



**wingard**<sup>TM</sup>  
**BROCHURE**

**PROVIDING  
INNOVATIVE  
ENGINEERING  
SOLUTIONS**



## **THE COMPANY**

**Wingard** was incorporated to take advantage of the opportunities in the Engineering sector of **Nigeria** through partnership with major clients in projects such as Telecommunication Infrastructure, Civil Engineering projects, Mechanical & Electrical, Fire Fighting, Oil & Gas, Project Management, Road Construction to mention but a few.

Our team comprises of Nigerian professionals with international exposures and work experiences in public and private sectors who are involved in the implementation of Engineering projects. We are guided by high business ethics and professional standards.

## **OUR APPROACH**

Wingard is committed to provide innovative engineering solutions through the use of Quality contents, cost effective functional approach and by ingenious execution of projects. We believe this approach would lead to satisfaction of our clients accelerated coverage.

We have technology that combines the three vital attributes, which are required to deliver quality engineering projects i.e. **relatively lower cost, rapid delivery and high quality**. We have the technical skills and management capabilities for design and execution of projects in the fastest possible time. The rapidity of our systems also ensures our organization reduce, to the barest minimum, the incidence of cost escalations, which are common to conventional methods of construction.



## **OUR VALUES**

Wingard uses the right people, best technologies and most innovative approaches to solve engineering problems and to execute all projects successfully

## **OUR MISSION**

To achieve our objectives in an environment that is fair and just to the various stakeholders.

# CORE COMPETENCE



# TELECOMMUNICATION INFRASTRUCTURE

## INSTALLATION

Panel and Microwave Antennas, Feeders cables, jumper cables, booms, connectors, grounding-kits, waterproofing kits, splitters, diplexers, labels, cable clamps, Radio base stations, power equipment (Hybrid and Colo-power pack) to mention but a few.

## ANTENNA INSTALLATIONS

Handling of different kinds of antenna which includes point to point microwave antenna, point to multipoint base station antenna, VSAT antenna etc.. Also precision instrument used for telecommunication installation and signal monitoring are handle by competent workforce.

Our areas of interest in the Cell Site Build Programs include but are not limited to the following area of specialization;

## CIVIL

Foundation: Raft, Pad, Pile etc., Equipment plinths and Palisade steel fences; perimeter walls and Aprons.

## ELECTROMECHANICAL

Erection of Towers and Installation of Aviation lights, etc., installation of thunder arrestors and sub assembly, brackets and poles.

## CABLING

Cabling which includes; fibre, coaxial copper, aluminium, etc. and provision of supplementary information such as cable calculations, routings drawings, testing and commissioning.

## DESIGN & IMPLEMENTATION

Design conceptualization and implementation of many functional networks for our client are given precise design consideration on interference, upstream power, polarization, frequency planning, frequency re-use, maximum distance between base station, signal attenuation etc.

## POWER SUPPLY TO EQUIPMENT ROOM & ITS PROTECTION

Most RF equipment is intelligent devices and functions when within a certain voltage level only. Secondly, these are manufactured on request and according to specifications. Thirdly, customers cannot afford down time, for these reasons, our Engineers are practically involved in all power issues in the base station, ranging from the design stage, through the implementation, up to the testing and commissioning stage.

## INTEGRATION

Site integration at intra-network and inter-network level are provided by our organized highly experienced staff, this include telecoms integration; ranging from voice, data and video services of site.

## TESTING & COMMISSIONING

Accurate equipment and experience makes the expertise, hence provision of equipment such as Spectrum Analyser, Universal Testing Machine for fibres etc. are operated by experienced manpower. Also tabulated results and substantial documentation on networks performance using precision instruments are made available as required.

## SUPPORT SERVICES

Our customer support service is active twenty-four hours daily and our Engineers are ready to trouble shoot until every fault is fixed.

# FIRE ENGINEERING SERVICES

WINGARD provide fire protection design, supply, installation, commissioning and maintenance of the following systems as required by the industry's code and regulation.

## FIRE FIGHTING, DETECTION & SUPPRESSION SYSTEM

- FM-200 Automatic Fire Suppression System;
- Analog Addressable Fire Alarm System;(Gent & other quality products) o Conventional Fire Alarm System;
- Automatic Water Sprinklers System o Fire Hose Reel System
- Fire Hydrant System
- Fire Pump Sets ( NFPA Standards and UL/FM Approved) o Breaching Inlet & Landing Valve System
- Dry chemical – Co2 and Foam suppression system.
- Water Mist Fire Suppression System
- Fire Extinguishers ( British Standard )
- Foam Bladder Tank System and Foam Generators o Water Foam Monitors and Foam Proportioners
- Fire Trucks

# ROAD CONSTRUCTION

WINGARD is technically viable to construct durable and pliable road networks.

## SURVEYING

Detailed survey is done by our experienced and qualified survey team. This is a vital element in the process of design and construction of safe, visible and cost effective roadway. Scrutinized survey report is a major determinant of the best location for a road. Thus serve as an guide to any landscape features that require special attention or avoidance and as to be incorporated in the design and implementation processes.





## DESIGN & IMPLEMENTATION

Comprehensive survey report is for the design of every road built in order to make adequate provision and to incorporate all necessary features to be constructed is required such features include but not limited to drainage systems, pedestrian bridges, culverts, pedestrian bridges, sidewalks, weep holes etc.

## DRAINAGE CONSTRUCTION

Drainage construction is determined by the topography and terrain of the road location. The width and length is designed to a way that it can drain water expel from the road surface and all other water channels in order to enhance the durability and to prevent structural damages on the road pavement over a long period of time and also to reduce frequent maintenance.

## EARTHWORK

In road construction, earthwork is one of the major works and this is usually carried with precision. Earth work process includes excavation, carting away of earth materials, filling, compaction, and construction. It also helps in control of moisture content as compaction is done according to standard and design procedures.

## SURFACING

In road surfacing, necessary test are carried out to make sure that materials used are up to standard and strength required. The components are used in the production for it to be workable during application on road ways.

# **BUILDING CONSTRUCTION**

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## **SURVEYING**

Survey process in building construction is crucial in order to have more details about the soil structure and the topography of the environment where building structure is to be constructed. It is done by using survey equipment such as the dumping level, digital theodolite, global positioning system(GPS), total station and so on which gives a level of high precision and accurate result. This survey process equally aids the process for a reliable structural design.

Our company has evolved to meet the needs of home owners, effective delivery of quality and functional structures that could stand the test of time.

## **SOIL TEST**

In order to know the soil structure of the environment where building construction is to be located, an accurate soil test is carried out. It is a determinant factor in the foundation type that will be used at thus location. Such foundation could be pile, raft, or pad or combination of two or more foundation type, depending on the soil structure and the strength required for a particular building construction i.e bungalow, duplex, or storey building of various levels. There are in-house or out-sourced experience personnel that are responsible for it execution.

## DESIGN & IMPLEMENTATION

Our design team are divided majorly into two: Architectural team and structural team. The Architectural team are into the CAD design of the structures to be built and are guided by the standard of their profession in order for precision as relates to the drawings and the 3Dimensional presentation of structures.

The structural team are responsible for designing of each of the components that made up the building and testing quality and quantity of each material to be used and making sure such are used at every place required.

## QUANTITY SURVEYORS

The quantity surveyors also double as a quantity team to supervise and record the strength and accuracy of procured materials for building project. It is also the responsibility of this team to prevent wastages and eliminate unproductivity in the system.

# PROFILE

## CIVIL ENGINEERING

This team is made up of Architects, Civil Engineers, Structural Engineers, Land Surveyors and Quantity surveyors who are responsible for the implementation of Project from the design stage to the commissioning stage.

## ELECTRICAL ENGINEERING

This team consists of many electrical engineers and telecommunications riggers, which specialize in Building and Structures Electrical works, RF installations, Fiber Optics, BSS Audit, Drive Test and Optimization, E-Site Installation, Transmission Installation.

## MECHANICAL ENGINEERING

This team consists of mechanical engineers and riggers with prior experiences from some major rigging companies in Nigeria. These riggers have carried out many indoor/outdoor installations and have risen through the rank and file.

## TECHNICAL SITE SURVEY / ACQUISITION TEAM

This team consist of Technical Site Surveyor (Locating coordinate, determination of topography of the site terrain with the aid of digital Theodolite and Global Positioning System) and Acquisition process which includes selection of candidates based on coordinates, Site Negotiation, obtaining NCAA, Local/State govt. permits and also liaising with the community and the clients.

## **SAFETY TEAM**

Safety is our watchword in Alltel Nigeria Ltd and our primary objective. It is mandatory for our staff to obey all the safety rules and to embrace international safety standards, from office to sites. We maintain “Zero Tolerance” for breach of safety procedures stated by our company or by our clients. It is the responsibility of our management to provide and ensure the use of safety tools such as safety hats, safety belts, hand gloves, safety shoes, safety overalls, Fire extinguishers, Anti-fall devices, signs and displays. Our Management team doubles as Safety Ambassadors and they have authority to address safety issues promptly.

## **OUR TEAM**

Our background reflects specialties' in the installation of various towers works, civil engineering works, Fire Fighting, mechanical and electrical engineering works, Architectural works and RF works of cell sites, and all projects awarded to us have been executed to the fullest satisfaction of our various clients. We have developed, over the years, a highly efficient and well-organized team of engineers, technicians, managers and administrative staff by which we maintain a high standard of performance and timely completion of jobs





 wingard™