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Report Covering the Proposed Science Bldg.

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REPORT COVERING THE
PROPOSED SCIENCE BLDG

Fort Hays Kansas State
Teachers College

Hays, Kansas

Set #2
received F.V.C.
2-24-60

A CONDENSED REPORT COVERING
THE PROPOSED ADDITIONS & ALTERATIONS
TO THE
SCIENCE BUILDING

FORT HAYS KANSAS STATE TEACHERS COLLEGE

HAYS, KANSAS.

- (1) Project Description as proposed - 1 page
- (2) Building Description - 1 page
- (3) List of Specifications - 1 page
- (4) Estimate of Project Cost - 1 page
- (5) Summary - 1 page

LIST OF DRAWINGS ACCOMPANYING THESE SPECIFICATIONS

- (1) OFFICE OF STATE ARCHITECT
JOHN E. BRINK-STATE ARCHITECT
TOPEKA, KANSAS.
- (2) Planning Drawings
- (3) Detailing Drawings
- (4) F. MARION HETER
ASSOCIATE-ARCHITECT
STERLING, KANSAS.

JANUARY 10, 1959.

SCIENCE BUILDING

FORT HAYS STATE TEACHERS COLLEGE

HAYS, KANSAS

CONTENTS

- (1) Project requirements as proposed by Institution-----3 pages
- (2) Building Description-----1 page
- (3) Outline of Specifications-----10 pages
- (4) Estimate of Project Cost-----1 page
- (5) Summary-----1 page

LIST OF DRAWINGS ACCOMPANYING THESE SPECIFICATIONS

- (1) Architectural Drawings-----7 sheets
- (2) Plumbing Drawings-----4 sheets
- (3) Heating Drawings-----4 sheets
- (4) Electrical Drawings-----4 sheets

Chemistry and Physics Division

- (a) Lecture Room--To seat 150 students in fixed tablet arm seats--
Raised floor construction.
- (b) General Chemistry and Quantitative Analysis Laboratory 25x45'.
Lab to be equipped with water, gas, electricity 110V, drains, compressed air. *ACP*
4 center tables 4x15' with composition stone or Colorlith tops *Wood*
and ~~steel~~ cabinets equipped as indicated. *Cabinets*
1-2½ x 15' wall table same description as above.
2-8' fume hoods equipped with water, gas, electricity with sashed fronts.
1-24' table for balances, glass enclosed.
At opposite end of balance table raised area 10x6' with 8x3' lecture desk equipped with facilities indicated.
This laboratory can accommodate 200 students in 5 sections.
- (c) Physical Chemistry and Instrumentation Laboratory 25x40'
This laboratory to be equipped with water, electricity 110-220V, gas, compressed air, drains.
2-15x4' center tables composition stone or Colorlith top. *Wood*
~~Steel~~ cabinets for larger storage.
Wall tables 25x2½' and 14x2½' with storage under tables similar to center tables.
2-6' fume hoods with water, gas, and electricity. *gas water electricity drains*
1 end of the room should be enclosed and divided into 2 units 10x12½' each equipped with 2 desks 8½x2½' with composition stone or Colorlith tops and storage cabinets under the tops.
This laboratory is to be used for physical chemistry and instrumentation and for research projects.
With proper sectioning it should accommodate 40 students.
- (d) Storage and Dispensing Room 10x35'
The front 10' of this area should be used for laboratory Preparation and stock dispensing by way of a special door probably divided with a dispensing shelf. It should have tables along the side equipped with water, gas, electricity, a fairly large sink and a small fume hood. The remaining 25' should be equipped with shelves for maximum storage capacity. These shelves to be either of wood or adjustable steel shelving.
- (e) Physics Laboratory, First Floor 20x20'
Will be designated as an atomic physics laboratory. It should be equipped with gas, electricity, water, laboratory tables should probably be of special construction for use of radioactive materials and it is likely it should be equipped with a special hood as well. Such equipment will need specialized specifications. It can be made to accommodate 20 students with adequate sectioning.

(1)

Chemistry and Physics Division Cont'd

(f) Second Floor, Physics Laboratory 25x45'

To be designated as Electricity and Magnetism Laboratory. To be equipped with physics type tables with facilities for gas, electricity 110-220V and Water. Storage cabinets can be provided along the walls for the material to be used in this laboratory. *Wood* ~~Steel~~ would probably be most satisfactory for these cabinets. This laboratory should be able to accommodate over 100 students in 4 sections.

(g) Second Floor, Geology Laboratory 25x45'

Should be equipped with gas, water, electricity. Tables should be large ones with either wood or composition tops around which students could work with geology materials. Storage cabinets should be provided along walls for the materials to be used. *Blackboard and sink*

(h) Second Floor Mathematics Classroom 25x40'

To be equipped with arm chairs, adequate blackboard space, instructors desk. Storage cabinets as will be needed, probably steel cabinets most desirable. Adequate lighting is very important. 80 students could be accommodated in each class.

(i) Stairs and Corridors as Necessary.

(j) Toilet facilities for men and women.

(k) Dark Room with Developing and storage facilities.

(l) Revise Rooms 106 and 107 to form additional office. *air conditioning and mechanically ventilate.*

Biological Science Division

(a) Lecture Room to seat 120 students in movable tablet arm chairs-- Raised Floor Construction.

(b) Biology labs--Two biology labs, one 25x47 and the other 25x40 divided by a storage and preparation room of approximately 250 square feet. Student capacity of 70-75 students. Should contain biological type tables (4 ft. wide, 2'10" high, Length depends on room) with gas, water, sink, air and electrical outlets. Used for general botany and general zoology laboratories. Each lab should contain a blackboard. Seated on both sides of tables on stools. Storage room with table, sink, water, electrical outlets, shelves, microscope cases. Arranged for check out. Equipped with new equipment.

(c) Physiology and soils lab. 25x40 feet. Should contain biological type tables (above) with water, sinks, gas, air, and electrical outlets. Storage room or cabinets should be included. Space for 30 to 40 students. Used for plant physiology, soils and other closely related courses. Equipped with new equipment.

(d) Laboratory classroom should be about 25x40 to accommodate 30 to 40 students. Tables to be biological type tables with electrical outlets. Lecture demonstration table in front of room about 3x8' with sink, water, gas, air, and electrical outlets. This is planned for west portion of present Science 301.

(1)

Biological Science Division Cont'd

- (e) Two offices east of corridor in present S301.
- (f) Stairs and Corridors as necessary.
- (g) Storage Areas-----500sq.ft. if possible.

(2)

BUILDING DESCRIPTION

The proposed building is designed as a free standing 3 story unit connected to the present Science Building by corridors.

The unit is designed as a fireproof class "A" building using reinforced concrete monolithic floor slabs, beams, and columns. Exterior walls and interior partitions are masonry. (See drawings and specifications for more information.)

The proposed unit is computed as a "turn-key" job complete with new equipment suitable for Physical Science training programs as proposed by the Institution.

Basically it is similar in character to the Science building being built at Kansas State Teachers College, Emporia, Kansas, except the floor to floor heights are reduced so as to coincide with the floor to floor heights of the present Science Building to which the corridors connect, this in turn decreases the Cubical content.

All necessary Utilities are very close by and the cost of moving those conflicting with the proposed building have been included as part of the project cost.

All computations have been made in compliance with the requirements of Kansas Statutes and applicable requirements of the National Building Codes, National Electric Code, and the American Standard's Plumbing Codes. The heating system is to be connected to the Steam mains from the Institutions Central Plant which are located about 175' East of the North-East Corner of the existing Science Building (25# mains).

Air Conditioning has been included in the analysis to serve the two Lecture Rooms Only.

The interior finishes are high quality but without any unnecessary or elaborate finishes.

1. Work to be performed on existing Bldg.

- (a) Cut openings thru exterior walls to provide corridor passageways.
- (b) Expansion joints where new walls connect old.
- (c) Provide new metal counter flashings let into old walls at New roof.
- (d) Reoute old Downspouts.
- (e) Provide new work to complete altered rooms A-100, 107A, 107B, 106A, 106B, 106C, 200A, A300, 301A, 301B, 301C as scheduled on drawings.

2. Site Preparation.

- (a) Reroute utility lines as shown by Mechanical Drawings.
- (b) Remove surface vegetation.
- (c) Protection and guard rails.
- (d) Site is flat level yard--very little improvement required.

3. Excavation and Grading

- (a) Do all excavation inside and outside of building.
- (b) Backfill outside of Building.
- (c) Interior fill and gradings--Kansas Highway Spec's Type "B" or inundated sand fill.
- (d) Exterior finish grading to be left suitable for seeding.
- (e) Sodding and planting not in contract.

4. Concrete Work

- (a) Concrete--3750 P.s.i.--28 days.
- (b) Reinforcement in accordance with Joint Codes.
- (c) Control and expansion joints to be included.
- (d) Architectural concrete to be used where exposed.
- (e) Monolithic concrete floors and skeleton framing.
- (f) Slabs on fill.
- (g) Walks and Drives as shown by drawings.
- (h) Moisture berrier under slabs on fill--Visqueen.004" or Equal.

5. Cement Finishes

- (a) 1" Topping thickness as required by drawings.
- (b) Integral finish on Monolithic slab as required by drawings.
- (c) All edging strips where change in floor coverings occur are to be provided.

6. Masonry Work

- (a) Brick-ASTM-C62-50.
- (b) Light weight concrete blocks--ASTM- C-90-52.
- (c) Glazed face light weight concrete Brick & Block--"Glasface" or equal.
- (d) Wall Mesh--Duro-wall or each in all block walls and partitions.
- (e) Native Stone--Denton Stone, Random Ashlar.Silverdale Sills.

7. Damp-proofing.

- (a) All foundations below grade to be given two coats of Hydrocide Semi-Mastic damp-proofing.

8. Structural Steel

- (a) All structural steel required---ASTM-A-7-53T.

9. Miscellaneous Metal Work

- (a) Building iron.
- (b) Railings--Aluminum Alloy 6063 Tubeline By Blumcraft stock compounds.
- (c) Projection screen and frame.
- (d) Safety Treels-Abrasive Aluminum (east)-5/16"x3".
- (e) Aluminum covered frames--Aluminum Sheet-3 S Alloy-H14-0.40" thick satin finish.
- (f) Access Doors--8"x8" Zurn #1376.

10. Metal Specialties

- (a) Hollow metal doors and frames.
- (b) Hollow metal interior door frames.
- (c) Metal toilet partitions as scheduled.
- (d) Hollow metal exterior and fire doors.

11. Curtain Wall Panels

- (a) Aluminum Framings-Alumilite 204R1 finish.
- (b) Panels 16ga. steel porcelain finish--galvanized and bonderized 1 1/2" Fiberglass Core-"U" factor 0.19 or better.
- (c) Windows--Aluminum Architectural Projected-weather stripped.
- (d) Fabricated in accordance with Davison Type A "Double Wall" U-20 Modified. Finish-Davidson #251A or equal.

12. Sheet Metal Work

- (a) Counter flashings--16oz soft copper.
- (b) Gravel stop---Alcoa Extruded Aluminum Type "F".
- (c) Roof exhauster and vent flashings--#18ga. galvanized.
- (d) Leaders and Gutters--16oz hard copper.
- (e) Spandrel flashings--3.oz copper Armored Sisalkraft.

13. Roofing and Roof Insulation

- (a) 1 1/2" Fiberglass or 1 1/2" Rigid fiberboard roof insulation.
- (b) 20 year pitch and gravel roofing.
- (c) Bond.
- (d) All necessary roof flashings to be equal to Barrett's Type "A-A".

14. Carpentry

- (a) Lumber--Construction Grade K.D.
- (b) Wood floors--DFPA-"Plybase".

15. Millwork and Finish Carpentry

- (a) Miscellaneous Trim--K.D. white pine-clear.
- (b) Miscellaneous shelving--K.D.-white pine #2.
- (c) Doors--standard flush veneered oak-solid core.
- (d) Miscellaneous case work--K.D. white pine-clear, or oak.

16. Caulking

- (a) Kuhl's Elastic Composition to fully complete exterior caulking work.

17. Lathing and Plastering

- (a) Suspended- Metal furring and framing.
- (b) Lath- 3/4" metal--expanded type.
- (c) 3 coat plaster-finish as scheduled.

18. Ceramic Tile Floors

- (a) Standard Grade--Red quarry 6"x6"x1/2" Tile.

19. Composition Floor Coverings

- (a) Vinyl Asbestos--1/8"x9"x9"--"Flemachrome" or equal Fed. Spec's L-T-751-Type I.
- (b) Vinyl Tile--1/8"x9"x9"--"Lifetime" or equal. Fed. Spec's L-T-751-Type II.
- (c) Edging Strips-- Aluminum Alloy.
- (d) Base--6" Top Set Vinyl.

20. Glass and Glazing

- (a) Entrance Ways--1/4" plate.
- (b) Windows-- Fixed and Ventsash= Insulating DSB-1/4" airspace.
- (c) Mirrors--All Lavatories--1/8" DSA, S.S. Molding-Snapon.
- (d) Pattern Glass--1/8" Fine-Tex.
- (e) Interior Vision panels--1/8" DSA.

21. Aluminum Entrances.

- (a) Aluminum--Brasco or Equal-6063-TS- Aluminum Alloy-1/8"--Aluminite Finish-204cl. All hardware to be included-Closer "Norton" Hold open- Swing Out.

22. Acoustical Treatment.

- (a) Material-Fed. Spec's-SS-A-1186-Class "C", 3/4" minimum thickness-noise reduction-o.65AMA.
- (b) Suspensions- equal to "Securitee" system or equal.

23. Finish Hardware.

- (a) Allowance--\$3200.00.
- (B) Aluminum finish.

24. Painting and Decorating.

- (a) Interior wood-- 3 coat natural.
- (b) Concrete interior surfaces--2 coats--Latex base.
- (c) Block walls--2 coats--"Zolatone" or equal.
- (d) All miscellaneous interior and exterior--3 coats.
- (e) Pipes and Coverings--2 coats.

25. Miscellaneous Equipment.

- (a) Chalk Boards--"Austral-Steel" or equal.
- (b) Tack Boards-- $\frac{1}{4}$ " Cork Board.
- (c) Framing-Aluminum and metal grounds-"Loxit" or equal.
- (d) All coat rails and hat racks.
- (e) Fire Extinguishers and Cabinets- "Allenco" #285 and soda acid.
- (f) Signs and Letters, etc., as selected by institution.
- (g) Metal book shelves--In each toilet room provide 5 metal wall hung book shelves in 3 toilet rooms size 4'-0"x12"-Vogel-Peterson #Aw-4.
- (h) Metal Letters--Provide 8" cast aluminum metal letters, Nelson-Harkins- #700 Aluminited, to form name of Bldg.

26. Oil Hydraulic Elevator.

- (a) 2000# capacity-Platform 5'-6"x5'-4" minimum.
- (b) 22 foot travel-75 feet per minute speed.
- (c) Automatic push button control.
- (d) Signals to be provided in each corridor.
- (e) Alarm bell to be included.
- (f) Cab- Allowance of \$1200.00.
- (g) Doors--Standard flush design-baked enamel finish.
- (h) Electric Eye-Door control.
- (i) Pumping unit and plunger to be included.
- (j) Door entrance frames and sills to be included.

PRELIMINARY HEATING, VENTILATING, & AIR CONDITIONING
SPECIFICATIONS * Science Building - Fort Hays State Teachers College

WORK TO BE DONE

1. Furnish and install steam supply and pumped return lines to existing steam tunnel located about 175'-0" East of the North-east corner of the existing Science Building.
2. Furnish and install a double pipe forced hot - water heating system for the proposed building.
3. Furnish unit ventilators for the two lecture rooms of the combination heating and cooling type. Furnish water chiller and cooling tower and all associated piping necessary to Air - Condition and properly cool the two lecture rooms.
4. Furnish and install ductwork from fume hoods and include exhaust caps and shutters.
5. Provide air relief thru roof from two Lecture rooms. Provide air relief from all other rooms thru corridors.
6. Provide forced ventilation from toilets A103, A104, and 301B.

MATERIALS:

Materials shall be as follows:

- a. Steam mains, and hot water supply and return mains shall be schedule 40 black wrought steel pipe.
- b. Condensate return and pumped return piping shall be schedule 40 black Byers genuine wrought iron pipe.
- c. Fittings 2" and under shall be 125 lbs. cast iron screwed. Fittings 2- $\frac{1}{2}$ " and over shall be 150 lb. standard welding fittings.
- d. Insulate all heating piping with $\frac{1}{2}$ " fiber glass pipe insulation except 25 p.s.i. steam lines shall be insulated with 1" thick fiber glass pipe insulation.
- e. Gate valves 2" and under shall be brass body screwed, rising stem. Gate valves 2- $\frac{1}{2}$ " and over shall be 125 lb. iron body, flanged rising stem.

EQUIPMENT:

- a. Convactor (B & G #SU107-2)
Heat 225 GPM from 180 deg. F to 200 F based on 5 p.s.i. steam pressure.
- b. Pressure reducing valve
2000 lbs. per hour. Reduce from 25 p.s.i. to 5 p.s.i. (dead end service)
- c. Duplex condensate return pump
Dunham #CHV1040 - 10000 sq. ft. E.D.R.
Pump 15 GPM @ 40 p.s.i. head
1½ HP 230/60/1
- d. Hot water circulator No. 1 (Lecture Room Zone)
B & G #U-35 universal pump
50 GPM at 40 ft. head
2 HP 230/60/1
- e. Hot water circulator No. 2
B & G #U-35 universal pump
117 GPM @ 36 ft. head
- f. Unit ventilators
Combination heating and cooling units for lecture rooms. Other units are for heating only. Furnish Herman Nelson "Draft Stop Wall" where indicated on plans.
- g. Unit heaters
Floor cabinet type. Sizes as indicated on plans.
- h. Convectors
Sloping top wall hung institutional type. Capacities as indicated on plans.
- i. Power roof ventilators
Equal to Jenn-Air type CR

TEMPERATURE CONTROL:

Furnish a pneumatic temperature control system. Provide electric thermostat and aquastats for unit heaters.

Fort Hays State Teachers College
Hays, Kansas

PRELIMINARY ELECTRICAL SPECIFICATIONS

WORK TO BE DONE:

Existing Building

1. Remove certain lighting fixtures and devices for reworked toilet and office areas. Provide new wiring and equipment as indicated.
2. Install new transformers and distribution equipment for the existing building and the new addition.

New Building

1. Provide all wiring and equipment for lighting and devices. Provide conduits for a complete telephone system.
2. Provide power and wiring for laboratory equipment.
3. Provide all power and control wiring for heating and ventilating equipment.
4. Provide branch circuit panels and feeders.
5. Extend non-coded open circuit fire alarm system from existing building.

MATERIALS:

1. All branch circuit wiring shall be type TW copper, in conduit. Feeders and service shall be type RH-RW. Primary wiring shall be 5 KV cable.
2. Switches and receptacles shall be brown bakelite "specification grade".
3. Device plates shall be stainless steel.
4. Panels shall be circuit breaker type equal to Square D, type NQO.
5. System shall be 4160 Y primary to a three phase bank of dry transformers for a 120/208 volt, four wire secondary. Transformers shall have sufficient capacity for the existing building and this addition. Bank shall include three 75 KVA transformers (estimate).

FIXTURES:

1. Provide lighting fixtures and lamps equal to the following:
 - a. Two lamp, 430 M.A. metal louvers 45x45 shielding.
 - b. Four lamp, 430 M.A. similar to "a".
 - c. Two lamp, 430 M.A. plastic louvers.
 - d. Four foot by four foot, surface, 430 M.A. four lamp, plastic louvers.
 - e. Similar to "d" except six lamps.
 - f. Lampholder.
 - g. Circline, plastic diffuser.
 - h. 150 watt recessed fixtures, incandescent.
 - i. 100 watt protected incandescent.

TERMINAL CONNECTIONS TO LABORATORY EQUIPMENT

1. Fully complete electric wiring to all laboratory equipment as specified under "Project Requirements of the Institution" to have electric power outlets, motors, etc.

Fort Hays State Teachers College
Hays, Kansas

PRELIMINARY PLUMBING SPECIFICATIONS

WORK TO BE DONE:

Existing Building and Existing Piping:

1. Remove certain plumbing fixtures in one existing toilet on second floor as noted.
2. Furnish and install certain fixtures on the first and third floors.
3. Reroute the existing sanitary sewer as shown and remove one existing manhole.
4. Build two new manholes in sanitary sewer line.
5. Reroute an existing 4" irrigation water line and existing 3/4" water line through tunnel of new building.

New Building:

1. Connect and extend a new storm sewer line from catch basin to existing street. Tie in roof drainage piping of new building.
2. Furnish and install all piping required to connect all fixtures and equipment.

MATERIALS:

Materials and their uses shall be as follows:

- a. Sanitary sewer and vents in building - extra heavy cast iron for lines 2" in diameter and above. Under 2" diameter, galvanized wrought iron may be used with screwed cast iron drainage type fittings.
- b. Acid resisting sewer and vents - Duriron.
- c. Gas and Air piping - Black steel.
- d. Hot and cold water - galvanized steel.
Cast iron and Duriron shall be made up with bell and spigot joints. Screw joints shall be cast or malleable fittings of the type required.
- e. Pipe insulation - premoulded fiber glass with fungicidal sizing applied overall. Cement and canvas over valves and fittings.
- f. Valves - Brass body, 125# pattern.

FIXTURES:

- a. Water Closets - vitreous china, elongated bowls, flush valves, open front seats.
- b. Urinals - vitreous china, pedestal, siphon jet, flush valves.
- c. Lavatories - vitreous china, wall hung.
- d. Service Sinks - Porcelain enamel, cast iron, trap standards.
- e. Drinking Fountains - 1 Bubbler, electrically cooled.

EQUIPMENT:

- a. Dilution chambers - vitreous china.
- b. Water Storage Heater - Kewanee 3006 with A-10 steam pack (200 gal. stor. and 200 gal. per hour recovery).
- c. Air Compressor - 1-1/2 HP with integral storage tank.

TERMINAL CONNECTIONS TO LABORATORY EQUIPMENT

- a. Fully complete gas, water, drainage, and air piping to all laboratory equipment specified under "Project Requirements of the Institution" to have these Utilities.

(4) ESTIMATE OF PROJECT COST AS FOLLOWS

(a) General Construction	<u>\$233,000.00</u>	
(b) Plumbing and Heating and Vent	<u>\$75,000.00</u>	Air-Conditioning \$10,000.00
(c) Electrical	<u>\$40,000.00</u>	
(d) Equipment as listed on drawings	<u>\$38,800.00</u>	
	<u>\$396,800.00</u>	
(e) Architect's Fees and Supervision	<u>\$31,700.00</u>	
		<u>\$428,500.00</u>
(f) Utilities		<u>2,500.00</u>
		<u>\$431,000.00</u>
(g) Contingencies		<u>19,000.00</u>
(H) Total Project Cost		<u>\$450,000.00</u>
(i) Gross Floor Area=23,285. Cost per sq. ft.	\$19.32.	

(5) COST PER GROSS SQ.FT. ANALYSIS OF ADDITION AND ALTERATIONS

(a) Mech. Equipment Room	<u>500sq.ft.</u>	
(b) First Floor of Main Bldg.	<u>7,425sq.ft.</u>	
(c) Second Floor of Main Bldg.	<u>5,485sq.ft.</u>	
(d) Third Floor of Main Bldg.	<u>7,425sq.ft.</u>	
Sub-Total Gross Floor Area	<u>20,835sq.ft.</u>	
Total Cost per sq.ft.	<u>\$19.40</u>	
Total Cost (a)Thru (d)		<u>\$404,300.00</u>
(e) Corridor--Room A107 Gross Area	<u>220sq.ft.</u>	
Total Cost per sq.ft. of (e)	<u>\$11.00</u>	
Total Cost of (e)		<u>\$2,400.00</u>

(5) COST PER GROSS SQ.FT. ANALYSIS OF ADDITION AND ALTERATIONS CONTINUED.

(f) Connecting Corridors, Elevator and Stair Hall

(a) First Floor Gross Area _____ 930sq.ft.

(b) Second Floor Gross Area _____ 600sq.ft.

(c) Third Floor Gross Area _____ 600sq.ft.

Total Gross Floor Area (a) Thru(c) _____ 2,130sq.ft.

Total Cost per sq.ft. of (a) Thru (c) _____ \$16.80

Total Cost of (a) Thru (c) _____ \$36,000.00

(g) Alterations to Existing Building

(a) Lump Sum Total Cost _____ \$7,300.00

(h) Total Estimated Cost of Project _____ \$450,000.00

(i) Associate Architect's Comment

(a) Because of the nature of the site we feel that the above estimate is justifiable; however, without seriously affecting the usability of the addition the overall size of the main building could possibly be revised from 116'-0" x 64'-0" to 114'-0" x 63'-0" thus increasing the gross floor area cost to \$19.60 per sq.ft., and by using the air conditioning chiller equipment as an alternate bid the General Construction costs could be decreased.

(b) For including air-conditioning for the entire building add \$35,000.00 to the above total estimated cost of the project.

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MUSEUM