



**NATIONAL OCCUPATIONAL
STANDARD FOR DRAUGHTS
PERSON**

APPROVING AUTHORITY

This National Occupational Standard has been prepared and published under the authority of the Zambia Qualifications Authority Board on 25th February 2021.

ZAMBIA QUALIFICATIONS AUTHORITY

The Zambia Qualifications Authority Act No. 13 of 2011 was enacted by the Government of the Republic of Zambia to ***“provide for the development and implementation of a national qualifications framework; establish the Zambia Qualifications Authority; provide measures to ensure that standards and registered qualifications are internationally comparable; and provide for matters connected with, or incidental to the foregoing”***. Among other functions, ZAQA is responsible for *determining national standards for any occupation*, through various sector specific National Occupational Standards Development Teams (NOSDTs).

REVISION OF NATIONAL OCCUPATIONAL STANDARDS

National Occupational Standards shall be revised every after **5 years**, or whenever necessary, by the issue of either amendments or of revised editions. It is important that users of National Occupational Standards (NOS) should ascertain that they are in possession of the latest amendments or editions.

NOS DEVELOPMENT TEAM RESPONSIBLE

This National Occupational Standard was prepared by the Construction National Occupational Standards Development Team, upon which the following organisations were represented:

1. Association of Building and Civil Engineering Contractors
2. Association of Consulting Engineers of Zambia
3. Copperbelt University
4. Department of Public Infrastructure/ Ministry of Housing and Infrastructure Development
5. Engineering Institution of Zambia
6. Ministry of Housing and Infrastructure Development
7. National Council for Construction
8. Road Development Agency
9. Surveyors Institute of Zambia
10. Technical Education, Vocational and Entrepreneurship Training Authority
11. Thorn Park Construction Training Centre
12. University of Zambia
13. Zambia Institute of Architects
14. Zambia Qualifications Authority – Secretariat
15. ZESCO Limited

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1. Arch. Mofya Kumisuku (Zambia Institute of Architects)
2. Arch. Chance Kaonga (National Council for Construction)
3. Arch. Mweene Musanu (Ministry of Housing and Infrastructure Development)
4. Dr. Erastus Mishengú Mwanaumo (University of Zambia)
5. Dr. Ephraim Zulu (Copperbelt University)
6. Eng. Jozef Breza (Association of Building and Civil Engineering Contractors)
7. Eng. Gomezyani Mwaba (Association of Consulting Engineers of Zambia)
8. Eng. Angus Ngoshe (Department of Public Infrastructure/ Ministry of Housing and Infrastructure Development)
9. Eng. Duncan Lungu (ZESCO Limited)
10. Eng. Joseph M. Goma (Road Development Agency)
11. Eng. Francis Xavier Mwape (Engineering Institution of Zambia)
12. Eng. Patrick Tembo (Technical Education, Vocational and Entrepreneurship Training Authority)
13. Mrs. Chileshe Patricia Mulenga (Individual Expert)
14. Mr. Saboi Mwalusi (Thorn Park Construction Training Centre)
15. Mr. Michael Chileshe (Surveyors Institute of Zambia)
16. Mr. Fidelis Cheelo (Zambia Qualifications Authority)
17. Mr. James Mwewa (Zambia Qualifications Authority)

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FOREWORD

The Zambia Qualifications Authority (ZAQA) is a statutory body under the Ministry of Higher Education established by ZAQA Act No. 13 of 2011 to “***provide for the development and implementation of a national qualifications framework; provide measures to ensure that standards and registered qualifications are internationally comparable; and provide for matters connected with, or incidental to the foregoing***”.

Among other functions, ZAQA is responsible for “*determining national standards for any occupation*”, through various sector specific National Occupational Standards Development Teams (NOSDTs) of experts composed of representation from appropriate authorities, government departments, industry, academia, regulators, consumer associations and non-governmental organisations.

This National Occupational Standard (NOS) has been developed by the Construction National Occupational Standards Development Team in accordance with the procedures and guidelines of ZAQA. All users should ensure that they have the latest edition of this publication as National Occupational Standards are revised from time to time.

This NOS shall be used by, among others, industry, employers, quality assurance bodies, awarding and professional bodies and education and training institutions, as a benchmark to identify training needs, develop job profiles/descriptions, develop curricula and learning programmes, in various sectors where the occupation exists. In the Construction sector, demonstration of competence against this NOS may be required in order to run a business or practice a craft or profession.

JUSTIFICATION

Draught person, also referred to as Draughters or Drafters are indispensable in the architectural and engineering sector. Draught person are responsible for preparing technical details using drawings, sketches, specifications and calculations made by engineers, surveyors, architects, or scientists. The drawings provide visual guidelines and show how to construct a structure by giving technical details and specifying dimensions, materials and procedures. A Draughter provides detailed plans that are vital in making accurate costings for a construction project. Hence, it is of paramount importance that the individual is adequately and appropriately skilled to be able to competently perform the task of transferring the intended project concepts into industry standard documentation that can be used for bidding, design approval and final construction.

This National Occupational Standard highlights core knowledge, skills, competences and values that Draught person must possess to be successful in their places of work.

ACRONYMS AND ABBREVIATIONS

CAD	Computer-Aided Design/Drafting
CS	Core Skill
DP	Draughts Person
NOS	National Occupational Standard
NOSDT	National Occupational Standards Development Team
OK	Organisational Knowledge
PC	Performance Criteria
PS	Professional Skill
RPL	Recognition of Prior Learning
TK	Technical Knowledge
ZAQA	Zambia Qualifications Authority
ZQF	Zambia Qualifications Framework

GLOSSARY OF TERMS

For the purposes of this NOS, the following terms and definitions shall apply:

Core Skills/Generic Skills: are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the NOS, these include technical, interpersonal communication related skills that are applicable to most job roles.

Function: is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of NOS.

Job Role: defines a unique set of functions that together form a unique employment opportunity in an organisation.

Knowledge and Understanding: are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.

National Occupational Standards (NOS): are statements of the standards of performance individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding. They are precise descriptions of what an individual is expected to be able to do in his/her work role.

National Occupational Standards (NOS) Code: is a unique reference code that identifies a NOS.

National Occupational Standards Development Team (NOSDT): means an established group of national stakeholders/experts responsible for the development of National Occupational Standards within a specific economic sector or occupation.

Occupation: is a set of job roles, which perform similar/related set of functions in an industry.

Organisational Context: includes the way the organisation is structured and how it operates, including the extent of operative knowledge that managers have in their relevant areas of responsibility.

Performance Criteria: are statements that together specify the standard of performance required when carrying out a task.

Scope: is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.

Sector: is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.

Sub-Sector: is derived from a further breakdown based on the characteristics and interests of its components.

Technical Knowledge: is the specific knowledge needed to accomplish specific designated responsibilities.

Unit Title: gives a clear overall statement about what the incumbent should be able to do.

1. OVERVIEW

This is an introductory section providing a brief summary and specific information or commentary about the content of the NOS and the targeted sector and occupation to help the user judge whether it is relevant to them.

NOS Code	NOS.DP.01
Occupation	Draughting
Job Title	Draughts Person
Job Description	The Draughts Person is responsible for preparation and editing of documentation of all types of drawings prepared for construction and installation works, showing all relevant plans, sections, elevations, specifications and details along with other requirements as applicable, based on the type of drawing.
Job Purpose	This job role prepares different types of drawings from available design data within specified time frame using drawing tools such as Computer Aided Design (CAD), BIM and drawing instruments, etc.
ZQF Level	4
Sector	Construction
Sub sector	Architecture and Engineering
Other Economic Sector(s) in which the Occupation is Practiced	Manufacturing, Energy, Transportation, Agriculture, Mining, etc.
Other Similar Jobs that can be Performed in the Occupation	CAD Draughts Person, Architectural Draughts Person, Engineering Draughts Person, etc.
Minimum Educational Job Entry Qualification(s)	Level 4 Certificate
Practicing License Requirements (if any)	Membership to professional bodies as certified Artisan
Training/RPL (Suggested)	<ol style="list-style-type: none"> 1. Use of ICTs (Internet, Computer packages, Spread sheets, Audio-visual presentation, Email, BIM and CAD graphics package necessary for the job, etc.) 2. Use of photographic equipment, range finders, etc.
Minimum Job Entry Age	18 years
Prior Experience (Recommended)	N/A
Performance Criteria	As described in the Units under Section 4

2. SCOPE

This National Occupational Standard specifies the fundamental knowledge and understanding, skills and competences that a Draughts Person must possess to be successful in his/her job role. It is applicable to Draughts Persons working in public or private organisations or self-employed.

3. PERSONAL ATTRIBUTES (VALUES, ETHICS AND ATTITUDES)

The job requires the individual to have: artistic ability, ability to communicate effectively, a keen eye for attention to detail and accuracy, good ICT and maths skills, time management skills (to plan, organise and prioritise projects as well as to multi-task), ability to work as part of a team (strong collaboration skills), adaptability, critical thinking and problem-solving skills, technical writing skills, ability to visualize three-dimensional objects from two-dimensional drawings, honesty, reliability, professional, result-oriented, etc.

4. UNITS AND ELEMENTS

This National Occupational Standard is divided into 4 Units representing the tasks that a job holder should undertake in his/her day to day work. Each Unit is further broken down into elements depicting the number of activities to be carried out for the successful execution of a particular task.

UNIT 1 [This Unit covers the skills and knowledge required by a draughtsperson to be proficient in carrying out the initial setup and understanding the requirements for preparation of drawings].

Unit No.	01
Unit Title	Carry out the initial setup and understand the requirement for preparation of drawings
Description	This Unit describes the skills and knowledge required to carry out the initial setup and understand the requirements for preparation of drawings
Scope	This Unit covers the following: <ul style="list-style-type: none"> Carry out the initial setup and understand the requirements for preparation of drawings
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria (PC)
Carry out the initial setup and understand the requirements for preparation of drawings	To be competent, the individual must be able to: <ul style="list-style-type: none"> PC1. ensure data and information received is sufficient for preparation of the drawing; PC2. read and interpret the brief (drawing requirements) such as sketches and specifications provided by the architect or engineer or recognised specialist service provider; PC3. prepare sketches from the drawing brief; PC4. consult superiors or concerned authority in case of any inconsistency or ambiguity in the received drawing brief or for any clarifications; PC5. Have a clear understanding of the required outputs such as graphic and other production information; PC6. estimate the time required to complete the drawing based on the scope; PC7. ensure that the computer system is operating correctly; PC8. check that all required computer peripheral devices are connected and operating correctly; PC9. start up the software and adjust the page size, measurement unit, scale and plot area before starting the work; PC10. set drawing parameters where applicable such as colour, layer, line type, line weight, and text font; PC11. prepare title block for the drawing, covering specifications required by the client or mentioned in relevant Zambian construction standards.
Knowledge and Understanding (K)	
A. Organisational Context (Knowledge of the company/ organisation and its processes)	The individual on the job must demonstrate knowledge and understanding of: <ul style="list-style-type: none"> OK1. standard practices for draughting works; OK2. service request procedures for tools, materials and equipment; OK3. statutory compliance requirements at the workplace;

<p>B. Technical Knowledge</p>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <ul style="list-style-type: none"> TK1. how to operate a computer; TK2. different types of plotters and printers, and their operation; TK3. different types of papers, their sizes, thickness and area of application; TK4. various computer and drawing system commands, functions and their shortcuts that are required for preparation of the drawing; TK5. correct procedure to be followed for consultations and information transfer; TK6. in-depth knowledge of various Zambian and recognised codes of practice and other standards applicable to the preparation of drawings in the construction sector; TK7. different symbols and terms used in architectural and engineering drawings; TK8. arithmetic calculations; TK9. how to interpret design parameters and drawing requirements; TK10. standard procedure for storing and maintaining documents; TK11. how to access, recognise and use a wide range of standard components and symbol libraries from the CAD system; TK12. need for document control and security; TK13. how to save, store and retrieve drawings and any other document; TK14. need to create backup copies, and to file them in separate and safe locations; TK15. detailed drafting concepts; TK16. how to accurately interpret and represent technical drawings and data; TK17. methods and procedures used to minimise the chances of infecting a computer with a virus; TK18. procedure to follow in case there are corruptions or virus attacks; TK19. practices that make systems vulnerable to corruption, abuse and damage; TK 20 how to edit text documents, spread sheets and audio visual presentations.
<p>Skills (S)</p>	
<p>A. Core Skills/ Generic Skills</p>	<p>Writing Skills</p>
	<p>The individual on the job must be able to:</p> <ul style="list-style-type: none"> CS1. write in English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site; CS2. prepare status updates or reports for the superiors in the prescribed format.
	<p>Reading Skills</p>
<p>The individual on the job must be able to:</p> <ul style="list-style-type: none"> CS3. read and understand the English language, technical terms and drawing terminologies; CS4. read drawings, specifications and standards related to work; 	

	<p>CS5. read key documents including quality standards, standards working methods and applicable tolerance limits.</p>
	<p>Oral Communication (Listening and Speaking skills)</p>
	<p>The individual on the job must be able to: CS6. speak English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site; CS7. listen attentively and follow instructions given by the superior clearly.</p>
<p>B. Professional Skills</p>	<p>Decision Making</p>
	<p>The individual on the job must be able to: PS1. estimate the time required to complete the task; PS2. suggest an alternative course of action in case of hindrance to work with approval from the supervisor; PS3. determine whether the computer system, peripheral devices and drawing software are working correctly; PS4. check for data sufficiency prior to drawing preparation.</p>
	<p>Plan and Organise</p>
	<p>The individual on the job must be able to: PS5. plan work and organise required resources in coordination with team members and superiors; PS6. plan and prioritise the preparation of drawings as per requirements and demand from the supervisor.</p>
	<p>Customer Centricity</p>
	<p>The individual on the job must be able to: PS7. ensure that the work executed is as per the brief provided and covers all the required details for proper execution of work; PS8. ensure that the work is completed within the estimated timeframe and required quality.</p>
	<p>Problem Solving</p>
	<p>The individual on the job must be able to: PS9. seek clarity from the superiors where required.</p>
	<p>Analytical Thinking</p>
	<p>The individual on the job must be able to: PS10. optimise the usage of resources for draughting works; PS11. analyse work requirements in order to meet set objectives; PS 12 prepare freehand sketches consistent with the given brief.</p>
	<p>Critical Thinking</p>
	<p>The individual on the job must be able to: PS13. assess the complexity of tasks and plan for the execution of the assignment; PS14. assess and evaluate the resources needed against the plan of action to complete the assignment within the given timeframe.</p>

UNIT 2 [This Unit covers the skills and knowledge required by a Draughts Person to be proficient in preparing dimensional architectural and engineering drawings using computer-aided design/drafting (CAD) systems].

Unit No.	02
Unit Title	Prepare dimensional architectural and engineering drawings using computer-aided design (CAD) system
Description	This Unit describes the skills and knowledge required to prepare dimensional architectural and engineering drawings using computer aided design (CAD) systems.
Scope	This Unit covers the following: <ul style="list-style-type: none"> • creation and editing of 2 Dimensional (2D) and 3 Dimensional (3D) drawings that are used in all projects of construction across all sub sectors using CAD systems; • storing, retrieving and maintaining produced drawings.
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria (PC)
Prepare 2D/3D drawings including topographical maps, contours, civil and structural drawings, architectural drawings, etc.	To be competent, the individual must be able to: <p>PC1. carry out necessary calculations to compute dimensions of various components/parts of drawings;</p> <p>PC2. convert the dimensions in the required scale to input into the system;</p> <p>PC3. use drafting principles to produce CAD drawings showing plans, sections, elevations and different types of views;</p> <p>PC4. use drafting principles to produce topographical maps, contours, engineering drawings as well as architectural drawings;</p> <p>PC5. use appropriate commands in the software to draw the required drawings as per standard practices;</p> <p>PC6. use input devices available in CAD systems to prepare the drawings;</p> <p>PC7. use codes and other references that conform to the required conventions;</p> <p>PC8. draw details to highlight critical features in accordance with specifications;</p> <p>PC9. draw architectural and engineering assemblies to highlight critical features as per specifications;</p> <p>PC10. create tables to denote the name, dimensions, perimeter and area of various parts or components as per the brief ;</p> <p>PC11. add specifications as per the drawing requirements provided by the engineer or architect;</p> <p>PC12. use relevant and appropriate symbols as per drawing requirements to provide details in the drawings;</p> <p>PC13. provide legend in the drawing sheet as per requirement;</p> <p>PC14. provide sections and details as per brief of the engineer or architect;</p> <p>PC15. make appropriate denotations, where necessary to highlight details on the drawing;</p> <p>PC16. provide names to the drawings, sections and details as per code of practice or organisational norms;</p>

	<p>PC17. recheck the drawings to confirm their compliance with the supplied design parameters;</p> <p>PC18. correct or remake the drawings in case of any corrections observed by superiors;</p> <p>PC19. coordinate with Supervisors for approval of drawings from appropriate officers;</p> <p>PC20. communicate with supervisors to inform them about the completion of the prepared drawings.</p>
Store and maintain produced drawings	<p>To be competent, the individual must be able to:</p> <p>PC21. forward the prepared drawing to the supervisor for scrutiny and approval;</p> <p>PC22. maintain documents for completion of work and approval of the same as per organisational norm;</p> <p>PC23. store the drawings in appropriate filing system;</p> <p>PC24. operate printers and plotters to obtain prints of the drawings;</p> <p>PC25. produce media copies of the drawings required.</p>
Knowledge and Understanding (K)	
A. Organisational Context (Knowledge of the company/ organisation and its processes)	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>OK1. standard practices for draughting works;</p> <p>OK2. service request procedures for tools, materials and equipment;</p> <p>OK3. statutory compliance requirements at the workplace.</p>
B. Technical Knowledge	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>TK1. how to operate a computer;</p> <p>TK2. various computer and drawing system commands, functions and their shortcuts that are required for preparation of the drawing;</p> <p>TK3. correct procedure to be used for consultations and information transfer;</p> <p>TK4. in-depth knowledge of various Zambian and international codes of practice and other standards applicable to the preparation of drawings in the construction sector;</p> <p>TK5. different types of drawings, their requirements for execution and details they should cover;</p> <p>TK6. different types of construction projects, their scope and the types of drawings required;</p> <p>TK7. different symbols and terms used in architectural and engineering drawings;</p> <p>TK8. arithmetic calculations;</p> <p>TK9. how to interpret design parameters and other drawing requirements;</p> <p>TK10. how to access, recognise and use a wide range of standard components and symbol libraries from the CAD system;</p> <p>TK11. need for document control;</p> <p>TK12. how to save and store drawings;</p> <p>TK13. detailed drafting concepts, drawings and data;</p>

	<p>TK14. how to accurately interpret and represent technical drawings and data; TK15. basic understanding of architectural and engineering concepts; TK16. purpose of preparing drawings and details to be covered as per site or client requirements; TK17. dimensions and positions, their representation and calculation; TK19. checking the representation, dimensions and accuracy of drawings; TK20. different types of office and relevant field equipment and their operation; TK21. different types of media, their sizes and area of application.</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The individual on the job must be able to: CS1. write in English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site; CS2. prepare status updates or reports for the superiors in the prescribed format.</p>
	Reading Skills
	<p>The individual on the job must be able to: CS3. read and understand the English language, technical terms and drawing terminologies; CS4. read drawings, specifications and standards related to work; CS5. read key documents including quality standards, standards working methods and applicable tolerance limits.</p>
B. Professional Skills	Oral Communication (Listening and Speaking skills)
	<p>The individual on the job must be able to: CS6. speak English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site; CS7. listen attentively and follow instructions clearly given by the superior.</p>
	Decision Making
	<p>The individual on the job must be able to: PS1. Suggest an alternative course of action in case of hindrance to work with approval from the supervisor; PS2. select appropriate commands in the software for completing the drawings as per standards; PS3. select appropriate symbols for meeting drawing requirements.</p>
	Plan and Organise
	<p>The individual on the job must be able to: PS4. plan work and organise required resources in coordination with team members and superiors PS5. plan and prioritise the preparation of drawings as per the demand and requirements of the supervisor</p>

	Customer Centricity
	The individual on the job must be able to: PS6. ensure that the work executed is as per brief provided and covers all the required details for proper execution of work PS7. ensure that the work is completed within estimated time frame and with required quality
	Problem Solving
	The individual on the job must be able to: PS8. Seek clarity from the supervisor where required PS9. incorporate necessary corrections to the drawings, as guided by supervisors
	Analytical Thinking
The individual on the job must be able to: PS10. compute dimensions for the drawing by carrying out necessary calculations PS11. assess and analyse critical features within the drawing	
Critical Thinking	
The individual on the job must be able to: PS12. assess complexity of the tasks and provide a plan for the execution of the assignment PS13. evaluate whether the drawing is compliant with the supplied parameters	

UNIT 3 [This Unit covers the skills and knowledge required to work effectively within a team to achieve the desired results].

Unit No.	03
Unit Title	Work effectively in a team to deliver desired results at the workplace
Description	This Unit describes the skills and knowledge required to work effectively within a team to achieve the desired results
Scope	This Unit covers the following: <ul style="list-style-type: none"> Interact and communicate effectively with co-workers, superiors and subordinates across different teams Support co-workers, superiors and subordinates within the team and across interfacing teams to ensure effective execution of assigned task
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria (PC)
Interact and communicate in an effective and conclusive manner	To be competent, the individual must be able to: PC1. pass on work related information/requirements clearly to team members PC2. alert co-workers and superiors about any kind of potential deviations from work PC3. address the problems effectively and report, if required, to immediate supervisor, appropriately PC4. receive instructions clearly from superiors and respond effectively PC5. communicate to team members/subordinates about appropriate work techniques and methods PC6. seek clarification and advice, if need be
Support co-workers to execute project requirements	To be competent, the individual must be able to: PC7. hand over the required materials, tools, equipment and work fronts timely to interfacing teams PC8. work together with co-workers in a coordinated and seamless manner
Knowledge and Understanding (K)	
A. Organisational Context (Knowledge of the company/ organisation and its processes)	The individual on the job must demonstrate knowledge and understanding of: OK1. own roles and responsibilities OK2. importance of effective communication and establishing strong working relationships with co-workers OK3. effects of teamwork on project outcomes, timelines, safety at the construction site, etc. OK4. different modes of communication OK5. importance of creating a healthy and cooperative work environment among workers
B. Technical Knowledge	The individual on the job must demonstrate knowledge and understanding of: TK1. different activities within his work area where interaction with other workers is required

	<p>TK2. applicable techniques of work, properties of materials used, tools to be used and safety standards that co-workers might need, as per the company requirement</p> <p>TK3. importance of proper and effective communication and the expected adverse effects in case of failure relating to quality, timelines and safety at the construction or project site</p> <p>TK4. importance and need of supporting co-workers facing problems for smooth workflow</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The individual on the job must be able to:</p> <p>CS1. write in English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site</p> <p>CS2 prepare status updates or reports for the superiors in the prescribed format</p>
	Reading Skills
	<p>The individual on the job must be able to:</p> <p>CS3. read and understand the English language, technical terms construction and drawing terminologies</p> <p>CS4. read and understand communication from team members regarding work</p>
	Oral Communication (Listening and Speaking skills)
<p>The individual on the job must be able to:</p> <p>CS5. speak English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site</p> <p>CS6. listen attentively and follow instructions/communication shared by superiors or co-workers regarding team requirements or interfaces during work processes</p> <p>CS7. orally communicate with co-workers regarding support required to complete the work</p>	
B. Professional Skills	Decision Making
	<p>The individual on the job must be able to:</p> <p>PS1. decide on the type of resources needed to effectively complete the works</p>
	Plan and Organise
	<p>The individual on the job must be able to:</p> <p>PS2. plan work and organise required resources in coordination with team members and superiors</p>
	Customer Centricity
<p>The individual on the job must be able to:</p> <p>PS3. complete all assigned tasks in coordination with other team members</p>	
Problem Solving	
<p>The individual on the job must be able to:</p> <p>PS4. take initiative in resolving matters among co-workers or report the same to superiors</p>	

	Analytical Thinking
	The individual on the job must be able to: PS5. determine the best way of coordination among team members PS6. communicate with co-workers, taking into consideration their educational/social backgrounds
	Critical Thinking
	The individual on the job must be able to: PS7. evaluate the complexity of tasks and determine if any guidance is required from superiors

UNIT 4 [This Unit covers the skills and knowledge required to plan and organise work in order to meet the expected quality of work, within the specified timeframe].

Unit No.	04
Unit Title	Plan and organise work to meet expected outcomes
Description	This Unit describes the skills and knowledge required for an individual to plan and organise work in order to meet the expected outcomes
Scope	This Unit covers the following: <ul style="list-style-type: none"> • Prioritise work activities to achieve desired results • Organise required resources prior to commencement of work
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria (PC)
Prioritise work activities to achieve desired results	To be competent, the individual must be able to: PC1. understand clearly the targets and timelines set by superiors PC2. plan activities as per schedule and sequence PC3. provide guidance to the subordinates to obtain desired outcome PC4. plan housekeeping activities prior to and post completion of work
Organise required resources prior to commencement of work	To be competent, the individual must be able to: PC5. list and arrange required resources prior to commencement of work PC6. select and employ correct tools and equipment for completion of desired work PC7. complete the work with allocated resources PC8. engage allocated manpower in an appropriate manner PC9. use resources in an optimum manner to avoid any unnecessary wastage PC10. employ tools and equipment with care to avoid abuse and damaging them PC11. organise work output, materials used and tools deployed PC12. ensure that processes adopted are in line with the specified standards and instructions
Knowledge and Understanding (K)	
A. Organisational Context (Knowledge of the company/ organisation and its processes)	The individual on the job must demonstrate knowledge and understanding of: OK1. importance of proper housekeeping OK2. policies, procedures and work targets set by superiors OK3. roles and responsibilities in executing his/her work and supervising subordinates
B. Technical Knowledge	The individual on the job must demonstrate knowledge and understanding of: TK1. standard practices of work to be adopted for assigned tasks TK2. how to use available resources in a prudent and appropriate manner to minimise wastage or damage

Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	The individual on the job must be able to: CS1. write in English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site CS2. list down the assigned works and targets
	Reading Skills
	The individual on the job must be able to: CS3. read in English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site CS4. read and understand communication from co-workers, superiors and notices from other departments as per requirement of the job level
B. Professional Skills	Oral Communication (Listening and Speaking skills)
	The individual on the job must be able to: CS5. speak in English (at least working level) and be able to or have the means to give simple instructions in the local language used at the site CS6. listen attentively and follow instructions/communication shared by superiors or co-workers regarding standard work processes, resources available, timelines, etc. CS7. communicate effectively with supervisor, co-workers and subordinates
	Decision Making
	The individual on the job must be able to: PS1 Decide on the sequence to be adopted for execution of work
B. Professional Skills	Plan and Organise
	The individual on the job must be able to: PS2. plan and organise the materials, tools and equipment required to execute the work PS3. work with some level of autonomy
	Customer Centricity
	The individual on the job must be able to: PS4. complete all assigned tasks with proper planning and organisation
	Problem Solving
	The individual on the job must be able to: PS4. arrange or seek help to arrange for materials and tools in case of shortfall
	Analytical Thinking
	The individual on the job must be able to: PS5. identify and analyse areas of work which could result in a delay of work, wastage of materials or damage to tools and equipment
Critical Thinking	
The individual on the job must be able to: PS6. evaluate potential solutions to minimise avoidable delays and material wastage in the office and at the construction site	

5. EQUIPMENT, TOOLS AND CONSUMABLE MATERIALS

Equipment, tools and consumable materials include, but not limited to the following: Drawing instrument box with accessories, Bond/manila paper, Set squares, French-curves, Drawing board, Tee-square, Mini drafter, Computer with an internet supply, AGP card, Ethernet card, Internal modem, UPS, Word processing packages or latest version of operating software, CAD packages with power pack or latest version, graphic packages printers, plotters, scanners, copiers, range finders, photographic equipment, GPS, Chest of drawers, Locker, Bookshelf, Steel tape, Drawing table, Stools (revolving type), Computer/printer table, Computer chairs, First aid box, and Firefighting equipment.

6. DILEMMAS/CHALLENGES AND COMPLEXITIES FOR A JOB HOLDER

Dilemmas associated with the job of Draughts Person include long working hours, standing or sitting for long hours, pressure (from customers/clients, superiors and subordinates), fatigue, handling high volumes of work, dealing with difficult customers/ clients, etc. As Draughters spend long periods seating in front of computers doing detailed technical work, they may be susceptible to eyestrain, back discomfort, swollen limbs and hand and wrist problems etc.

6.1 Alternative Choices (Solutions) to Dilemmas and Complexities

Solutions to dilemmas/challenges include exercising regularly to maintain physical fitness, planning and prioritising projects, delegating work where necessary, undertaking training in customer service and anger management, ensuring constant supply of materials, tools and consumables, using a computer screen filter, practicing proper office/computer ergonomics, taking intermittent breaks to freshen up etc.

7. WORKING CONDITIONS/ENVIRONMENT

Draughts Persons work in architectural offices, manufacturing companies, engineering firms, CAD-specific work-groups, construction companies, engineering consultancy firms, government or are independently self-employed. Draughting technologists and technicians often work as part of a broader multidisciplinary team in support of engineers, architects or industrial designers or they may work on their own. Draughts Persons usually work in offices, seated at adjustable drawing boards or drafting tables when doing manual drawings, although modern drafters work at computer terminals much of the time. They usually work in an office environment, but some may have to travel and spend time on manufacturing plants or construction sites. Most Draughts Persons work standard 40-hour weeks and work under pressure in order to meet set deadlines; only a small number work part-time. Working conditions include confined spaces, day and night shifts, working overtime and on weekends, etc.

8. PARTIES INVOLVED/INTERACTING WITH THE JOB HOLDER

8.1 Internal/Within the Organisation

Parties involved/interacting with the job holder who are internal to the organization include superiors, subordinates, other employees (e.g. architects, surveyors, engineers: civil, building, electrical and mechanical), trainers, etc.

8.2 External/Outside the Organisation

Parties involved/interacting with the job holder who are external to the organization include trainers, government regulators, suppliers of equipment/tools/consumables, Draughts Persons from other organisations, professional bodies, etc.

9. PHYSICAL DEMANDS ON THE BODY

- Sit, stand or walk for long periods of time;
- Handle and operate various types of hand held field equipment with minimum assistance;
- Adapt to different work environments both in and outdoors
- Repetitive motion of hands/fingers;
- Bend or twist repetitively for long periods of time;
- Seeing clearly up close, especially using a computer;
- Be able to and be ready to travel long distances frequently and at short notice;
- Etc.

ANNEX A

Criteria for Assessments based on this NOS

A.1 Guidelines for Assessment

A.1.1 Criteria for assessment for curricula and learning programmes based on this NOS will be created by curricula and programmes developers. Each Performance Criteria (PC) will be assigned marks proportional to its importance in the NOS. Curricula and programmes developers will also lay down proportion of marks for theory and practical skills for each performance criteria, giving more weight to practical skills.

There shall be allocated the 'Total Mark', which will be the sum of all marks in each Unit, distributed across the number of PCs in that particular Unit. The 'Out Of' mark will be the mark allocated to each PC, which will be shared between theory and practical skills assessments.

A.1.2 Awarding/assessment bodies or institutions and other users of the NOS will create unique question papers for the theory part and evaluations for skill practical part for their respective candidates.

ANNEX B NOS Version Control

This Annex gives details necessary for the tracking of the NOS versions based on the number of revisions.

NOS Code	NOS.DP.01		
ZQF Level	4	Version Number	01
Sector	Construction	Date of Approval	February 2021
Sub-sector	Architecture and Engineering	Date of Last Review	N/A
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REGISTERED OFFICE

Zambia Qualifications Authority
Ground Floor, Finsbury Park
P.O Box 51103
Lusaka,Zambia

Tel: +260 211 843050/ 843053

Mobile: + 260 963 922 730/ 0956 037 185 / 0972 559 301

Email: info@zaqa.gov.zm

Website: www.zaqa.gov.zm