

A REGIONAL SPEECH AND HEARING CENTER

for

Lubbock, Texas

Submitted in Partial Fulfillment  
for the Degree Bachelor of  
Architecture, Design Option  
Texas Tech University, Lubbock, Texas

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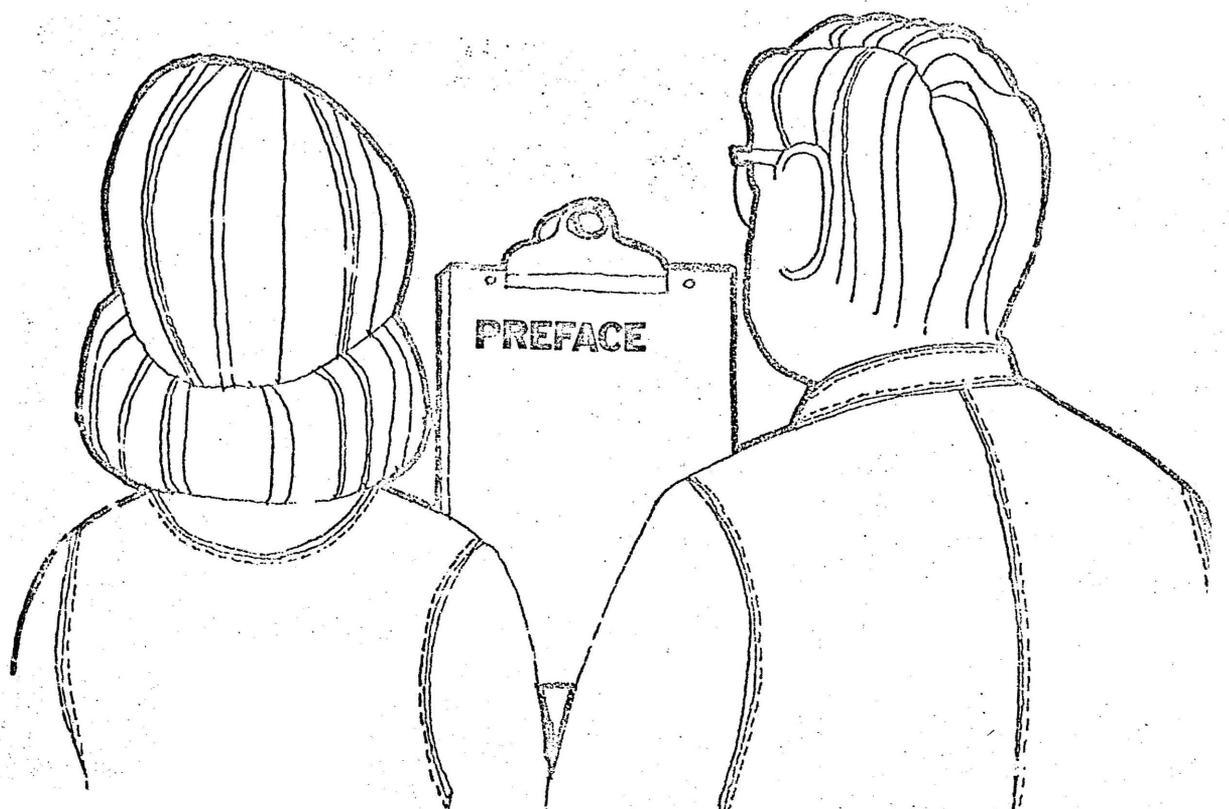
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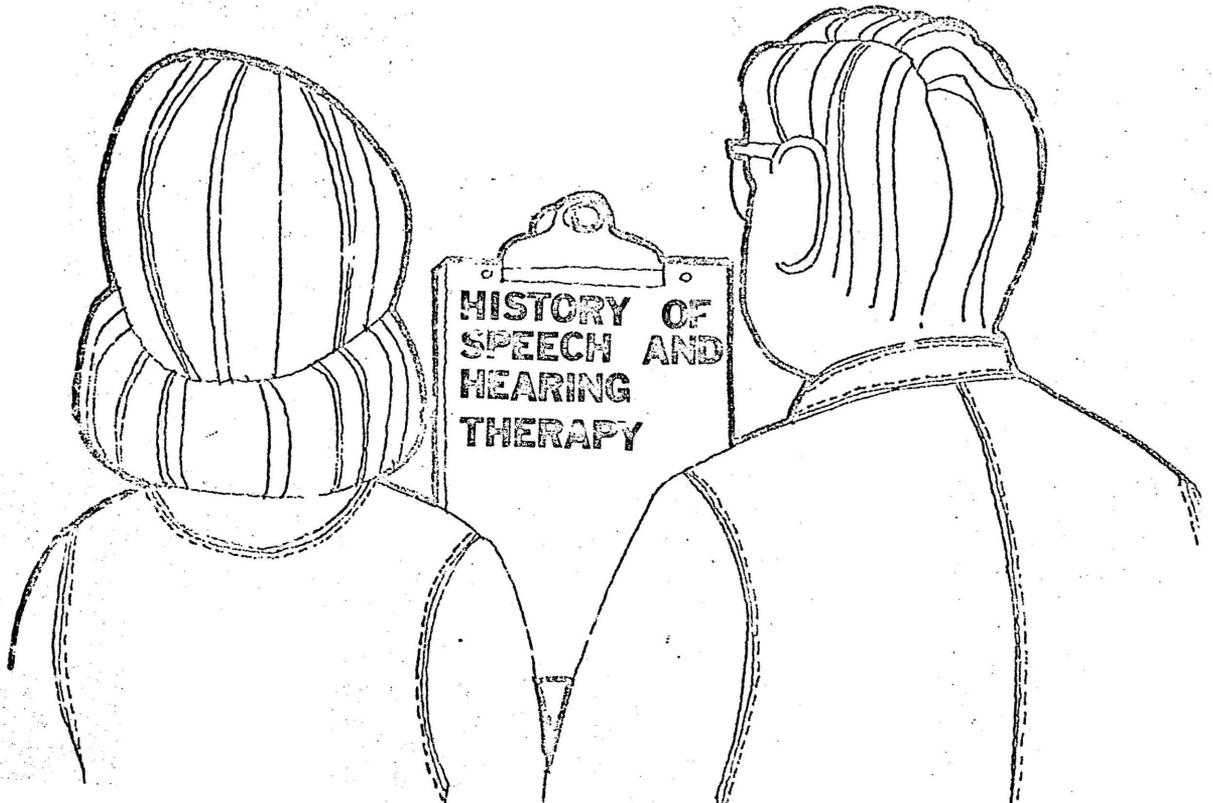
"What's the matter--can't you hear me?" is an expression which is often used among the hard of hearing. For the person with normal hearing who is trying to communicate in a noisy environment, the expression is relevant only because of the noise in which he is surrounded. The question, however, has catastrophic meaning for some 300,000 children and some 2,300,000 adults--for they are truly hard of hearing.<sup>1</sup>

Whether we are concerned with the person who is hard of hearing or with the person who has normal hearing, there can be a similarity of problems. The person with hearing problems hears sounds or snatches of connected speech, but never a meaningful pattern that will enable him to react in an appropriate and positive fashion. The same can be true of the person with normal hearing when such outside factors as low voice level on the part of the speaker or noise interference are responsible for a communication breakdown. Noise, constant or intermittent, has the effect of masking, blotting out,

or interfering with the speech signal. For the hard of hearing, the impaired auditory mechanism causes a constant reduction in the intelligibility level of the signal which is being received. In certain types of hearing losses the defective ear acts like an unwanted filtering system, cutting out or distorting certain important parts of the message. Whichever the case may be the problem can be serious, for speech and hearing are the means by which man interprets, controls, modifies, or adapts to his environment.<sup>2</sup>

The three major functions of speech today are: the transmitting and receiving of information; the transmitting and receiving of opinions and convictions; and the strengthening of human relations. The concern for effective speech comes from all areas of business and professional life. In 1950 some Detroit administrators were studied to determine how their time was spent. The findings showed listening consumed 45% of the time, speaking 50%, reading 16%, and writing 9%. Thus the

skills of oral communication, listening and speaking were used three times as much as those of reading and writing.<sup>3</sup>



The emergence of speech pathology and audiology from the somewhat incidental part-time efforts of persons representing a wide variety of education and clinical backgrounds to full and independent professional status is a somewhat recent development. Only within the last half-century has it been possible for a person to confine his scientific training with disorders of communications.<sup>4</sup>

Though instances of impaired speech and hearing are to be noted early in the recorded history of western civilization, descriptions of systematic remedial measures were slow in appearing. Professional concentration in this area of rehabilitation became possible only within the period spanned by the memory of persons living today.

Except for surgical and prosthetic intervention in cases of cleft lip and palate in which speech habilitation was not a prime objective, the earliest remedial services for the communicatively handicapped were provided for persons with impaired hearing. An attempt to

teach deaf persons to speak was described as early as the seventh century. Developing slowly at first, then with increasing acceleration, general education for the deaf became widespread in Europe by the middle of the eighteenth century. Early in the nineteenth century education of the deaf, including speech training, spanned the Atlantic. In the United States it began most notably with the work of Galluadet in Connecticut, which was followed soon after by the establishment of state schools for the deaf in New York, Pennsylvania, and Kentucky.

It was the same period, the first half of the nineteenth century, that a speech disorder such as stuttering began to receive concentrated professional attention in this country. Speech drills, surgery and mechanical devices were variously employed in remedial efforts. Despite this interest in stuttering, speech correction continued to lag behind the education of the deaf in the mid and late nineteenth century. In 1875 Alexander Graham Bell offered the first university

class in speech correction techniques at Boston University. His instruction was no doubt directed primarily to the teachers of the deaf.

Almost a decade of the present century had passed before speech correction was formally recognized in 1908, as a function of public school education in the nation's largest public school system, that of New York City. This beginning was followed during the next eight years by the establishment of public school speech correction programs in Chicago, Boston, Detroit, San Francisco, Grand Rapids Mich., and eight cities in Wisconsin. The next and perhaps most significant step in the development of the profession came with the inauguration of university speech clinics and formal course sequence in speech pathology. Variousy located in psychology and speech departments as well as medical schools within the university structure, such programs before World War I set the patterns for teacher training and research centers.<sup>5</sup>

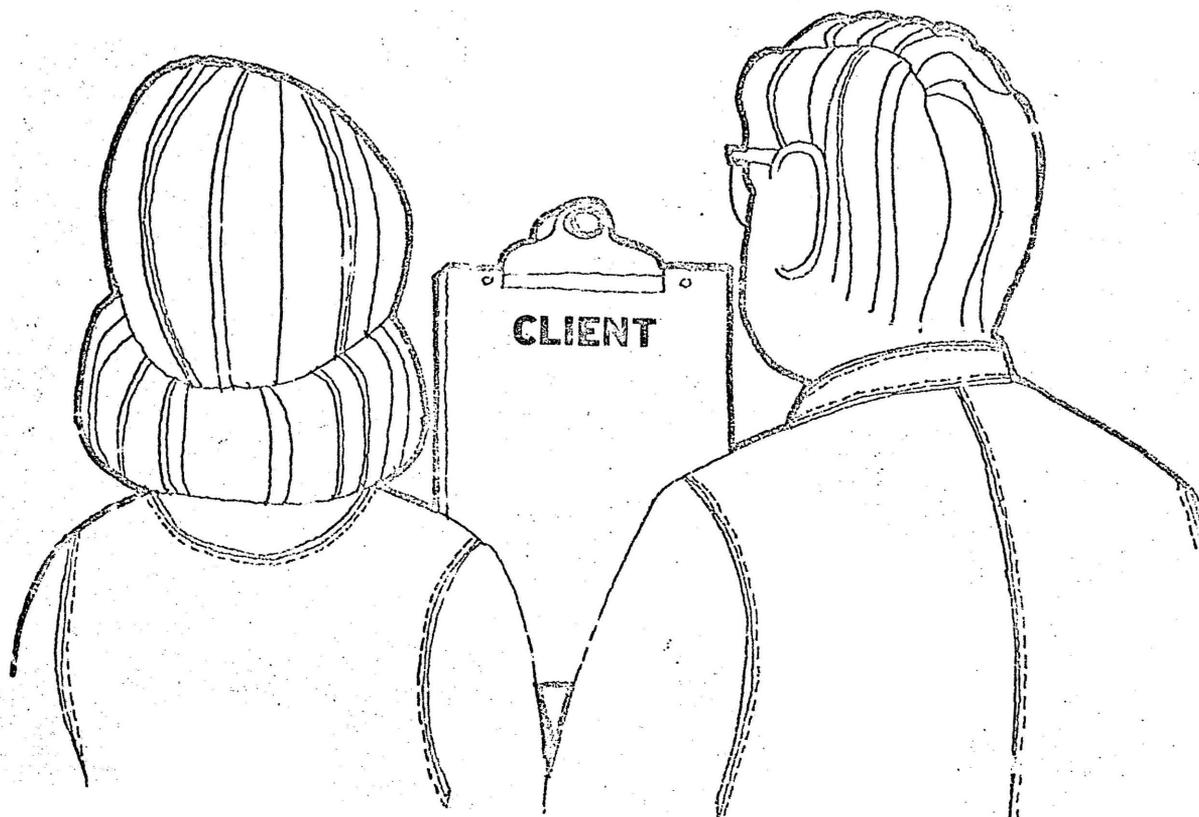
Facilities for auditory rehabilitation

of persons with impaired hearing were practically nonexistent, except for scattered classes in lip reading, until the establishment some seventy-five years ago of the leagues for the hard of hearing by individuals who had the handicaps themselves. The administrators of these organizations early recognized the social and psychological needs of the hard of hearing and provided for these needs and for vocational guidance and placement in a limited way. The societies were initiated and supported as social welfare agencies concerned primarily with prevention and treatment of deafness and well informing the public on the matter. As they grew, the larger leagues added other services, such as lip reading and speech correction. In 1950 the American Hearing Society had 123 chapters offering a variety of services and activities. While several college speech clinics showed interest in tests of hearing and in hearing aids, prior to World War II, there was little increase in facilities for adults until the activation of the Army and Navy

## Rehabilitation Units during and after World War II.<sup>6</sup>

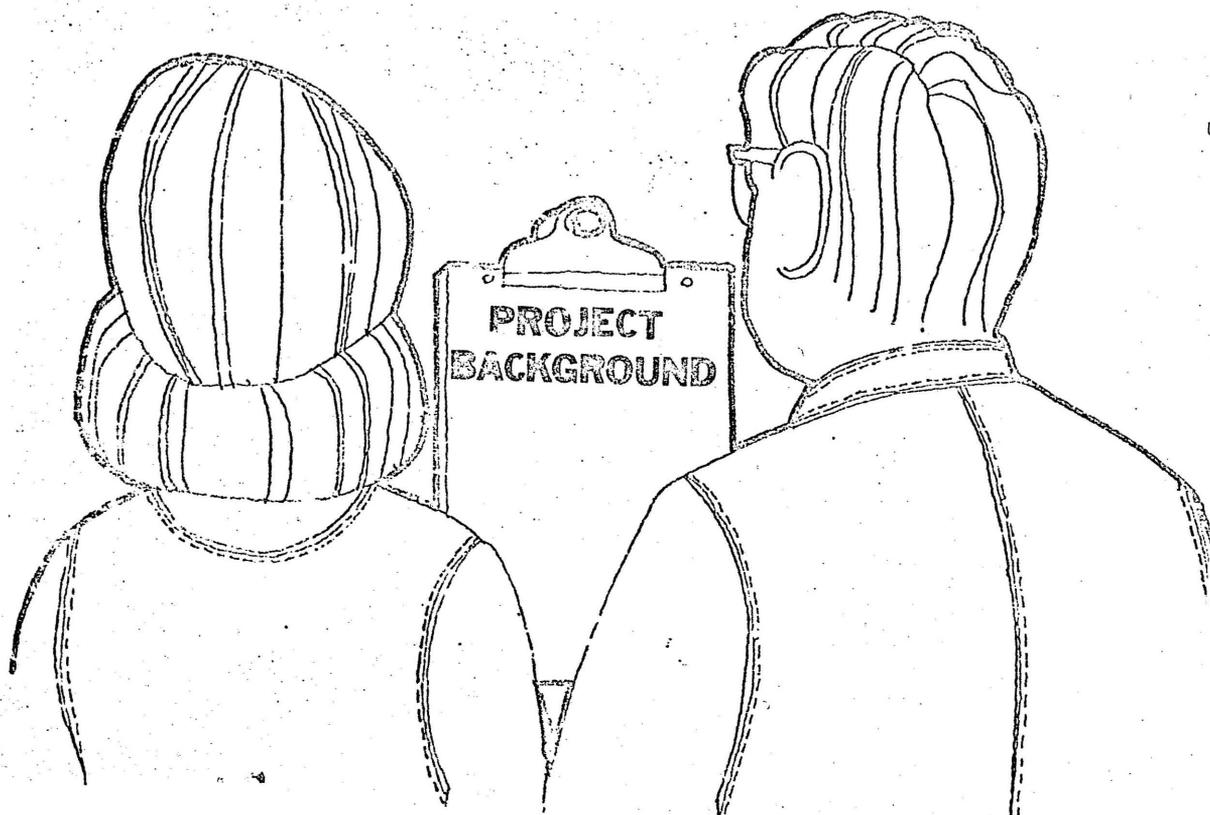
Special auditory rehabilitation centers after World War II were designated in general hospitals and assigned carefully chosen personnel to develop programs as completely as possible. These centers were established and supported by government agencies. Each clinic was headed by an otologist and included other otologists, a non-medical supervisor for non-medical services, a psychiatrist, psychologists, social workers and recreational workers, an acoustic physicist, or chief acoustic technician, several acoustic technicians, clinical acoustic experts for the evaluation of auditory function and the selection of hearing aids, and instructors of speech reading, speech conservation and correction and auditory training. The auditory rehabilitation clinics represented the first undertaking in which highly trained staff, representing the professions necessary to bring about the medical, communicative, psychological and social rehabilitation of individuals

with impaired hearing, was brought together to function in one physical unit. It was the advent of the concept of combined service which gave rise to the field of knowledge and practice now called audiology and speech pathology.<sup>7</sup>



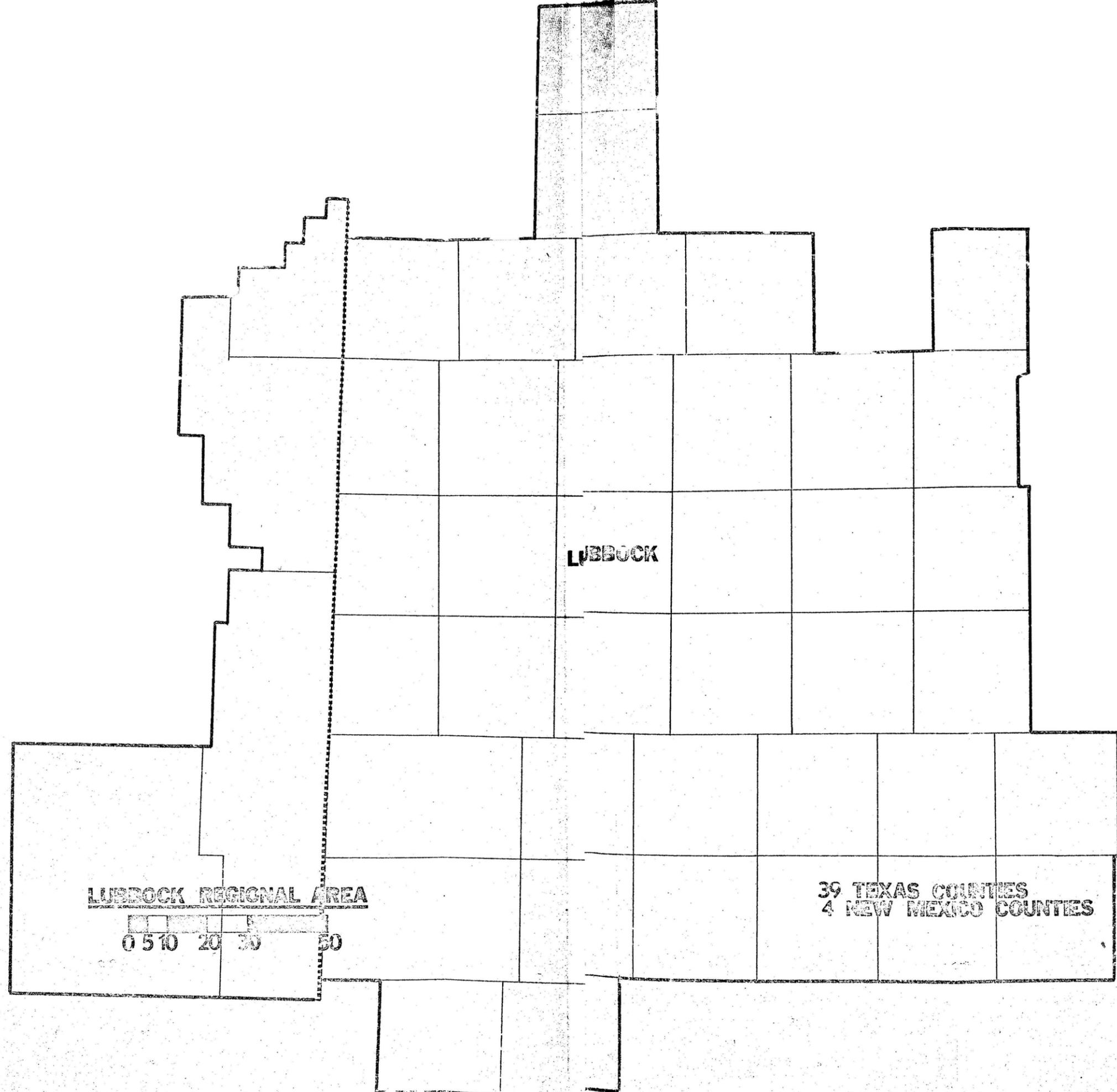
The Lubbock Regional Speech and Hearing Center is being established as a result of a concerted effort by the Lubbock community to establish the best possible institution to help those handicapped by hearing loss and other communications problems. Dr. Ben Brown, the former director of the California Speech and Hearing Society was invited to Lubbock in 1969 to advise a special planning committee on the total concept for the center, and was subsequently employed as director.

Dr. Brown, Director of the proposed Lubbock Regional Speech and Hearing Center, shall be identified as the "client" in the agreement with the architect.



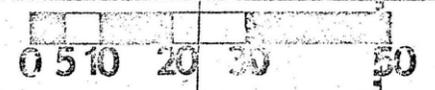
July 12 through August 15, 1970 a residential institute for the speech, hearing, and language handicapped was held at Texas Tech University. The institute was designed for the child whose progress in school is handicapped by poor communication ability, and in particular, the student who has no speech therapy available in his school or who is in need of training more intensive than can be provided in his community. According to Dr. Yates, Director of the Texas Tech University Speech and Hearing Clinic, a regional speech and hearing center would be an asset to the community through its advanced services, and to the further education of Audiology and Speech Pathology majors at Texas Tech University.<sup>8</sup>

At present, a greater majority of the speech and hearing therapy is handled by public school therapists. A clinic would offer a more complete service than public school therapy because (1)therapy would be concentrated, (2)therapy would be on an individual basis, (3)sessions could be longer than public school therapy,

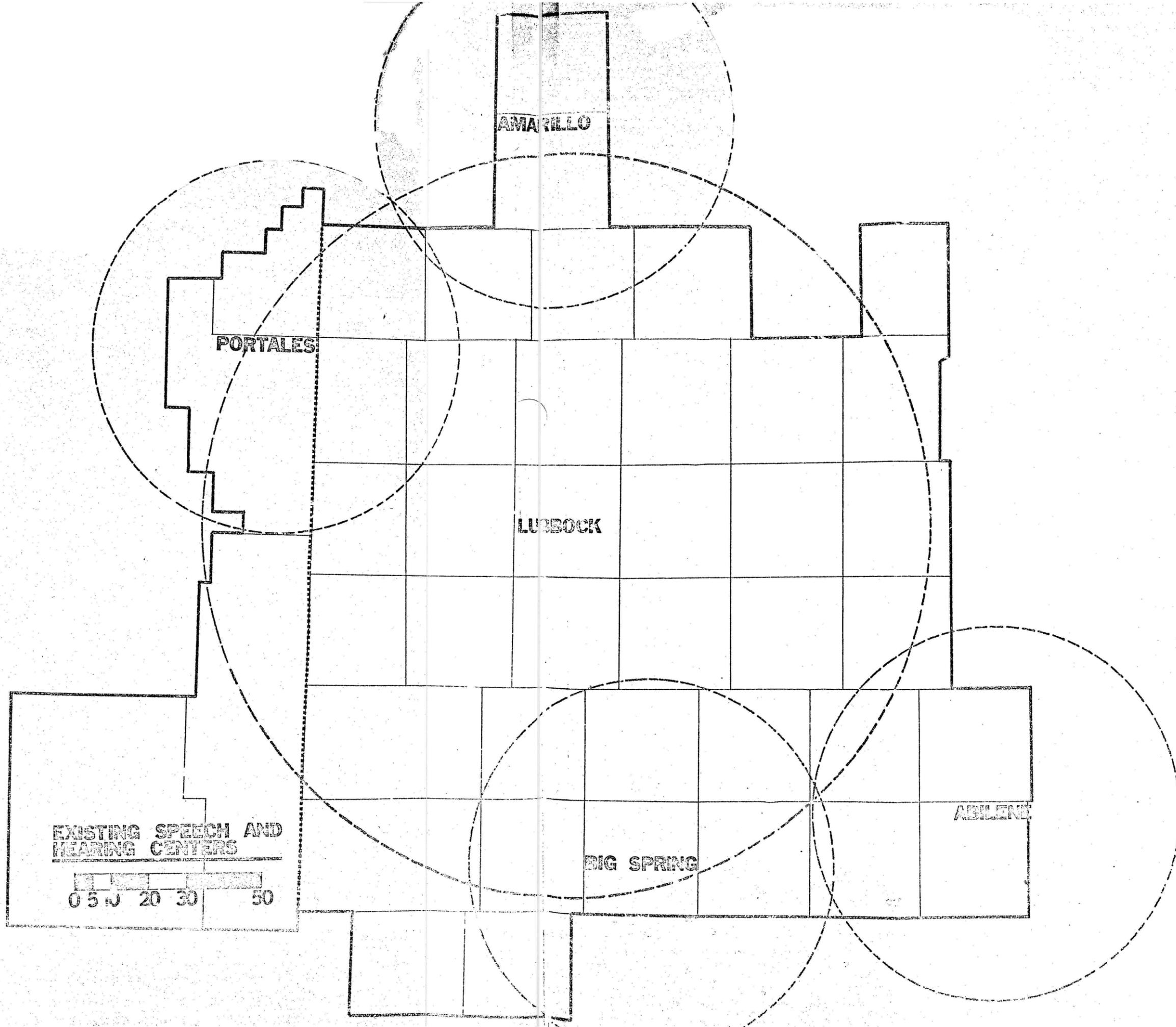


LUBBOCK

LUBBOCK REGIONAL AREA



39 TEXAS COUNTIES  
4 NEW MEXICO COUNTIES



AMARILLO

PORTALES

LUBBOCK

BIG SPRING

ABILENE

EXISTING SPEECH AND HEARING CENTERS

0 5 20 30 50

(4) a private therapist would be able to be better prepared with the reduced number of clients.

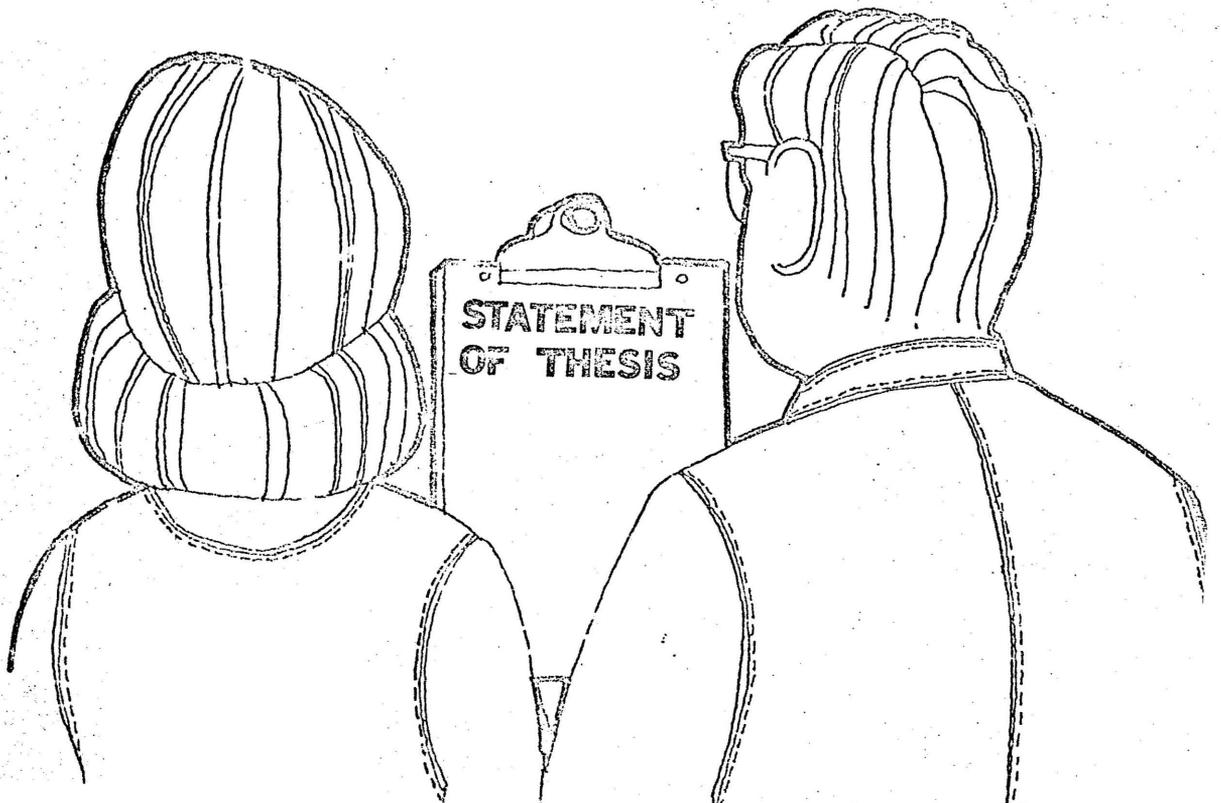
There are no speech and hearing centers other than Texas Tech University Speech and Hearing Clinic located between Big Springs, Texas, Amarillo, Texas, Portalis, New Mexico, and Abilene, Texas. (see Lubbock Regional Map) The services in these cities are limited by a small amount of qualified personnel, equipment, and available space. Therefore, the majority of the case loads, other than in public schools, are handled by the Texas Tech University Speech and Hearing Clinic. Due to its central locality among West Texas cities Lubbock could be a focal point for regional communication services and a regional speech and hearing center.

An overall community effort was culminated September 14, 1964 when Lubbock was chosen as the site of the new State School for the Mentally Retarded. In August of 1967, the contract for phase one of construction was awarded. Phase

one provided 16 building to house 282 students. Phase two construction was started in summer, 1970 and when completed will provide an additional 282 beds bringing the capacity of 564 students. The school includes a complete diagnostic and evaluation center, day care facilities, a workshop and other services not found in older schools over the state.<sup>9</sup> Speech and hearing therapy is an important part of the School's rehabilitation program, but at present, there are no speech therapists or audiologist on the staff. The school relies solely on a limited amount of student therapist from Texas Tech University.

The 61<sup>st</sup> Legislature of the State of Texas in 1969 authorized the establishment of a School of Medicine at Texas Tech University. The School of Medicine has been officially registered as a "developing medical school" with the American Medical Association and the Association of American Medical Colleges. An architectural firm has been employed and work has begun on the master planning for the School of Medicine and the Medical Center. A 300--

bed hospital, to be located on the Texas Tech University campus, adjacent to the medical school building, will be built by the Lubbock County Hospital District as the University teaching hospital. The time schedule calls for occupancy in the fall of 1975.<sup>10</sup> The center will give a regional speech and hearing center an excellent opportunity to carry on research in cooperation with the highly qualified staff of the Department of Otolaryngology.



I propose to design a center for the treatment of the speech and hearing impaired for the Lubbock Regional Area of Texas, that will aid those persons whose lives are complicated by the nuisance of speech and hearing problems.

The facility will serve as a community rehabilitation, diagnostic, educational, and research center, cooperating with Texas Tech Medical School, and Lubbock State School for the Mentally Retarded, as well as the community in an all-out effort to detect and habilitate persons with speech and hearing problems.



Historical  
Significance

Lubbock's history is varied and exciting. Part of the culture of the city lies in its location on a flat, wide plateau known as the High South Plains of Texas.

It was across these plains that the Spanish explorer, Captain Francisco Vasquez de Coronado, in search of the gold city of Quivira, came in 1540. Indians of the Comanche Tribe roamed the area in search of buffalo, antelope, lobo, prairie dog, coyote and other wild animals. By 1870, however, the hunters had slaughtered most of the buffalo and few men stayed on the level plains.

The first white settlers in this area were a band of Quakers, who arrived in what is now the northern part of Lubbock County, in 1879. This dedicated group of pioneers opened the first chapter in a long and successful history of farming operations.

Cattle empires began and with farming and cattle operations in full swing, by 1887 two towns, one named Lubbock and the other named Monterey, were born. In 1890,

the people of the two towns merged into one new town and called it Lubbock.

Lubbock was named after a signer of the Texas Declaration of Independence and a Texas hero, Tom S. Lubbock. He was a former Texas Ranger, Confederate officer, and brother of Francis R. Lubbock, the Civil War governor to the State. Although Lubbock County was named in 1876, the date of organization as a government unit was March 10, 1891, with the City of Lubbock as a county seat. By 1899, Lubbock had a population of 293, and had become the center of ranching and cattle operations with many ranches of the area exceeding several thousand acres. With the discovery of water at depths, farming continued to thrive in the area.

Lubbock County's first courthouse was built in 1891 and in 1909 the City of Lubbock was incorporated.

People continued to pour into the plains in ever-increasing numbers. With people comes the need for education. In 1923, the legislature created a university named Texas Technological College, which

was officially declared to be located in Lubbock on August 28, 1923. The doors opened in 1925 to 1,379 students and a plant valued at \$1,433,984. The school has now emerged as a university of 20,000 students in a short span of 40 years with a plant valued at \$78.9 million.<sup>11</sup>

Location

Lubbock, which is the central city of the High South Plains, Texas is surrounded by several other towns comprising a total population of over 175,700 in Lubbock County. The city itself is located 124 miles south of Amarillo, 160 miles northwest of Abilene, and 110 miles northeast of Hobbs, New Mexico.

Land Area,  
Population,  
Taxes

The municipality of Lubbock encompasses a land area of 75 square miles. The city's population is at present 170,000 with a projected population of 287,400 by the year 1980.

Lubbock's citizens are taxed by six major areas other than the Federal Government. Collections are handled by two agencies, the County Tax Assessor-Collector and the City Tax Assessor-Collector.

Citizens are taxed according to

assessment ratios on a rate per \$100  
evaluation as follows:<sup>12</sup>

**ADVALOREM TAXES**

GOVERNMENTAL SUB DIVISION	RATE PER \$100	ASSESSMENT RATIO
CITY OF LUBBOCK	\$1.08	66-2/3% of MARKET VALUE
LUBBOCK INDEPENDENT SCHOOL DIST.	1.66	66-2/3% of MARKET VALUE
LUBBOCK COUNTY	.78	40% OF APPRAISED VALUE
LUBBOCK COUNTY WATER CONTROL AND IMPROVEMENT DIST. No. 1	.06	40% OF APPRAISED VALUE
HIGH PLAINS UNDERGROUND WATER CONSERVATION DIST. No. 1	.05	40% OF APPRAISED VALUE
LUBBOCK COUNTY HOSPITAL DIST.	.40	40% OF APPRAISED VALUE
STATE OF TEXAS	.47	40% OF APPRAISED VALUE

**Transportation**

Airlines, rails, motor carriers,  
highways and buses offer services to  
Lubbock.

More than 68 commercial flights  
arrive and depart daily from the Lubbock  
Municipal Airport. Braniff International,  
Texas International and Continental Airlines  
offer jet-powered service to most points  
in Texas and connections to the rest of  
the nation.

The Atchison, Topeka and Santa Fe,  
and Burlington-Northern, Inc., serve  
Lubbock's rail needs.

Lubbock is the home for Texas, New  
Mexico and Oklahoma Coaches, Inc. Included  
in bus service are some 70 schedules  
daily to and from Lubbock.

Interstate 27, State and Federal highways, radiate from Lubbock in eight directions. All are either four-lane highways or are due to have four-lanes-divided in the near future.<sup>13</sup>

Motel,  
Hotel,  
Facilities

Motel-hotel accommodations have increased rapidly during the last ten years due to an increase in population and sports, recreation, seminars, and other activities connected with Texas Tech University. Over 3,200 hotel or motel rooms are available in the city, 1,400 of which have been constructed within the past five years. (see appendix)

Medical  
Facilities

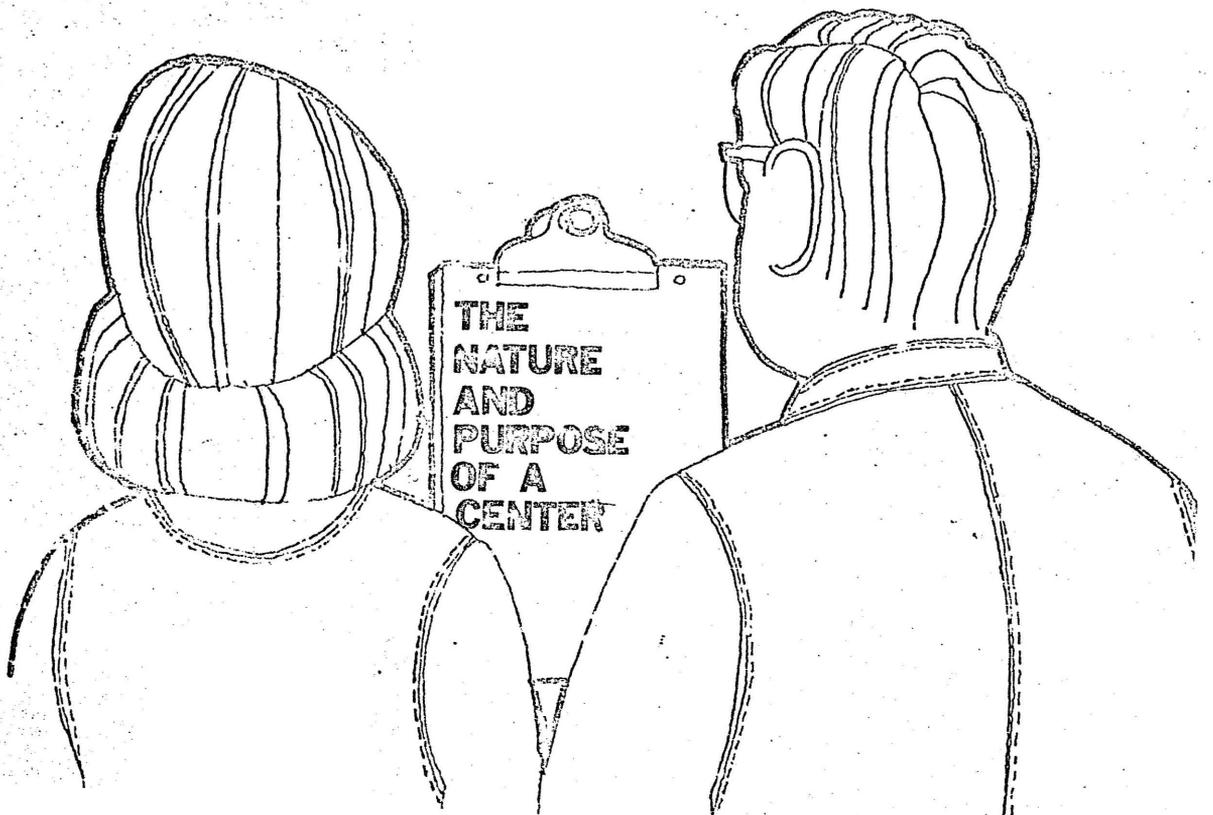
To meet the needs of the growing city, Lubbock has nine hospitals with the new St. Mary's of the Plains Hospital recently completed. The state's newest school for the Mentally Retarded, the Lubbock State School for the Mentally Retarded was opened in 1969. Lubbock was selected as the site of the school by the Board for State Hospitals and Special Schools. The Board chose Lubbock because of the central location of Lubbock among the 84 state counties west of the

100<sup>th</sup> meridian.

There are nine clinics and two accredited nursing and vocational nurse training schools. Lubbock also has a school for Medical Technicians and a school for X-ray Technicians, as well as approval at Methodist Hospital for a residency program in Pathology.

There is a proposed Medical School and Teaching Hospital for Texas Tech University to be completed by 1975. A 300-bed hospital, to be located on the Texas Tech University campus, adjacent to the medical school building, will be built by the Lubbock County Hospital District as the University teaching hospital. An affiliation agreement is now being developed with local hospitals, to be organized as primary clinical teaching areas. In the teaching of clinical medicine the hospitals in the West Texas Region will be encouraged to participate. A direct affiliation with the community hospitals and the Texas Tech School of Medicine will assist in the organization of a modern curriculum and the development of a regional program of health care with the medical school as

a central core. 14



THE  
NATURE  
AND  
PURPOSE  
OF A  
CENTER

Role of the Center, The Lubbock Regional Speech and Hearing Center will be a non-profit institute for diagnosis, treatment, rehabilitation, research and education relating to deafness, speech impairment, and related communications disorders in children and adults.

A balanced program of education, service, research, and professional training will bring together in one center specialists and experts to work hand in hand with teachers, counsellors, psychologists and social workers.

A strong program to advance the education of personnel required to deal with communications handicaps is a most important goal of the center. Medical and graduate students from Texas Tech University will be able to engage in clinical practicums at the center, and the Educational Division will serve as a resource for practice teaching for those involved in programs of deaf education.

Clinical services will be made available through the centers Audiology and Speech Therapy Divisions which will

encompass complete audiological evaluation and rehabilitation services, and speech pathology services for all types of language and speech problems. Problems evaluated and programmed for rehabilitation will cover the entire spectrum of oral communications problems, including aphasia, esophageal speech, stuttering, language problems, cleft palate, hard of hearing, articulation, and children who are emotionally disturbed because of communications problems. Audiologists will hold classes in speech reading and auditory training. Special staff personnel will provide needed counseling and assistance to adult deaf who are dependent on non-oral communications.

The Educational Division will be an oral training and academic educational program for deaf children at pre-school and elementary levels with a consultative arrangement for their education through high school. With the approval of the Texas Education Agency as a center for the education of deaf-blind children, the Lubbock Center will be able to contract

with the state to provide day school programs for children who are visually or auditorally impaired to the extent that they would not be eligible for admission to classrooms for deaf or hearing impaired children or for classrooms for visually impaired children.

The basic and clinical research carried on in the center will include studies in psychoacoustics, speech science, auditory neurophysiology, microhistology, sound field testing, and animal research. Since the Research Department is to be associated with the Texas Tech Medical School Department of Otolaryngology, the center will provide opportunities for clinical observation and education of medical students, nurses, and postgraduate residents in Ear, Nose, and Throat. The basic research will be in the causes, effects and better ways to deal with hearing and speech impairments.

Goals  
and  
Objectives

The basic aims of the center will be to help people with speech, hearing, and related communications disorders

which require diversity of medical and technical skills. The Lubbock Center will bring together all the required skills in a balanced program. Diagnostic and rehabilitation services, a school for deaf children, and research will be combined with one administration in order to provide flexibility for any individual at any given time with the most helpful combination of services according to the kind and degree of his handicap, through the interacting knowledge and work of a qualified staff, representing all needed skills to seek fundamental improvement in the ability, to alleviate such handicaps.

The center will provide diagnostic and therapeutic facilities and personnel heretofore available on a limited basis through the Texas Tech University Speech and Hearing Clinic. It will carry on a large body of basic and clinical research and aid in the development of new educational techniques.

Through the cross fertilization of knowledge and skills, Lubbock Speech and

Hearing Center will create opportunities for a real breakthrough in dealing with communications disorders. The center's facilities will make possible a well-organized entity to deal with hearing and speech problems as a natural extension of and complementary to other medical and health care services. In its centrally administered facilities, the center will bring together diverse professional skills and knowledge which combined with sophisticated equipment and adequate housing are necessary to achieve major innovations in century old methods-knowledge for dealing with speech-hearing impairment.

**PROFESSIONAL SERVICES OFFERED**

**RESEARCH & TEACHING  
HEARING & SPEECH**

**DIRECTOR**

**RESEARCH DEPARTMENT**  
 PSYCHOACOUSTICS  
 LINGUISTICS  
 SPEECH SCIENCE  
 SOUND FIELDS  
 VISUAL RESEARCH

**MEDICAL DEPARTMENT**  
 OTOLARYNGOLOGY  
 PEDIATRICS

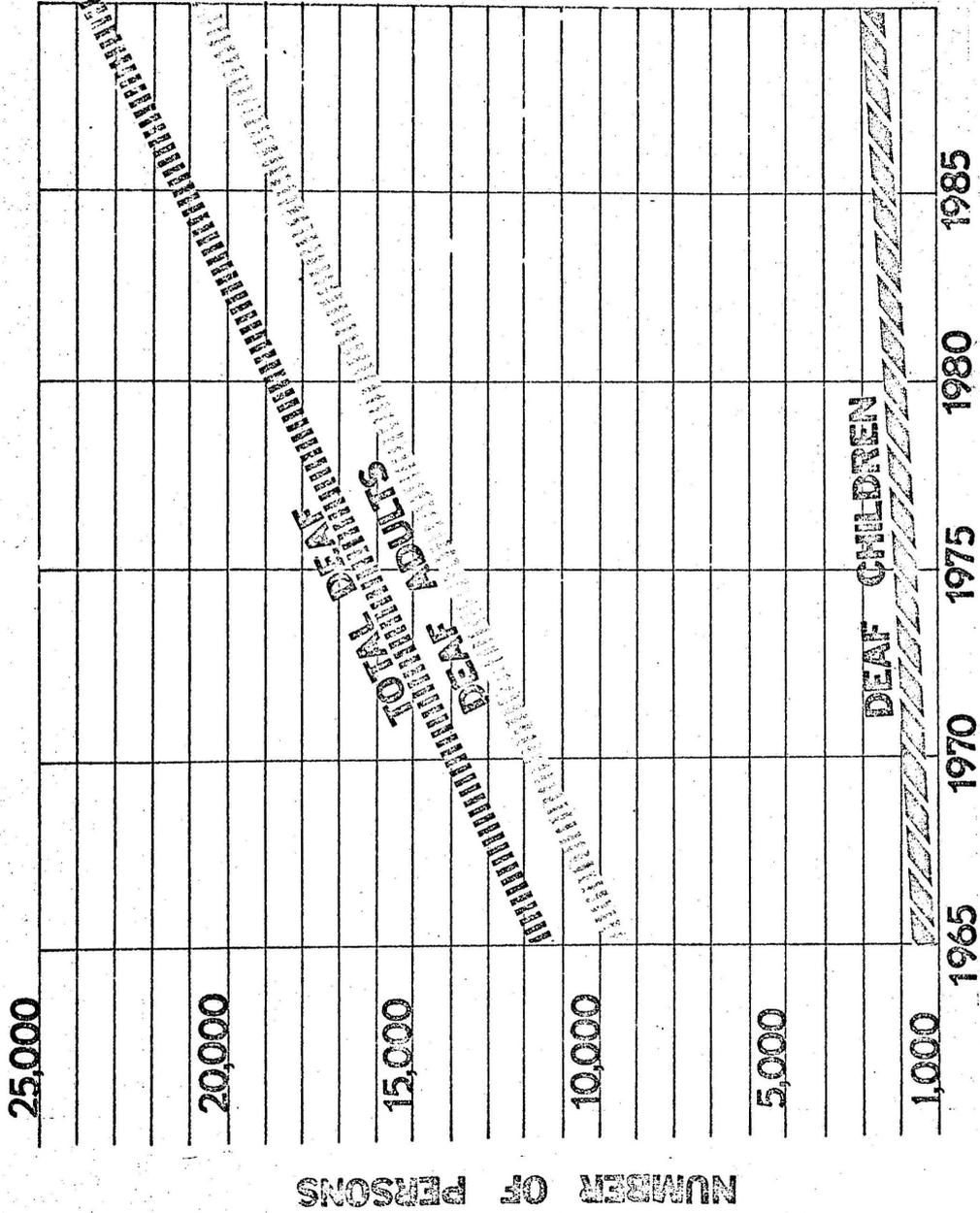
**ACOUSTICAL DEPARTMENT**  
 HEARING AID EVALUATION  
 AUDIOLOGICAL ASSESSMENT  
 AUDITORY TRAINING

**NEURO-PSYCHIATRIC**  
 CLINICAL PSYCHOLOGY  
 VOCATIONAL COUNSELING  
 PSYCHOLOGICAL COUNSELING  
 PARENT EDUCATION

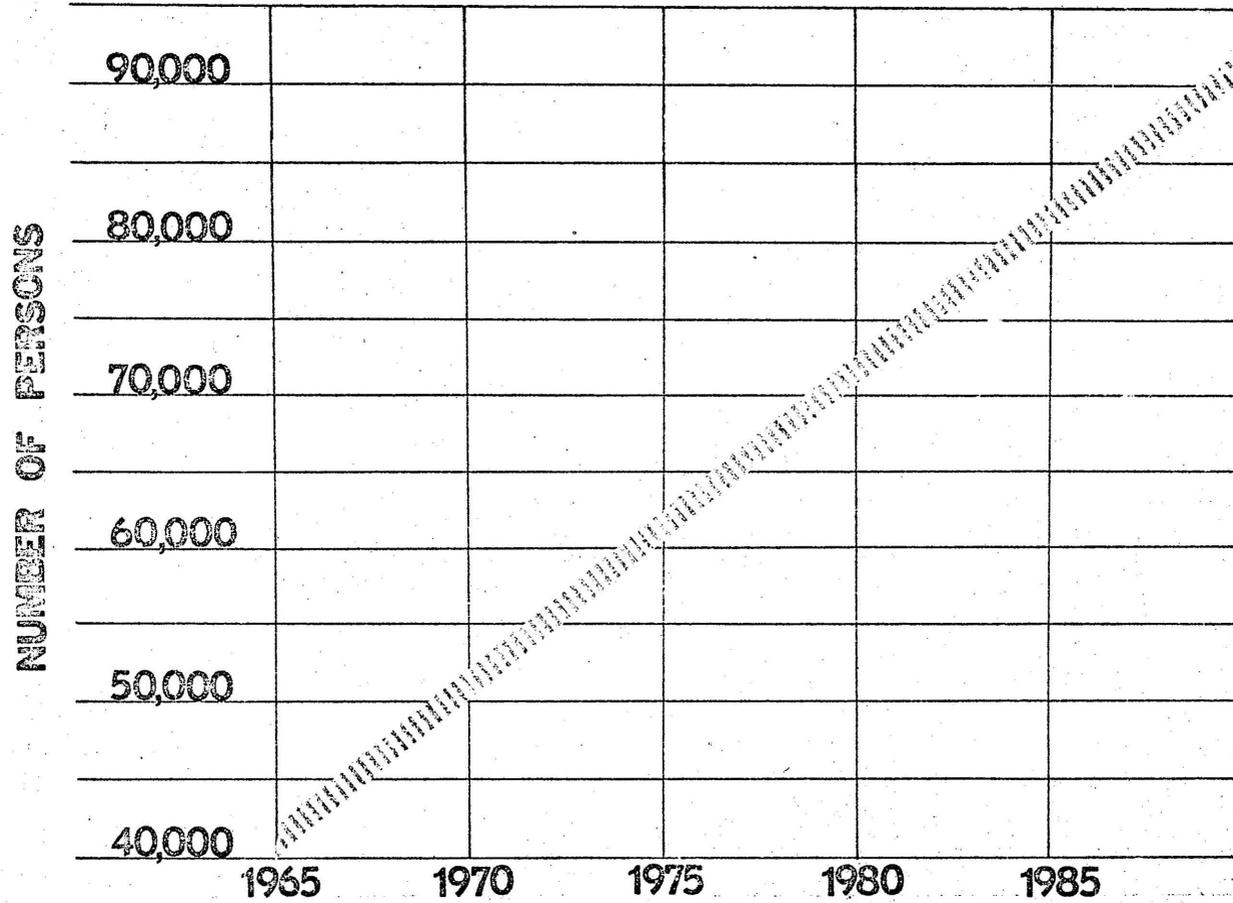
**SPEECH DEPARTMENT**  
 SPEECH CORRECTION  
 SPEECH EVALUATION

**DEAF EDUCATION DEPT.**  
 SPEECH READING  
 SPEECH THERAPY

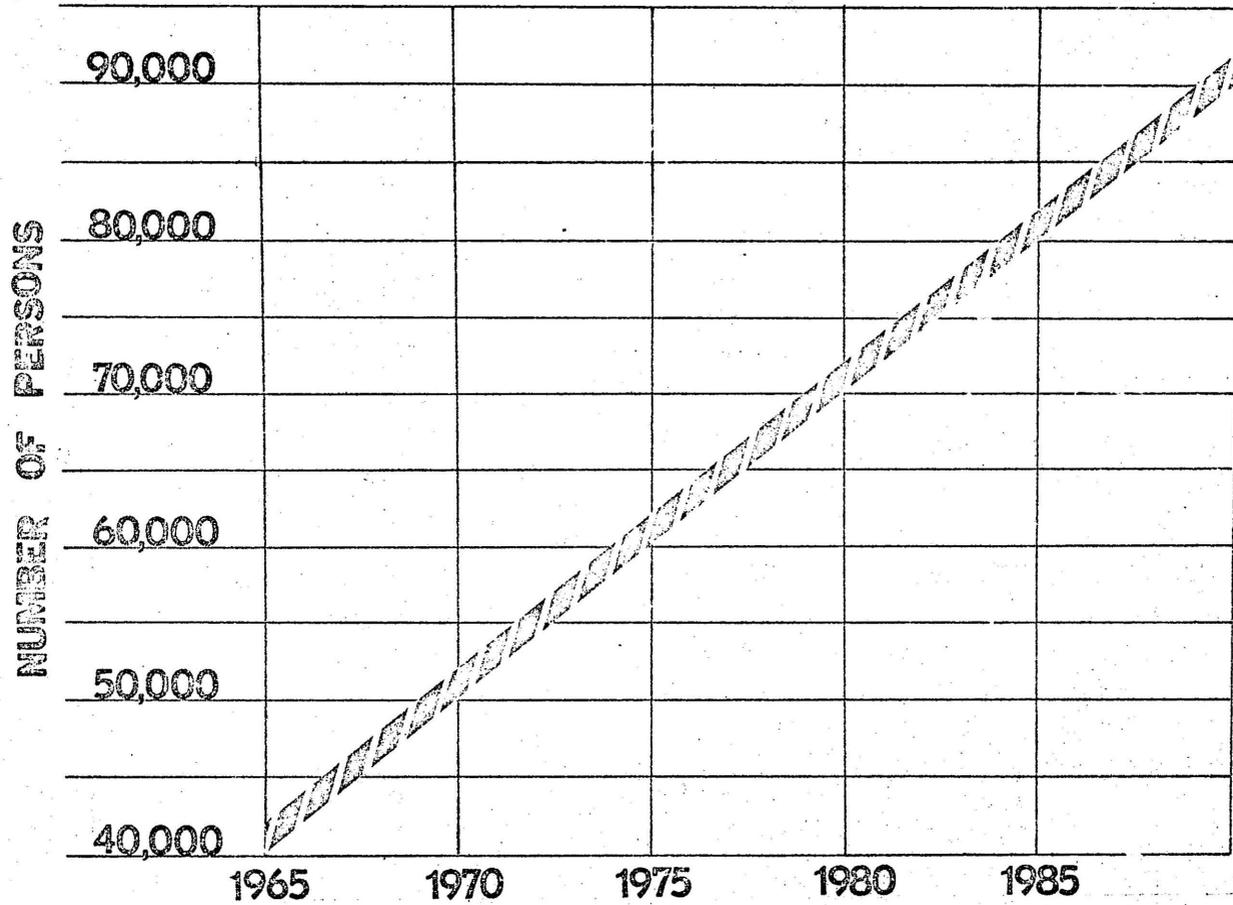
# DEAF IN LUBBOCK REGIONAL AREA



# NUMBER OF PERSONS IN LUBBOCK REGIONAL AREA WITH SPEECH IMPAIRMENTS



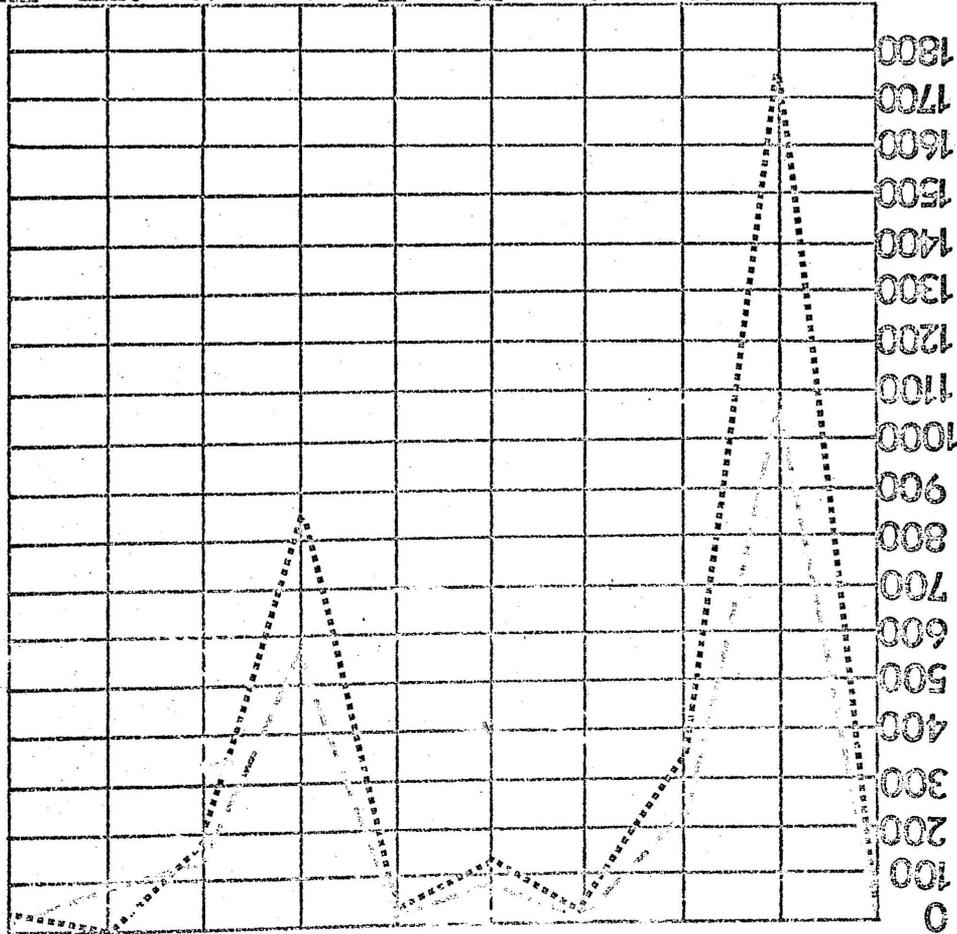
# NUMBER OF PERSONS IN LUBBOCK REGIONAL AREA WITH HEARING IMPAIRMENTS



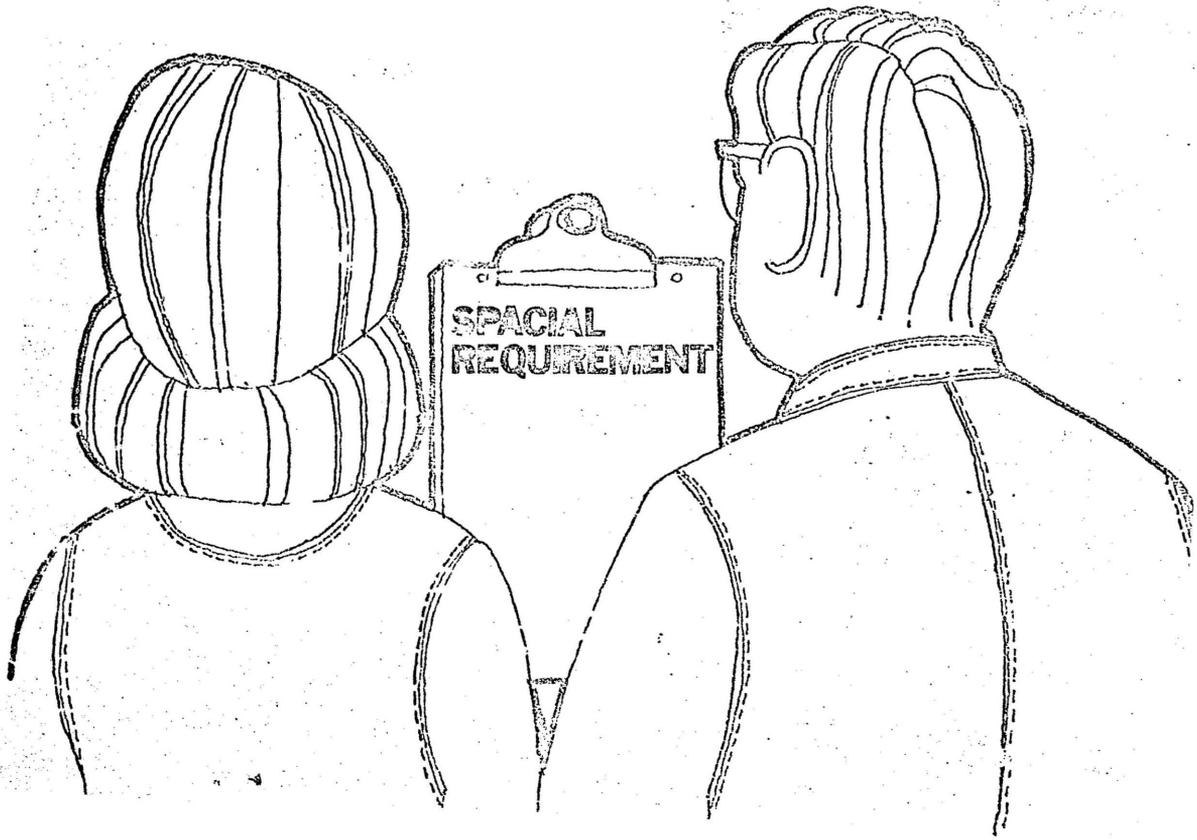




PERSONS RECEIVING GROUP SPEECH 40 a month  
 READING LESSONS  
 PERSONS ENROLLED IN DEAF 90 a month  
 EDUCATION  
 SPEECH EVALUATION 4 a day  
 AUDIOLOGICAL ASSESSMENT 23 a day  
 PSYCHOLOGICAL EVALUATION 17 a month  
 HEARING AID EVALUATION 13 a day  
 AUDITORY TRAINING 14 a month  
 PERSONS RECEIVING INDIVIDUAL 166 a month  
 SPEECH THERAPY 66 a day  
 TOTAL NUMBER OF INDIVIDUAL SPEECH 57 a month  
 THERAPY SESSIONS  
 PERSONS RECEIVING GROUP SPEECH 57 a month  
 THERAPY



NUMBER OF PERSONS UTILIZING FACILITIES PER YEAR AT THE LUBBOCK REGIONAL  
 SPEECH AND HEARING CENTER .....ADULTS ..... CHILDREN



Administration Control Desk and Waiting Areas-These areas should be located adjacent to or in visual contact with a major public entrance. The control desk and waiting areas should have both electrical and natural lighting and some type visual contact with the landscaped exterior. It is important that the acoustically handicapped feel that they are not in an impersonal agency, and should experience a warm, personal atmosphere which is immediatly relaxing.

Accounting and Clerical Offices-All book-keeping, filing, and patient information to be provided by these areas. Spaces should be provided with small desks for the secretaries as well as standard filing cabinets which are used to keep patient information. Areas should be adjacent to Director's office.

Directors Office-The director's office should be large enough to accomodate a large desk, wall storage, and small sitting area for brief meetings and counseltations. The director may consult with clients and, therefore, the office

should express a relaxing atmosphere.

The office should be located adjacent to accounting and clerical offices.

Staff Consultation Offices-These rooms will provide an area large enough for a small desk, seating for two, and wall storage. They will be occupied by the immediate staff members. Since staff members will need access to client files from time to time, consultation offices need to be located near accounting and clerical offices. Consultation with clients will take place here and should be of similar quality to waiting areas and the director's office.

Interview Rooms-The rooms will be provided for the purpose of becoming acquainted and counseling with clients and parents. The areas need to be large enough for the accomodation of a small desk and seating for two, to be used by the immediate staff, part-time staff, and student therapists.

Conference Rooms-Seating should be provided for between 15-20 persons for staff consultations, board meetings, and trainee seminars. It is necessary to

have a large table with chairs, for auditorium-type seating is unacceptable.

The rooms should be of similar quality to the Staff Consultation Offices.

Library-The area should contain approximately 2,000 volumes and reading area for twelve persons. It should have a pleasant view with natural light as well as electrical lighting.

Staff Lounge-Provisions for vending machines and kitchenette should be included with seating for twenty persons. An open space with natural light and view, possibly adjacent to exterior court with seating, is needed for relaxing atmosphere of lounge.

Visual Aids Lab-This space is used for the development and production of posters, photographs, drawings, and film strips. Workspace should be provided for three persons with sufficient storage for supplies and products. Directly adjacent to the visual aids lab should be an area for photo developing and printing.

Equipment Shop-This area provides for the maintenance and development of hearing

aids, projectors, and all other equipment concerned with testing and communications. It should contain several large cabinets for the storage of small equipment.

#### Storage and Rest Rooms

#### Service

Hearing Services-This area is concerned first with counseling followed by either an otological examination, audiological examination, or both. After the type of defect is determined, correct treatment procedures begin. The following spaces are necessary for the functions mentioned:

Screening Rooms-Used by speech pathologist for determining if hearing is adequate for speech. Equipment for these areas include an audiometer, which is usually portable. The room should be soundproof although it is not crucial.

Audiological Examinations Room-Used by physician and otologist to make examination of ear. Equipment includes examination chair and storage cabinets for otologist's instruments.

Audiology Test Rooms-This area contains a sound testing room and a separate control room, separated by a window for

Observation by the audiologist. These rooms need to be soundproof, and must have double doors to the corridor.

Speech Therapy--The patient is first interviewed, then an effort is made to determine the extent and type of defect. After the type of defect is determined corrective treatment procedures begin.

Speech Therapy Rooms--These rooms are used for corrective therapy and are connected by a window to an observation room. The glass between the two rooms needs to be one-way looking from the observation room into the therapy room. The space should accommodate a small table and two chairs and needs to be soundproof, although it is not crucial.

Observation Rooms--These areas are used strictly for observation of the therapist and the client. Mainly the rooms are used by supervisors and students, but on rare occasions are used by parents. The room needs only a desk for taking notes and chairs for two or three persons.

Conference Rooms--Same as described before.

Storage and Rest Rooms

## Research

Studies of speech are made in a variety of ways. The different sounds of speech may be recognized and classified and their combinations studied from the standpoint of meaning. The sounds may be analyzed and measured in terms of the physical quantities, frequency and acoustic pressure and the time of variation of these quantities. A third type of study would concern the use of vocal cords, tongue, lips, in producing the different sounds. The following spaces are necessary for the research in speech and hearing.

### Psychoacoustics Test Room-Psychoacoustics

is a term applied to studies of contacts between the mind and the world of sound. It includes the production of speech, as well as all aspects of hearing. The test room should be soundproof and separated from its control room.

### Microhistology Room-Microhistology is that

branch of biology dealing with the microscopic study of the structure of tissues. The area requires laboratory facilities with storage for laboratory equipment and

provisions made for an electron microscope.

Animal Research-Animals, mainly monkeys and rats, are used in research experiments mainly for surgical techniques and procedures. The following areas are needed for the care of animals and animal research:

Animal Storage Room-This area is to contain the caged animals with the utmost consideration given to sanitary conditions. It is here that all animals are kept prior to surgery or other experimentation.

Animal Isolation Room-This area is to contain caged animals which need to be isolated, for various reasons, from the animal storage room.

Behavior Test Room-Experiments with animals are carried on here under controlled laboratory conditions. Provisions should be made for a sink and storage for experimental mechanisms.

Surgery Room-Animal surgery is to take place here and facilities need to be provided for operating table and other equipment necessary for surgery. This area needs to be located adjacent to the recovery

room.

Recovery Room-A small area located adjacent to surgery room and scrub room; providing a recovery area for animals after surgery.

Technicians Offices

Rest Rooms

Deaf  
Education

Beginning at the age of two the parent can begin bringing the handicapped child for individual training of the child and also training for the parents to make them aware of the correct methods for raising the child and understanding his needs.

Office-An office with clerical help are provided for reception and bookkeeping. The area should be adjacent to waiting area.

Individual Therapy Rooms-These rooms will be provided for the individual attention of the deaf student. The areas should be large enough for the accomodation of a small desk and seating for two.

Group Therapy Rooms-These rooms will be provided for group therapy sessions.

The areas should be large enough for the accomodation of several desks and seating for 10 to 15 persons. Space should be provided for storage of teaching aids.

Observation Rooms-These areas are used strictly for observation of the therapist and the client. They should be located adjacent to the Individual Therapy Rooms and the Group Therapy Rooms. Mainly the rooms are used by supervisors and students, but on rare occasions are used by parents. The room needs only a desk for taking notes and chairs for two or three persons.

Play Area-A fenced exterior play area and an interior play area are to be adjoining. Playground equipment should be provided for exterior area. The interior area should be a general activities room and serve such functions as casual reading, crafts, and games.

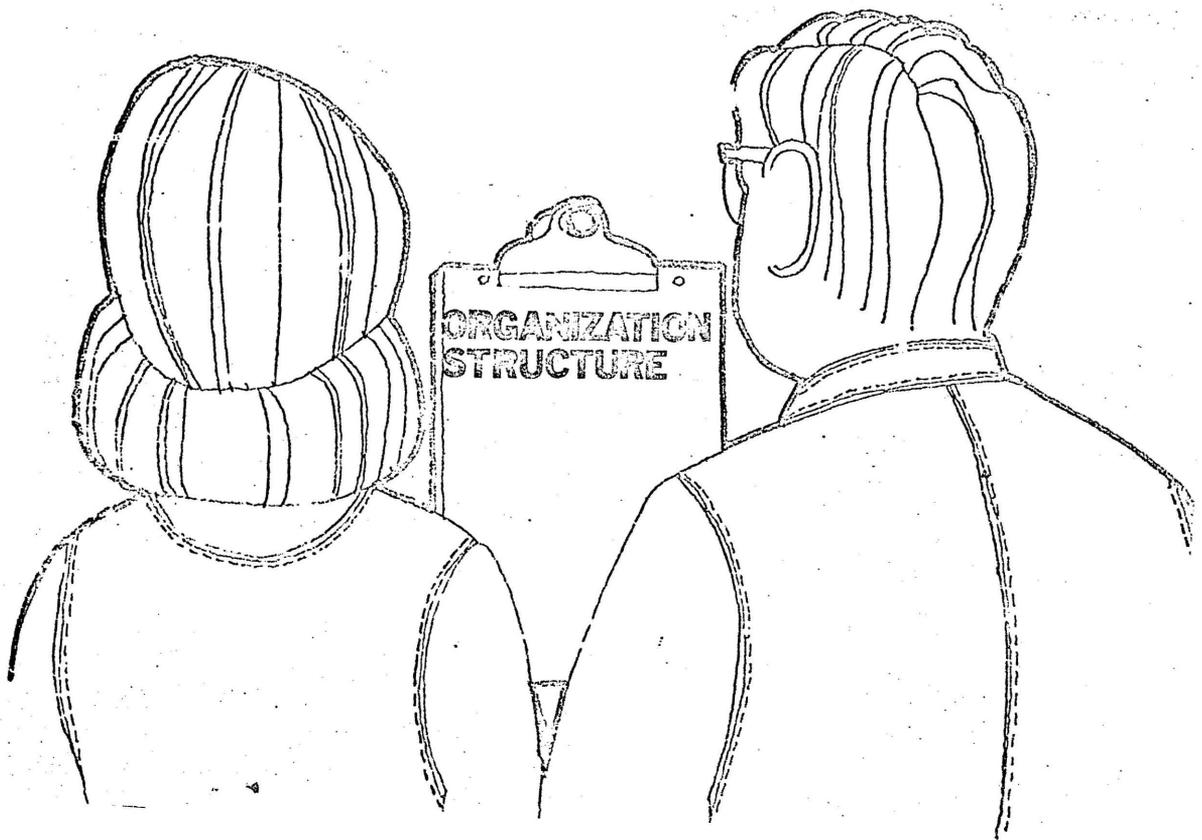
Library-A small library for approximatly 2000 volumes, mostly childrens books, should be provided with seating for twenty persons. It should have a pleasant

view with natural light as well as electrical lighting.

Crafts Shop-The area should contain seating for 15 to 20 persons. Work tables will provide the student with a surface to work with such materials as clay and the making of ceramics. Storage is needed for laboratory equipment such as paints, brushes, poster board, and other art equipment and materials.

Auditorium-An auditorium to seat approximately 100 persons should be provided for the purpose of presentations and lectures.

Storage and Rest Rooms



Medical  
Staff

Director-The director of the center will serve as the administrator, responsible for the maintenance of a high quality of service and for the coordination of the work of each member of the staff. The director should be a physician, preferably an Audiologist, or an Otolaryngologist.

Otologist-Otology is the study of the ear and its diseases. There will be one full-time Otologist for the complete otological evaluation of patients, and research.

Pediatrician-Pediatrics is that branch of medicine dealing with the development and care of children, and with treatment of their diseases. There will be one full-time Pediatrician for the complete pediatric evaluation of patients and research.

Non  
Medical

Psychology Team-These workers should be familiar with all aspects of the audiology and speech pathology programs. Psychologists, social workers, and counselors work together in a counselor-interviewer capacity. As one of the key positions in the audiology

and speech pathology programs it demands individuals with a thorough knowledge of all phases of the program. They must have a working knowledge of educational, vocational, and social guidance.

**Clinical  
Acoustics**

Supervisor-Should be highly familiar with the physiology of the ear, psychology of hearing, and the selection and electronics of hearing aids. The supervisor is the coordinator of the Clinical Acoustic Department and is the advisor of the Auditory Training Instructor.

Auditory Training Instructor-Should have preparation in physics of sound, phonetics, audiology, the anatomy of the ear, physics and psychology of hearing, selection of hearing aids, speech correction, and speech reading.

Secretaries

**Speech  
Therapy**

Supervisor-The supervisor should have education and training in the anatomy and physiology of the vocal and auditory mechanisms, psychology of speech, auditory training, audiology, and hearing evaluation.

The supervisor of the Speech Department is the coordinator and advisor of the Speech Correctionists.

Speech Correctionists-They should have preparation in addition to those of the Auditory Training Instructor and the Speech Reading Instructor, in neurology of speech, psychology of speech, speech pathology and speech therapy.

Secretaries

Deaf  
Education

Deaf Education Teachers-The deaf education teacher is responsible for the teaching of normal educational subjects, such as reading and writing, to deaf individuals.

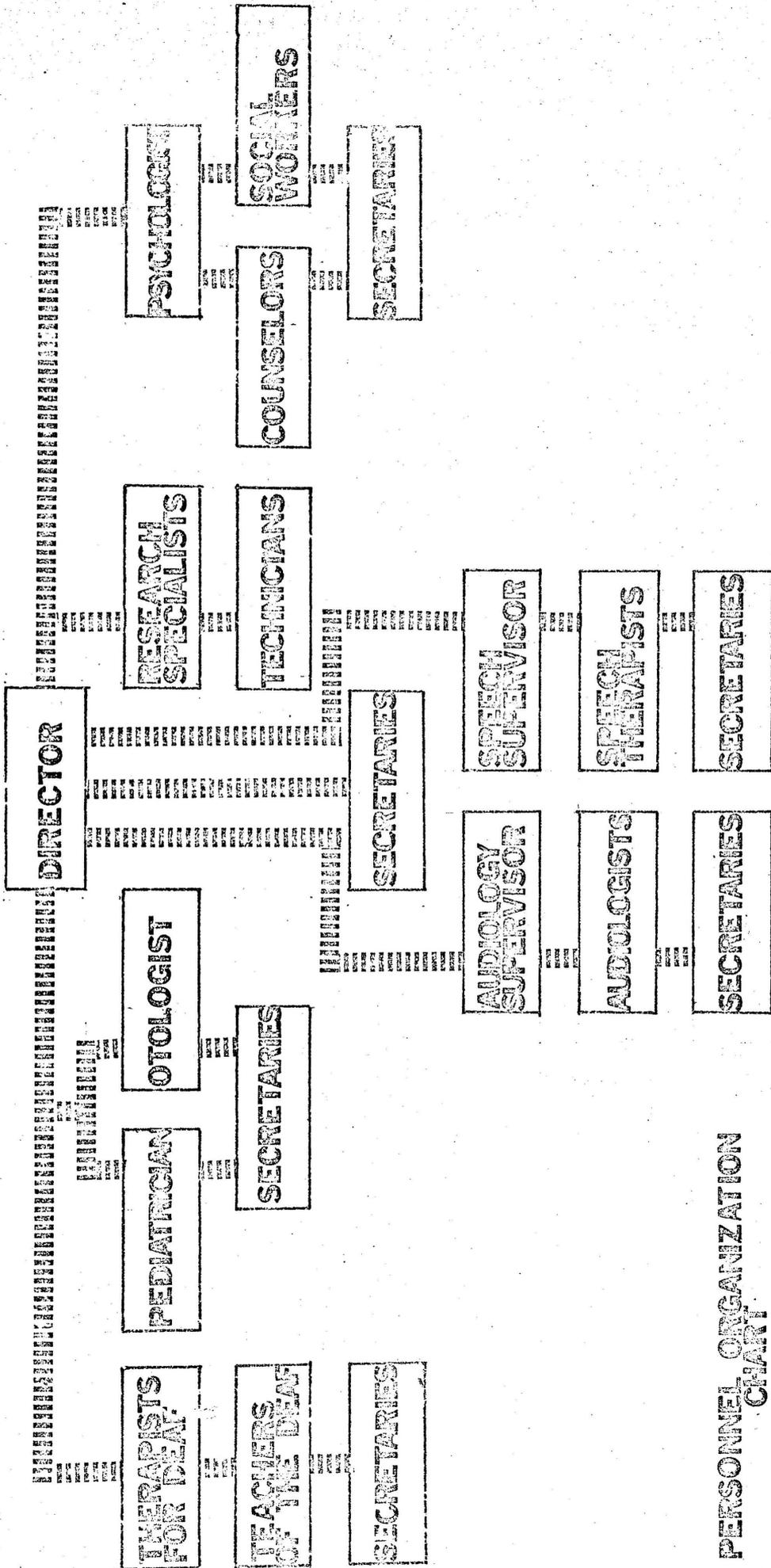
Speech Therapists-They have the same background as the Speech Correctionists but are specialists in the speech therapy of deaf persons.

Secretaries

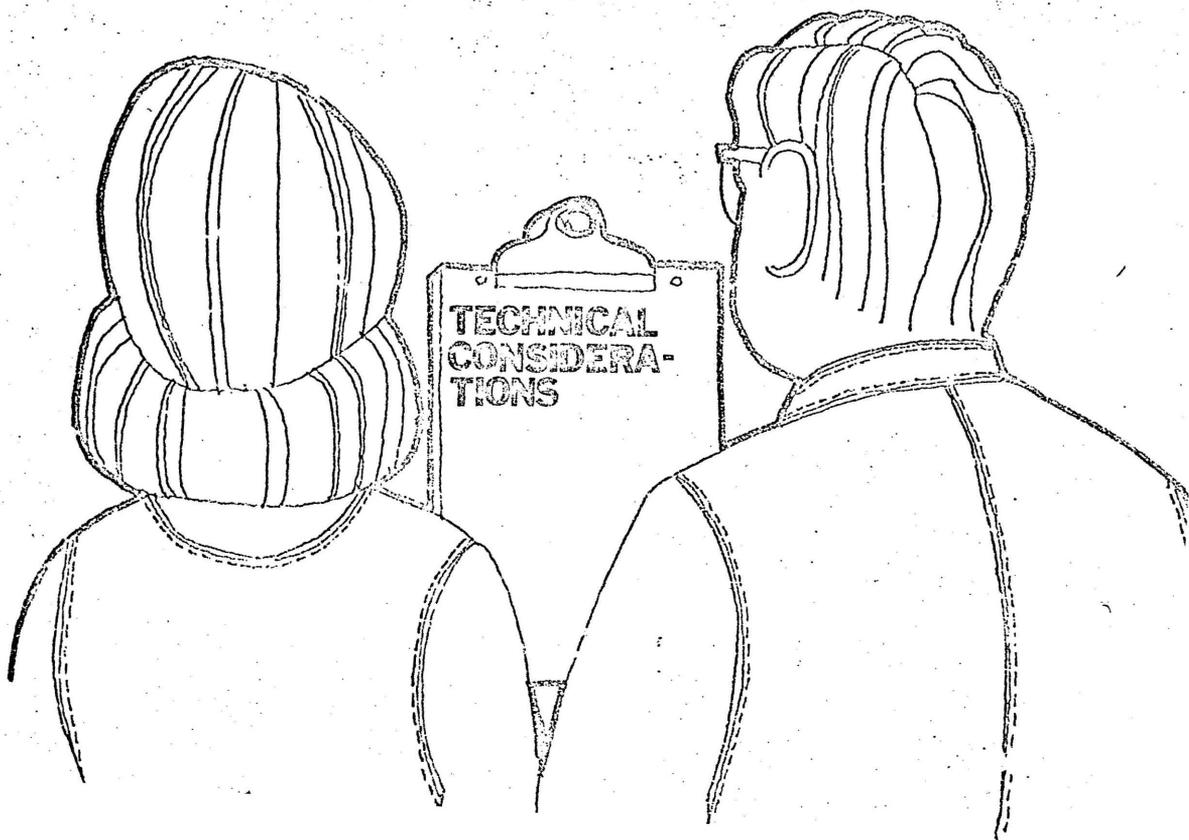
Research

Research Specialists

Technicians



PERSONNEL ORGANIZATION CHART



**TECHNICAL  
CONSIDERA-  
TIONS**

Air-Conditioning-The building will need to be fully air-conditioned. In order to prevent room-to room sound transmission through the air-conditioning ducts, all ducts should be insulated with glass wool, and all branches dog-logged.

Lighting-Flourescent lighting can be used throughout the building except where sound control is necessary. Incandescent lamps should be installed in all test rooms, the psychocoustic laboratory, and therapy rooms.

Electrical Wiring-Standard commercial wiring may be used throughout, and additional ground can be provided by use of a three wire system, as required by code. A special ground system should be installed to insure good earth ground entirely separate from any ties to the building ground wire. Isolation is maintained and the special ground, essential for audiological and other electronic equipment, is kept free from loops and noise. A second and independent ground rod should be installed to provide the equipment repair area with a separate

ground current.

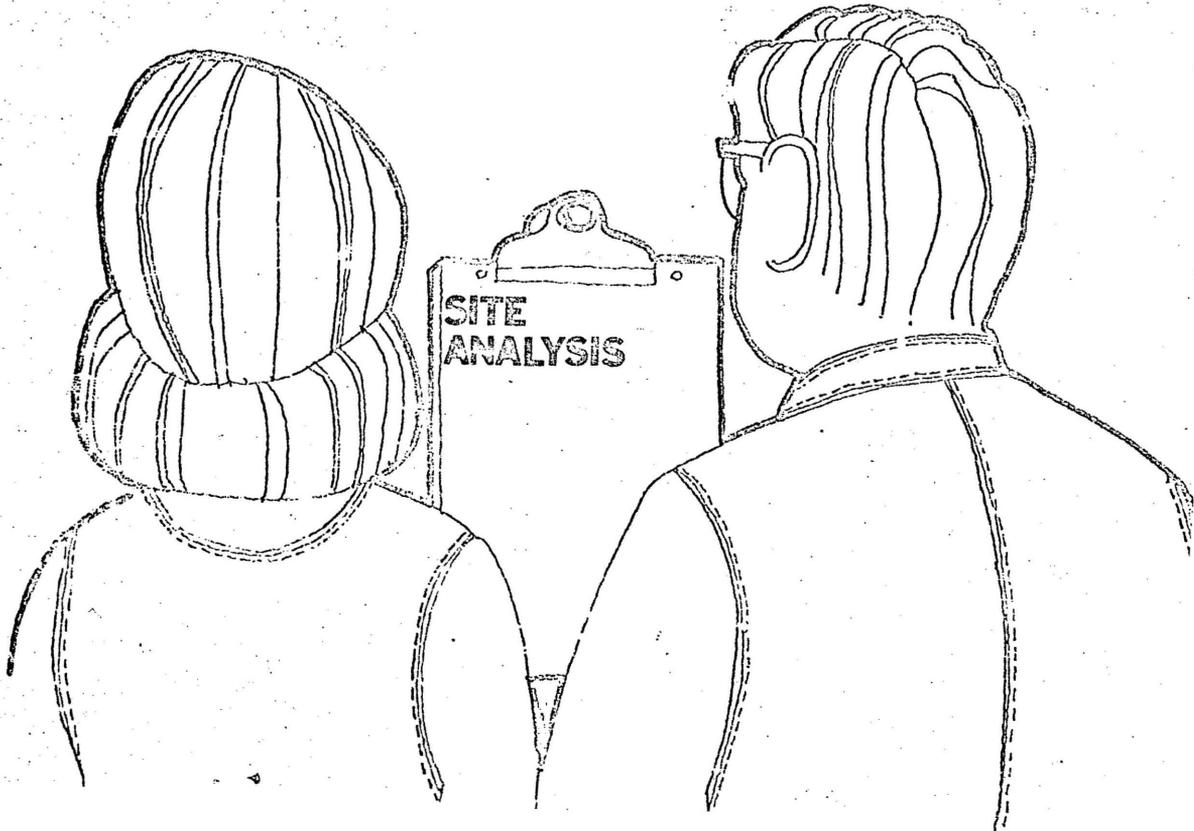
Intercommunication-An intercommunicative system may be installed to permit the staff, students, and observers to monitor diagnostic examinations and listen to therapy sessions. The system will make it possible to record from or play back into the system. The tape recorders may be equipped with remote controls so that recordings or tape playbacks can be made from or to any room connected to the circuit.

Telephone-A telephone system should be associated with the intercom system, providing a telephone for each staff member. This system allows staff members to talk with each other, and the receptionists to notify staff of appointment arrivals and incoming calls.

Acoustics-One of the main problems which must be considered in the teaching and testing rooms is the acoustical treatment of noise originating inside and outside. A great deal depends on the size of the room and its acoustical properties. The design of the audiology and speech center

must show consideration of the following aspects of acoustic control: 1) reduction of noise within and from without, 2) provision of favorable reverberation, reducing it for clarity while retaining enough to assure adequate loudness, and reducing the distortion caused by uneven reflection of components of a complex sound, and 3) distribution of sound.

The main types of acoustical treatment are isolation and absorption. In order to meet the objectives of noise reduction and balanced sound reverberation it is necessary to provide sound absorption in some part of each area. This absorption may be accomplished by the introduction of drapes, carpets, or with specially developed commercial materials for walls, ceilings, or both. Also the presence of people provides a great deal of absorption. Calculations may be necessary for determining the amount of acoustical material or noise reduction required. Fluctuation in the noise level of a testing room may have an important effect on the results of hearing tests.



Procurement  
of the Land

The Board of Directors, under the leadership of Director Dr. Ben Brown, have rendered approval and allocation of the land to be used for the location of a Lubbock Regional Speech and Hearing Center.

Location

The site is located in a concentrated area of medical facilities on a tract of land bordered by Brownfield Highway and 22<sup>nd</sup> Place. (see site plan)

Climate

The City of Lubbock is located on the high, level surface of the Texas South Plains at an elevation of 3,243 feet.

The area is what is geologically classified as semi-arid. Here the dry warmth of the desert area to the west meets the humid, moist climates from the east and the southeast.

Sunshine is the prevailing climatological situation in Lubbock with an average of about 168 clear days annually, 106 clear-to-partly-cloudy days, and usually about 91 cloudy days. (see Appendix A)

Precipitation-Normal annual precipitation is 18.08 inches with the maximum precipitation occurring in May, June, and July. Often

during these months the high temperatures of the day are dropped when afternoon and evening thundershowers appear. The least precipitation occurs in the months of January, February, and March. Winter is highlighted by occasional snow that is usually light and remains on the ground only a short while. (see Appendix A)

Wind-The winds blow almost constantly, averaging around eleven miles per hour during the fall months. During winter the wind is light-to-moderate averaging about 13.5 miles per hour. In the spring the wind blows at about 15.5 miles per hour but ranges from 10 to 45 miles per hour. The highest winds usually occur during thunderstorms, but are of short duration. Lubbock's winds blow predominately from the southwest.

Temperature-During the year the temperature climbs over 90° on about 80 days, drops below 32° on just over 100 days, and usually goes below 0° only once or twice a year. Fall is the most pleasant season of the year with a daily average temperature of 63°. Winter is usually a short season with

the coldest days centering in the months of December and January, the average monthly temperature rises to an average daily temperature of 59°. Summer days are usually moderately hot, with some days ranging up in the high 90's and low 100's degree range. The average daily temperature is about 79°.15 (see Appendix A)

#### Utilities

The site is serviced by a private utility and access easement as well as a city owned and operated electricity and water company. Telephone service is available through Southwestern Bell Telephone Company. Gas service is available through a privately owned gas company.

Water-Fresh water is provided at a minimum pressure of 40 pounds per square inch. (see Site, Water)

Electricity-Electricity is provided at 7200 volts three phase, 120-240-360 volts secondary.

Gas-Gas is provided at a main pressure of 40 pounds per square inch.

Telephone-150 pairs of cables which will carry 10 lines.

Sewage-(see Site, Sewer)

Building Codes-Under the current Texas laws, the local municipality has control over the building codes. Aside from some minor deviations the National Building Code has been generally adopted by the municipality.

Soil  
Conditions

The site is composed of Amarillo Fine Sandy Loam soil. The soil is brown to reddish brown friable neutral surface, 6 to 15 inches thick, over reddish brown friable coarse prismatic and granular porous neutral sandy clay loam or light sandy clay. Pink horizon of  $\text{Ca CO}_3$  accumulation at 38 to 60 inches beneath the surface. Nearly level to gently sloping (0 to 3% slopes). (see Appendix A)

Land Form-The site makes a gradual slope from the Brownfield Highway down to 22<sup>nd</sup> Place with an elevation change of approximately 5 feet. (see Site, Topography)

Drainage Conditions-Because of the sloping of the site, surface drainage is good over most of the area. Internal drainage is generally fair because of the predominance of silt particles in the soil.

Engineering Aspects-The alignment is not significantly influenced. Alignment is possible in all directions because of comparatively level ground surface. The cuts and fills may usually be kept to a minimum and will seldom exceed 2 feet. Sandy Loam soil is usually soft and can be excavated by normal means.

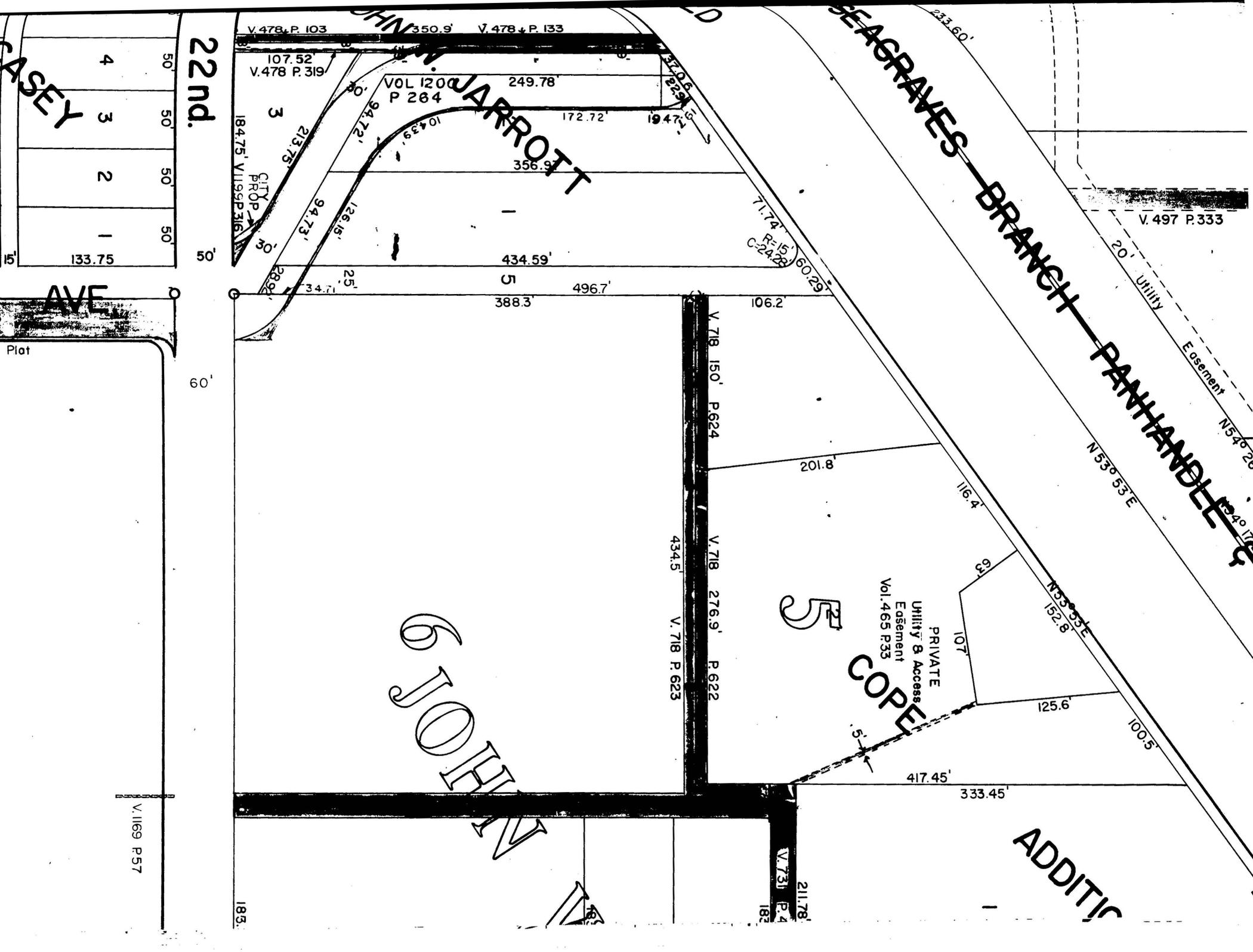




site



SITE(AERIAL)



22nd.

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3	50'
2	50'
1	50'
15'	133.75

CASEY AVE

Plat

V. 478 P. 103 350.9' V. 478 P. 133

107.52  
V. 478 P. 319

VOL 1200  
P 264

184.75' V. 1199 P. 316  
CITY PROP

JARROTT

R-15  
C-24-22

BEAGRAVES BRANCH  
233.60'  
V. 497 P. 333  
20' Utility Easement  
N 53° 53' E

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172.72'  
194.72'  
434.59'  
388.3'  
496.7'

V. 718 P. 624

V. 718 P. 622

V. 718 P. 623

PRIVATE  
Utility & Access  
Easement  
Vol. 465 P. 33

5  
COPE

610 HWY

ADDITIC

V. 1169 P. 57

183

V. 731 P. 4

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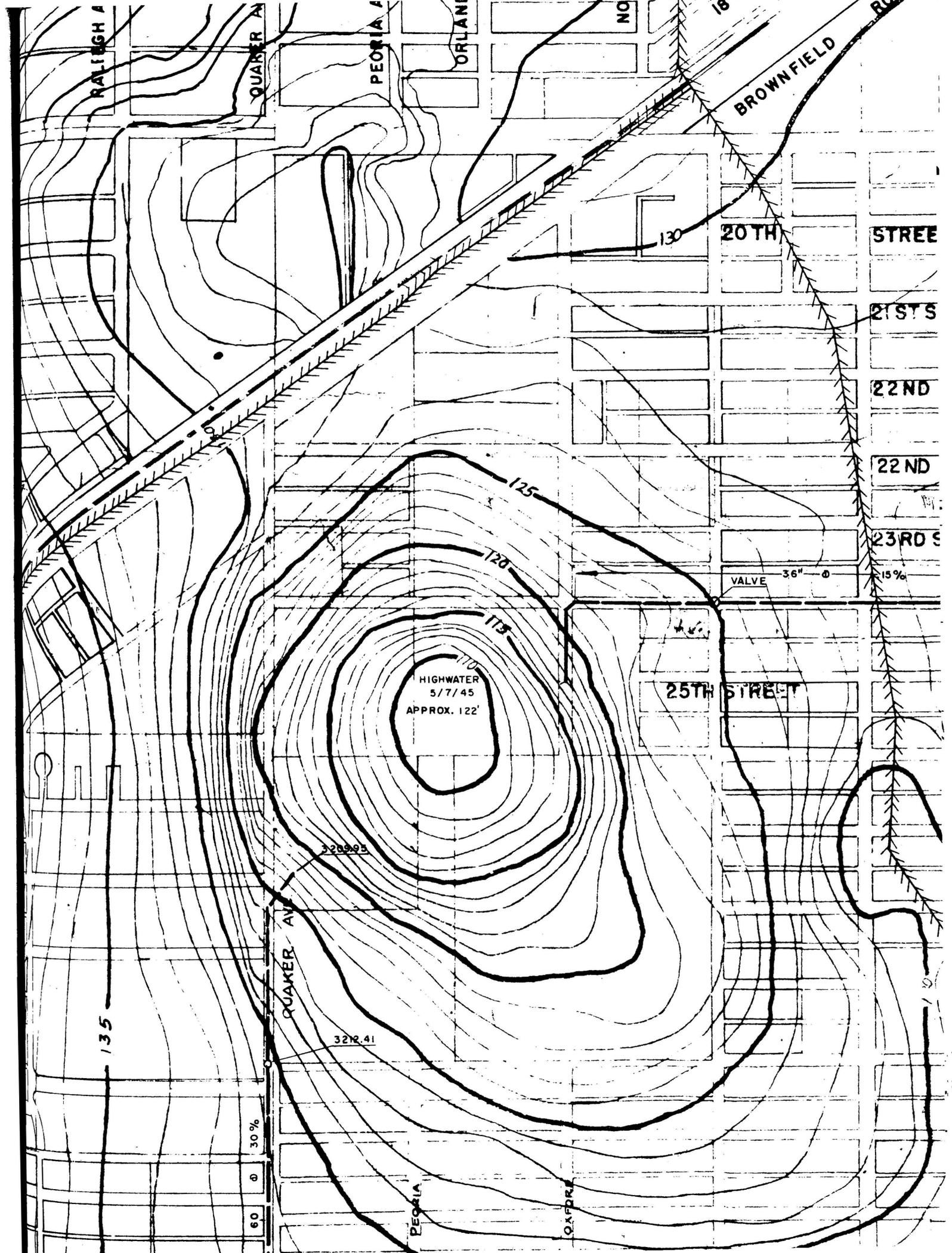
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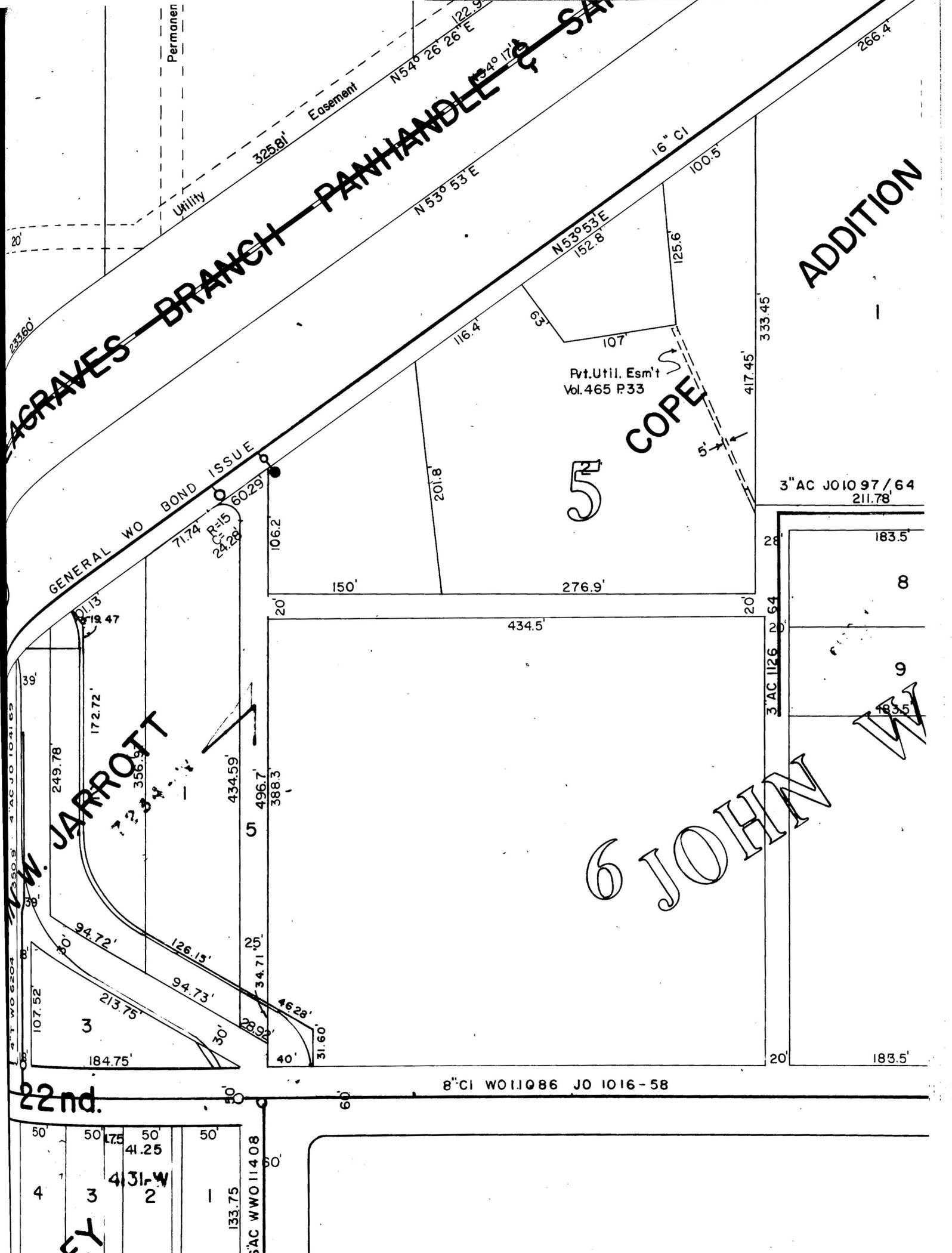
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Vol. 465 P.33

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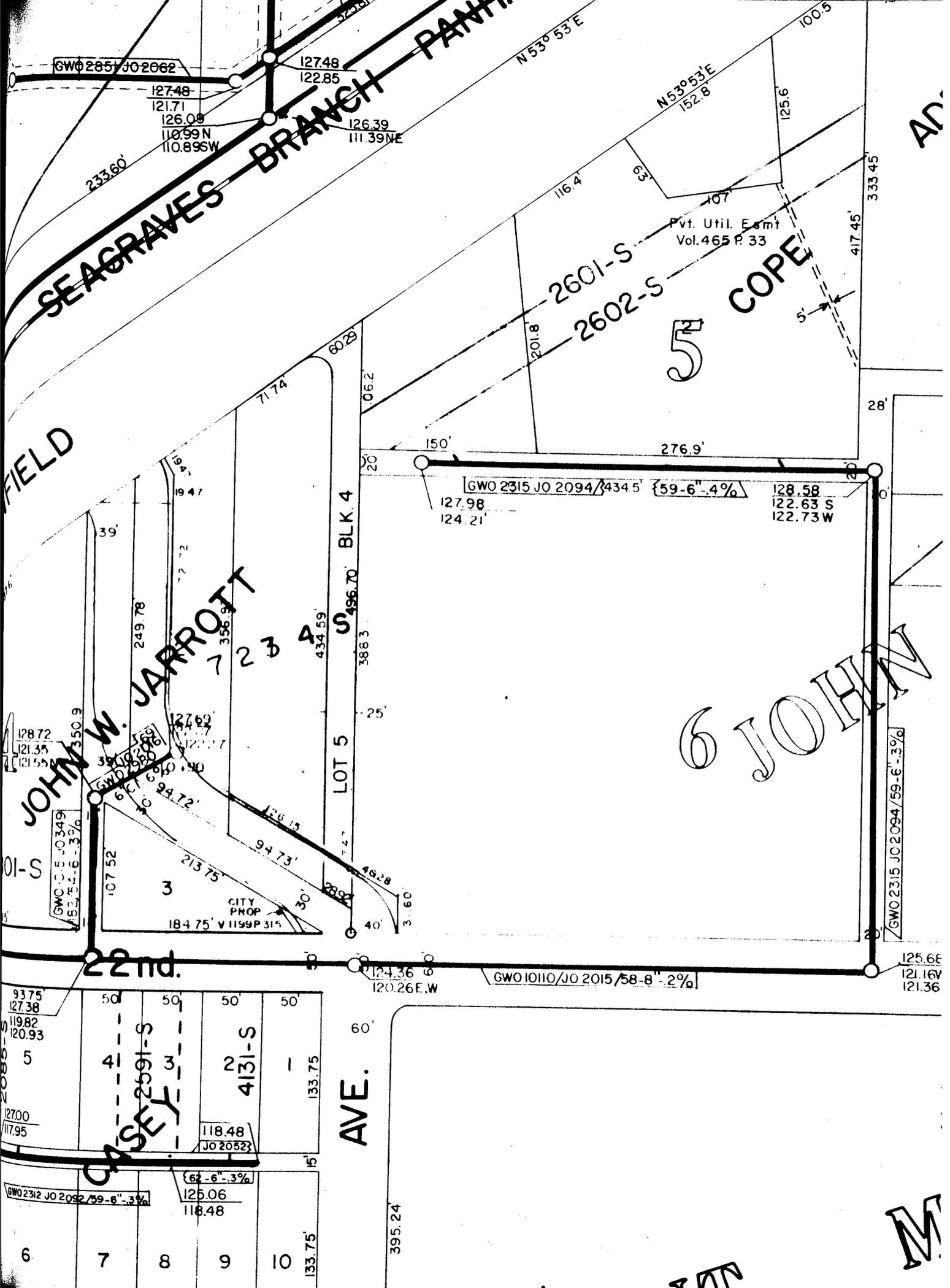
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**FIELD**

**JOHN W. JARROTT**

**6 JOHN W.**

**CASEY**

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 Vol. 465 P. 33

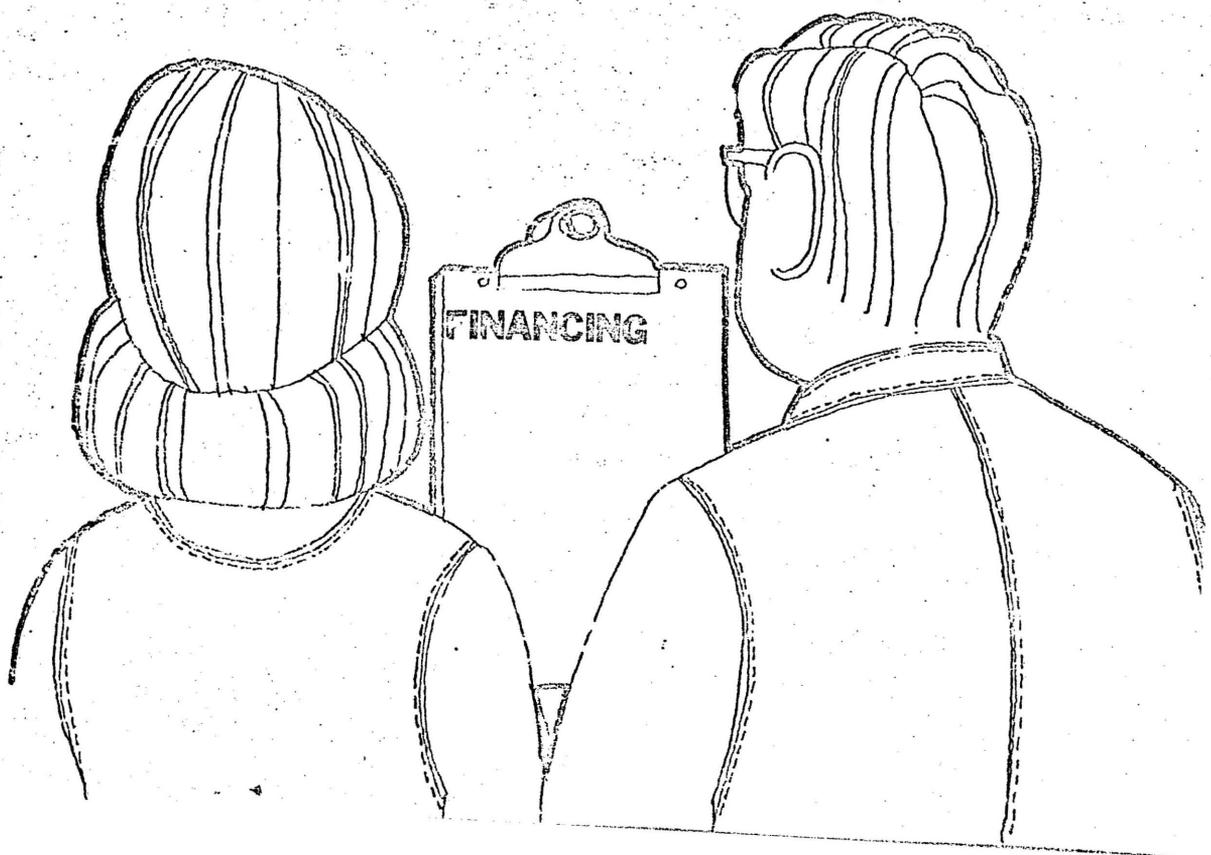
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**AVE.**

**M**



Profit  
Objectives

To accomplish the center's overall objective of public service, it is important that careful planning of the center takes place so that the operational expenses will not pressure the service of the center. Due to various reasons organizations of this type have been under economical strain in the past.

Funds for  
Construction

Based on the construction funds of several non-profit speech and hearing centers, the Lubbock Regional Speech and Hearing Center's construction cost will be as follows:

<u>SOURCE OF FUNDS</u>	<u>APP. %</u>
Hill-Burton Program	60%
Lubbock County United Fund	30
Federal and State Grants	5
Contributions	5

The Hospital and Medical Facilities Construction(Hill-Burton) Program provides Federal assistance for the construction of public and non-profit hospitals and other medical facilities. The amount of participation by the Hill-Burton Program is 50% of the total cost of the facility, including the structure,

equipment, and architectural services, but does not include the cost of land. Due to the limited amount of funds allocated to the State, the maximum allocation made to any facility in the past has been \$1,000,000. Research facilities are not eligible for funds under the Hill-Burton program but are eligible for funds under another Federal program.

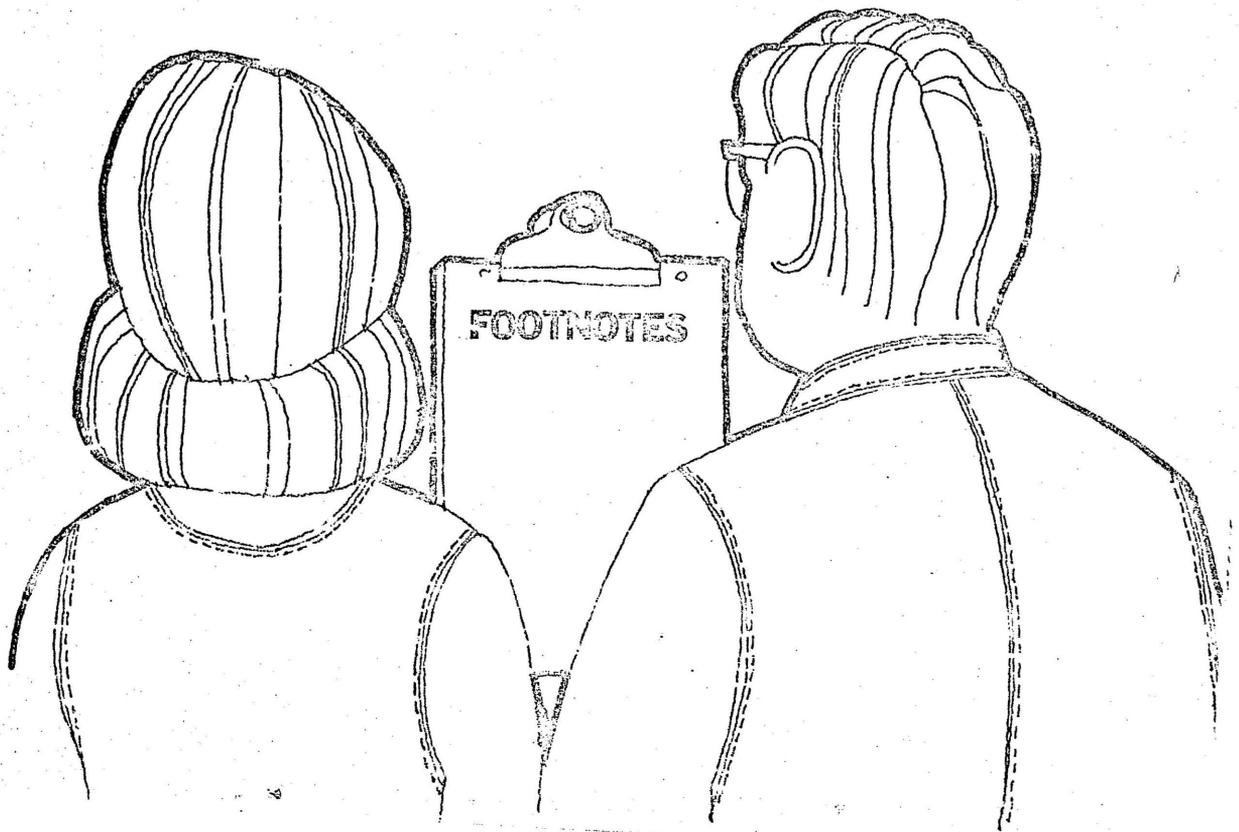
In recent years Federal assistance has played an increasingly prominent part in the financing of community health facilities. In addition to the Hill-Burton program there are several government grants which are available for the land, architectural fees, new construction, acquisition of buildings, equipment, staffing, and consultants of community health facilities. (see Appendix D)

Operating  
Funds

Most speech and hearing centers are non-profit organizations, paying for costs of operations through fees for services, state and Federal government grants, local community organizations, and donations.

Operating funds are to provided  
for through tuition and fees, the support  
of the Lubbock County United Fund, gifts  
from individual donors, and limited  
amounts of governmental research grants.

<u>SOURCE OF FUNDS</u>	<u>APP. %</u>
Tuition and Fees	35%
Lubbock County United Fund	48%
Contributions	8
Government Grants	9



<sup>1</sup>John J. O'Neill, The Hard of Hearing,  
(Englewood Cliffs, New Jersey, 1965), p. 1.

<sup>2</sup>Ibid., p. 2.

<sup>3</sup>Ibid., p. 5.

<sup>4</sup>"Research Needs in Speech Pathology  
and Audiology," American Speech and Hearing  
Journal, (December, 1959), p. 25.

<sup>5</sup>Ibid., p. 26.

<sup>6</sup>Moe Bergman, Acta Oto-Laryngologica,  
(Aas & Wahls Boktrykkerk, Oslo, Norway,  
1950), p. 16.

<sup>7</sup>Ibid., p. 17.

<sup>8</sup>"Summer Institute for Speech and  
Hearing Impaired Children" Lubbock Avalanche  
Journal, July 8, 1970, p. 4A.

<sup>9</sup>Medical Facilities, Lubbock Chamber  
of Commerce, p. II.

<sup>10</sup>Texas Tech Student Directory, p. 15.

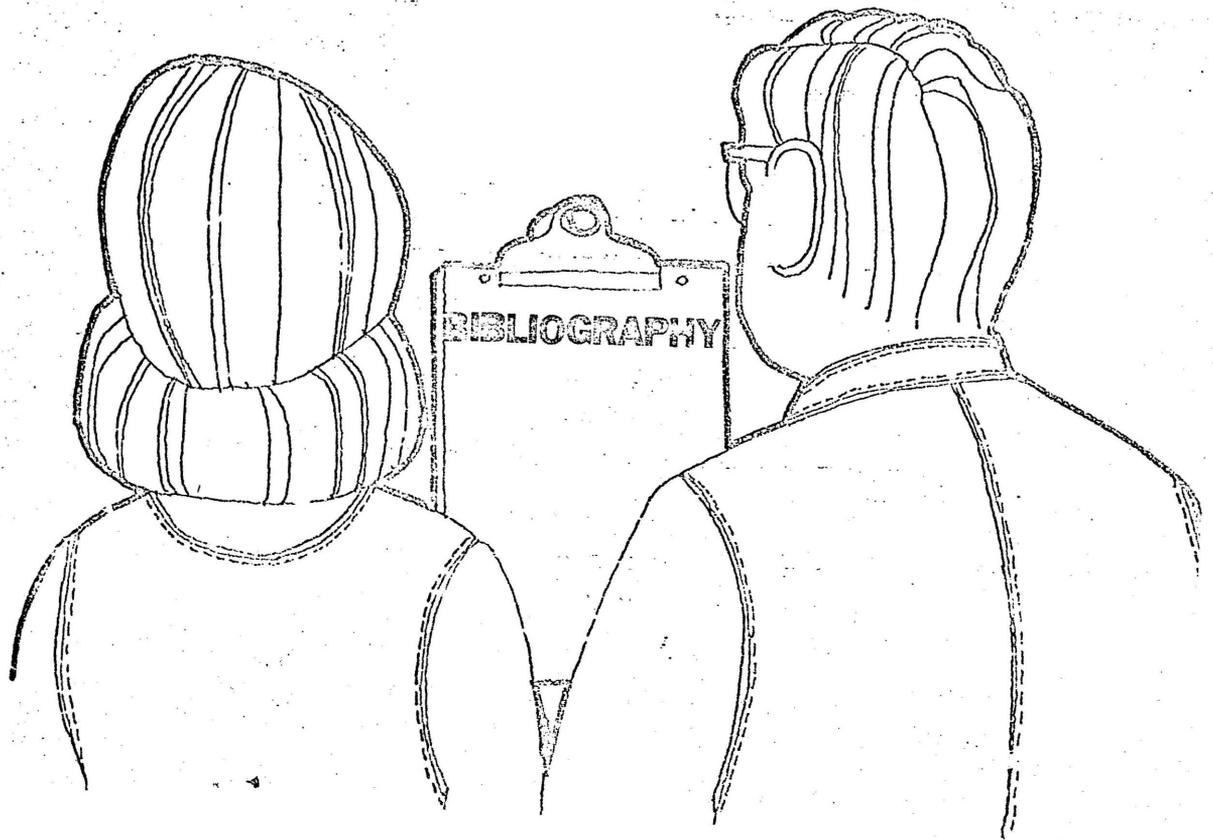
<sup>11</sup>Lubbock, Lubbock Chamber of Commerce,  
p. 1.

<sup>12</sup>Ibid., p. 18.

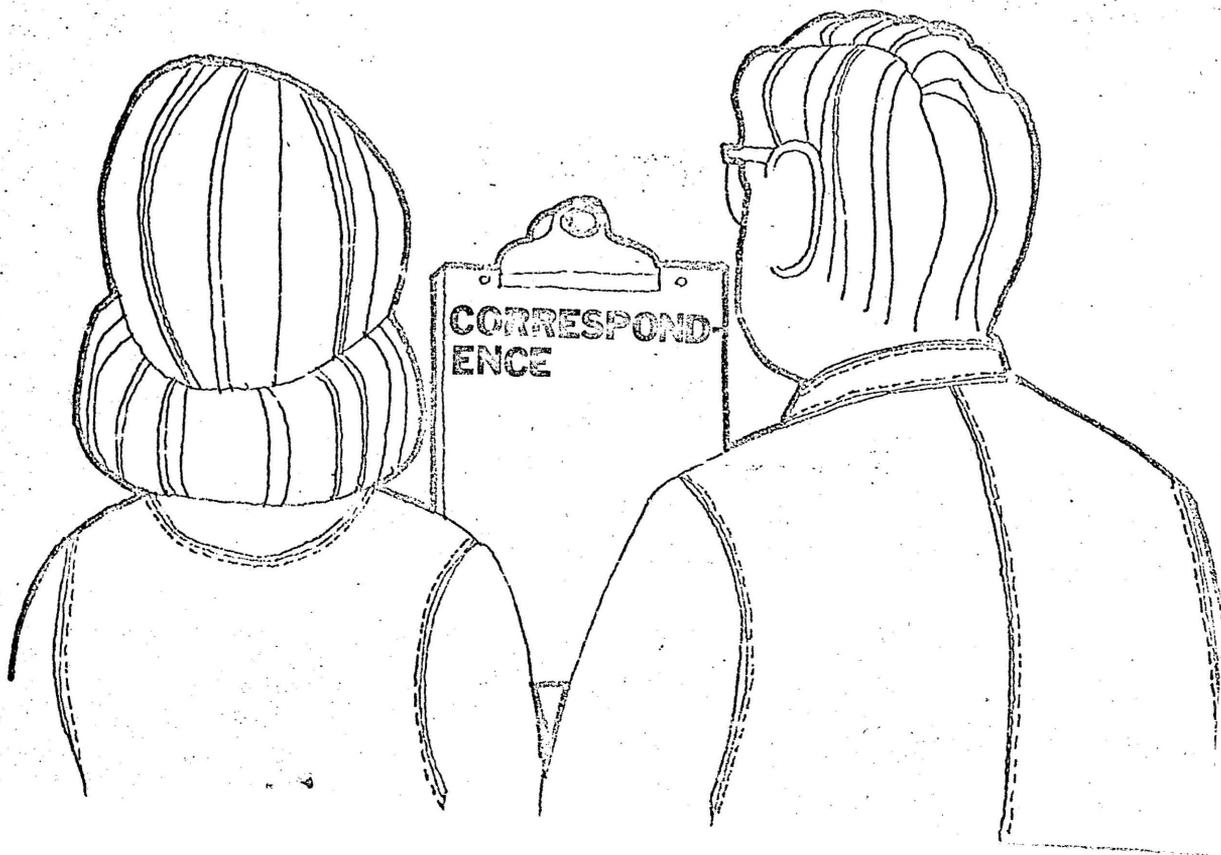
<sup>13</sup>Ibid., p. 10.

<sup>14</sup>Medical Facilities, Lubbock Chamber  
of Commerce, p. 1.

<sup>15</sup>Climate, Lubbock Chamber of Commerce,  
p. 3.



- Books
- O'Neill, John J. The Hard of Hearing. Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1965.
- Bergman, Moe. Acta Oto-Laryngologica. Aas & Wahls Boktrykkeri, Oslo, Norway, 1950.
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- Pamphlets and Journals
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- Lubbock Chamber of Commerce. Climate in Lubbock. 1970.
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- "Research Needs in Speech Pathology and Audiology," American Speech and Hearing Journal, (December, 1959), 25.
- Newspaper
- The Lubbock Avalanche Journal, July 8, 1970, p. 4a.
- Interview
- Dr. Wm. Tokes, Director of Speech and Theater Arts Department, Texas Tech University.



Mr. Hershel Fisher, Architect of the  
Callier Speech and Hearing Center,  
Dallas, Texas.

Mr. Charles Thompson, Director of Callier  
Speech and Hearing Center, Dallas,  
Texas.

Colorado Speech and Hearing Society,  
Denver, Colorado.

Mr. Warren Johnson, Director of Portland  
Speech and Hearing Center, Portland,  
Oregon.

United States Printing Office, Washington,  
D. C.

Department of Health, Education, and  
Welfare, Washington, D. C.

State Department of Health, Austin, Texas.

Houston Speech and Hearing Center,  
Houston, Texas.

New Orleans Speech and Hearing Center,  
New Orleans, Louisiana.

Wilson, Morris, Crain & Anderson,  
Architects, Houston, Texas.



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
PUBLIC HEALTH SERVICE  
HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION  
ROCKVILLE, MARYLAND 20852

HEALTH FACILITIES PLANNING  
AND CONSTRUCTION SERVICE

NOV 18 1970

Mr. Dan Burrows  
2402 9th Street  
Apartment 14  
Lubbock, Texas 79401

Dear Mr. Burrows:

This is in reply to your letter of November 1, 1970, to the Department, with reference to the availability of Federal financial assistance for a regional speech and hearing center in Lubbock, Texas.

The Hospital and Medical Facilities Construction (Hill-Burton) Program provides Federal assistance for the construction and modernization of public and nonprofit hospitals and other medical facilities. A center such as you describe in your letter could be eligible for Hill-Burton assistance as part of a public health center, or possibly in connection with an outpatient facility.

The enclosed pamphlet "Aid for Community Hospitals and Other Health Facilities" describes the program in part and explains how application is made through a State administering authority which in Texas is the State Department of Health, Austin, Texas 78756, under the direction of Dr. J. E. Peavy, Commissioner of Health. It is the responsibility of that agency to develop a State plan which indicates the need for hospital and medical facilities within the State and to select projects for aid in accordance with the State plan and priority schedule contained in the plan. We suggest that you get in touch with Dr. Peavy and his staff who can advise of the requirements that must be met for projects to qualify for Hill-Burton assistance in Texas.

We are not familiar with any other program of support for the type of facility you envision, but we are sending a copy of your letter and this reply to the Bureau of Education for the Handicapped, Office of Education, and the Rehabilitation Services Administration, Social and Rehabilitation Service, in the Department, for their comments and suggestions.

Sincerely yours,

Ted L. Bechtel  
Director  
Office of State Plans



# Texas State Department of Health

JAMES E. PEAVY, M.D., M.P.H.  
COMMISSIONER OF HEALTH

AUSTIN, TEXAS

J. B. COPELAND, M.D.  
DEPUTY COMMISSIONER

November 9, 1970

## BOARD OF HEALTH

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ROYCE E. WISENBAKER, M.S. ENG.

Mr. Dan Burrows  
2402 - 9th Street  
Apartment 14  
Lubbock, Texas 79401

Dear Mr. Burrows:

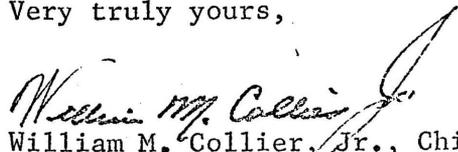
In response to your letter to this agency dated November 1, 1970, I would like to indicate that under the Hill-Burton program we have been permitted to participate in the construction of facilities for speech and hearing therapy and, in that connection, did participate in the Speech and Hearing Center in Houston, Texas, of which Dr. Bangs is the Director.

With regard to research centers, as such, they are not eligible under the Hill-Burton program but would come under another Federal program. Generally speaking, Hill-Burton assistance is provided to facilities on a priority basis as established in a State Plan which inventories all medical and related facilities in the State and determines the need of each area. The amount of participation is 50% of the total cost of the facility, including the structure, equipment and architectural services, but does not include the cost of the land. Due to the limited amount of funds allocated to the State, the maximum allocation made to any facility in the past has been \$1,000,000.00.

Under the new Administration, the allocation of funds to the States has been greatly reduced, and it may be necessary for the Board of Health to reduce the maximum amount of the grant to something less than \$1,000,000.00; however, this has not yet been decided.

If we can provide you with any additional information, please let us know.

Very truly yours,

  
William M. Collier, Jr., Chief  
Health Facilities Construction Section

WMC:lh



DEPARTMENT OF HEALTH, EDUCATION AND WELFARE  
SOCIAL AND REHABILITATION SERVICE  
WASHINGTON, D.C. 20201

November 20, 1970

REHABILITATION SERVICES  
ADMINISTRATION

Mr. Dan Burrows  
2402 9th Street  
Apartment 14  
Lubbock, Texas 79401

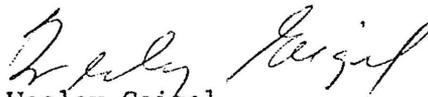
Dear Mr. Burrows:

In further response to your letter of November 1, 1970, I am pleased to enclose material describing programs of the Rehabilitation Services Administration which provide assistance to rehabilitation facilities.

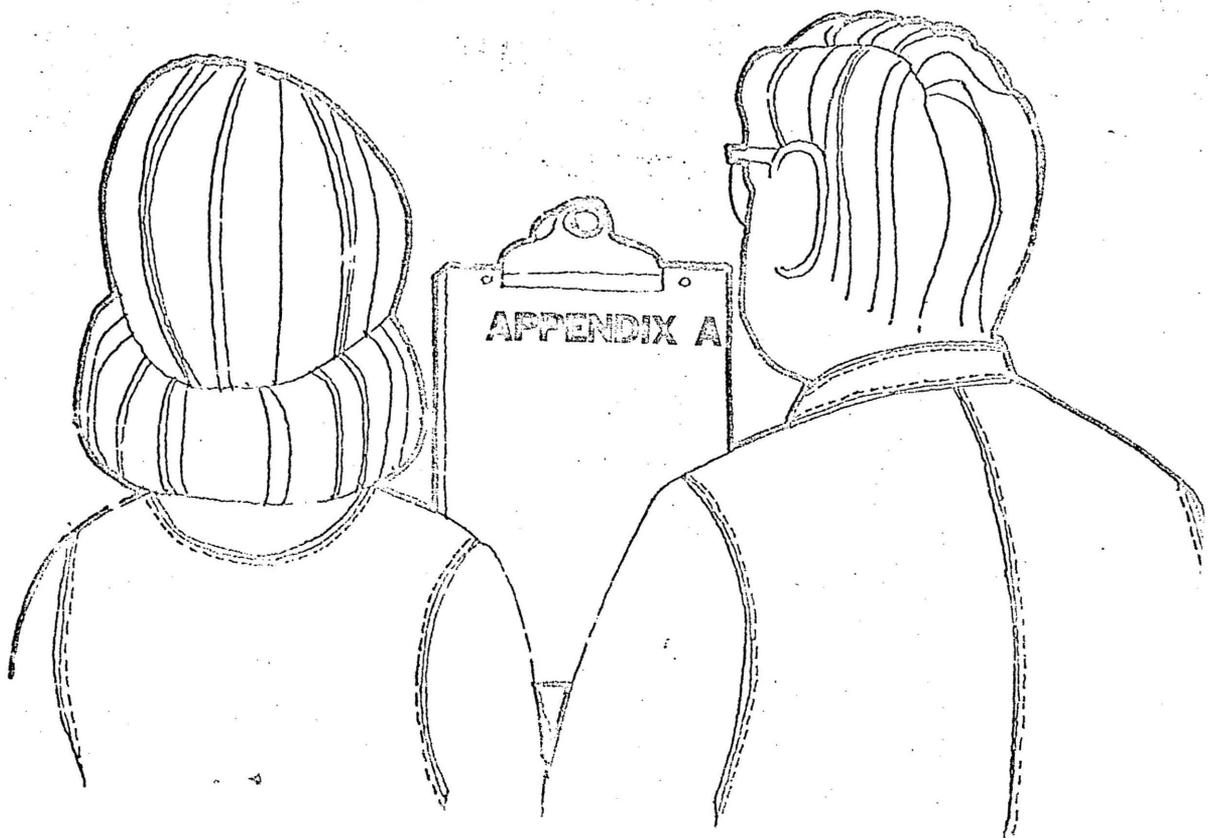
Under the provisions of the Vocational Rehabilitation Act, each State vocational rehabilitation agency is developing a Statewide plan for the establishment and improvement of rehabilitation facilities. All applications for grants must be submitted to the State agency for a determination of the relationship to the priorities of the State plan.

In Texas, this program is under the direction of Mr. Jess Irwin, Commissioner, Texas Rehabilitation Commissioner, 221 East 9th Street, Austin, Texas 78701. Mr. Irwin, or a member of his staff, will be able to provide further advice and assistance.

Sincerely yours,

  
Wesley Geigel  
Acting Chief, Division of  
Rehabilitation Facilities

3 Enclosures



### TOTAL PRECIPITATION

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1931	0.32	1.98	1.34	1.82	1.32	0.95	2.17	2.44	0.72	3.47	1.39	1.44	19.36
1933	0.37	0.95	0.02	0.06	2.97	0.21	1.36	2.19	0.71	0.42	0.99	0.06	10.31
1935	0.12	0.60	0.89	0.04	3.49	2.57	1.25	1.69	3.02	1.22	2.04	0.33	17.26
1937	0.26	0.01	1.81	2.01	4.00	3.12	1.32	2.06	3.85	3.22	0.07	0.52	22.25
1939	2.45	0.19	0.09	0.28	1.82	0.67	1.73	2.75	0.01	0.94	0.18	0.60	11.71
1941	0.55	0.61	3.56	2.23	2.69	4.13	3.68	1.85	4.47	5.89	0.17	0.72	40.55
1943	0.04	0.02	0.25	0.53	2.71	2.37	3.17	T	1.16	0.10	0.62	1.87	12.84
1945	0.69	0.39	0.10	0.46	0.46	0.36	3.08	2.17	2.22	2.26	0.27	0.32	12.78
1946	1.18	0.15	0.76	0.07	1.49	2.72	0.58	3.55	3.49	4.67	0.44	1.04	20.14
1948	0.14	1.38	0.17	0.33	2.88	2.31	1.75	0.31	1.45	0.98	0.03	0.13	11.86
1950	0.28	0.18	T	0.88	3.93	0.68	3.12	2.08	3.74	0.14	0.03	0.03	15.09
1952	0.98	0.05	0.04	2.30	1.39	1.94	3.24	1.88	0.92	0.00	0.96	0.06	13.76
1954	0.06	T	0.04	1.91	4.45	0.51	0.19	2.92	T	2.82	T	1.09	13.99
1956	0.01	1.59	T	0.36	1.80	3.26	0.69	1.06	0.03	1.73	T	0.30	10.83
1958	1.35	0.33	3.23	1.97	2.94	0.71	2.65	0.21	2.90	0.94	0.34	0.02	17.59
1960	0.66	0.94	0.61	0.26	1.16	5.72	5.37	0.05	0.34	5.83	0.00	1.25	22.19
1961	0.56	2.51	1.34	0.10	2.05	4.03	4.06	1.78	0.18	0.55	1.31	0.35	18.82
1962	0.26	0.02	0.10	1.20	0.10	2.56	4.85	1.31	4.17	2.66	0.45	0.67	18.35
1963	0.06	0.54	0.73	0.25	6.79	2.10	0.37	2.67	0.78	0.59	1.13	0.20	16.21
1964	0.45	0.16	0.64	0.11	1.67	5.00	0.82	1.14	2.46	0.30	0.57	0.90	14.22
1965	0.08	0.35	0.22	0.41	1.63	1.44	2.14	0.62	5.68	1.06	0.02	0.50	14.15
1966	0.52	0.06	0.13	3.03	0.67	2.27	0.57	8.85	2.18	T	0.11	0.03	18.42
Rc'rd													
Mean	0.59	0.50	0.58	1.11	3.03	2.89	2.07	1.69	1.73	1.71	0.40	0.40	16.70

Record mean values above (not adjusted for instrument location changes) are means for the period beginning in 1947.

### AVERAGE TEMPERATURE

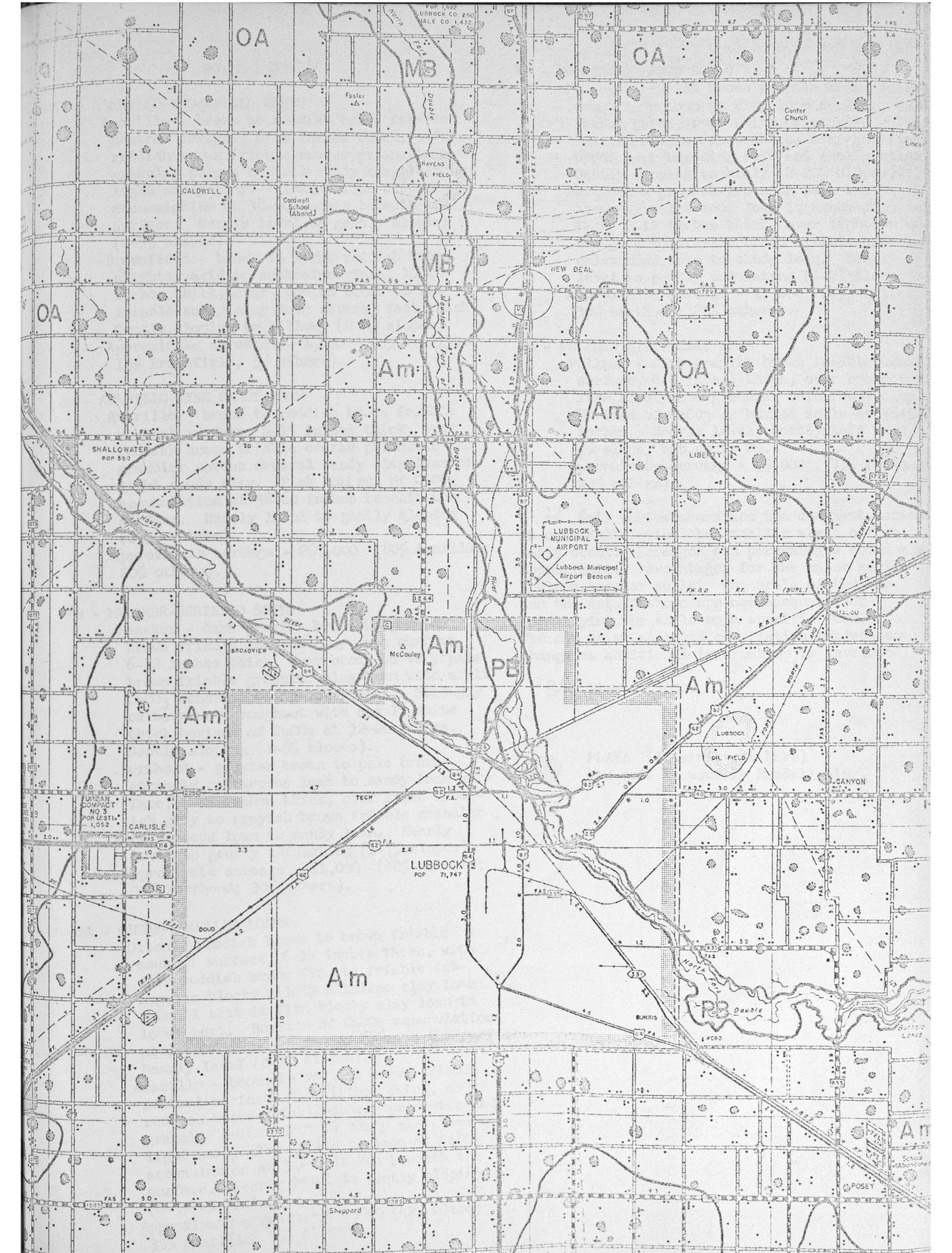
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1931	41.8	47.0	46.7	56.7	65.6	78.8	79.6	77.0	77.5	64.8	52.0	41.6	60.8
1933	44.4	40.2	53.9	59.0	68.6	78.2	81.6	79.0	76.2	65.0	52.4	48.0	62.2
1935	46.0	45.3	57.2	62.4	65.4	75.4	78.6	80.2	66.4	63.3	48.6	40.8	60.8
1937	36.8	44.4	47.4	60.0	70.6	76.6	80.5	79.8	71.7	62.0	48.6	41.9	60.0
1939	43.2	40.0	54.5	62.0	70.4	80.2	80.8	77.6	75.0	63.8	48.0	45.0	61.7
1941	43.3	44.0	47.2	59.0	68.5	73.8	77.3	77.6	71.0	62.2	59.4	50.4	59.8
1943	42.0	48.1	50.4	65.0	68.0	77.0	78.8	82.2	71.4	60.0	48.1	40.0	60.9
1945	41.2	45.9	55.0	57.7	67.4	77.8	77.0	78.2	72.0	57.2	50.0	38.7	60.3
1947	37.4	37.7	45.0	56.7	66.8	78.3	80.1	78.3	73.3	66.0	43.2	42.0	57.9
1949	31.2	43.4	51.0	57.0	68.8	76.1	79.8	76.0	69.6	58.8	54.2	41.0	59.0
1951	37.5	44.1	48.4	57.2	68.5	76.2	82.1	79.9	72.1	61.8	45.0	42.3	59.6
1953	46.6	42.7	55.2	58.2	67.2	83.1	80.6	78.4	72.1	61.3	49.1	38.2	61.0
1955	39.7	40.0	50.1	61.2	68.9	75.8	78.9	77.9	72.0	60.4	47.1	44.4	59.7
1957	40.1	49.7	49.6	55.8	64.8	75.1	81.4	79.0	68.6	58.3	42.7	44.1	59.1
1959	37.9	42.5	49.0	58.6	70.0	76.6	77.2	79.2	72.9	58.4	44.4	42.3	59.1
1961	35.6	41.5	50.5	60.3	69.5	75.0	76.3	76.0	69.9	31.2	44.7	39.3	58.3
1962	34.4	48.4	47.6	60.4	74.6	74.8	78.7	78.2	70.8	32.7	50.5	42.4	60.3
1963	32.8	42.5	53.0	64.3	70.5	75.2	81.9	79.0	72.9	35.8	50.7	36.7	60.5
1964	38.8	36.5	49.2	61.5	71.3	76.7	82.0	79.9	70.9	62.1	50.5	42.8	60.2
1965	44.3	40.4	42.8	63.6	71.1	77.5	81.7	78.0	72.9	63.5	57.3	47.0	61.7
1966	34.2	40.5	55.7	60.4	69.8	78.5	85.4	76.8	71.6	60.9	55.6	38.0	60.6
Rc'rd													
Mean	38.5	42.3	48.9	59.9	69.1	77.6	80.0	78.5	71.6	61.6	48.5	41.4	59.8
Max	52.8	56.8	64.0	74.7	83.0	91.1	92.7	91.3	84.8	75.7	63.0	55.5	73.8
Min	24.1	27.8	33.7	45.1	55.2	64.1	67.3	65.6	58.4	47.4	34.0	27.3	45.8

### RELATIVE HUMIDITY

MONTH	MIDNIGHT CST	6:00 A.M. CST	NOON CST	6:00 P.M. CST
JAN.	66	73	49	49
FEB.	65	74	50	43
MAR.	56	68	41	35
APR.	56	70	40	34
MAY	63	76	45	39
JUN.	63	78	44	38
JUL.	63	77	47	40
AUG.	63	78	46	39
SEP.	65	79	48	42
OCT.	67	79	49	46
NOV.	66	74	46	48
DEC.	65	71	47	48
YEAR	63	75	46	42

### DAYS OF SUNSHINE SUNRISE TO SUNSET

MONTH	CLEAR	PARTLY CLOUDY	CLOUDY
JAN.	13	7	11
FEB.	11	8	9
MAR.	12	9	10
APR.	12	9	9
MAY	11	12	8
JUN.	14	11	5
JUL.	15	11	5
AUG.	16	11	4
SEP.	16	8	6
OCT.	18	6	7
NOV.	16	7	7
DEC.	14	7	10
YEAR	168	106	91



SOILS LEGEND<sup>1</sup>

AB - AMARILLO-BROWNFIELD SANDS

Amarillo - brown to reddish brown friable neutral surface, 6-15 inches thick, over reddish brown friable coarse prismatic and granular porous neutral sandy clay loam or light sandy clay. Pink horizon of CaCO<sub>3</sub> accumulation at 38-60 inches beneath the surface. Nearly level to gently sloping (0-3% slopes).

Brownfield - brown to light reddish brown slightly acid to neutral surface, 10-28 inches thick, over reddish brown to red friable sandy clay loam several feet thick. Gently sloping to billowy (2-5% slopes).  
Approximate acreage - 1,000 (80% Amarillo; 15% Brownfield; 5% others).

Am - AMARILLO FINE SANDY LOAM

Amarillo - brown to reddish brown friable neutral surface, 6-15 inches thick, over reddish brown friable coarse prismatic and granular porous neutral sandy clay loam or light sandy clay. Pink horizon of CaCO<sub>3</sub> accumulation at 38-60 inches beneath the surface. Nearly level to gently sloping (0-3% slopes).

Approximate acreage - 267,000 (80% Amarillo; 20% others).

MB - MANSKER-BERTHOUD SOILS

Mansker - dark grayish brown to grayish brown friable loam to clay loam surface, 6-12 inches thick, over brown to very pale brown friable granular clay loam with small CaCO<sub>3</sub> concretions in lower part. Strongly calcareous throughout with nearly white thick horizon of CaCO<sub>3</sub> at 12-20 inches. Gently sloping (1-5% slopes).

Berthoud - grayish brown to pale brown strongly calcareous loam to sandy loam surface, 6-12 inches thick, over light brownish gray to grayish brown friable granular calcareous loam to sandy loam. Nearly level to gently undulating (1-7% slopes).

Approximate acreage - 11,000 (40% Mansker; 39% Berthoud; 30% others).

OA - OLTON-AMARILLO LOAMS

Olton - reddish brown to brown friable neutral surface, 6-15 inches thick, with dark reddish brown firm to friable sub-angular blocky mildly alkaline clay loam subsoil that is firm blocky clay loam in lower part. Horizon of CaCO<sub>3</sub> accumulation at depths of 40-45 inches beneath the surface. Nearly level (0-1% slopes).

Amarillo - brown to reddish brown friable neutral surface, 6-15 inches thick, over reddish brown friable coarse prismatic and granular porous neutral sandy clay loam or light sandy clay. Pink horizon of CaCO<sub>3</sub> accumulation at 38-60 inches beneath the surface. Nearly level to gently sloping (0-3% slopes).  
Approximate acreage - 200,000 (42% Olton; 35% Amarillo; 23% others).

PB - POTTER-BERTHOUD SOILS

Potter - grayish brown to pale brown calcareous sandy loam to clay loam surface, 4-10 inches thick, over white or pinkish white caliche several feet thick, semi-hard in upper part becoming soft and chalky below. Gently sloping to hilly (2-20% slopes).

Berthoud - grayish brown to pale brown strongly calcareous loam to sandy loam surface, 6-12 inches thick, over light brownish gray to grayish brown friable granular calcareous loam to sandy loam. Nearly level to gently undulating (1-7% slopes).  
Approximate acreage - 17,000 (45% Potter; 30% Berthoud; 25% others).

Pa - PULLMAN SILEY CLAY LOAM

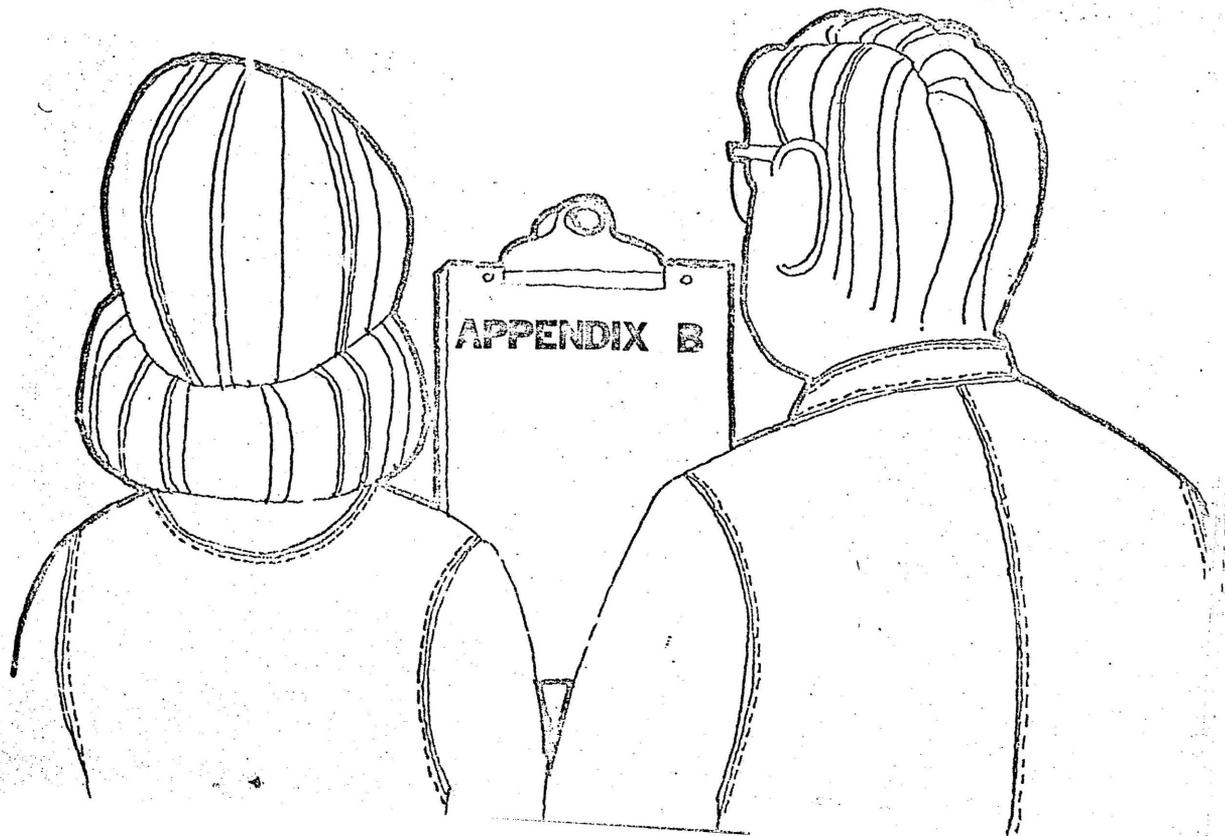
Pullman - dark grayish brown friable neutral surface, 4-8 inches thick, over brown very firm blocky and granular calcareous clay. Horizon of CaCO<sub>3</sub> or buried soils at 36-50 inches. Nearly level, mostly less than 1/2% slope, but up to 2%.  
Approximate acreage - 75,000 (75% Pullman; 25% others).

<sup>1/</sup> Soil series shown are the dominant series in each delineation, but smaller areas of other soils occur. Acreages and percentages shown are approximate. Percentages for the major series include similar soils. The scale of the map and the detail shown are not adequate for identifying the soils on a specific farm. The map is an advanced compilation subject to change as additional information is developed.

<sup>2/</sup> Nearest 1000.



PLAYA (Intermittent Lake)  
The soil is usually Randall clay.



## Suggested Sources and Approximate Costs of Items of Equipment

Listing is alphabetical by item

*(For additional information write the manufacturer or a dealer in audio equipment.)*

Item	Make, Model	Description (Given by manufacturers)	Approximate cost (for one)
<i>Amplifiers</i> (For hearing evaluation assembly) Note: input impedances should be checked	1. Newark Audio-Pacific No. 2 Amplifier Part No. A16425, Newark Electric Co., New York City, 242 West 55th Street, New York 19, N. Y.	20 watts, 20—20,000 $\pm$ 0.25 db, less than 1 % distortion.	\$ 60.00
	2. Altec Lansing Corp. A323-B, 161 Sixth Avenue, New York 13, N. Y.	15 watts, 20—20,000 $\pm$ 1 db.	135.00
	3. McIntosh 15 W-1, McIntosh Engineering Lab., 710 14th Street, Washington 5, D. C.	15 watts (30 watts peak power) 20—20,000 — less than 1 % distortion, parts plug in sections for easy replacement, noise 90 db below rated output.	199.50
	4. Scott (part of 800B radiophono), H. H. Scott, Inc., 385 Putnam Avenue, Cambridge 39, Mass.	20 watts, 40—20,000 $\pm$ 1.25 db.	200.00
	5. Scott 210A, See address above.	20 watts, less than 2 % distortion, Dynamic Noise Suppressor, hum 80 db below full output.	280.00
	6. McIntosh 50W-1, See address above.	50 watts (100 watts peak power). Other characteristics same as Model 15 W-1 above.	299.50
	7. Brook 10C3, Brook Electronics 34 De Hart Place Elizabeth, New Jersey.	30 watts, 1.3 % distortion, 20—20,000 $\pm$ 0.2 db, hum more than 75 db below full output.	240.00
(For talkback)	1. Bogen PH-10, David Bogen Co., Inc. 663 Broadway, New York.	10 watts, to 15,000 cycles.	35.00
	2. Bell 2122.	10 watts, 30—15,000 cycles.	45.00
	3. (Many satisfactory models available).		
(For auditory training)	1. Any of the above or similar models.		

*Attenuators*

- |   |                            |       |
|---|----------------------------|-------|
| 1. Hewlett-Packard Co., Palo Alto, California.  | As described in Chapter V. | 20.00 |
| 2. Daven Co., 191 Central Avenue, Newark, N. J. | Same.                      |       |

*Audio Oscillators*

- |  |                          |        |
|--|--------------------------|--------|
| 1. Hewlett-Packard Co., Palo Alto, California. | 20—20,000 flat response. | 200.00 |
|--|--------------------------|--------|

*Audiometers*<sup>1</sup>

- |  |   |        |
|--|---|--------|
| 1. Western Electric 6BP. See a W. E. or Audivox distributor.                     | Continuous frequency, intensity control in 5 db steps, zero reference must be reset for each frequency, manual calibration control.   | 375.00 |
| 2. Sonotone AE 21S, Sonotone, Elmsford, N. Y.                                    | Continuous frequency, continuous intensity control.   | 410.00 |
| 3. Sonotone AE 21D, Same as address above.                                       | Same as above with additional matched receiver, microphone and control unit for loudness balance, etc.  | 475.00 |
| 4. Maico D-10, Maico Co., No. 3d Street, Minneapolis, Minnesota.                 | Discrete frequency (in octave steps with two additional half-octaves), double headphones with change-over switch; calibrated masking; tone interrupter reversing switch.  | 445.00 |
|  | Additional equipment for group testing, 10 pairs of headphones, etc.  | 500.00 |
| 5. Maico H-1. See address above.   | „Replaces” Maico D-10; accessories in storage compartment on top of cabinet; same features as D-10 plus new cabinet, speech monitor meter, frequencies 125—12,000 cycles in discrete octave steps plus 1,500, 3,000 and 6,000 cycles. | 545.00 |
| 6. ADC 50E, Microtone Co., Ford Parkway on the Mississippi, St. Paul, Minnesota. | Discrete frequency, double headphones, change-over switch between phones, calibrated masking control, speech circuit with meter, group equipment available.   | 580.00 |

<sup>1</sup> See also Hearing Evaluators.

(continued on next page)

Item	Make: Model	Description (Given by manufacturers)	Approximate cost (for one)
	7. Maico E-2. See address above.	„Research audiometer” with two channels, each with an intensity control and head-phone; change-over switch; discrete frequency, built-in calibrated „saw-tooth” masking tone and warbler, independent 1,000 cycle reference tone.	\$ 675.00
<i>Auditory Training Unit</i>	1. Maico Train-car, Maico Co., No. 3d-Street, Minneapolis 1, Minnesota.	Amplifying unit with radio, microphone, phonograph, phono-microphone mixer, tone control to „balance” output of headphones, double Permoflux headphones, phono speed 78 rpm.	230.00
		Headset adapter box for two additional pairs of headphones, each phone has separate volume control.	25.00
		Additional Permoflux headphones—each pair.	35.00
	2. Jay Warren T-1, 5 N. Wabash Avenue, Chicago 2, Ill.	Amplifying unit with radio, microphone and phonograph, mixing circuit, double headset and loudspeaker; phono speed 78 rpm., PDR-1 phones, amplifier 6 watts with less than 2 % distortion at full output of 110 db.	234.00
		Above unit with extra group equipment including 10 PDR-1 headphones.	50.00
	3. See also Table Hearing Aids, Speech Instruction Unit (Group), and Hearing Aids, Group.		
<i>Baffles, loudspeaker—see „Loudspeakers”.</i>			
<i>Cabinets, loudspeaker—see „Loudspeakers”.</i>			
<i>Cartridge, pickup—see „Playback Equipment”.</i>			

<i>Galvanic Skin Response Assembly</i>	1.	Direct Current Amplifier 715-AE, General Radio Co., 275 Mass. Avenue, Cambridge 39, Mass.	Specify—, to be used with Esterline—Angus Recorder".	460.00
	2.	Esterline—Angus Recorder Esterline—Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.	AW Port D. C. Milliammeter, scale range and calibration 0—5.0ma, Type #4 Rapid Feed Synchronous Chart Drive. Internal Motor 115 volts—60 cycles, Left and Right hand chronograph pens 115 volts—60 cycles. Accessories for above: 1 pint bottle green ink 1 pen filler 1 inkwell filler 50 record charts 43042C 1 box meter accessories 1 record chart 4309C 1 instruction book	350.00
	3.	Harvard Inductorium, Harvard Apparatus Co., Inc., Dover, Mass.	For „conditioning” patient	17.00
	4.	Wheatstone Bridge for calibrating the assembly for each patient. See Figure 16.		

*Group Hearing Aids—see „Hearing Aids, Group”.*

<i>Headphones</i>	1.	Permo-flux PDR-1, Permoflux Company, 4900 W. Grand Avenue, Chicago 39, Ill.	Flat response to 3,000 cps, peaks at 4,200 then drops off; dynamic.	\$ 8.50
	2.	Permoflux PDR-10.	Fairly fiat to 3,000, dips about 5 db to 5,000, peaks at 6,400 then drops off; dynamic.	11.00
<i>Cushions</i>	1.	Permoflux 1505.	„Doughnut” cushion, kapok filled chamois.	2.50
<i>Headbands</i>	1.	Permoflux PHA 13	Plastic covered	5.00
<i>Hearing Aids, Group</i>	1.	Jay Warren.	See <i>Auditory Training Unit</i> .	
	2.	Western Electric (Audivox), Audivox Co., 259 West 14th Street, New York, N. Y.	Assembled according to needs. Amplifier in cabinet. Compression circuit added to amplifier.	378.00 50.00

(continued on next page)

Item	Make, Model	Description (Given by manufacturers)	Approximate cost (one)
		Microphone 633A with deskstand.	\$ 77.80
		724a (hearing aid type) earphone.	13.50
		Binaural cord with plug. for 724a phone.	5.25
		Outlet boxes with volume control.	5.40
		Connecting cords 36" (between chairs, etc.).	5.34
		723A earphone (telephone type) cord.	13.58
		Double headband for 723A phones.	6.50
	3. See also <i>Table Hearing Aids.</i>		
<hr/>			
<i>Hearing Evaluators</i>	<ol style="list-style-type: none"> <li>Hearing Evaluation Assembly, U. S. Recording Co., 1121 Vermont Avenue, N. W., Washington 5, D. C.</li> <li>Microtone ADC Pure tone Speech Audiometer Microtone Co., Ford Parkway on the Mississippi, St. Paul, Minnesota.</li> <li>Otarion 501 Auditory Analyzer, Otariion Inc., 159 N. Dearborn Street, Chicago, Ill.</li> </ol>	<p>Console assembly for audiology clinics, developed at Walter Reed General Hospital. Write company for specifications. See Figure 14.</p> <p>Pure tone air and bone and speech hearing tests, calibrated masking, mix noise and speech and 3-speed turntable, talkback system, headphones and loudspeaker, monitor meter.</p> <p>Speech hearing tests only; phono pickup (GE Variable Reluctance), microphone, Fernoflux PDR-10 headphone, monitor earphones, attenuator 5 db/step, 24 steps, and monitor meter. Price includes test phone, monitor phone and two records with word lists.</p> <p>With above items, plus a loudspeaker, cabinet and microphone.</p>	<p>4000.00</p> <p>900.00</p> <p>298.00</p> <p>380.00</p>
<hr/>			
<i>Loudspeakers</i> (For auditory training and record playback)	<ol style="list-style-type: none"> <li>General Electric S1201D, General Electric Co. Syracuse, N. Y.</li> <li>University Dual Tweeter University Loudspeakers, Inc. 80 S. Kensico Avenue, White Plains, N. Y.</li> <li>High pass filter for tweeters above.</li> </ol>	<p>12 inch, 25 watts, 50--13,000 cycles if measured in "adequate" baffle.</p> <p>For use with the G. E. S1201D.</p>	<p>18.00</p> <p>25.00</p> <p>6.00</p>
<hr/>			
(continued) (For auditory training and	4. Altec Lansing 603B. See address above (Amplifiers).	15 inch bass with 3 inch voice coil, multi-cellular, 25 watts, 30--12,000 cycles.	85.00

7b

(continued)

(For auditory training and hearing evaluation assembly)

4. Altec Lansing 603B. See address above (Amplifiers).	15 inch bass with 3 inch voice coil, multi-cellular, 25 watts, 30—12,000 cycles.	65.00
5. Tru-Sonic P-52A, Stephens Manufacturing Co., 8538 Warner Drive, Culver City, Calif.	Coaxial 15 inch bass, high frequency tweeter with cross-over network; 20 watts, 40—15,000 cycles, multi-cellular.	125.00
6. Altec Lansing 604B. See address for Altec Lansing under Amplifiers.	15 inch bass with multi-cellular tweeter, 20 watts, 30—16,000 cycles, coaxial.	130.00
7. Tru-Sonic P-52HF-U. See Stephens address above.	Two-way system with 15 inch bass and separate high frequency driver multi-cellular, 20 watts, 40—16 000 cycles, in console floor cabinet.	190.00

*Meters*—see „VU meters”—also „Sound Level Meters”

*Microphones*

1. Shure 55, Shure Bros., Chicago Ill.,	Flat 40—10,000 cycles, dead at back; cardioid dynamic; three impedances.	40.00
2. Shure 556.	Same as Model 55 but with external vibration absorbing unit.	55.00
3. For talkback „nuke”, any good microphone will be satisfactory.		

*Mobile Units*—depends upon local needs and plans. The Sellhorn Trailer Company of East Lansing, Michigan assembled a unit for the Michigan Department of Health, and has information regarding cost and details.

*Noise Generator*

1. H. H. Scott 810-A, H. H. Scott, 385 Putnam Avenue, Cambridge 39, Mass.	„White” noise, less power supply	42.50
2. H. H. Scott 20-B Power Supply.	Power Supply for 810-A Noise Generator.	20.00
3. Elliott Noise Generator-Amplifier, Gilbert Elliott, 647 East 14th Street, New York 9, N. Y.	Combination „white” noise generator and high gain amplifier for additional use as desk hearing aid or phono amplifier. Special control allows use of noise over any specified 60 db range, e. g. 20—80 db or 40—100 db. Includes power supply. (See Figures 13 and 13a in text).	80.00

(continued on next page)

3

Item	Make, Model	Description (Given by manufacturers)	Approximate cost (for one)
<i>Noise Generator</i> (continued)		Pair of Permoflux headphones for above. Shure Bros., Microphono. for above.	\$ 35.00 25.00
<i>Phones—see „Headphones”</i>			
<i>Playback Equipment</i>			
<i>Cartridges, pickup</i>	<ol style="list-style-type: none"> <li>1. General Electric, General Electric, Syracuse, N. Y.</li> <li>2. Pickering S-120-M, Pickering &amp; Co., Inc., 309 Woods Avenue, Oceanside, N. Y.</li> <li>3. Pickering S-133-S.</li> <li>4. Pickering D-120-M.</li> <li>5. Audak (no information), Audak Co., Inc., 500 Fifth Avenue, New York 18, N. Y.</li> </ol>	<p>Variable reluctance type, can now be purchased with replaceable needles; requires preamplifier; either standard or microgroove.</p> <p>Requires pre-amplifier-equalizer; for standard records.</p> <p>Same, for micro-groove.</p> <p>Same, with diamond tip for long wear.</p>	<p>6.00</p> <p>10.00</p> <p>16.00</p> <p>25.00</p>
	<ol style="list-style-type: none"> <li>1. Livingston A-16, Livingston Electronic Corp., Livingston, N. J.</li> <li>2. Livingston Universal.</li> </ol>	<p>Adjustable needle pressure; takes all cartridges with standard 1/2" mounting centers, 16 inch.</p> <p>Same, but balanced for both standard and micro-groove recordings.</p>	<p>13.00</p> <p>15.00</p>
	<ol style="list-style-type: none"> <li>3. Audak.</li> </ol>		
<i>Transcription Turn-</i>			
<i>tables and consoles</i>	<ol style="list-style-type: none"> <li>1. Lafayette TP-16, Lafayette Co., 100 Sixth Avenue, New York, N. Y.</li> <li>2. Rek-O-Kut, Rek-O-Kut Co., Inc., 38-01 Queens Blvd., Long Island City, N. Y.</li> <li>3. Gates CB-7B, Gates Radio Co., Quincy, Ill.</li> <li>4. Gates CB-11.</li> </ol>	<p>16 inch, 78 &amp; 33 1/3 rpm; speed control disengages driver and idler in „off” position.</p> <p>15 1/2 inch; 78 &amp; 33 1/3 rpm.</p> <p>Turntable, floor console cabinet, preamplifier, Audak pickup arm and cartridge.</p> <p>Chassis in console cabinet without pickup.</p>	<p>80.00</p> <p>125.00</p> <p>400.00</p> <p>270.00</p>

*Projector, Motion Picture*

1. Bell & Howell	All models having reversing switch, sound and silent speed.	\$ 450.—600.
2. Ampro Premier 20	Reversing switch, sound and silent	540.00
3. R.C.A. Camden, N. J.		

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*Radio Tuner* — any good tuner would be acceptable.

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*Recordings, Spondees, PB 50's*

1. Central Institute for the Deaf, 818 South Kingshighway, St. Louis, Mo.	Recordings for speech hearing tests.	5.00
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*Recording Equipment*  
*Disc*

1. Presto, K-10 Presto Recording Corp., P. O. Box 500, Hackensack, N. J.	Portable, 12 inch, 78 & 33 $\frac{1}{2}$ rpm, includes micro-groove, 80—8,000 cycles, comes with speaker and playback arm.	350.00
2. Rek-O-Kut „Challenger” See address above.	Portable, 12 inch, 78 & 33 $\frac{1}{2}$ rpm, with speaker and playback.	330.00
3. Presto 6-N	Chassis only, 50—3,000 cycles	735.00
4. Presto 90-B amplifier for above with equalizer		550.00
5. R.C.A. Broadcast Division Camden, N. J.		
6. Fairchild Recording Equipment Corp., 154 Street & 7th Avenue, Whitestone, L. I., N. Y.		

*Tape*

1. Masco Tape Recorder Mark Simpson Mfg. Co., 32—28 49th Street, Long Island City 3, N. Y.	Records up to 60 minutes, to 9,000 cps.	125.00
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(continued on next page)

Item	Make, Model	Description (Given by manufacturers)	Approximate cost (for one)
	2. Wilcox-Gay Recordio SU12.	30-minute, about 100—5,000 cps, portable	\$ 230.00
	3. Brush Soundmirror Bk-414 Brush Development Co., 3405 Perkins Avenue, Cleveland 4, Ohio.	Same as Wilcox-Gay above.	230.00
	4. Twin-Trax, 810-B Amplifier Corp. of America.	Records up to 60 minutes, 50—9,000 cps.	290.00
	5. Magnecord PT6-JA Magnecord, Inc., 360 N. Michigan Ave., Chicago 1, Ill.	Basic recorder mechanism with record playback and 10 watt amplifier unit, can also be used as public address system; $\pm 2$ db from 50—15,000 cps.	499.50
<i>Sound Level Meters</i>			
	1. General Radio 759-B General Radio Co., 275 Mass. Avenue, Cambridge 39, Mass.	25—140 db, 3 weighting scales	300.00
	2. Scott 410-A H. H. Scott, Inc. Cambridge, Mass.	34—140 db, 3 weighting scales, is cylindrical in shape, weighs 2 $\frac{1}{2}$ lbs. and is easily carried.	250.00
<i>Speech Instruction Unit</i>			
	1. Microtone Speech Instruction Table, Microtone Co., Ford Parkway on the Mississippi, St. Paul, Minnesota.	(Also for group auditory training) Group hearing aid table on casters — can seat 12 patients. Phono and microphone inputs, individual volume control each headphone, storage space for phones and microphone, radio, master volume control, tone control, 2-speed turntable (78 & 33 $\frac{1}{3}$ rpm), linear or compression amplification (switch controlled). Prices include 2 microphones and ten pairs of headphones. With „standard” magnetic phones. With Permoflux phones.	900.00 1160.00

*Speech Instruction Unit*  
(continued)

Each additional pair of headphones with outlets and controls.	40.00
Loudspeaker with volume control.	39.50
Extra microphone.	25.00

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*Table Hearing Aids.*

1. Precision Hearing Aids, 850 West Oakdale Avenue, Chicago, Ill.	With single or double magnetic headphones.	40.00
	With receiver for ear insert.	50.00
	With Permoflux dynamic headphones.	65.00
2. Sonotone Professional Table Set, No. 50 Sonotone Co., Elmsford, N. Y.	With one headphone.	90.00
	With two headphones.	95.00
	Will also take ear insert.	
3. Precision Hearing Aids, AVC Model.	Features adjustable automatic volume control to limit output; with Permoflux headphones.	100.00
	Phonograph to plug directly into above unit.	25.00
	Extra Permoflux headphones with control boxes — each set.	50.00

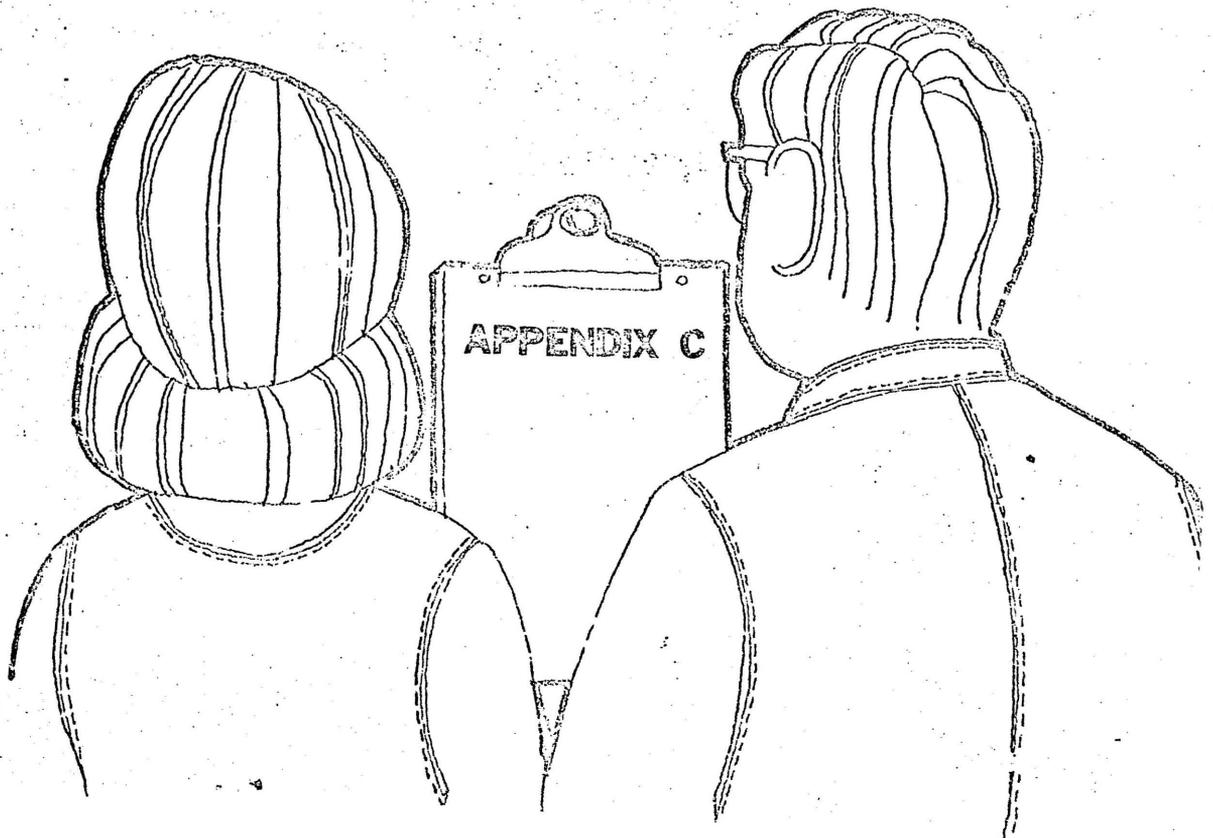
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*VU Meter*

1. Daven Company Newark, N. J.
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*White Noise Generator* — see „Noise Generator”

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**CARVER HEIGHTS****1**

Every 15 minutes  
5:50 A.M. till 9:20 A.M.  
& 2:50 P.M. till 6:20 P.M.

Daily except Saturdays From Town

Leave	after the hour	after the hour
Broadway & Ave. K	05 - 20 - 35 - 50	20 & 50
19th & Ave. A	10 - 25 - 40 - 55	25 & 55
28th & Juniper	15 - 30 - 45 - Hr	30 & Hr
33rd & Teak	20 - 35 - 50 - 05	35 & 05

Returning

Leave	after the hour	after the hour	First Bus
33rd & Teak	20 - 35 - 50 - 05	35 & 05	@ 5:50 A.M.
26th & Globe	25 - 40 - 55 - 10	40 & 10	Last Bus
19th & Ave. A	30 - 45 - Hr - 15	45 & 15	@ 6:45 P.M.
Broadway & Ave. K	35 - 50 - 05 - 20	50 & 20	@ 7:00 P.M.

Note: 6:05 & 6:35 A.M. not scheduled leaving Town - begin @19th & Ave. A  
Buses run every 30 minutes only SATURDAY AFTERNOON

**SATURDAYS**

Every 30 minutes  
9:20 A.M. till 2:50 P.M.  
9:20 A.M. till 6:50 P.M.

Daily except Saturdays  
From Town

**OAKWOOD****9**

Every 30 minutes  
7:05 A.M. till 9:05 A.M.  
& 3:05 P.M. till 5:35 P.M.  
NO SERVICE 9:05 A.M. till 3:05 P.M.

Daily except Saturdays  
From Town

Leaving	after the hour	First Bus
Broadway & Ave. K	05 & 35	@7:05 A.M.
19th & Ave. Q	10 & 40	
34th & Ave. T	15 & 45	
50th & Ave. Q	20 & 50	Last Bus
58th @Ribble PK	23 & 53	@6:35 P.M.

Returning

Leave	after the hour	First Bus
58th @Ribble PK	23 & 53	@7:23 A.M.
50th & Ave. U	26 & 56	Last Bus
32nd & Ave. S	31 & 01	@5:53 P.M.
19th & Ave. Q	35 & 05	
Broadway & Ave. K	40 & 10	

Saturdays

From Town 7:05 A.M. till 12:05 P.M.  
Returning 7:23 A.M. till 12:23 P.M.  
NO SERVICE after 12:05 P.M.

**EAST BROADWAY****2**

Every 30 minutes  
6:18 A.M. till 6:18 P.M.

From Town

Leave	After the hour	First Bus
Bdwy & Texas	18 & 48	6:18 A.M.
Bdwy & Ave. A	22 & 52	Last Bus
E. Bdwy & Vanda	26 & 56	6:18 P.M.
Auburn & Cherry	30 & Hr	

Returning

Auburn. & Cherry	Hr & 30	First Bus
E. Bdwy & Vanda	04 & 34	6:30 A.M.
Bdwy & Ave. A	08 & 38	Last Bus
Bdwy & Texas	13 & 43	6:30 P.M.

**8TH & ARNETT BENSON****8**

Every 30 minutes  
5:45 A.M. till 6:15 P.M.

Daily

Leave Corner of	Every 30 minutes	First Bus
Bdwy & Texas	15 & 45	5:43 A.M.
8th & Ave. M	20 & 50	Last Bus
Univrsity Hospital	24 & 54	6:13 P.M.
Gary & Erskine	31 & 01	

Returning

Gary & Erskine	31 & 01	First Bus
University Hospital	38 & 08	6:00 A.M.
8th & Ave. Q	44 & 14	Last Bus
Bdwy & Texas	48 & 18	6:30 P.M.

**TEXAS TECH \*\* SLIDE ROAD****3**

Every 30 minutes  
6:20 A.M. till 5:50 P.M.  
Daily except Saturdays

From Town

Leave	after the hour	First Bus
Broadway & Ave. K	20 & 50	@6:20 A.M.
Brcdwy & Ave. Q	24 & 54	
Texas Tech	28 & 58	
22nd & Gary	32 & 02	Last Bus
Methodist Hospital	35 & 05	@5:50 P.M.
34th & Orlando	40 & 10	
42nd & Slide Rd.	45 & 15	

Returning

Leave	after the hour	First Bus
42nd & Slide Rd.	45 & 15	@6:45 A.M.
34th & Orlando	50 & 20	
32nd & Memphis	54 & 24	
Methodist Hospital	57 & 27	Last Bus
Texas Tech	03 & 33	@6:15 P.M.
Broadway & Ave. Q	07 & 37	
Broadway & Ave. K	10 & 40	

Saturdays

From Town 6:20 A.M. till 12:20 P.M. only  
Returning 6:45 A.M. till 12:45 P.M. only  
NO SERVICE after 12:45 P.M.

**BOSTON MONTERRY****5**

Every 30 minutes  
6:35 A.M. till 6:05 P.M.

Daily except Saturdays

From Town

Leave	after the hour	First Bus
Broadway & Ave. K	05 & 35	@6:35 A.M.
19th & Ave. Q	10 & 40	
19th & Boston	15 & 45	
42nd & Boston	20 & 50	Last Bus
54th & Elgin	25 & 55	@6:05 P.M.
50th & Gary	27 & 57	

Returning

Leave	After the hour	First Bus
50th & Gary	27 & 57	@6:57 A.M.
47th & Indiana	31 & 01	
42nd & Boston	35 & 05	
19th & Boston	40 & 10	Last Bus
19th & Ave. Q	45 & 15	@6:25 P.M.
Broadway & Ave. K	50 & 20	

SATURDAYS

From Town 6:35 A.M. till 12:05 P.M. only  
Returning 6:57 A.M. till 12:57 P.M. only  
NO SERVICE after 12:05 P.M.

LUBBOCK TRANSIT CORP.  
TELEPHONE PO 2-0111

**THUNDERBIRD****10**

Every 30 minutes  
6:40 A.M. till 8:40 A.M.  
& 2:40 P.M. till 6:10 P.M.  
NO SERVICE 8:40 A.M. till 2:40 P.M.

Daily

From Town

Leaving	after the hour	First Bus
Broadway & Ave. K	10 & 40	@6:40 A.M.
Broadway & Date	15 & 45	Last Bus
Idalou Rd. & Vanda	20 & 50	@6:10 P.M.
Holly & E. 17th	23 & 53	

Returning

Leaving	after the hour	First Bus
Holly & E. 17th	23 & 53	@6:53 A.M.
Broadway & Zenith	27 & 57	Last Bus
Broadway & Date	31 & 01	@6:23 P.M.
Broadway & Ave. K	35 & 05	

**4TH STREET & HUB HOMES****7**

Every 30 Minutes  
6:40 A.M. till 6:10 P.M.  
Daily

From Town

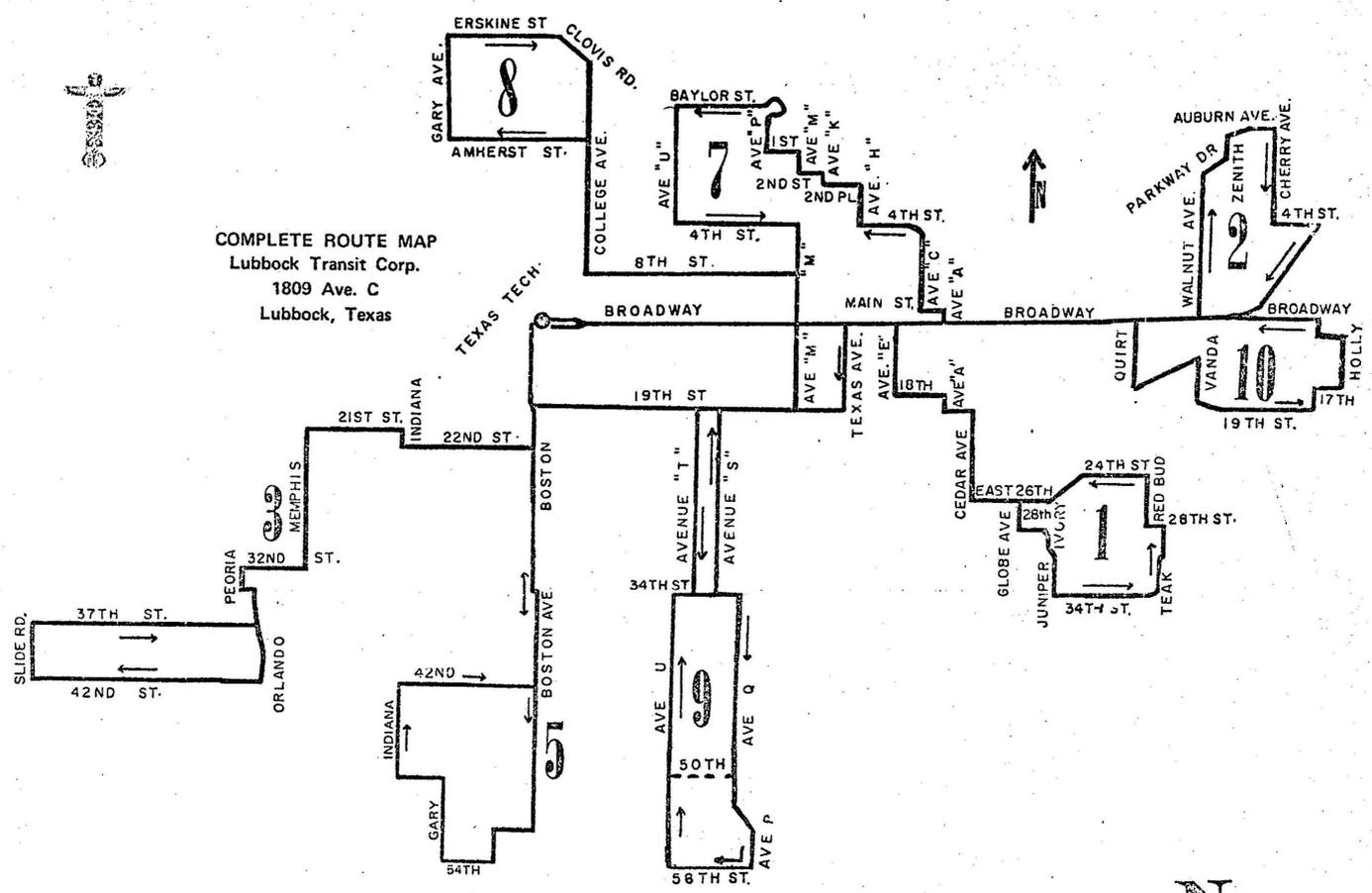
Leaving	after the hour	First Bus
Broadway & Ave. K	10 & 40	@6:40 A.M.
Main & Ave. C	15 & 45	Last Bus
2nd Place & Ave. K	20 & 50	@6:10 P.M.
Baylor & No. U	25 & 55	

Returning

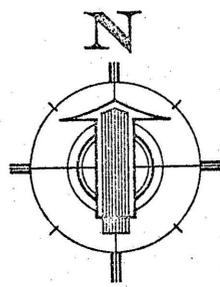
Leaving	after the hour	First Bus
Baylor & No. U	25 & 55	@6:55 A.M.
4th & Ave. M	30 & Hr	Last Bus
Broadway & Ave. K	35 & 05	@6:25 P.M.



COMPLETE ROUTE MAP  
Lubbock Transit Corp.  
1809 Ave. C  
Lubbock, Texas



- Route No. 1 - CARVER HEIGHTS
- Route No. 2 - EAST BROADWAY
- Route No. 3 - TEXAS-TECH-SLIDE ROAD
- Route No. 5 - BOSTON MONTERRY
- Route No. 7 - 4th - HUB HOMES
- Route No. 8 - 8th - ARNETT BENSON
- Route No. 9 - OAKWOOD
- Route No. 10 - THUNDERBIRD



PARTIAL LIST  
LUBBOCK, TEXAS HOTELS AND MOTELS

<u>Motel or Hotel</u>	<u>Total Units</u>	<u>1 Person</u>	<u>2 Persons</u>		<u>Restaurant</u>	<u>Pool</u>
			<u>1 Bed</u>	<u>2 Beds</u>		
Cabana Motel 2311 19th Street 747-3621	55	\$ 7.00	\$ 9.00	\$12.00	Yes	Yes
Country Inn 4105 19th Street 795-5271	50	\$ 8.00	\$11.00	\$13.00	Yes	Yes
El Tejas 1000 North Q Drive 763-9343		\$ 8.50	\$11.47	\$13.55		
Holiday Inn - South 101 Slaton Highway 747-2515	80	\$ 9.50	\$13.50	\$16.50	Yes	Yes
Holiday Inn - Parkway 2600 Parkway Drive 765-7401	82	\$ 9.50	\$13.50	\$16.50	Yes	Yes
Howard Johnson 6011 Avenue H 747-3371	76	\$11.75	\$14.00	\$17.00	Yes	Yes
In Town Inn Mair at Avenue K 762-0681	91	\$ 9.50	\$13.00	\$15.00	Yes	Yes
Johnson House Motel 4301 Avenue Q	60	\$ 8.00	\$10.00	\$12.00	Yes	Yes

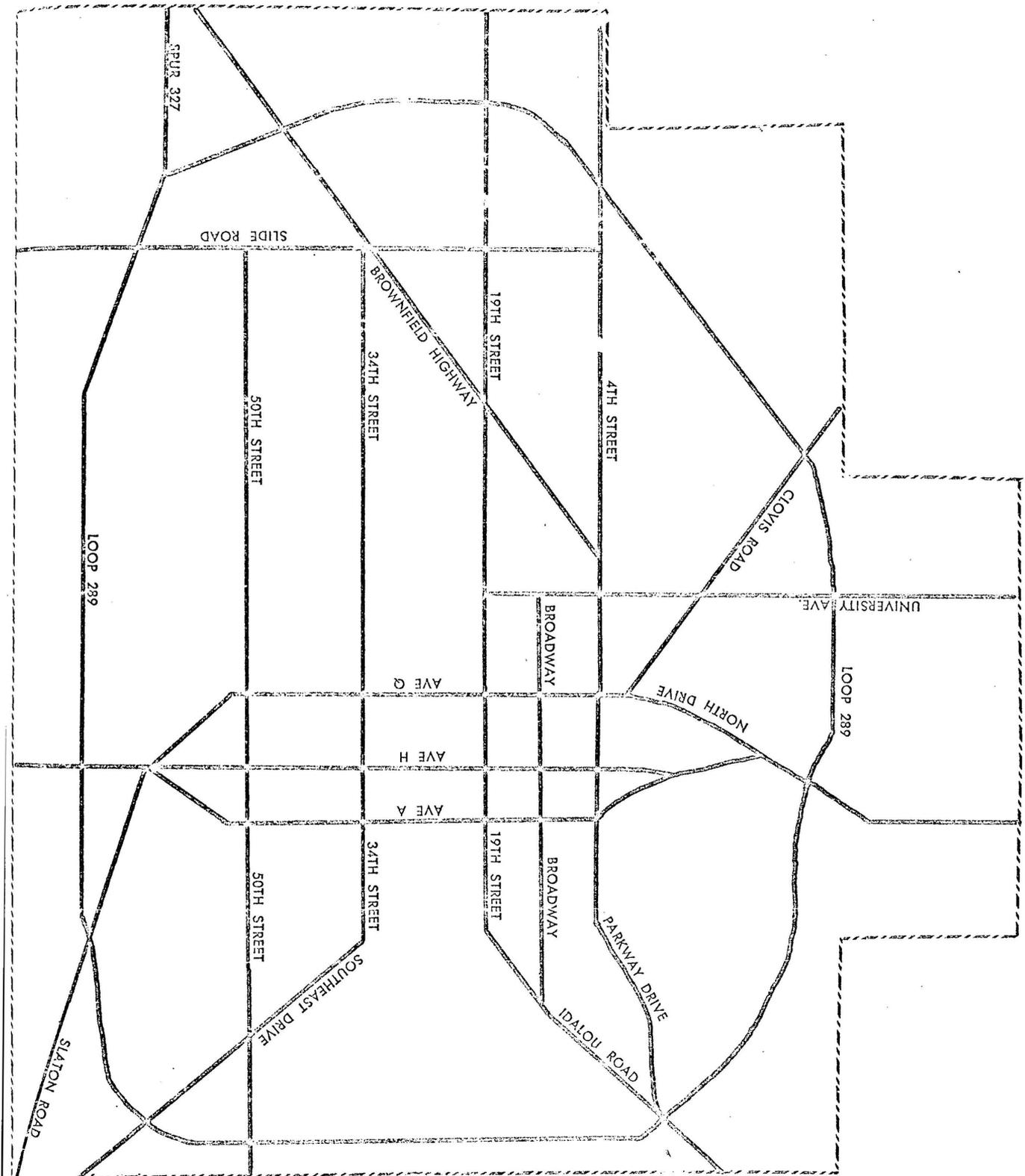
<u>Motel or Hotel</u>	<u>Total Units</u>	<u>1 Person</u>	<u>2 Persons</u>		<u>Restaurant</u>	<u>Pool</u>
			<u>1 Bed</u>	<u>2 Beds</u>		
Red Raider Inn 6025 Avenue A 747-5111	80	\$12.75	\$15.00	\$18.00	Yes	Yes
Rodeway Inn 4th Street & University 763-8081	98	\$11.00	\$13.00	\$15.00	Yes	Yes
Robby's Motor Hotel 1001 University Avenue 747-5281	44	\$10.00	\$12.50 (each unit has three beds)		Yes	Yes
Villa Inn 5601 Avenue Q 747-3525	120	\$10.00	\$12.00	\$16.00	Yes	Yes
Village Inn 4925 Brownfield Road 795-5281	58	\$ 9.00		\$12.00	Yes	Yes
Townhouse Inn 4405 Avenue Q 747-1677	59	\$ 8.00	\$10.00	\$12.00	Yes	Yes

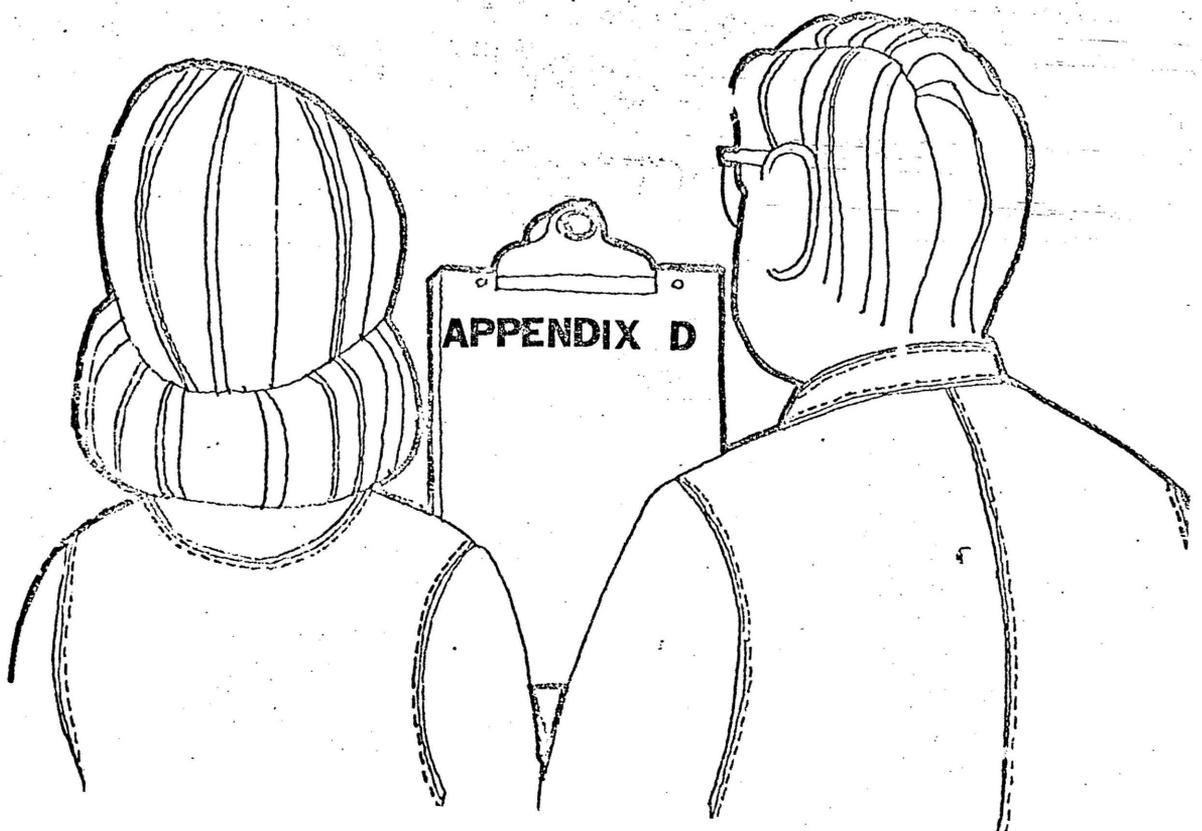
Rates shown may vary. Individual inquiries with hotel/motel are recommended.

Prepared by the Conventions Department  
Lubbock Chamber of Commerce

(July, 1970)

# MAJOR TRAFFIC ARTERIES IN LUBBOCK





DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
Social and Rehabilitation Service  
Rehabilitation Services Administration  
Washington, D. C. 20201

F E D E R A L   A S S I S T A N C E

T O

R E H A B I L I T A T I O N   F A C I L I T I E S

For a number of years the Rehabilitation Services Administration has been cooperating with the State vocational rehabilitation agencies in providing assistance to rehabilitation facilities. This document is designed to provide general information on all types of Federal assistance currently available to facilities and workshops through Rehabilitation Services Administration programs. It should be noted, however, that this is not intended as a substitute for copies of legislation, regulations, or policy issuances with respect to detailed language and interpretation. For further information and explanation relative to any of the grant programs here described, a prospective applicant should contact his State vocational rehabilitation agency.

PART I: REHABILITATION FACILITY PROVISIONS OF THE VOCATIONAL REHABILITATION ACT

The Vocational Rehabilitation Act provides for grant programs designed to increase the availability and improve the quality of rehabilitation facilities. The administration of the program is carried on through a cooperative effort involving the Rehabilitation Services Administration and the State vocational rehabilitation agencies.

The State agencies have a particularly important role in the administration of grants to rehabilitation facilities because the Act requires each State vocational rehabilitation agency to make an initial determination of the State's needs for rehabilitation facilities, and to provide for a continuing program for assessing the need for the establishment, construction, utilization, development, and improvement of rehabilitation facilities. All applications for grants to rehabilitation facilities must first be submitted to the appropriate State agency, which considers proposed projects in relation to the State plan and the established priorities.

Applications may be submitted by nonprofit rehabilitation facilities for the following types of grants:

Project Development Grants  
Section 12(g) (2)

Project Development Grants are available for the purpose of paying up to 90 percent of the cost of organized, identifiable activities attendant to the planning and development of specific local rehabilitation projects. Approvable costs may include salaries for planning staff, travel, consultants fees, preparation of the report, and such other costs as are set forth in the approved application. Any public or private nonprofit organization considering the construction of a new rehabilitation facility or an addition to an existing one is eligible to apply.

These grants are relatively modest, and are not intended for comprehensive, community-wide surveys, nor are they intended to finance architectural planning, except for simple schematics. The purpose of a Project Development Grant is to insure adequate program planning. Therefore, these grants will help the sponsor of a proposed project study such matters as need for the project, how it will relate to existing programs in the community, what type of staff and services will be needed, where the clients will come from, where the work will be obtained in the case of workshops, and other such concerns, all of which are vital to the success of a rehabilitation facility.

At the termination of the grant period (a maximum of twelve months), recipients of Project Development Grants will be required to submit a detailed report of their conclusions as to whether a new or expanded facility is needed, and if so, what kind of program would be recommended. They may then wish to submit an application for a Construction Grant.

Grants for Construction of Rehabilitation Facilities  
Section 12

Construction Grants are available to help pay part of approvable costs attendant to the development of existing rehabilitation facilities or the construction of new ones. Such approvable costs may include the following: acquisition of land; architects' fees; costs of construction contracts; acquisition, expansion, remodeling, alteration and renovation of existing buildings; and initial equipment for the completed project. Matching rates for Construction Grants are the same as Hill-Burton matching rates, varying from one-third to as much as two-thirds Federal funds, depending upon the particular State or locality in question.

In order to qualify for a Construction Grant an applicant must be able to provide evidence that the proposed project will meet a genuine need in the community, that it is well-planned and has a reasonable expectation of successful operation when established, that the applicant will comply with all applicable Federal and State wage and hour standards as well as with the relevant provisions of the Civil Rights Act, and that the applicant will be able to finance the non-Federal share of the cost of the project.

Initial Staffing Grants  
Section 12(f)

Newly developed rehabilitation facilities and those which have been enlarged enough to provide new or substantially increased services may be eligible for Initial Staff-

ing Grants. In reviewing applications, however, preference will be given to projects which were constructed under the provisions of Section 12 of this law. These grants may be used for the compensation (including salaries and fringe benefits) of professional and technical staff only.

The period of these grants may be up to four years and three months, with Federal participation not in excess of 75 percent for the first fifteen months. The maximum matching rate decreases for each of the subsequent one-year periods, from 60 percent to 45 percent to 30 percent for the final twelve-month period, at the end of which the applicant must be prepared to assume full financial responsibility for staff costs.

Rehabilitation Facility Improvement Grants  
Section 13(b)

Rehabilitation Facility Improvement Grants are available for paying a maximum of 90 percent of the cost of analyzing, increasing or improving those aspects of a rehabilitation facility's operations which affect its capa-

city to provide employment and services for the handicapped. Approvable projects may include technical consultation, employment of new professional and technical staff, staff development activities and purchase or rental of equipment. Grants will be awarded on a twelve-month basis, after which a new application must be submitted.

In order to qualify for this type of grant, a rehabilitation facility must have been in operation for at least twelve months, and must demonstrate a reasonable expectation that the grant will enable it to substantially improve its services to the handicapped and, in the case of workshops, to meet or make progress toward standards established by the National Policy and Performance Council.

Grants for Projects for Training Services in Rehabilitation Facilities  
Section 13(a)

Training Services Grants are available to State vocational rehabilitation agencies and other public or private nonprofit agencies to help provide clients with training in order to prepare them for gainful employ-

ment. The training services will be provided by designated facilities in cooperation with State vocational rehabilitation agencies.

Federal funds may pay up to 90 percent of the cost of training as well as a limited weekly training allowance for the trainee and his dependents. Such training allowances may not exceed \$25 per week plus \$10 for each dependent, with a maximum payment of \$65 weekly to any individual trainee. No individual may receive a training allowance for more than two years.

Technical Assistance to  
Rehabilitation Facilities  
Section 13(c)

Under another provision of the Act, existing rehabilitation facilities may apply for the services of technical experts and consultants in such areas as plant layout, contract procurement, wage standards, industrial engineering, systems accounting, production efficiency, work simplification, labor relations, quality control, and professional service administration.

Regional panels of experts are gradually being recruited by the Rehabilitation Services Administration and are paid entirely with Federal funds. A rehabilitation facility which receives technical consultation will be furnished with the recommendations of the consultant, and will be expected to report promptly concerning the consultation and again, six months later, concerning what has been done about the recommendations. This assistance is to be worked out in closest cooperation between the rehabilitation facility and the State rehabilitation agency.

Project Grants to Expand  
Vocational Rehabilitation  
Services

Section 4(a) (2) (A)

Expansion Grants are available to public and other nonprofit agencies to pay up to 90 percent of the cost of projects to expand vocational rehabilitation programs with the objective of increasing the number of handicapped persons vocationally rehab-

ilitated. Expansion projects may include, but are not limited to, such activities as the following: the application of new techniques and methods that have been demonstrated to be effective; expansion and extension of present vocational rehabilitation services in order to serve additional disabled people; the initiation of new vocational rehabilitation services or activities; the initiation or expansion of vocational rehabilitation programs for groups of disabled with special problems such as the disabled socially and culturally disadvantaged, disabled public offenders or disable public assistance recipients; the extension of vocational rehabilitation programs to areas of urban or rural poverty; and the employment of additional staff in rehabilitation facilities and other service programs.

Funds are not available under this Section of the Act for construction or substantial alteration of buildings, the purchase of land or buildings, research, staff training, or activities designed to improve administration. The grant period shall be one year, at the end of which the grantee may apply for a continuation grant. Federal financial participation in an expansion project is limited to a maximum of three years.

**PART II: ASSISTANCE TO REHABILITATION FACILITIES THROUGH FEDERAL GRANTS TO THE STATE VOCATIONAL REHABILITATION AGENCIES**

In addition to the direct grants to rehabilitation facilities and workshops provided by the 1965 and 1968 Amendments to the Vocational Rehabilitation Act which are described above, Federal funds granted to the State vocational rehabilitation agencies may also be used to assist other public or nonprofit agencies or organizations, including facilities, under the following two grant programs:

**Construction and Establishment of Rehabilitation Facilities**

**Section 2**

Under Section 2 of the Vocational Rehabilitation Act, grants of Federal funds are made to State vocational rehabilitation agencies for support of vocational rehabilitation services. If the State Plan so provides, grant funds may be used by the State vocational rehabilitation agency to construct and establish rehabilitation facilities operated by either public or private nonprofit agencies.

Construction may include costs of construction of new buildings; acquisition and expansion of existing buildings; architectural fees; acquisition of land; initial equipment of new, expanded or newly acquired buildings; and initial staffing.

Establishment may include expansion, remodeling or alteration of existing buildings, the necessary initial equipment, and initial staffing.

State matching funds for the construction or establishment of rehabilitation facilities may be derived from private funds earmarked for a particular establishment if such a project is in conformity with the State Plan and if the State agency determines that the proposed project would benefit the State's program of services to the handicapped.

**Grants to States for Innovation of Vocational Rehabilitation Services**

**Section 3**

Under Section 3, provision is made for grants to the State agencies for projects in two general categories: (1) those which provide for the development of new methods and techniques of vocational rehabilitation, and (2) those which are especially designed for groups of handicapped individuals having disabilities which are catastrophic or particularly severe.

A State vocational rehabilitation agency may develop an Innovation Project for the construction or establishment of a rehabilitation facility under either State or private nonprofit auspices, including initial equipment and staffing, if the facility is unique in the State. Establishment means the expansion, remodeling or alteration of an existing building.

As in the case of Section 2, an amendment to the Act makes it possible to derive State matching funds for construction or establishment of facilities

from private sources designated for particular rehabilitation facilities which are unique in the State.

### PART III: OTHER FEDERAL PROGRAMS AFFECTING FACILITIES

Other Federal legislation of importance to rehabilitation facilities includes the Medical Facilities Survey and Construction Act, the Mental Retardation Facilities and Community Mental Health Centers Construction Act, the Mental Retardation Planning Grant, and the Public Health Service Act. Charts showing the relationship of such legislation to facilities and workshops may be obtained from the State vocational rehabilitation agencies.

Federal assistance to facilities under the Medical Facilities Survey and Construction Act is available through a joint program involving both the Rehabilitation Services Administration and the Public Health Service. This program is described below:

#### The Hill-Burton Program

The Hill-Burton Program was initiated by the Public Health Service following the passage of the Hospital and Medical Facilities Survey and Construction Act in 1946. The original Act authorized grants to assist in constructing needed hospitals and public health centers. In 1954 the program was broadened to include diagnostic and treatment centers and rehabilitation facilities.

Federal funds are available for construction of new buildings, expansion, remodeling, alteration and replacement of existing structures, and initial equipment for such new or remodeled structures. The Federal share varies from State to State, ranging from one-third to two-thirds of the cost of construction and equipment.

Eligible applicants may accept a loan in lieu of a grant under the same requirements. Loans may be made for a maximum period of forty years at a low interest rate determined at the time a project is approved. Each project must be approved both by the Public Health Service and by the Rehabilitation Services Administration.

#### Application Procedure and Project Selection for Hill-Burton projects

Projects must be initially submitted to the State Hill-Burton agency, usually the State department of health, which will review them in relation to the provisions of a State plan for hospital and other health facilities. Approved projects will then be forwarded to the Public Health Service (and, in the case of rehabilitation facilities, also to the Rehabilitation Services Administration) for additional review and final approval.

Applicants considering the possibility of a project financed partly through Hill-Burton funds should also consult the State vocational rehabilitation agency, which will consider the various sources of funds available and will also be expected to comment and make recommendations to the Rehabilitation Services Administration.

**PART IV: APPLICATION PROCEDURE AND PROJECT SELECTION FOR REHABILITATION FACILITY PROJECTS**

Applicants interested in the possibility of a rehabilitation facility project should contact their State vocational rehabilitation agency for information concerning the availability of Federal funds within the State, the relationship of the proposed project to the State Plan and to establish priorities, standards which apply to such projects, and assistance in making application. The State agency will:

1. Advise as to the eligibility of the project for Federal assistance and the availability of Federal funds.
2. Help the applicant to determine which type of grant is best suited to his needs.
3. Determine and explain the relationship of the proposed project to the State Rehabilitation Facilities Plan.
4. Furnish application forms.
5. Give instructions on completing and submitting the application.
6. Explain the responsibilities of an applicant.
7. Provide information regarding all State and Federal requirements such as compliance with wage and hour laws, safety standards, civil rights legislation and other applicable legislation.

Each application must be initially submitted to the State vocational rehabilitation agency or agency for the blind, depending on the nature of the project. The law requires approval of the State agency for Project Development Grants, Construction Grants, Initial Staffing Grants and Expansion Grants. Detailed recommendations by the State agency are required for all other applications.

Applications approved by the State agency will be forwarded to the Rehabilitation Services Administration for final approval and funding. Applicants will be notified as soon as a final decision is reached.

