

DACUM CHART FOR

Civil & Structural Draftsman

DACUM PANEL

- Mdm Low Siew Hwa
RSP Architects, Planners & Engineers Pte Ltd
- Ms Linda Ler
RSP Architects, Planners & Engineers Pte Ltd
- Mr Chai They Jhan
CPG Consultants Pte Ltd
- Ms Jenny Lee Fong Yeng
Beca Carter Hollings & Ferner (S.E.Asia) Pte Ltd
- Ms Linda Ong
Land Transport Authority
- Ms Sharon Tan Guat Kian
Land Transport Authority
- Mr Joselito L Morales
Kajima Overseas Asia Pte Ltd

DACUM Facilitator

- Ms Tang Ah Buay
Institute of Technical Education

Developed by :



Institute of Technical Education
10 Dover Drive Singapore 138683
Switchboard: 7757800 Fax: 8721943

August 18, 2003

DACUM CHART FOR CIVIL & STRUCTURAL DRAFTSMAN

August 18, 2003

Duties

Tasks

A Conduct site survey	A1 Inspect construction site	A2 Take site measurement	A3 Take site photographs	A4 Prepare sketches/preliminary drawings	A5 Prepare conceptual stage presentation
B Prepare architectural drawings	B1 Prepare residential building working drawings	B2 Prepare layout plans and elevations of furniture arrangement	B3 Prepare presentation drawings	C4 Prepare detailed drawings of piles caps	C5 Prepare column schedule
C Prepare structural drawings	C1 Prepare piling plans	C2 Prepare structural layout plans	C3 Prepare detailed drawings of reinforced concrete foundation	C4 Prepare detailed drawings of piles caps	C5 Prepare column schedule

Duties

Tasks

D	Prepare shop drawings
E	Prepare prefabricated components drawings

D1	Prepare detailed drawings of connections of steel members	D2	Prepare detailed drawings of steel portal frame constructions	D3	Perform preliminary check of completed scaffold	D4	Prepare detailed drawings of waterproofing details for substructures	D5	Prepare isometric drawings of objects/ building components
E1	Prepare drawings of prefabricated slabs	E2	Prepare drawings of prefabricated staircases	E3	Prepare drawings of prefabricated walls	E4	Prepare drawings of prefabricated lift shaft	E5	Prepare drawings for prefabricated column
E6	Prepare drawings of prefabricated beam	E7	Prepare drawings of prefabricated toilet	E8	Prepare drawings of prefabricated refuse chute	E9	Prepare drawings of prefabricated balcony	E10	Prepare detailed pre-stressing drawings of beam

Duties

Tasks

<p>F</p> <p>Prepare construction drawings</p>	<p>E11</p> <p>Prepare detailed pre-stressing drawings of slab</p>				
	<p>F1</p> <p>Prepare drawings of brick work</p>	<p>F2</p> <p>Prepare drawings of timbering to trenches</p>	<p>F3</p> <p>Prepare detailed drawings of reinforced concrete foundation</p>	<p>F4</p> <p>Prepare detailed drawings of doors</p>	<p>F5</p> <p>Prepare detailed drawings of windows</p>
	<p>F6</p> <p>Prepare detailed drawings of roofs</p>	<p>F7</p> <p>Prepare detailed drawings of straight flight staircase</p>	<p>F8</p> <p>Prepare detailed drawings of inspection chamber</p>	<p>F9</p> <p>Prepare detailed drawings of shoring, hoarding and gantry</p>	
<p>G</p> <p>Prepare civil engineering drawings</p>	<p>G1</p> <p>Prepare working drawings of sewerage system</p>	<p>G2</p> <p>Prepare working drawings of drainage system</p>	<p>G3</p> <p>Prepare plans and details for highways</p>		

Duties

H	Prepare external works drawings
I	Maintain documentation of drawings

Tasks

H1	Prepare drawings of location and site plan	H2	Prepare detailed drawings of reinforced concrete drains	H3	Prepare detailed drawings of reinforced concrete culverts	H4	Prepare detailed drawings of roads
I 1	Update approved drawings	I 2	Maintain file of revised drawings	I 3	File approved drawings and as-built drawings		

DACUM CHART FOR Civil & Structural Draftsman

General Knowledge and Skills

- Planning Skills
- Problem solving skills
- Manual dexterity
- Organizational skills
- Communication skills
- Interpersonal skills
- Health and safety
- Good listening skills
- Knowledge of environmental regulations
- Knowledge of local building regulations
- Knowledge of CAD drafting standards and Code of Practices

Worker Behaviours

- Quality conscious
- Responsible
- Self-motivated
- Initiative
- Adaptable
- Co-operative
- Punctual
- Productive
- Organised
- Patient
- Discipline
- Reliable

Future Trends / Concerns

- Needs for multi-tasking
- Increasing use of 3-D drafting
- More user-friendly drafting software
- Statutory requirements for electronic submission of drawings
- Increased employee empowerment

Tools, Equipment, Supplies & Materials

- Architectural scale rule
- Measuring tape
- Computer-aided drafting system
- Zip drives
- Scanner
- CD Writer
- Plotters and Printers
- Cartridge paper
- Diskettes
- Re-writable CDs