# ACT GovernmentInfrastructure Finance, and Capital Works (IFCW) QUALITY CHECKLIST CIVIL PROJECTS Pre-Tender Review

**For use by IFCW Project officers and Design Engineers.**

**IMPORTANT: Tenders should not be advertised if documentation is incomplete.**

# IFCW Officer to Complete

|  |  |
| --- | --- |
| Project: |  |
| Date of Check: | Click here to enter a date |
| Project Officer: |  |
| Design Engineer: |  |

**PRE-TENDER REVIEW**

(Tenders should not to be advertised if documentation is incomplete). Where this is unavoidable the tender documents should declare the extent of incomplete documentation etc)

# Authority Approvals

| **ITEM:** | **DESCRIPTION:** | **YES** | **NO** | **COMMENTS** |
| --- | --- | --- | --- | --- |
| **1.** | Development Approval received from ACTPLA |  |  |  |
| **2.** | Works Approval received from NCA |  |  |  |
| **3.** | Design Acceptance Received from TCCDS |  |  |  |
| **4.** | Design Acceptance received from ActewAGL Icon– Water |  |  |  |
| **5.** | Design Acceptance received from ActewAGL Icon– Sewer |  |  |  |
| **6.** | Design Acceptance received from ActewAGL / Evoenergy– Electricity |  |  |  |
| **7.** | Electrical Design Completed by ActewAGL / Evoenergy |  |  |  |
| **8.** | Street Light Design Approved by ActewAGL / Evoenergy |  |  |  |
| **9.** | Design Acceptance received from Private Certifier for internal domestic water and sewer reticulation |  |  |  |
| **10.** | Design Approval received from ActewAGL – Gas |  |  |  |
| **11.** | Design Approval received from Telstra – Comms |  |  |  |
| **12.** | Design Approval received from ICON – Comms |  |  |  |
| **13.** | Design Approval received from TransACT – Comms |  |  |  |
| **14.** | Design Approval received from ICT – Comms |  |  |  |
| **15.** | Design Approval received from AAPT – Comms |  |  |  |
| **16.** | Shared Trenching Plan Approval |  |  |  |
| **17.** | Design and Connection Application for Telstra service to Traffic Signal Controllers |  |  |  |
| **18.** | Design and Connection Application for electrical service to Traffic Signal Controllers |  |  |  |
| **19.** | Approval from ACT Heritage Unit |  |  |  |
| **20.** | Construction Environmental Management Plan Approval (concept stage) |  |  |  |
| **21.** | Document Readiness for tender |  |  |  |
| **22.** | Is design consultant ready to review tenders? |  |  |  |

# Documentation and Design Status

| **Item:** | **Description:** | **Yes** | **No** | **Comments** |
| --- | --- | --- | --- | --- |
| **23.** | All design documentation and Project Drawings to be issued to the Contractor in a hard copy format (A3 drawings adequate in most circumstances) |  |  |  |

# Confirmation of Design Office Checking Procedure

| **Item:** | **Description:** | **Yes** | **No** | **Comments** |
| --- | --- | --- | --- | --- |
| **24.** | Drawings indicate name of Principal Designer involved in preparation of plans |  |  |  |
| **25.** | Drawings indicate design has been reviewed by an experienced/qualified engineer |  |  |  |
| **26.** | **Drawings indicate checking process including:** | | | |
|  | * Printing and checking of printed drawings |  |  |  |
|  | * E-data checked against drawings |  |  |  |

# Documentation Contents

| **Item:** | **Description:** | **Yes** | **No** | **Comments** |
| --- | --- | --- | --- | --- |
| **27.** | **Geotechnical investigation works carried out and cover items such as :** | | | |
|  | • Test pits |  |  |  |
|  | • Bore holes |  |  |  |
|  | • laboratory testing of physical soil properties (i.e. CBR, PI, PSD etc) |  |  |  |
|  | • Contaminants |  |  |  |
|  | • Uncontrolled fill |  |  |  |
|  | • Ground water table |  |  |  |
|  | • Penetrometer tests |  |  |  |
|  | • FWD Deflection and curvature for maintenance/overlay works |  |  |  |
| **28.** | **Pre-Design Survey with attention to the following:** | | | |
|  | • Traverse of all existing bench-marks and a statement of values to be used for the design and construction phases. A minimum of two benchmarks to be nominated for use. Place new permanent marks (star picket in concrete) outside the works area to keep interval to maximum of 300 metres |  |  |  |
|  | • Accurate pick-up of existing ground levels |  |  |  |
|  | • Accurate pick-up of all existing features |  |  |  |
|  | • Special attention to accurate location of trees which are likely to be kept |  |  |  |
|  | • Intensified detail survey at tie-in locations to existing works |  |  |  |
| **Design engineer to report the level of accuracy used for the pre-design survey** | | | | |
| **29.** | **Plan of Survey Control Network which forms part of the project drawings :** | | | |
|  | • Number and location of benchmarks provided in relation to level of accuracy required for construction. |  |  |  |
|  | • Clear benchmark values recorded including stated accuracy of mark. |  |  |  |
| **30.** | **Plan of all Existing Services at :** | | | |
|  | • Project inception |  |  |  |
|  | • Document readiness |  |  |  |
| Includes all known surface features, O/H lines and U/G cables for power, underground communications cables incl. copper and fibre optic, gas lines, sewer, S/W, Water mains etc | | | | |
| **31.** | Traffic Management Concept plans endorsed in principle by Roads ACT and other interested parties (eg ACTION) |  |  |  |
| **32.** | Erosion Control Concept plans endorsed in principle by EPA. Concept plans to include location and size of water quality control dams |  |  |  |
| **33.** | **Full and adequate drawn details of all elements to be constructed including the following:** | | | |
|  | • Survey control drawing (including all bench marks to be used) |  |  |  |
|  | • Road centre lines |  |  |  |
|  | • Road kerb lines |  |  |  |
|  | • Kerb types and transitions |  |  |  |
|  | • Pavement types and structures including assumptions and/or Community Paths |  |  |  |
|  | • Footpaths |  |  |  |
|  | • Pram crossings |  |  |  |
|  | • Driveways and vehicle crossings |  |  |  |
|  | • Stormwater lines and structures including invert levels |  |  |  |
|  | • Sewer lines and Structures |  |  |  |
|  | • Water mains and fittings |  |  |  |
|  | • Subsoil drains |  |  |  |
|  | • Streetlights |  |  |  |
|  | • Mini pillars |  |  |  |
|  | • Substations |  |  |  |
|  | • Bridges including loading and standards |  |  |  |
|  | • GPTs |  |  |  |
|  | • Culverts |  |  |  |
|  | • Open Drains |  |  |  |
|  | • BEBO arches |  |  |  |
|  | • Line-marking |  |  |  |
|  | • Traffic signal pedestals |  |  |  |
|  | • Concept TTM |  |  |  |
| **34.** | Has the Design Agent provided sufficient information to the Contractor to ensure that the works can be adequately constructed from the supplied set out information included in either Construction Drawings and/or the supplied E- Data? |  |  |  |
|  | • Safety in Design Report |  |  |  |
| **35.** | **Check that detail of set-out information includes the appropriate information:** | | | |
|  | Horizontal and vertical geometry of set- out control lines (at 10m interval if not geometric) |  |  |  |
|  | Start and end chainages of cross-fall transitions annotated on the long section and cross section. |  |  |  |
|  | Start and end chainages of batter slope transitions annotated on cross sections. |  |  |  |
|  | Start and end chainages of kerb and line marking tapers need documented on the general arrangement plans |  |  |  |
|  | Start and end chainages of offset crowns and offset values documented on general arrangement plans. |  |  |  |
|  | Intersection grading plans document the location of offset crowns by chainage and offset and also the location of cross- fall transitions |  |  |  |
|  | Bridge and underpass stone pitched batters documented by cross section recording the location and level of hinge points, the location and level of intercept points and all variable batter slopes. |  |  |  |

# E-Data – Critical Information for Set-Out of Works – Two Types Required being the ‘12d strings and models’

| **Item:** | **Description:** | **Yes** | **No** | **Comments** |
| --- | --- | --- | --- | --- |
| **36.** | All E-Data re-issued as and when drawing amendments are made with version control and tracking. |  |  |  |
| **37.** | All E-Data issued via a Transmittal form and identifiable using a traceable file naming system and a title system for ease of identification. |  |  |  |
| **38.** | **Minimum standard of 12d E-Data (or equivalent) to be supplied:** | | | |
|  | * 12d - Alignment Strings Road Centre lines Kerb Returns Floodway / swale centre lines Curve centre lines Grading lines |  |  |  |
|  | * 12d - 3d Strings Road Strings Kerb Return Strings Floodway / Swale strings Block grading Strings |  |  |  |
|  | * TIN (triangular irregular network) or DTM (digital terrain model) of the existing surfaces and the design surfaces. |  |  |  |
| **39.** | The minimum standard of 2d (Auto Cad) E-Data to be supplied is the E-Data drawings used to create the hard copy contract drawings in an ACAD base drawing format with sufficient control lines and/or strings for construction under Items 40-45 below. |  |  |  |
| **40.** | **2d information for roads:** | | | |
|  | * Centrelines |  |  |  |
|  | * Kerb lines |  |  |  |
|  | * Footpaths |  |  |  |
|  | * Pram Crossings |  |  |  |
|  | * Driveways |  |  |  |
|  | * Vehicle Crossings |  |  |  |
| **41.** | **2d information for blocks:** | | | |
|  | * All block and property boundaries |  |  |  |
|  | * All road reserve boundaries |  |  |  |

# Contract Documentation

| **Item:** | **Description:** | **Yes** | **No** | **Comments** |
| --- | --- | --- | --- | --- |
| **42.** | **2d information for hydraulics:** | | | |
|  | * Sewer lines and structures |  |  |  |
|  | * Stormwater lines and structures |  |  |  |
|  | * Watermain lines and fittings |  |  |  |
|  | * Subsoil drains |  |  |  |
| **43.** | **2d information for Electrical:** | | | |
|  | * Street lights |  |  |  |
|  | * Mini Pillars |  |  |  |
|  | * Sub Stations |  |  |  |
| **44.** | **2d information required for structures:** | | | |
|  | * Bridges, culverts, GPTs and Bebo arches |  |  |  |
| **45.** | 2d information for all line marking and road signs |  |  |  |
| **46.** | **Contract to be prepared, detailing as follows:** | | | |
|  | * ACT Government Solicitor approved document as in typical use for ACT conditions |  |  |  |
|  | * Carefully considered construction period and associated separable parts where appropriate |  |  |  |
|  | * Appropriate mobilisation period added to construction periods |  |  |  |
|  | * Appropriate, limits of Liquidated damages |  |  |  |
|  | * Special Conditions of contract appropriate to the works or standard ACT conditions to be used |  |  |  |
|  | * A measured Bill of Quantities |  |  |  |
|  | * A full list of Contract drawings in a format than can track future drawing amendments |  |  |  |
|  | * Hold points/Witness points |  |  |  |
|  | * Statement or Requirements/Specifications |  |  |  |
|  | **Requirements for independent review as appropriate:** | | | |
|  | * 1. Independent quality assurance audit. |  |  |  |
|  | * 1. Independent safety audit. |  |  |  |
|  | * 1. Independent review of design for construction |  |  |  |
|  | * Appropriate design certification process. |  |  |  |
|  | * Appropriate design validation process. |  |  |  |
|  | * Material Traceability, if any |  |  |  |
| **47.** | Traffic Management Concept plans endorsed in principle by Water works Licence, if required and other interested authorities (e.g. Action Buses) as appropriate. |  |  |  |
| **48.** | Erosion Control Concept plans endorsed in principle by EPA. Concept plans to include location and size of water quality control dams. |  |  |  |

# Infrastructure Finance and Capital Works Officer (IFCW) to Complete

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Completed  Yes  No  N/A | | | | |
| Prepared by: Print Name | Insert your full name. | Signatory’s Title/Position: | Insert you position or title. |
| Signatory’s Phone Number: | Insert your phone number, including area code. | Signatory’s email address: | Insert your email address. |
| Date: | Click here to enter a date. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Checked by: Print Name | Insert your full name. | Signatory’s Title/Position: | Insert you position or title. |
| Signatory’s Phone Number: | Insert your phone number, including area code. | Signatory’s email address: | Insert your email address. |
| Date: | Click here to enter a date. | | |

Infrastructure Finance and Capital Works via IFCW Officer via email: **Level 2, 153 Nature Conservation House cnr Emu Bank &, Benjamin Way, Belconnen ACT 2617| PO Box 158 Canberra City ACT 2601**