

ROCKY MOUNTAIN HIGH SCHOOL, FORT COLLINS, COLORADO
CODE ANALYSIS

Applicable Codes
 International Existing Building Code (IEBC), 2006 Edition
 International Building Code (IBC), 2006 Edition
 International Fire Code (IFC), 2006 Edition
 Uniform Plumbing Code (UPC), 2006 Edition
 International Energy Conservation Code (IECC), 2006 Edition
 International Fire Code (IFC), 2006 Edition
 International Fuel Gas Code (IFGC), 2006 Edition

Applicable Standards
 Accessibility Standards per Chapter 11, IBC 2006 Edition
 Accessibility Standards per ANSI A117.1, 2003 Edition

Scope Summary
 This project, originally opened in 1970 and was expanded and renovated in 1994 and 2004. The current size of the school is approximately 250,000 square feet. The project involves the renovation of the existing building to meet current code requirements. The project includes the replacement of mechanical systems, electrical systems, plumbing systems, fire alarm systems, and other building systems. The project also includes the installation of new windows, doors, and other building components. The project is being undertaken to improve the safety, energy efficiency, and overall quality of the building.

- Life safety and security upgrades to Administration
- Mechanical systems replacement
- Carpet replacement
- Metal lath partition replacement with composite type partitions
- Fiberglass duct replacement
- Replacement of boilers
- Replacement of dedicated outside air mechanical units
- Reduced energy consuming pumps
- Replacement of existing lighting and display units at Gym and Music Center
- Replacement of existing piping with the schedule 40 pipe
- Mechanical ductwork
- Life safety and security upgrades (emergency shut-down at shop)

- Electrical Codes**
- Electrical systems associated with mechanical systems listed above
 - Electrical systems performance lighting and display units at Gym and Music Center
 - Replacement of existing piping with the schedule 40 pipe
 - Replacement of existing piping with the schedule 40 pipe
 - Replacement of existing piping with the schedule 40 pipe
- The building currently consists of 1973 original building 1994 addition and 2004 addition. There is no change in occupancy. All fire building fire areas now have a single building, but have separate and independent structural systems.

General Building Information
 Total Building Area: 246,075 sq ft
 Building Height: 30 ft
 Occupancy Type: High School, Group E Occupancy

Occupancy
 The proposed project maintains the existing occupancy and use of the existing building.

Fire & Smoke Protection Features
 Automatic Sprinkler System: existing
 The existing automatic sprinkler system is to be replaced with a new system. The new system will consist of a wet pipe system with the current components installed. The alarm, control, and other system components, current ratings will be maintained.

Means of Egress
 All occupant loads have been calculated and to determine the minimum number of exits, the proposed project maintains the existing means of egress door types and sizes are consistent with the type currently installed.

Accessibility
 The scope of the project does not significantly impact accessibility of the building or other rooms. Toilet partitions are being replaced on a new floor level. Maximum accessibility is provided to the administration area from the main entry.

Planting Systems
 The scope of this project does not change fence counts.

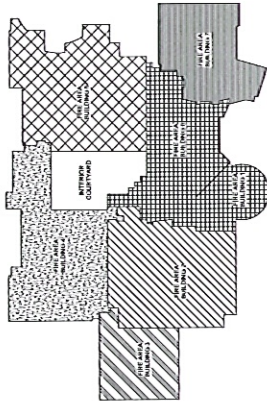
Referenced Code Sections from 2006 IEBC
 Section 403 Alteration - Level 1
 The majority of the scope is classified as Level 1

Section 404 Alteration - Level 2
 The total area of the renovation is less than 50% of the aggregate area of the building.

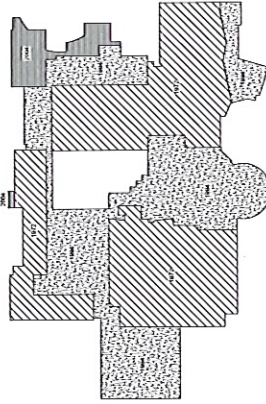
Referenced Code Sections from 2006 IBC

Section 104.11 Alternate Materials, Design and Methods of Construction
 The scope of this project is defined here and elsewhere in the documents. Compliance with the intent of the provisions of the code.

KEYPLAN - BUILDING FIRE AREAS



BUILDING CONSTRUCTION HISTORY



1973
COMBINED P.A. SOUTHWEST ALTERNATE MECHANICAL CHASERS
 P.A. AREA 14,400 SF (14,400 X 10) ALLOWABLE * 50,000
 F.P. = 571 (376) = 42% OPEN PERIMETER
 AREA = 14,400 X 10 = 144,000 SF = 65,000 ALLOWABLE * 50,000
 OCCUPANCY: E-1 (TYPE II - IRR IN P.A. NOT USED)

1994
P.A. AREA 14,400 SF (14,400 X 10) ALLOWABLE
 CONSTRUCTION: TYPE II - IRR FULLY SPRINKLERED AND TYPE II - IRR FULLY SPRINKLERED
 OCCUPANCY: E-1

1994
P.A. AREA 44,100 SF (60,770 ALLOWABLE)
 CONSTRUCTION: TYPE II - IRR FULLY SPRINKLERED
 OCCUPANCY: E-1, A-1, A-1.1, E-2

1994
P.A. AREA 2,400 SF (81,000 ALLOWABLE)
 CONSTRUCTION: TYPE II - IRR FULLY SPRINKLERED
 OCCUPANCY: E-1

1994
P.A. AREA 2,400 SF (81,000 ALLOWABLE)
 CONSTRUCTION: TYPE II - IRR FULLY SPRINKLERED
 OCCUPANCY: E-1

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1994
P.A. AREA 2,400 SF (81,000 ALLOWABLE)
 CONSTRUCTION: TYPE II - IRR FULLY SPRINKLERED
 OCCUPANCY: E-1, A-1, A-1.1

1994
P.A. AREA 2,400 SF (81,000 ALLOWABLE)
 CONSTRUCTION: TYPE II - IRR FULLY SPRINKLERED
 OCCUPANCY: E-1, A-1, A-1.1

1994
P.A. AREA 2,400 SF (81,000 ALLOWABLE)
 CONSTRUCTION: TYPE II - IRR FULLY SPRINKLERED
 OCCUPANCY: E-1, A-1, A-1.1

BUILDING HISTORY

ORIGINAL BUILDING:
 BUILT: 1973
 CONSTRUCTION: TYPE I-FR
 OCCUPANCY: E-1, A-1, A-1.1, E-2
 ORIGINAL BUILDING IS HISTORY, SLAB ON GRADE, PRECAST CONCRETE WALLS AND OCCUPANT WALLS AND PRECAST TWIN TUBS.

1994 BUILDING ADDITION:

CONSTRUCTION: TYPE II - IRR FULLY SPRINKLERED
 OCCUPANCY: E-1, A-1, A-1.1
 1994 BUILDING ADDITION IS HISTORY, SLAB ON GRADE, BEARING WALLS BRICK VENEER & METAL STUD W/ BRICK VENEER

2004 BUILDING ADDITION:

CONSTRUCTION: TYPE II - IRR FULLY SPRINKLERED
 OCCUPANCY: E-1, A-1, A-1.1
 2004 BUILDING ADDITION IS HISTORY, SLAB ON GRADE, BEARING WALLS & METAL STUD W/ BRICK VENEER

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 2
 Gofy
 Admin K

DATE: 11/11/11
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 PROJECT: [Name]
 SHEET: [Number]

DATE: 11/11/11
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 PROJECT: [Name]
 SHEET: [Number]

Kessell
 Trayer
 2
 Cooby
 Architect P.C.

10000 W. 20th Ave.
 Suite 1000
 Denver, CO 80202
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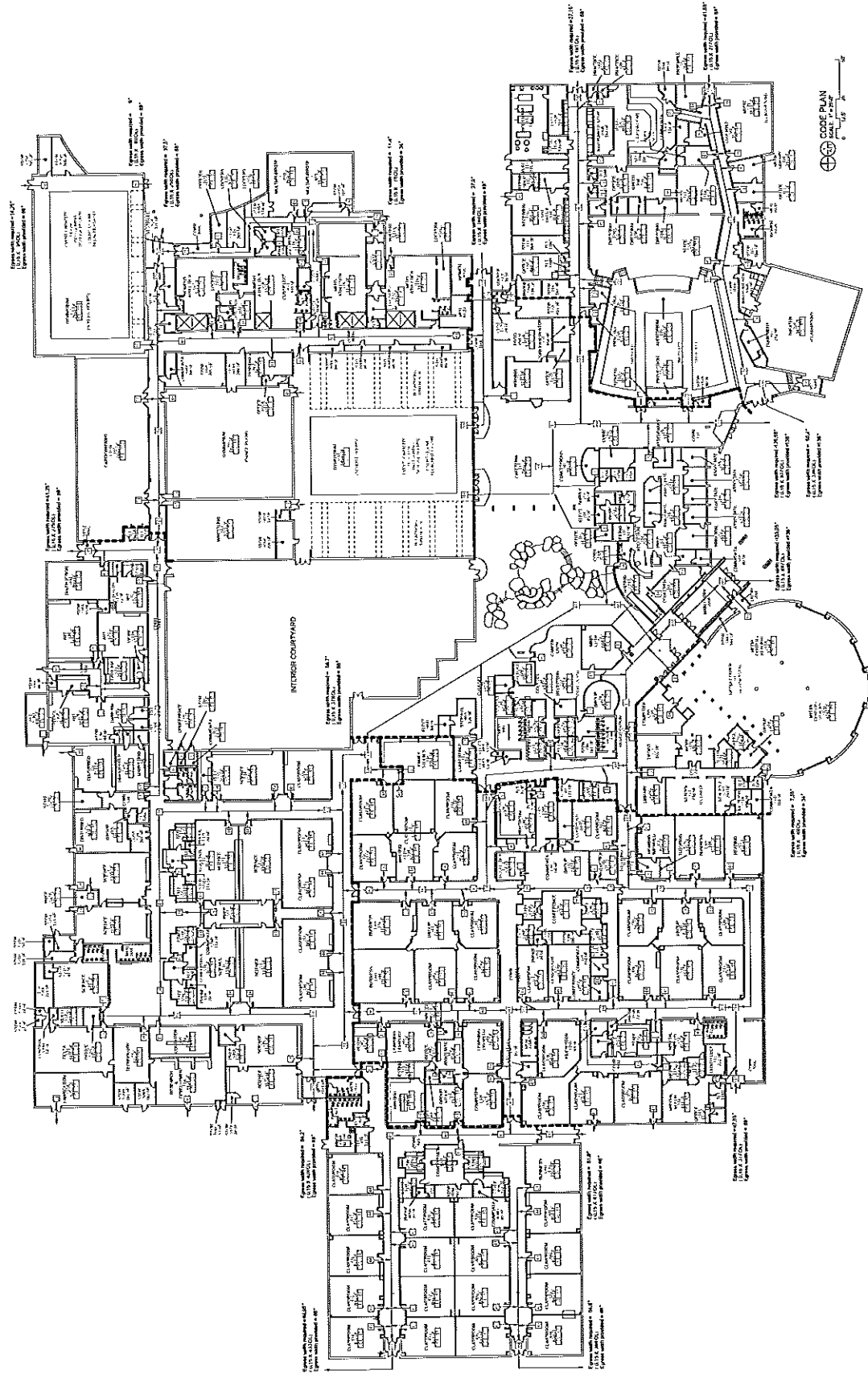


ROCKY MOUNTAIN ARCHITECTS
 10000 W. 20th Ave.
 Suite 1000
 Denver, CO 80202
 303.425.2344 Fax
 303.425.2345

Date: _____
 Title: _____
 Drawn by: _____
 Project No.: _____
 Revision: _____
 3. Construction Changes: _____

Scale: _____
 Date: _____
 Code: A0.3

A0.3



CODE PLAN LEGEND
 1. ALL STRUCTURE IS PER SPRINKLERED FOR
 REPAIRMENT WOULD TO MEET SQUARE FOOTAGE
 REQUIREMENT.
 2. BUILDING IS DIVIDED INTO 2-1/2 HR AREA
 REPAIRMENT WOULD TO MEET SQUARE FOOTAGE
 REQUIREMENT.
 3. ALL EXISTING CORRIDOR ARE 1 HR AREA WITH
 PROTECTION WARD REQUIRED.
 TOTAL BUILDING AREA: 206,225 SF

CODE PLAN
 SCALE: 1/8" = 1'-0"
 NORTH

NOTES:
 1. ALL STRUCTURE IS PER SPRINKLERED FOR REPAIRMENT WOULD TO MEET SQUARE FOOTAGE REQUIREMENT.
 2. BUILDING IS DIVIDED INTO 2-1/2 HR AREA REPAIRMENT WOULD TO MEET SQUARE FOOTAGE REQUIREMENT.
 3. ALL EXISTING CORRIDOR ARE 1 HR AREA WITH PROTECTION WARD REQUIRED.
 TOTAL BUILDING AREA: 206,225 SF

Client
Program
2
City

ARCHITECT

1000 Pennsylvania Ave.
 Suite 1000
 Washington, DC 20004

OWNER
 FEDERAL BUREAU OF INVESTIGATION
 400 ...
 Washington, DC 20535

STRUCTURAL ENGINEERING
 ...
 Washington, DC 20004

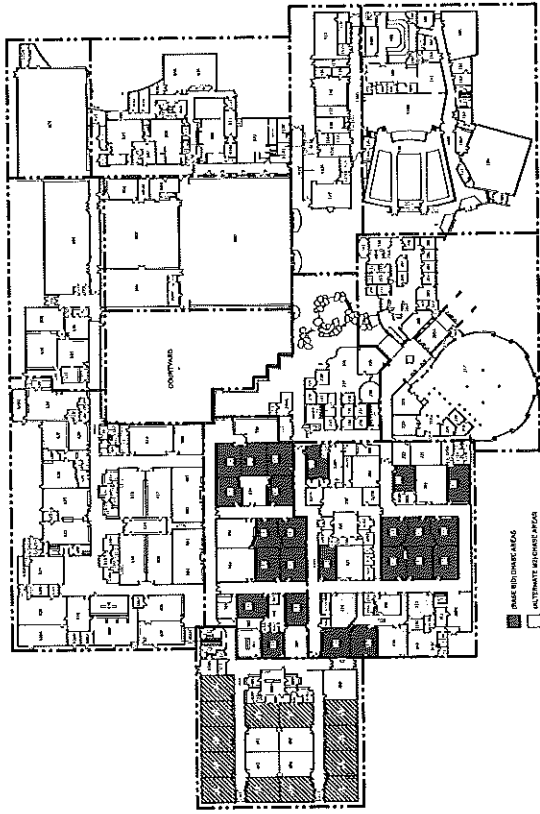
MECHANICAL ELECTRICAL PLUMBING
 ...
 Washington, DC 20004



DATE	2/20/2013
BY	...
CHECKED BY	...
PROJECT NUMBER	...
PROJECT NAME	...
PROJECT ADDRESS	...

SHEET NO. 2 OF 4
 DOOR SIZES FOR REFERENCE ONLY

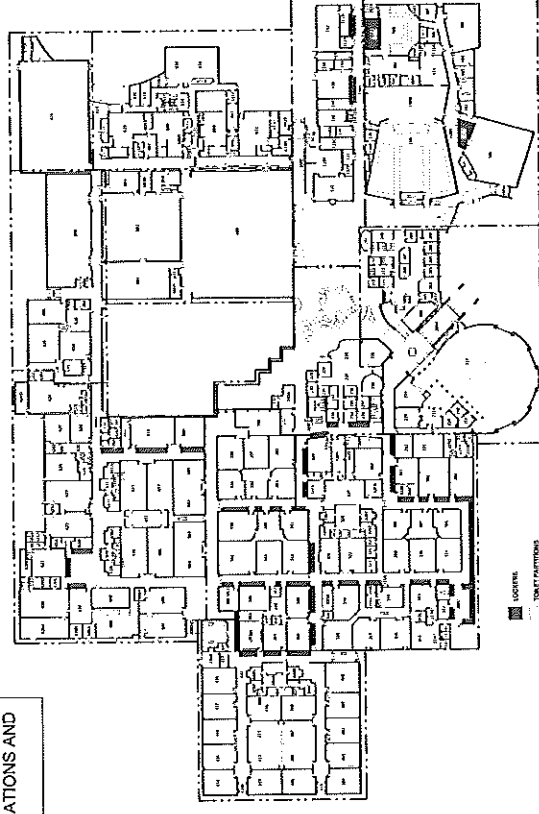
A0.4



REFERENCE PLAN - IDENTIFYING ROOMS TO RECEIVE NEW MECHANICAL CHANGES
 1/8" = 1'-0"
 1/4" = 3'-0"
 1/2" = 6'-0"
 1" = 12'-0"

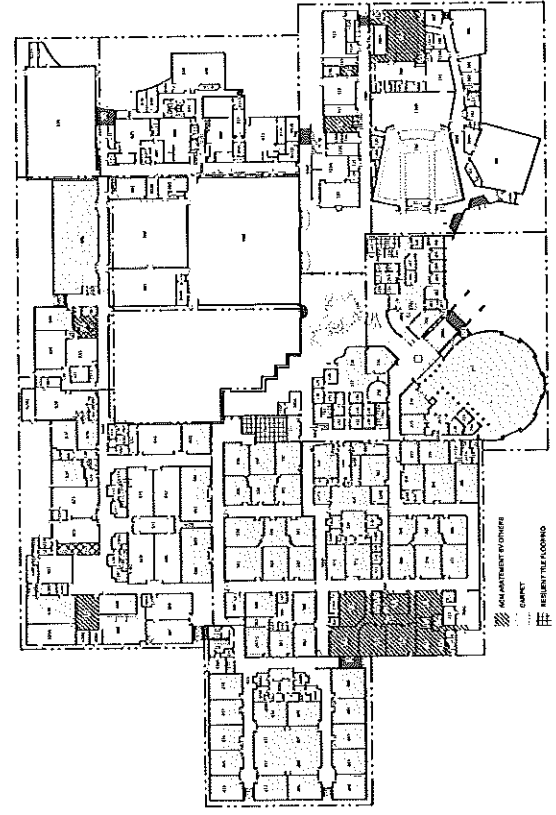
- BASE ROOMS AREAS
- INTERMITTENT ROOMS AREAS
- INTERMITTENT FACED AREAS

NEW ROOF IS TO BE INSTALLED ON MECHANICAL ROOMS AND ALTERNATE TO ALL OTHER ROOMS THAT ARE NOT MECHANICAL ROOMS. ALL MECHANICAL ROOMS ARE TO BE INSTALLED WITH 3" EPS INSULATION.



REFERENCE PLAN - IDENTIFYING ROOMS TO RECEIVE NEW TOILET PARTITIONS
 1/8" = 1'-0"
 1/4" = 3'-0"
 1/2" = 6'-0"
 1" = 12'-0"

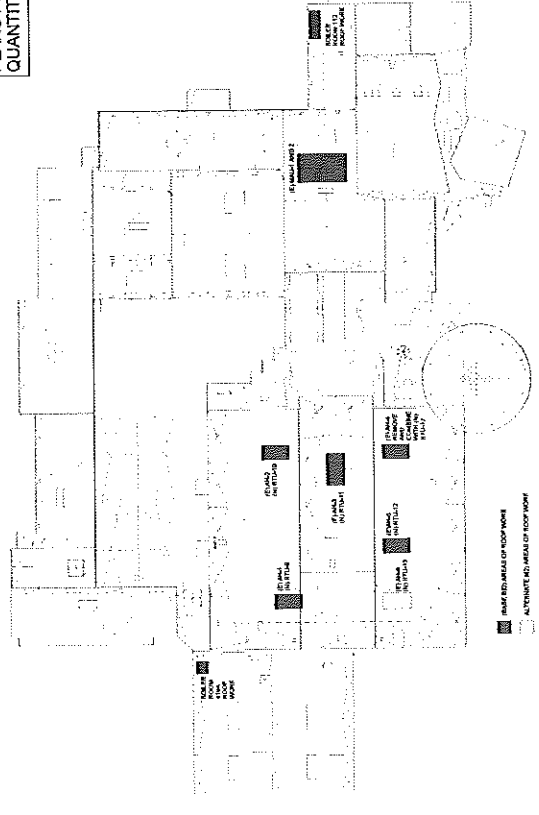
- LOCATIONS
- TOILET PARTITIONS



REFERENCE PLAN - IDENTIFYING ROOMS TO RECEIVE NEW FLOOR FINISH
 1/8" = 1'-0"
 1/4" = 3'-0"
 1/2" = 6'-0"
 1" = 12'-0"

- ALTERNATE FLOOR FINISH
- GRAB BAR
- RESILIENT FLOORING
- ANTISTATIC POLISHED TILE
- ANTISTATIC POLISHED TILE
- ANTISTATIC POLISHED TILE
- ANTISTATIC POLISHED TILE
- ANTISTATIC POLISHED TILE

NOTE: THIS SHEET FOR REFERENCE ONLY. REFER TO PLANS FOR ALL LOCATIONS AND QUANTITIES



REFERENCE ROOF PLAN - IDENTIFYING LOCATIONS OF UNITS TO RECEIVE WORK
 1/8" = 1'-0"
 1/4" = 3'-0"
 1/2" = 6'-0"
 1" = 12'-0"

- BASE ROOMS AREAS
- INTERMITTENT ROOMS AREAS