680.01- Norris
095
006.2

COPY

Wm. Thornwall Davis, M. D.
Ernest Sheppard, M. D.

927 Seventeenth Street N. W.
(Farragut Square)

Washington, D. C.
June 29th, 1935

Dr. Arthur Morgan
Chairman of the Board
TVA Norris, Tenn.

My dear Dr. Morgan:

For thirteen years I was a surgeon in the United States Army. I have inspected many camps, barracks, mess-halls and the like from the Arctic to the Equator and I have never before seen anything so perfect as your community at Norris Dam.

I spent the whole afternoon wandering over the place and inspected it thoroughly merely for my own pleasure and satisfaction. Such an inspection of course brings out the real truth because nobody knew me and I really saw the plant as it is everyday. Having had so many years training in inspections, I feel that I am competent to judge and if I were asked to give an official report I would say I could find no fault of any kind.

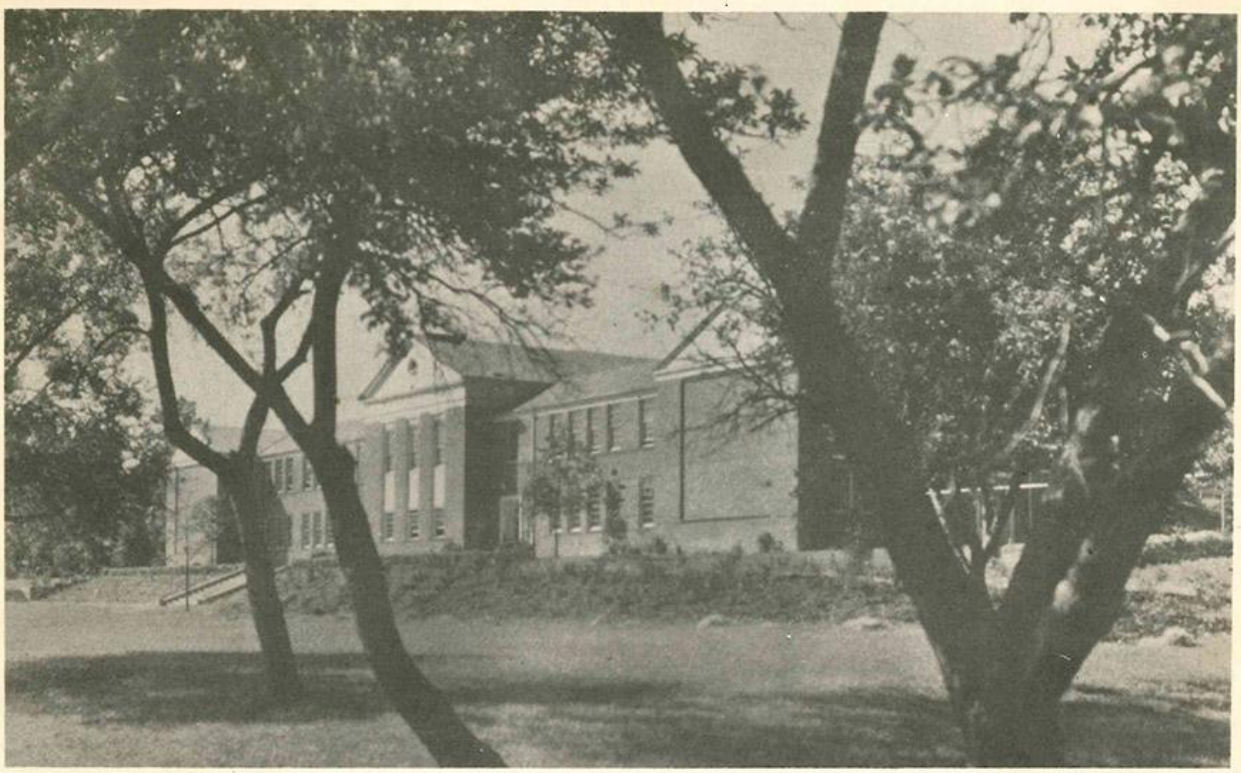
Will you accept my congratulations upon your modern Utopia?

Very sincerely,

(signed) Wm. T. Davis

JUL 2 - 1935

2-169



The school building serves all grades, 400 pupils; is electrically heated, has photo-electric cell lighting control.

THE PLANNING OF THE TOWN OF NORRIS

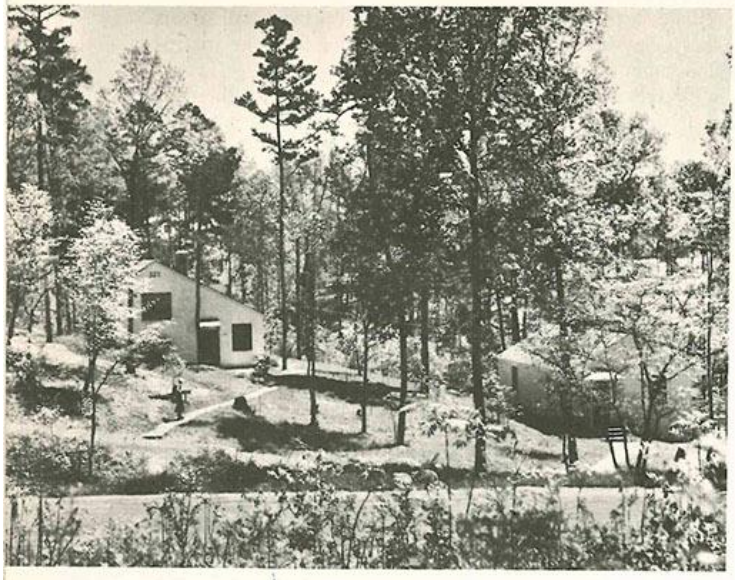
BY TRACY B. AUGUR

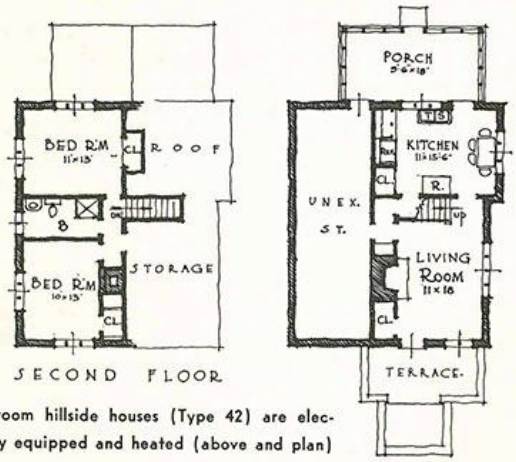
Assistant Director of Land Planning, T.V.A.

THE TOWN OF NORRIS is a planned community, built new "from the ground up." It was designed—to use Sir Raymond Unwin's apt expression—as a place of pleasant living and convenient work. It represents the town planner's basic thesis that the best foundation for a healthy community life is a community deliberately planned to provide it. This, perhaps, is a lot to claim for a town that is still in its infancy, but our story here deals with the planning of a new town, its planning, designs, expectations, and results (actual and hoped-for).

Visitors and critics like to read into Norris all sorts of strange credos to accompany its newness. It has been called a "Godless town" because its citizens have chosen nonsectarian worship. A Gotham commentator dubbed it a miniature Bronxville in appearance, but found evidence of communism in the fact that the workman who answered his knock at a cottage door was clad in his undershirt. Perhaps this New Yorker found red flannels subversive of American ideals. Enthusiasts have called it the town of the electric age, and profess to be disturbed by the old-fashioned fireplaces that share honors with electric heaters in its homes. Architects inured to urban vistas charge that the informal placing of houses over hill and dale is restless and uncomposed. Yet another recent visitor expressed himself by exclaiming, with obvious relief, "Thank God, it doesn't look site-planned!"

But to the people who have made their homes there, these pros and cons are of scant concern. To them their town is just a good place in which to live, and they want to stay. To them it is not new-fangled, but "homey." For although Norris is new, it is also old. It is founded on old American tradition that antedates the Constitution, the tradition of the early colonies, born of practical necessity and built to live in. In a nation that has come to look upon city building as the special and reserved province of land speculators, it is perhaps a strange and dangerous doctrine that towns should again be built to live in, but the New England ancestry of the idea is old and irreproachable.





Four-room hillside houses (Type 42) are electrically equipped and heated (above and plan)

THE PURPOSES

Norris was born of the practical necessity of providing housing for some 1500 men engaged on the building of the Norris Dam, 25 miles northwest of Knoxville on the Clinch River, a major tributary of the Tennessee. The country at the dam site is semi-mountainous, and, on modern standards, inaccessible. A large force of men gathered from all parts of the Tennessee Valley, were to spend two to three years on the job. The nearest villages were from six to ten miles away and offered no housing facilities beyond the needs of their own residents. New housing was vital to the job.

It would have been possible, of course, to erect barracks and temporary houses to serve as makeshift shelter for the duration of the job, then to be scrapped. But there were two good reasons for not doing that. In the first place the men employed at Norris Dam, particularly those in technical and supervisory positions, were not to be just temporarily engaged upon construction work, but rather had a long-time job ahead of them. The control of the Tennessee River is a long-range problem, involving many dams, the re-location of inundated highways, railroads and villages, the control of soil erosion, reforestation, and many other important works. Five mammoth dams are now under construction, and another authorized. The men who started at Norris were in many cases scheduled to go on from there to other jobs of similar character. They were faced not with a short two years of living on the job, but with six, eight or ten. Their housing needs were not those of a construction camp, but of a home. It was too much to ask that they leave their families behind, or subject their wives and children to camp conditions for a span of years that might well represent their prime of life, or cover the formative period of their children's growth. A place for decent living was their due.

In the second place, a little figuring quickly showed that the building of temporary facilities did not represent real economy. By the time a site could be prepared in the hilly

Houses on West Norris Road. (Left) A three-room "Dog-trot" adaptation (Type D-2), in board and batten; (center) four-room hillside house (Type 42), and (right) three-room house with large sleeping porch (Type 21)

A group of houses on Pine Road including (left) a five-room house (Type 54) and four-room houses (Type 41). A primary consideration was to take advantage of good sites without felling trees

terrain near the dam, roads built, water and sewer systems and electric lights installed, houses, stores, offices, schools, dormitories, mess halls, recreation buildings, repair shops and all the other facilities erected—the cost would have reached a figure far too large to write off with a shrug. Early estimates placed the cost of a temporary camp at nearly two million dollars, with negligible return in salvage afterwards. There was no economy in that. True economy called for the building of a community which would serve the needs of the construction period, and which in addition made constructive permanent use of the large investment in construction plant and housing.

Concern for the welfare of its working forces plus a resolve to secure a maximum of permanent good from the funds that it expended, led the Authority from the beginning to plan Norris as a complete community, which would provide a home town atmosphere for the men living on the job, and which afterwards could take its place among the progressive small urban centers of the Tennessee Valley. This decision provided the objective around which were built the active plans for the town's construction.

THE KIND OF TOWN

The first question to be settled was the kind of town which might prove most successful and most useful in the Norris region. Within a reasonable radius of the job (the determining factor in location) the country was rugged and good roads and railroads were lacking. There was nothing to indicate the need for a large city or any likelihood of its success. Furthermore, unless one were prepared to repeat a Pittsburgh (which Heaven Forbid!), the topography itself inhibited large-scale building. Small towns, on the other hand, serving as rural trading and manufacturing centers, are characteristic of the area. Improved roads are rapidly knitting the villages within a thirty-mile radius of Knoxville into a metropolitan cluster, with Knoxville as its hub. It, therefore, seemed logical to plan Norris not as the small beginning of a great future city, but a small town content to remain little, and to take its place with other small towns in that complicated mechanism of modern life, the metropolitan community.

With this in mind a suitable town site was sought convenient to the job, but also located so as to tie in naturally with the metropolitan network about Knoxville. This necessited study of possible and probable future roads, as well as of general topography, water supply and drainage, climate, and the growth to be anticipated in the Knoxville region,—the last particularly as it might be affected by the developmental program on the Tennessee River and its tributaries. The interplay of these many factors led to the selection of a site between the dam and Knoxville, about 23 miles from the city over the new road projected to bring materials to the job.

With the kind of town and its general location determined, the next questions to be faced were; *first,* the size and extent of the area needed for it; *second,* the general allocation of land to various uses within that area; and *third,* the structural plan of the new community. The answering of these three questions launched the town planning process well on its way.

THE SITE

The site chosen for the Town of Norris started at the Clinch River just below the dam site, and from the crest of the steep hills that formed the east side of that valley, sloped in a rolling plateau eastward until it dropped down wooded slopes into a second valley. The plateau offered high and attractive building land with fine views of nearby mountains, and the slopes to east and west afforded opportunity for natural protective areas. On the north a deep declivity formed another natural barrier and in addition carried a clear stream suitable for the town's water supply. Its watershed and the adjoining area required for the Norris Reservoir, gave a strip of forest land extending from the town through to the shores of the future Norris Lake. To the south, the location of the new access highway to the dam, which circled the town area, afforded a boundary line.

These houses (Types C and D) are built of cinder block with no other finish than paint, both inside and out. Floors are precast concrete slabs on reinforced concrete joists. Heated by coal stoves

Four-room houses of cinder block (Type A) with paint finish. Floors are concrete slabs and roofs of metal. They are vermin and termite proof and also fire-resisting. Thirty such houses, with numerous exterior variations, were built

THE GREENBELT

Thus the selection of a good topographic unit for the town site provided a complete protective belt of rural land about it, in general not good for building, but giving protection for the town water supply, and providing a town forest, a fine recreational area for townspeople and visitors to the dam, and space for garden areas and farms. The inclusion of this "greenbelt" of open land in the town area was an essential part of the town plan. Besides its function of permanently preserving open land within easy reach of all the townspeople, it helped to preserve the unity of the town itself by establishing a recognizable boundary between it and any other urban development that might take place nearby. Its effectiveness as a deterrent to real estate speculation based on the building of the town, is shown by the fact that only two small subdivisions were attempted in the adjacent area, and both in locations so remote that their existence is almost unknown.

The principle of the permanent rural belt was advocated by Ebenezer Howard as early as 1898, and was later adopted and tested in the English Garden Cities of Letchworth and Welwyn, but was not made a part of modern town planning practice in the United States until applied in a somewhat limited form at Radburn. Norris is the first self-contained new town in this country to utilize it completely, although it is now recognized here and abroad as one of the most effective measures for preserving the identity and character of small communities.

SINGLE CONTROL

Another of the basic Garden City principles, which also found expression in some of the early New England colonies, is that of single control of the whole development in the interest of the community. This was adopted automatically at Norris, since the entire community was built by the Tennessee Valley Authority for its own use, and the entire site was acquired in the name of the United States. What disposition will be made of the site in the future has not yet been decided, but it is expected that the principle of single control and management in the interest of the community as a whole, will be continued.

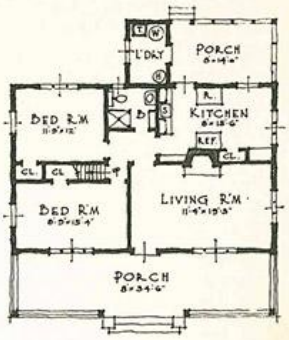
Turning now to that part of the planning process involving the allocation of town land to its best uses, this was found at Norris to be very largely determined by topography. Character of land and the possibility of sewering to a single outfall determined the area available for economical town building. Slope and soil, forest cover, and location determined which parts of the protective belt could best serve for vegetable growing, for a dairy farm, for forests and for recreation.

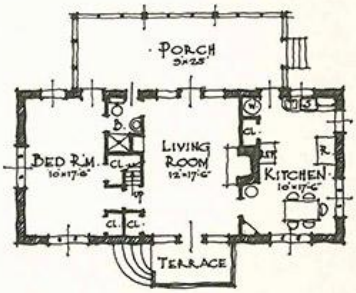
Within the town area itself, it was necessary to choose a site for the commercial center and school, for the buildings of the construction camp, for an area of repair shops designed later to become a small industrial zone, and for the permanent houses.

THREE FOCAL POINTS

Here again, as in the selection of the site, the interplay of many factors, too numerous to recount, led to the final decisions. Preliminary sketches of the physical town plan, to determine what sort of a street network was possible in the hilly terrain, were needed before any land use allocations could be definitely made. The town framework that resulted from these studies contained three focal points: a community center near the middle of the whole buildable area, a construction camp site at the point of approach to the town from the job, and a shop center, chosen with an eye to future industry, below the town and nearer the main highway. Between these three points the network of the first unit of houses was laid out. Although the community center was thus placed toward one edge of the initial residential development, it was so located as to be central to the ultimate town, to occupy a position conveniently accessible to all parts of the community and to be easily approached from outside.

Early studies of the townsite disclosed that it could accommodate not more than a thousand to fifteen hundred families within the area that could be developed economically, and growth beyond that point seemed wholly unlikely





(Above) Four-room house with a large attic. Electrically equipped and heated. (Center and left) Two variations of the "Dog-trot" type (D-2) have screened porches across the rear. They are electrically equipped, including heating. (Opposite page) Recreation building at Construction Camp includes library, commissary and gymnasium-auditorium

at that location. The town plan was developed, therefore, with an ultimate town of that size in mind. Initial building, however, was kept in scale with the needs of the construction forces. In all 281 new single houses, 10 duplex houses and apartments for 30 families were constructed, and these, together with the better of the existing farmhouses, provided for close to 350 families. The area developed for this purpose forms a sector comprising approximately a third of the buildable land.

The street system for this first unit is complete in itself, but can be added to when needed. Water is stored in a 250,000 gallon tank, buried in the top of a high hill that furnishes a commanding overlook across the town, to the Clinch River and the dam, the nearby Cumberlands, and in clear weather to the distant Smokies. Water now used by the construction camp and in construction operations will be available for additional town growth. The sewerage system also has been designed to fill existing need and to be expansible when the need arises.

In addition to its homes the town contains a modern 20-room school serving 400 children in all grades from kindergarten through senior high. The school is built on a hillside overlooking the town center, and has playgrounds and approaches on two levels. An all-purpose auditorium at the center serves for gymnasium, assembly, dances, amateur dramatics, and Sunday worship; while the school library, small assembly room and in fact the entire school plant, serve adult as well as child activities. Near the school is a small commercial building containing the offices of the town management and police, a drug store, a general food store and the telephone exchange. While these buildings serve the principal present needs of the town, they form only part of the community center layout planned for the ultimate town. Sites for churches, for an inn, for additional stores, and for increased school facilities are all provided.

The construction camp, built before the town proper and less permanently, was nevertheless designed to furnish an attractive center for the thousand or more single men quartered there. Its buildings form a campus on a ridge between town and dam, and plans are under way for the conversion of the camp structures to other uses as quickly as the demands of dam construction lessen.

IN TERMS OF PERMANENCY

In fact, with the completion of Norris Dam only a few months off, there is little danger of the Town of Norris becoming a ghost settlement. As laborers, foremen and supervisors on the dam have been laid off or been transferred to other jobs, new families have been quick to claim the houses vacated. At this writing ninety families are on the waiting list. The dire white-elephant predictions that were so freely voiced by the doubtful when the town first was planned, have proved again to be just part of that old discredited refrain of "it won't work" and "it can't be done."

The Town of Norris has been done and it does work. When and how rapidly it will grow to fill out the full size planned for it, no one knows. But it has a good start. It is sound in mind and body. It seems destined to live up to that excellent definition adopted for the true Garden City: "A town designed for healthy living and industry; of a size that makes possible a full measure of social life, but not larger; surrounded by a rural belt; the whole of the land being in public ownership or held in trust for the community."

In its planning Norris truly exemplified the collaborative effort needed for success in modern community planning. Architects, landscape architects, engineers and town planners comprising the staff of the TVA Division of Land Planning and Housing, under the guiding hand of Earle S. Draper, Director, pooled their efforts and their skills to produce the blueprints for a living community. As a result roads wind over sunlit hills and wooded valleys, and leave

(Above) Painted cinder block for interior walls and the warm browns and reds of the precast floor have proven both economical and satisfactory. (Right) The walls of living room have horizontal pine ship lap below the dado and plywood above

no scar. Houses nestle amid forest trees and into slopes as though they had grown up together. The beauty of foliage and hills and distant vista finds companionship in buildings attractive inside and out. And yet the town is not just a pretty picture. Its homes are small, but they are convenient and comfortable. Nearly all have ample porches for summertime, and half are heated electrically for winter. Shops are adequate and pleasant. The school is simplicity itself, but serves from morning until late at night as a true center of community life. Blocks of land too steep for building, or especially useful and attractive as open space, are interspersed throughout the town. And hidden from sight, the more prosaic services of water supply and sewerage make it possible for 350 families to live together with safety and convenience.

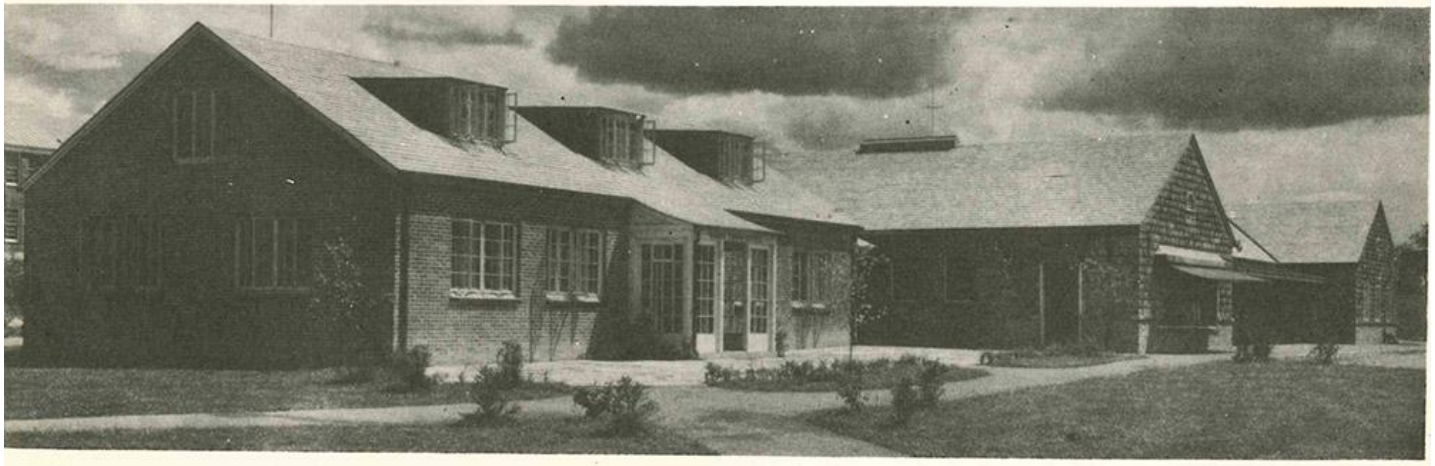
PROGRESSIVE PLANNING

The planning that preceded, or rather accompanied, the building and occupancy of the town was as live as is the community itself. Time was its essence. Steam shovels forever snorted for new fields to conquer. Truck loads of material arrived hourly to be unloaded. There was a never ceasing demand for plans, plans, plans, that construction might go on unhindered, and shelter be provided for men engaged on a still bigger building project on the nearby river. Under this stress the text-book procedure of planning was somewhat strained. The town plan followed the formula neither of an artist's conception nor a student's thesis. The site could not be carefully surveyed and completely planned and studied to perfection before any part was built. In fact, under the pressure to get houses built, whole streets were peopled before full plans were drawn for the community of which they formed a part. While trucks still careened through a sea of mud, and newly-cut trenches crisscrossed everywhere, children began appearing on freshly painted doorsteps and assorted mongrels sniffed the unfamiliar scenes,—strange interlopers in a place that engineers and carpenters and planners looked upon as their own.

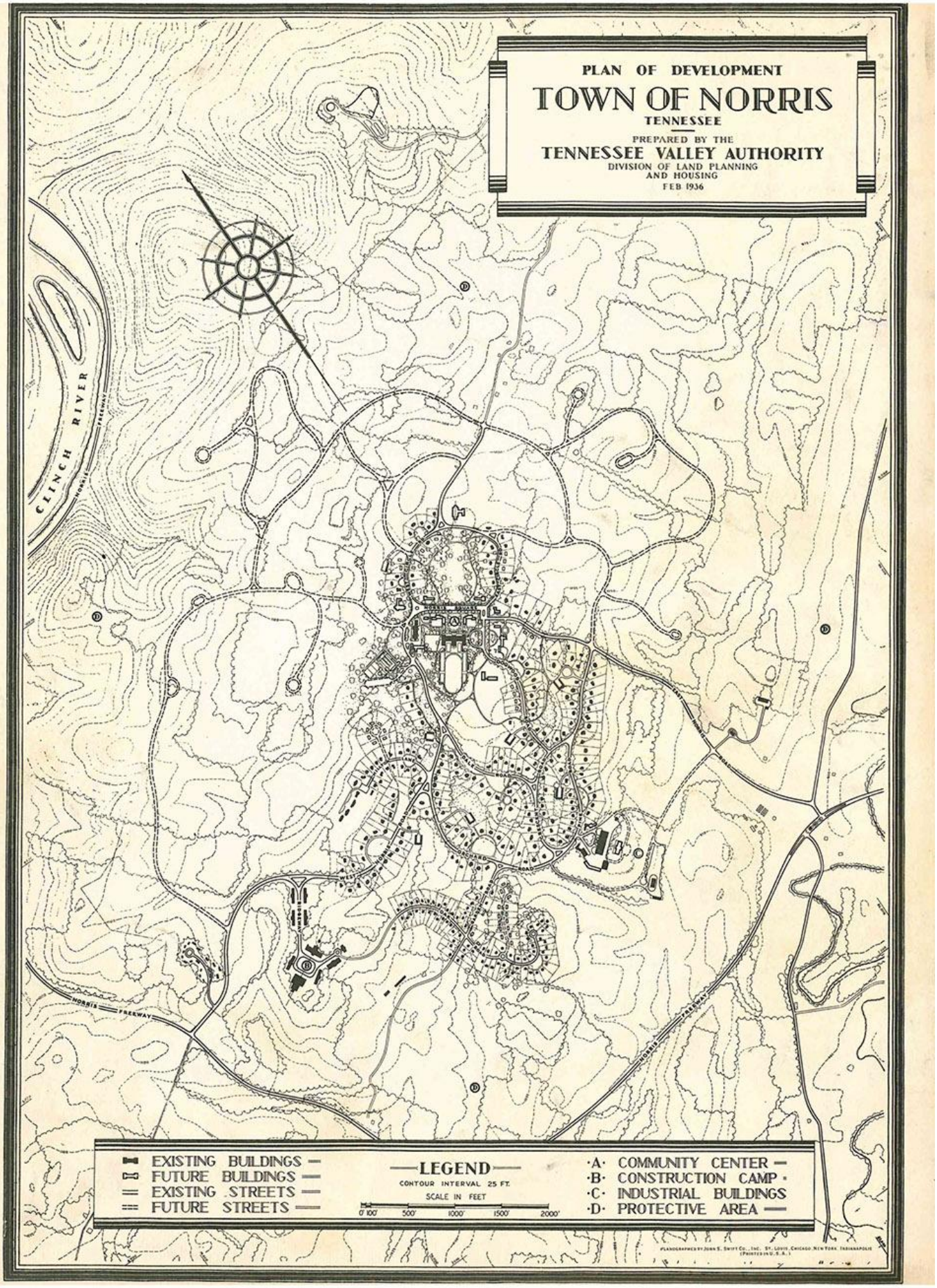
Planning and construction and the beginning of the town's new life went on hand in hand. Each day saw plans adjusted to new situations that the day brought forth,—as town plans must ever be if made for living places built for living people.

Did this procedure that perforce ignored the ordered logic of the planning process lead to mistakes? Undoubtedly. But it also avoided the bigger mistake of producing a new town that was studied and artificial and too perfect,—a town out of keeping with the not wholly perfect mortals who make it their home. The fundamentals of the plan were never sacrificed,—a recognition of the underlying purposes of the community,—a sympathetic treatment of the site, abundant open space for children's play and adult recreation, attractiveness in all things big and little, from the iron bracket of the street signpost to the roadway's gentle curve and the school's straightforward architecture, simplicity, economy, a place designed for pleasant living and convenient work.

That this has been a real achievement, and not just a plan, is witnessed by the attitudes of those who have made Norris their home. With a population newly brought together from north, south, east and west, constantly shifting under the impetus of a swiftly moving program, there has nevertheless developed a real community of interest, a unifying of diverse elements into townspeople proud of their town, their homes, their school, their co-operative store, and of a hundred and one social undertakings from Garden Club to Religious Fellowship. The beginnings of popular government are being made in an elective town council, which serves in an advisory capacity to the town management. So while Norris is still a construction town, the groundwork is being laid, in its administration as well as in its plans, for the day when it will become a regular municipality under the laws of its state.



The Administration Building and Shopping Center in Norris contains a modern drug store, food shop and automatic telephone exchange. Off-street parking, a typical convenience, is provided in the front and rear of both buildings


PLAN OF DEVELOPMENT
TOWN OF NORRIS
TENNESSEE
PREPARED BY THE
TENNESSEE VALLEY AUTHORITY
DIVISION OF LAND PLANNING
AND HOUSING
FEB 1936
CLINCH RIVER
NORRIS FREEWAY
LEGEND
CONTOUR INTERVAL 25 FT.
SCALE IN FEET
0 100 500 1000 1500 2000
EXISTING BUILDINGS
FUTURE BUILDINGS
EXISTING STREETS
FUTURE STREETS
·A· COMMUNITY CENTER
·B· CONSTRUCTION CAMP
·C· INDUSTRIAL BUILDINGS
·D· PROTECTIVE AREA