

ALASKA LEGISLATURE COMMITTEE FILES 1981-1982 8672

1528 SHESS SB 673 - SB 695

APPENDIX A

OBSERVATION -- SIGNS OF EYE TROUBLE

Observation of a pupil's behavior and appraisal of a pupil's achievement are exceedingly important as unusual behavior, poor school performance, and reduced rates of learning may indicate visual problems.

Signs and symptoms of visual problems:

1. Viewing Behavior

- a. Holds work too close or too far.
- b. Asks for special seating.
- c. Thrusts head forward to see distant objects.
- d. Holds body tense when reading or looking at distant objects.
- e. Frowns or squints when regarding or when trying to see distant objects.
- f. Attempts to brush away a blur.
- g. Rubs eye frequently.
- h. Blinks continually when reading.
- i. Tilts head.
- j. Covers or closes one eye.
- k. Exhibits poor muscle coordination.

2. Complaints

- a. Eyes are sensitive to light, photophobia.
- b. Eyes or lids burn or itch.
- c. Images appear blurred or doubled.
- d. Letters and lines run together.
- e. Words seem to jump.
- f. Frequent headaches associated with visual tasks.

3. Appearance

- a. Eyes water or appear bloodshot.
- b. Eyes that are not properly aligned are crossed or turned out.
- c. Eyes in constant motion, nystagmus.
- d. Eyes with pupils of different sizes and reaction to light and accommodation.

The above symptoms or signs constitute reasons for special vision screening.

APPENDIX D
VISION SCREENING REFERRAL

SCHOOL DISTRICT

To the parents of: _____ Date of Birth _____

School: _____ Date _____

As a result of a recent vision screening at school, we believe that your child should have a complete professional eye examination. Please give this form to your ophthalmologist/optometrist to complete and then return it to school. We urge you to give this your prompt attention.

Your child's performance on vision screening:

Snellen Test for Distance Vision

R eye _____; L eye _____; Both eyes _____

Cover/Uncover

Right eye OK _____ Deviation _____

Left eye OK _____ Deviation _____

Observation of symptoms and/or comments: _____

Signature of Tester

Signature of Duly Authorized
School Personnel

PROFESSIONAL EYE EXAMINATION

Note to the ophthalmologist/op. metrist:

The above child has not passed the vision screening. Please complete this form for parents to return to the school. Thank you

<u>Visual Acuity</u>	<u>Distance Vision</u>		<u>Near Vision</u>	
	without correction	with correction	without correction	with correction
Right Eye (O.D.)	_____	_____	_____	_____
Left Eye (O.S.)	_____	_____	_____	_____
Both Eyes (O.U.)	_____	_____	_____	_____

Field of Vision:

Diagnosis and Prognosis:

Treatment (if any):

When should glasses be worn:

Re-examination recommended:

Date of Examination

Signature of Eye Physician

A P P E N D I X E

PARENT NOTIFICATION REGARDING COLOR DEFICIENT TEST

SCHOOL DISTRICT

To the parents of: _____ Date of Birth _____

School: _____ Date _____

During a recent vision screening, results indicate that your child has some degree of color deficiency. Although this problem cannot be corrected, and usually does not affect how a person sees, it is important that the student and people close to the student are aware of this color deficiency.

The main reason for color deficiency testing is to alert the student and his/her parents about the color deficiency since in the future there may be implications in planning or preparing for certain jobs or careers.

Information regarding results of the color deficiency test will be recorded on his health record, and education record, to alert school personnel who work with, or counsel, your child.

If you have any questions regarding results of this screening, please feel free to contact the school nurse or to consult an eye specialist.

Additional remarks.

Health Screener: _____

School: _____

ARE DELETED, BUT PRIOR TO SUMMER VACATION.

ANNUAL VISION SCREENING REPORT

SCHOOL: _____ DISTRICT _____ SCREENER _____ DISCIPLINE _____
 ADDRESS: _____ CITY _____ AVERAGE ENROLLMENT _____

GRADE	NUMBER SCREENED	# of Failures on Each Test After Rescreening			TOTAL REFERRED	RECEIVED EVALUATION	SAW EYE SPECIALIST		REFERRALS NOT YET COMPLETED
		Visual Acuity	Cover/Uncover	Color			No Treatment	Received Treatment, Medication, Lenses	
Pre-K									
Sp. Ed.									
K									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
TOTAL									

APPENDIX F

-19-

Shaded Areas are recommended for annual screening.

APPENDIX G

GLOSSARY

Amblyopia - Dimness of vision without any apparent disease of the eye.

Amblyopia ex anopsia - Dimness of vision due to disuse of an eye with no apparent physical abnormality.

Astigmatism - Defective curvature of the refractive surfaces of the eye as a result of which light rays are not sharply focused on the retina for either nearness or distance.

Binocular Vision - Using the two eyes simultaneously to focus on the same object and to fuse the two images into a single image.

Candle Power - or "Foot Candle" - Unit of measurement of light intensity. One foot-candle equals the amount of light cast by a standard candle at a distance of one foot from the light.

Color Vision - The ability to discriminate colors. *Color deficiency* - The inability to discriminate between certain colors, usually red-green, seldom blue-yellow. Pseudo-isochromatic plates are used for testing for color deficiency.

Cover/Uncover Test - A test which discloses whether or not the two eyes function together as they should.

E Chart - Chart with only the letter E of specified sizes and in various positions printed in rows.

Eye Specialist - Ophthalmologist or optometrist

Field of Vision - The entire area which can be seen at one time without shifting the head or eyes.

Glare - A quality of light which causes discomfort in the eye; it may result from a direct light source within the field of vision or from a reflection of a light source not in the field of vision.

Hand Chart - Chart with a picture of a hand of specified sizes and in various positions in rows. Also referred to as Sjogern Hand test.

In Loco Parentis - In place of the parent without formal legal custody.

Ophthalmologist - A physician who has specialized in the diagnosis and treatment of vision defects and diseases of the eye. He may prescribe glasses, contact lenses, and other corrective measures and may perform surgery. He uses the initials M.D. after his name.

- Optician* - A maker and dealer in optical instruments who fills prescriptions for glasses by grinding lenses, fitting them into frames, and adjusting frames to the wearer.
- Optometrist* - A person who has done advanced study on vision, vision problems, and visual performance. He is licensed by law to examine eyes and vision and to prescribe and provide glasses, contact lenses, and orthoptic training. He uses the initials O.D. after his name.
- Phoria* - A latent tendency toward crossed eyes. "Phoria" is used with a prefix to determine the direction of such deviation (hyperphoria, up; esophoria, in; exophoria, out).
- Picture Chart* - Chart using symbols which conform to Snellen test sizes and are printed in rows.
- Pre-Schoolers* - Youngsters below kindergarten age. For screening purposes usually ages 2½, 3, and/or 4.
- Professional Vision Evaluation* - A complete examination of the visual system by an ophthalmologist or optometrist.
- Screeners* - A person trained and certified to administer vision screening to children in the school screening program.
- Snellen Letter Chart* - Chart with a number of letters of the alphabet of specified sizes printed in rows.
- Strabismus* - Failure of the two eyes to direct their gaze at the same object because of muscle imbalance; crossed-eyes or wall-eyes.
- Tropia* - A manifest or observable deviation of the eyes from normal position for binocular vision. "Tropia" is used with a prefix to denote a type of strabismus, as heterotropia, esotropia, exotropia.
- 20/20 Vision* - The ability to correctly perceive an object or letter of a designated size from a distance of 20 feet; normal visual acuity.
- Vision Screening* - A procedure for detecting possible abnormality of the visual system with referral for correction, treatment, or appropriate school placement. This identification of possible vision problems shall not be considered diagnostic.
- Visual Acuity* - Sharpness of central vision for detail, as in reading.
Central visual acuity - Ability of the eye to perceive the shape and form of objects in the direct line of vision.
- Visually Impaired Children (for purpose of special education)* - Those children who are defined as blind or partially sighted in the Alaska Department of Education Special Education Handbook.

RECOMMENDED

ALASKA
HEARING SCREENING STANDARDS

OCTOBER 1980

DEVELOPED BY THE VISION/HEARING SCREENING COMMITTEE
OF THE
GOVERNOR'S COUNCIL FOR THE HANDICAPPED AND GIFTED

TABLE OF CONTENTS

	PAGE
1.0 INTRODUCTION.....	1
2.0 SCREENING.....	2 - 3
3.0 REFERRALS.....	4 - 9
4.0 RECORDKEEPING, REPORTING AND FORMS.....	10 - 11
5.0 PERSONNEL AND TRAINING.....	12 - 13
6.0 MATERIALS AND EQUIPMENT.....	14 - 15

FORMS

APPENDIX

- A BEHAVIORAL OBSERVATION
- B HEARING SCREENING WORKSHEET
- C AUDIOLOGIC THRESHOLD FORM
- D AUDIOLOGICAL/MEDICAL REFERRAL FORM AND PARENT NOTIFICATION OF HIGH FREQUENCY LOSS FORM
- E ANNUAL SCREENING REPORT FORM
- F POSITION DESCRIPTIONS
 - A. Audiologist
 - B. Hearing Screening Aide (Proposed)
 - C. Other Health Care Personnel

1.0. INTRODUCTION

The State of Alaska is committed to the belief that each child has the right of an equal opportunity to a quality education. It has been shown that there is a relationship between a child's physical well-being and his or her readiness to learn. Since a good deal of learning is obtained by auditory means, hearing difficulties may adversely affect a child's school adjustment. High quality hearing screening programs identify those children who need diagnostic attention by a physician and/or an audiologist in order that their hearing loss is treated and/or corrected to the best possible status. Effective screening involves implementing uniform policies and methods by trained personnel using appropriate equipment; and adhering to well organized referral; follow-up; and reporting procedures. Programs of high quality can be established through the cooperative efforts of (1) school personnel, i.e., school nurses, educational audiologists, communicative disorders specialists, teachers, teacher aides; and (2) health personnel, i.e., public health audiologists, public health nurses, community health aides, and physicians.

Two things need to be emphasized in screening programs. The first is that screening procedures are not intended to be diagnostic. It is improper to conclude that persons who fail screening procedures have hearing loss. Screening selects the population that needs further, more refined evaluations. The audiological/medical process which follows screening provides the identification of hearing loss as well as diagnostic and habilitative information. Secondly, the educational and communication implications of hearing loss need to be balanced with the medical implications. "Too often the sole goal is referral of medical needs of those who fail screening procedures".

Objectives of a School Hearing Screening Program are;

1. To identify the children who may have hearing problems.
2. To inform parents of each child who fails the screening and subsequent threshold testing of the possibility of a problem and to recommend to the parents, when appropriate, that audiology and/or physician's examinations and care be sought for children with possible hearing deficits.
3. To pursue the matter until the appropriate evaluation and/or treatment is instituted.
4. To refer children who have a hearing deficit, (as identified by an audiologist or physician), for evaluation of the educational and communication implications of the hearing loss.
5. To inform the child's teacher of the hearing difficulty.
6. To maintain records of the status of children referred to insure that needed services are obtained whenever possible.
7. To maintain records of the overall screening program activities and complete and transmit as required annual reports of this activity at the close of each school year.

2.0 SCREENING

Screening audiometry involves testing in an abbreviated way, large numbers of pupils, resulting in the ready identification of those who have hearing sensitivity within normal limits and those tentatively identified as having hearing problems.

With respect to the number of professionals and paraprofessionals, equipment, time and financing available, an effective annual screening program should be initiated for the target populations described below:

2.1 POPULATIONS TO BE SCREENED

It is recommended that screening be provided for the following students on an annual basis.

2.1.1 Grades K, 1, 2, 3, 7, 11.

2.1.2 All Special Education students with conditions associated with a high prevalence of hearing loss.

2.1.3 New students.

2.1.4 Referrals from teachers and outside sources.

2.1.5 Preschool students.

Preschool children should be screened by technicians having special emphasis in this area or by school nurses, public health nurses, audiologists and communicative disorders specialists similarly trained. Supervision should be provided for screening by a fully qualified audiologist to insure valid results.

School districts are not required to screen preschoolers until school entry. Other agencies who are involved in screening children of this age should adhere to these standards.

2.1.6 Waivers

A child is exempt from screening or testing if a parent, guardian or person in loco parentis of the child presents a written statement or has given verbal notification to the administrator of the child's school that the parent does not wish the child to be screened.

2.2 TYPES OF SCREENING

2.2.1 Observations of Behavior

Certain behavior characteristics of the hearing impaired student may alert the teacher, parents or health personnel to possible hearing loss. A list of these observations is included in the Appendix.

2.2.2 PURE TONE SCREENING - LEVELS AND FREQUENCIES

Pure tone screening at 20 dB for 1000, 2000 and 4000 Hz is required. If no response is obtained at 4000 Hz the level may be increased to 25 dB. Specific procedures for pure tone screening are in the pamphlet "Audiometric Screening - Procedures and Forms" available through the Communicative Disorders Program, Division of Public Health and is included in the Appendix.

2.2.3 IMPEDANCE/IMMITANCE SCREENING**

Impedance screening for middle ear disorders is required for children from preschool to third grade inclusively and for Special Education students as indicated in 2.1.2. This procedure is also useful with populations that are not testable by other means. Determination of the need for this type of testing should be made at the local level jointly by medical, school and speech & hearing personnel. Whenever such screening is conducted the following precaution should be taken:**

- A. Medical referral criteria, channels and protocol should be established prior to the initiation of any screening. These should be made available in writing for all participating parties. Individuals doing the screening should be trained and supervised by a certified audiologist.
- B. Medical referral protocol should include provision for test/retest prior to referral (at an interval from 4 - 12 weeks) to guard against over referral of transitory problems. (When screening is done with impedance failure results should not be viewed as an obvious reason for immediate medical referral but often as cause for follow-up testing which may or may not result in medical referral or developmental evaluation at a later date.)
- C. Impedance screening programs for middle ear pathology may be phased in over a 3 year period to allow screening programs to obtain the necessary instrumentation, training and to develop referral procedures. The efficacy of impedance screening should be evaluated and reported annually for at least the first 3 years of its implementation.

2.4 KNOWN HEARING LOSS

Students with known hearing loss should receive threshold tests of hearing sensitivity annually or on a scheduled periodic basis as needed. A retest schedule for high frequency losses should be established in consultation with the supervising audiologist.

2.5 TEST ENVIRONMENT

It is recommended that space used for screening be made as quiet as possible to insure that high ambient noise does not invalidate screening results. If noise levels are excessive, screening should not be attempted but deferred until a more quiet time or place can be identified.

** See majority and minority report on this issue in Appendix C

3.0 REFERRALS

Referral procedures should be tailored to the specific locality in which the students reside. The referral for audiological, medical and rehabilitation should be initiated and monitored by the school district however, ultimate responsibility for follow through rests with the parents. It is important therefore to involve the parents in the process at the earliest possible time. A referral plan should be developed cooperatively with medical, audiological and educational entities in the area prior to the initiation of screening activities. This plan should be made available in written form so that all parties are familiar with the process and criteria for referral:

3.1 AUDIOLOGIC REFERRALS

3.1.1 Criteria for Audiologic Referral

Students should be referred for audiologic evaluation when any one of the following circumstances exist.

- 3.1.1.1 Puretone screening tests have been failed twice.
- 3.1.1.2 Impedance/Immittance screening indicates persistent negative middle ear pressure, a persistently non-compliant ear drum or a large canal volume.
- 3.1.1.3 The student has a known hearing loss and is in need of recheck.
- 3.1.1.4 An audiologic evaluation has been requested by a Child Study Team, a health services provider or parent.

3.1.2 Purpose of Audiologic Evaluation

An audiologic evaluation provides minimal hearing sensitivity results for those pupils who failed the screening tests. Specialized tests such as bone conduction, speech audiometry, site of lesion, hearing aid evaluation, etc. and materials appropriate to the diagnostic process should be employed by audiologists.

Among the reasons for complete audiologic evaluation are:

- 3.1.2.1 Case finding to prevent the growth of diseases and conditions that lead to hearing loss.
- 3.1.2.2 Identification of pupils with hearing defects.
- 3.1.2.3 Referral for medical examination and treatment to restore hearing when possible.
- 3.1.2.4 Definition of the type and extent of hearing loss.
- 3.1.2.5 Monitoring the status of individuals with known hearing loss.

3.1.2.6 Aid in planning habilitation and rehabilitation programs for those with chronic or permanent hearing losses.

3.1.3 Procedure for Audiologic Referrals

- 3.1.3.1 If the pupil still cannot pass the screening test after the second screening, an audiologic evaluation including at least air and bone conduction threshold tests should be accomplished within an additional 7 to 10 day period. All of these tests should be conducted by appropriately trained personnel. (See Section 5.1 and 5.2)
- 3.1.3.2 If the school district has the services of an audiologist referrals should be made directly to him/her after the second screening.
- 3.1.3.3 If no school audiologist is available, especially in rural areas, referrals should be made to the community health aide and public health nurse or school nurse who will in turn refer to the Communicative Disorders Program when appropriate.

This model is the preferred procedure to be followed. However, the program which will best serve the pupils in a specific area with the available qualified personnel, both professional and paraprofessional, should be utilized.

3.2 MEDICAL REFERRAL

A medical referral and management protocol should be established and made available in written form prior to the initiation of any screening efforts. The exact referral system employed will depend upon the availability of physicians, nurses, audiologists, physician's assistants etc. The procedure shall follow the same basic format as is depicted on Page 7 however, personnel will vary according to region.

Cases needing prompt medical attention may be so referred without prior audiological evaluation by school or public health nurses as the need indicates.

3.3 REFERRAL FOR EDUCATIONAL PLACEMENT

A child with a hearing impairment may be eligible for special education placement in accordance with the eligible guidelines in the current Alaska Special Education Handbook.

Every child who has been identified as hearing impaired (2 frequency pure tone loss of 20 dBHL or more for the speech range) must be considered to be a possible candidate for educational programs for the hearing impaired. The immediate responsibility of the school system will then be to determine whether educational assessment of each child should take place. A standard district preassessment procedure should be followed. The decision concerning referral for educational assessment should be made in conjunction with the parents and the classroom teacher, on the basis of audiological information and a review of the child's school performance.

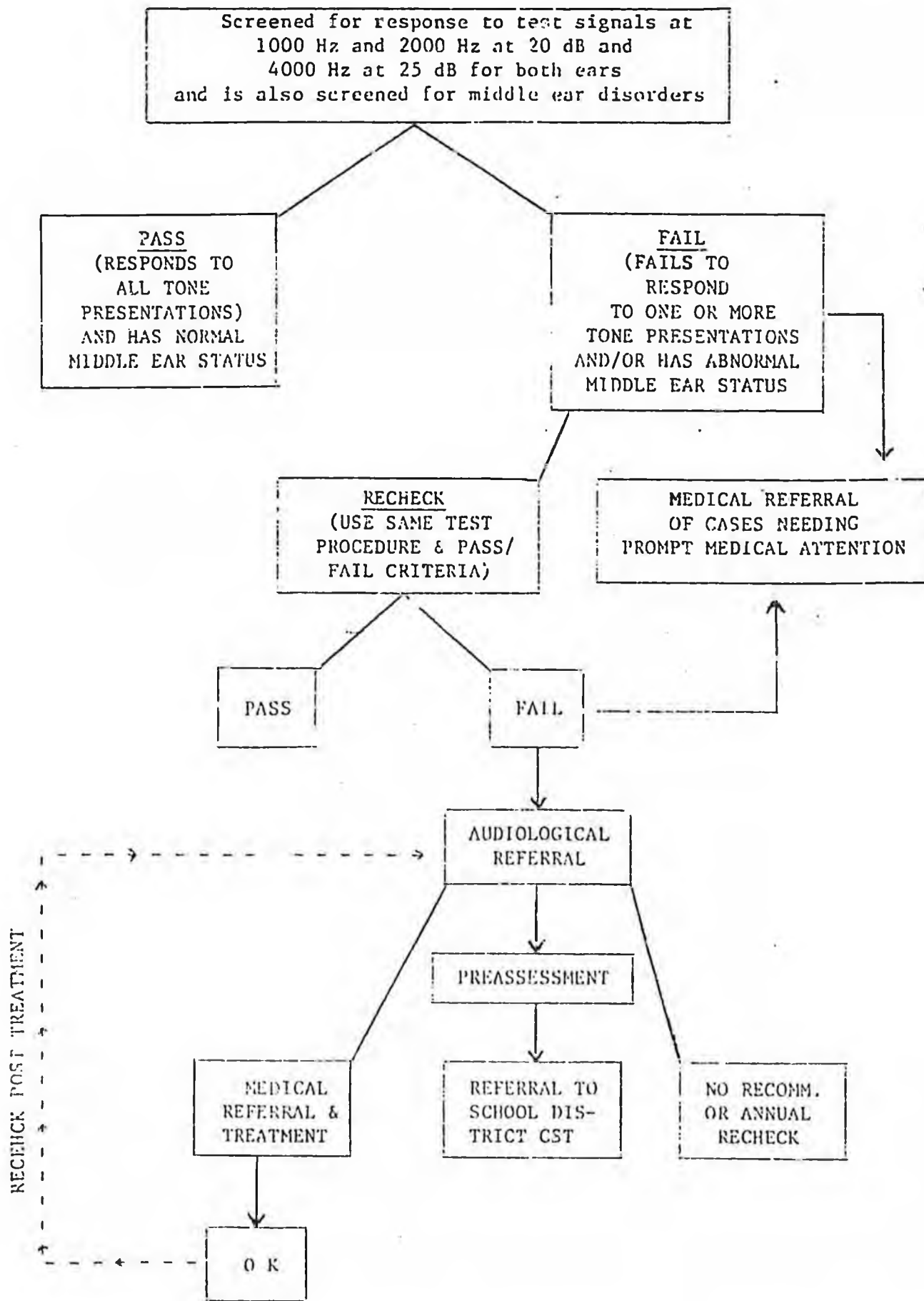
If the preassessment process indicates that an educational assessment is advised, the student should be next referred to Special Education for Child Study Team evaluation. With the parents' permission, assessment of the child's educational needs may then take place. This can best be accomplished through the services of an educational assessment team made up of qualified professionals employed by the school system as is required by regulation. It should be emphasized that not all children defined as hearing impaired, above, will require complete educational assessment. Since the impact of mild hearing loss on educational performance has only recently become of interest to researchers, it is not possible to suggest the proportion of these children who will need special education services. The figure may be quite low. However, given the consequences of ignoring significant loss, all children at that hearing level and below should have the benefit of preassessment review.

It is important that the audiologist be actively involved in all phases of the educational assessment. This involvement should include the provision of support and consultation to other team members regarding appropriate methods for testing hearing-impaired children, and interpretation of test results.

The needs of some hearing-impaired children can be expected to be more extensive and more complex than those of other hearing-impaired children; however, there is a minimum amount of information which should be collected from and about all children who have been identified as being in need of educational assessment. Therefore, the first task of the Child Study Team should be to collect the baseline information which will enable the team members to answer the following questions:

1. What, if any, support services should be provided for this child?
2. What, if any, changes in educational programming should be made for this child?

PURE TONE SCREENING FLOW CHART AND REFERRAL CRITERIA *



* See pamphlet "Audiometric Screening-Procedures and Forms" available through the Communicative Disorders Program, Division of Public Health for specific procedures.

4.0 RECORDKEEPING, REPORTING AND FORMS

A vital component of the hearing screening program is the recordkeeping and reporting process. The individual in each district who has been designated to coordinate hearing screening activities should also be responsible for recordkeeping and reporting as is stipulated below.

4.1 Confidentiality

Individual screening and testing records shall be confidential as required by district policy. The records shall be available to health agencies to assist in obtaining proper and necessary health and educational care.

4.2 The following forms should be used in the manner recommended below when conducting the hearing screening program.

4.2.1 Reporting observations

At the outset of each school year the information sheet Behavioral Characteristics of Hearing Impaired Children and the Student Observation Form should be distributed to each school in the district. The first sheet is meant to inform teachers of the types of behavior exhibited in the classroom which might indicate a hearing disorder. The second form comes in duplicate and is used for referring those students to the individual responsible for screening. A second copy is to be kept by the teacher for her records. Samples of these forms are in Appendix A.

4.2.2 Recording daily screening activities

The form Hearing Screening Worksheet should be used by the screener to record the daily screening activities. This form comes in duplicate, one to be retained in the screener's file and one to be sent to the individual who will be doing the audiologic follow-up on screening failures. Data from these forms will be used in the Annual Hearing Screening Report submitted at the end of each school year. A sample of the Hearing Screening Worksheet is in Appendix B.

4.2.3 Recording hearing threshold test results

The audiogram currently being used by the Communicative Disorders Program, Department of Health & Social Services is recommended for recording threshold hearing acuity. This form comes in 5 copies. Use of this form and its distribution is detailed on the back of the fifth copy. A sample form is in Appendix C.

4.2.4 Parent Notification of Needed Audiological or Medical Referral

When as a result of threshold testing and/or nursing evaluation it is determined that a complete audiological or medical evaluation is needed the parents should be notified by mail, telephone or by parent conference. Use of the "Recommendations of Audiological Evaluation" form or "Recommendation of Medical Evaluation" form is recommended in urban areas. These letters inform the parent of the reason for the referral and have a "tear off" portion with which the audiologist or doctor can report findings back to the school. The form is in duplicate, one copy to be kept by the referring party. In rural areas notifications will be most effective through parent conference. See form samples in Appendix D.

4.2.4.1 High frequency loss

When high frequency hearing loss has been detected by the audiological evaluation (not by screening alone) and the extent of loss is such that it presents no significant problem with regard to classroom communication the parents must be notified through parent conference or by sending the form Parent Notification of High Frequency Hearing Loss. A sample of this form is in Appendix D.

4.2.5 Exam Results and Recommendations

When the results of medical and/or audiological evaluations are returned to the coordinator of hearing screening, these results should become part of the individual's school health record and certainly should be considered if a child study team is reviewing the child's educational status. Findings should be brought to the attention of the teacher for application in the classroom when necessary.

4.2.6 School Health Records

School health records will exist in varying form from district to district. Entry should be made in the health record whenever the child has failed screening and rescreening tests. The subsequent referral for medical and/or audiological evaluation should be traceable in the record.

4.2.7 Annual Report

During April or May of each year an annual report of hearing screening activities must be completed using the screeners copy of the Screening Worksheet, Parents Referral Form, Parents Notification of High Frequency Hearing Loss, the audiological tests and medical evaluation as sources of input. A sample of the Annual Hearing Screening Report is included in Appendix E. A copy of this report should also be sent to the Central Office of

Communicative Disorders Program
3401 East 42nd Avenue
Anchorage, Alaska 99504

5.0 PERSONNEL AND TRAINING

5.1 PERSONNEL

State: Coordination and administration of hearing screening at a state level should be the responsibility of the Communicative Disorders Program, Department of Health & Social Services. The Communicative Disorders Program shall develop and conduct training programs, monitor compliance to standards, coordinate screening services performed by various agencies in the state, keep all state records and reports regarding hearing screening, and disseminate information about hearing screening.

Local: The implementation of hearing screening should be the responsibility of superintendent of the school district. The superintendent should designate the management or direction of the hearing screening program to a local health care provider such as a school nurse or public health nurse. This individual should be certified in hearing screening by the Communicative Disorders Program to assure that districts' standards and procedures for follow-up activities are known and followed.

Alaska school districts may employ or contract personnel for this purpose. The screening needs of some districts may be best served by establishing an agreement with the appropriate local public health nurse's office or a regional health agency. The supervisory consultative and clinical audiology services may be provided by the Communicative Disorders Program or on private contract. In managing the hearing screening program the local health care provider should perform the following duties:

- a) Arrange a screening schedule and notify all involved.
- b) Administer screenings and rescreenings.
- c) Notify parents of referrals.
- d) Follow-up on referrals.
- e) Complete recordkeeping and reporting.

The local health care provider may arrange for approved training for other individuals such as teachers, aides, volunteers (to be known as screeners) to administer the hearing screenings and rescreenings. School districts should make an effort to employ reasonable permanent screeners; persons who understand that they carry screening responsibility over a period of time and thereby have an opportunity to accumulate knowledge and develop necessary skills.

5.2 *Proposed Training and Certification of Screening Aides

It is recommended that the Alaska Communicative Disorders Program develop the curriculum for a training program for hearing screening aides and that this program also establish certification and recertification procedures for such personnel. Including the use of a competency based test. A minimum of 15 hours of training, including practicum is suggested for new screening team members.

A minimum of seven hours refresher training should be provided by or under the direction of an audiologist. Training procedures for hearing screening should be designed to provide personnel with basic knowledge of hearing and its effect on learning and communication, and with technical skills adequate to perform the screening task properly. Training should ensure that screening personnel develop competencies in:

1. Operation of the screening equipment.
2. Identification of improperly functioning equipment.
3. Instruction-giving.
4. Conditioning techniques.
5. Eliminating inappropriate cues.
6. Proper earphone placement.
7. Evaluating the reliability of responses.
8. Making pass/fail judgements.
9. Identifying the difficult-to-test child.
10. Follow-up procedures.
11. Accurate recording of data.

Additionally, training should include a competency based evaluation of the knowledge and skills acquired by the screening staff to ensure that staff members meet minimum competencies. Reevaluation should be done annually.

6.0 MATERIALS AND EQUIPMENT

Each local education agency should provide and make available for its hearing conservation program the following necessary equipment and materials:

6.1 Pure Tone Audiometers

The audiometric instrumental array shall be capable of performing at least the following procedures: hearing screening, pure tone air conduction threshold tests, bone conduction threshold tests and contralateral masking. It is recommended that effective masking procedure be utilized. All instruments should be calibrated to ANSI 1969 Standards.

6.2 Impedance Audiometers

Instruments for acoustic impedance/admittance screening shall have as a minimum the capability for tympanometry. Manufacturers specifications for equipment selected for use shall meet the recommendations for air pump system, air pressure range, probe tone frequency, frequency level or acoustic reflex eliciting tone. All instruments selected for use within the program will have the same measurement units. Desirable additional features are 1) the ability to test acoustic reflex and 2) pure tone threshold and screening capability.

6.3 Calibration

Audiometers shall be calibrated to current ANSI specifications initially, (ANSI-S3, 6-1969), and recalibrated as needed, at least annually. Daily listening checks shall be performed to determine that audiometers are grossly in calibration and that no defects exist in major components. First level calibration may be provided by the Communicative Disorders Program, Department of Health & Social Services. Contact this program for further information.

6.4 Equipment Costs and Vendors

Pure Tone Audiometers

<u>BRAND</u>	<u>MDL</u>	<u>CAPABILITIES</u>	<u>PRICE</u>	<u>FOB</u>	<u>VENDOR</u>
BLTONE	110	air, bone, narrow bnd masking, (plus case)*	875	CHGO	CORVEK*
MAICO	MA20	air, bone, white noise masking	690	DNVR	TRACOU** STICS
AUDTONE	AUIS	air, bone, white noise masking	585	DNVR	"

APPENDIX A

FINDING THE HARD-OF-HEARING CHILD

For Teachers & Nurses

1. OBSERVABLE BEHAVIORS

- (a) Continual inattention and lack of interest in general conversation, retardation or poor grades.
- (b) Failure to respond when called upon.
- (c) Getting directions wrong or not at all.
- (d) Constant mistakes in carrying out directions and in answering questions.
- (e) Repeatedly asking "What did you say?"
- (f) Bewildered expression when directions are being given to class.
- (g) Habitual turning of head to bring "best" ear nearer the speaker.
- (h) Speech symptoms - letter substitutions or omissions, poor voice quality.
- (i) Undue restlessness and evidence of strained nerves; weary and exhausted before day is half over.
- (j) Draws away from the group and shows a tendency to play alone or to become morose and resentful, avoids people.

2. MEDICAL HISTORY OF:

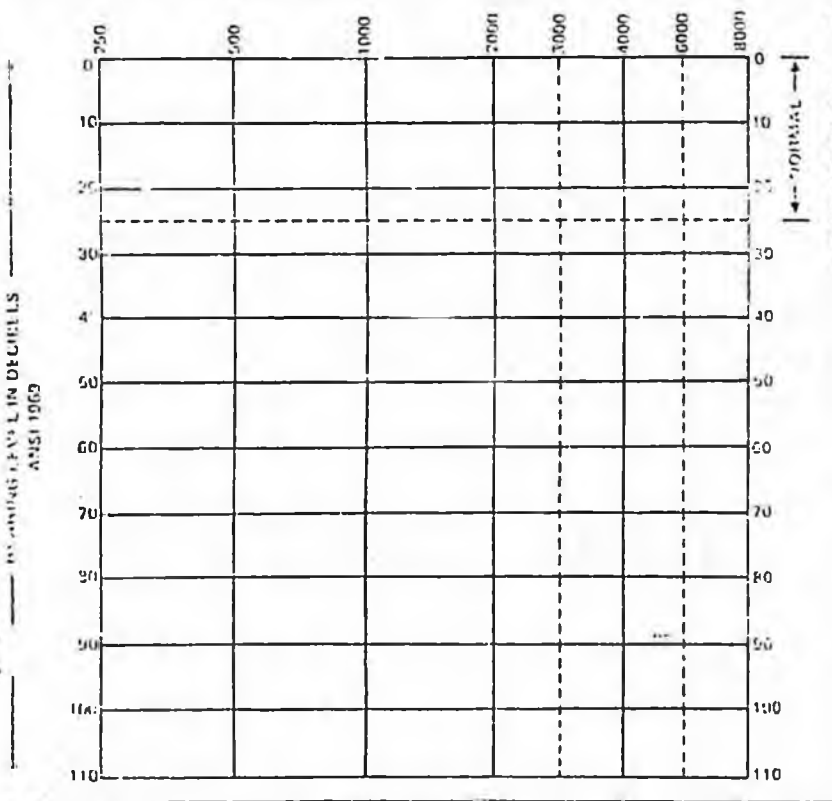
- (a) Ear disease, pain, discharge, operation, medical treatment.
- (b) Noises in the ear, such as roaring or buzzing.
- (c) Disease such as: meningitis, scarlet fever, measles, frequent or severe colds, or chronic mouth-breathers.

NOTE: Any cases in these categories should be reported to the school nurse for the annual hearing test.

APPENDIX B

APPENDIX C

	13	4	5	6	8-13
	O6C	DELETE/ADD/CO	REGION	COMMUNITY	CLIENT NUMBER
NAME (LAST, FIRST, MIDDLE INITIAL)		14-17 Community of Residence/Parent's Name/Phone Number			
SEX 1 M 2 F 3 S (Other)	29 1 WHITE 2 ALASKAN INDIAN 3 (ESKIMO)	4 ALEUT 5 MIXED NATIVE 6 BLACK	7 OTHER 8. NOT STATED	REFERRAL SOURCE	D.O.B. Mo. / Day / Year
COMMUNITY OF SCHOOL	CODE	GRADE	TESTER	DISCIPLINE 1 SPEECH & HEARING AIDE 2 AUDIOLOGIST 3 PHN 4 OTHER	TESTING SITE 1. FIELD 2 SOUNDPROOF ROOM
DATE OF AUDIOGRAM Mo. / Day / Yr.	TEST VALIDITY 1 GOOD 2 FAIR 3 POOR		RELEASE OF INFORMATION OBTAINED 1 YES 2 NO		
SPEECH AUDIOMETRY					
		SRT		PB	
		MCL		TOL.	
		STENGER			
Right	Mask	Mask	SL		
Left					
SE					
		AUDIOPHON KEY		RED	
		BLUE		NO RESPONSE	
Air Conduction		R L		R L	
Bone Conduction		C - C] -]		C]	
I authorize the release of the results of this evaluation concerning the above person to the agencies circled below and the use of this information in the State Department of Health and Social Services records.					
Date _____ Signature _____					
		RELEASE INFORMATION TO		AUDIOLOGIC RECOMMENDATIONS	
A. Community Health Aide		B. Public Health Nurse		C. Speech Eval	
D. Educational Assessment		E. Rehab. Counseling		F. Preferential Seating	
G. Developmental Eval		H. Special Tests		I. Repeat Audio	
F. ANSIC - ENT		G. Com. Dis. Program/ Soc. Family Health		H. Div. of Voc. Rehab.	
I. Other _____					
		MEDICAL REFERRAL TO (Circle no more than three letters.)			
		A. Community Health Aide		B. Public Health Nurse	
		C. Service Unit Hospital		D. ENT - IHS	
		E. Private M.D.		F. Private ENT	
		OTHER REFERRAL TO: (Circle up to 14 referrals.)			
		A. Handicapped Childrens Program		B. Office of Vocational Rehabil.	
		C. Child Development Services		D. Veterans Administration	
		E. Medicaid		F. E P S D T	
		G. AK State Deaf Program		H. Infant Stim Program	
		I. AK Treatment Center		J. ACCA	
		K. Head Start		L. School	
		M. Service Club		N. Communicative Disorders Prog.	
		PRE OP - POST OP EVALUATIONS (Circle only one number per ear.)			
		106/107			
		R L			
		1. 1. Pre Op < 1 week prior			
		2. 2. Post Op < 1 year			
		3. 3. Post Op 1 to 3 years			
		4. 4. Post Op > 3 Years			



MASKING LEVELS					
A/C					
B/C					

FOR AUDIOLOGIST USE ONLY					
EAR	TYPE	LEVEL	MISC	HEARING AID	IMPEDANCE
R	CMSFI	NBLMSP	EBGA	GPF	
L	CMSFI	NBLMSP	EBGA	GPF	

RELEVANT HISTORY & COMMENTS

APPENDIX D

School District _____

(FORM FOR URBAN USE ONLY)

As a result of hearing screening tests at school we believe your child should have:

a complete hearing examination by an audiologist

a medical examination

Please give this form to the person who examines your child to complete and have them return it to school.

AUDIOLOGY EXAMINATION
(Fill in form or attach copy of audiogram)

		HEARING LEVELS						IMPEDANCE/IMMITTANCE		
		250	500	1000	2000	4000	8000	EAR	TYPE	REFLEX
R	air	/						R		
	bone									
L	air	/						L		
	bone									

FINDINGS: Right _____ Left _____

- RECOMMENDATIONS: (Circle letter)
- | | | |
|---------------------|----------------------|-----------------|
| A. Noise protection | E. Rehab. Counseling | I. Repeat audio |
| B. Hearing aid eval | F. Preferntl seating | Date _____ |
| C. Speech eval | G. Developatl eval | J. Other _____ |
| D. Educ. assessment | H. Special tests | _____ |

Audiologist _____
Address _____
Date _____

RETURN TO:

PHYSICIANS EXAMINATION

EARS

Canals	Right _____	T.M. & Middle Ear	Right _____
	Left _____		Left _____

NOSE

THROAT

Examiner _____
Address _____
Date _____

RETURN TO:

PARENT NOTIFICATION OF HIGH FREQUENCY HEARING LOSS

SCHOOL DISTRICT

To the parents of: _____ Date of Birth _____

School: _____ Date _____

Your child appears to have some degree of high tone hearing loss in _____ ear(s). This type of hearing loss is commonly caused by noise. Some of these loud sounds are gunshots, loud mechanical noises such as; aircraft, snow machines, high volume rock music, etc. Continued exposure to loud noises can further decrease hearing ability.

Ears may be protected from some of these loud sounds by using ear plugs or wearing ear muffs. You may wish to discuss this problem and the use of hearing protection devices with the school nurse or Public Health Nurse.

We would recommend that your child have a hearing test each year to insure that there has been no change in hearing. This may be done at the school by the school nurse.

Health Screener: _____

School: _____

APPENDIX E

PLEASE SUBMIT AFTER REFERRALS
ARE COMPLETED, BUT PRIOR TO
SUMMER VACATION

CENTRAL OFFICE
3401 East 42nd Avenue
Anchorage, Alaska 99504

ANNUAL HEARING SCREENING REPORT

SCHOOL _____ DISTRICT _____ TESTER _____ DISCIPLINE _____
ADDRESS _____ CITY _____ AVERAGE ENROLLMENT _____

GRADE	Number Screened		#of Failures on Each Test After Screening		Totl Refrd For Med. Evaluation	Received Medical Evaluation	Medical Ref. Not Completed	Total Refrd for Audiology	Received Audiology Evaluation	Audiology Ref. Not Yet Completed
	Pure Tone	Impedance	Pure Tone	Impedance						
PreSch										
Sp. Ed.										
K										
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
TOTAL										

Please use reverse side for comments about any phase of your hearing program. They are always welcome.
Shaded areas are recommended for annual screening.

APPENDIX

APPENDIX F

The following are position descriptions of principal parties who should be involved in the establishment and management of a hearing conservation program including screening efforts. It should be noted that the position of hearing screening aide is not an existing entity at the time of this writing but is proposed by the Vision-Hearing Screening Committee of the Governor's Council for the Handicapped and Gifted. The hearing screening aide position may also assume responsibility for vision screening in the schools thus becoming a Vision-Hearing Screening Aide.

A goal recommended by that committee was that within a five year period that screening aides be providing uniform screening coverage in schools in all areas of Alaska. The accomplishment of this goal will be dependent upon administrative action and fiscal resources.

A. Audiologist

The audiologist shall supervise screening programs, provide diagnostic evaluation of pupils having hearing impairments, and participate in planning and providing special education and/or rehabilitation programs and services for them. In order to perform these duties effectively the audiologist must:

- Observe the policies and procedures established by these guidelines including use of standard forms and reporting procedures.

- Possess knowledge in the normal development of language and speech and the nature and causes of hearing impairments.

- Possess a mastery of diagnostic skills, procedures, techniques, and instrumentation in order to assess and analyze the nature and severity of hearing impairments.

- Possess an understanding and mastery of management techniques in providing services and supervising paraprofessionals.

- Be effective in working in an interdisciplinary approach.

It is required that the audiologist possess a Certificate of Clinical Competence in Audiology or its equivalent.

B. Hearing Screening Aide (Proposed)

A hearing screening aide shall provide hearing screening and other specific activities as assigned by a supervising audiologist. The major function of the hearing screening aide is to conduct pure tone air conduction screening and impedance screening assessments. The hearing screening aide may also provide pure tone threshold evaluations if done under the supervision of an audiologist. It should be noted that a hearing screening aide shall not interpret test findings or counsel clients regarding the implications of any hearing loss identified except as directed to do so by the supervising audiologist.

It is recommended that the hearing screening aide be certified by the Division of Public Health as having completed the training course required by the Department of Health & Social Services. This certification should be renewed every three years.

The primary duties of the hearing screening aide shall be:

To administer individual hearing screening assessments to pupils in assigned schools.

Under the supervision of an audiologist, to assist in administering pure tone air conduction threshold assessments to all pupils who do not pass the screening tests.

Refer any questions from a teacher, nurse, parent, or administrator pertaining to specific hearing results to the supervising audiologist.

Assume the responsibility for records and reports as locally determined and in compliance with the guidelines presented in Section 4.

When appropriate, to discuss with the supervising audiologist the testing situation (noise encountered, disturbances, etc.) and test procedures (frequencies involved, hearing level, etc.) for a pupil. Diagnostic and prognostic interpretations are the responsibility of the supervising audiologist.

To perform only the duties of a hearing screening aide as outlined by these instructions and such other duties not in conflict with these standards as may be established by the local school district.

C. Other Health Care Personnel

Physicians Assistants, Speech Pathologists, Nurses, and Nurse Practitioners who have completed the necessary training requirements and adhere to the guidelines presented in this document may also provide hearing testing services in the schools to aid in their primary management of the hearing impaired. Services provided in areas of primary care other than hearing testing should be in compliance with the standards for these positions.

APPENDIX G

Majority Opinions:

We favor impedance screening because:

1. It is the most reliable way to identify children with otitis media and monitor this condition to see if referral to a physician is necessary. Pure-tone screening alone frequently misses cases needing identification and treatment.

2. In addition to the medical implications, the educational and communicative implications to this type of hearing loss in children needs to be considered. Children, especially preschool and early elementary age, who are identified through impedance screening and subsequent impedance rechecks to have chronic, recurring middle ear pathology frequently can be treated successfully. Many of these children, especially after P.E. tubes have been inserted, show considerable academic/language growth. Parents and teachers of these children often notice immediate improvement in attention span, articulation, receptive and expressive language and the auditory skills needed to succeed in school.

Submitted by Anne Rogers,



VISION-HEARING SCREENING COMMITTEE

Minority report on the issue of mandatory impedance/
admittance screening for all preschoolers, K, 1, 2 and 3rd grade:

Requirement of use of this screening technique statewide at this point in time is premature when viewed from the standpoint of documented medical and educational research, from the standpoint of medical management and from the standpoint of technologic and manpower requirements to accomplish this task.

Dr. David Spence
Mr. Tom Buckner

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED
AS A UNIT IN THE ORIGINAL DOCUMENT.

S

B

6

7

4

POSITION PAPER/Department of Health & Social Services

POSITION PAPER

Senate Bill No. 674

"An Act making special appropriations for a vision and hearing screening program; and providing for an effective date."

The State Board of Education at its regular meeting on April 22, 1981 voted unanimously to support the concept of this bill and to recommend that Section 2 of SB 274 be amended by making the appropriation to the Department of Health and Social Services rather than the Department of Education.

POSITION

The Department of Education and the Department of Health and Social Services both support passage of this bill with the recommended amendment to Sec. 2.

Approved by: *Alan O'Brien*
Commissioner of Health
and Social Services

Approved by: *Mark P. ...*
Commissioner of
Education

Date: *4-19-82*

Date: *4/19/82*

THE LEGISLATURE OF THE STATE OF ALASKA
TWELFTH LEGISLATURE

FISCAL NOTE

I. REQUEST
 Bill/Resolution No. Senate Bill No. 674
 Title An Act making special appropriation for a vision and hearing screening
 Requested by Commissioner's Office Senate HESS Date 4/16/82
program."

II. FISCAL DETAIL
 Agency Affected Department of Health and Social Services
 Program Category Affected Health/Public Health
 BRU, Program, Or Subprogram(s) Affected Child and Family Health
 (Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
100 PERSONAL SERVICES	0	0	0	0	0	0
200 TRAVEL	0	0	0	0	0	0
300 CONTRACTUAL	0	0	0	0	0	0
400 COMMODITIES	0	0	0	0	0	0
500 EQUIPMENT	0	0	0	0	0	0
600 LAND & STRUCTURES	0	0	0	0	0	0
700 GRANTS, CLAIMS, ETC.	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0

FUNDING (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS	0	0	0	0	0	0
OTHER (Specify Source)	0	0	0	0	0	0

POSITIONS

FULL TIME	0	0	0	0	0	0
PART TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

IV. DATE 4/16/82 PREPARED BY David Spence, M.D.
 AGENCY Department of Health and Social Services
 Original: Legislative Finance PHONE 465-3100
 cc: Budget and Management
 Prime Sponsor (First Legislator Named)
 33-001 (Rev. 12/81)

JCC

S

B

6

9

1

COMMITTEE REPORT

SENATE

FURTHER: Finance

Date: 7/1/82

Mr. President:

The Committee on SENATE SELECT COMMITTEE ON SOCIAL SERVICES has had no bill

under consideration and (a majority of the committee) (the committee) reports it back with the following recommendations:

- do pass do not pass
- do pass with attached amendments(s) same title
- replace with CS for _____ new title
- and recommends _____
- AND attaches a "Letter of Intent" New Fiscal Note
- reports it back without recommendation
- referred to the _____ Committee

MEMBERS SIGNING
DO PASS

MEMBERS HAVING
OTHER RECOMMENDATIONS:

CHAIRMAN



RESOLUTION 82-I

A RESOLUTION SUPPORTING THE PROPOSED
EXPANSION OF THE FAIRBANKS MEMORIAL
HOSPITAL.

WHEREAS, the Fairbanks Memorial Hospital serves the residents of North Pole for their health care needs, and;

WHEREAS, the City of North Pole and the entire area serviced by the Fairbanks Memorial Hospital is increasing in population, and;

WHEREAS, our Hospital offers many specialized services that are not normally offered in an area our size, and;

WHEREAS, our Hospital offers the lowest cost in the State, and;

WHEREAS, our Hospital operates at a high percentage of occupancy rate over the recent years, and;

WHEREAS, our Hospital will be requesting funding from the State Legislature.

NOW THEREFORE BE IT RESOLVED by the City Council of the City of North Pole that:

The City Council of the City of North Pole Supports an immediate capital expansion program for the Fairbanks Memorial Hospital.

PASSED AND APPROVED BY a duly constituted quorum of the City Council for the City of North Pole, Alaska this 18th day of January, 1982.

ATTEST:


Pamela Daniell, City Clerk


James D. Blith, Mayor

DIAGNOSTIC CENTER, INC.

1919 LATHROP STREET
FAIRBANKS, ALASKA 99701

(907) 452-4769

JAN 27 1982

INTERNAL MEDICINE

WILLIAM H. DOOLITTLE, M.D. F.A.C.P.
JEFFREY A. PARTNOW, M.D.

January 19, 1982

INTERNAL MEDICINE HEMATOLOGY & ONCOLOGY
J. MICHAEL CARROLL, M.D.INTERNAL MEDICINE & AVIATION MEDICINE
DAVID S. GRAUMAN, M.D. F.A.C.P.Senator Bettye Fahrenkamp
Pouch V - MS3100
Juneau, AK 99811

Dear Senator Fahrenkamp:

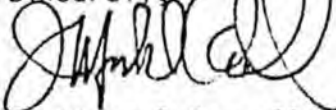
As an informed senator, I am sure you are aware that the hospital needs for the Fairbanks region have expanded beyond expectation. Currently, without the predicted gas pipeline construction, Fairbanks Memorial Hospital will soon be bursting at the seams.

To continue to serve the citizens in the northern half of the state, plans are in the process for an extensive addition to the hospital. Because this is the only private hospital north of Palmer, I feel it essential that the expansion requirements be met.

Any support that you can render in assisting with state funding and/or appropriate legislation would be greatly appreciated. The end result of this will be diminished costs for the citizens of northern Alaska.

Thank you for your excellent representation for our region, and for all your hard work.

Sincerely,



J. Michael Carroll, M.D.

JMC/co

cc Tom Mingen, Administrator
Fairbanks Memorial Hospital
1650 Cowels
Fairbanks, AK 99701

JAN 26 1982

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(907) 452-4589
(907) 456-8355

Jan. 15, 1982

Senator Bettye Fahrenkamp
State Capital
Pouch V
Juneau, Ak. 99811

Dear Bettye:

As a member of the Greater Fairbanks Community Hospital Foundation and Chairman of the Local Operating Board of Fairbanks Memorial Hospital, I urge you to support the proposed expansion of Fairbanks Memorial Hospital. By advocating that state funding be made available for our hospital, residents of the Interior will be provided the additional beds needed to meet the increasing demands which Fairbanks Memorial Hospital has recently been experiencing. In addition, state funding would help to ensure the cost of health care at Fairbanks Memorial Hospital would remain low.

A project such as ours is a perpetual thing; one in which we can take a great deal of pride both now and years down the road.

I would also like to take this opportunity to thank you for meeting with hospital representatives during the last several weeks. Your interest in Fairbanks Memorial Hospital indicates your concern that the citizens who require medical services at Fairbanks Memorial Hospital receive the best possible care available.

Again, I urge your support of the expansion project.

Sincerely,

Edward K. Christiansen
President

EKC:ac



FEB 1

TANANA VALLEY MEDICAL-SURGICAL GROUP, INC.

(A PROFESSIONAL CORPORATION)

1001 NOBLE STREET • FAIRBANKS, ALASKA 99701 • PHONE 452-1611

STAFF MEMBERS

January 22, 1982

OBSTETRICS & GYNECOLOGY
LAWRENCE I. LUNLAP, M.D.
RICHARD C. HESS, M.D.
RALPH A. WELLS, M.D.
CLAUCE DUKEMINIER, M.D.
BARBARA L. CLUTTER, M.D.
JAN SWANSON, RNP

SURGERY
ANCEL EARP, M.D.

Senator Bettye Fahrenkamp
4016 Evergreen
Fairbanks, AK 99701

ORTHOPEDIC SURGERY
JOHN W. JOSSE, M.D.
GEORGE R. VRABLIK, M.D.

INTERNAL MEDICINE
DANIEL C. DAVIS, M.D.
RICHARD J. BURGER, M.D.

Dear Senator Fahrenkamp:

PEDIATRICS
RICHARD C. REEN, M.D.
J. ALAN MACFARLANE, M.D.
MARY C. MACFARLANE, M.D.
NANCY J. SCHULTZ, M.D.
GAIL KELLEY, CPNP

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& FAMILY MEDICINE**
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J. FREY S. TRILLING, M.D.
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UROLOGY
ROBERT W. TAYLOR, M.D.

ADMINISTRATION
G. A. SEELGER, MGR
JAN WIESE, ASST. MGR.
SANDRA J. FARMER,
COMPTROLLER

This letter concerns the proposed expansion of Fairbanks Memorial Hospital. I am a practicing Obstetrician-Gynecologist at the Tanana Valley Clinic and I have patients who utilize the hospital virtually every day of the year. As you are probably aware, the hospital foundation board has recently reviewed a study which confirms the opinion of those of us at the hospital that an expansion of available beds is an appropriate and needed step. The support facilities at the hospital are excellent, but it frequently happens that there are simply no beds available for the ill or for those that are having surgery. You may also be aware that in 1981 renovation of the labor and delivery suite and the newborn care nursery was completed. This expansion took up several available beds, which along with the slowly increasing population in the Fairbanks area, led on several occasions in 1981 to cause planned surgeries to be cancelled and indefinitely postponed. This situation will become more common until an expansion of available beds is accomplished. This may sound like a relatively minor problem at first, but as was recently pointed out in a letter to the editor in the Fairbanks Daily News-Miner, for a person to have planned surgery cancelled even by a day or two is extremely traumatic. It prolongs the inevitable anxiety which accompanies surgery and frequently causes financial problems because pre-operative evaluation may have to be repeated. It causes major disruptions in patient's leave from work and also disrupts arrangements for child care and visiting relatives.

All studies which I have read indicate a prediction of gradually increasing population in the Fairbanks area. This in itself would lead to the logical conclusion that the hospital itself must also expand. Our occupancy rate in 1981 was extremely high - considerably above the national



Official Business

Alaska State Legislature

Senate

Committee on

Health, Education & Social Services

Charlie Parr, Chairman
Terry Stimson, Vice-Chairman
Vic Fischer
Tim Kelly
Mike Colletta

Pouch V
State Capitol
Juneau, Alaska 99811

465-4907
465-4908

March 8, 1982

LETTER OF INTENT
ON
SENATE BILL 691

It is the intent of the Health, Education and Social Services Committee, in passing out SB 691, that:

the funds in this appropriation not be expended until a certificate of need is issued by the Commissioner of Health and Social Services

A handwritten signature in cursive script, appearing to read "Charles H. Parr".

Senator Charles H. Parr
Chairman

Accountants Service

IN FAIRBANKS — 655 8th Avenue

12, FAIRBANKS, ALASKA 99707

(907) 456-1211

January 11, 1982

Mr. Tom Mingen
Fairbanks, Memorial Hospital
Fairbanks, Alaska 99701

Dear Tom:

Your plans for expansion of the hospital as announced in the Fairbanks Daily News Miner were gratifying to see. There is a need for the program as I can testify.

During the last part of October in this year I was scheduled for surgery and the possibility of malignancy and the need for haste were impressed upon me. After rearranging my schedule, changing my office routine, hiring replacement personnel and generally tying up loose ends I was notified three hours prior to admission time that there were no beds available and it might be a few weeks until we could proceed.

This naturally caused a disruption to my prepared plans, considerable emotional strain upon my family and natural consideration of Anchorage and Seattle as alternatives. Were I an isolated case it would be but of small consideration; however I understand that there were 30 such cases within a few days.

Tom, as you are aware, I served for three years on the Board of the Northern Alaska Health Resources Association. One of the worst memories is when you came in to seek our permission to spend your money for some equipment you deemed necessary to run your hospital. I am not certain that the public is aware that you must face this "Certificate of Need" process. If you are using private capital, bonding, or public subscription monies as you have in the past, you can not conceive of justification for this quasi-governmental review.

Please count on me for vocal support in your efforts. And if testimony before NAHRA or such is your wish, let me know.

Sincerely,

L. W. Beyer 

Lew Beyer

tms

cc: Daily News Miner
Letters to the Editor

copies members packets

Fairbanks Memorial Hospital

1650 Cowles St.

FAIRBANKS, ALASKA 99701

OPERATED BY
LUTHERAN HOSPITALS AND HOMES SOCIETY
FARGO, NORTH DAKOTA 58102

March 3, 1982

Senator Charles Parr
Alaska State Legislature
Pouch V
Mail Stop 3100
Juneau, Alaska 99811

Dear Senator Parr:

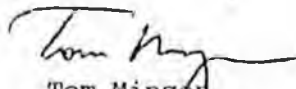
Recently during your Committee meeting on Senate Bill 691, an act relating to an appropriation to Fairbanks Memorial Hospital, a question was asked, and I thought I had given an appropriate answer. Since that time I have returned home and found a large article in the Daily News-Miner which indicated that my answer could have been somewhat misleading in looking back upon the question asked.

I believe the question was something to the effect that "how much additional cost would the patient be responsible for paying if the hospital were to receive no state money". I indicated that between \$50 and \$70 per patient day would be required. In answering the question, I was assuming that the hospital would not receive any state monies either through a direct grant or through state construction/revenue sharing. Since state construction/revenue sharing would still be a possibility even if the hospital does not get a state grant, it probably should be clarified to the Committee that hospital room rates would go up approximately \$20 to \$30 a day. This is given the fact that the state revenue sharing/construction money would still be available to feed into any bond fund that would be created.

I apologize for any problems I may have caused the committee or yourself. Again, I felt this should be clarified since I believe I had answered a different question than what was asked.

If you need more information, please let me know.

Sincerely,


Tom Minger
Administrator


TM/inw

Position Paper
Senate Bill 691

"An act making a special appropriation for payment as a grant to the Fairbanks North Star Borough for Fairbanks Memorial Hospital expansion and improvement; and providing for an effective date."

House Bill 700 and Senate Bill 691 make special appropriations of \$20,000,000 in the form of a grant to the Fairbanks North Star Borough for expansion and improvement of the Fairbanks Memorial Hospital. The Department of Health and Social Services has received an application for a certificate of need from Fairbanks Memorial Hospital (submitted 1-18-82) which proposes remodeling of portions of the existing facility and a 107,607 square foot addition at a projected cost of \$20,000,087. The proposed addition is to include five floors, two of which are shelled-in space for future use. Approximately \$3,000,000 of the total projected cost is attributed to the shelled-in space.

The certificate of need review, which is expected to be completed by mid-April, 1982, will address the following aspects of the proposed project which are pertinent to a consideration of state financial assistance:

- the need for additional acute care beds in the Fairbanks Memorial Hospital service area; 
- the relationship of the project to other health care providers in the area;
- the anticipated impact of the project on hospital operating costs, revenues, and patient charges;
- the financial feasibility of the project;
- the cost-effectiveness of constructing shelled-in space for future use

In the certificate of need application, Fairbanks Memorial Hospital has considered several alternative financing methods ranging from total State funding by means of a grant to total self-financing by means of tax-exempt bonding. The application states the facility's desired financing method as follows:

The Hospital Foundation is currently looking towards financing the new addition by applying to the State of Alaska for a 50% grant for the cost of the new addition. This grant would exclude the third and fourth floors for future expansion. The Foundation is requesting that the State of Alaska fund the third and fourth floors or \$3.1 million at 100%. The remaining 50% of the addition would be bonded through the Alaska Medical Facilities Authority using the mechanisms which are currently in place.*

* Fairbanks Memorial Hospital Certificate of Need Application, January 1982, page 114.

Position Paper
Senate Bill 691
Page 2

Other possible funding sources for hospital and nursing home construction are limited. Under AS 29.90 municipalities or other hospital or health facilities sponsors may receive reimbursement for up to 25% of total project costs. This partial reimbursement is available only to those facilities which have successfully secured financing and have completed a health facility construction project. Most rural facilities do not have the capacity for debt required for securing financing.

Under AS 18.26 medical facilities may apply to the Alaska Medical Facility Authority for State backing relative to the sale of tax-exempt bonds for the purpose of financing medical facility construction. One project has been financed through this program to date -- a 1978 Fairbanks Memorial Hospital expansion project in the amount of approximately \$12 million. Alaska Hospital and Medical Center, Anchorage, is presently working with the Authority to determine the viability of this funding approach for refinancing that facility and the acquisition of the adjacent professional office building.

One determination which the Authority must make before bonds may be issued under this statute is that the lease or operator agreement for the medical facility being financed by that issue is at least sufficient to meet all obligations in connection with the lease or operator agreement, including all costs necessary to service the bonds. This prerequisite essentially disallows use of the program by rural facilities, most of which do not have more than a minimal capability to service bonds.

The Department is conducting an inventory and condition survey of rural Alaskan hospitals and nursing homes to determine physical condition and functional adequacy and to identify means for upgrading facilities and correcting deficiencies. The inventory was focused on rural facilities because of the Department's awareness of insufficient tax bases in the smaller communities to correct recurring problems identified through the Department's regular licensing and certification processes and architectural reviews. Fairbanks Memorial Hospital, in one of the state's more urban settings, was not included in this inventory.

Recommended by: Phoebe A. Lindsey
Phoebe A. Lindsey, Director
Division of State Health
Planning & Development

Date: 3-1-82

Approved by: Helen D. Beirne
Helen D. Beirne
Commissioner

3-1-82

THE LEGISLATURE OF THE STATE OF ALASKA
TWELFTH LEGISLATURE

I. REQUEST

Bill/Resolution No. Senate Bill 691
 Title "An act making a special appropriation for payment as a grant to*
requested by *the Fairbanks North Star Borough..."

II. FISCAL DETAIL

Agency Affected Health and Social Services
 Program Category Affected Health
 BRU, Program, Or Subprogram(s) Affected _____
 (Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
100 PERSONAL SERVICES	-0-	-0-	-0-	-0-	-0-	-0-
200 TRAVEL	-0-	-0-	-0-	-0-	-0-	-0-
300 CONTRACTUAL	-0-	-0-	-0-	-0-	-0-	-0-
400 COMMODITIES	-0-	-0-	-0-	-0-	-0-	-0-
500 EQUIPMENT	-0-	-0-	-0-	-0-	-0-	-0-
600 LAND & STRUCTURES	-0-	-0-	-0-	-0-	-0-	-0-
700 GRANTS, CLAIMS, ETC.	-0-	-0-	-0-	-0-	-0-	-0-
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

FUNDING (Thousands of Dollars)

GENERAL FUND	-0-	-0-	-0-	-0-	-0-	-0-
FEDERAL FUNDS	-0-	-0-	-0-	-0-	-0-	-0-
OTHER (Specify Source)	-0-	-0-	-0-	-0-	-0-	-0-
	-0-	-0-	-0-	-0-	-0-	-0-
	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS

FULL TIME	-0-	-0-	-0-	-0-	-0-	-0-
PART TIME	-0-	-0-	-0-	-0-	-0-	-0-
TEMPORARY	-0-	-0-	-0-	-0-	-0-	-0-
	-0-	-0-	-0-	-0-	-0-	-0-

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

This Bill does not directly impact the Division of State Health Planning and Development. The amendments proposed do not change the original fiscal note which projected a -0- impact.

IV. DATE 2/24/82

PREPARED BY Dave W. Williams
 AGENCY DHSS, Division of State Health Planning and Development

Original: Legislative Finance PHONE 465-3015
 cc: Budget and Management
 Prime Sponsor (First Legislator Named)
 33-001 (Rev. 12/81)

Phoebe A. Lindsay

JCC



HOSPITAL HEARING—JoAnn Gal (left), the plan implementation coordinator, and hospital administrator Tom Mingen discuss the Fairbanks Memorial Hospital's application for a certificate of need during

a public hearing Wednesday at the Noel Wien Library. The certificate is necessary for the hospital to proceed on its plans to expand facilities.

(Staff photos by Eric Muehling)

Hospital expansion plan could add 38 more beds

By MARGARET NELSON
Staff Writer

Formal review of Fairbanks Memorial Hospital's plans for a five-story addition has begun, but a hearing Wednesday on the hospital's application for a state "certificate of need" is only an early step in the process.

A review committee heard public testimony Wednesday from 11 a.m. to 2 p.m. in a hearing at the Noel Wien Library. Only two people testified.

That review committee is to make its recommendation on the FMH application to the full Northern Alaska Health Resources Association board next month. If approved by NAHRA, the application will be forwarded to the state Department of Health and Social Services.

Expansion plans are to construct a five-story addition to the hospital, including a basement for data processing and storage, one floor for expansion of administration and ancillary services, another floor to contain 40 beds, two floors to be shelled in for future expansion and a fifth floor for mechanical and electrical equipment.

Projected construction cost is \$20,000,087. The expansion would increase total bed capacity at Fairbanks Memorial Hospital from 145 to 183.

Construction could begin this July with completion of the new tower by late 1985, but the project cannot proceed without first obtaining the state certificate of need.

Hospital officials propose that if the expansion is funded by a direct grant from the Legislature, there would be no direct additional costs to patients. If the

hospital has to use other financing, such as bonding, some of the new construction cost would be charged to patients.

The addition, originally not expected to reach the planning stage until 1983, is being planned now because of the dramatic increase in the number of patients being served over the past eight months.

Daily occupancy levels at the hospital have exceeded previous averages since mid summer.

The hospital's certificate of need application and a needs assessment study prepared for the hospital by a North Dakota firm, state there now, is an average shortage of 10 beds at Fairbanks Memorial Hospital. A total of 38 beds is projected to be needed by the mid-1980s.

According to hospital statistics, 20 per cent of the time during an average week there are more patients than beds available. The hospital experienced an increased patient population last fall, compared to declines in the fall of previous years. In some cases, elective surgeries were postponed because of the shortage of bed space.

Also in 1981, Fairbanks Memorial Hospital lost 10 rooms due to expanding its nursery and constructing two birthing rooms.

Statistics also show a large increase in the number of practicing physicians in Fairbanks. In 1974—prior to pipeline construction—there were 47 private physicians practicing in Fairbanks. That number rose to 77 in 1978 and to 90 in 1981.

About 38 new personnel would be needed for staffing the additional



CHARLES KALTENBACH
NAHRA executive director

rooms. Another 20 nurses would be needed, along with seven nurses aides, three ward clerks and eight other personnel in the laboratory, X-ray, pharmacy, supply and operations departments.

Mike Graf, of Tanana Chiefs Mental Health and president of the Alaska Psychological Association, said in testimony before NAHRA Wednesday that he generally supports the expansion.

But Graf said he has special concerns in the area of behavioral health. Currently anyone with serious
(See HOSPITAL, page 2)

HOSPITAL . . .

(Continued from page 1)

behavioral problems in the northern region has to be sent to a facility in Anchorage, Graf said. He hopes that NAHRA and the Fairbanks Memorial Hospital will consider mental health needs in their planning.

The certificate of need process was developed by the federal government to help contain rising hospital and health care costs. Under the review conducted by state health systems agencies, such as NAHRA, plans for expansion of facilities or services must be examined and the public given an opportunity to comment. The impact on health care costs must be included in the review.

There is a time limit for agencies to review the application for a certificate of need.

In this case, Fairbanks Memorial Hospital had to submit a letter of intent 60 days prior to its application. The state must then certify the application as complete before the health system agency begins its review. The review must be completed within 60 days.

Some of the questions that NAHRA will be examining include:

- Is the hospital expansion consistent with the health plans for the state and the northern region? How does the proposal relate to the hospital's long range development plan?
- Is the need for the expansion well demonstrated?
- What are the alternatives and why was the project determined to be the best approach to meeting the need?
- What is the financial feasibility of this expansion? What will the impact of the expansion be on costs and charges for services to the consumer of hospital care?
- Are the manpower resources available in the community to support the expansion?
- How will the expansion affect competition between health care service in the Fairbanks area in the future and will the expansion result in improvements or innovations in financing and delivery of health services which will foster competition in the community?
- Does the expansion include considerations for energy conservation?

Persons interested in seeing the hospital's application can do so at NAHRA offices, 529 Fifth Ave., Suite 8. Written or verbal comments will be accepted by NAHRA through March 4, the date the NAHRA board will hear its committee's recommendation.

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COMMITTEE REPORT

SENATE

1/25/82

FURTHER: Finance

Date: 1/31/82

Mr. President:

The Committee on HEALTH, EDUCATION & SOCIAL SERVICES has had SB 695

making a special appropriation to the University of Alaska for planning and the Institute Engineering research facilities at Fairbanks

under consideration and (a majority of the committee) (the committee) reports it back with the following recommendations:

- do pass do not pass
- do pass with attached amendments(s)
- replace with CS for _____ same title
 new title
- and recommends _____
- AND attaches a "Letter of Intent" New Fiscal Note
- reports it back without recommendation
- referred to the _____ Committee

MEMBERS SIGNING
DO PASS

MEMBERS HAVING
OTHER RECOMMENDATIONS:

CHAIRMAN

SENATE AMENDMENT

BY SENATE MESS

To: _____ SENATE BILL No. 695

To: _____ HOUSE BILL No. _____

PAGE: 1 LINE: 11

to the University of Alaska, Fairbanks for planning and design of [for]
the Northern engineer --

We need more UA engineers-dean

By SCOTT YATES
Staff Writer

It doesn't take a calculator for Vincent Haneman to figure out why Alaska needs more engineers. It's obvious because Alaska depends on outsiders to fill 90 per cent of its engineering work, according to the 59-year-old dean of the University of Alaska-Fairbanks' School of Engineering.

And the demand for engineers is not just high in Alaska.

All over the nation engineers are finding a field rife with opportunity. The situation is in direct contrast to the circumstances that graduates faced in the early 70's. Then, with the national space program winding down and cutbacks in military spending, the demand for engineers hit bottom.

Times have changed. Today, industry is clamoring for engineers and paying them 80 to 90 per cent more than they'd earn as professors. With so many opportunities in private industry beckoning engineering graduates, the number who continue their education toward Ph.D.'s has dropped. About 2,000 graduates each year complete doctoral degrees, and universities have to compete with private industry for their services.

Haneman believes that it is essential that Alaskan engineers are educated to work on Alaska projects. He believes that eventually, the nation will clamor for the resources found here and unless "we can create a climate beneficial to our interests, it will be more than worth our time and effort."

Otherwise, Haneman said, outsiders who have no feeling for the quality of life in Alaska will rape the land.

While Haneman is outspoken on the subject of increasing Alaska's share of engineers any week of the year, this week—National Engineering Week—lends itself to a special forum. Engineers across the nation are using this week to educate the public about trends within their profession.

A critical problem today is a growing undergraduate enrollment combined with a shortage of engineering professors who are lured away from campuses because of higher salaries in



VINCENT HANEMAN
"More than worth
our time"

private industry.

According to Haneman, the engineering department at UAF—which consists of civil, mechanical and electrical engineering—has doubled from 150 students four years ago to 302 students today. The number of faculty during the same period has grown 4 per cent to about 20 professors, a number Haneman said isn't adequate.

But he admits that qualified professors are getting harder to find and that to "get them to come to Alaska, you have to pay the numbers."

The "numbers" in Alaska are in the realm of \$50,000 a year for a nine-month contract.

But in addition to the salary, there's "consulting activities (at the university) unrivaled in the Lower 48," according to UA President Jay Barton. Professional engineers can supplement their income by offering their services as consultants to private industry and earn half again as much as their salary.

Barton feels the consulting opportunity plus the fact that Alaska "is where the action is," will ultimately work to the university's benefit.

Finally, Barton believes that Haneman can recruit the necessary talent. "If any place can be competitive it's the University of Alaska."

Barton does not dismiss Haneman's complaints about facilities and equipment, however. Speaking generally, Barton said the direction of the university is toward the professions, specifically engineering and business. "I see us marshaling the necessary forces to meet our students' needs," Barton said.

The present enrollment of students has put a strain on engineering facilities: demand for lab time has tripled; research programs are filled to the maximum; some experimental equipment has to be set up in the parking lot because of the space crunch. And Haneman said some of equipment used in teaching is antiquated.

The dean said his remarks should not be construed as playing a game against the University of Alaska-Anchorage which recently started an engineering program. Even with both Fairbanks and Anchorage programs going full steam, they could not entirely meet the state demand. Haneman wants to see a day when both UAF and UAA campuses can turn out all the engineers needed in Alaska. Fifteen hundred graduates a year might meet that demand, he said.

However, Haneman would like to see general university support for engineering translated into specifics such as a \$25 million research and engineering building, \$600,000 a year in new equipment and expanding the engineering school to include chemical engineering.

He doesn't expect much in the next year, though. A budget that Haneman considers woefully inadequate has already been presented to the Legislature. He would like to see planning money for his research building and the expansion of Duckering, but most of all, Haneman wants to educate the public that quick fixes aren't possible.

"I want to educate everyone so that when decisions come up again they can be made with more background," he said, adding that "the future depends on adequate engineering."

2 rigs collide on Dalton bridge

Two tractor-trailers collided Tuesday on a Dalton Highway bridge north of the Yukon River, blocking the road for 14 1/2

about 140 miles north of the Yukon River.

Troopers said that Sig Wold truck,

Bats are the only flying mammals. The Kalong, a fruit bat, has the greatest wing span, measuring 5 feet, 7 inches, and is also the heaviest, weighing up to 2 1/2 pounds. It is found in Malaya and

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VINCENT HANEMAN

UA engineering dean builds solid program

Ninety per cent of the engineers in Alaska are hired from Outside.

But according to the dean of the University of Alaska Fairbanks' School of Engineering, that could be changed if Alaska spent more money to hire engineering faculty and provide for equipment and travel.

Speaking to the Chamber of Commerce general membership luncheon Tuesday, Dean Vincent S. Haneman Jr. said Alaska faces a shortage of engineering graduates. "There are six to 10 jobs available for every engineer we turn out," he said.

Haneman was named dean in September 1980, replacing Chuck Behlke who resigned to become the state's chief pipeline inspector for the natural gas pipeline project.

Some 308 students are enrolled in civil, electrical or mechanical engineering at UAF. About 200 more students are enrolled in other engineering programs.

But Haneman said he believes the School of Engineering must attract 600 to 800 students, other engineering programs must double their enrollment, and the University of Alaska-Anchorage must begin its own engineering program before students educated in Alaska can fill all the jobs that are available.

That can't be done, he said, without spending more money on the program. "We are in desperate need of support by the Legislature."

Haneman listed these critical needs:

- More space. The university hopes

the Legislature will appropriate \$1.25 million to plan a 50,000-square-foot classroom and laboratory building.

- More faculty. Five to six more faculty members are needed "almost immediately," Haneman said. He hopes to see some \$226,000 in next year's budget for that purpose. To teach 600 to 800 students, the present staff of 17 must be increased to 45 or 50.

- Money for travel. Technical knowledge is doubling every four years, Haneman said. Without money to travel Outside for research and education, engineering faculty members can be hopelessly out of date within 10 years.

- Technical support. The school now has only one technician to provide technical support. Two or three are needed, Haneman said.

The dean said the impact of science and engineering today is tremendous, noting that he substitutes the word "engineering" where most say "technology."

"Our biggest problem is that methods, systems, models, know-how are developed elsewhere then applied here, only to find out they don't work here."

Among projects UAF faculty members are studying are reducing ice fog, lessening pipeline corrosion, dealing with frost heave and coping with the effects of the aurora on communication and electrical transmission lines.

Haneman said the School of Engineering is able to provide quality

education because of the leadership of his two predecessors, Behlke and Charles Sargent. But he said the school has grown by 50 per cent over the last two years, labs are overcrowded, equipment is outdated, and the faculty-student ratio is too high.

All those problems were cited by an accrediting team whose report is due in August.

He said financial support from industry—particularly oil companies—would be welcome. But in the past the university has had little to offer in the way of continuing education for engineers in the field to attract the interest of industry. He hopes that will change and pointed out that this year several engineering courses are being offered at Prudhoe Bay by videotape.

Corporate Leaders, Educators Ponder Engineering Faculty Shortage

In Alabama, Auburn University's engineering school—pressed for space by many years of growing enrollment—will start construction of a new electrical engineering building in March, with another building on the drawing board. It will be the first major new construction in 20 years.

At the San Diego campus of the University of California, undergraduates majoring in engineering jumped from 7 percent of the total to 20 percent.

Laboratories and classrooms were so packed last year, some students could get computer time only in the wee hours of the morning. (continued on page 4)

Vol. 31, No. 5/Feb. 19, 1982/4

BUSINESS-HIGHER ED (continued from page 1)

Technology is in fashion again. Engineering enrollments have risen by about half since 1975.

But there's a flip side to the trend, according to some leaders in industry and education.

There is a "crisis" in engineering education with a shortage of engineering faculty that may result in the deterioration of engineering education quality and limits on the number of engineers produced by U.S. schools, observers say.

Corporate leaders and educators discussed the issue during the Engineering and Manpower session of the Business-Higher Education Forum's winter meeting last month in Phoenix, Ariz.

"The expression has been used that we are eating our seed corn," said panelist Dr. William J. Perry, chairman of the American Electronics Association's Blue Ribbon Committee on Engineering Education.

"But we're doing even more than that," Perry said. "Not only are we eating the seed corn, we are taking the farmer and moving him off the farm," Perry said referring to the luring-away of academic talent by the corporate world.

"We can get away with that for a few years, but we will pay a very heavy, heavy price for that in the mid- to late-80s. And I suspect that price will be forfeiting our chance to be the leader in future rounds of world-wide technological competition.

According to a recent ACE survey of the nation's

244 colleges and universities with accredited engineering programs:

- More than half reported a substantial decrease in their ability to recruit and retain engineering faculty during the past five years.

- During 1979-80, almost 400 full-time engineering faculty—2.7 percent of permanent faculty—left teaching for employment by industry.

- Between 1975 and 1980, the number of bachelor's degrees in engineering grew by more than 50 percent, while the number of doctorates granted dropped by 12 percent.

"These trends," the report concluded, "pose a serious problem for the engineering colleges. The supply of new teachers continues to decrease at the very time student enrollments are continuing to set record levels."

The problem is real, these industry and academic leaders say. And a solution to the problem will call for a partnership between U.S. industry and higher education, spokesmen told corporate and academic leaders at the meeting.

The "supply-demand balance of undergraduate engineers can be achieved through market forces if the engineering schools are capable of continued renewal and are healthy," Dr. Edward E. David, Jr., president of Exxon Research and Engineering Co., said at the meeting.

"However, that remains a big if," David warned. (continued on page 5)

AMERICAN COUNCIL ON EDUCATION



Business-Higher Education Forum—Corporate leaders and educators discussed issues and mapped strategies for common problems at the winter meeting last month of the Business-Higher Education Forum in Phoenix, Ariz. Pictured here (left to right) are James E. Olson, vice chairman, American Telephone and Telegraph Co.; J. W. Peltason, president, American Council on Education; Wesley W. Posvar, chancellor, University of Pittsburgh; Robert Anderson, chairman and chief executive officer, Rockwell International Corp., also chairman of the Business-Higher Education Forum; Rev. Theodore M. Hesburgh, C.S.C., president, University of Notre Dame.

BUSINESS-HIGHER ED (continued from page 4)
"Recent analyses of engineering education indicate that the schools of engineering are in trouble."

David, chairman of the National Engineering Action Conference, described the core problems as:

- Retention of engineering faculty and
- Shortage of engineers pursuing doctoral degrees and entering the teaching ranks.

The National Engineering Action Conference was begun in 1981 when a group of university administrators acting through the National Association of State Universities and Land-Grant Colleges (NASULGC) decided that immediate action needed to be taken on the issue.

NASULGC in concert with the American Association of Universities (AAU) and a number of other groups, agreed on the idea of a national action conference which David agreed to chair.

David noted that some 20 or 30 universities surveyed in February 1981 by the American Society of Engineering Education had decided to limit enrollments.

"This curtailment of enrollments is directly attributable to faculty shortages, and many deans believe the faculty shortage in turn is directly related to salary scale restrictions and a poor working environment, typified by equipment shortages and outdated laboratories," David said.

He noted that a recent survey of 86 engineering schools showed that the differential between starting salaries in industry and the current average salaries paid to faculty had increased from 22 percent to 33 percent during the past four years.

A recent National Science Foundation study reported that the median age of university instrumentation is twice that of the instrumentation in large industrial laboratories—3.5 years versus 7 years, he said.

David mentioned a recent *Fortune* magazine article which quoted a University of Illinois senior as saying: "Why be a teacher—they're overworked and underpaid and there's no reward or compensation. There's much more prestige in being an engineer at Hewlett-Packard than being a faculty member at the University of Illinois."

The article, David said, also quoted a new Ph.D. who went to work at Bell Labs and said, "You don't have to hassle grants or worry about teaching loads or getting good grad students to help you. You have good technical support and there's no uncertainty about backing."

David presented samples of action steps developed by the National Engineering Action Conference that could be taken by the higher education community, government, and the educational and professional associations.

For industry, individual corporations working individually or collectively could:

- Increase support for doctoral candidates in a new way—tying support to the candidates' willingness to teach.
- Increase supplements to faculty salaries, again seeking to tie this to the willingness to remain in the teaching ranks.
- Improve the environment for graduate school by looking for ways to assist university laboratories in providing analytical and other support services.

For postsecondary institutions:

- Engineering faculty compensation needs to be raised to a more competitive level.

One way of gaining flexibility in setting differential salaries among faculties in various disciplines is to establish semi-autonomous engineering colleges such as exists in other professional disciplines, such as law or medicine.

For government:

- Develop legislation to give incentive to the private sector to increase their support of engineering education through fellowships, sponsored research and equipment donation.
- Provide funds for government or private programs aimed at solving the faculty shortage problem.

For educational and professional associations:

- Continue the effort at the national level to establish a policy on engineering manpower, supported by an adequate manpower supply/demand planning model.
- Expand scholarship and fellowship aid to engineering students and make direct grants to the schools.

"In summary, I think you will agree that the problem is serious and deserves attention," David said.

The next meeting of the Business-Higher Education Forum, chaired by Rockwell International Corp. Chairman Robert Anderson, will be hosted by University of North Carolina President William Friday at Research Triangle Park in June. A report and recommendations by the Forum task force on engineering education will be presented at the meeting.

Education Crisis Report Calls for Strong Action

A strong remedy to cure the nation's ailing engineering education system was prescribed in an action plan that was two years in the making. A task committee headed by longtime active member Russel C. Jones, newly named vice president of Boston University, offered ASCE's Board of Direction its recommendations in a report dated September 1, 1981.

That report — which the Board accepted — detailed some of the problems in education that have been festering for over a decade — such as inadequate and outdated lab equipment and plummeting enrollments in engineering schools, especially at the doctorate level. Below-the-norm salaries paid to engineering faculty were blamed for not attracting more teachers to the academic ranks. Also taking its lumps in the report were poor engineering curricula at some schools that did not properly prepare graduates for professional careers.

But along with all the bad news came a hopeful solution for turning things around. A comprehensive action plan called for help from ASCE, the federal government, U.S. industry and the universities themselves. In its January 1982 issue, CE magazine will report in depth on the Jones committee plan and the crisis that spawned it.

VOL. 5
NO. 2
FEBRUARY
1982

ALASKA
PROFESSIONAL
DESIGN
COUNCIL **NEWS**

SB 695, Funding for Planning

Staff analysis - Zybach

Generalized statements relating to the need for the research facility drawn from agency data:

The School of Engineering has no laboratory space dedicated to research and no support facilities such as drafting, photography, or standards and calibration.

The 1979 accreditation team of the Accreditation Board of Engineering and Technology strongly urged applied research efforts to be integrated into the School of Engineering.

Engineering education is being severely hampered by obsolete equipment, inadequate facilities and a shortage of faculty according to a 1980 presidential report on science and engineering. It is no different in Alaska and is, perhaps, more intensified.

There has been a continued increase in engineering students at UAF, 27% in 1981. There has not been a significant growth in facilities or a growth in laboratories to keep up with this growth.

The School of Engineering continues to have more requests for graduates than the number available. All students seeking employment are placed in jobs.

2/3rds of these students are still working in Alaska

The engineering department has attracted \$273,175 in research funds, exclusive of research performed solely for the research institutes, however, "major areas of research already underway at UA are hampered by insufficient space, inadequate equipment and outdated facilities."

Specified need objectives:

1. To accommodate accreditation needs in the area of research
2. To accommodate demands from industry for more and better equipped graduates
3. To accommodate the increased number of students in the engineering program as well as the increased demands of students in the Mineral Industry Programs
4. To further the establishment of a quality engineering program which will be recognized nationally and internationally in the areas of Arctic Engineering.

University Planning Office revised Estimate.....\$1,235 million

1,253

SB 695, Funding for Planning
Staff analysis - Zybach

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4. To further the establishment of a quality engineering program which will be recognized nationally and internationally in the areas of Artic Engineering.

University Planning Office revised Estimate.....\$1,235 million

1,953 PC

<u>SQ. FEET</u>	<u>FTE STUDENTS</u>	<u>BUILDING DESCRIPTION, YEAR OPENED, SQUARE FOOTAGE</u> (Student housing and parking are not included)	<u>CUMULATIVE</u> <u>SQUARE FEET</u>	<u>1981 CONSTRUCTION COSTS Projected</u> <u>CONSTRUCTION COSTS</u> (In thousands) (1.45% per month inflation factor)
<u>SQUARE FEET PER FTE STUDENT</u>				
<u>ACTUAL</u>				
Fall 1975	745	UAA, ACC, APU Library (Jan. '73) 101,244 Sq. Ft. College of Arts and Sciences (Sept. '74 - Partial) 61,986 Sq. Ft.	163,230	--
Fall 1976	977		163,230	--
Fall 1977	1,270		163,230	--
Fall 1978	1,317	Health Occupations Facility 47,670 Sq. Ft. Energy Module 4,608 Sq. Ft. UAA, ACC Physical Education Facility 142,620 Sq. Ft.	358,128	--
Fall 1979	243 1,476		358,128	--
Fall 1980	216 1,660		358,128	--
Fall 1981	210 1,897	Classroom/Office Building 41,000 Sq. Ft.	399,128	--
<hr/>				
<u>GOALS</u>		<i>New buildings and their square footages are listed according to occupancy dates. Budget dates are two years previous. Numbers refer to Proposed Six Year Development Plan, January 1982.</i>		
Fall 1982	186 2,150		399,128	
Fall 1983	203 2,410	1 UAA, ACC Bookstore 38,000 Sq. Ft. 2 Administration/Classroom Building 52,000 Sq. Ft.	489,128	5,200. 9,180.
Fall 1984	177 2,769		489,128	
Fall 1985	143 3,229	3 Classroom Building 94,000 Sq. Ft. 5 UAA, ACC Physical Plant Building 40,000 Sq. Ft.	623,128	20,000. 10,000.
Fall 1986	186 3,556	4 Classroom Building 37,000 Sq. Ft.	660,128	8,000.
Fall 1987	235 3,788	6 Health Science Building 90,000 Sq. Ft. 7 Expansion of Classroom/Office Building 40,000 Sq. Ft. 8 Physical Education Addition 100,000 Sq. Ft.	890,128	53,000. 12,000. 33,000.
Fall 1988	252 4,056	14 Continuing Education Facility 130,000 Sq. Ft.	1,020,128	38,500.
Fall 1989	301 4,352	9 Business and Public Administration Bldg. 60,000 Sq. Ft. 15 Science Building 150,000 Sq. Ft. 16 Library Expansion 80,000 Sq. Ft.	1,310,128	14,000. 66,000. 26,000.
			1,370,128	16,200.

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January 1982

UNIVERSITY OF ALASKA, ANCHORAGE
ANCHORAGE COMMUNITY COLLEGE

PROPOSED, SIX YEAR
DEVELOPMENT PLAN

PREPARED BY:
UNIVERSITY OF ALASKA
DEPT. OF FACILITIES PLANNING & CONST.

LEGEND OF FACILITIES

UNIVERSITY OF ALASKA, ANCHORAGE

- 1 UAA/ACC Bookstore
 - 2 UAA Administration/Classroom Building
 - 3 Classroom/Laboratory/Office Building
 - 4 Multipurpose Classroom (Lecture)
 - 5 Physical Plant
 - 6 Health Science Building
 - 7 Expansion of COA
 - 8 Physical Education Addition
 - 9 Business & Public Administration
 - 10 Student Housing
 - 11 Infirmary
-
- 12 Parking Structure, 500 Cars
 - 13 Transit Station
 - 14 Continuing Education Facility
 - 15 Science Building
 - 16 Library Expansion
 - 17 Spine Completion
 - 18 Education Classroom Building
 - 19 Classroom Office Building
 - 20 Professional Building
 - 21 Student Services

ANCHORAGE COMMUNITY COLLEGE

- 1 Applied Science Building
 - 2 Aviation Complex Phase I
 - 3 New Administration Building
 - 4 ACC Chugiak/Eagle River Extension Center Site Acquisition
-
- 5 Spine Completion
 - 6 South Anchorage Satellite Campus Site
 - 7 Applied Science Building Phase II
 - 8 Parking Structure, 500 Cars
 - 9 Administration/Classroom
 - 10 Vocational/Technical Building - All South Anchorage Campus
 - 11 Classroom/Administration Building

UNIVERSITY OF ALASKA, ANCHORAGE
ANCHORAGE COMMUNITY COLLEGE

P R O P O S E D, S I X Y E A R
D E V E L O P M E N T P L A N

UNIVERSITY OF ALASKA, ANCHORAGE

1. UAA/ACC BOOKSTORE

The University of Alaska, Anchorage will be advertising in February, for bids on a new bookstore, to be located south of the existing Campus Center.

The architectural firm selected for design of the Bookstore is Harold Wirum and Associates.

The Bookstore is a two-level structure with a mezzanine level housing support staff. The basement level will provide space for shipping and receiving and the main level will house the bookstore retail area. The Bookstore will be adjoined with the existing Campus Center by an enclosed arcade.

The building will be bermed for energy conservation. The facility is approximately 38,000 square feet.

Funds for this facility were provided by 1980 General Obligation Funds. The construction cost is projected to be approximately \$3,900,000.00

The facility will serve the University of Alaska, Anchorage; Anchorage Community College and the community at large.

It is projected to be operational by September of 1983.

2. UAA ADMINISTRATION/CLASSROOM BUILDING

The University of Alaska, Anchorage will open bids January 15, 1982 for an Administrative/Office/Classroom Building located on a 19.4 acre site east of the existing UAA Library.

The architectural firm responsible for the design is a joint venture of Wellenstein Architects, Inc. (Anchorage) and Broome, Oringdulph, O'Toole, Rudolf and Associates (Portland, OR).

A small lake, existing stands of deciduous/evergreen trees and views of the Chugach Mountain Range constitute site amenities that will be preserved and enhanced over future generations of building development.

The entrance roadway to this facility is the initial element in a circulation spine to connect expanding portions of the campus.

This facility will be the first specialized building on campus.

This facility will include administration and classroom functions; reception areas; admissions and records; business, academic, campus and public affairs; educational offices and other people-oriented services.

The facility will contain approximately 52,000 gross square feet and it will be complete by June of 1983.

3. CLASSROOM/LABORATORY/OFFICE BUILDING

The proposed UAA Classroom/Laboratory/Office Building will provide an approximately 94,000 gross square foot facility for use by the UAA College of Arts and Sciences; Department of: Theater and Speech, Dance, Music, and Art. The building design will be based on a Project Program prepared by the University's Office of Facilities Planning and Construction and the anticipated building occupants.

The architect for the project is CCC, Architects and Planners (Anchorage, Alaska).

The facility will be located on the UAA Campus directly to the east of the existing library building.

The facility shall be compatible with existing campus structures, campus master planning elements, and the natural environment.

Development of required on-site parking areas, utilities, and finish landscaping will be included in the project.

Planning and Design funds of \$768,000.00 were provided by the 1981 Legislature in the form of a direct appropriation.

Funds for project construction in the amount of \$20,000,000.00 are being requested of the 1982 Legislature.

Construction is expected to be complete in July of 1985.

4. MULTIPURPOSE CLASSROOM (LECTURE)

The University of Alaska, Anchorage will request of the 1983 Legislature \$8,000,000.00 to design and construct an approximately 37,000 gross square foot facility.

This facility will provide for large classrooms accommodating approximately 200 students each. In addition, there will be one central media area which will provide integrated audio-visual equipment for all rooms.

The total project will include all required parking, utilities, and finish landscaping.

The facility is expected to be operational in 1985.

5. PHYSICAL PLANT

The University of Alaska, Anchorage will request of the 1982 Legislature \$10,000,000.00 to design and construct an approximately 40,000 square foot facility.

This facility will provide for administrative offices, shops, storage space, greenhouse, etc., the department of preventative maintenance, custodial grounds, building maintenance and energy conservation.

The facility is expected to be operational in 1985.

6. HEALTH SCIENCE BUILDING

The University of Alaska, Anchorage will request of the 1984 Legislature \$27,000,000.00 to construct Phase I Health Science Building for approximately 90,000 gross square feet.

The total facility will house the School of Nursing Health Science Programs, Nursing Resource Center, Medical WAMI Program, Public Health Program and related support programs in biology and chemistry and library books required for the accreditation of the programs, related underground parking spaces as required by Code (403 spaces), and needed expansion of the Health Science Library. Phase I of the program will provide approximately half of the needed space.

This facility is intended to be complete in 1987.

The University of Alaska, Anchorage will request of the 1985 Legislature \$26,000,000 for the Health Science Building Phase II.

7. EXPANSION OF COA

The University of Alaska, Anchorage will request of the 1984 Legislature \$12,000,000.00 to construct an approximately 40,000 gross square foot addition to the existing Classroom/Office Building.

The first phase was completed for occupancy in 1981.

This facility will provide additional general classrooms and faculty offices to accommodate enrollment increases at UAA and is expected to be complete in 1987.

8. PHYSICAL EDUCATION ADDITION

The University of Alaska, Anchorage will request of the 1986 Legislature \$33,000,000.00 to expand the existing Physical Education Facility.

It is expected that this facility will provide approximately 100,000 gross square feet of additional physical education classrooms and gym areas.

The facility should be complete for occupancy in 1989.

9. BUSINESS AND PUBLIC ADMINISTRATION

The University of Alaska, Anchorage will request of the 1985 Legislature \$14,800,000 to construct an approximately 60,000 gross square foot facility to house the School of Business and Public Administration.

This facility will be comprised of general classrooms and faculty offices and will house many classes which are currently being taught off campus in inadequate facilities.

This facility is expected to be complete for occupancy in 1988.

10. STUDENT HOUSING

The University of Alaska, Anchorage will request of the 1984 Legislature \$25,000,000.00 to construct student housing.

This project is for the construction of a student housing facility consisting of 100 four-person apartments. The facility will house 400 students and provide peripheral campus parking.

It is intended that this facility would be complete for occupancy in 1987.

11. INFIRMARY

The University of Alaska, Anchorage will request of the 1987 Legislature \$14,000,000.00 to construct a 100-bed infirmary to support a health care program for residential students. The facility is expected to provide both in and out patient services.

It is intended that this facility will be complete for occupancy in 1990.

12. PARKING STRUCTURE, 500 CARS

*Not Included in Statewide Submission to Governor Request in 1983.

The University of Alaska, Anchorage will request future funds to to construct a parking garage to accommodate 500 cars for students, staff, and visitors. This will serve to satisfy the local municipal ordinance requiring parking for new buildings as well as reduce pressure on fire lanes and roads from the large commuter population at the University.

13. TRANSIT STATION

*Not Included in Statewide Submission to Governor Request in 1983.

The University of Alaska, Anchorage will request of the 1983 Legislature funds to construct a transit station to serve students, faculty, staff, and visitors coming to the UAA Campus.

It will serve as a terminus for municipal transit systems as well as any future University on-campus transit systems.

This project will be coordinated with the Municipality of Anchorage in order to serve the best interest of the community.

14. CONTINUING EDUCATION FACILITY

*Not Included in Statewide Submission to Governor Request in 1983.

The University of Alaska, Anchorage will request future funds to design and construct an approximately 130,000 square foot facility.

This facility will provide conference facilities for ongoing continuing education to serve the many non-credit programs of the Justice Center, Alcohol and Addiction Center, School of Nursing, School of Education and The School of Business and Public Administration.

This project will provide a link between the University and the business and professional community, ultimately benefiting all segments of the state.

15. SCIENCE BUILDING

*Not Included in Statewide Submission to Governor Request in 1983.

The University will request of the Legislature future funds to construct an approximately 150,000 gross square foot facility.

This facility will house general laboratories, specialized laboratories, classrooms, research facilities and faculty offices for the "hard sciences" in the College of Arts and Sciences.

Such facilities are not available off campus and are required in many UAA curriculums.

16. LIBRARY EXPANSION

*Not Included in Statewide Submission to Governor Request in 1983.

The University of Alaska, Anchorage will request of the Legislature future funds to expand the existing Consortium Library.

This project will provide an additional 80,000 square feet to house the University Library which serves Anchorage Community College and Alaska Pacific University as well as the University of Alaska, Anchorage.

17. SPIKE COMPLETION

*Not Included in Statewide Submission to Governor Request in FY83.

The University of Alaska, Anchorage will request of the Legislature funds to construct pedestrian circulation corridors connecting all isolated buildings.

At present, the only spine which is in place connects the Physical Education Facility/Student Center (located between and used by both UAA and ACC) and the Health Occupations Facility on the UAA campus.

This project would allow safe pedestrian movement from building to building in a covered, tempered passageway.

18. EDUCATION CLASSROOM BUILDING

*Not Included in Statewide Submission to Governor Request in 1983.

The University of Alaska, Anchorage will request of the 1986 Legislature \$16,200,000.00 to construct a 60,000 gross square foot general classroom and faculty office building to house the programs taught by the College of Education.

It is intended that this facility will be complete for occupancy in 1989.

19. CLASSROOM OFFICE BUILDING

*Not Included in Statewide Submission to Governor Request in FY83.

The University of Alaska, Anchorage will request of the Legislature future funds to construct a 60,000 gross square foot facility to house general classrooms and faculty offices particularly in lower division classes.

20. ENVIRONMENTAL ARTS ARCHITECTURE/PLANNING

*Not Included in Statewide Submission to Governor Request in FY83.

The University of Alaska will request of the Legislature future funds to design and construct an approximately 60,000 square foot facility.

This facility will provide classroom, classroom and office space for environmental sciences, renewable resources, planning and architecture.

The total project will include all required parking, utilities, and finish landscaping.

21. STUDENT SERVICES

*Not Included in Statewide Submission to Governor Request in FY83.

The University of Alaska, Anchorage will request of the Legislature future funds to design and construct an approximately 45,000 gross square foot facility.

This facility will provide space for such student service activities as a counseling center and financial aid offices.

The total project will include all required parking utilities and finish landscaping.