore, it is recommended that the following criteria be considered as a minimal threshold for choosing to implement I/D:

- 1) Fixed Completion Date: criteria identified in FHWA T5080.10
  - a. Safety projects which are to correct extremely hazardous conditions where the traveling public may be in danger.
  - b. Emergency repair or replacement of damaged facilities.
  - c. Projects to close gaps in otherwise completed facilities to allow opening to traffic.
  - d. Projects that are critical elements in a staged or phased construction schedule, where a delay would mean substantial impact on the completion date of the facility.
- 2) Accelerated Schedule:
  - a. Project is over \$5 million unless a specific cost/benefit analysis is developed that indicates I/D benefits to a smaller project.
  - b. The I/D-focused portions of the project are at least 3 months in duration.

Evaluation of project suitability for I/D methods – The Project Team sets the project context according to the factors listed in the “Background” section of this document and evaluates the project’s suitability for I/D methods. See Figure 2 - [I/D Project Suitability Checklist](#). The recommendation to implement I/D is considered and approved by the Area Manager with buy-in from the RPDLT.

Although the evaluation may indicate a benefit to I/D implementation, other factors inherent in the project, such as unresolved utility issues or lack of project administrative capacity, may be cause to reject I/D use.

### **Design Acceptance**

The preliminary decision regarding the use of I/D provisions is made during the Design Acceptance milestone and should be documented as part of the Design Acceptance Package. As the project development progresses through Advanced Plans, and the parameters and constraints of the project are further developed, the suitability of the project should be reviewed to ensure that the design, specifications, schedule, etc., are still compatible and appropriate for I/D.

Unusual conditions or restrictions for construction may result in “date certain” completion requirements and support the use of I/D’s to ensure completion on specific dates for projects not previously identified for I/D provisions (i.e. night-time noise prohibitions; environmental restrictions impacting schedule). Stakeholders, local governments, law enforcement, emergency services, and traffic and construction engineers should be consulted in the I/D decision making process.

For larger daily I/D values, (over \$10,000 per day) a review should be performed to ensure that the disincentive risk is not too high and the bid pool is maintained for I/D success. For projects over \$20 million, a constructability review should be considered to ensure I/D success. The use of I/D should be considered for any project engaged in a Value Engineering review since these reviews include time analysis.

### **Advanced Plans**

Once a decision has been made to accelerate the project using I/D provisions, key parameters for the contract must be determined. These include the determination of road user costs, I/D amount, I/D caps, maximum time allowed and minimum time allowed for the incentives portion. The Team Leader utilizes the I/D Calculator Tool to determine the appropriate I/D values. **All I/D specifications require a Department of Justice (DOJ) review** coordinated through Technical Services.

### Specifications

The specifications must adequately draw the bidders’ attention to the unique aspects of the I/D contracting method. Due to possible conflicts with any standard specifications, a careful reading of established specifications should be made to ensure that conflicts are eliminated. Consideration should be given to standard specification sections dealing with bid award, scheduling, contract time and adjustments, definitions, liquidated damages and others impacted by I/D. New specifications must be included that describe the incentive/disincentive program. The Traffic Control Designer and Specifications Writer collaborate to develop the final specifications, utilizing the I/D values provided by the Team Leader.

Incentive Amount and Duration:

A dollar amount per day for I/D provisions needs to be determined. To be effective and accomplish the objectives of I/D provisions, this amount must be of sufficient benefit to the contractor to encourage his/her interest, stimulate innovative ideas, and increase the profitability of meeting tight schedules. It must be enough to cover the contractor's cost of the accelerated work (additional crews, overtime, additional equipment, etc.).

The amount of the Incentive Award shall be established by using ODOT's I/D Calculator Tool. The total I/D amount should be evenly distributed by the total calendar days of the project, counted from the actual date of the completion prior to the established estimated completion date.

ODOT's predetermined road user cost value should be specified if it becomes the basis of the I/D. Costs attributed to the disruption of adjacent businesses should not be included in the daily I/D amount. Engineering judgment may be used to adjust the calculated daily amount downward (not upward) to a final daily I/D amount that:

- 1) Provides a favorable benefit/cost ratio to the traveling public. The benefit is the calculated daily savings in road user and ODOT costs; the cost is the daily I/D amount; and
- 2) Is large enough to motivate the contractor.

If a favorable benefit/cost ratio cannot be realized and/or the resulting daily amount is not high enough to motivate a contractor, the project should not be further considered for I/D.

Disincentive Amount and Duration:

The disincentive amount and duration should be established at the same daily amount and project maximum as the incentive. Disincentives cannot be assessed concurrently with liquidated damages. If the agency ceases to assess the disincentive(s), the applicable liquidated damages can be assessed.

Cap

All I/D provisions must contain a cap amount. The allocation for the potential award of the entire incentive amount should be factored into the Agency's construction budget.

**Final Plans and PS & E Submittal**

Technical Services will provide a final quality check review of the I/D amounts and specifications as part of the PS & E submittal process.

**Documentation Requirements**

While there are no current FHWA requirements for a formal submittal of I/D documentation FHWA does require that, documentation of the decision process, rationale and justification, and I/D values arrived at is maintained within the project files for audit purposes. Informal notification for its use on specific projects is also requested by FHWA.

## **Construction**

When transitioning the project from development to construction, the rationale for and parameters of the I/D provision should be discussed, including any potential interferences or concerns held by the contractor.

During construction, success of the I/D project will require prompt decision-making, approvals, problem solving, and conflict resolution. Discussions between ODOT and the contractor should consider future critical operations and potential problems.

The contractor shall be required to submit and actively manage a Critical-Path Method (CPM) schedule. During the life of the contract, the contractor must meet all milestones and completion dates.

## **REFERENCES:**

ODOT Research Project SPR 630: "Establishing Guidelines for Incentive/Disincentive (I/D) Contracting at ODOT"

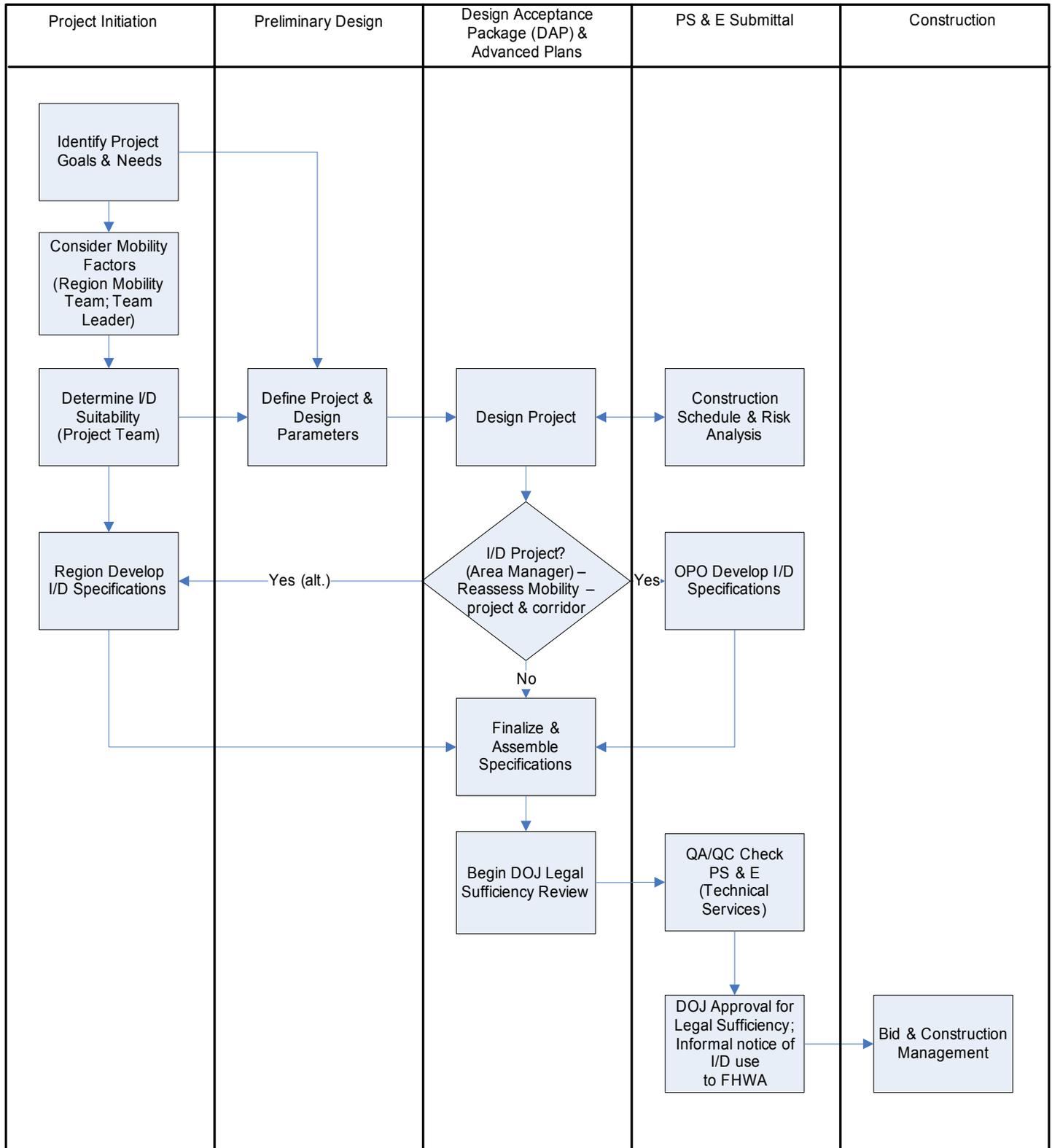
FHWA (1989). "Incentive/Disincentive (I/D) for Early Completion – T 5080.10". Technical Advisory, <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t508010.thm> (August 2005)

I/D Calculator Tool – link to be added when tool available

I/D Calculator User Guide – link to be added when tool available

# PD-17, Figure 1

## Incentive/Disincentive Decision & Process Flowchart



# PD-17 Figure 2

## Incentive/Disincentive Suitability Checklist

*“Yes” responses should prompt further exploration into suitability for acceleration based on project context and criteria factors. Revisit suitability periodically during the project development process.*

Suitability Factors	Yes	No	Notes
<b>Public Convenience (Mobility);</b> Mobility plan indicates:			
High traffic volumes at the project site.			
Project will involve high impact restrictions, closures, and/or detours.			
Project will cause severe traffic disruption due to reconstruction or rehabilitation on an existing facility.			
Lengthy detours for high traffic volumes will exist.			
The project will create significant impacts to the trucking industry.			
Multiple projects exist within the corridor.			
<b>Constructability</b>			
Contractors' expertise is needed to facilitate an earlier completion.			
I/D portion(s) can be completed in one construction season or less.			
Traffic control phasing can be structured to maximize a contractor's ability to reduce the duration of construction.			
The project is relatively free of utility conflicts, design uncertainties, or right-of-way issues which may impact the bid letting date or the critical path of the project schedule.			
Contractors with sufficient resources to complete the project are available.			
Environmental process timeframes are short.			
<b>Public Safety</b>			
Safety concerns will exist during construction, including impacts to public, pedestrian, and/or worker safety.			
A disruption of emergency services will occur.			
Emergency response to an unexpected loss of highway facility will be hindered.			
<b>Public Priority (Stakeholder Participation);</b> Stakeholder Participation plan indicates:			
It is in the public interest to complete the project as soon as possible, or by a specific completion date.			
Adjacent neighborhoods or businesses will suffer significant impacts.			
Major bridges will be out of service.			
The project will interfere with major public events.			
The project is highly sensitive to the community.			
<b>Other Factors</b>			
Time-sensitive environmental issues/impacts exist.			
ODOT will commit resources to ensure prompt decisions, approvals, problem-solving and conflict resolution during construction.			