

PART D01
DESIGN AND CONSTRUCT PRELIMINARIES

CONTENTS

1. GENERAL
2. DEFINITIONS AND INTERPRETATION
3. PRECEDENCE OF DOCUMENTS
4. INTERPRETATION OF STANDARDS, GUIDELINES AND CODES
5. CONTRACTOR'S TECHNICAL SPECIFICATION
6. PROPERTY ACQUISITION
7. IMPLEMENTATION RECORDS
8. INFORMATION MANAGEMENT SYSTEM
9. SITE MEETINGS AND COLLABORATION BETWEEN THE PARTIES
10. EVALUATION OF CONTRACTOR'S PERFORMANCE
11. CONTRACTOR'S WARRANTY

1. GENERAL

- .1 This Part specifies the general requirements for undertaking design and construct works.

2. DEFINITIONS AND INTERPRETATION

- .1 The following definitions apply to this Part:

Term of reference	Definition
As Constructed Drawing	means a drawing showing the Works actually constructed by the Contractor
AIR	means the Asset Information Requirements for DPTI road projects as outlined in the DPTI Document "Asset Information Requirements (Roads)" available from http://dpti.sa.gov.au/standards/roads-all
AIM	means the Asset Information Model for the project which shall comprise a collection of data files including 3D models, 2D drawings and other structured project data and documentation produced by the contractor primarily for use by the client in the asset management phase
Design Document	means the specifications, calculations, design rationale, design reports, design models and drawings created by the Contractor to be used for construction of the Works. Subject to any additional requirement specified for a particular element of the Works, " Design Life " means the period over which an asset must perform its intended function without replacement, refurbishment or significant maintenance
DPTI Specification	means Divisions R, CC, S and L of the DPTI master specification for transport infrastructure (but excluding any other divisions) available from: http://www.dpti.sa.gov.au/contractor_documents/specifications .
Designer	means the person responsible for all aspects of the design process and may be employed by the contractor, or may be sub contracted to perform these duties.
Digital Engineering (DE)	has the meaning in the AIR
DEXP	means a Digital Engineering Execution Plan which is developed by the contractor to outline the processes that will be employed to properly execute the various Digital Engineering functions throughout the course of the project
Final Design	means the Contractor's Documents which have been subject to all necessary approvals, verifications and certifications, except for the release of the Final Design Hold Point
Implementation Records	has the meaning given in Clause 7
Issued for Construction Design or IFC	means the Contractor's Documents to be issued for construction of the Works that have been subject to all necessary approvals, verification, certification and release of applicable Hold Points required under this Contract
MDD	means Maximum Dry Density
OMC	means Optimum Moisture Content
Percentage Compaction	means the Dry Density Ratio (R_D) as defined in TP 320 and refers to modified compaction

PIM	means the Project Information Model. The PIM represents the collection of data files including geometric models and other project structured data and project documents used by the contractor during the delivery phase
Reference Design or Concept Design	means a design prepared by the Principal solely for project planning purposes
Technical Specification	means the specification developed by the Contractor that will be used for the construction of the Works in accordance with Clause 5 “Contractor’s Technical Specification”. Unless specified otherwise, a reference to a Contractor’s Document is a reference to the IFC Contractor’s Document. The Contractor’s Documents exclude the Contractor’s systems, software, inventions, articles, industrial design or know-how that have not been created or developed by the Contractor exclusively for this Contract
Traffic	means all modes of users including pedestrians, cyclists, passengers and all types of vehicles including cars, trucks, buses and trams.
Type A Projects, Type B Projects	Each project shall be designated as being either “Type A” or “Type B” in the Contract Specific Requirements. Larger projects will generally be designated as “Type A” and some of the DE requirements for these will be slightly more stringent. Wherever the requirements vary, these will be documented. If the Project Specific Requirements fail to specify a project type then that project shall be deemed to be “Type A”

Unless specified otherwise, the definitions in the Austroads Publication No. AP-C87-14 “Glossary of Terms” (available from: <https://www.onlinepublications.austroads.com.au/items/AP-C87-14>) shall apply to any term used in the Contract which is related to road or traffic engineering.

The plant classifications in the Civil Contractors Federation publication “Earthmover & Civil Contractor - Plant Specs” also apply.

3. PRECEDENCE OF DOCUMENTS

- .1 In the event of any inconsistency, ambiguity or discrepancy between any of the Contract Documents, the following shall apply:
 - (a) If the inconsistency, ambiguity or discrepancy is in respect of the level of service / performance to be provided by the Works or the standard of the Works, the requirement that delivers the greatest level of legislative compliance, service / performance, or is of the highest standard, shall apply, unless specified in the Contract Specific Technical Requirements (CSTR) that the CSTR will take precedence.
 - (b) If the inconsistency, ambiguity or discrepancy is in respect of another matter, the order of precedence shall be as follows:
 1. The Conditions of Contract;
 2. The CSTR (excluding standards, guidelines or codes referenced therein);
 3. Legislation, Standards, guidelines or codes referenced in the CSTR;
 4. Appendices to the CSTR; and
 5. Any other document referenced in this Contract, including the design provided by the Contractor.
- .2 An inconsistency, ambiguity or discrepancy between any of the documents listed, or between any legislation, standards, guidelines or codes referenced in this Part, is not be deemed to be a Fault in the Contract Documents.
- .3 Where a list of referenced legislation, standards, guidelines and / or codes is provided within this Part, these referenced documents are listed in descending order of precedence in the event of an inconsistency. The Contractor must promptly notify the Principal if an inconsistency is identified within the referenced documents.

4. INTERPRETATION OF LEGISLATION, STANDARDS, GUIDELINES AND CODES

- .1 Unless otherwise specified, all design must be in accordance with the referenced standards, guidelines and codes current two weeks prior to the date of submission of tender.
- .2 Unless the prior written approval of the Principal has been given, the following shall apply to the interpretation of standards, guidelines and codes:
 - (a) Where “desirable minimum” and “absolute” design limits are provided for, the desirable design limit shall apply, unless the desirable design limit cannot be achieved within the constraints specified, in

which case the Contractor must notify the Principal before proceeding with a design based on the absolute design limit.

- (b) The determination between "desirable minimum" and "absolute" shall constitute a **HOLD POINT**.
 - (c) Where an item, approach or option is expressed in terms such as "should", "may be", "recommended", "suggested", "desirable" or "advisable", the item, approach or option referred to is to be deemed to be a mandatory requirement.
 - (d) Note: The Principal cannot provide waivers or exemptions to legislation.
- .3 The Contractor must not vary the standard without the prior approval of the Principal.

5. **CONTRACTOR'S TECHNICAL SPECIFICATION**

- .1 The Contractor must prepare and develop the Technical Specification, which must:
- (a) be proper, adequate and suitable for use with the Contractor's design;
 - (b) not reference specific proprietary equipment unless only one supplier is available;
 - (c) meet any specified requirement for compatibility with the Principal's existing assets; and
 - (d) be completed and verified prior to the certification of the Final Design.
- .2 The Contractor warrants that the Technical Specification will:
- (a) result in a standard, performance and durability not less than that which would be achieved using the DPTI Specification, if there is an appropriate DPTI Specification applicable to the design or construction methodology; or
 - (b) result in a standard, performance and durability not less than that which would be achieved using an appropriate specification from any other Commonwealth or State infrastructure authority, if there is no appropriate DPTI Specification applicable to the design or construction methodology; or
 - (c) result in a standard, performance, durability and fitness for purpose consistent with the general requirements of any applicable Australian Standards or Codes of Practice, if there is no appropriate specification from any other Commonwealth or state infrastructure authority applicable to the design or construction methodology.
- .3 Compliance with the requirements of the Technical Specification does not relieve the Contractor of the obligation to comply with any other contractual obligations.

6. **PROPERTY ACQUISITION**

- .1 The Contract Documents specify the land that the Principal has made available for the construction of the Works and does not warrant that any additional land will be available for the Works.
- .2 If the Contractor proposes the acquisition of additional land for the project, the Principal is under no obligation to acquire the land and may reject any such proposal at its absolute discretion. The Principal must be advised of any such proposal as early as possible in the design process.
- .3 If a proposal to acquire additional land is accepted by the Principal, the Contractor:
- (a) bears all costs and risks associated with the proposal unless agreed otherwise;
 - (b) is not entitled to make any claim against the Principal arising out of or in connection with the proposal; and
 - (c) must provide drawings detailing the proposal in accordance with DPTI Standards and Guidelines DP100 - Land Acquisition Sketches (available from: <http://www.dpti.sa.gov.au/documents/roads-all>).

7. **IMPLEMENTATION RECORDS**

- .1 "Implementation Records" are records generated during the course of design and / or implementation of the project that verify that an approval, acknowledgement or agreement with a third party required by the Contract has been obtained (e.g. drainage cost sharing and approvals from councils, agreements with landowners, tariff agreements). Implementation Records also include records of actual field performance in comparison to the design performance (e.g. settlement monitoring).
- .2 Unless specified otherwise, Implementation Records must be submitted to the Principal within one week of the Contractor obtaining the record.

8. INFORMATION MANAGEMENT SYSTEM

- .1 The Principal and Contractor agree to use an Information Management System (IMS) for the management / transmission of documents and both parties must use the IMS to fulfil their obligations under Clause 11 "Notices and instructions" and Clause 40 "Submitting Contractor's Documents" of the General Conditions of Contract.
- .2 For the purpose of this clause, "document" includes all information that the Contractor is required to provide to the Principal under this Contract, such as the Contractor's Documents, conformance / verification records, reports, notices, claims, certificates, requests and any other correspondence between the parties.
- .3 The control of document revision status and the transmission of documents between the parties and any independent verifier must be undertaken electronically using the IMS.
- .4 In addition to the electronic transmission of documents by the IMS, if requested by the Principal, the Contractor must provide a paper copy of a document via post or hand delivered to an address to be advised by the Principal. Any paper copy is for record keeping purposes only. The Contractor agrees and acknowledges that the Principal is not obliged to act upon, or respond to, a paper copy of a document.
- .5 The party providing the IMS must provide training to all personnel reasonably necessary for the operation of the IMS. The Contractor must fully complete the fields within the IMS when uploading the individual documents in accordance with the DPTI Document Control Project Instruction.

9. SITE MEETINGS AND COLLABORATION BETWEEN THE PARTIES

- .1 The Contractor must arrange for regular meetings ("Site Meetings") to be held between representatives of the Principal and Contractor and any other persons the Principal may nominate to be present.
- .2 The purpose of the Site Meetings is to assist in attaining full co-operation between all concerned on the job as well as checking progress of the work and providing the opportunity for general discussion.
- .3 The Principal will arrange for minutes of the Site Meetings to be recorded. Two copies of the minutes will be forwarded to all parties not later than 7 days after each Site Meeting.
- .4 If a party does not accept any aspect of the minutes as being a reasonable record of the Site Meeting then that party must advise the Principal within 5 working days of receipt of the minutes of the proposed changes required to be made in order to achieve a reasonable record of the Site Meeting. The Contractor and the Principal must sign the minutes for confirmation.
- .5 If agreed between the parties, further meetings or workshops may be arranged to:
 - (a) facilitate collaboration and cooperation between the parties;
 - (b) further the understanding of the expectations of other project stakeholders; and
 - (c) facilitate early identification of any issues that may affect the achievement of the project objectives.
- .6 The minutes of any meeting held pursuant to the clause do not form part of the Contract and are for information only. If, at a meeting, the parties agree upon an amendment to the Contract or the Principal issues a direction, the amendment or direction must be clearly identified as such and documented separately from the meeting minutes.

10. EVALUATION OF CONTRACTOR'S PERFORMANCE

- .1 At any time the Principal may undertake an evaluation of the Contractor's (and any subcontractor's) performance and compliance with the requirements of the Contract using the current version of the Principal's relevant Contract Performance Evaluation Procedure. A copy of the procedure will be made available to the Contractor if requested. The evaluation, which will include reasons for any below acceptable scores, will be forwarded to the Contractor when completed.
- .2 If the Contractor disagrees with the evaluation, they may forward a request to the Principal for a review, along with reasons why it should be reviewed. Following reasonable consideration of the request, the Principal's decision will be final. The evaluation may be taken into account in the assessment of future tenders with the Principal or other government agencies.

11. CONTRACTOR'S WARRANTY

- .1 Within 6 weeks of the date of the Actual Completion Date, the Contractor must provide a certificate warranting to the Principal that the Contractor, in performing the work under the Contract, has:

- (a) executed and completed the Contractor's design obligations and produced the Contractor's Documents to accord with all Contract and statutory requirements; and
- (b) executed and completed the work under the Contract in accordance with the Contractor's Documents so that the Works comply with all Contract and statutory requirements.

12. HOLD POINTS

.1 The following is a summary of Hold Points referenced in this Part:

CLAUSE REF.	HOLD POINT	RESPONSE TIME
4.2(b)	Determination of desirable minimum or absolute.	14 working days
