Full Length Research Paper

Land Acquisition in Ghana; Dealing with the Challenges and the Way Forward.

*Gyamera, E. A\(^1\), Duncan, E. E\(^2\), A., Kuma, J. S. Y\(^3\), and Arko-Adjei, A\(^3\).

\(^1\)Department of Soil Science, School of Agriculture, University of Cape Coast, Cape Coast. Ghana.
\(^2\) and \(^3\)Faculty of Mineral Resource Technology, University of Mines and Technology, Tarkwa. Ghana.

eeduncan@umat.edu.gh, js.kuma@umat.edu.gh
Tel. +233 24 4521145; Fax. +233 33 213 2709

Corresponding Author’s E-mail: gyamengineering@yahoo.com

Accepted 18th October, 2017.

Up to date, land acquisition in Ghana is not smooth and easy. It is confronted by a lot of constraints such as insecurity of land tenure, inadequate land policy, indiscipline in the land market leading to fraud, conflicts, frustrations and anxiety. Though there are more lands in Ghana, there are also more problems in acquiring right to land if proper procedure is not followed. This paper seeks to address the bottlenecks in acquiring right to land in Ghana and provide solution for the way forward. Equity of land, land ownership, land right and the tenure system in Ghana has been explained. The various processes involved in acquiring a parcel of land (from purchase to title/deed registration) have been elaborated. Where and how to get a land free from encumbrances for all sort of socio-economic development has also been established. Introductions to the cadaster system, deed and title registration in Ghana have been reviewed. The land enterprise in Ghana has a lot of challenges as a result of rapid urbanization, high demand-driven in the land market and weak institutional framework. These challenges have been reviewed in this paper with recommended solutions. It is therefore concluded that, Ghana needs more investors since there are lands and rooms for industries, infrastructure and socio-economic development.

Keywords: Land, tenure, acquisition, Ghana

INTRODUCTION

Almost everybody history or family root is always a saga of attachment to or alienation from Land (Mahama, 2006). Land is a free gift of nature and it comprises of component such as soil, rocks, and natural vegetation. It is also perceived as a communal property that defined a community’s geographical extent; its economic strength and socio-cultural heritage. Land contains all minerals and holds all buildings and immovable properties.

According to Paaga (2013), land is not only considered important to the agrarian communities but in modern times it is regarded as the main pillar for measuring economic growth in terms of capital and wealth. It is a good investment and a valuable asset which does not depreciate but rather, appreciate with time. There is no doubt that land is the most important economic asset to humankind. It is hard to visualize any economic activity which does not require the use of land. Interest in land is therefore of vital importance in business transaction, that is, an essential pre-requisite for any economic venture (Gambrah, 2002). This makes land the most powerful commodity in the world with high demand rate in all aspect of development.

Land, can be defined as; that solid surface (dry land) of the Earth which is not covered by a body of water. It has a fundamental separation from water on the planet.

Land is the most powerful asset in the world due to its high demand rate in all aspect of development. It forms the major source of wealth (from 50% to 75%) for every country, city/town, village, clan, or family (Anon, 2006). Apparently, in Chiefaincy or customary administration, a chief’s land size determines his power and authority. Land is also indisputable life support resource due to its fundamental input into agriculture and food security across the globe. Apart from it being the primary source for collaterals in securing credit facilities from financial institutions and security of tenure,
land plays a significant role in revenue generation for both local government and traditional rulers. Land is highly needed in such areas as community Development, Mining, Tourism, Trade and Industries, Infrastructure, Forestry, etc. Other social groups are also campaigning for forest reserve, ecological and environmental protection. The non-renewable nature of land coupled with country’s population growth and the accelerated rate of development has made land popular and therefore all stakeholders and custodians of land are very particular, serious and aggressive about their boundaries. Land boundary demarcation has been very sensitive since 2700BC when river Nile overflowed its banks and washed out farm boundaries (Anon 2012).

Since land contribute to about 73% of most country’s Gross Domestic Product (GDP), focus on land right have tremendously increased globally, (Wickeri, and Kalhan, 2010). Agarwal (1994), defined land right as an indisputable privilege given to an individual or cooperate society to freely acquire, possess, and use land so long as the activities on that land do not impede others rights. Land right critically describes land ownership, which is a serious source of capital, financial security, food, water, shelter and other resources (Wickeri, and Kalhan, 2010). Due to this, conflicts are associated with the claiming of land right or land lordship.

Ghana, having a total land size of 238, 539 square kilometres is rich in land and natural resources. The country’s political and material strength and sustainable development is therefore built on such asset (National Land Policy, 1999). According to the Ghana statistical service, (2011), the total population of the country is estimated to be 24.2 million as per the year 2010 population and housing census. From that same census report, about 60% of the working population is employed in the agricultural sector whereas 35% of household income is generated from agricultural activities. It is also estimated that, there are 5.5 million house hold in Ghana (Ghana Statistical Service, 2008) and still counting. By estimation, 51% of the total population will be living in urban areas by the year 2030 (Farvacque-Vitkovic et al, 2008). The few statistics provided above show that, there is a high demand rate for land for both housing and agriculture.

Land tenure system in Ghana

Landholdings, in many part of Sub-Saharan Africa are customary based tenure that are either unwritten or recorded informally (Arko-Adjei, 2010). According to Ollenu (1962), there is no land without an owner. Naturally land belongs to three categories of people, namely; the dead, the living, and the unborn. At any point in time, the living is just a custodian of the land. The owner of a land is therefore any person, or group of people that have reserved right; legally or customary to use, convey, lease, or assign a parcel of land. Land territory which was brought to light as a result of enterprise of political philosophy (Avery Kolers, 2009) is the extent to which a land owner power or right over a land ends. Land is vested allodially in the cognate (kinship) group which include the living family together with the ancestors and future generations. This made land ownership joint but not a divided one.

Traditionally, land should not be alienated as it does not belong to any current generation alone. Indigenes claim undeveloped land on behalf of their family unit which over time tends to evolve in to family lineage land and then passed on through to family members over generations (Anyidoho et al., 2008). Strangers (migrants outside from the cognate group) may be given the right to live, use and enjoy portions of the land at the pleasure of the customary group. No individual can easily convert his/her status from being a stranger to an indigene. Descendants of migrants who settle on the land some generations back are still considered strangers (Ollenu, 1962)

Ghana has both statutory and customary land tenure systems that are being run synchronously together. The customary lands are owned and being managed by the traditional societies known as Tribes, Clans, or Families. From the article 267 of the Ghana’s 1992 constitution, chiefs and family heads are the custodians of such lands, and they have the authority to enforce right and obligation to the land that has been granted. This system is applicable to rural, peri-urban, and urban centres. Generally, no land is being owned by the state with the exception of the one that has been acquired by lawful proclamation, ordinances, statutory procedures or international treaties (Kuntu-Mensah, 2006).

Land can be acquired in Ghana by both Ghanaian citizen and non-citizens of Ghana in any quantity since the constitution does not specify the size of land that can be acquired. Unlike Ghanaian citizens, non-citizens of Ghana are not entitled to freehold interest in any land in Ghana but a lease of not more than fifty (50) years is recommended. However, Ghanaians can acquire lands on freehold interest or leasehold basis for ninety nine (99) years subject to renewal for a further term.

Basically, there are three (3) main ownership of land namely, State lands, Customary lands, and Private Lands. However the current tenure regime in Ghana provides five broad classes of land ownership. These
are; the stool/skin lands, family lands, Individual/private lands, state lands and vested lands.

State or Public lands

All public lands are vested in the president on behalf and in trust for, the people of Ghana. These are commonly known as Government lands as stipulated in the 1992 constitution of Ghana. They were compulsorily acquired by the Government for its administrative and development functions and which are in the absolute ownership of the state. Under the state land Act 1962 (act 125), the declaration through the publication of an instrument designating a piece of land as required in the public interest, automatically vest ownership of the land in the state. The title thus acquire is the absolute or allodial one. As with expropriation law and policy in many countries, compulsory state land acquisition has to be for development project deemed to be for the public good. The land can also be acquired in terms of one of the state property and contract Act, 1960 (CA 6), the land (Statutory Wayleaves) Act, 1963 (Act 186). Land may specifically be expropriated under the constitution: in the interest of defense, public safety, public order, public morality, public health, and the development or utilization to promote the public benefit” (Constitution Act 20 of 1962, Article 20(a)). By law the state must compensate the customary authorities for the land they surrendered to the state. Once surrendered, all previous interests in the land are extinguished. The major source of discontent among customary authorities is misuse of the system. Thus, land expropriated for a particular purpose will not be used for that purpose but another or even sold (Danso and Barry, 2012).

Vested Lands

An estimated 2% of Ghana’s land is vested land. These are lands that were previously been owned by the traditional indigenous community (i.e. town or village) but declared under the Land Administration Act 1962 (Act 123) S7 to be vested in the state and administered for the benefit of the community. Though vested lands are similar to state lands because of the incumbent legal ownership of the state, they do differ. For vested lands, the state possesses the legal interest in the land as a trustee whiles the indigenous community possesses the beneficial interest as a “beneficiary”. Al though it removes the power of the customary authority over the land, it does not assume the allodial interest which remains in the cognate group. The cognate group does not receive any compensation for losing the management control. They are however given revenues accruing from the land and the proceeds of every transaction regarding the alienation of the land.

Stool or Skin Lands

This type of land belongs to a community that has a stool or skin as the traditional emblem of the soul of ancestors who originally occupied that parcel of land and therefore owned the stool or the skin. The ancestors might have settled there as a result of traversing in search of game (hunting), good water for fishing, good water for drinking, fertile land for farming, or running away from war front in search of peace. The skin or stool land is administered based on the principles of customary or native law. The occupant of the stool or skin, the chief, administers all the land in trust and on behalf of his people. As a custodian, the chief uses the right attached to the absolute interest distribute part or portion of the said land to members of the community as well as developers who may be strangers. However, according to clause (3) of article 267 of the 1992 constitution of Ghana, any disposition of stool lands must be approved by the lands commission and also must conforms to the approved development plan of the area concerned. They are also not to be given as freehold interest to both Ghanaians and non-Ghanaians.

Family Lands

These lands belong to a particular family to which the absolute interest is operated by the head of that family. The family heads then use the usufructuary obligations to the members of the family as well as strangers. Such lands were acquired through conquest, long settlement or by purchase.

Individual or private lands

When land is acquired by individual as a private property, it is termed as a private/individual land. Such lands can be inherited or be transferred and are not subject to any family sanctions or restrictions. Holders of such lands have freehold right.

The cadaster system in Ghana

Cadastre is the pivot of the Land Administration (LA) system, and it describes the right, restrictions and responsibilities (RRRs) associated with land (Njuki,
The current cadastre system package is made up of the following: a cadastral plan (geometric dimension of the parcel), the interest, right (ownership), and values. Though no one can claim absolute ownership of land, every individual traces a lineage to land. This means that, every one owns right to land with respect to and in accordance with the local laws, practice and encumbrances.

**The Deed and Title Registration in Ghana**

Ghana practice both deed registration and title registration depending upon the region where the land is been situated. Out of the total number of ten (10) political region of Ghana, the land titled registration is practiced in only two regions namely; the Greater Accra region, and Ashanti region.

**The Deed Registration**

Deed registration is the process of registering all instruments affecting Land per the Land Registry Act 1962, (Act 122). Apart from judges’ certificate, the Law requires all instruments to be registered, and must include a site plan or map containing the description of the land (Cittie, 2006). The purpose of Land Registry Act was to record the document to the land which was being registered. Registration of Instrument has been in existence since C18th under Ordinances of the Land Registration Ordinance, 1883. The Land Registration Ordinance of 1883 was replaced by the Land Registration Ordinance of 1895 which has also been repealed by Land Registry Act 1962, (Act, 122).

Deed registration is only helpful in cases of conflict of priority of instrument and does not confer title to land. It is therefore for the purpose of evidence of which instrument was registered first (Cittie, 2006). Deed registration does not ensure security of title to land in order to avoid land conflict. Deed registration is therefore being posed by a number of challenges which include; inaccurate site plans, multiple sales of lands, insecurity of land ownership thereby leading to several forms of land conflicts.

However, since the year 2000, the deed registration has considerably improved as a result of the introduction of cadastral plan being the plan attached to the instrument. The cadastral plans are prepared in accordance of the Survey Act 962, (Act 127). The request of cadastral plan as a founder mental requirement needed for deed registration has considerably reduced fraud in land dealings and the issues of double registration of lands.

A cadastral plan can be defined as a plan showing legal boundaries of individual property. It is a plan that is prepared to be attached to an instrument for registration purposes. A cadastral plan is prepared by the Director of Surveys or his/her representative, official surveyor, a Licensed Surveyor or any qualified Surveyor who is a member of Ghana Institutions of Surveyors.

The cadastral plan has the following essential characteristics among others:

i. It is certified and sealed by a Licensed Surveyor.

ii. It is always approved and sealed by the Director of Survey or a Regional Surveyor in the region in which the land is situated.

iii. It contains a regional number, and descriptions of the land as plan data.

**The title registration**

The Land Title Registration (LTR) was introduced to replace the deed registration by the promulgation of Land Title Registration Law 1986 (PNDCL, 152) and the Land Title Regulation, 1986 L.I 1241. LTR had two purposes;

i. To provide certainty and facilitate proof of title to land, and

ii. To create enabling environment for land transactions. Indications here are to make dealing in land safe, pro-poor and guaranteed security.

Laws governing LTR make provision for the registration of all interests held under both customary law and common law which include; allodial title, usufruct/customary law freehold, freehold, customary tenancies and mineral licences (Cittie, 2006). Again, in LTR, the most basic and vital ingredient is the cadastral plan or the parcel plan.

**Summary of LTR process**

Application form is obtained from LTR office. The form is filled, and summit by the applicant or the client at the LTR office. Upon submission of the filled application form, the client is issued with an acknowledgement form (yellow card) and a request for parcel plan letter. This letter is to be sent to the Survey Department for the preparation of a parcel plan or cadastral plan of the client’s property. After the parcel plan has been prepared, it is sent to the Lands Commission for an official search by the client with a letter from the LTR office. If the search result is favourable, the process is continued by publications in

---

667. Gyamera et al.
the dailies. If the LTR office does not receive any objections after twenty one (21) days from the day of publication, the Land Title Certificate is typed, signed, and recorded on the sectional plans. The client is then called for collection.

MATERIALS AND METHODS

The research methodology involved putting together data relevant to this work. The data were taken from specified documents and compiled databases so that materials can be analyzed to arrive at a better understanding of land acquisition in the country.

Both qualitative and quantitative data collection tools were used. It was rooted to a qualitative epistemological position which appreciated the need to consider a particular social place to locate a research study area. Data collection mainly consisted of surveys (Questionnaires), interviews (with state holders), and meetings with community members. Five (5) districts in the Central Region of the Republic of Ghana were purposively selected from the Ghana statistical service sampling frame (Figure 1). The districts are Awutu Senya East, Agona West, Cape Coast north, Komenda Edina Eguafo Abrem (KEEA), and Assin Central. The selection of these districts was based on their increasing socio-economic activities, increasing land acquisition and housing projects coupled with proximity and the willingness of the people to assist with this work.

Central Region is located in the southern part of the country. It is bounded on the north by Ashanti and Eastern Region, south by the Gulf of Guinea, west by Western Region and east by the Greater Accra region. It has a total surface area of 9,826 km² (3794 sq mi) with population of 2,201,862 people (2010 census).

A cluster sampling procedure was used in listing and selection of the households for interview. With the help of the Enumeration Area (E A) Maps, E A boundaries were identified. Having gotten to the center of the E A boundary, a ball pen was thrown into the air and allowed to fall without interference, the interviewer carefully followed the direction of the pen and listed all the households along that direction from the center to the perimeter of the enumeration area. If at the perimeter of the E.A., the households...
listed are just few, the interviewer turns left and follows that direction again to the boundary. At the end of the listing of the households, all the listed households were cumulated to get the total number of households, (let’s say “N”). At this stage, a random number was selected as the first household to be interviewed and the subsequent thereafter. Since the research considered interviewing twenty households from each E.A., the first random household was easily gotten by dividing the total number of households in each cluster or E.A by 20, thus \( N/20 = k \)th item.

**RESULTS AND DISCUSSION**

**Land acquisition framework in Ghana**

The result obtained have been summarised in to a framework and presented as Figure 2. It is composed the ownership of lands in Ghana, the legitimate entity that can acquire the lands, the registration process and the output of each process. It also accounts for the process in acquiring such lands and the associated problems.

From Figure 2, Land can be acquired in Ghana from any of the following owners. The Government, the Customary, or the Private with land title. It can be acquired by the State, individual person/entity, any registered group of persons, and an institution for any purpose in accordance with the rules and regulation of the state and that conforms to the development plan of the area.

**Acquiring from the Government**

Public/state lands are acquired from the Government. The process involves in acquiring from the state can be summarised as follows;

i. Identify the need and purpose for the land.
ii. Identify the site of interest with the consultation from the Town and Country planning office or the Lands commission.
iii. Obtain a site plan that has been prepared in accordance with the development plan of the area. This can be prepared by an official surveyor, a licensed surveyor or a qualified surveyor confirmed by the Director of surveys or the Regional surveyor.
iv. Conduct an official search from the lands commission with the cadastral plan to know the status of the land.
v. Discontinue the process if the search result is not favourable and look for another land elsewhere.
vi. If the search result is favourable, pursue the process by filling an application for Government lease containing a declaration of purpose to the Executive secretary of the Lands commission or the Regional Lands officer depending on the location of the land.
vii. Follow the lands commission process to obtain title to the land.
viii. Make sure, the land is fully registered in your interest before the commencement of any business on the land. Ensure all official receipt.

It is always advice able to employ the services of a qualified lawyer, Lands Surveyor or Land economist to guide you through all the processes due to the technicalities involves.

**Acquiring from the stool/skin, or the family**

Stool lands or family lands must be acquire from the chief or the family head respectively acting with the consent and concurrence of the Elders and Senior Members of the said stool or family whose consent and concurrence are attested to in the present by some of such elders and Senior Members as attesting witnesses where the content so requires or admits include his successors in title and assign. The processes involves summarized as follows;

i. Identify the land of interest and the owners
ii. Identify the site of interest in consultation from the Town and Country planning office for its intended purpose and usage.
iii. Obtain a cadastral plan of the site. This can be prepared by an official surveyor, a licensed surveyor or a qualified surveyor confirmed by the Director of surveys or the Regional surveyor.
iv. Conduct an official search from the lands commission with the cadastral plan to know the status of the land.
v. Confirm the ownership of the land from the search report, house of chiefs and the surrounding communities.
vi. Discontinue the process if the search result is not favourable and look for another land elsewhere.
vii. If the search result is favourable, the process is continuing by negotiating the price and covenants with the owners of the land.
viii. An indenture is drafted containing all the agreement made for proofread and necessary corrections.
ix. Four (4) copies of the final indenture and a minimum of ten (10) copies of the cadastral plan are then signed by the executers and their witnesses.
xi. The documents are taken to court for endorsement.

xii. The next stage is the deed or title registry.
Make sure, the land is fully registered in your interest before the commencement of any business on the land. Again it is advice able to employ the services of a qualified lawyer, Lands Surveyor or Land economist to guide you through all the processes due to the technicalities involves. Avoid agents and people who are not professionals.

**Acquiring from private entity**

Same processes stated above are followed. However, in this case, you must inspect the title of the owner carefully and make sure the land is vacant. Validate any site plan that is provided from the Director of surveys, an official surveyor, a licensed surveyor or any qualified surveyor.

**Limitations of the title registration**

The LTR also have the following deficiencies;

i. Lack of stakeholder participation
ii. Inadequate archival process
iii. Foot prints or details not mandatory
iv. Process not fully automated
v. Conversions of registered deeds to title
Challenges in the land sector

As noted in the National Land Policy, 1999, there are numerous problems and constraints in the Land sector. Some are:

a. General indiscipline in the land market characterised by the current spate of land encroachments, multiple sales of residential parcels, unapproved development schemes, haphazard development, etc., leading to environmental problems, disputes, conflicts and endless litigations.

b. Indeterminate boundaries of stool lands as a result of lack of reliable maps/plans, and use of unapproved, old or inaccurate maps and also the use of quack surveyors leading to land conflicts and litigations between stools and other land owning groups.

c. Inadequate security of land tenure due to conflict of interests between and within land owning groups and the state, land racketeering, and weak land administration system.

d. Lack of consultation with land owners and chiefs in decision-making for land allocation, acquisition etc., difficult accessibility of land for agricultural, industrial and residential purposes due to conflicting claims of ownership etc.

e. Delays in court ruling on land issues. It is estimated that, about 57% of the total cases in courts are land cases. The ruling rate is also very slow (10 to 20 years) with the likelihood of appeal by the losing party which can also take some years. Projects are therefore halted half way; some does not even commenced at all. Apparently, some litigants grow old while others demised while having land case in court.

f. Other social problems include: the agents (middlemen), identifying the right owners of land, identifying a good land surveyor, getting the right documents (cadastral plan and indenture), getting proper registration of documents, Developing the land, emerging conflicts, and land quads. Every day is a free day for macho men and land guards to terrorize innocent investors and developers without any interventions by the law enforcement agencies.

g. The developmental agenda of the state does not take land issues into consideration.

h. Institutions established to administer lands are too week to implement policies.

i. Fragmented institutional arrangement.

j. Lack, inadequate, and delays in compensation of state acquire lands.

k. Intermediate land tenure.

l. Delays in processing land documents at the lands commission and extortion of monies by some lands commission officers from clients.

m. There are no streamline arrangement or policy on land acquisition in Ghana paving way for anybody to sell land which contributes to inconsistencies in land acquisition modus operandi.

The way forward

Recommendations to improve land enterprise are focused on two main directions; first, to the investors and developers, and second, to the Government and stakeholders. For future business in the land enterprise, the following are recommended to investors and developers:

i. Beware of hot cake lands.

ii. Don’t acquire lands under cover; be very transparent.

iii. It is advisable to acquire land through a professional land Surveyor, a Lawyer, a valuation officer or a lands officer.

iv. Be present and witness the signatories of the land owners, take pictures when possible.

v. If the amount is too big, present it under camera

vi. Avoid agents or middlemen

vii. Protect your boundaries by planting permanent monuments at the corners or edges of your property.

viii. Alternative Dispute Resolution (ADR) for land conflict resolution must be used more than the court system.

The following recommendations are directed to the Government and stakeholders:

i. Sensitization of the public on land acquisition in Ghana through the media and role play.

ii. Establishment of fast track land courts in every regional capital

iii. Judges must be encouraged to lay heavy sentences on the indecent people in the land enterprise.

iv. Lawyers who defend land tricksters must be punished.

v. Establishment of land guard rapid response unit in the police

vi. Indentures must include passport size photographs of both the lessor and the lessee.

vii. The government must control land prices in the country.

viii. There must be a participatory policy on urban expansion.

ix. The lands commission must be equipped with quality human resource and logistics.

x. The country’s land sector needs major reforms and shake ups.
CONCLUSIONS AND RECOMMENDATION

Land acquisition is one of the major contribution factors to the high cost of establishing business in Ghana. Land acquisition can be detrimental or punishment if proper steps are not followed. The problems in the land sector are as a result of the complexities of ownership and land tenure system in Ghana. The challenges can be dealt with by following the points stated above. The Government can also establish an institution purposely to regulate the land market. "Covert emptor" which means “buyer beware” is therefore the founder mental rule that can be recommended for all prospective buyers of land in Ghana.

REFERENCES


Sittie, R. (2006), “Land Title Registration; the Ghanaian Experience” Shapping the Change XXIII FIG Congress, Munich, Germany. pp 4-10.


AUTHOR

Gyamera Ankormah Ebenezer is a Land Surveyor and Geological Engineer by profession with over fifteen year of experience in the field of Geosciences. He is PhD student at the University of Mines and Technology (UMaT), Tarkwa, Ghana- West Africa, Chartered Project Manager, fellow at American Academy of Project Management (FAAPM) and a member of Ghana Institution of Surveyors (MGhIS).

Dr. Edward Eric Duncan is a senior Lecturer at UMaT with over thirteen years of experience in teaching and research. He has over thirty publications to his credit in the areas of GIS (2D and 3D), Remote sensing, and Geomatic Education. He is a member of Ghana Institution of Surveyors (MGhIS).

J. S. Y. Kuma is a full professor and a Vice Chancellor in UMaT with over thirty years of experience. He is a fellow at African Scientific Institute (FASI), Member of Ghana Institution of Engineers (MGhIE), Member of Ghana Institution of Geoscientist and Members of International Association of Hydrologist.

Dr. Anthony Arko-Adjei is a Senior Lecturer at the Kwame Nkrumah University of Science and Technology and expert in Land administration with over twenty years of experience. He is a member of Ghana Institution of Engineers (GIE), Ghana Institution of Surveyors (MGhIS) and a Licensed Surveyor.