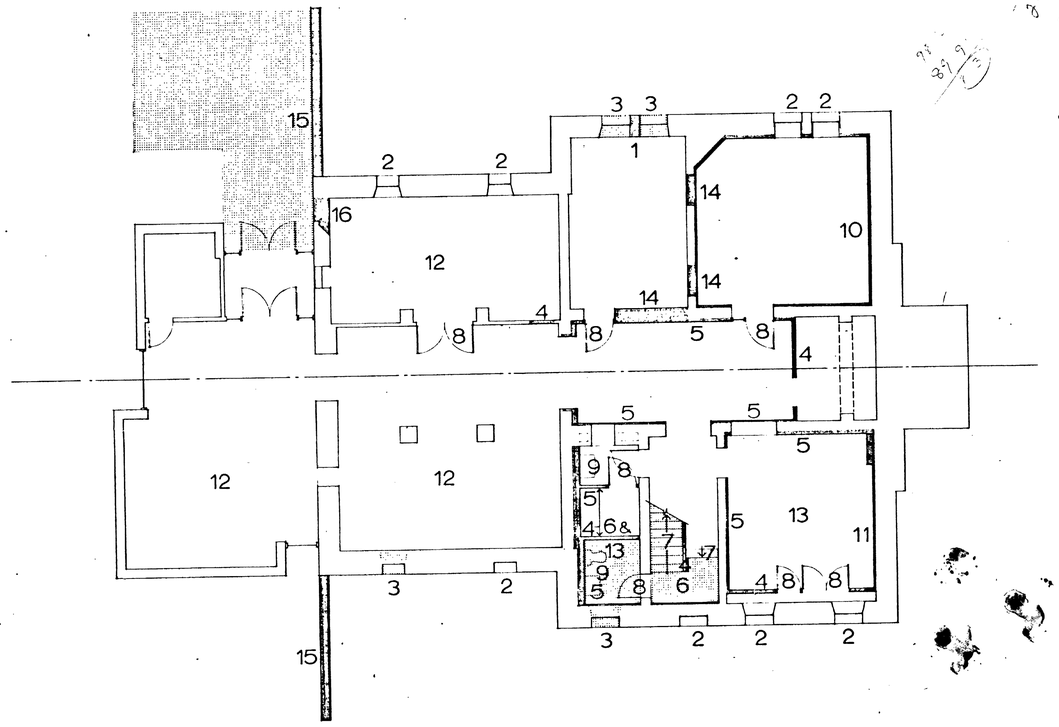
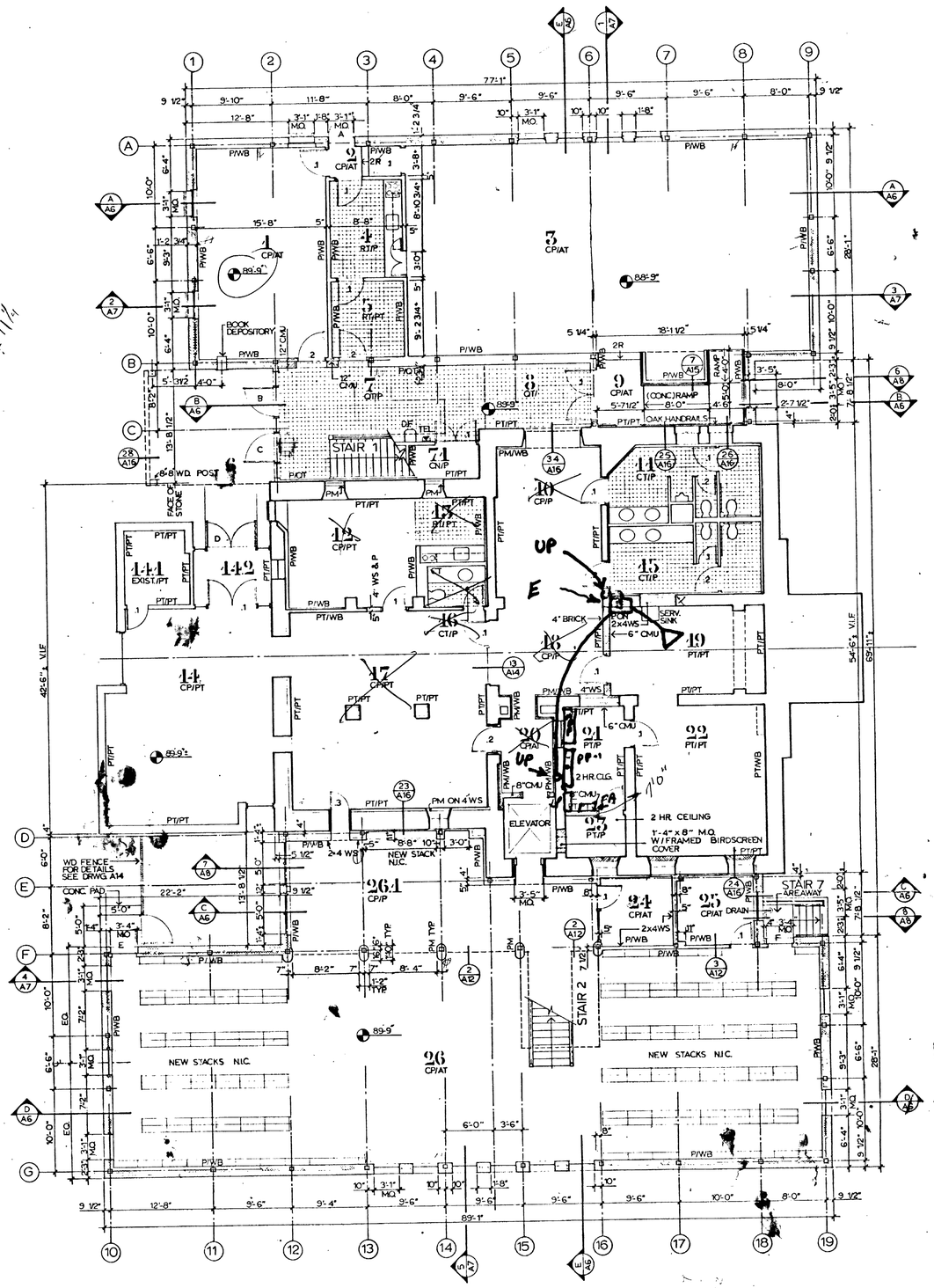


DEMOLITION PLAN 1/8"= 1'-0"

DEMOLITION NOTES

LOWER FLOOR PLAN

1. Remove exterior masonry wall and foundations as necessary to accomplish new work.
2. Remove window and window frame.
3. Remove window, window frame and masonry below sill to Elev. 89'-6".
4. Remove wood partition.
5. Remove exist. furring.
6. Remove concrete slab.
7. Remove stair, railings and framing.
8. Remove door and door frame.
9. Remove lavatory and water closet.
10. Remove plaster wall for waterproofing and replaster.
11. Remove plaster wall for waterproofing.
12. Remove present bookstacks and shelves.
13. Remove ceiling.
14. Remove masonry wall.
15. Remove exist. sitework and concrete retaining wall.
16. Make 2'-6"W x 2'-8"H opng. in exterior masonry wall Top of opng. to be Elev. 96'-6".



LOWER FLOOR PLAN 1/8"= 1'-0"

ROOM DESIGNATIONS

LOWER FLOOR PLAN

1. Book Sorting
2. Hall
3. Meeting Room
4. Kitchenette
5. Closet
6. Lower Entry
7. Hall
7.1 Storage
8. Hall (open above)
9. Alcove
10. Hall
11. Men's Toilet
12. Staff Room
13. Staff Kitchen
14. Technical Services
14.1 Storage
14.2 Vestibule
15. Women's Toilet
16. Staff Toilet
17. Technical Services
18. Hall
19. Jan.
20. Hall
21. Electrical Room
22. Jan.
23. Elevator Machine Room
24. Comp.
25. Comp.
26. Stacks, Art & Music
26.1 A/V Desk & Records

GENERAL NOTES

1. Main Floor finish fl. elev. is 100'-0".
2. Meeting Rm. finish fl. elev. is 88'-9".
3. Finish fl. elev. in additions is 89'-9".

LOWER FLOOR PLAN & DEMOLITION PLAN 1/8"= 1'-0"

J.V. FLETCHER LIBRARY WESTFORD, MA. ADDITION AND RENOVATIONS

ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181

STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109

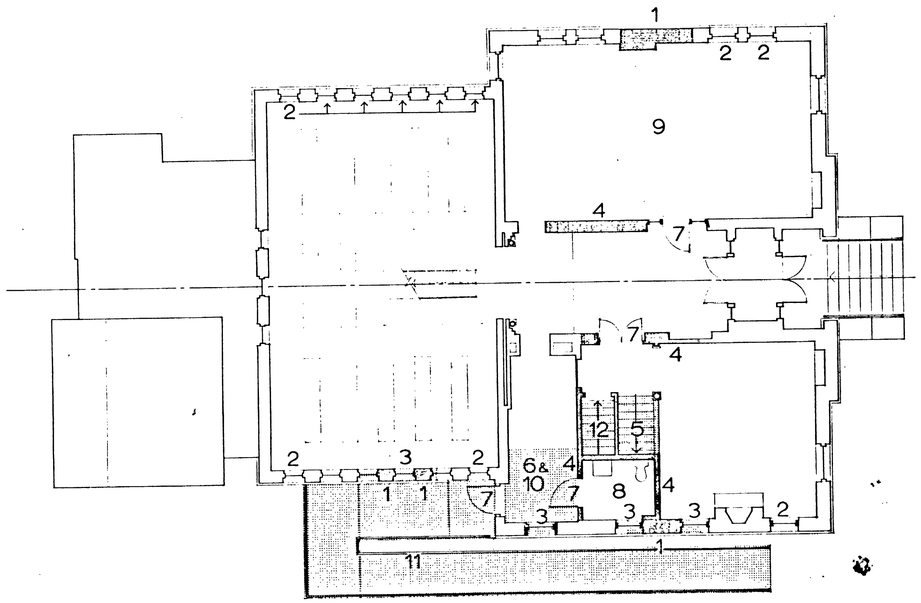
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129

ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210

LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

A1

DATE 17 NOV. 1986

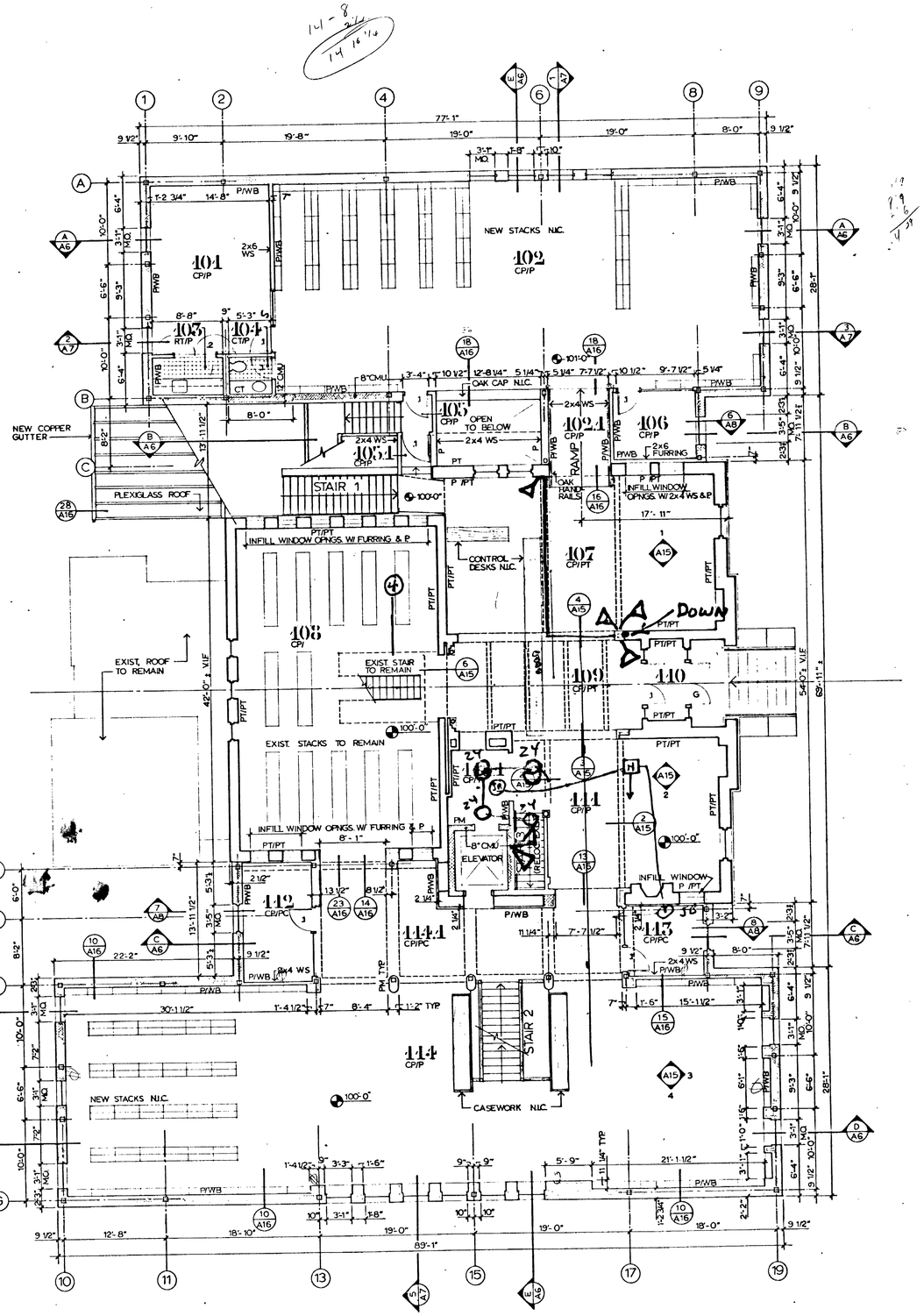


DEMOLITION PLAN

DEMOLITION NOTES

MAIN FLOOR PLAN

1. Remove exterior masonry wall.
2. Remove window and window frame.
3. Remove window, window frame and masonry below sill to Elev. 100'-0".
4. Remove wood partition.
5. Remove stair, railings and framing to relocate. See Stair 3 on Drawing A13.
6. Remove flooring and floor framing.
7. Remove door and door frame.
8. Remove lavatory and water closet.
9. Remove present bookstacks.
10. Remove ceiling.
11. Remove exterior wd handicapped ramp.
12. Remove stair, railings and framing.



MAIN FLOOR PLAN

ROOM DESIGNATIONS

MAIN FLOOR PLAN

101. Story Hour Room
102. Children's Library
102.1 Hall
103. Work Room
104. Children's Toilet
105. Hall
105.1 Hall
106. Office
107. Exhibit
108. Existing Stacks
109. Circulation Desk
110. Vestibule
111. New Books
111.1 Alcove
112. Office
113. Public Comp.
114. Stacks & Reference/ Periodicals
114.1 Alcove

GENERAL NOTES

1. Main Floor finish fl. elev. is 100'-0".
2. Finish fl. elev. of Rooms 101, 102, 103, 104, 105, 105.1 and 106 is 101'-0".

MAIN FLOOR & DEMOLITION PLAN 1/8" = 1'-0"

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

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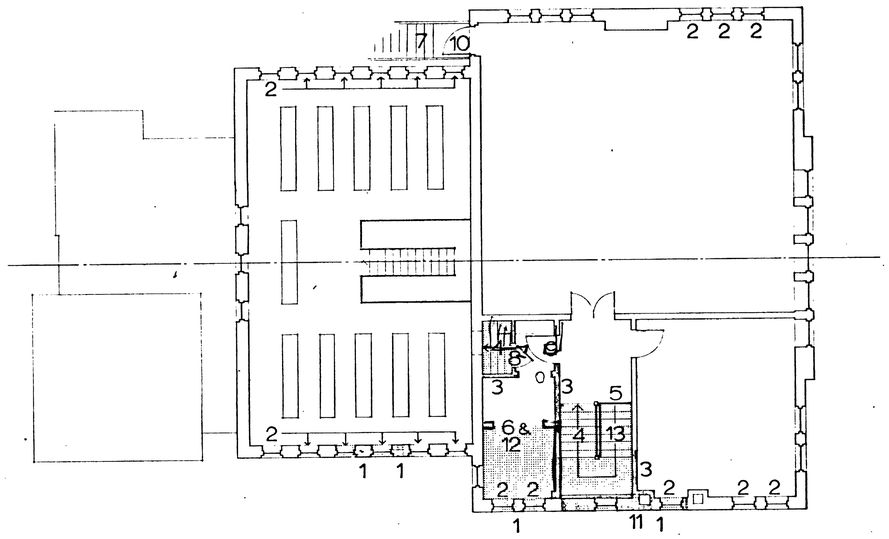
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210

LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

A2

DATE 17 NOV. 1986

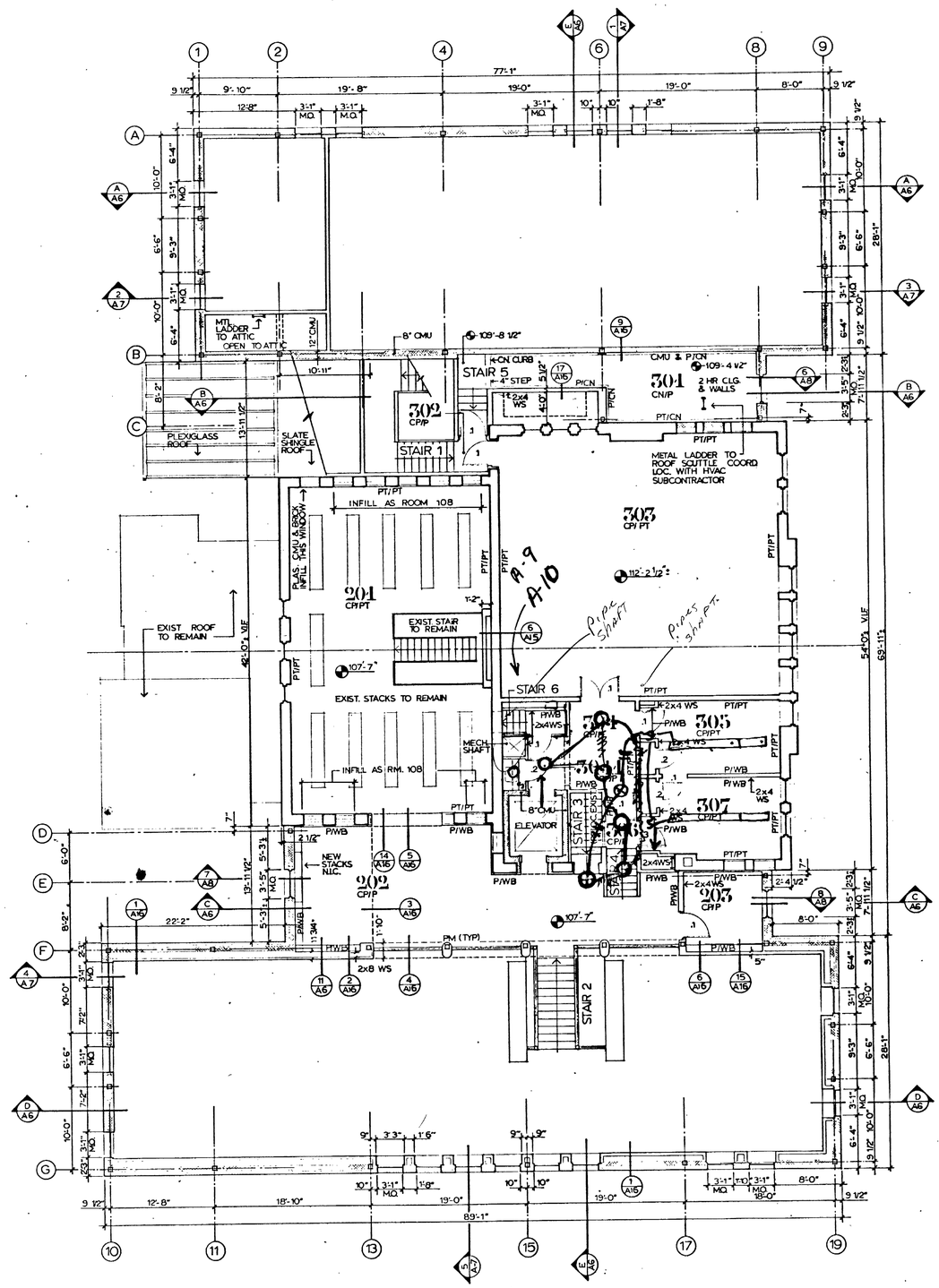


DEMOLITION PLAN 1/8" = 1'-0"

DEMOLITION NOTES

UPPER FLOOR PLAN

1. Remove exterior masonry wall.
2. Remove window and window frame.
3. Remove wood partition.
4. Remove stairs, stair landing, railings and framing.
5. Baluster to be relocated. See Stair 4 on Drawing A13.
6. Remove flooring and floor framing.
7. Remove fire escape including foundations.
8. Remove frame and relocate door to 305.2.
9. Remove frame and relocate door to 307.1.
10. Remove existing door.
11. Remove chimney flue.
12. Remove ceiling.
13. Remove stair, railings and framing to relocate. See Stair 3 on Drawing A13.



MEZZANINE & UPPER FLOOR PLAN 1/8" = 1'-0"

ROOM DESIGNATIONS

MEZZANINE

201. Existing Stacks
202. Reading Area
203. Assistant Director

UPPER FLOOR PLAN

301. Mechanical Room
302. Hall
303. Historical Collection/ Quiet Study
304. Hall
304.1 Alcove
305. Secretary
306. Hall
307. Director's Office

GENERAL NOTES

1. Main Floor finish ff. elev. is 100'-0".
2. Mezzanine finish fl. elev. is 107'-7"±.
3. Upper Floor finish fl. elev. is 112'-2½"±.

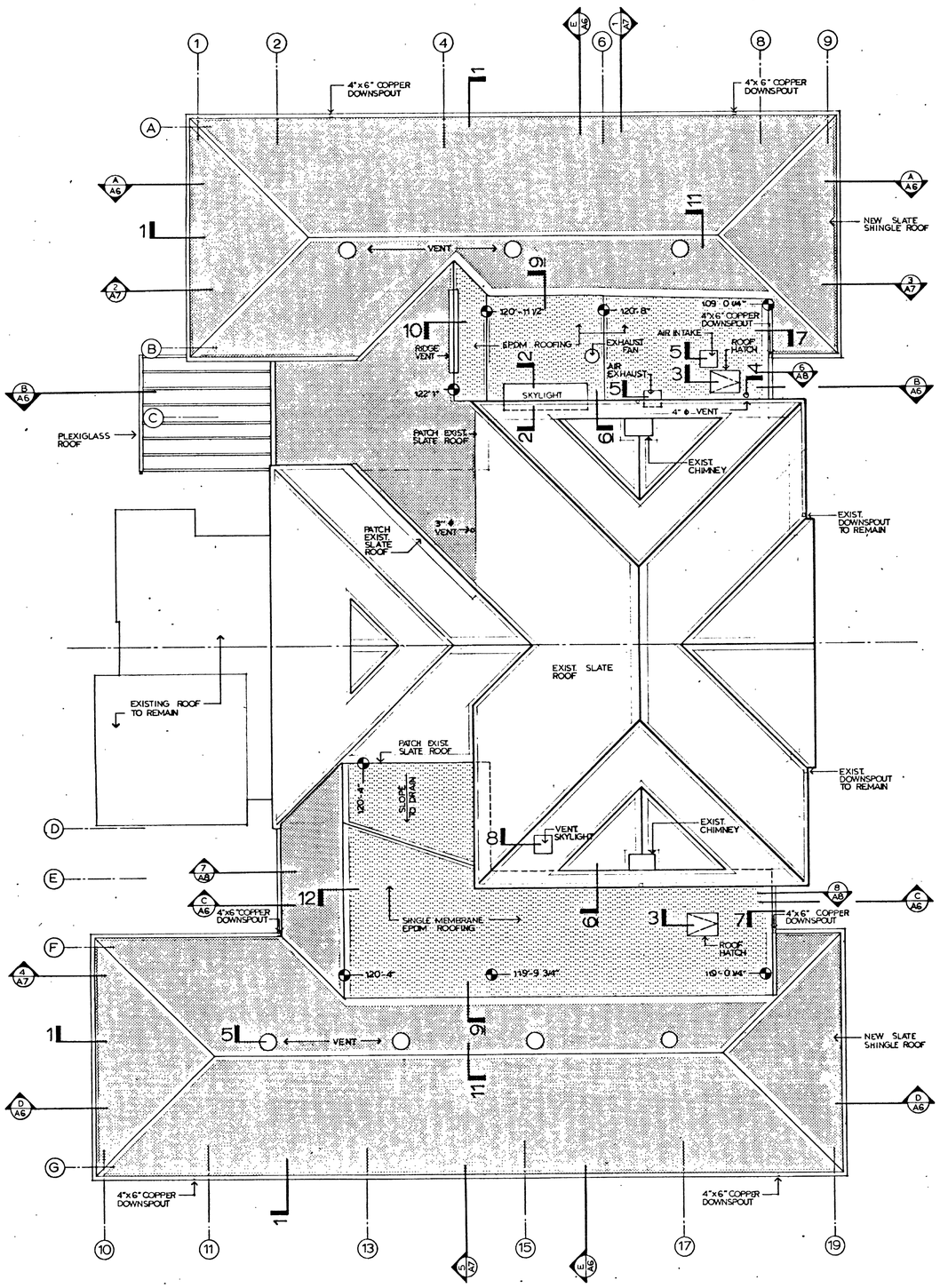
MEZZANINE & UPPER FLOOR PLAN, DEMOLITION PLAN
1/8" = 1'-0"

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

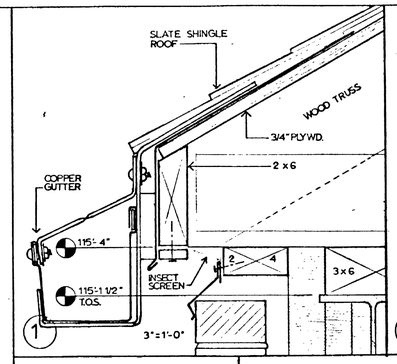
ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02270
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

A-2

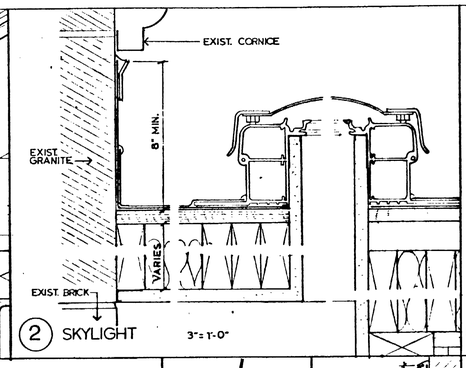
DATE 17 NOV 1986



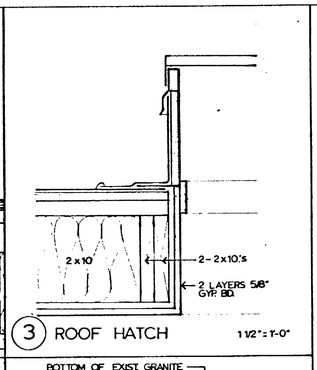
ROOF PLAN 1/8" = 1'-0"



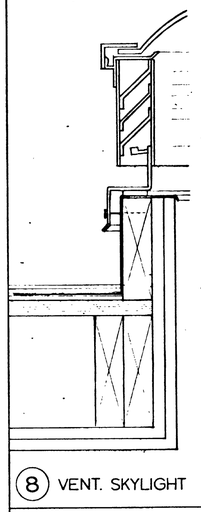
1 3" = 1'-0"



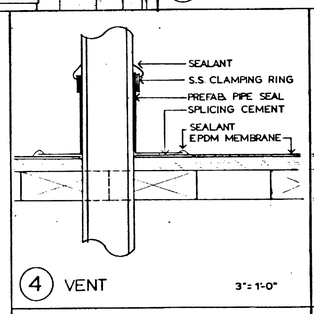
2 SKYLIGHT 3" = 1'-0"



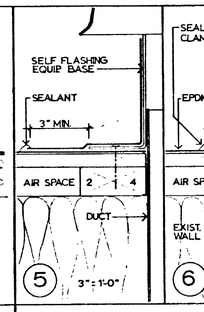
3 ROOF HATCH 1 1/2" = 1'-0"



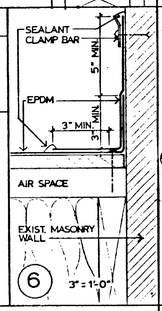
8 VENT. SKYLIGHT



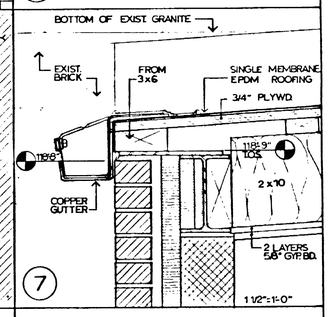
4 VENT 3" = 1'-0"



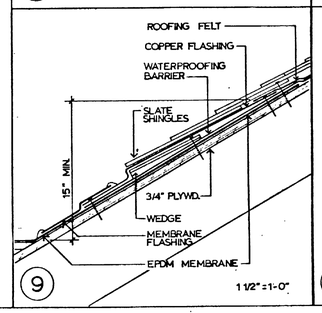
5 3" = 1'-0"



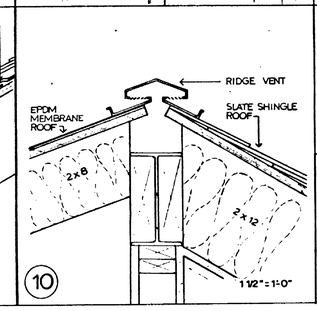
6 3" = 1'-0"



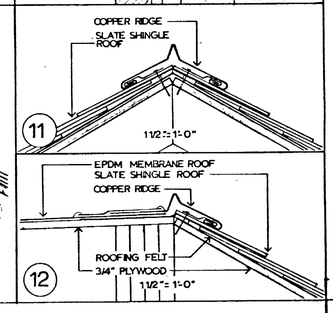
7 1 1/2" = 1'-0"



9 1 1/2" = 1'-0"

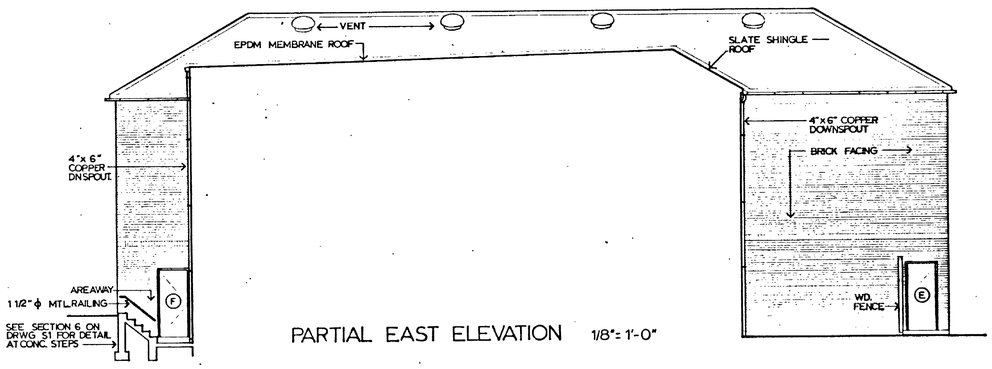


10 1 1/2" = 1'-0"

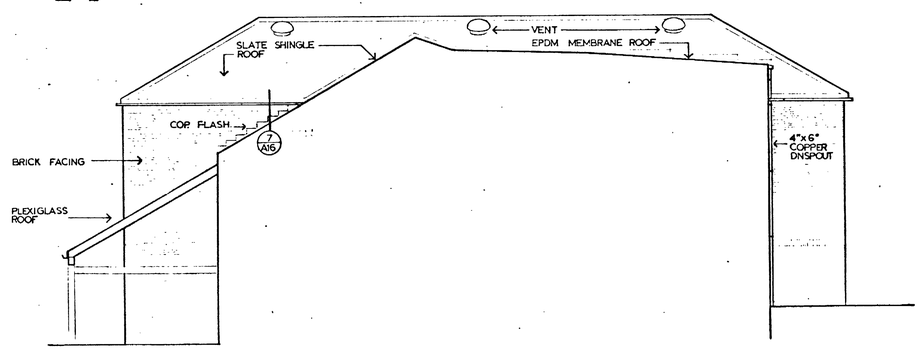


11 1 1/2" = 1'-0"

12 1 1/2" = 1'-0"



PARTIAL EAST ELEVATION 1/8" = 1'-0"



PARTIAL WEST ELEVATION 1/8" = 1'-0"

ROOF PLAN & DETAILS & PARTIAL ELEVATIONS SCALE AS NOTED

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

A-1

DATE 17 NOV 1986

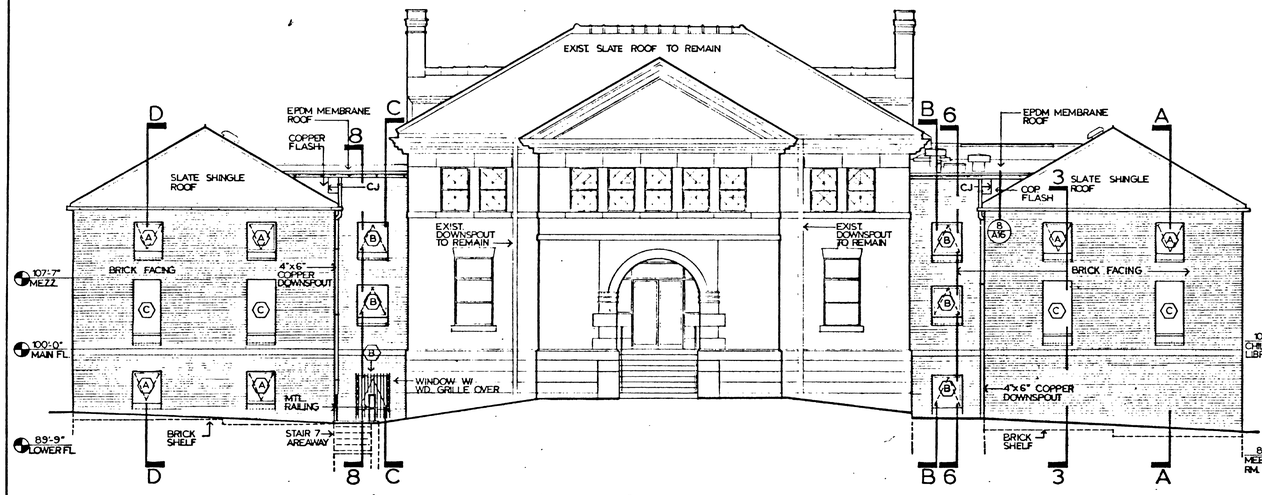
ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181

STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109

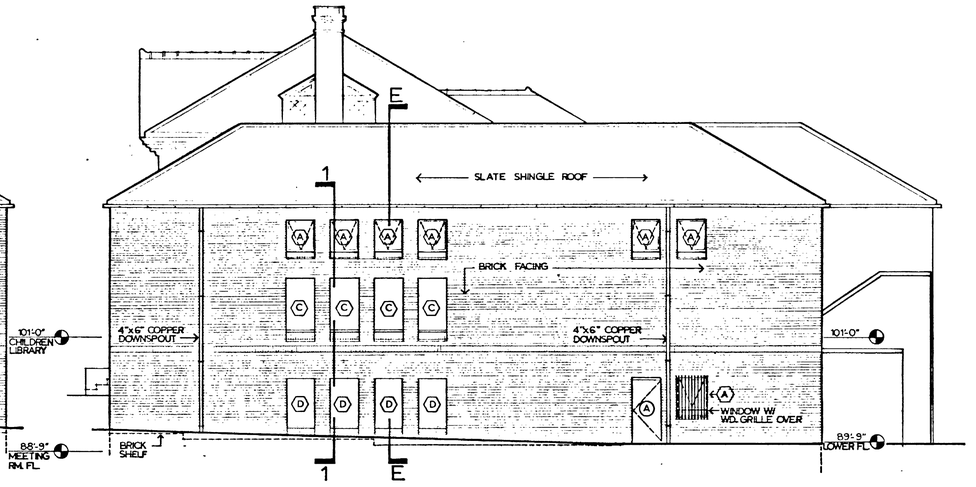
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129

ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210

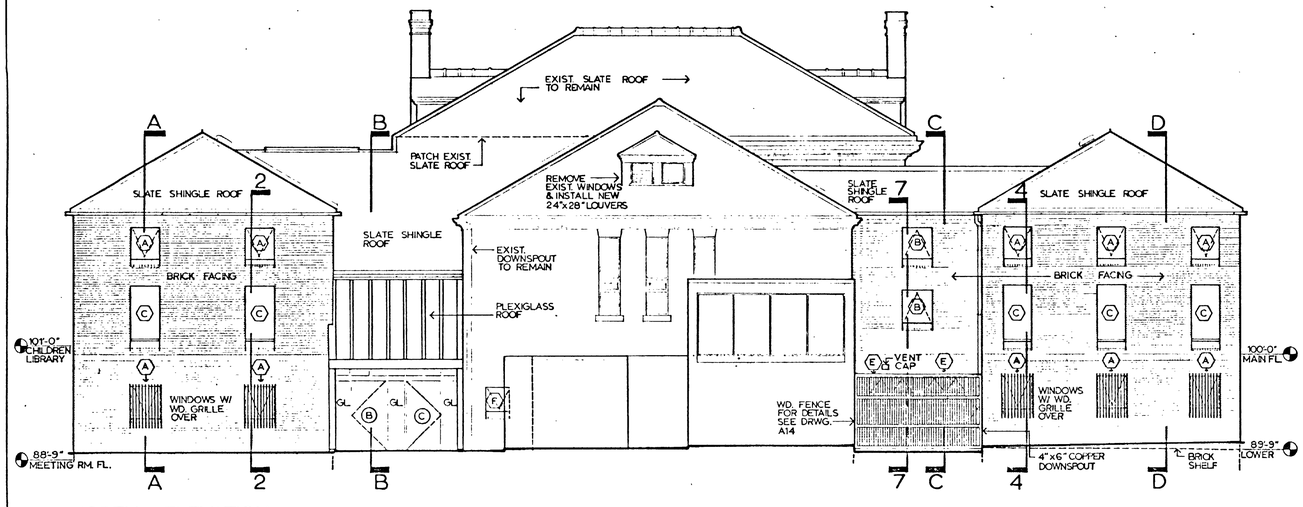
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178



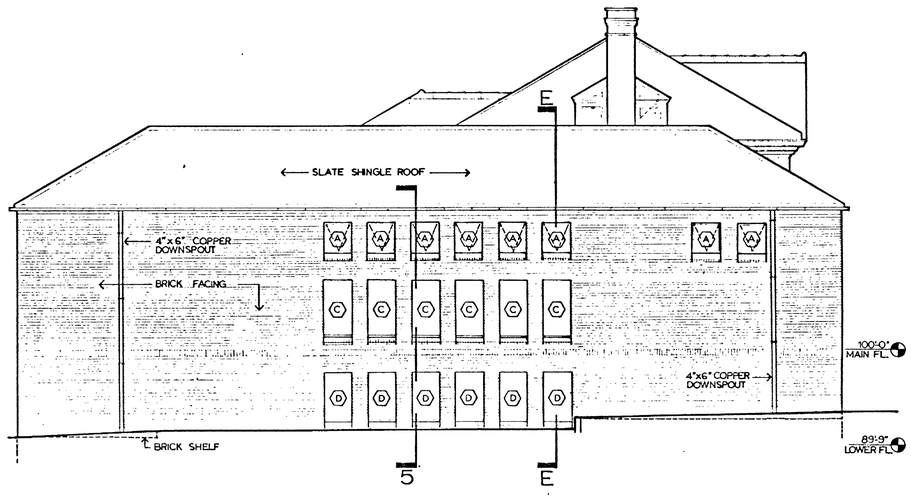
SOUTH ELEVATION 1/8" = 1'-0"



EAST ELEVATION 1/8" = 1'-0"



NORTH ELEVATION 1/8" = 1'-0"



WEST ELEVATION 1/8" = 1'-0"

GENERAL NOTES

1. For Building Sections A through E, see Drawing A6.
2. For Wall Sections 1 through 5, see Drawing A7.
3. For Wall Sections 6 through 8, see Drawing A7.

ELEVATIONS 1/8" = 1'-0"

J.V. FLETCHER LIBRARY WESTFORD, MA.
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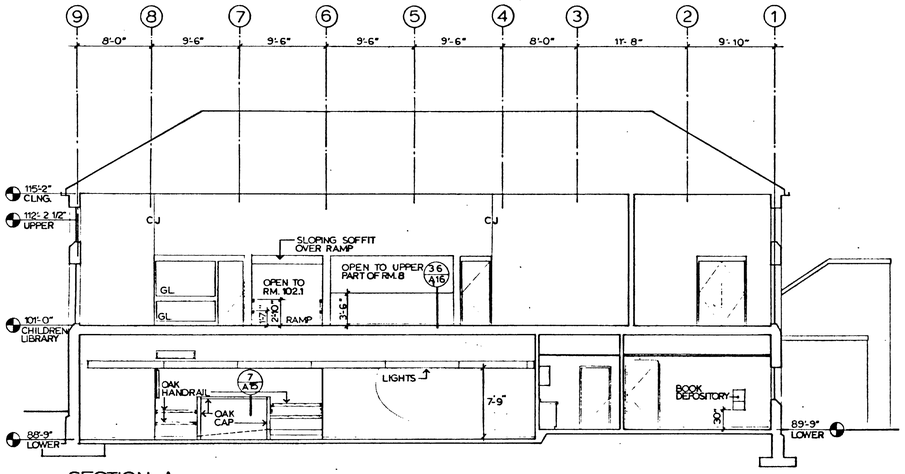
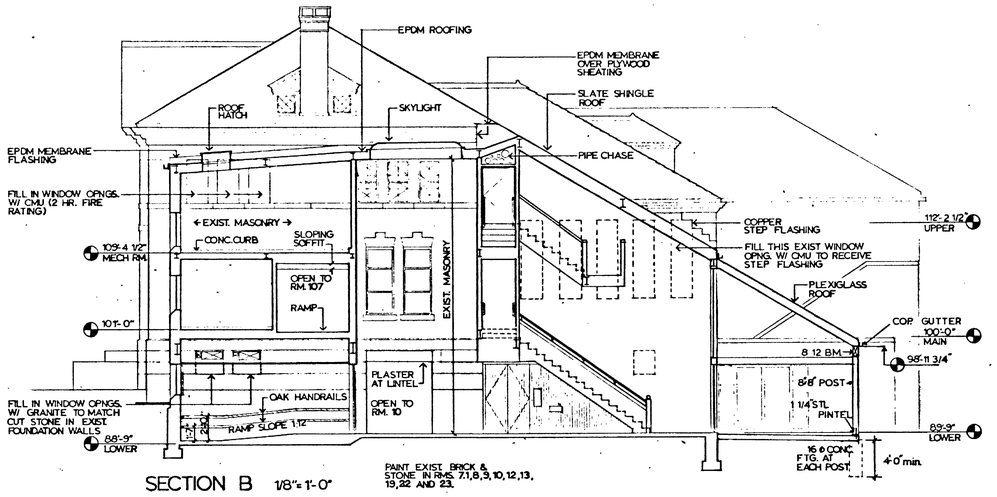
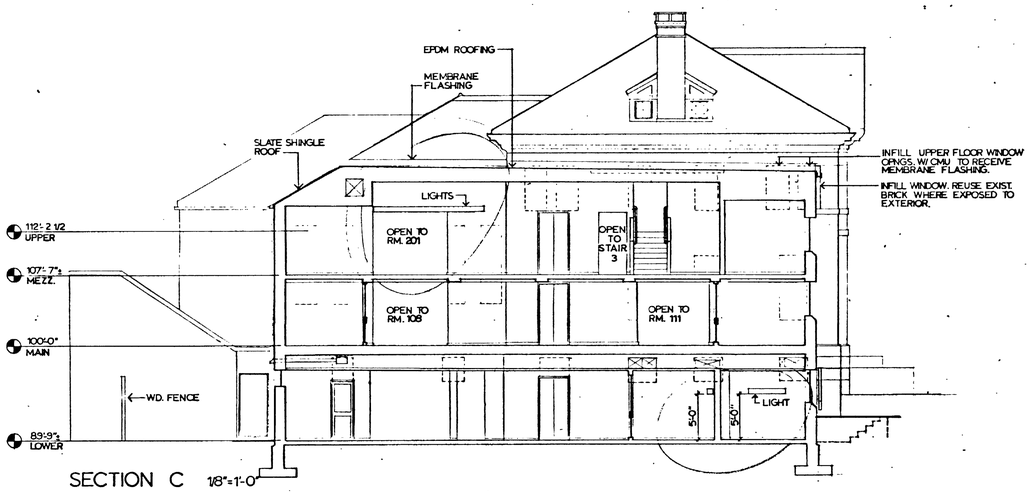
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178



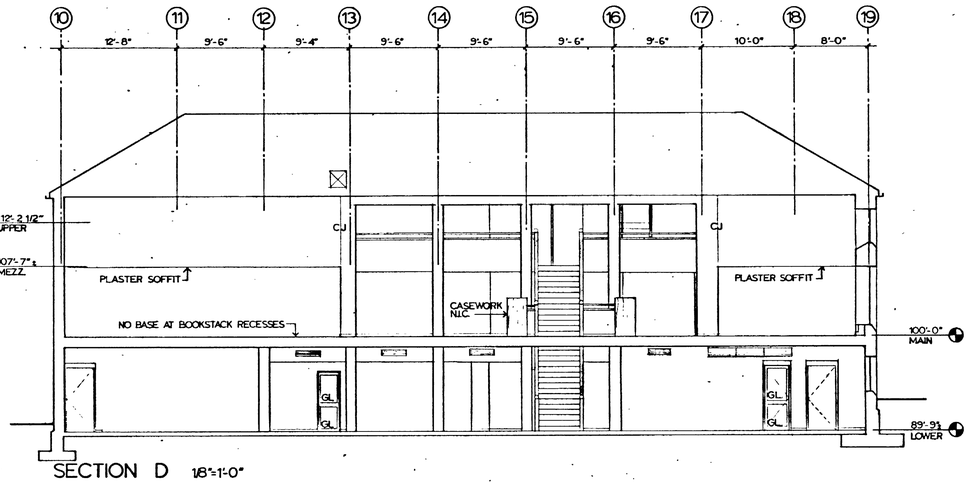
SECTION A 1/8"=1'-0"



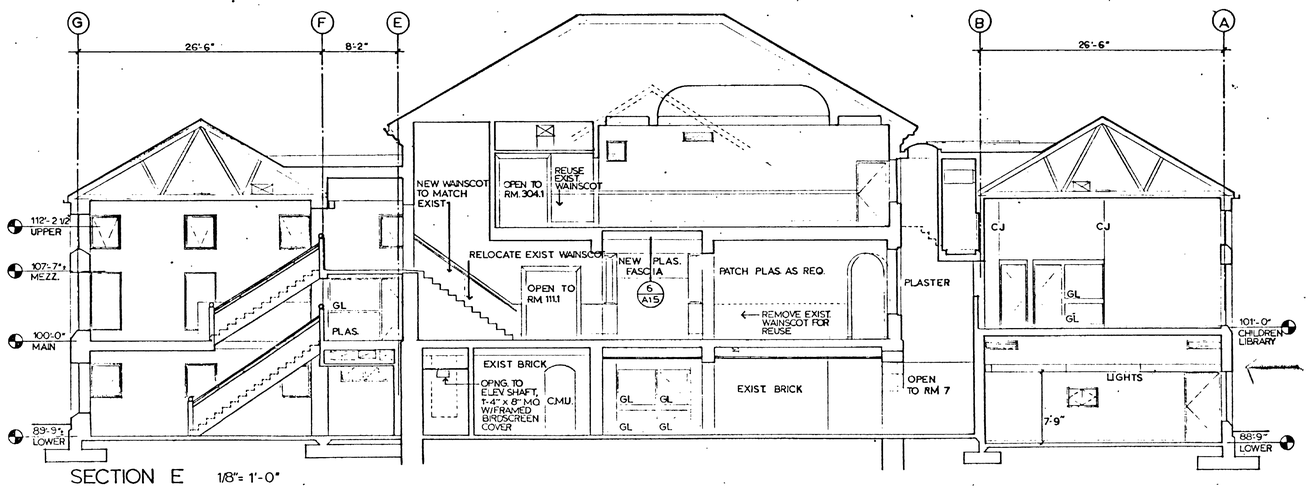
SECTION B 1/8"= 1'-0"



SECTION C 1/8"=1'-0"



SECTION D 1/8"=1'-0"



SECTION E 1/8"= 1'-0"

BUILDING SECTIONS
1/8"=1'-0"

J.V. FLETCHER LIBRARY · WESTFORD, MA.
ADDITION AND RENOVATIONS

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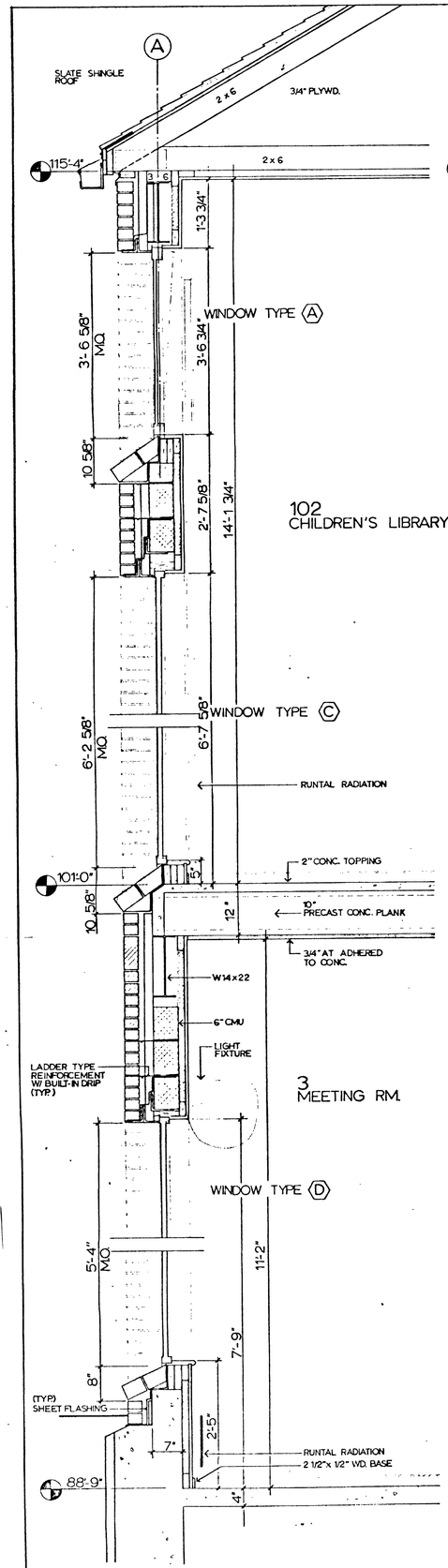
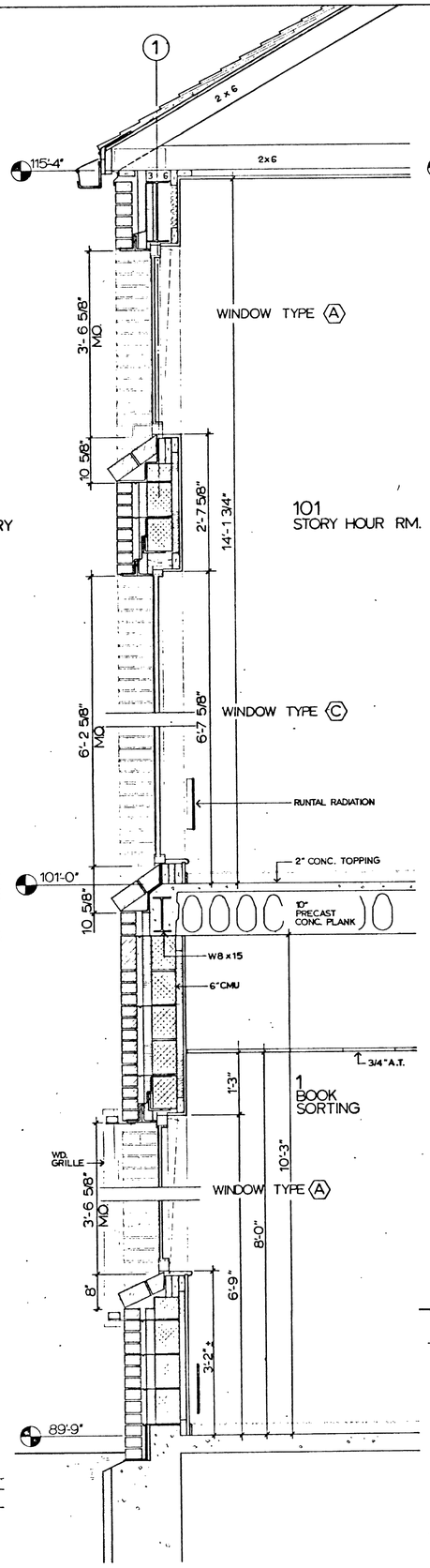
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

A6

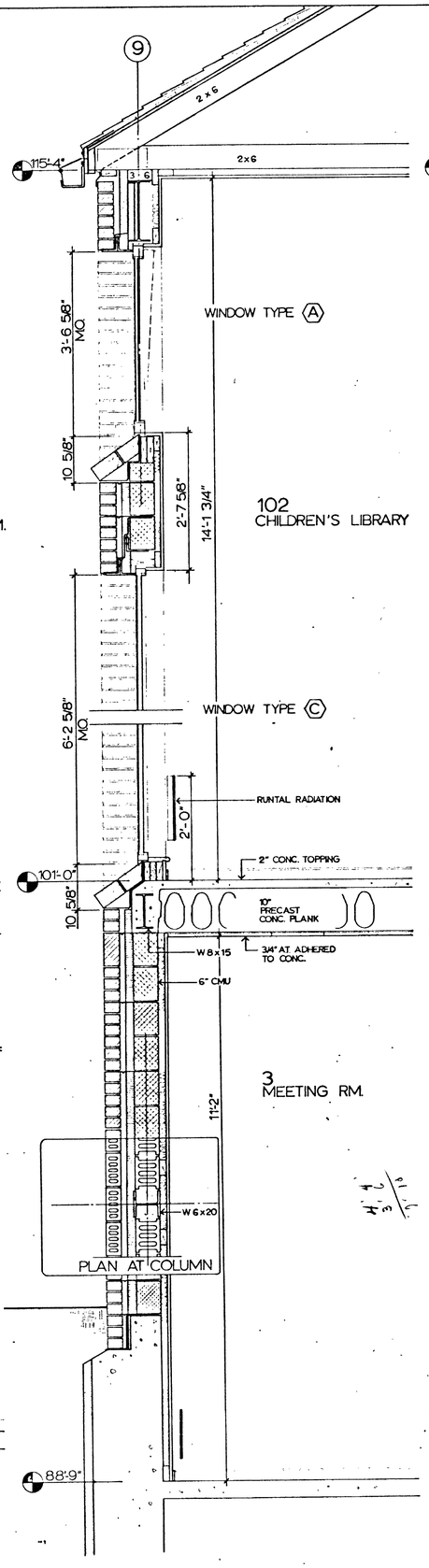
DATE 17 NOV 1986



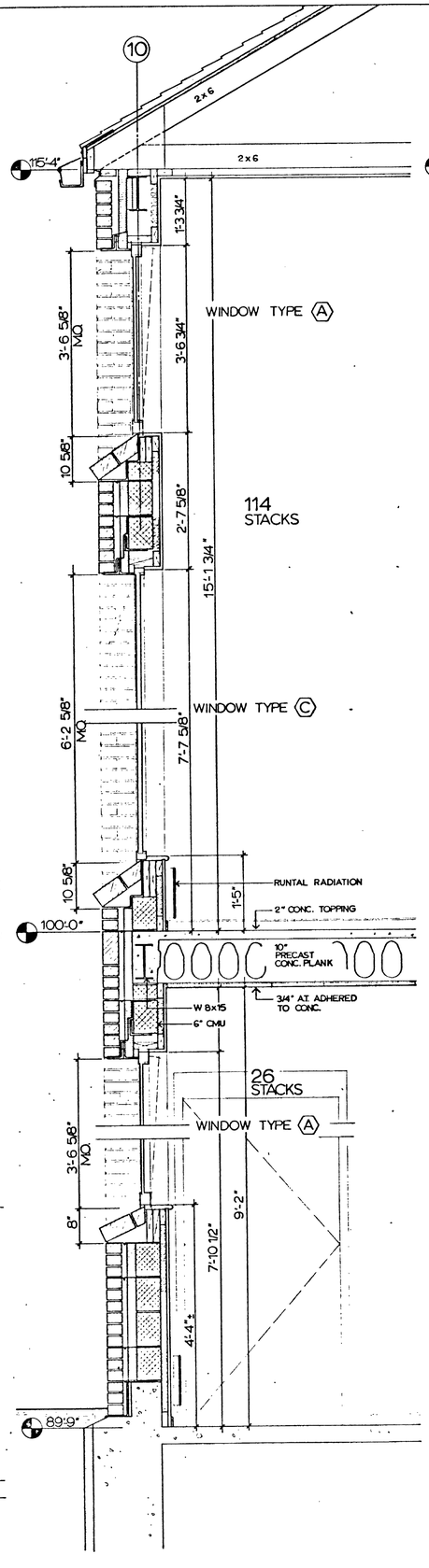
SECTION 1 3/4" = 1'-0"



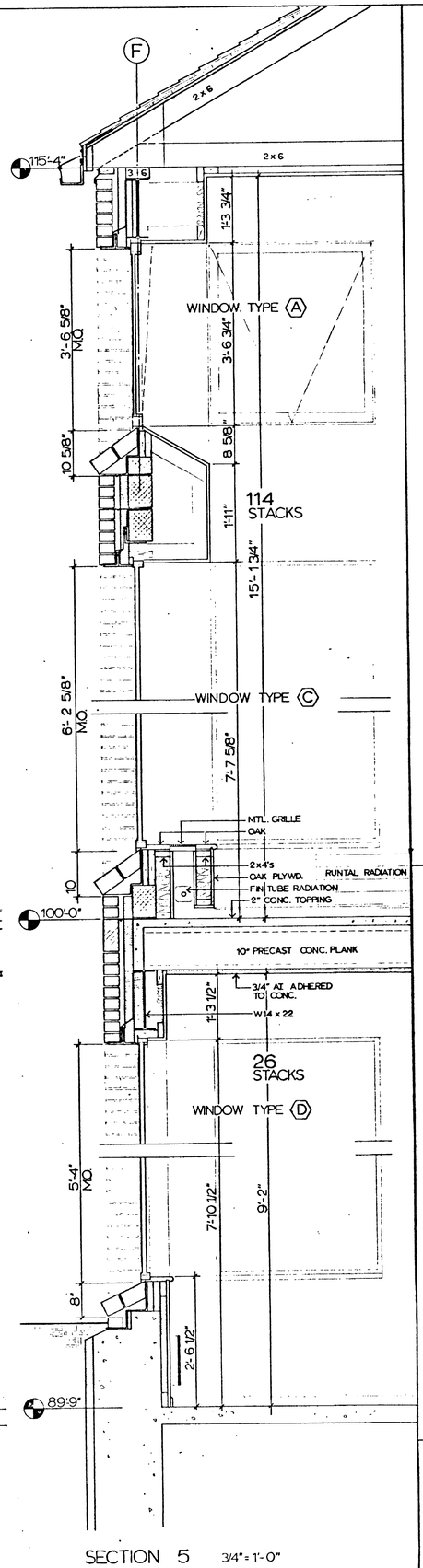
SECTION 2 3/4" = 1'-0"



SECTION 3 3/4" = 1'-0"



SECTION 4 3/4" = 1'-0"



SECTION 5 3/4" = 1'-0"

GENERAL NOTES

1. For Window Schedule and Details, see Drawing A8.

WALL SECTIONS 3/4" = 1'-0"

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

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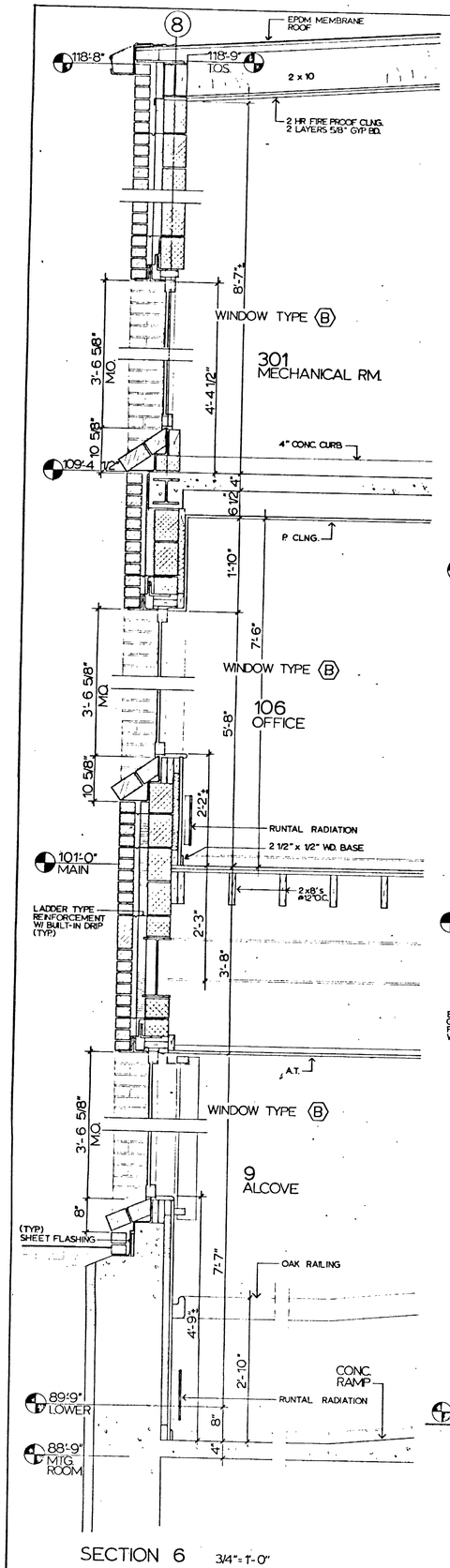
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210

LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

A7

DATE 17 NOV. 1986



WINDOW TYPES SCHEDULE

WINDOW	M.O. WIDTH	M.O. HEIGHT	TYPE
A	3' 1"	3' 6-5/8"	HOPPER
B	3' 5"	3' 6-5/8"	AWNING
C	3' 1"	6' 2-5/8"	FIXED
D	3' 1"	5' 4"	FIXED
E	5' 0"	1' 9-3/8"	AWNING
F	2' 6"	2' 8"	HOPPER

WALL SECTIONS & WINDOW DETAILS SCALE AS NOTED

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

A8

DATE 17 NOV. 1986

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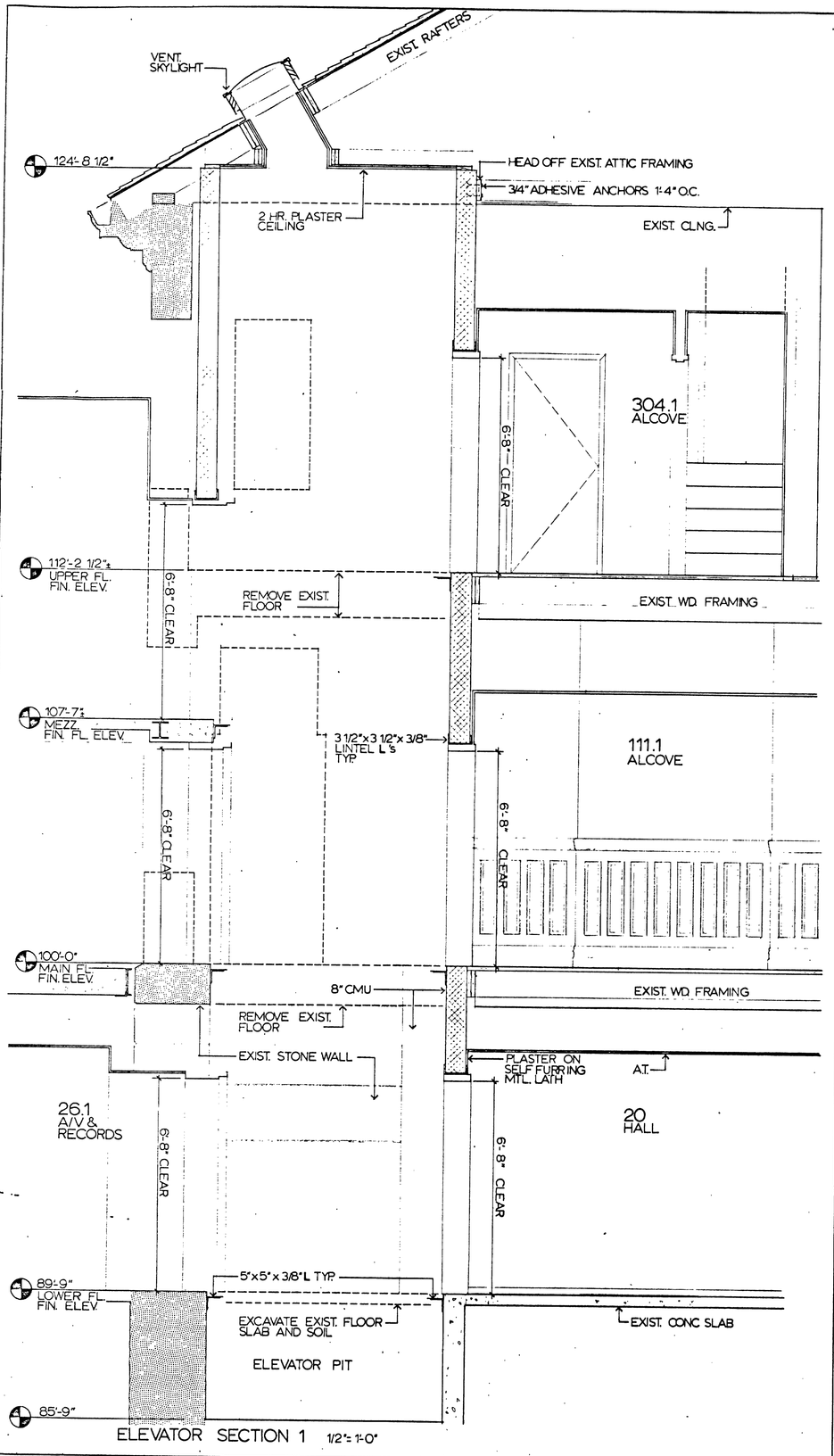
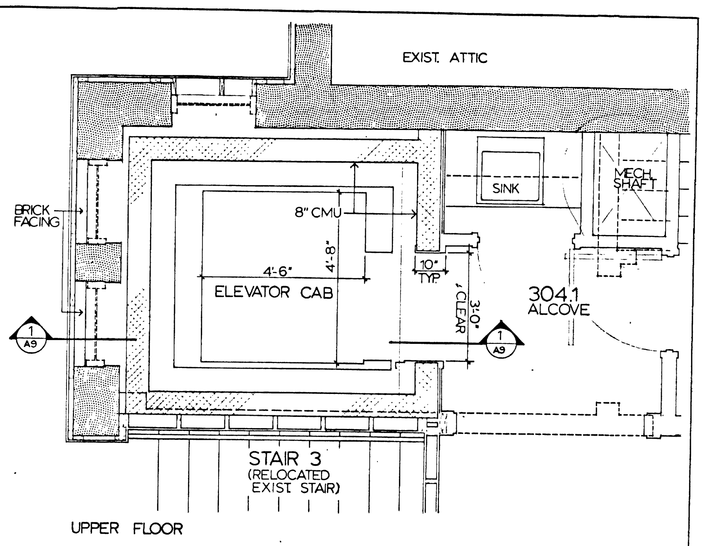
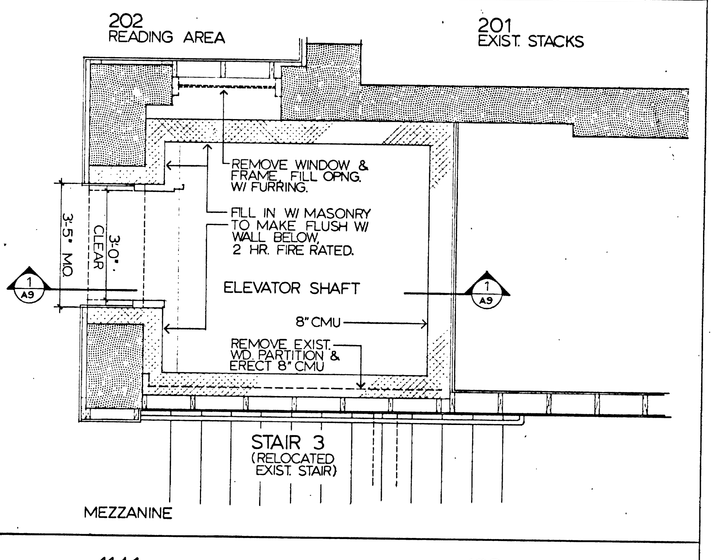
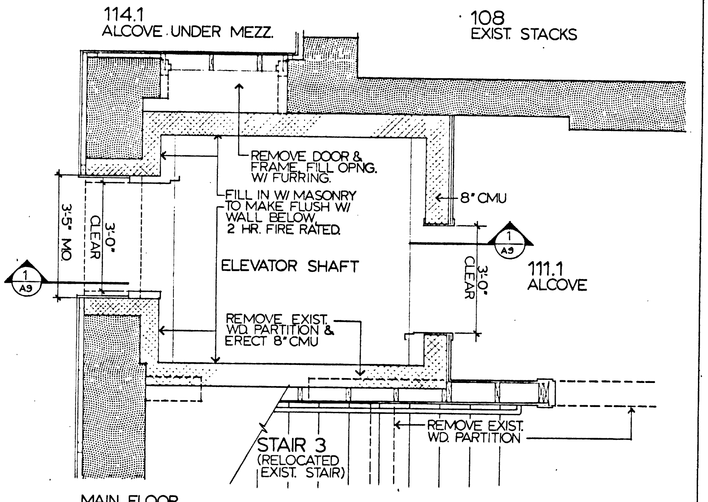
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

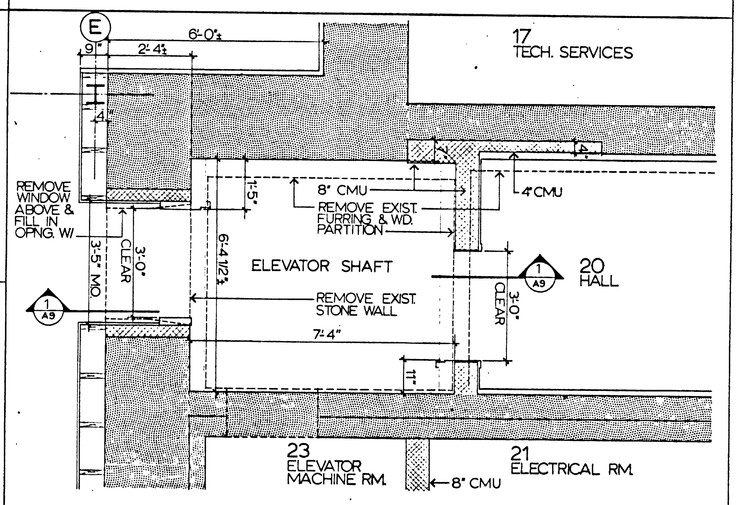


ELEVATOR SECTION 1 1/2"= 1'-0"









ELEVATOR PLANS 1/2"= 1'-0"

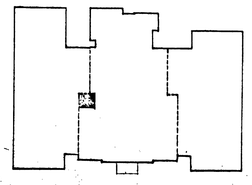
A9

DATE 17 NOV. 1986

ELEVATOR PLANS & SECTION 1/2" = 1'-0"

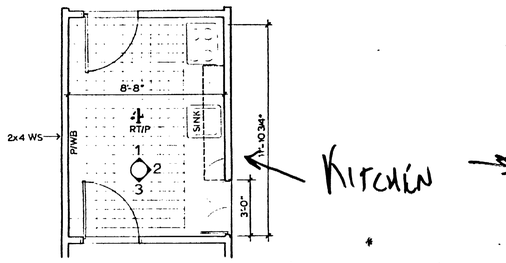
J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

ARCHITECTS:	ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS:	BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS:	PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS:	METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS:	MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178



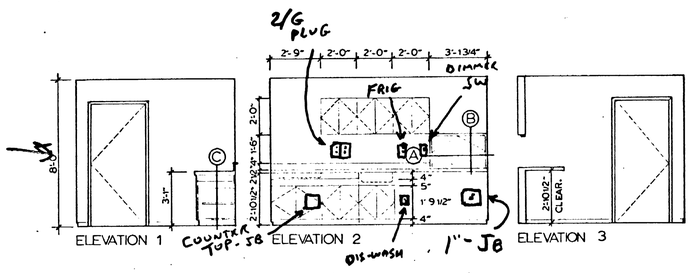
GENERAL NOTES

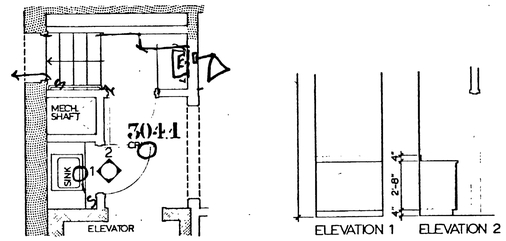
1. Floor indicators on elevator buttons and or shall be:
   - 3 THIRD FLOOR
   - 2 SECOND FLOOR
   - 1 FIRST FLOOR (Mezz.)
   - G GROUND FLOOR



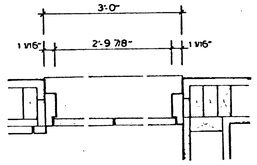
KITCHENETTE 4
1/4"= 1'-0"

Kitchen

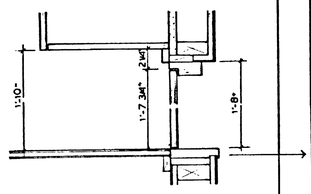




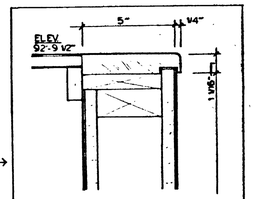
ALCOVE 304.1
1/4"= 1'-0"



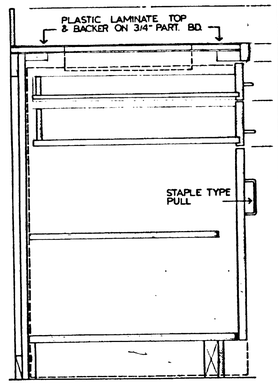
DETAIL A 1 1/2"=1'-0"



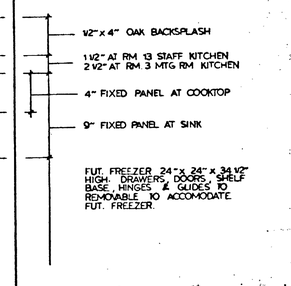
DETAIL B 1 1/2"= 1'-0"

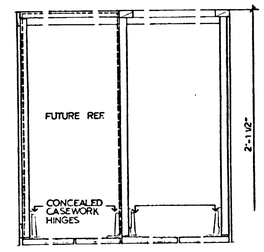


3"= 1'-0"

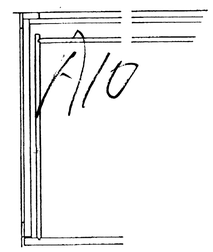


DETAIL C 1 1/2"= 1'-0"



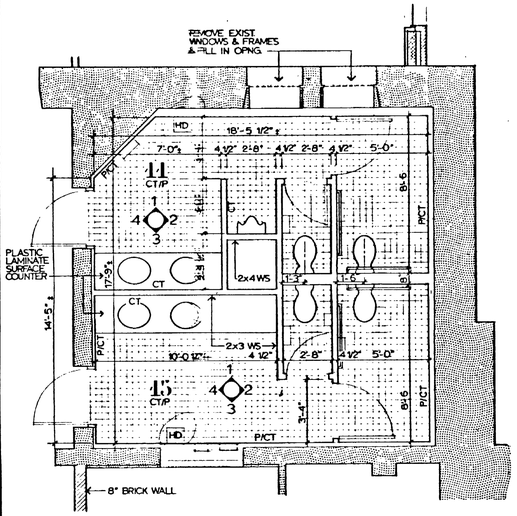


DETAIL D 1 1/2"= 1'-0"

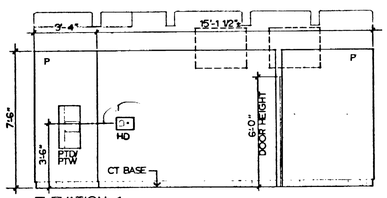


F/10

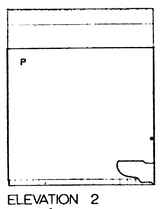
DETAIL E



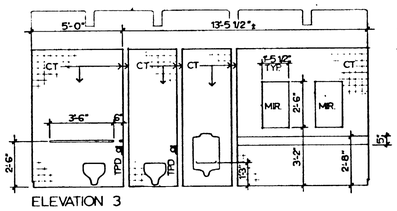
MEN'S TOILET 11 & WOMEN'S TOILET 15
1/4"= 1'-0"



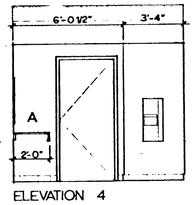
ELEVATION 1
MEN'S TOILET 11



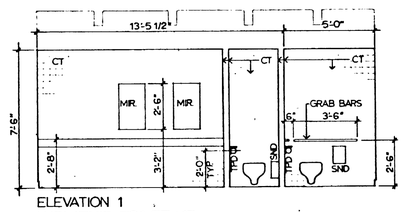
ELEVATION 2



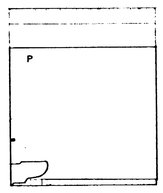
ELEVATION 3



ELEVATION 4



ELEVATION 1
WOMEN'S TOILET 15



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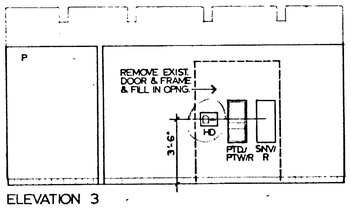
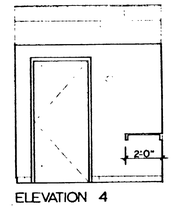
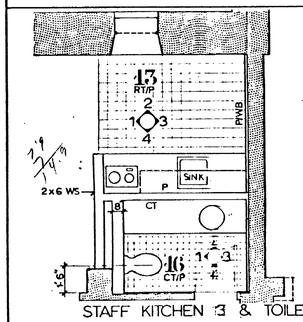


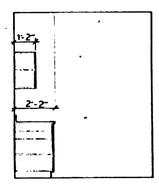
ELEVATION 3



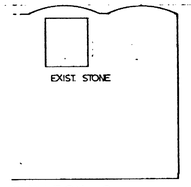
ELEVATION 4



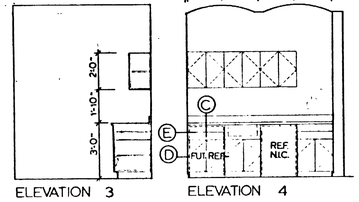
STAFF KITCHEN 13 & TOILET 16
1/4"= 1'-0"



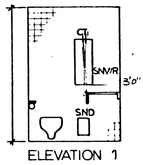
ELEVATION 1



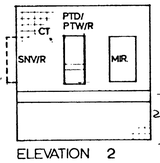
ELEVATION 2



ELEVATION 3
ELEVATION 4



ELEVATION 1



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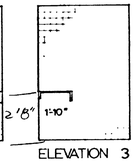
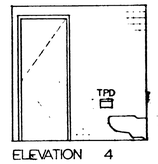
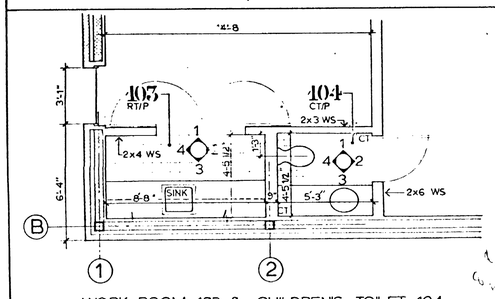


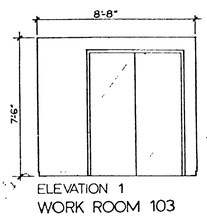
ELEVATION 3



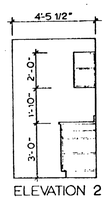
ELEVATION 4



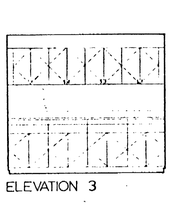
WORK ROOM 103 & CHILDREN'S TOILET 104
1/4"= 1'-0"



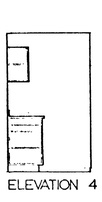
ELEVATION 1
WORK ROOM 103



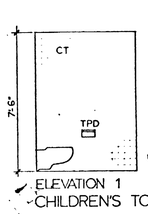
ELEVATION 2



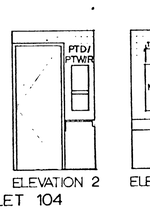
ELEVATION 3



ELEVATION 4



ELEVATION 1
CHILDREN'S TOILET 104



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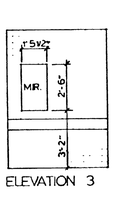

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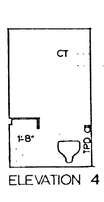


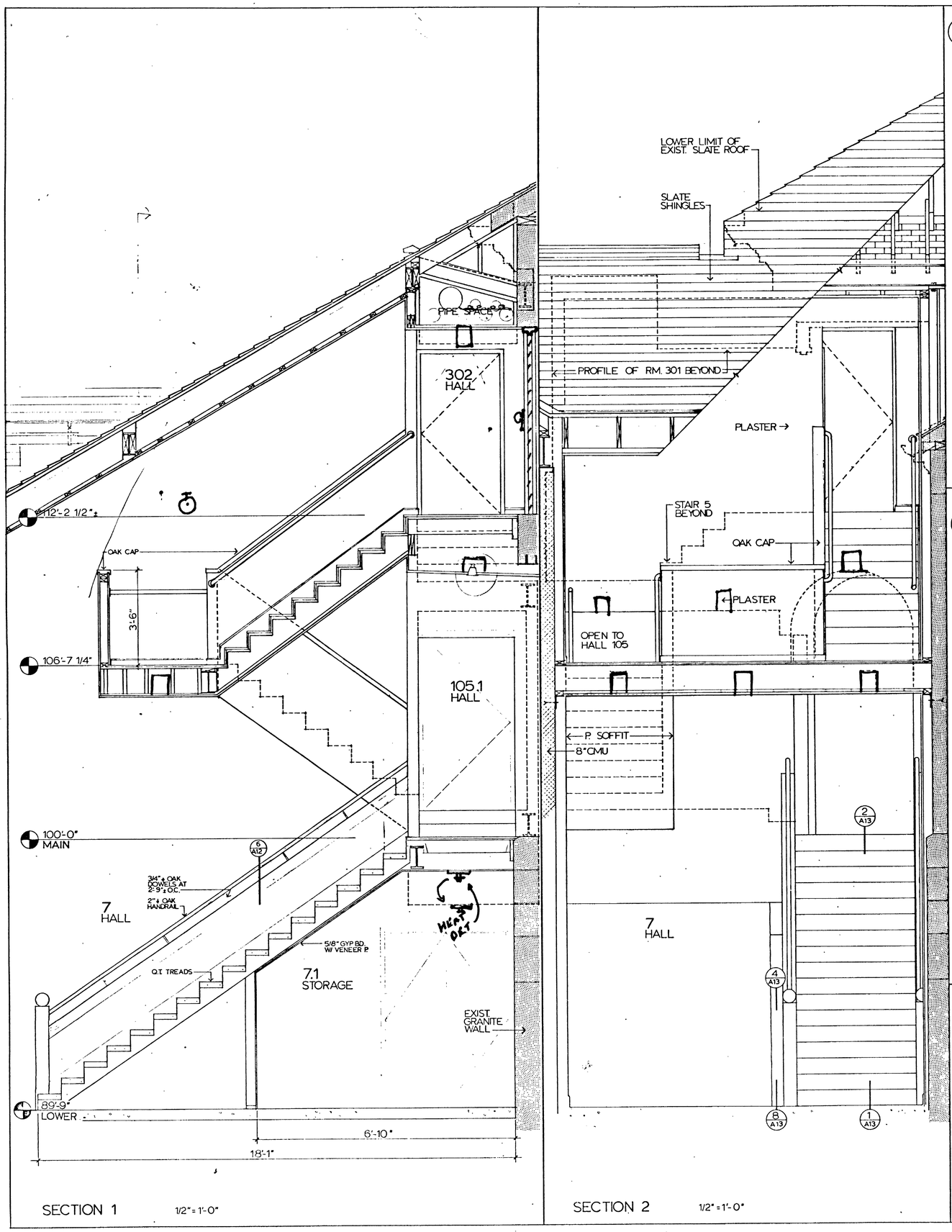
ELEVATION 4

SCALE AS NOTED

BY WESTFORD, MA.
ELEVATIONS

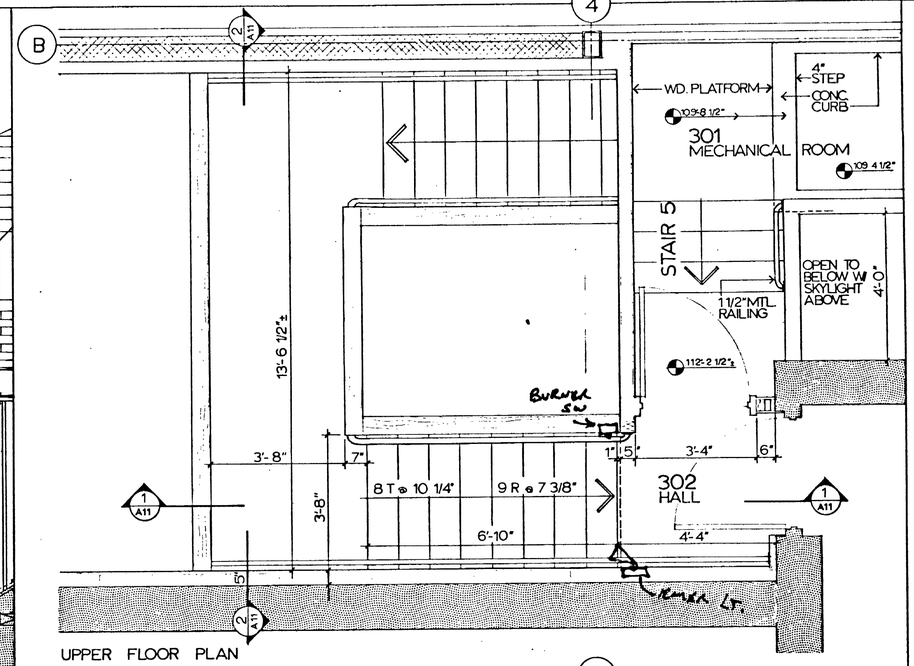
*EET WELLESLEY MA 02181

29

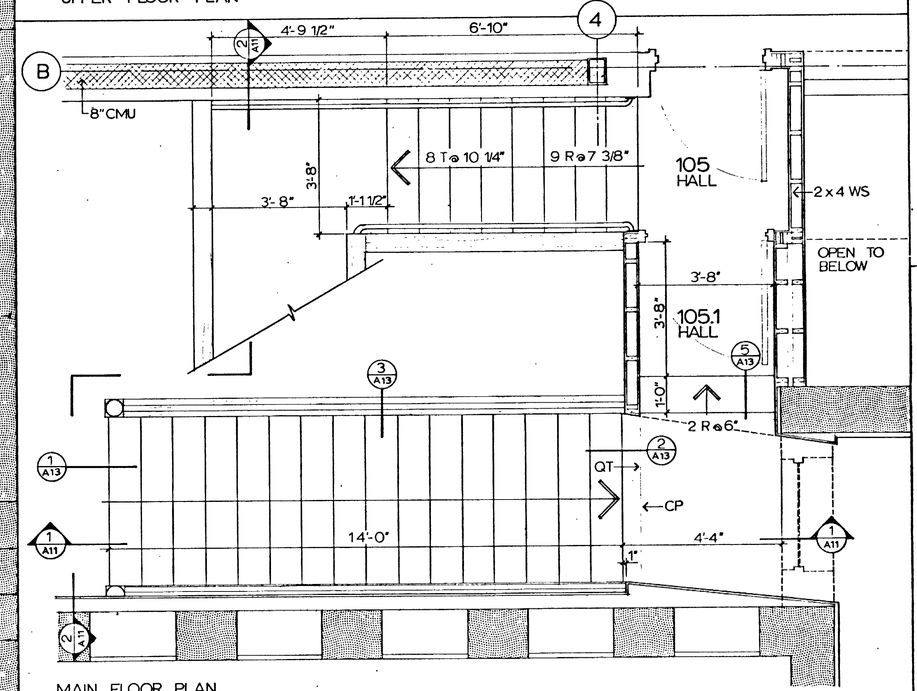


SECTION 1 1/2" = 1'-0"

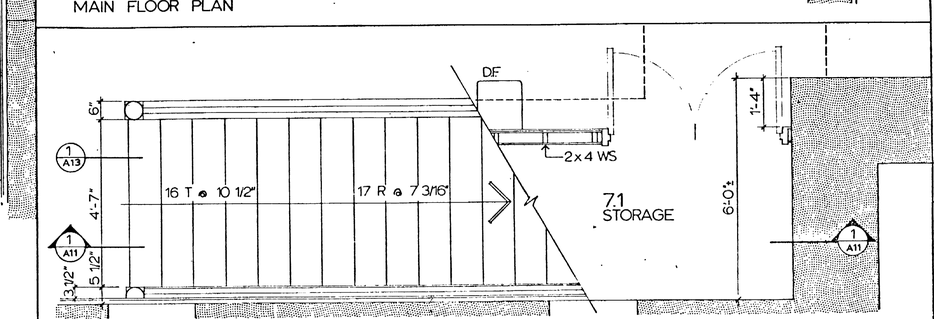
SECTION 2 1/2" = 1'-0"



UPPER FLOOR PLAN

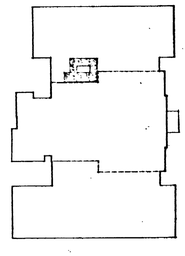


MAIN FLOOR PLAN



LOWER FLOOR PLAN

STAIR 1 FLOOR PLANS 1/2"=1'-0"



STAIR 1 PLANS & SECTIONS 1/2" = 1'-0"

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

A 11

DATE 17 NOV 1986

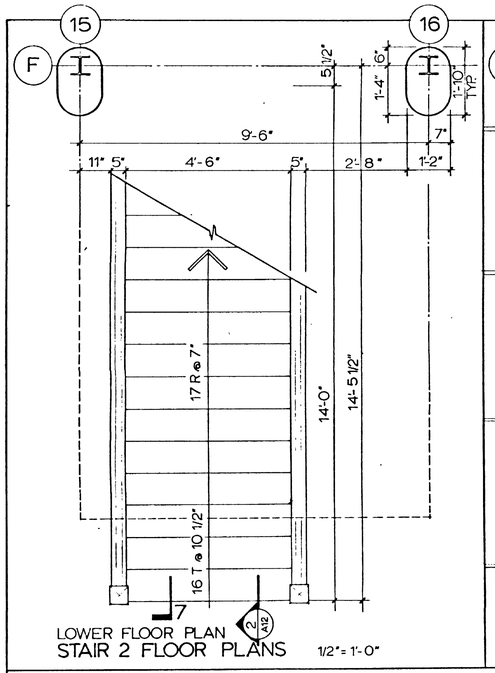
ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181

STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109

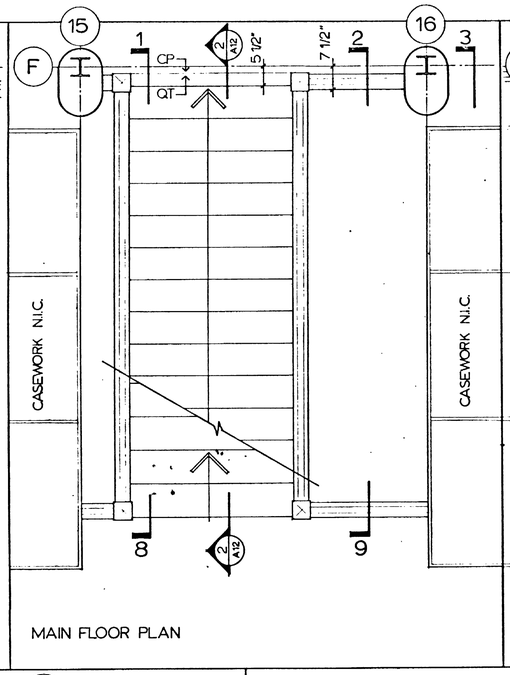
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129

ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210

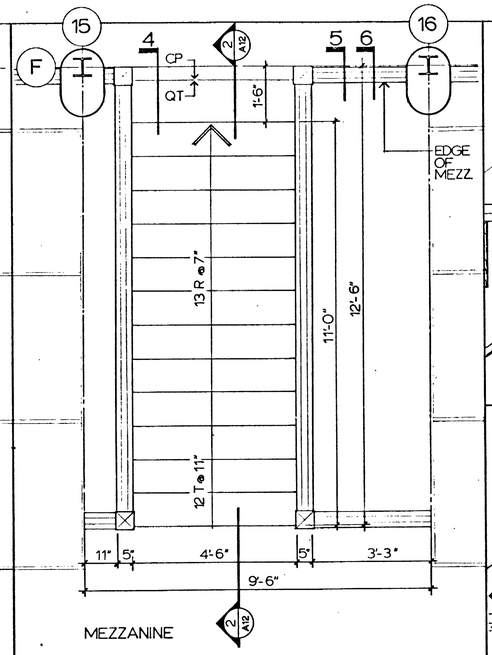
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178



LOWER FLOOR PLAN
STAIR 2 FLOOR PLANS 1/2"=1'-0"



MAIN FLOOR PLAN



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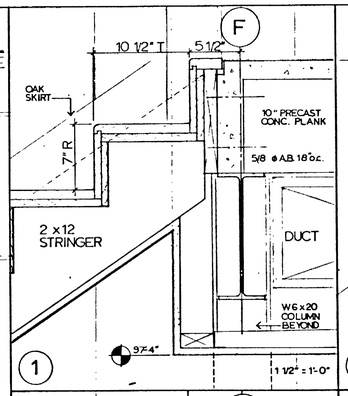
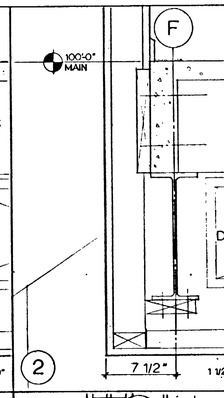
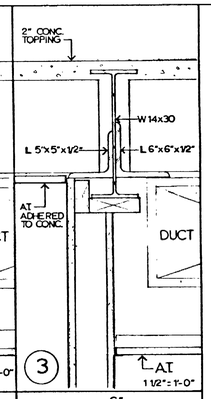
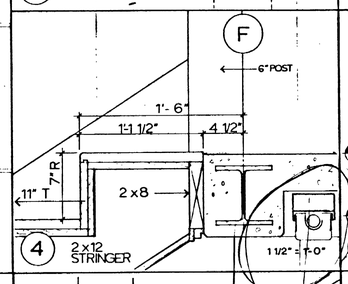
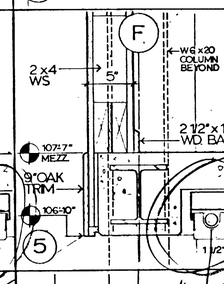
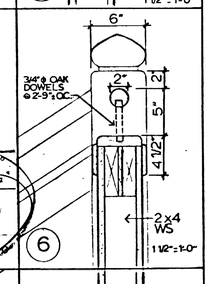


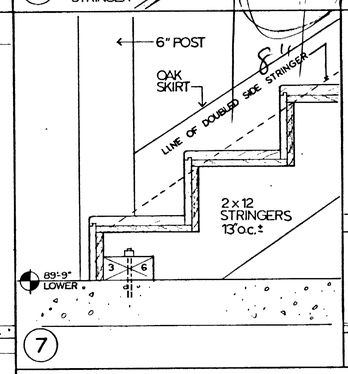


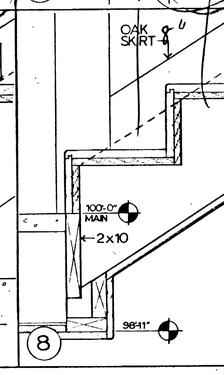


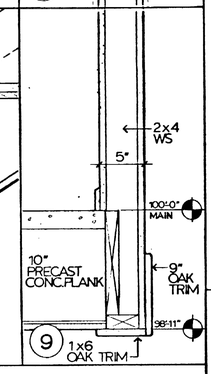


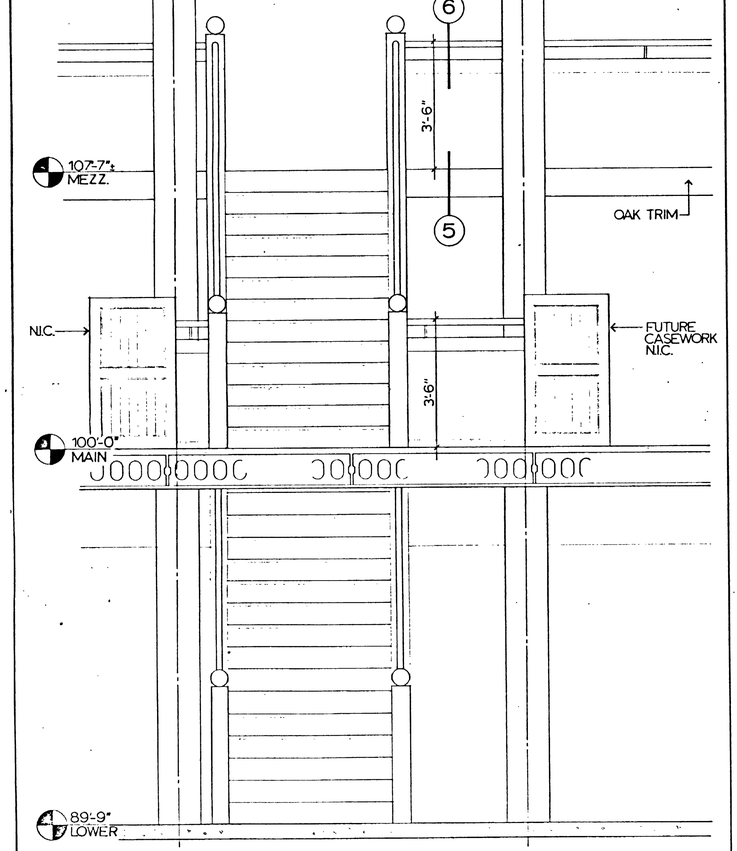




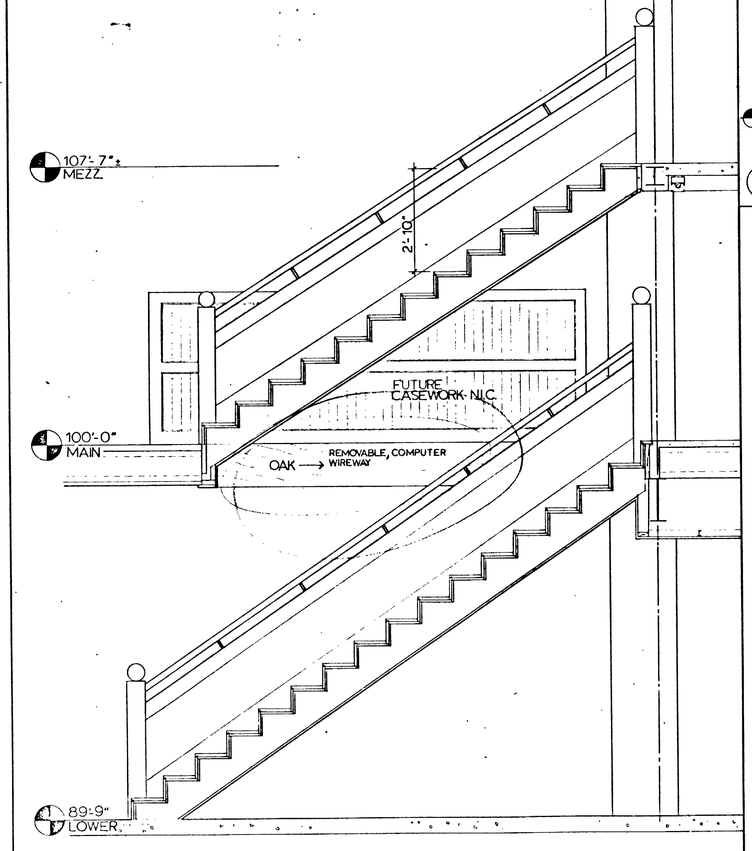




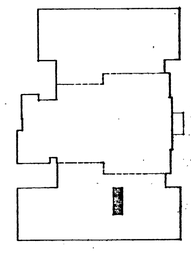




SECTION 1 1/2"=1'-0"



SECTION 2 1/2"=1'-0"



SCALE AS NOTED

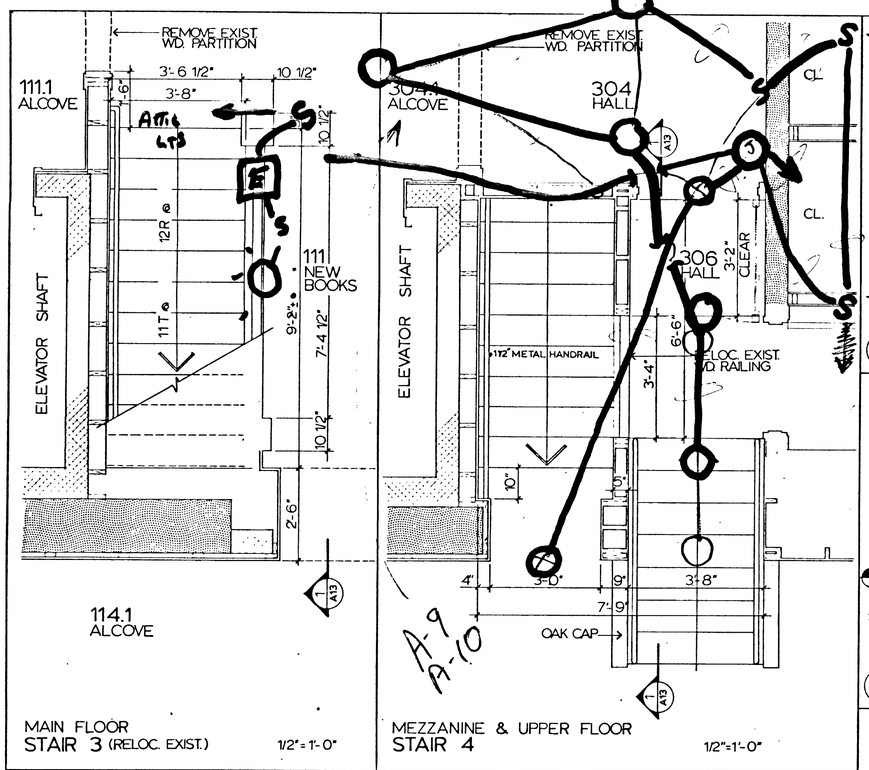
STAIR 2 PLANS, SECTIONS & DETAILS

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

A12

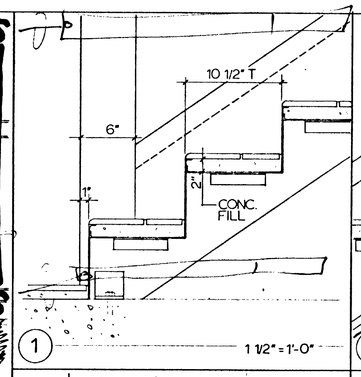
DATE 17 NOV 1986

ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

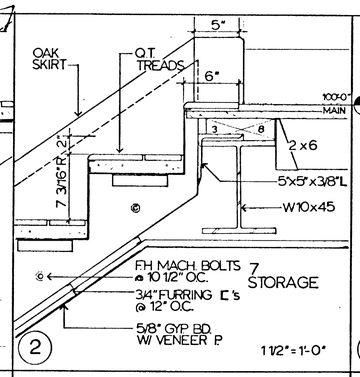


MAIN FLOOR
STAIR 3 (RELOC. EXIST.) 1/2" = 1'-0"

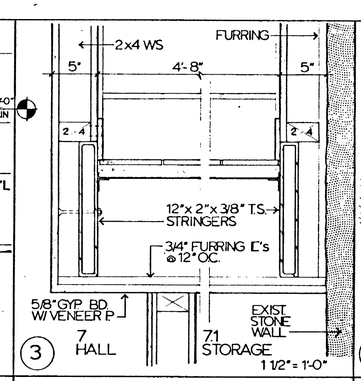
MEZZANINE & UPPER FLOOR
STAIR 4 1/2"=1'-0"



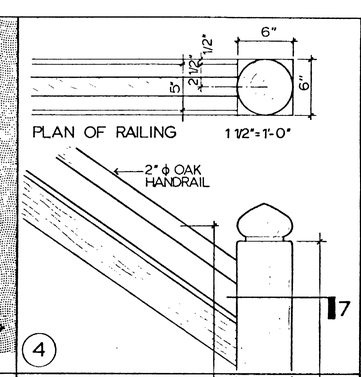
1 1 1/2" = 1'-0"



2 1 1/2" = 1'-0"



3 1 1/2" = 1'-0"



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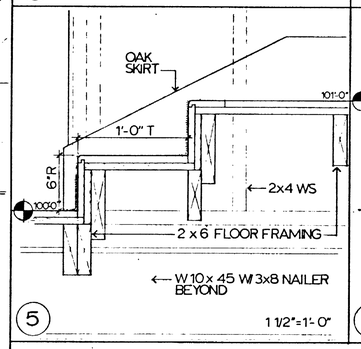
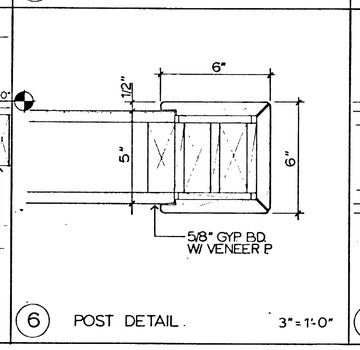
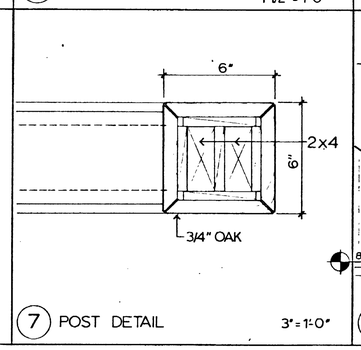


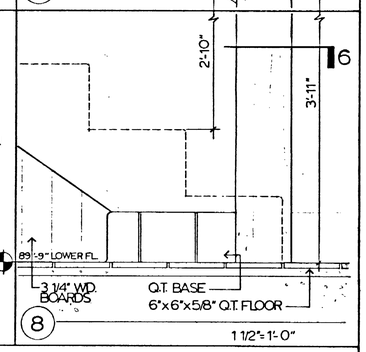
5 1 1/2" = 1'-0"



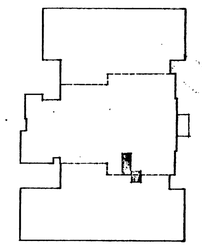
6 POST DETAIL 3" = 1'-0"

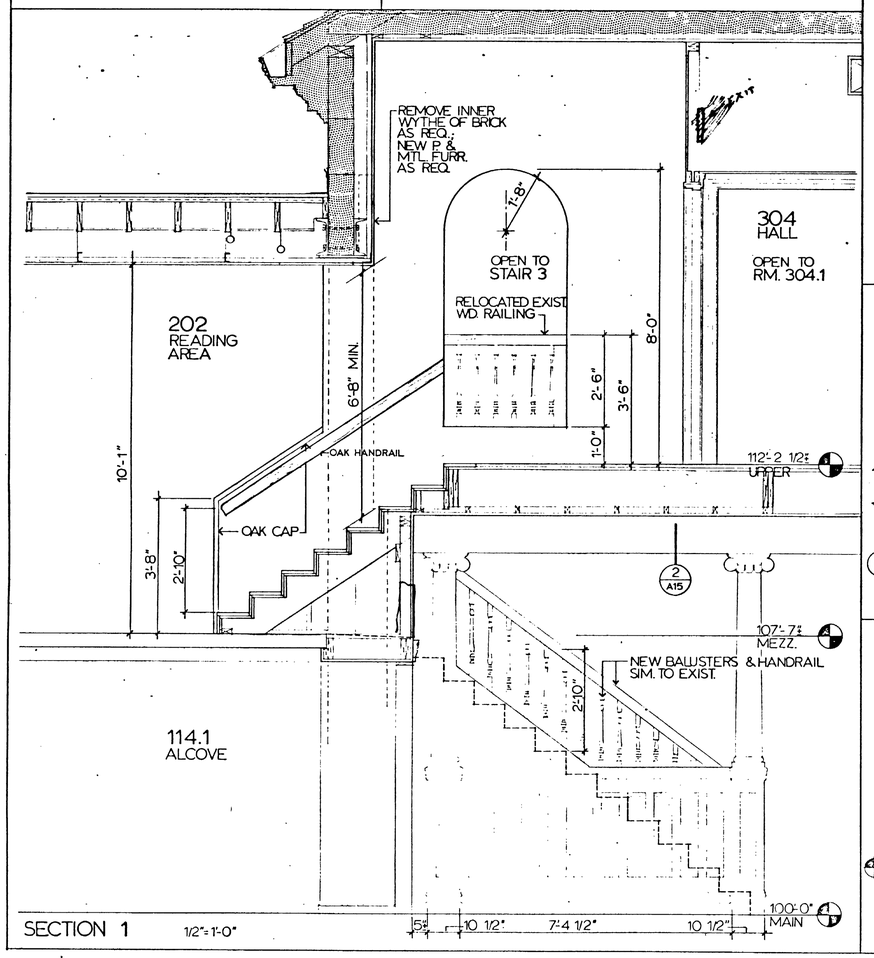


7 POST DETAIL 3" = 1'-0"

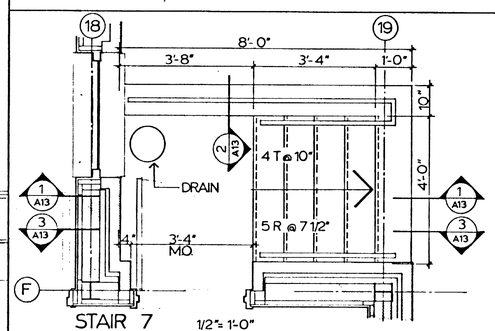


8 1 1/2" = 1'-0"

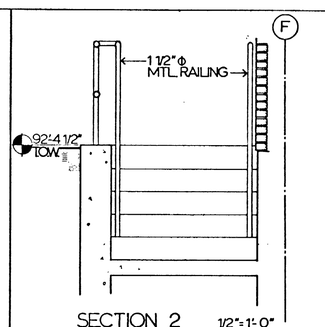




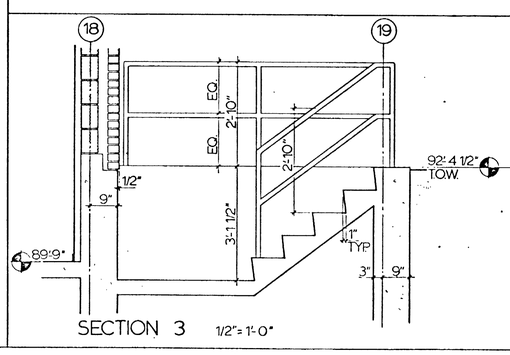
SECTION 1 1/2"=1'-0"



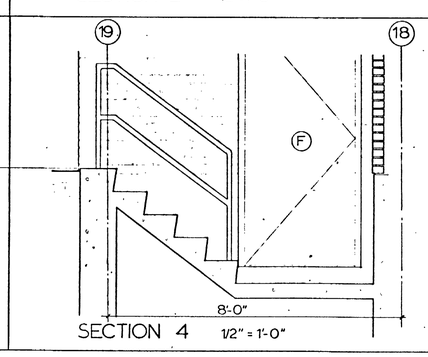
STAIR 7 1/2"=1'-0"



SECTION 2 1/2"=1'-0"



SECTION 3 1/2"=1'-0"



SECTION 4 1/2" = 1'-0"

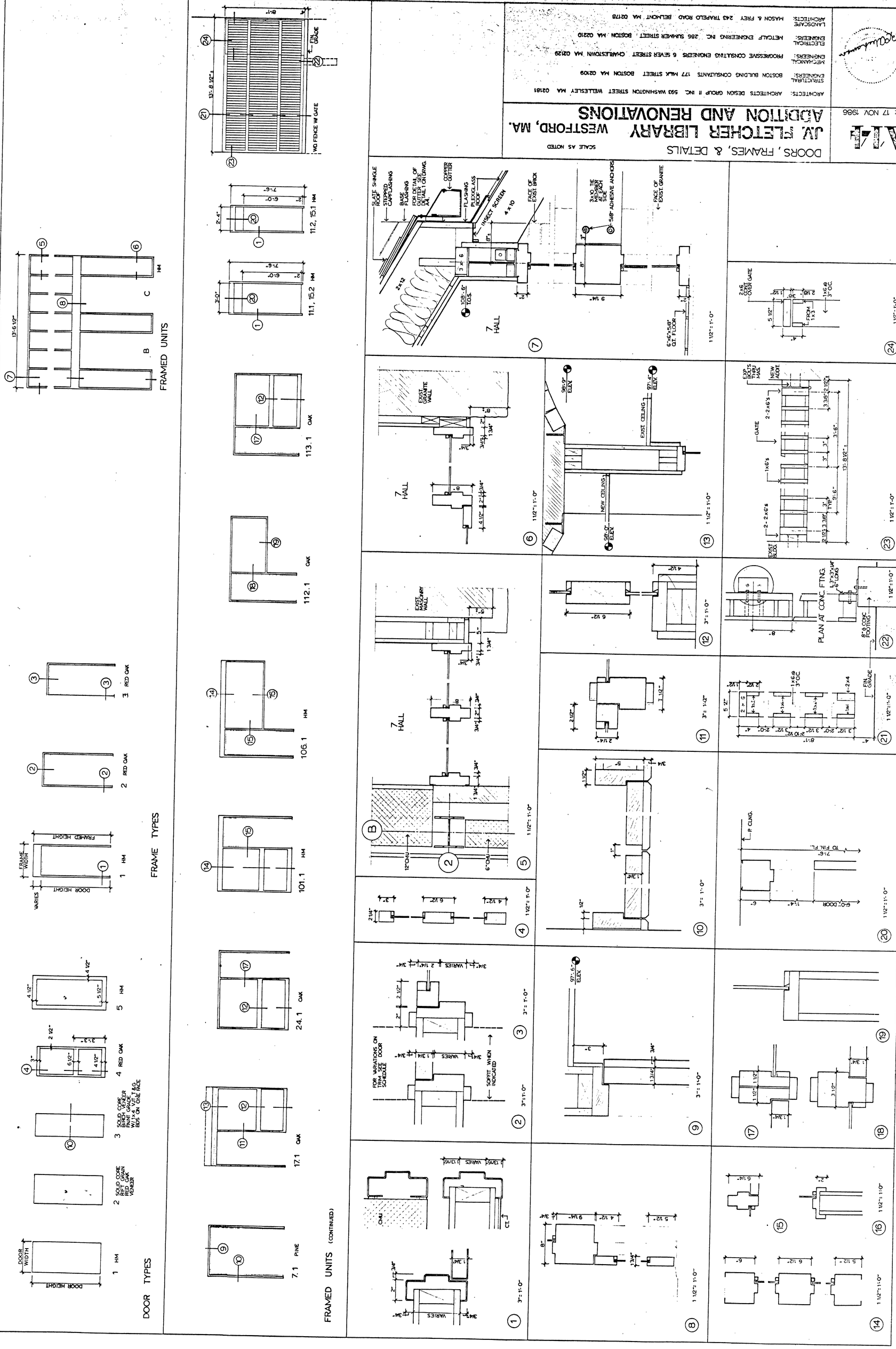
STAIR 3 & 4 PLANS, SECTION & DETAILS
SCALE AS NOTED

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

A17

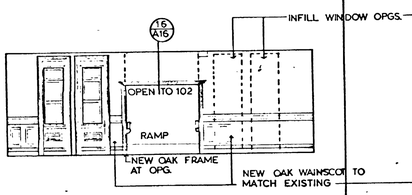
DATE 17 NOV. 1986

ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEWER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178



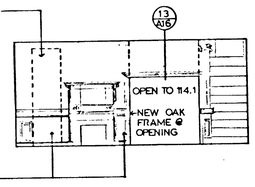
DOORS, FRAMES, & DETAILS
SCALE AS NOTED
J.V. FLETCHER LIBRARY
WESTFORD, MA.
ADDITION AND RENOVATIONS
A14
DATE 17 NOV 1986
ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178
DOOR TYPES
FRAME TYPES
FRAMED UNITS
FRAMED UNITS (CONTINUED)
1 HM
2 SOLID CORE RIFT GRAIN RED OAK VENEER
3 SOLID CORE BIRCH VENEER PAINT GRADE W/1x4 VLT T&G EDS ON ONE FACE
4 RED OAK
5 HM
1 HM
2 RED OAK
3 RED OAK
7.1 PINE
17.1 OAK
24.1 OAK
101.1 HM
106.1 HM
112.1 OAK
113.1 OAK
111.1, 15.2 HM
112.2, 15.1 HM
WD. FENCE W/ GATE
FIN. GRADE
7 HALL
EXIST. GRANITE WALL
EXIST. MASONRY WALL
EXIST. CEILING
NEW CEILING
PLAN AT CONC. FTNG.
8"ø CONC FOOTING
FOR VARIATIONS ON TRIM SEE DOOR SCHEDULE
SOFFIT WHEN INDICATED
VARIES

EXHIBIT 107



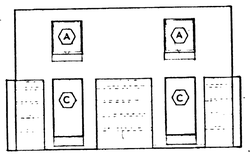
ELEVATION 1
1/8"= 1'-0"

NEW BOOKS 111

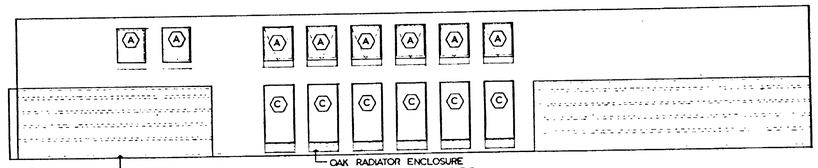


ELEVATION 2
1/8"= 1'-0"

STACKS & REFERENCE / PERIODICALS 114



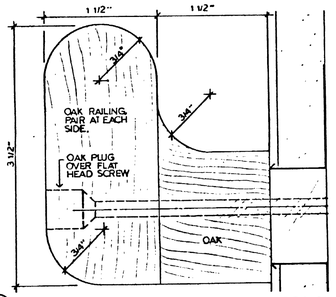
ELEVATION 3
1/8"=1'-0"



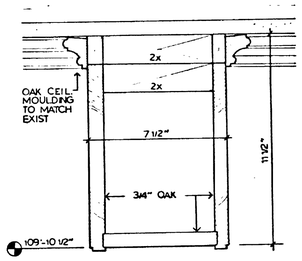
ELEVATION 4
1/8"=1'-0"

GENERAL NOTES:
FURRING AT ALL WALLS BEHIND METAL BOOKSTACKS TO FURRED HORIZONTALLY w/ 2"x3"(min) 18"o.c (max) FOR ATTACHMENT OF BOOKSTACKS

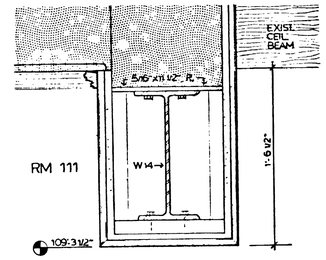
OAK RADIATOR ENCLOSURE
SEE DWG M 2 RAD. TYPE R 5
OAK ENCLOSURE BY DIVISION 6. CARPENTRY



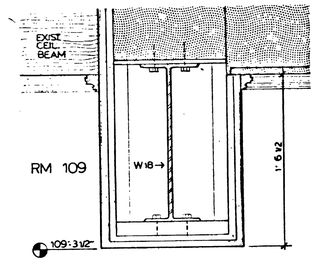
① TYP. HAND RAIL FULL SCALE



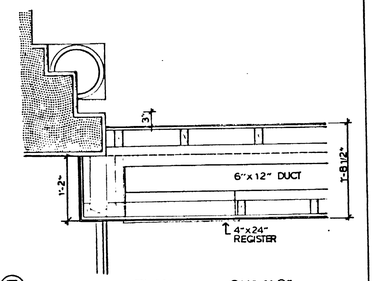
② FALSE BEAM 111.1 & 111 3"=1'-0"



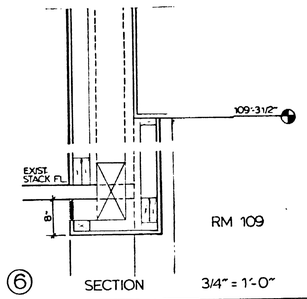
③ SOFFIT 111 & 109 1 1/2"=1'-0"



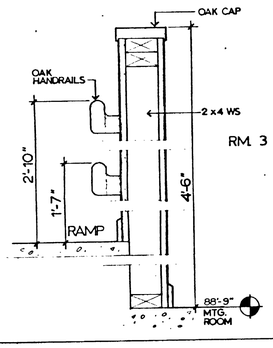
④ SOFFIT 109 & 107 1 1/2"=1'-0"



⑤ PLAN 3/4"=1'-0"



⑥ SECTION 3/4" = 1'-0"



⑦

DETAILS & INTERIOR ELEVATIONS SCALE AS NOTED

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

DATE 17 NOV. 1986

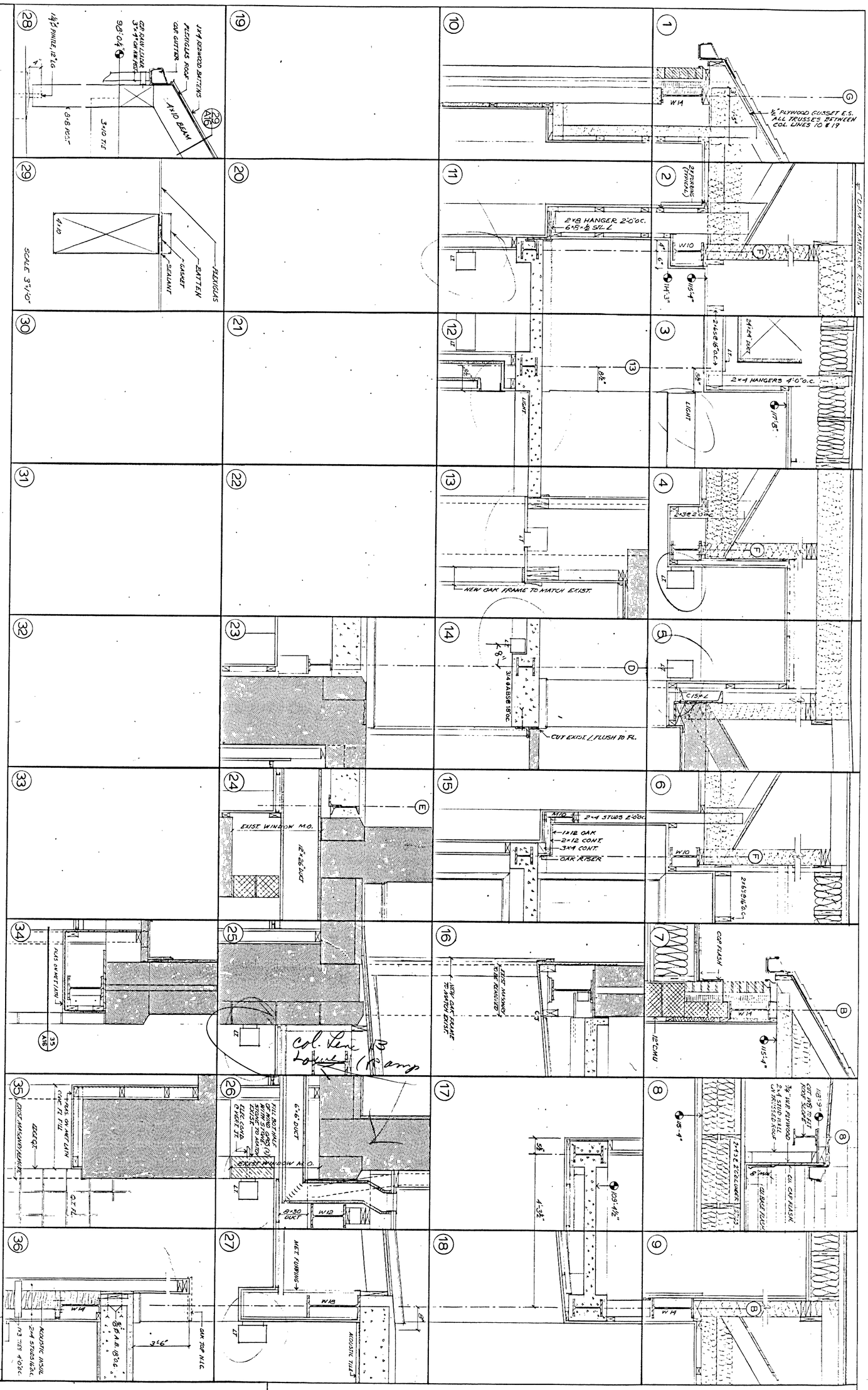
ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181

STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109

MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129

ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 255 SUMMER STREET BOSTON MA 02210

LANDSCAPE ARCHITECTS. MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178



A16

DATE 17 NOV. 1986

DETAILS

3/4" = 1'-0"

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181

STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109

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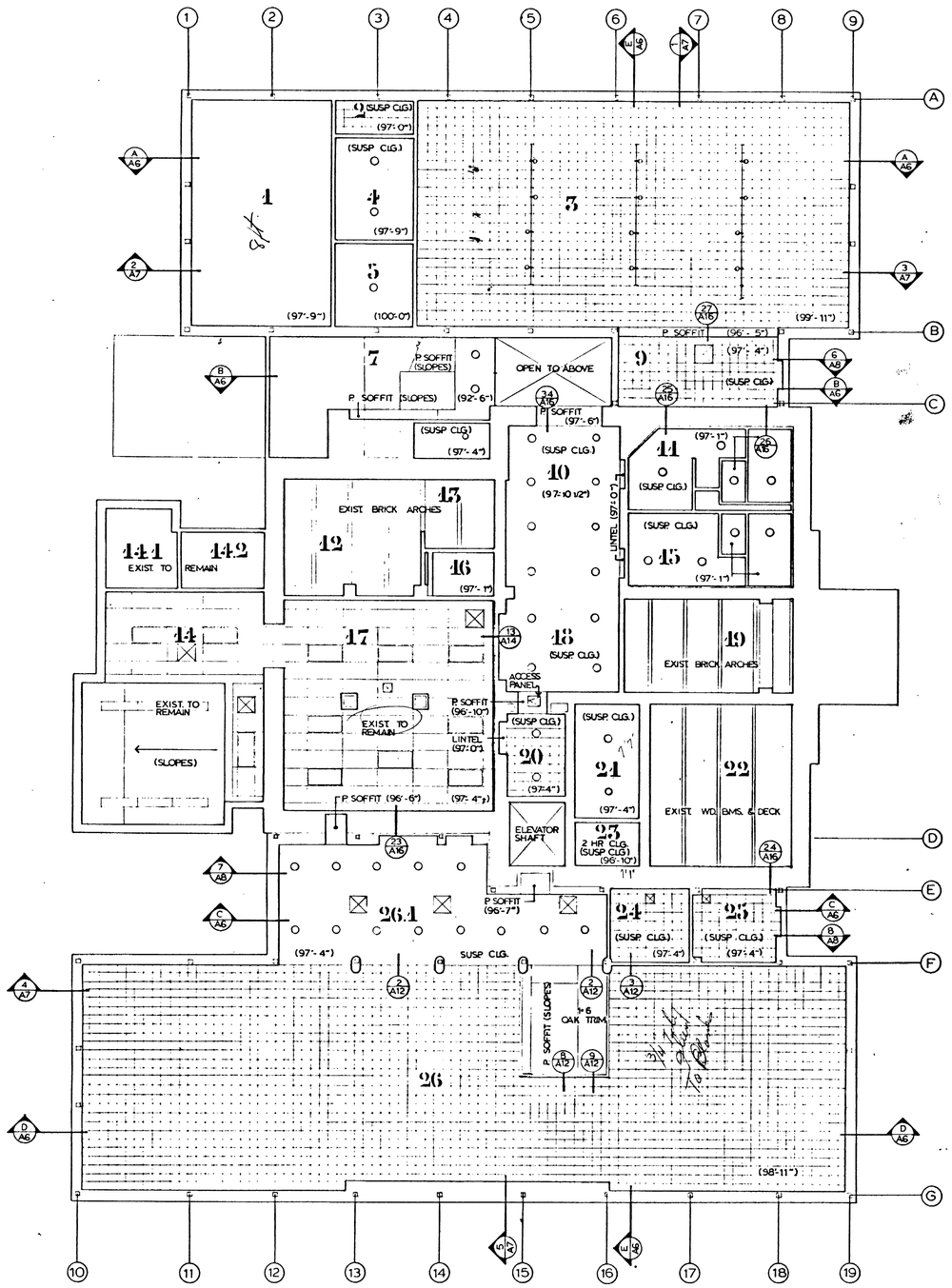
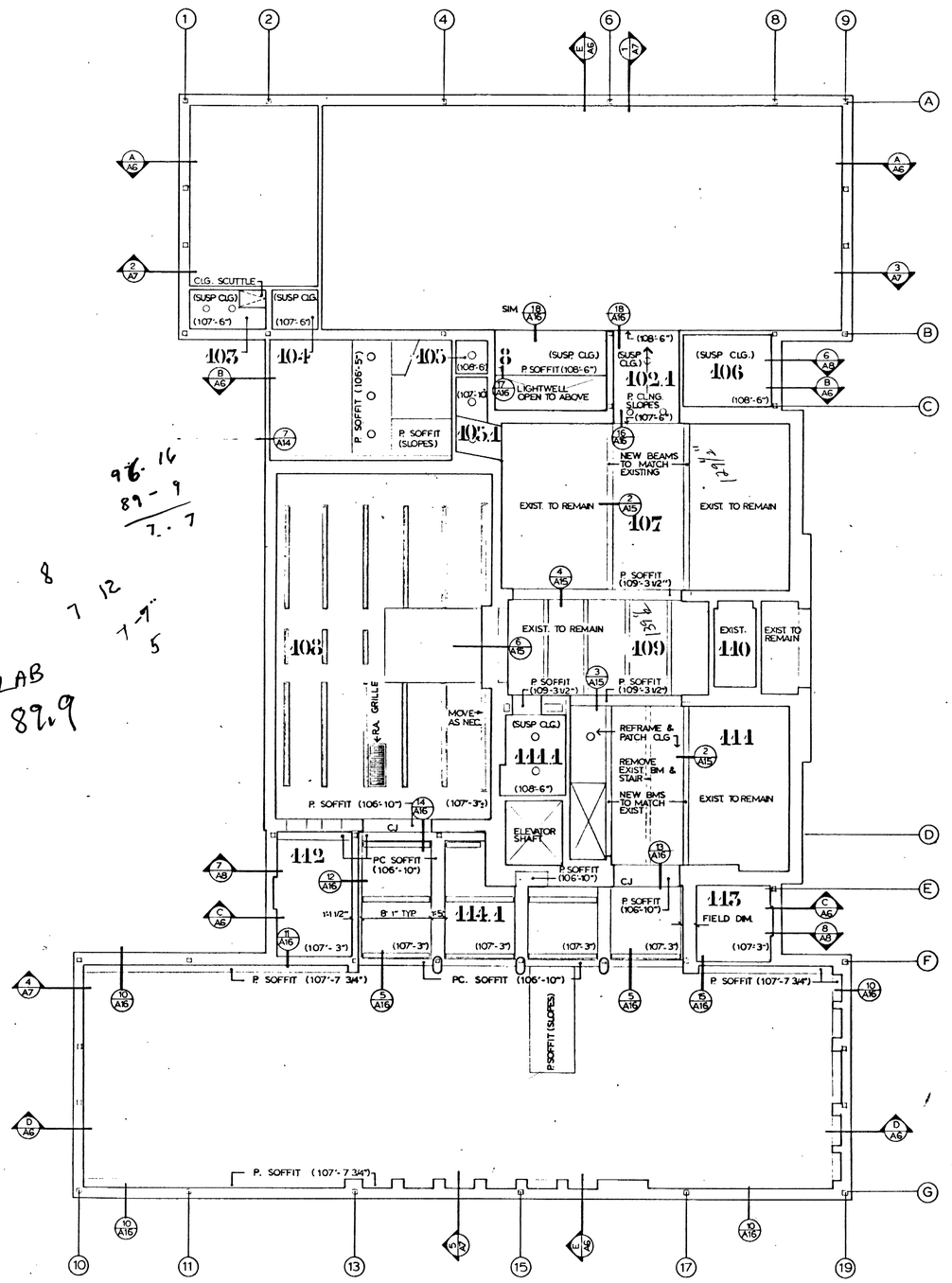
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210

LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

RC Archamson



LOWER FLOOR REFLECTED CEILING PLAN 1/8"=1'-0"



MAIN FLOOR REFLECTED CEILING PLAN 1/8"=1'-0"

ROOM DESIGNATIONS

LOWER FLOOR PLAN

1. Book Sorting
2. Hall
3. Meeting Room
4. Kitchenette
5. Closet
6. Lower Entry
7. Hall
7.1 Storage
8. Hall (open above)
9. Alcove
10. Hall
11. Men's Toilet
12. Staff Room
13. Staff Kitchen
14. Technical Services
14.1 Storage
14.2 Vestibule
15. Women's Toilet
16. Staff Toilet
17. Technical Services
18. Hall
19. Jan.
20. Hall
21. Electrical Room
22. Jan.
23. Elevator Machine Room
24. Comp.
25. Comp.
26. Stacks, Art & Music
26.1 A/V Desk & Records

MAIN FLOOR PLAN

102.1 Hall
103. Work Room
104. Children's Toilet
105. Hall
105.1 Hall
106. Office
107. Exhibit
108. Existing Stacks
109. Circulation Desk
110. Vestibule
111. New Books
111.1 Alcove
112. Office
113. Public Comp.
114.1 Alcove

GENERAL NOTES

1. All Elev. on this sheet represent finish ceiling elevations.
2. Main Floor finish fl. elev. is 100'-0".
3. Mezzanine finish fl. elev. is 107'-7"±.
4. Upper Floor finish fl. elev. is 112'-2 1/2"±.

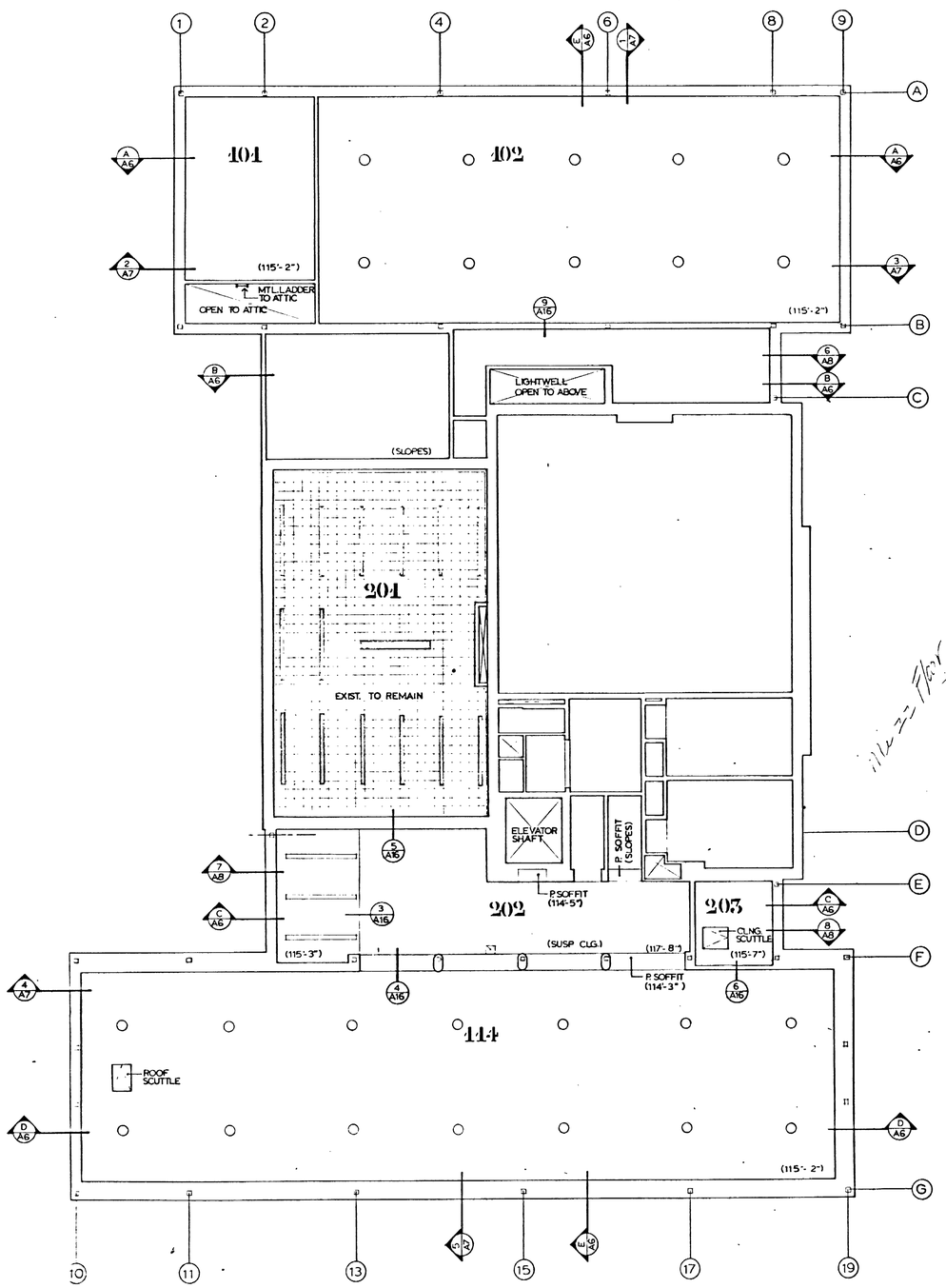
LOWER & MAIN FLOOR REFLECTED CEILING PLANS 1/8"=1'-0"

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

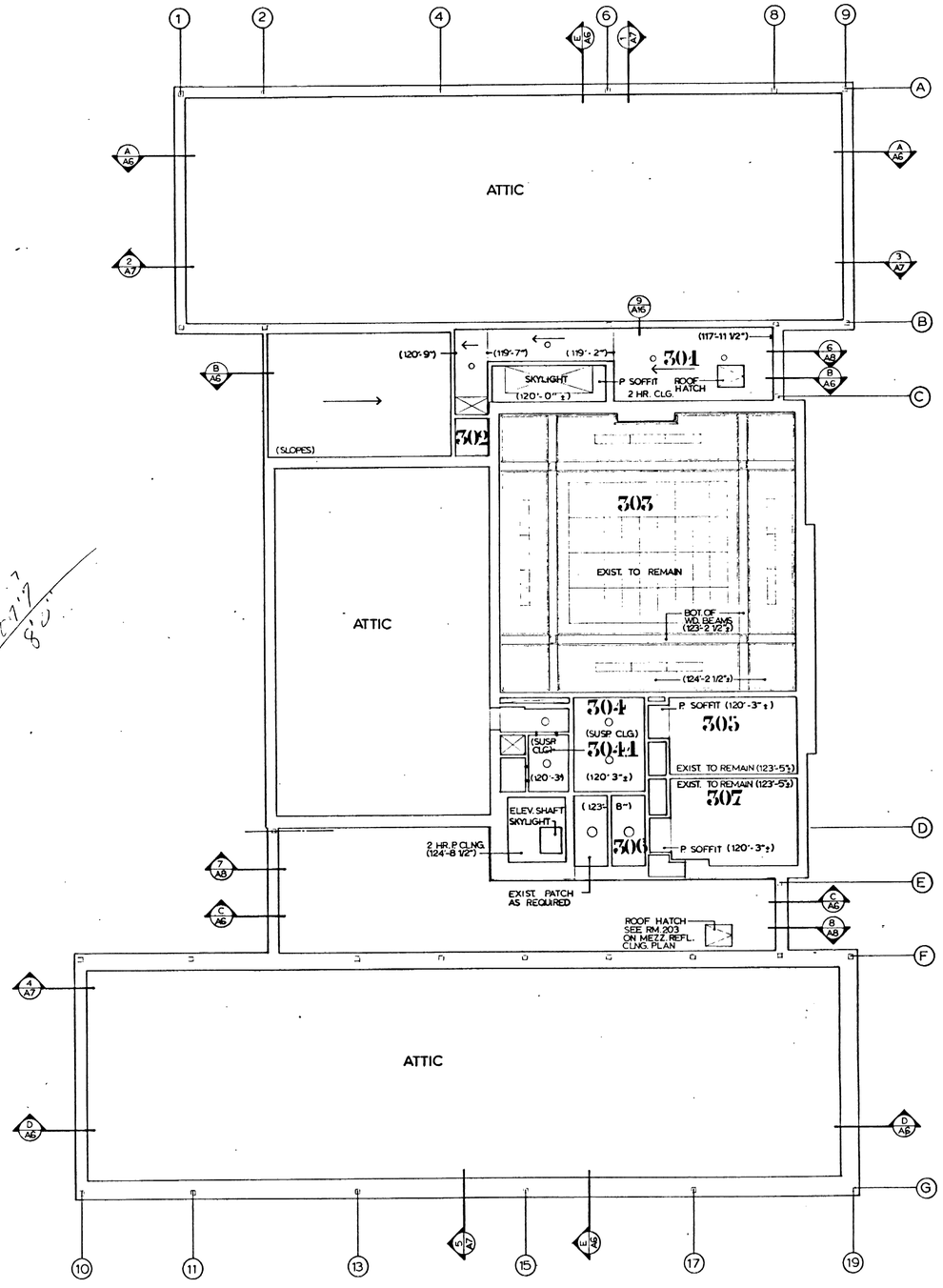
ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN, MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 256 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

A17

DATE 17 NOV 1986



MEZZANINE REFLECTED CEILING PLAN 1/8"= 1'-0"



UPPER FLOOR REFLECTED CEILING PLAN 1/8"= 1'-0"

ROOM DESIGNATIONS

MAIN FLOOR PLAN

101. Story Hour Room
102. Children's Library
114. Stacks & Reference/ Periodicals

MEZZANINE

201. Existing Stacks
202. Reading Area
203. Assistant Director

UPPER FLOOR PLAN

301. Mechanical Room
302. Hall
303. Historical Collection/ Quiet Study
304. Hall
304.1 Alcove
305. Secretary
306. Hall
307. Director's Office

.120 3
112'. 2
8 1

GENERAL NOTES

1. All Elev. on this sheet represent finish ceiling elevations.
2. Main Floor finish fl. elev. is 100'-0".
3. Mezzanine finish fl. elev. is 107'-7"±.
4. Upper Floor finish elev. is 112'-2 1/2"±.

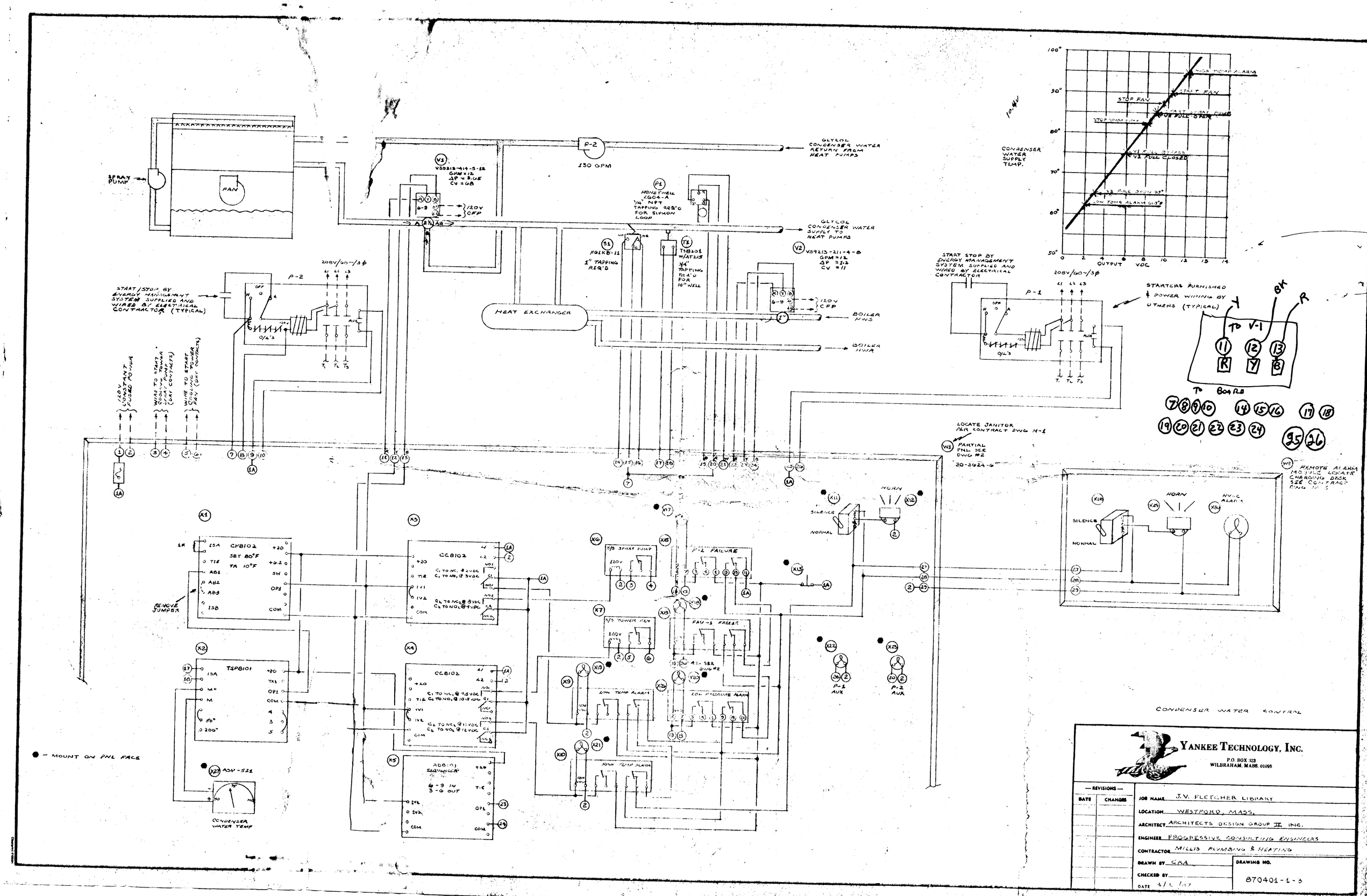
MEZZ. & UPPER FLOOR REFLECTED CEILING PLANS 1/8"=1'-0"

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY, MA 02181
STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

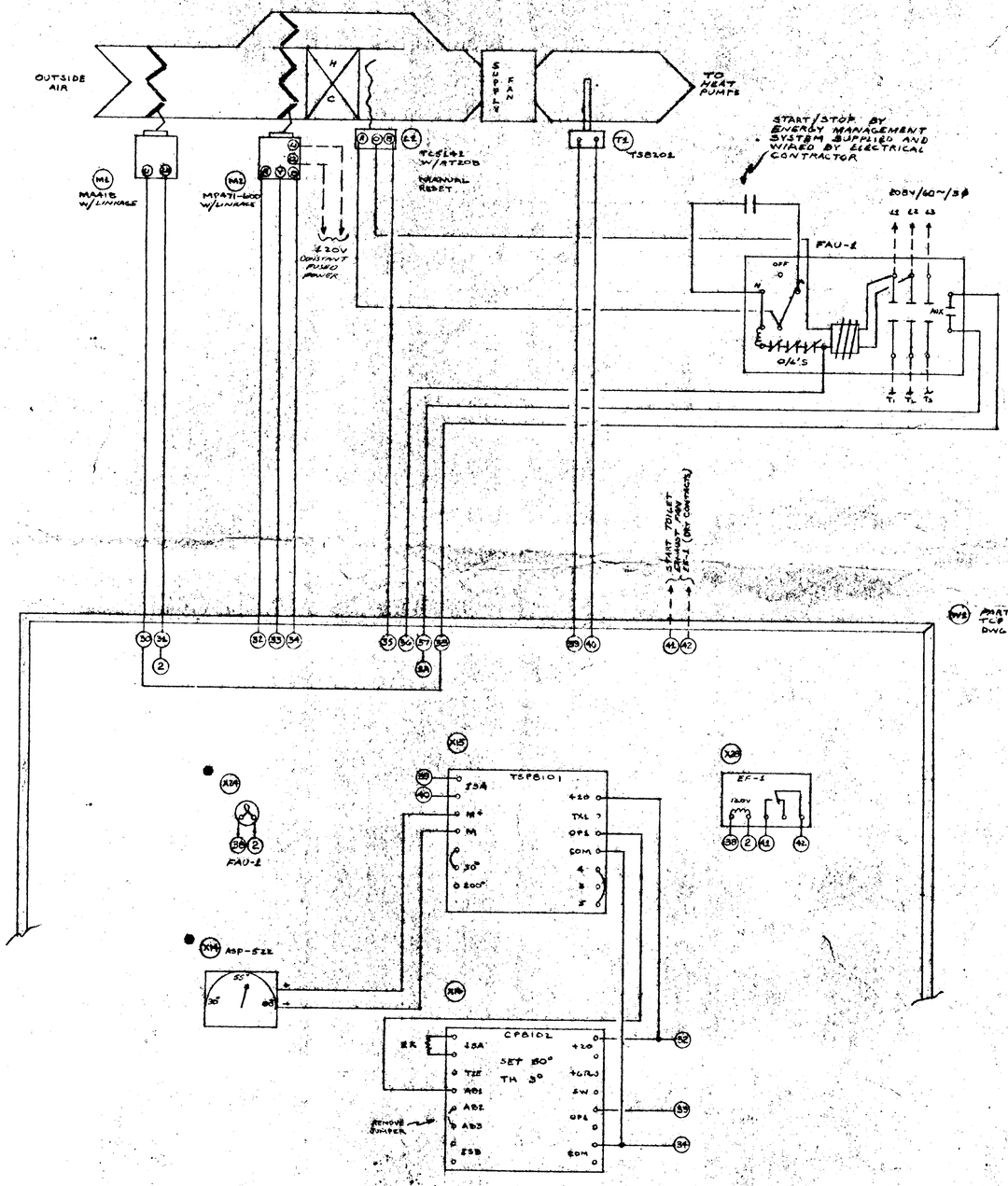
A-1.18

DATE 17 NOV 1986

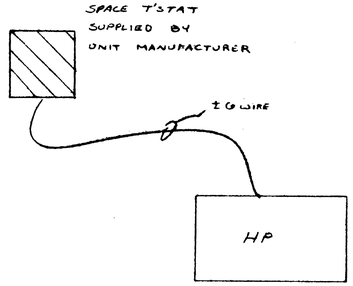


SPRAY PUMP
FAN
P-2
130 GPM
GLYCOL CONDENSER WATER RETURN FROM HEAT PUMPS
GLYCOL CONDENSER WATER SUPPLY TO HEAT PUMPS
HEAT EXCHANGER
BOILER HWS
BOILER HWR
START/STOP BY ENERGY MANAGEMENT SYSTEM SUPPLIED AND WIRED BY ELECTRICAL CONTRACTOR (TYPICAL)
START STOP BY ENERGY MANAGEMENT SYSTEM SUPPLIED AND WIRED BY ELECTRICAL CONTRACTOR
STARTERS FURNISHED & POWER WIRING BY OTHERS (TYPICAL)
CONDENSER WATER SUPPLY TEMP.
OUTPUT VDC
HIGH TEMP ALARM
START FAN
STOP FAN
V1 FULL OPEN
V1 FULL CLOSED
LOW TEMP ALARM
LOCATE JANITOR PER CONTRACT DWG M-1
PARTIAL PNL SEE DWG #2
REMOTE ALARM MODULE LOCATE CHARGING DESK SEE CONTRACT DWG
CPB102
TSPB101
CCB102
ADB101 SEQUENCER
REMOVE JUMPER
CONDENSER WATER TEMP
S/S SPRAY PUMP
S/S TOWER FAN
P-2 FAILURE
FAU-1 FREEZE
LOW TEMP ALARM
LOW PRESSURE ALARM
HIGH TEMP ALARM
SILENCE
NORMAL
HORN
HVAC ALARM
P-1 AUX
P-2 AUX
● - MOUNT ON PNL FACE
CONDENSER WATER CONTROL
YANKEE TECHNOLOGY, INC.
P.O. BOX 323
WILBRAHAM, MASS. 01095
— REVISIONS —
DATE
CHANGES
JOB NAME J.V. FLETCHER LIBRARY
LOCATION WESTFORD, MASS.
ARCHITECT ARCHITECTS DESIGN GROUP II INC.
ENGINEER PROGRESSIVE CONSULTING ENGINEERS
CONTRACTOR MILLIS PLUMBING & HEATING
DRAWN BY CRA
CHECKED BY
DATE 4/1/87
DRAWING NO.
870401-1-3
DWG #1

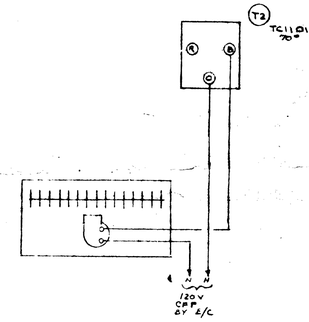
FAU-1
(TYP FOR 2)



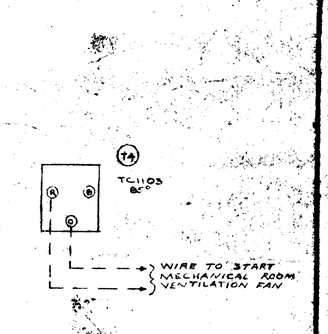
HEAT PUMPS
(TYP FOR 13)



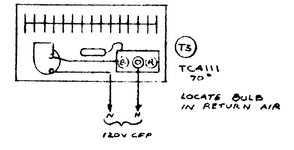
UNIT	LOCATION	DWG
HP-1	BOOK SORTING 1	M-1
HP-2	MEETING RM 3 N. WALL	M-1
HP-3	MEETING RM 3 W. WALL	M-1
HP-4	EXHIBIT 107	M-2
HP-5	TECHNICAL SERVICES	M-1
HP-6	STACKS, ART & MUSIC 2G-2	M-1
HP-7	STACKS, ART & MUSIC 2G	M-1
HP-8	SHORT STORY RM 101	M-2
HP-9	CHILDREN'S LIBRARY 102	M-2
HP-10	EXISTING STACKS 2G1	M-3
HP-11	HISTORICAL COLLECTION 303	M-3
HP-12	STACKS & REFERENCE 114	M-2
HP-13	DIRECTOR'S OFFICE	M-3



CABINET HEATER
(TYP FOR 1)
VESTIBULE 110



MECHANICAL ROOM VENTILATION
(TYP FOR 1)



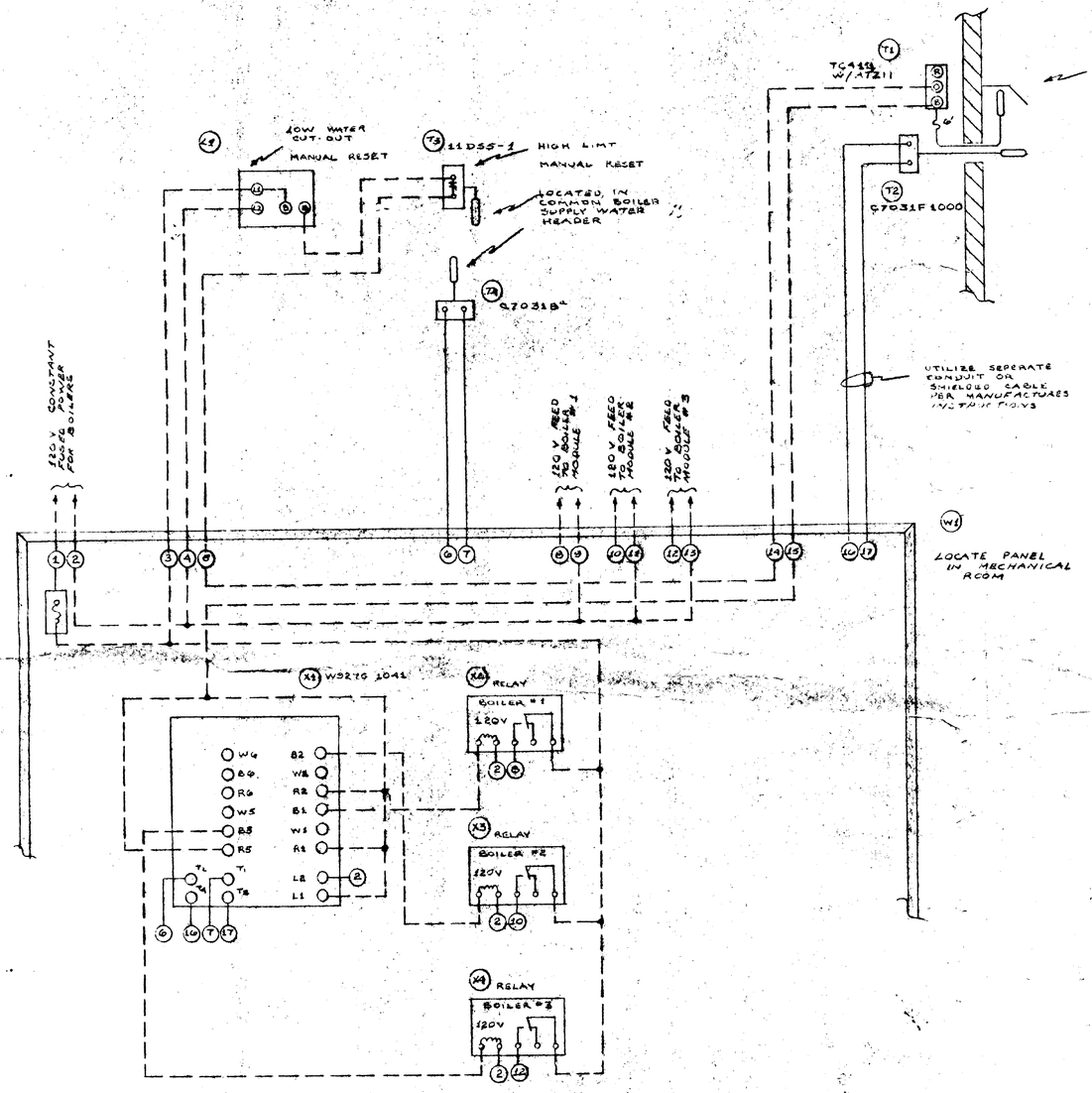
CABINET HEATER
(TYP FOR 2)
LOWER ENTRY HALL

BOILER WIRE BOILER PACKAGE CONTROLS OUTDOOR RESET, AMBIENT LOCK-OUT AND FLU DAMPERS PER MANUFACTURERS DIRECTION.

YANKEE TECHNOLOGY, INC.
P.O. BOX 323
WILBRAHAM, MASS. 01095

— REVISIONS —	
DATE	CHANGES
3/31/98	M2 PWR

JOB NAME J.V. FLETCHER LIBRARY
LOCATION WESTFORD, MASS.
ARCHITECT ARCHITECTS DESIGN GROUP II, INC.
ENGINEER PROGRESSIVE CONSULTING ENGINEERS
CONTRACTOR MILLIS PLUMBING & HEATING
DRAWN BY CWA
CHECKED BY
DATE
DRAWING NO. M2
870401-2-3



BOILER COORDINATION
DWG. ALL CONTROLS
BY OTHERS

YANKEE TECHNOLOGY, INC.
P.O. BOX 323
WILBRAHAM, MASS. 01095

— REVISIONS —	
DATE	CHANGES

JOB NAME J.V. FLETCHER LIBRARY
LOCATION WESTFORD, MASS.
ARCHITECT ARCHITECTS DESIGN GROUP II INC.
ENGINEER PROGRESSIVE CONSULTING ENGINEERS
CONTRACTOR MILLIS PLUMBING & HTG.
DRAWN BY CKA
CHECKED BY
DATE
DRAWING NO. Y/T 870401-3-3

DWG #3

ELECTRICAL SITE PLAN SCALE: 1"=20'-0"

ONE LINE DISTRIBUTION DIAGRAM - NO SCALE

PANEL LP1 - LOWER LEVEL

SERVICE: 120/208 3Ø 4-WIRE — AMPS: 100A

BRANCHES: BOLT-ON CBS — MOUNTING: SURFACE

CKT	TRIP	POLE	DESIGNATION	KW	CKT	TRIP	POLE	DESIGNATION	KW
1	20	1	Entrance Lighting	1.05	2	20	1	EXIT LIGHTS	3.0
3	20	1	Jan. Elec.	1.05	4	20	1	NEW TECH SERVICE	
5	20	1	Toilets, Jan.	1.6	6	20	1	NEW TECH SERVICE	-
7	20	1	SPACE	1.2	8	20	1	NEW TECH SERVICE	
9	20	1	Meeting Room Ltg.	1.5	10	20	1	ELEV. CAR SERVICE	-
11	20	1	Meeting Room Ltg.	.8	12	20	1	Spare	-
13	20	1	Meeting Room Ltg.	1.5	14	20	1	Book Sort Ltg.	1.2
15	20	1	Meeting Room Ltg.	.8	16	20	1	Hall Entry	1.5
17	20	1	Meeting Room Ltg.	1.0	18	20	1	Stacks/Ref. Per. Ltg.	
19	20	1	LTG. WEST WING	.5	20	20	1	New Stack Room	1.3
21	20	1	Old Stack Room-Main	1.5	22	20	1	New Stack Room	1.3
23	20	1	Old Stack Room-Main	1.5	24	20	1	Elev. Pit Ltg.	.1
25	20	1	Old Stack Rm-Upper	1.5	26	20	1	New Stack Room	1.032
27	20	1	Old Stack Rm-Upper	1.5	28	20	1	New Stack Room	1.3
29	20	1	Power-Control Sta.	.06	30	20	1	OUTSIDE LIGHTING	.3
31	20	1	RECEPT. MAIN DESK	-	32	20	1	Outside Lighting	1.55
33	20	1	Spare	-	34	20	1	Outside Lighting	1.24
35	20	1	Spare	-	36	20	1	Spare	-
37	20	1	Spare	-	38	20	1	Spare	-
39	20	1	Spare	-	40	20	1	Spare	-
41	20	1	Spare	-	42	20	1	Spare	-

PANEL LP2 UPPER LEVEL

SERVICE: 120/208 3Ø 4-WIRE — AMPS: 100A

BRANCHES: BOLT-ON CBS — MOUNTING: FLUSH

CKT	TRIP	POLE	DESIGNATION	KW	CKT	TRIP	POLE	DESIGNATION	KW
1	20	1	Story Hour Room	1.5	2	20	1	CPSU	1.5
3	20	1	Mech'l Room Lighting	1.5	4	20	1	Hist Coll/Quiet Ltg.	1.2
5	20	1	Office/Corr. Ltg.	1.2	6	20	1	Hist Coll/Quiet Ltg.	1.2
7	20	1	Mezz. Lighting	1.5	8	20	1	Stack - Ref. Reading	1.5
9	20	1	Stacks Ref. Reading	1.5	10	20	1	Children's Library	1.2
11	20	1	Stacks Ref. Reading	1.5	12	20	1	Children's Library	1.2
13	20	1	Stacks Ref. Reading	1.5	14	20	1	Children's Library	1.5
15	20	1	Stacks Ref. Reading	1.5	16	20	1	SKYLIGHT LIGHT	.8
17	20	1	EXIT LIGHTS	1.2	18	20	1	STACKS & REF	-
19	20	1	EXIT LIGHTS	1.0	20	20	1	STACKS & REF	-
21	20	1	Main Fl. Lighting	.75	22	20	1	Main Floor Lighting	1.26
23	20	1	Main Fl. Lighting	.60	24	20	1	Night Lighting	.5
25	20	2/0	Under Mezz. Ltg.	1.0	26	20	1	Lighting-Office	.682
27	20	1	Under Mezz. Ltg.	1.0	28	20	1	EXIT LIGHTS	1.0
29	20	1	UNDER MEZZ LTG.	1.0	30	20	1	EXIT LIGHTS	1.0

PANELBOARD PP1

SERVICE: 120/208 3Ø 4-WIRE — AMPS: 225A Double Tub

BRANCHES: BOLT-ON CBS — MOUNTING: SURFACE

DESIGNATION	CKT	CKT	DESIGNATION	DESIGNATION	CKT	CKT	DESIGNATION
BookSortingPlugs	1	2	Receptalces		25	26	
HallEntrancePlugs	3	4	Staff Toilet Rec.		27	28	
EastWingHallPlugs	5	6	Receptacles		29	30	
MeetingRoomPlugs	7	8	Receptacles	MainEnt.Heat Unit	31	32	Counter Top Plugs
KitchenetteE.W.Pgs	9	10	Receptacles	BackEnt.Heat Unit	33	34	East Wing Plugs
" " "	11	12	Kitchen Plugs	EastWingEnt.Ht.Unit	35	36	East Wing Plugs
Mens Hand-Dry	13	14		StaffKitchen Plugs	37	38	
Wom.Hand-DryToilet	15	16		HeatPumpCtrlSwPl.EO	39	40	
West Wing Plugs	17	18		HeatPump#1EastWing	41	42	PumpChamberOutsidPl.
" " "	19	20		HeatPump#1EastWing	43	44	PumpChmbrOutsidePnl.
" " "	21	22		CooktopEastW.Kitchn	45	46	CooktopUnitStf.Kit.
Receptacles	23	24	Receptacles	CooktopEastW.Kitchn	47	48	CooktopUnitStf.Kit.
Receptacles	25	26	Receptacles	HeatPump#2EastWing	49	50	HeatPump#5Stf.Kitch.
Security System	27	28	Fire Alarm	HeatPump#2EastWing	51	52	HeatPump#5Stf.Kit.
Security System	29	30		HeatPump#2EastWing	53	54	HeatPump#5Stf.Kit.
	31	32		HeatPump#4Jan.Room	55	56	HeatPump#7Jan.Room
	33	34		HeatPump#4Jan.Room	57	58	HeatPump#7Jan.Room
	35	36		HeatPump#4Jan.Room	59	60	HeatPump#7Jan.Room
	37	38		HeatPump#3Jan.Room	61	62	HeatPump#6Jan.Room
	39	40		HeatPump#3Jan.Room	63	64	HeatPump#6Jan.Room
	41	42		HeatPump#3Jan.Room	65	66	HeatPump#6Jan.Room
	43	44			67	68	
					69	70	

PANELBOARD PP2

SERVICE: 120/208 3Ø 4-WIRE — AMPS: 225A

BRANCHES: BOLT-ON CBS — MOUNTING: RECESSED

DESIGNATION	CKT	CKT	DESIGNATION
EWingM.FlGFIToil.Pg.	1	2	Old Plugs
East Wing Plugs	3	4	WWingPg.Main Fl.
E.W.&Hall Plugs	5	6	WWStr,Dsk,M.Fl.Pgs.
Office Plugs	7	8	West Wing Plugs
Office Plugs	9	10	HotW.UnitTopFl.Pgs.
Up-level Plugs	11	12	" " " "
Up-level Plugs	13	14	" " " "
" " "	15	16	Heat Pump#8MechRm.
" " "	17	18	" " "
FrshairUnitOldAtic	19	20	H.P.#12 Old Attic
" " "	21	22	" " " "
" " "	23	24	" " " "
H.P.#10 Old Attic	25	26	H.P.#11 Old Attic
" " " "	27	28	" " " "
" " " "	29	30	" " " "
H.P.#9 Mech.Room	31	32	H.P.#13 Old Attic
" " " "	33	34	" " " "
" " " "	35	36	" " " "
	37	38	
	39	40	

LIGHTING FIXTURE SCHEDULE

PROFILE	TYPE	MANUFACTURER	LAMPS	WATTS	MTG.	REMARKS/NOTES
	F1	Litecontrol P-S/D 66N-48RS PBSS-CWM 120 440RS	4-F40 RS	172	Pendant 8'-0" to Bottom	
	F1A	Litecontrol P-S/D 66N-24RS PBSS-CWM 120 240RS	2-F40 RS	86	8'	ESB
	F2	Litecontrol WID-66N-48RS PBSS-CWM 120 440RS	4-40RS	172	Wall Mount	ESB
	F2A	Litecontrol WID-66N-28RS PBSS-CWM 120 240RS	2-40RS	86	Refer to Arch'l	
	F3	Litecontrol WAID-66N-28RS BW-CWM 120 440RS	4-40RS	172	Wall Mount 7'-8" in RM3 - 6'4" in RM202	ESB. Field measure. Provide special row connectors for continuous corner mounting, 9'1"2" UP.
	F3A	Litecontrol WAID-66N 14RS BW-CWM 120 240RS	2-40RS	86		
	F4	Litecontrol P-1D-66N-28RS-48RS-PBSS-CWM-120 640RS	6-40RS	258	Pendant 8'-10" to bottom	ESB
	F5	Litecontrol P-1D-66N-28RSS-BW-CWM-120-640RS	6-40RS	172	Pendant 8'-0" to bottom	ESB
	F5A	Litecontrol P-1D-66N-24RS-BW-CWM-120-340RS	2-40RS	86	8'	
	F6	Litecontrol SD428RS CWM, CWM AS2	2-40RS	86	1" off Beam Ceiling Mounted	ESB
	F6A	Litecontrol SD414RS CWM, CWM AS8	1-40RS	50		
	F7	Litecontrol RD66N-48RS PBSS-CWM 120 4F40RS	4-40RS 172	172	Recess Ceiling	Mount 12" from Wall. ESB
	F8	Sieker CH240 - 4' Unit Sieker CH2240 - 8' Unit	2-40WRS 4-40WRS	43 86	Surface or Pendant	ESB
	F9	ALKCO #219-S	2-T5/15W	35	UNDER CABINET	42 1/2" Long
	F9A	OMMITED				
	F10	Staff 2032	2-F40	86	Wall Over Mirror	ESB 8' Long
	F10A	Staff 2022	1-F40	50	Wall Over Mirror	ESB 4' Long
	F11	Staff 1126	2-PL13 Fluor	30	Ceiling Recessed	
	S1	Staff 1466 WH.	2-PL13 Fluor	30	Surface	
	EXIT	ELS-LRXS-120 VOLT	2-25W 3-5W	15	Surface Wall or Pendant as required	Mounting and location to be determined by the Architect.
	LIGHT TRACK	Staff 1-C White complete with feed unit, thru connecto and D.E. covers	N/A	2400 Max Per Run	Ceiling Direct	
△3	T	Staff 6041	130V R	150	On Track	USE 130V 2500 HR R LAMP
	S3	Leviton 8828W	1-60 Incan.	60	Surface Ceiling	
	W1	Lightoller 4902	1-100A	100	Wall 6'-6" to top	
	NA	~~Lam... 4101l~~	1-75	250		
△3	W2	LIGHTOLIER 3054	1-60W A LAMP	60	Wall Mount Exterior	130V 2500 HR LAMP
	R1	Staff 440/45211 WH MR 16 EXN EDTH 440 45211	1-MR16 E-YC 75	75	Recessed Ceiling	4" diameter wall wash unit
	R2	Staff 440/45211 WH MR 16 EXN	1-MR16 E-YC	75	Recessed Ceiling	4" diameter
	XT	HADCO S-2408 ON 12' POLE # P-950 - PAINT BLACK	1-150W HPS 1-60W	270	POLE TOP ON 12' HIGH P-950 POLE BLACK	On 4' deep x 18" round concrete base. See detail.
	R4	Kurt Versen R5614-250 20 HM-F	1-250 DXMV	310	Recessed Ceiling	Ballast - potted type. HPF - fused accessible thru fixture
	R5	Lightoller 7058	1-75W R-30	75	Recessed	
	W3	Lightoller 41935 with 41945 Lens Assembly Finished Polished Al.	1-F40T12 Fluor.	46	Wall on 1/2" Satin Alum. Arm	Mounted over periodical rack. Refer to arch'l for height.

DRAWING NOTES

1. EXISTING LIGHTING PANEL, FIRE ALARM PANEL AND SECURITY PANEL TO BE REMOVED. RECONNECT LIGHTING AND POWER CIRCUITS AT JB'S ABOVE CEILING (ACCESS PNL REQD) AND EXTEND TO NEW PANELS IN ELECTRIC ROOM, OR AS SHOWN.
2. EXISTING ELECTRIC AND TELEPHONE SERVICE RISERS TO BE REMOVED. TELEPHONE BACKBOARD REMAINS FOR UPGRADE BY TELCO. EXTEND NEW, UNDERGROUND TELEPHONE SERVICE TO TEL BOARD.
3. EMERGENCY LIGHTING WIRING SHALL BE MINIMUM #10.
4. CONFORM TO ALL MASSACHUSETTS BUILDING AND ELECTRICAL CODE REQUIREMENTS FOR WORKING EQUIPMENT, DEVICES, METHODS AND SYSTEMS. SUCH CODES SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO START OF WORK. ACQUIRE ALL PERMITS, PAY ALL FEES.
5. WIRING DEVICES SHALL BE IVORY, WITH SMOOTH PLASTIC PLATES. ALL 120V, 20 AMP.
6. EXISTING BUILDING LIGHTING AND SERVICES SHALL BE MAINTAINED WHILE ALTERATIONS ARE BEING MADE. MAKE TEMPORARY CONNECTIONS. ALL WORK SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE, THE GENERAL CONTRACTOR AND ARCHITECT. NO AREA SHALL BE WITHOUT ELECTRICITY OR LIGHTING.
7. PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS, PARTITIONS, ETC. SHALL BE PROPERLY SEALED WITH AN APPROVED MATERIAL, RECOGNIZED BY THE LOCAL AND NATIONAL CODES AND AUTHORITY, AFTER INSTALLATION OF EQUIPMENT.
8. CONDUIT SHALL BE EMT OR IMC. FLEX CONDUIT MAY BE USED ONLY FOR EQUIPMENT CONNECTIONS. ARMORED CABLE FOR FEEDERS SHALL NOT BE USED. ARMORED CABLE OR NON-METALLIC CABLE SHALL BE USED FOR BRANCH CIRCUIT IN ACCORDANCE WITH BUILDING STANDARDS AND CODE REQUIREMENT.
9. ACTUAL LOCATION AND MOUNTING OF PANELS AND LIGHTING FIXTURE DEVICES TO BE COORDINATED WITH THE ARCHITECT AND GENERAL CONTRACTOR.
10. FURNISH AND INSTALL ALL LIGHTING FIXTURES SHOWN COMPLETE WITH ACCESSORIES TO MEET JOB CONDITIONS. CONTRACTOR SHALL DETERMINE CEILING SUSPENSION SYSTEM PRIOR TO ORDERING FIXTURES AND ACCESSORIES. SUPPORT FIXTURES FROM THE STRUCTURE WITH METAL OR ROD SUPPORTS.
11. ALL WIRE AND CONDUIT SIZES ARE BASED ON COPPER.
12. MOUNTING HEIGHTS ARE TAKEN FROM FINISHED FLOOR OR FINISHED GRADE UNLESS OTHERWISE NOTED.
13. PANELBOARD SHALL HAVE BOLT-IN BREAKERS AND TYPED DIRECTORIES.
14. OUTLETS NOT BEING REUSED SHALL BE BLANKED OFF USING THE MATERIAL OF THE SURROUNDS (I.E., WOOD WHERE PANELED, PLASTER WHERE PLASTERED, ETC.).
15. ALL EQUIPMENT, WIRING, DEVICES, PANELS REMOVED OR BEING REPLACED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE PREMISES. EXCEPTIONS INCLUDE BASEBOARD HEATERS, AIR CONDITIONERS, CHANDELIERS.
16. CONTRACTOR SHALL MOUNT AND WIRE HVAC AND PLUMBING EQUIPMENT CONTROLS. LINE CONTROLLERS SHALL BE LOCATED NEAR THE UNITS.

FIXTURE TYPE XT BASE DETAIL - NO SCALE

LEGEND

	6" WIDE FLUORESCENT LIGHTING FIXTURES (SEE SCHEDULE)
	12" WIDE FLUORESCENT LIGHTING FIXTURES (SEE SCHEDULE)
	WALL MOUNTED FLUORESCENT LIGHTING FIXTURE (SEE SCHEDULE)
	RECESSED LIGHTING FIXTURES (SEE SCHEDULE)
	STRIP FLUORESCENT LIGHTING FIXTURE (SEE SCHEDULE)
	WALL SCONCE LIGHTING FIXTURE (SEE SCHEDULE)
	PENDANT LIGHTING FIXTURE (SEE SCHEDULE)
	WALL MOUNTED HID UP LIGHTING FIXTURE (SEE SCHEDULE)
LT	LIGHT TRACK FIXTURES AND ACCESSORIES (SEE SCHEDULE)
	RECESSED EMERGENCY LIGHT
	WALL MOUNTED EMERGENCY LIGHT
E 360	EMERGENCY LIGHTING BATTERY AND SHELF, RATING SHOWN
S	20A, 120/277 V SINGLE POLE SWITCH
S_3	20A, 120/277V THREE-WAY SWITCH
S_2	20A, 120/277V FOUR-WAY SWITCH
S_D	LIGHTING DIMMER, MINIMUM 1200 WATT & 120V
	LIGHTING PANEL
	LIGHTING RELAY CABINET
	LIGHTING CONTROL STATION OUTLET
	LIGHTING RELAY
	125V, 15 OR 20A DUPLEX RECEPTACLE MOUNTED 12" ABOVE FLOOR
	125V, 15 OR 20A DUPLEX RECEPTACLE AT COUNTER HEIGHT
	125V, 15 OR 20A FLOOR MOUNTED DUPLEX RECEPTACLE
GF	INDICATES GROUND FAULT
TC	TIME CLOCK WITH ASTRONOMICAL DIAL, RESERVE TIME SPRING
	WALL MOUNTED TELEPHONE OUTLET
	FLOOR MOUNTED TELEPHONE OUTLET
	JUNCTION BOX
BTC	BRANCH TO CONNECTION (FLEX ARMORED CABLE)
FAC	FIRE ALARM CONTROL PANEL
	MANUAL FIRE ALARM PULL STATION
	AUDIBLE/VISIBLE FIRE ALARM
	AUTOMATIC SMOKE/HEAT DETECTOR
	WIRING IN CONDUIT RUN CONCEALED IN CEILING OR WALLS
	WIRING IN CONDUIT RUN CONCEALED IN FLOOR
	WIRING IN CONDUIT RUN EXPOSED
	WIRING IN CONDUIT GOING UP
	WIRING IN CONDUIT GOING DOWN
	HOME RUN TO PANEL (SINGLE CIRCUIT)
	HOME RUN TO PANEL (MULTIPLE CIRCUITS SHOWN)
	INDICATES NUMBER OF WIRES IN BRANCH CIRCUIT OVER TWO NO. 12 MINIMUM WIRE SIZE
	MOTOR, NUMERAL INDICATES HORSEPOWER
D	DAMPER MOTOR WIRED BY ELECTRICAL CONTRACTOR
	MOTOR OR ELECTROMECHANICAL CONTROLLER BY OTHERS; WIRING BY ELECTRICAL CONTRACTOR
	MOTOR CONTROLLER FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR
	SAFETY SWITCH
	AUTOMATIC VALVE WIRED BY ELECTRICAL CONTRACTOR
	EXIT LIGHT ELS-LRXS-120 VOLT WITH EM BATT & ALL ACCESSORIES

ABBREVIATIONS

ACV	AUTOMATIC CONTROL VALVE
AFF	ABOVE FINISHED FLOOR
AL	ALUMINUM
AMP	AMPERE
ARCH	ARCHITECT
BECO	BOSTON EDISON COMPANY
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
	CENTERLINE
CONT	CONTINUOUS
CT	CURRENT TRANSFORMER
CU	COPPER
DISC	DISCONNECT
EC	ELECTRICAL CONTRACTOR
EL	ELEVATION
ELEC	ELECTRICAL
ENG	ENGINEER
FIXT	FIXTURE
FLUOR	FLUORESCENT
HP	HORSEPOWER
HVAC	HEATING/VENTILATION/AIR CONDITIONING
HZ	HERTZ
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLTAMPERE
KW	KILOWATT
LTG	LIGHTING
M	BECO METER/CABINET BY EC
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILLS
MDP	MAIN DISTRIBUTION PANEL
Ø	PHASE
PB	PULL BOX
PLUMB	PLUMBING
PNL	PANEL
RCS	REMOTE CONTROL SWITCH
RECPT	RECEPTACLE
SW	SWITCH
SWBD	SWITCHBOARD
TEL	TELEPHONE
TYP	TYPICAL
V	VOLT
W	WATT
WP	WEATHERPROOF
XP	EXPLOSION PROOF

EXIT LIGHTS ADDED W2 FIXT TYPE CHANGE

△3 1/21/88 'T' FIXT TYPE CHANGE

△2 11/5/87 GENERAL REVISIONS

△1 10/28/87 GENERAL REVISIONS

AS BUILT

EYLES ELECTRIC

SITE PLAN, LEGEND, SCHEDULES & DIAGRAM

J.V. FLETCHER LIBRARY. WESTFORD, MA.

ADDITION AND RENOVATIONS

ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181

STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109

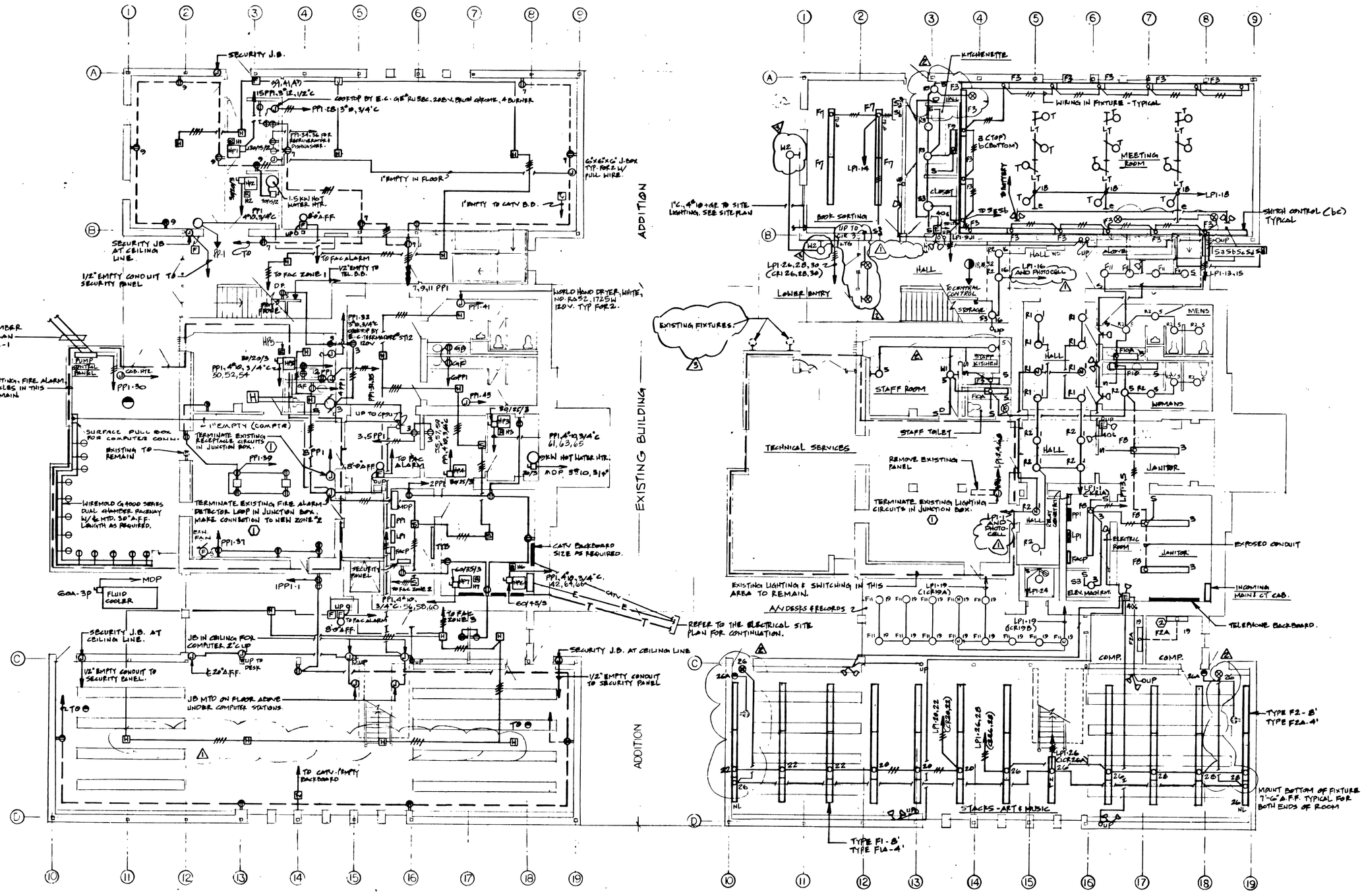
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129

ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210

LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

E 1

DATE 17 NOV. 1986



LOWER LEVEL — POWER AND SIGNAL

SCALE: 1/8"=1'-0"

LOWER LEVEL — LIGHTING

SCALE: 1/8"=1'-0"

AS BUILT
EYLES ELECTRIC

⚠ 1/21/88 CHANGED W2 FIXT TYPE
⚠ 12/4/87 ADDED EXIT LIGHTS
⚠ 10/6/87 GENERAL REVISIONS

LOWER FLOOR PLAN POWER & LIGHTING

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

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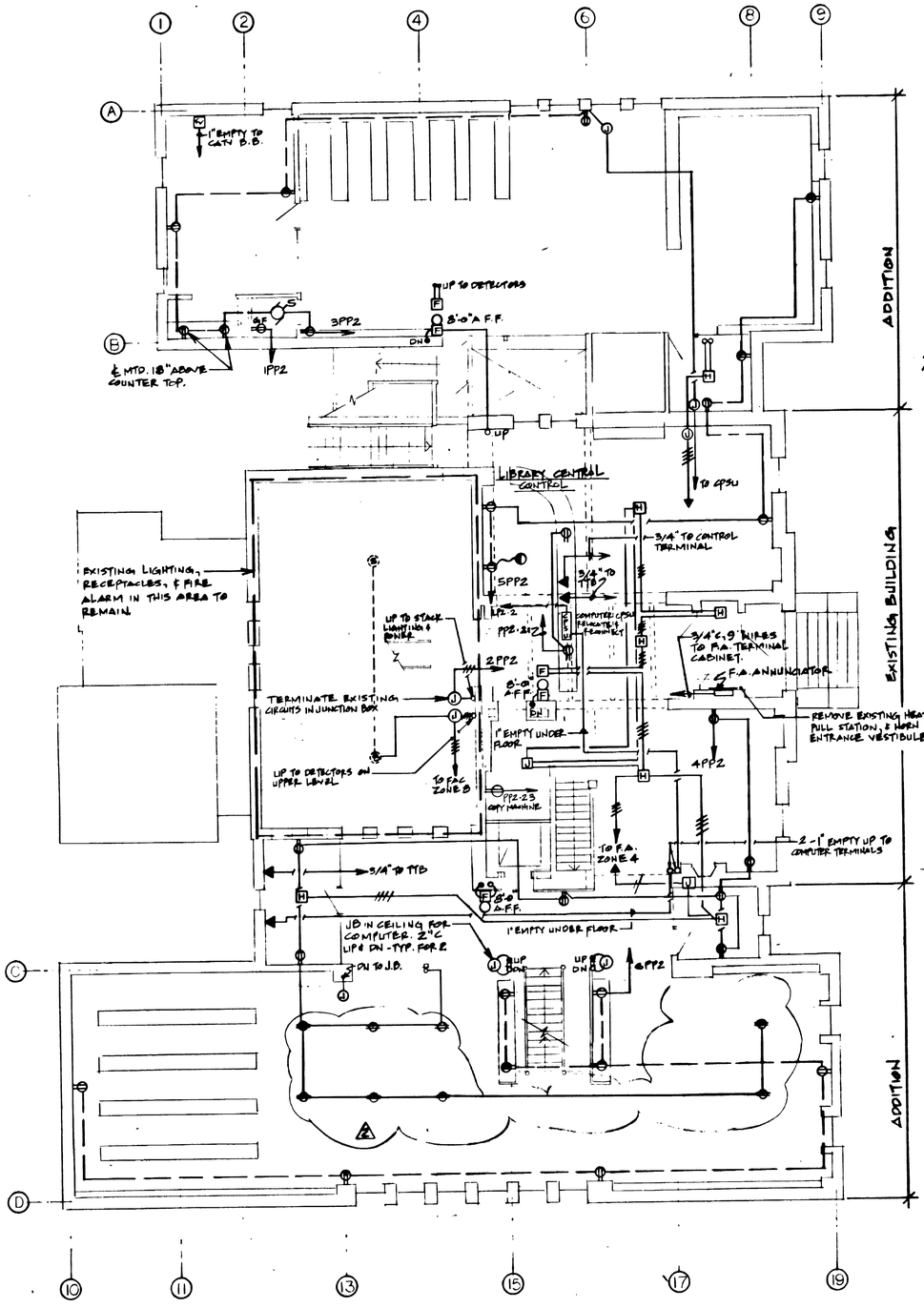
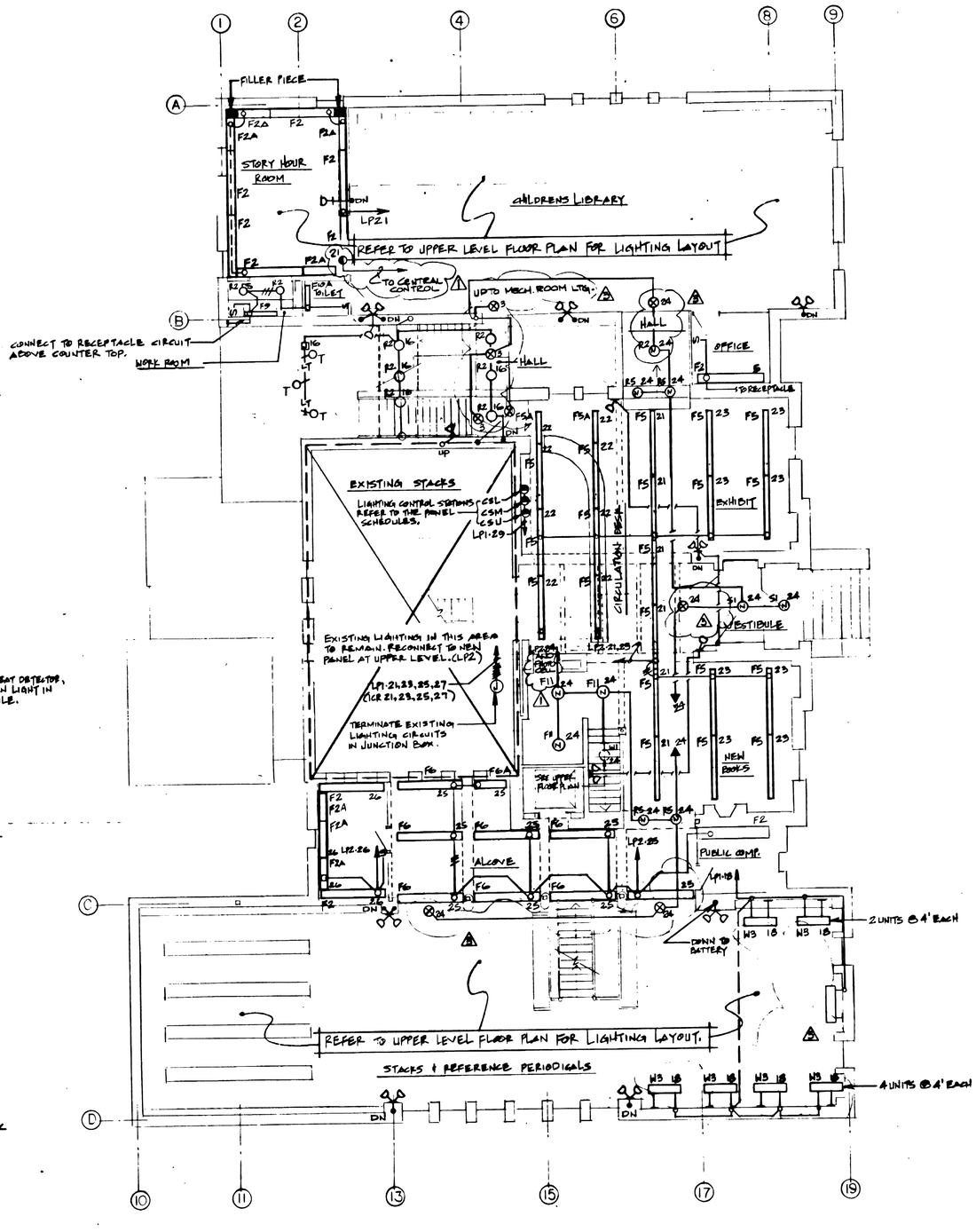
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

E 2

DATE: 17 NOV. 1986



MAIN LEVEL — POWER AND SIGNAL
SCALE: 1/8"=1'-0"



MAIN LEVEL — LIGHTING
SCALE: 1/8"=1'-0"

AS BUILT
EYLES ELECTRIC

△ 12/4/87 ADDED EXIT LIGHTS
△ 11/9/87 GENERAL REVISIONS
△ 10/28/87 GENERAL REVISIONS

MAIN FLOOR PLAN POWER & LIGHTING

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

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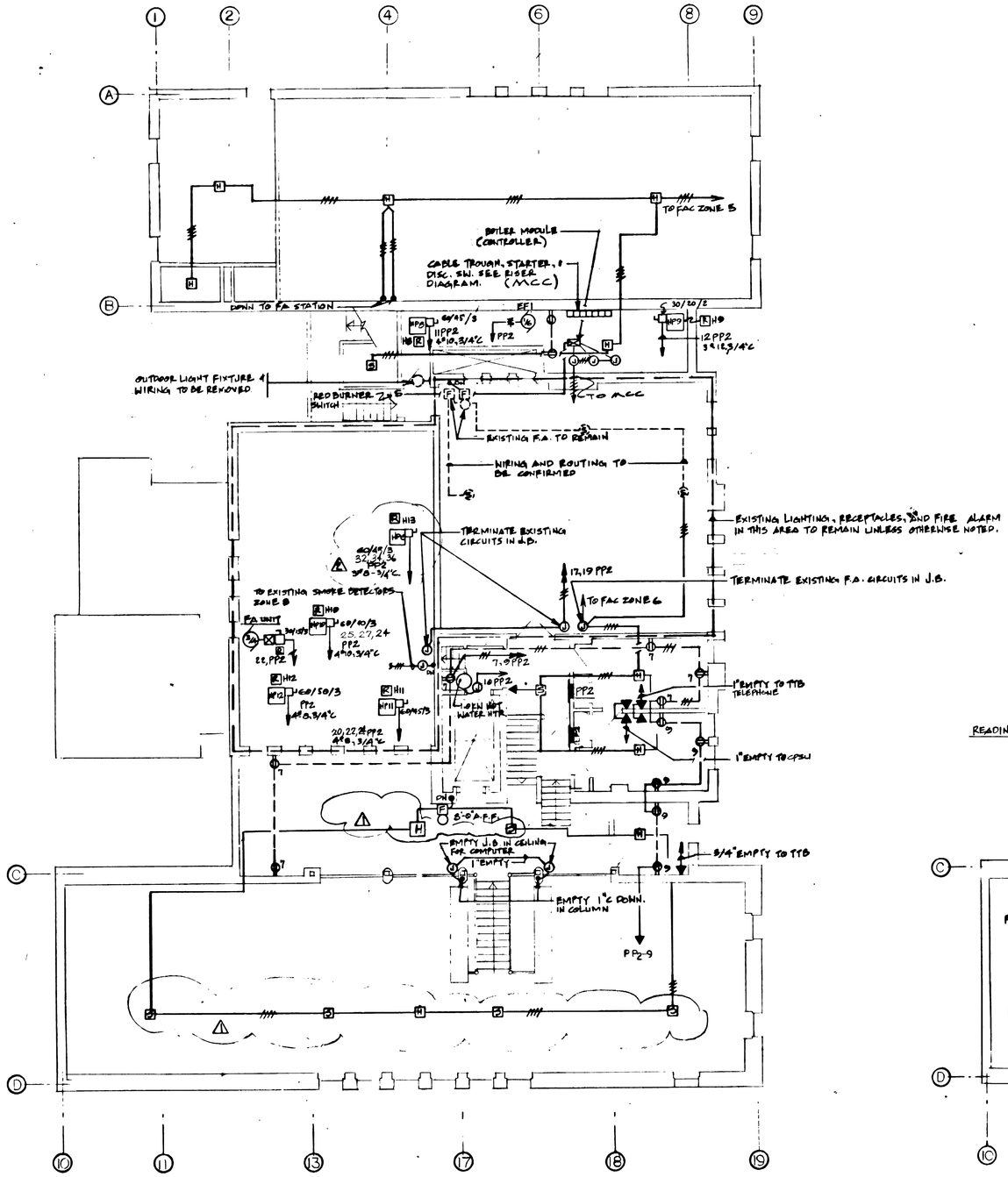
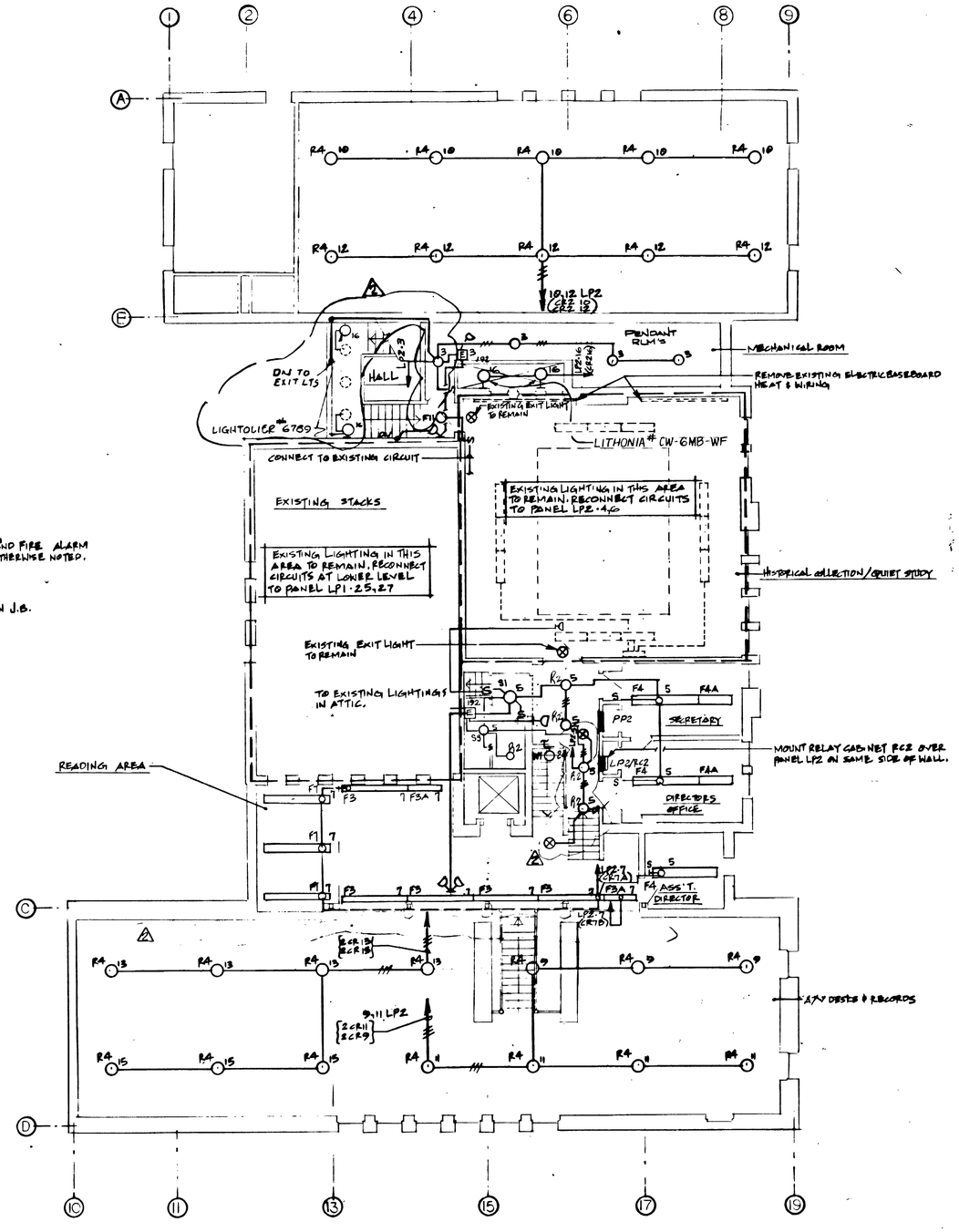
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

E 2

DATE 17 NOV 1986



UPPER LEVEL — POWER AND SIGNAL
SCALE: 1/8"=1'-0"



UPPER LEVEL — LIGHTING
SCALE: 1/8"=1'-0"

AS BUILT
EYLES ELECTRIC

⚠ 12/4/87 ADDED EXIT LIGHTS
⚠ 10/23/87 GENERAL REVISIONS

UPPER FLOOR PLAN POWER & LIGHTING

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

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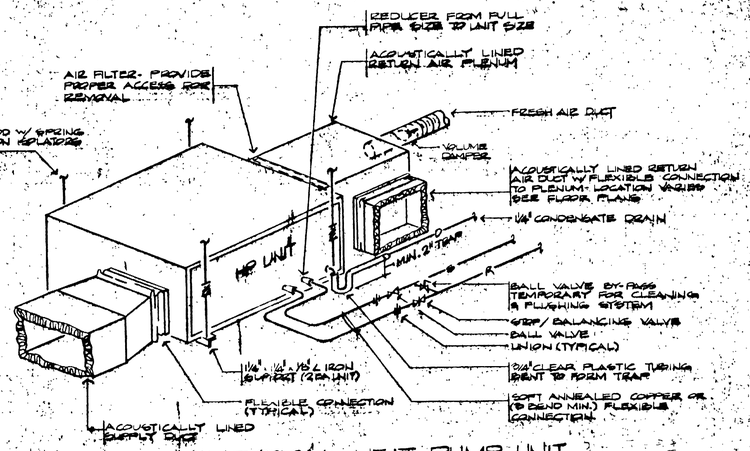
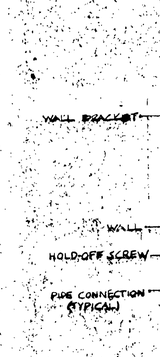
E 4
DATE: 17 NOV. 1986

COMMONWEALTH OF MASSACHUSETTS REGISTERED PROFESSIONAL ENGINEER



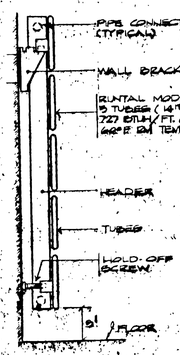
TYPICAL HEAT PUMP UNIT

NO SCALE



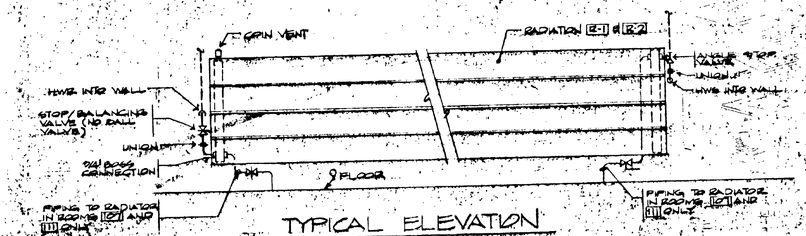
RADIATION TYPE R-1

NO SCALE



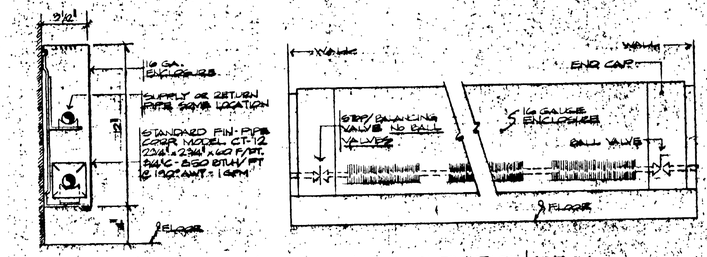
RADIATION TYPE R-2

NO SCALE



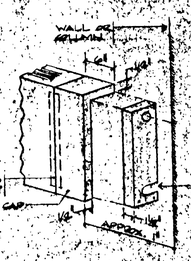
TYPICAL ELEVATION

NO SCALE



SECTION

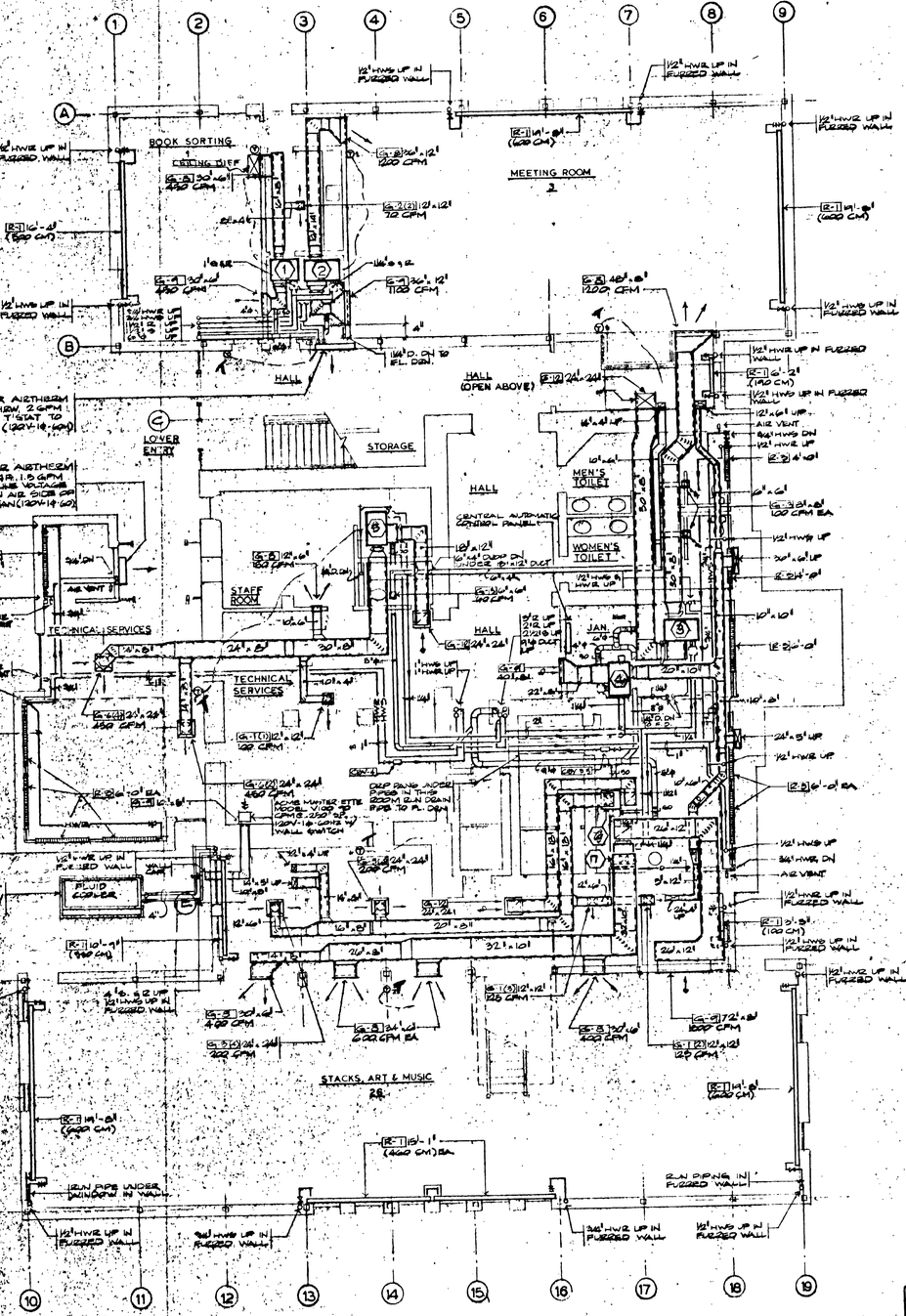
ELEVATION



END CAP DETAIL

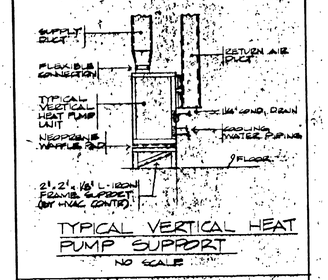
RADIATION TYPE R-3

NO SCALE



LOWER FLOOR PLAN

1/8" = 1'-0"



TYPICAL VERTICAL HEAT PUMP SUPPORT

NO SCALE

GENERAL NOTES

1. HVAC CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DWGS FOR EXACT LOCATIONS OF ALL CEILING SUPPLY DIFFUSERS AND RETURN AND ALL SIDEWALL SUPPLY, RETURN REGISTERS.
2. ALL DUCTWORK SIZES INDICATED ON PLAN, ARE CLEAR, INSIDE DIMENSION.

RECORD DRAWINGS

LOWER FLOOR PLAN

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

M1

DATE 17 NOV 1995

ARCHITECTS: JESSON GROUP 3 INC. 393 WASHINGTON STREET WELLESLEY, MA. 02181
STRUCTURAL: BOSTON BUILDING CONSULTANTS, 177 A ST. BOSTON, MA. 02210
MECHANICAL: PROFESSIONAL CONSULTING SERVICES, INC. 36 BATES STREET NORTHBOROUGH, MA. 01532
ELECTRICAL: MASSEY & KETCHUM ENGINEERING INC. 286 SUMMER STREET BOSTON, MA. 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT, MA. 02178

HEAT PUMP SCHEDULE

UNIT NO	CFM	EXT. N. STATIC PRESS.	GPM	TOTAL COOLING BTUH (1)	HEATING BTUH (2)	ΔP FT. H_2O	AMERICAN AIR FILTER MODEL	VOLTAGE	TOTAL HP-KW (3)
HP-1	520	.30	4	4 360	17,990	9.7	HW-15	208-1Φ-60HZ	1.4
HP-2	1200	.30	10.2	37,877	44,320	12.2	HW-39	200-3Φ-60-Z	3.6
HP-3	1900	.40	12.9	47,343	62,000	11.4	HW-49	220-3Φ-60HZ	5.2
HP-4	800	.30	10.2	37,877	44,520	12.2	HW-39	200-3Φ-60HZ	3.6
HP-5	1100	.45	10.2	37,877	44,320	2.2	HW-39	200-3Φ-60HZ	3.6
HP-6	1020	.50	9.5	34,938	43,000	10.6	VW-59	220-3Φ-60HZ	3.5
HP-7	2,000	.70	12.0	57,600	72,700	13.7	VW-61	200-3Φ-60HZ	6.0
HP-8	500	.45	5.0	17,684	22,804	14.7	HW-9	208-1Φ-60HZ	1.8
HP-9	2160	.50	12.0	57,600	72,700	13.7	VW-61	200-3Φ-60HZ	6.0
HP-10	1,000	.50	7.7	29,000	34,000	15.4	HW-30	200-3Φ-60HZ	2.6
HP-11	1,200	.30	7.0	34,000	42,000	8.0	HW-21	200-3Φ-60HZ	3.6
HP-12	3,000	.60	20.6	78,360	103,346	12.0	HW-81	200-3Φ-60HZ	7.3
HP-13	350	.30	5.0	21,000	31,000	7.3	HW-23	208-1Φ-60-Z	2.2

① COOLING BASED ON 80°F/67°F ENT. AIR & 90°F ENT. H_2O
② HEATING BASED ON 70°F. ENT. AIR, 70°F ENT. H_2O
③ KW BASED ON: UNIT IN HEATING MODE.

PUMP SCHEDULE

PUMP No	GPM	DISCH. FT. H_2O	MIN. HP	SERVICE	DESCRIPTION
P-1	60	30	1	HEATING WATER SYSTEM	THRU-FLOW 1½ GTV
P-2	100	48	5	COOLING WATER SYSTEM	THRU-FLOW TV2g 2×2×9

ALL MOTORS SHALL BE 1750 RPM, 208V-3Φ-60HZ.

GRILLES & REGISTERS SCHEDULE

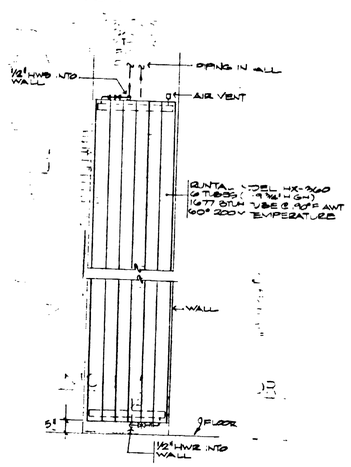
TAG No	USE	VOLUME DAMPER	NECK SIZE	FACE SIZE	FRAME TYPE	TITUS MODEL No.
G-1	CEILING SUPPLY	YES	6"-6"	12"x12"	3	TXS
G-2	CEILING SUPPLY	YES	6"x6"	12"x12"	1	TXS
G-3	CEILING SUPPLY	"	8"x3"	24"x24"	3	TXS
G-4	" "	"	8"x8"	24"x24"	1	TXS
G-5	" "	"	12"x12"	24"x24"	1	TXS
G-6	" "	"	16"Φ	24"x24"	3	TXS
G-7	" "	"	16"Φ	24"x24"	1	TXS
G-8	SIDEWALL SUPPLY	3	—	—	F	1707-35 *
G-9	SIDEWALL RETURN	NO	—	—	"	1700 *
G-10	FLOOR SUPPLY	YES	—	—	B	CT-15
G-11	CEILING RETURN	NO	22"x22"	24"x24"	1	TXR
G-12	CEILING RETURN	NO	22"x22"	24"x24"	3	TXR
G-13	TOILET EXHAUST	YES	—	—	—	CORE 3F PERFORATED
G-14	CEILING RETURN	NO	—	—	—	CORE 3F "

VOLUME DAMPERS SHALL BE OPPOSED BLADE TYPE
COLOR SELECTED BY ARCHITECT.
* CONCEALED SCREW MOUNTING

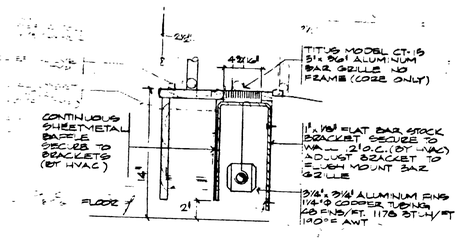
LEGEND

—S—	HEAT PUMP SUPPLY PIPING
—R—	HEAT PUMP RETURN PIPING
—HWS—	HOT WATER SUPPLY PIPING
—HWR—	HOT WATER RETURN PIPING
—D—	CONDENSATE DRAIN PIPING
	1" THK ACOUSTICAL LINED DUCTWORK
	ROUND, INSULATED, FLEXIBLE METAL DUCT
	DUCT RISE (IN DIRECTION OF AIR FLOW)
	DUCT DROP (IN DIRECTION OF AIR FLOW)
	SUPPLY AIR DUCT
	RETURN AIR DUCT
FD	1½ HOUR FIRE DAMPER
VD	VOLUME DAMPER
100	VOLUME DAMPER - REQUIRED CFM

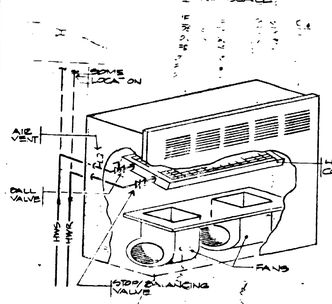
	STOP / BALANCING VALVE
	GATE OR BALL VALVE
	BYPASS VALVE (NORMALLY CLOSED)
	BUTTERFLY VALVE
	SELF CONTAINED RADIATION VALVE WITH REMOTE BULB.
	FULLY MODULATING CONTROL VALVE
T	THERMOSTAT - UNIT Nº SERVED
T	DIAL TYPE TEMPERATURE INDICATOR
G-( )	GRILLE TYPE ( ) INDICATES DIRECTION OF FLOW.
G.C.	GENERAL CONTRACTOR
CONN.	CONNECTION
VA.	VALVE
PLBG.	PLUMBING
CONTR.	CONTRACTOR



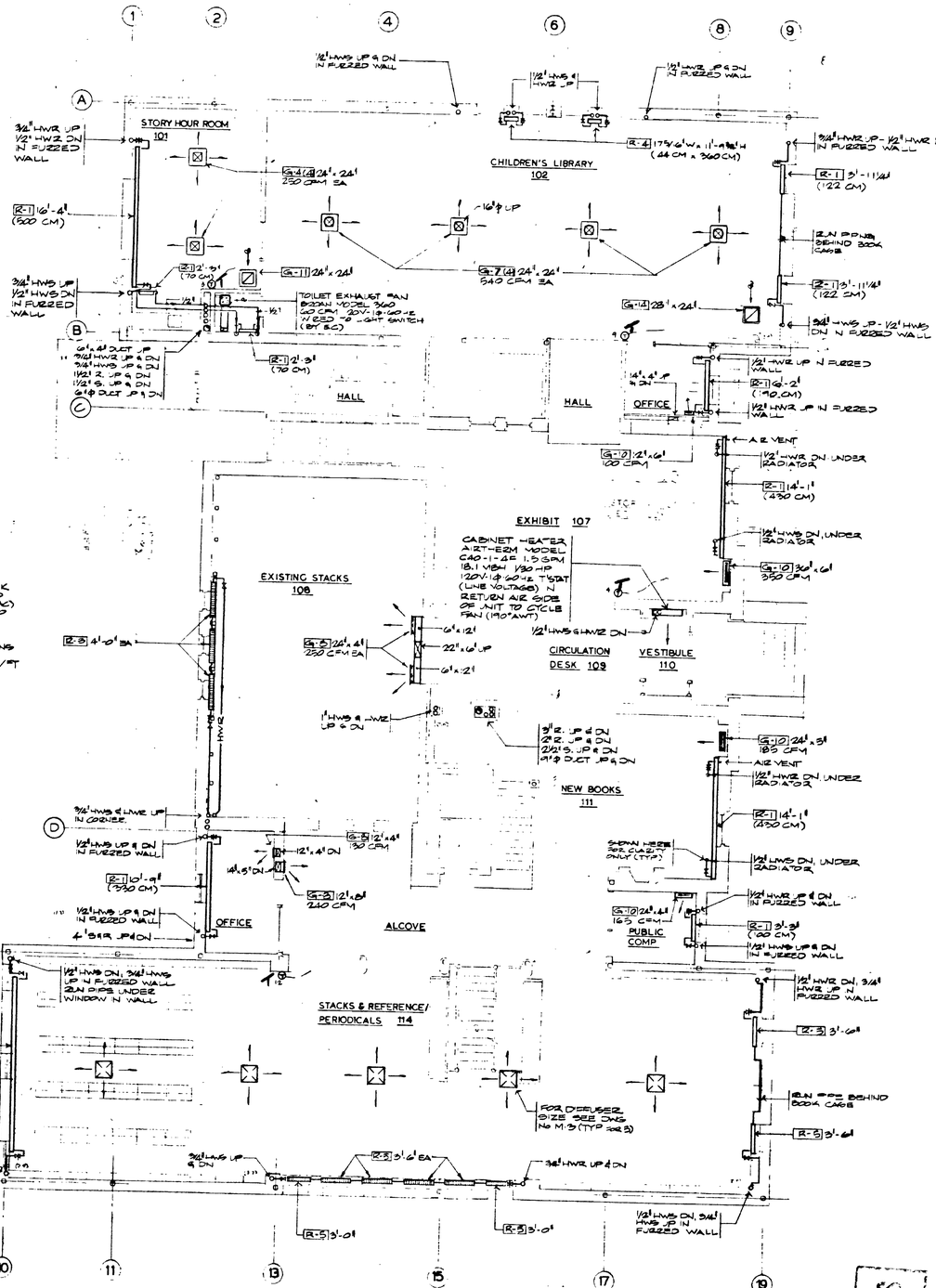
RADIATION TYPE R-2
NO SCALE



RADIATION TYPE R-3
NO SCALE



CABINET HEATER PIPING DETAIL
NO SCALE



MAIN FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES

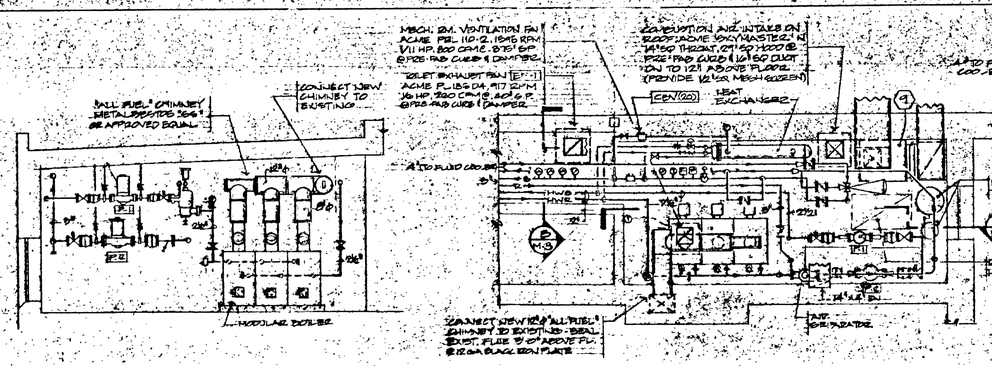
1. HVAC CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DWGS FOR EXACT LOCATIONS OF ALL CEILING SUPPLY DIFFUSERS AND RETURN AND ALL SIDEWALL SUPPLY AND RETURN.

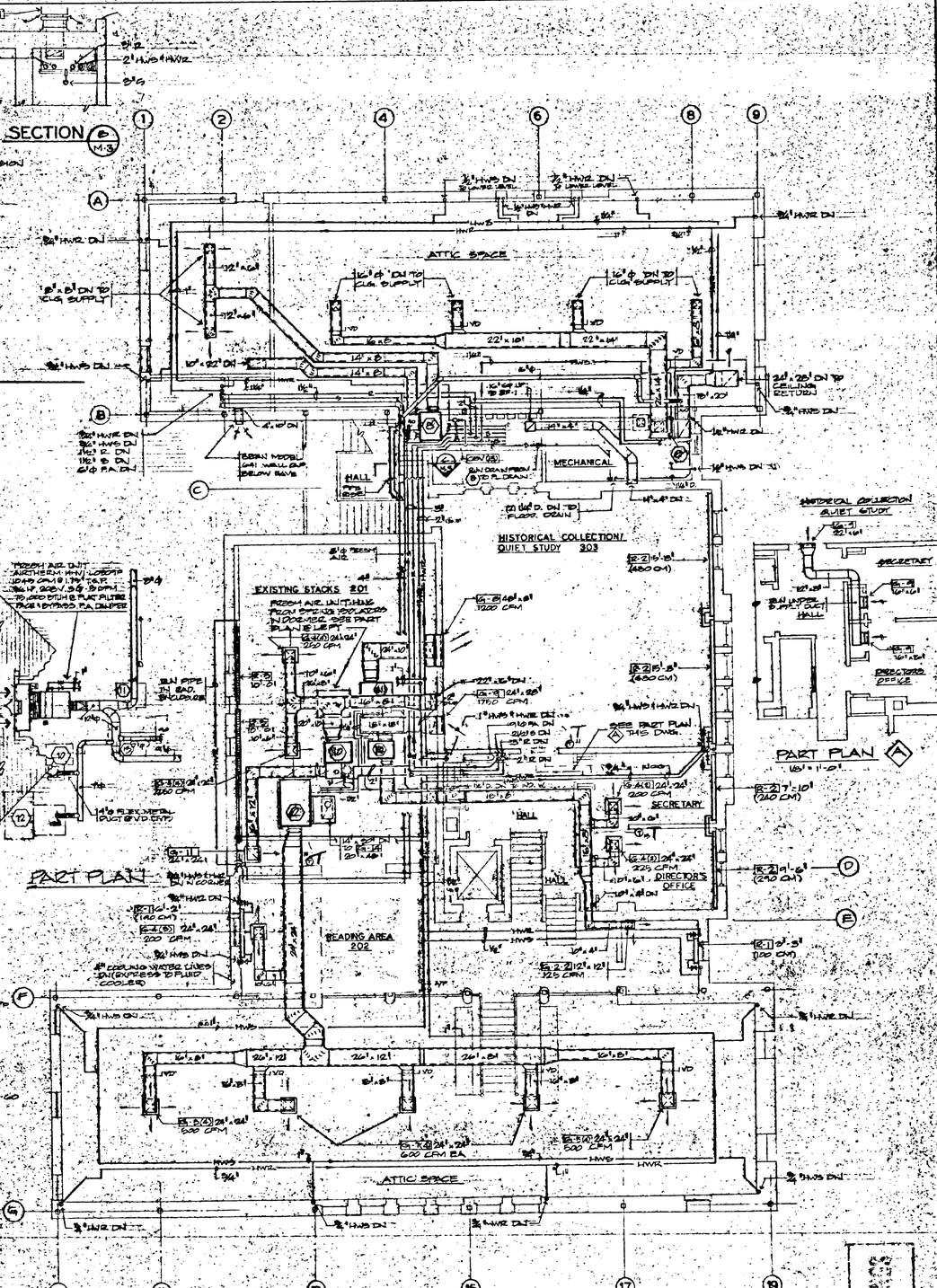
MAIN FLOOR PLAN
J.V. FLETCHER LIBRARY ADDITION AND RENOVATIONS
WESTFORD, MA.

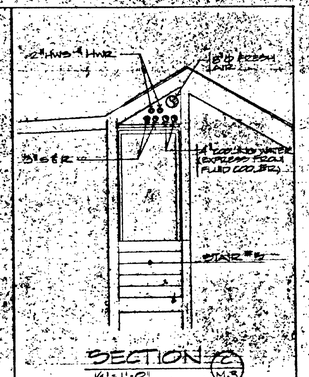
ARCHITECTS: DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

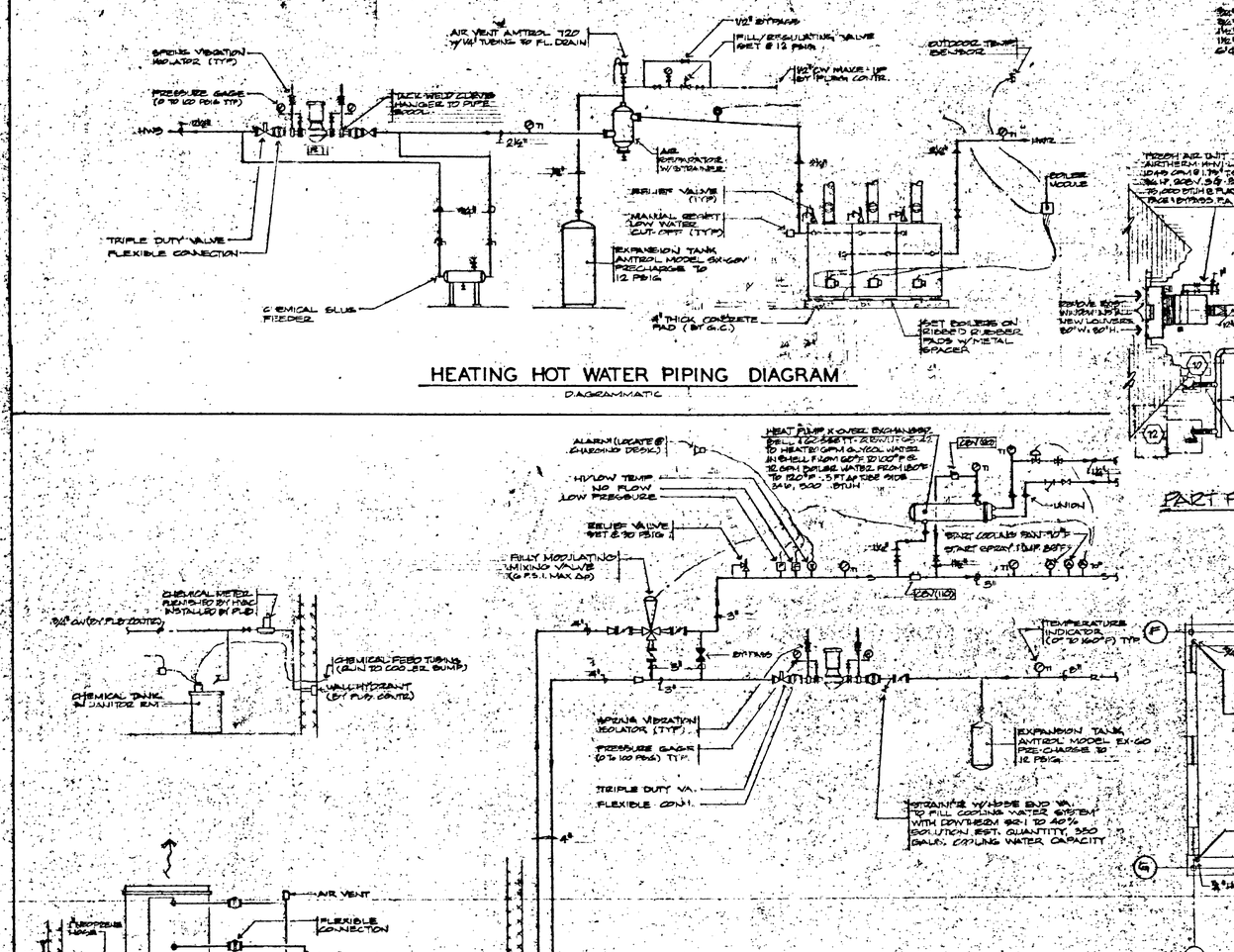
M2
DATE 17 NOV. 1986

REVISED PER ADDENDUM #3 12/3/86









UPPER FLOOR PLAN & PIPING DIAGRAMS

J.V. FLETCHER LIBRARY - WESTFORD, MA.
ADDITION AND RENOVATIONS

M-3

DATE 7 NOV 1986

EYLES ELECTRIC

H/P 15-8

DETAIL 1/P.1
NO SCALE

DETAIL 2/P.1
NO SCALE

SOIL, WASTE & VENT PIPING

HOT & COLD WATER PIPING

DETAIL 3/P.1
NO SCALE

DETAIL 4/P.1
NO SCALE

LOWER FLOOR PLAN
⅛" = 1'-0"

FE 4/15/85

LOWER FLOOR PLAN—PLUMBING

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

ARCHITECTS: DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181

STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109

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ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210

LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

P1.

DATE 17 NOV 1986

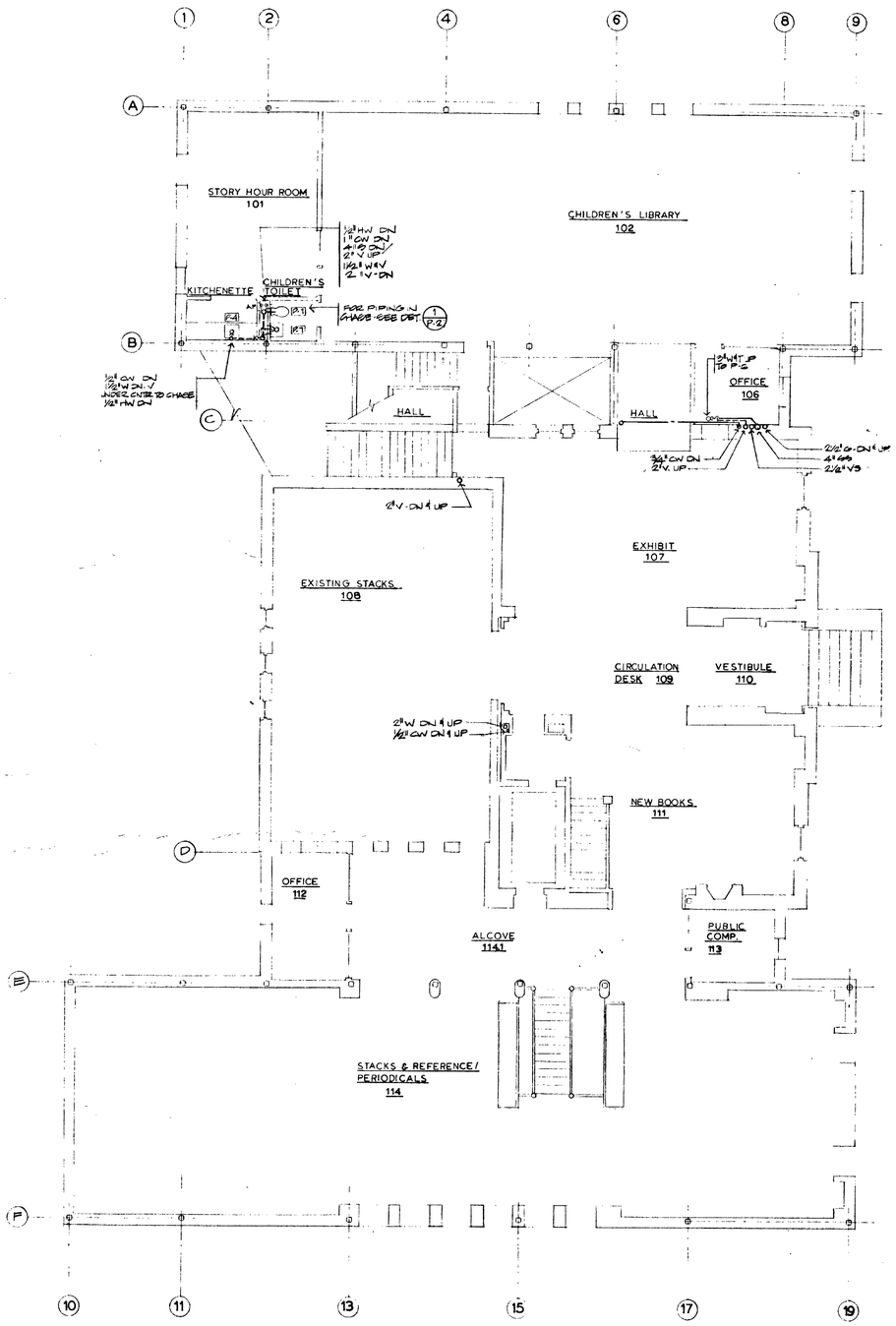
LEGEND

———	SOIL OR WASTE	BELOW GRADE
- - -	COLD WATER	"
- - -	VENT	"
———	SOIL OR WASTE	ABOVE GRADE
- - -	VENT	"
- · -	COLD WATER	"
- · -	HOT WATER	"
——FCO	FLOOR CLEANOUT	
—▷◁—	GATE VALVE	
—▷◁—	BALANCING/STOP VALVE	
—▷◁—	BALL VALVE	
—↗↙—	CHECK VALVE	
S	SOIL	
W	WASTE	
V	VENT	
CW	COLD WATER	
HW	HOT WATER	
HWR	HOT WATER RECIRCULATING	
S.S.	SOIL STACK	
V.S.	VENT STACK	
AP	ACCESS PANEL	
IW	INDIRECT WASTE	
CO	CLEANOUT	
DN	DOWN	
HTG	HEATING	
PLBG	PLUMBING	
ELEC.	ELECTRICAL	
CONTR	CONTRACTOR	
CONT.	CONTINUATION	
VA	VALVE	
FD	FLOOR DRAIN	
——G——	GAS PIPING	

SOIL, WASTE & VENT PIPING

HOT & COLD WATER PIPING

DETAIL 1/P.2 NO SCALE



MAIN FLOOR PLAN

1/8" = 1'-0"

EYLES

MAIN FLOOR PLAN-PLUMBING

J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 383 WASHINGTON STREET WELLESLEY MA 02181

STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109

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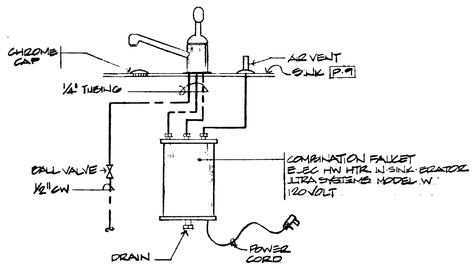
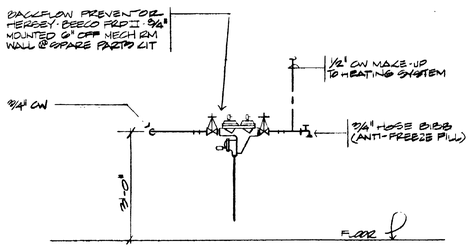
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

P2

DATE 17 NOV. 1986



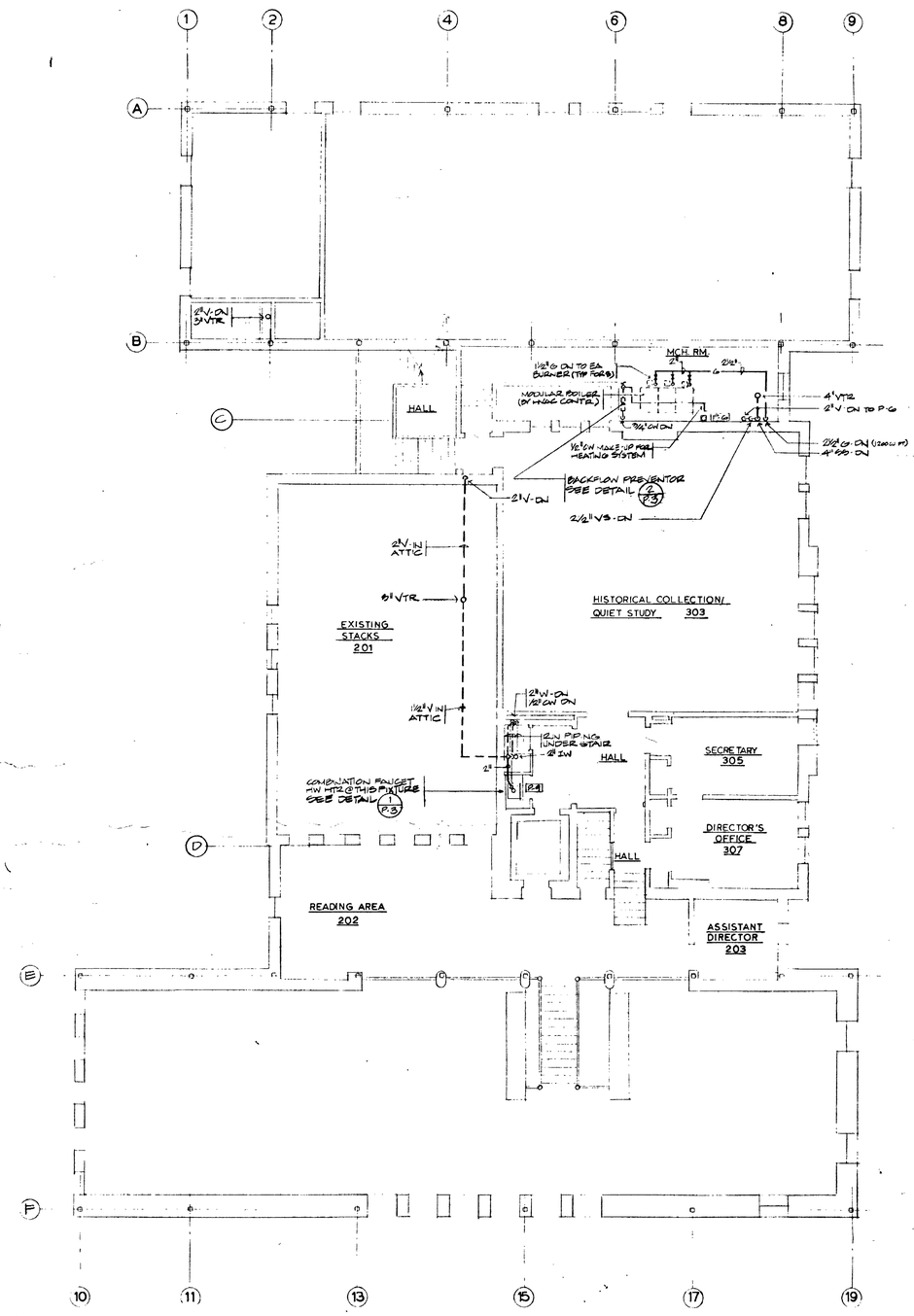
DETAIL (1/P3)
NO SCALE



DETAIL (2/P3)

FIXTURE SCHEDULE

NO.	TYPE	SOIL	WASTE	VENT	CW	HW	REMARKS
P-1	WATER CLOSET	4"	—	2"	1"	—	
P-1A	" (HANDICAPPED)	4"	—	2"	1"	—	
P-2	URINAL	—	2"	2"	¾"	—	
P-3	LAVATORY	—	1½"	1½"	½"	½"	
P-3A	" (HANDICAPPED)	—	1½"	1½"	½"	½"	
P-4	SINK	—	1½"	1½"	½"	½"	
P-5	SERVICE SINK	—	3"	2"	½"	½"	
P-6	FLOOR DRAIN	—	3"	2"	—	—	PROVIDE FUNNEL GRATE @ HEAT PUMP DRAIN
P-7	LAVATORY	—	1½"	1½"	½"	½"	
P-8	WALL HYDRANT	—	—	—	¾"	—	
P-9	SINK	—	1½"	1½"	½"	—	COMBINATION FAUCET ELEC. HW HEATER
P-10	DRINKING FOUNTAIN	—	1½"	1½"	½"	—	



UPPER FLOOR PLAN
1/8" = 1'-0"

EYIES

UPPER FLOOR PLAN-PLUMBING

J.V. FLETCHER LIBRARY - WESTFORD, MA. ADDITION AND RENOVATIONS

ARCHITECTS: ARCHITECTS DESIGN GROUP & INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN, MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

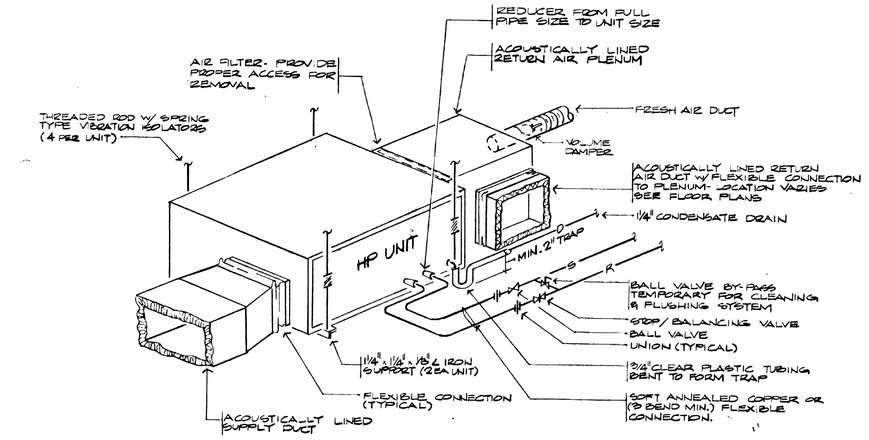
COMMONWEALTH OF MASSACHUSETTS — WARREN — COLEMAN — No. 3047 — REGISTERED ARCHITECT

P3

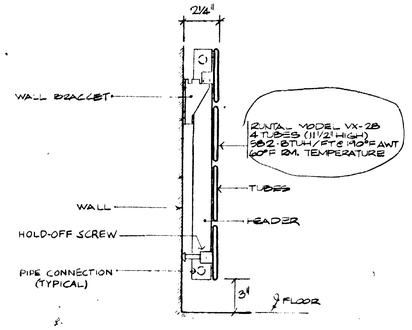
DATE 17 NOV 1986

14 15 16 17 SS

R-1



TYPICAL HEAT PUMP UNIT



RADIATION TYPE R-1

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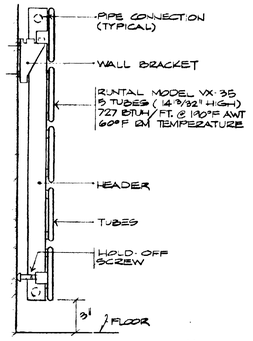

RADIATION TYPE R-2

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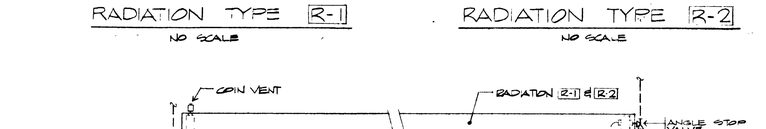


TYPICAL ELEVATION

NO SCALE

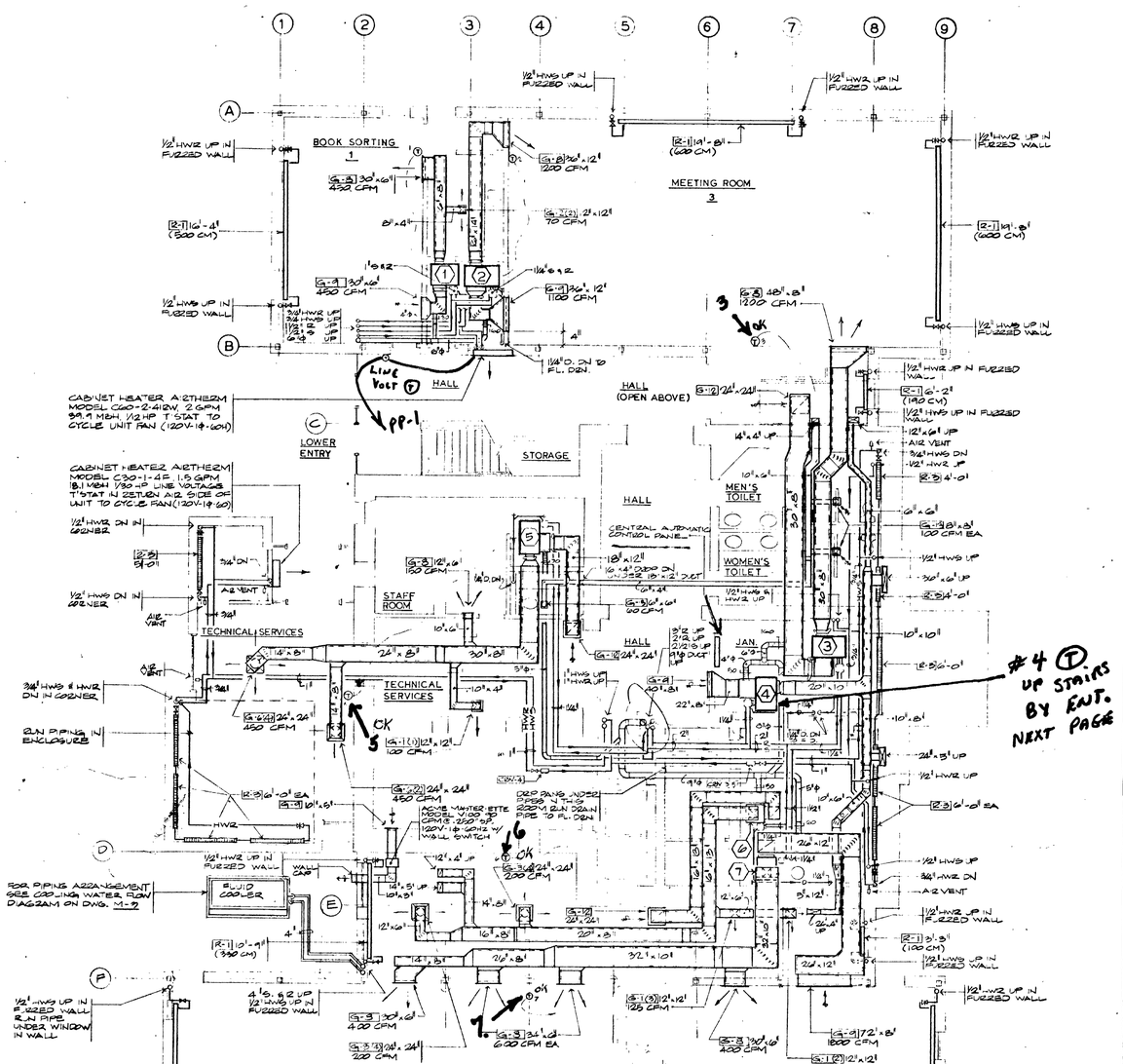
SECTION

ELEVATION

END CAP DETAIL

RADIATION TYPE R-3

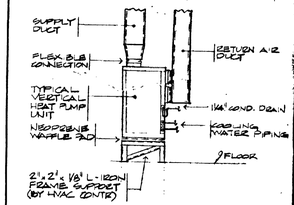
NO SCALE



LOWER FLOOR PLAN

1/8" = 1'-0"

R-1
11½" height
14 2



TYPICAL VERTICAL HEAT PUMP SUPPORT

NO SCALE

GENERAL NOTES

1. HVAC CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DWGS FOR EXACT LOCATIONS OF ALL CEILING SUPPLY DIFFUSERS AND RETURN AND ALL SIDEWALL SUPPLY, RETURN REGISTERS.
2. ALL DUCTWORK SIZES INDICATED ON PLAN, ARE CLEAR INSIDE DIMENSION.

LOWER FLOOR PLAN
J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

ARCHITECTS: DESIGN GROUP II, INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS, 177 MILK STREET, BOSTON MA 02109
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS, 6 SEVER STREET, CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS: METCALF, ENGINEERING INC. 256 SUMMER STREET, BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

M1
DATE 17 NOV 1986

R1

HEAT PUMP SCHEDULE

UNIT No	CFM	EST. N. STATIC PRESS.	GPM	TOTAL COOLING BTUH (1)	HEATING BTUH (2)	ΔP FT. H2O	AMERICAN AIR FILTER MODEL	VOLTAGE	TOTAL INPUT KW (3)
HP-1	520	.30	4	14 360	17,990	9.7	HW-15	208-1Φ-60HZ	1.4
HP-2	1700	.30	10.2	37 877	44 520	12.2	HW-39	220-3Φ-60HZ	3.6
HP-3	1900	.40	12.9	47 543	62 000	11.4	HW-49	220-3Φ-60HZ	5.2
HP-4	800	.50	10.2	37 877	44 520	12.2	HW-39	220-3Φ-60HZ	3.6
HP-5	1100	.45	10.2	37 877	44 320	12.2	HW-39	220-3Φ-60HZ	3.6
HP-6	1020	.50	9.5	34 938	43 000	10.6	VW-36	220-3Φ-60HZ	3.5
HP-7	2,000	.70	12.0	57 600	72 700	13.7	VW-61	220-3Φ-60HZ	6.0
HP-8	500	.45	5.0	17 684	22 824	14.7	HW-19	208-1Φ-60HZ	1.8
HP-9	2160	.50	12.0	57 600	72,700	18.7	VW-61	220-3Φ-60HZ	6.0
HP-10	1,000	.50	7.7	29,000	34 000	15.6	HW-30	220-3Φ-60HZ	2.6
HP-11	1,200	.30	7.0	34,000	42 000	8.0	HW-41	220-3Φ-60HZ	3.6
HP-12	3,000	.60	20.6	78 360	103, 346	12.0	HW-81	220-3Φ-60HZ	7.3
HP-13	950	.30	5.0	21,000	31,000	7.3	HW-29	208-1Φ-60HZ	2.2

① COOLING BASED ON 80°F/67°F ENT. AIR – 90°F ENT. H2O
② HEATING BASED ON 70° F. ENT. AIR 70° ENT. H2O
③ KW BASED ON: UNIT IN HEATING MODE.

PUMP SCHEDULE

PUMP No	GPM	DISCH. FT. H2O	MIN. HP	SERVICE	DESCRIPTION
P-1	60	30	1	HEATING WATER SYSTEM	THRUSH 1½ GTV
P-2	120	68	5	COOLING WATER SYSTEM	THRUSH TV2g 2x2x9

ALL MOTORS SHALL BE 1750 RPM, 208V-3Φ-60HZ.

GRILLES & REGISTERS SCHEDULE

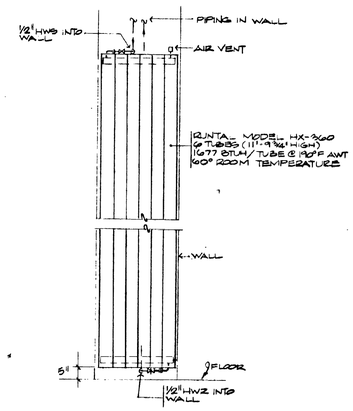
TAG No	USE	VOLUME DAMPER	NECK SIZE	FACE SIZE	FRAME TYPE	TITUS MODEL No.
G-1	CEILING SUPPLY	YES	6" x 6"	12" x 12"	3	TXS
G-2	CEILING SUPPLY	YES	6" x 6"	12" x 12"	1	TXS
G-3	CEILING SUPPLY	"	8" x 3"	24" x 24"	3	TXS
G-4	"	"	8" x 8"	24" x 24"	1	TXS
G-5	"	"	12" x 12"	24" x 24"	1	TXS
G-6	"	"	16"Φ	24" x 24"	3	TXS
G-7	"	"	16"Φ	24" x 24"	1	TXS
G-8	SIDEWALL SUPPLY	"	—	—	F	1707-35 *
G-9	SIDEWALL RETURN	NO	—	—	F	1700 *
G-10	FLOOR SUPPLY	YES	—	—	2	CT-15
G-11	CEILING RETURN	NO	22" x 22"	24" x 24"	1	TXR
G-12	CEILING RETURN	NO	22" x 22"	24" x 24"	3	TXR
G-13	TOILET EXHAUST	YES	—	—	—	CORE BF PERFORATED
G-14	CEILING RETURN	NO	—	—	—	CORE BF "

VOLUME DAMPERS SHALL BE OPPOSED BLADE TYPE
COLOR SELECTED BY ARCHITECT.
* CONCEALED SCREW MOUNTING

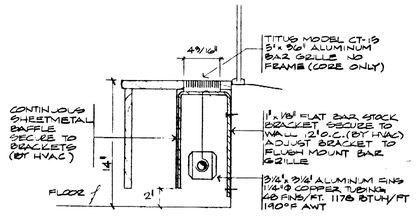
LEGEND

—S—	HEAT PUMP SUPPLY PIPING
—R—	HEAT PUMP RETURN PIPING
—HWS—	HOT WATER SUPPLY P.P.N.G.
—HWR—	HOT WATER RETURN P.P.N.G.
—D—	CONDENSATE DRAIN PIPING
	1" THK ACOUSTICAL LINED DUCTWORK
	ROUND, INSULATED, FLEXIBLE METAL DUCT
	DUCT RISE (IN DIRECTION OF AIR FLOW)
	DUCT DROP (IN DIRECTION OF AIR FLOW)
	SUPPLY AIR DUCT
	RETURN AIR DUCT
FD	1½ HOUR F.D. DAMPER
VD	VOLUME DAMPER
50	VOLUME DAMPER - REQUIRED CFM

	STOP / BALANCING VALVE
	GATE OR BALL VALVE
	BYPASS VALVE (NORMALLY CLOSED)
	BUTTERFLY VALVE
	SELF CONTAINED RADIATION VALVE WITH REMOTE SOLD.
	FULLY MODULATING CONTROL VALVE
T	HIGH TEMPERATURE THERMOSTAT - UNIT No SERVED
T	DIAL TYPE TEMPERATURE INDICATOR
G-2	GRILLE TYPE (-) INDICATES DIRECTION OF FLOW.
G.C.	GENERAL CONTRACTOR
CONN.	CONNECTION
VA.	VALVE
PLUMB.	PLUMBING
CONTR.	CONTRACTOR



RADIATION TYPE R-4
NO SCALE



RADIATION TYPE R-5
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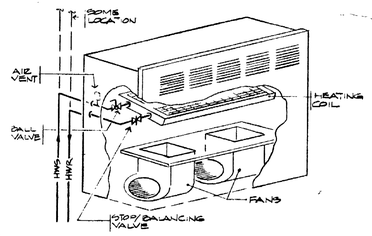
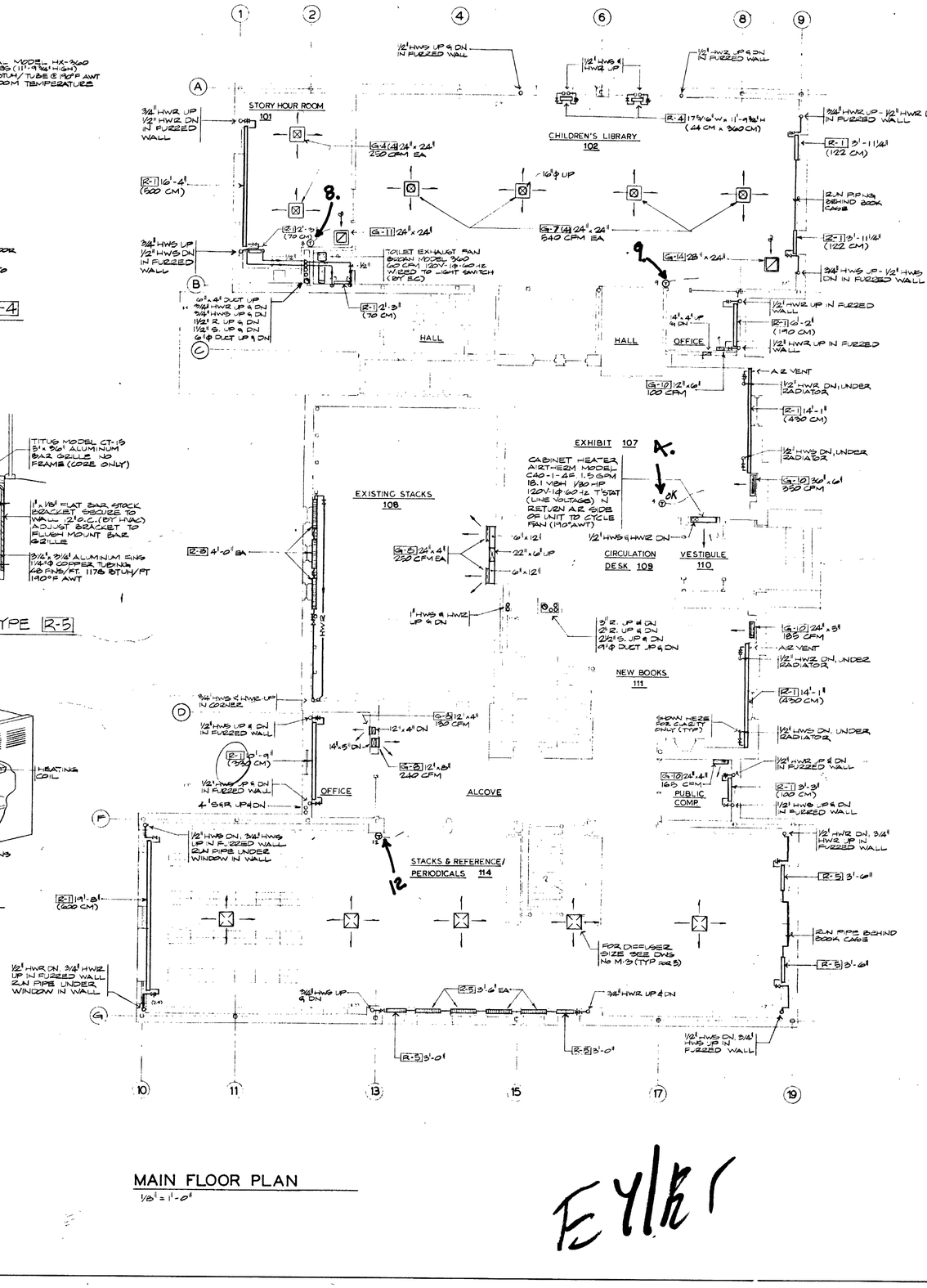


CABINET HEATER PIPING DETAIL
NO SCALE



MAIN FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES

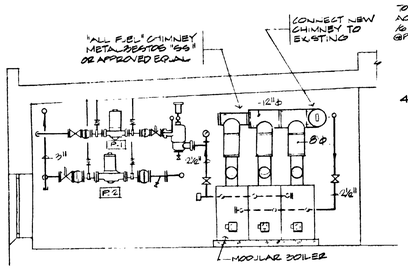
1. HVAC CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DWGS FOR EXACT LOCATIONS OF ALL CEILING SUPPLY DIFFUSERS AND RETURN AND ALL SIDEWALL SUPPLY AND RETURN.

MAIN FLOOR PLAN
J.V. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

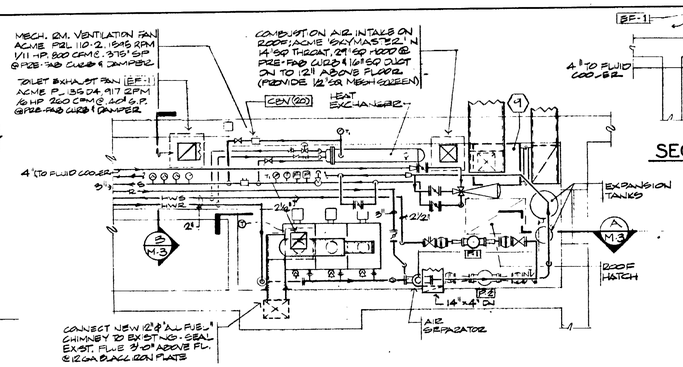
M2
DATE 17 NOV. 1986

ARCHITECTS: DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 2380 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

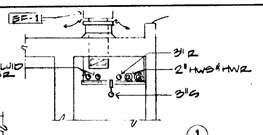
FLYER



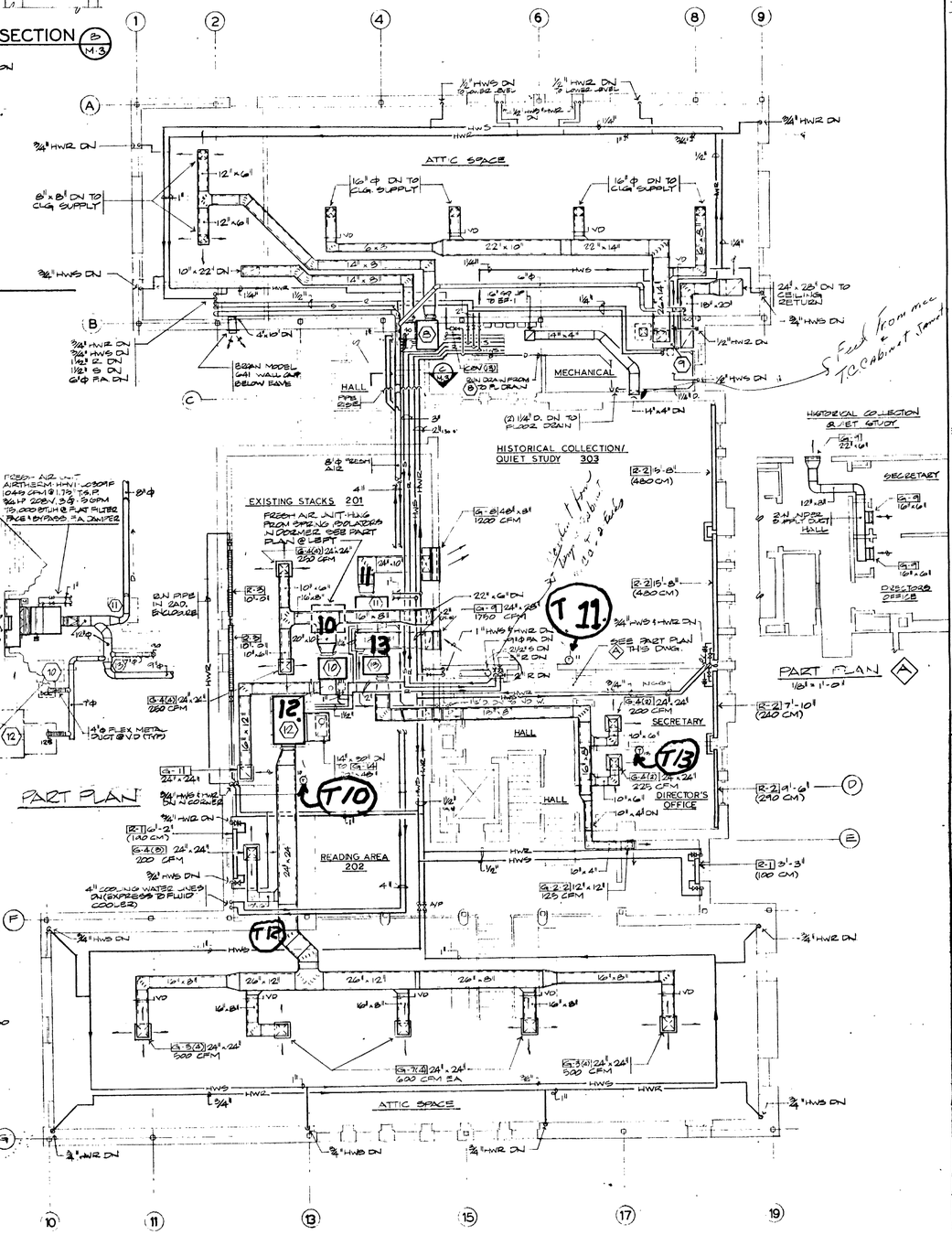
SECTION A M-3
1/4" = 1'-0"



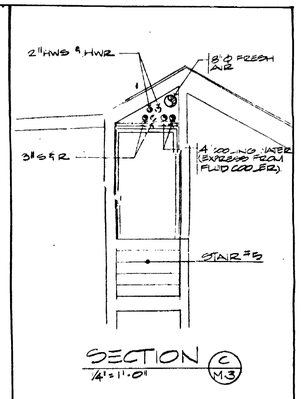
MECHANICAL ROOM FLOOR PLAN
1/4" = 1'-0"



SECTION B M-3



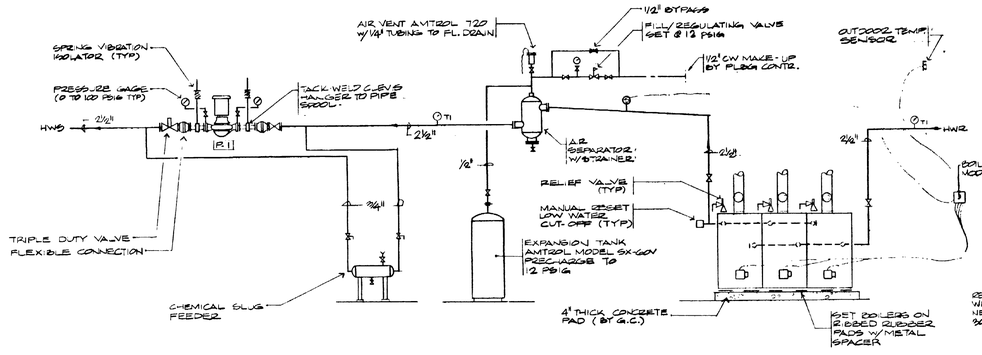
UPPER FLOOR PLAN
1/8" = 1'-0"



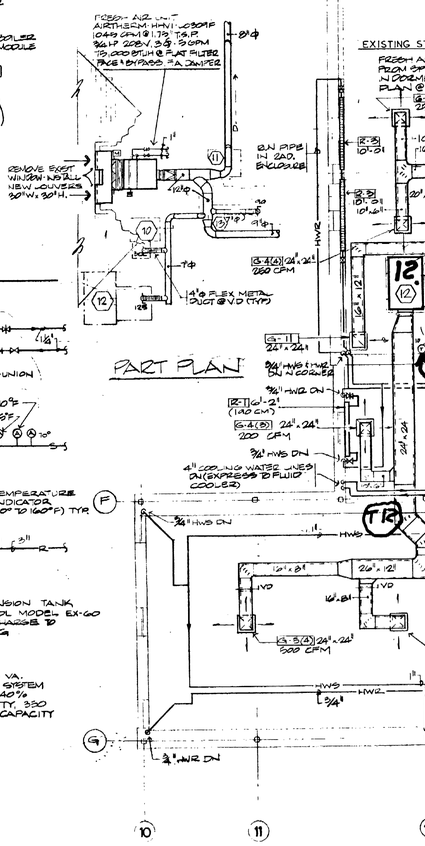
SECTION C M-3
1/4" = 1'-0"

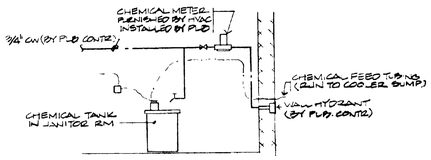
GENERAL NOTES

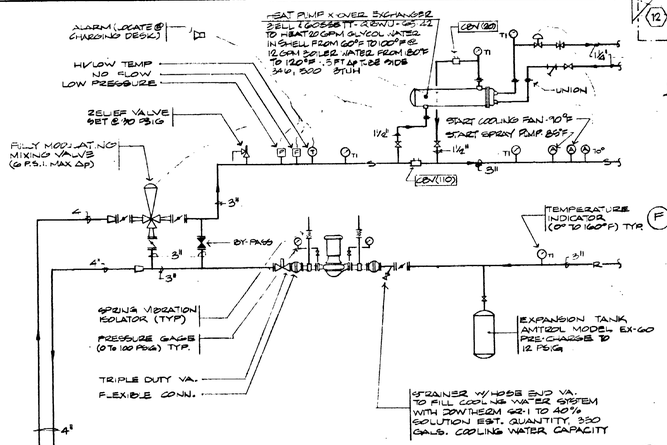
1. HVAC CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DWG'S FOR EXACT LOCATIONS OF ALL CEILING SUPPLY DIFFUSERS AND RETURN AND ALL SIDEWALL SUPPLY, RETURN REGISTERS.
2. ALL DUCTWORK SIZES INDICATED ON PLAN, ARE CLEAR INSIDE DIMENSIONS.
3. HVAC CONTRACTOR SHALL PROVIDE DRAIN PANS WITH DRAIN CONNECTIONS PIPED TO CONDENSATE DRAIN SYSTEMS FOR HEAT PUMP UNITS NO (10) (11) (12) & (13) IN ATTIC SPACE ABOVE STACKS 201

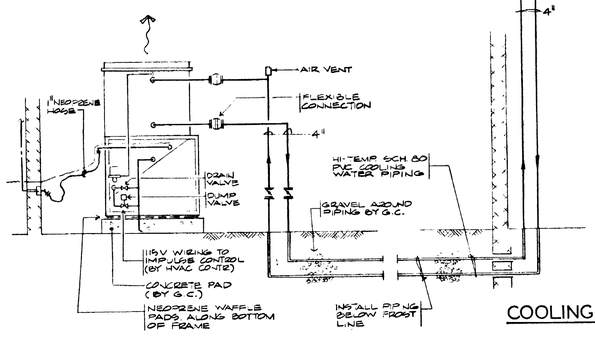


HEATING HOT WATER PIPING DIAGRAM
DIAGRAMMATIC









COOLING WATER PIPING DIAGRAM
DIAGRAMMATIC

UPPER FLOOR PLAN & PIPING DIAGRAMS
J.W. FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

M3
DATE 17 NOV. 1986

ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS: MASON & PRICY 243 TRAPELO ROAD BELMONT MA 0

COMMONWEALTH OF MASSACHUSETTS WARREN DONALD No. 22,098 REGISTERED PROFESSIONAL ENGINEER

EY/KV

S1

DATE 17 NOV 1986

FOUNDATION PLAN AND DETAILS
JV FLETCHER LIBRARY WESTFORD, MA.
ADDITION AND RENOVATIONS

SCALE: 1/8" = 1'-0"

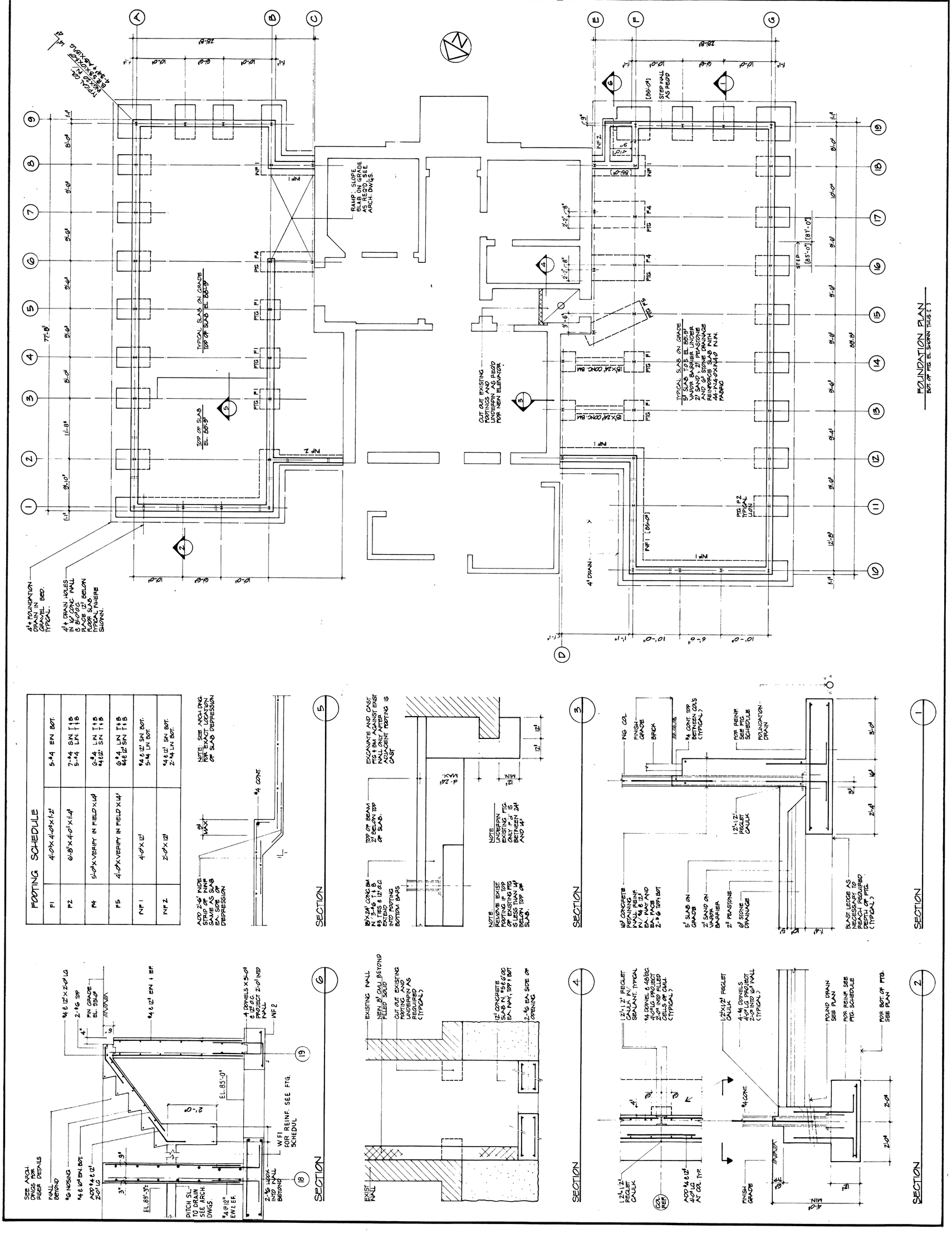
ARCHITECTS: ARCHITECTS DESIGN GROUP II INC 593 WASHINGTON STREET WELLESLEY MA 02181

STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MLK STREET BOSTON MA 02109

MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129

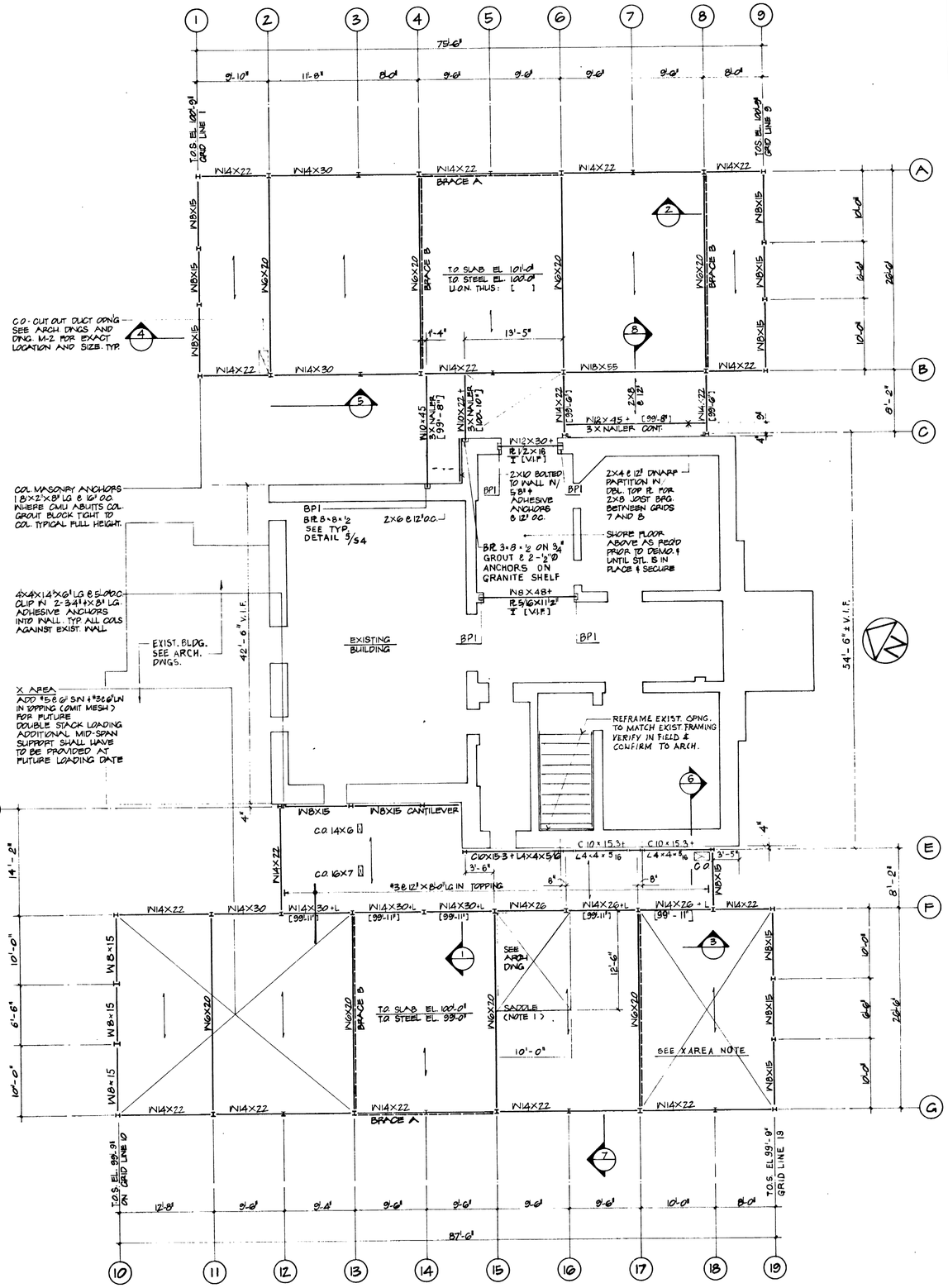
ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210

LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAFELO ROAD BELMONT MA 02178

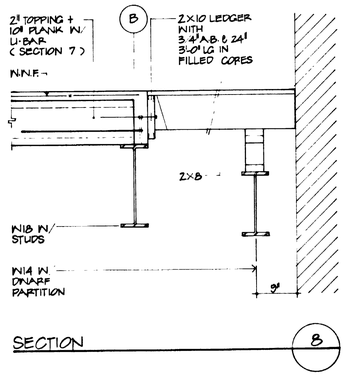


FOOTING SCHEDULE		
F1	4'-0" x 4'-0" x 1'-0"	5-#4 EW BOT.
F2	6'-8" x 4'-0" x 1'-0"	7-#4 SW T+B 5-#4 LW T+B
F4	5'-0" VERIFY IN FIELD x 1'-0"	6-#4 LW T+B 4-#12' SW T+B
F5	4'-0" VERIFY IN FIELD x 1'-0"	6-#4 LW T+B 4-#12' SW T+B
WF 1	4'-0" x 12"	#4 @ 12" SW BOT. 5-#4 LW BOT.
WF 2	2'-0" x 12"	#4 @ 12" SW BOT. 2-#4 LW BOT.

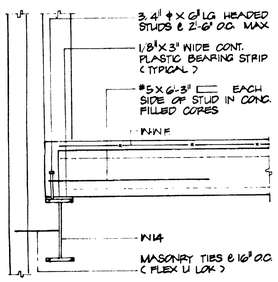
NOTE 1: SADDLE BY PLANK MFG. PROVIDE SPECIAL PLANK EA. SIDE OF SADDLE & DESIGN FOR A WORKING LOAD REAKTION OF 9000# EA. SIDE. ADD 4-#4 IN TOPPING OVER PLANKS ADJACENT TO OPN'G.



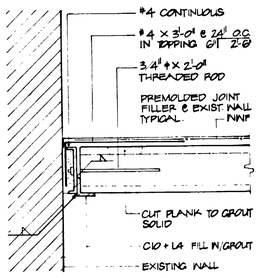
MAIN FLOOR FRAMING PLAN
10" CONC. PLANK + 2" TOPPING (MIN.) W/ 6-6 x W2.0 x W2.0 WIN FABRIC
160 PSF SUPERIMPOSED LIVE LOAD TYPICAL U.N.O



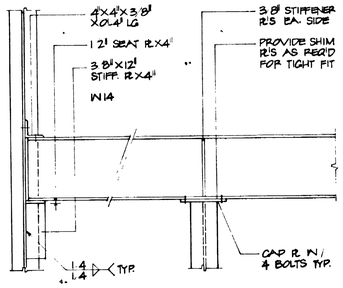
SECTION 8



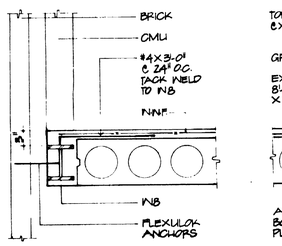
SECTION 7



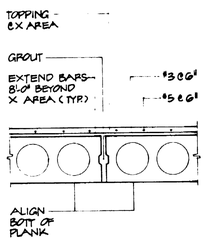
SECTION 6



ELEVATION 5



SECTION TYPICAL @ EDGE 4



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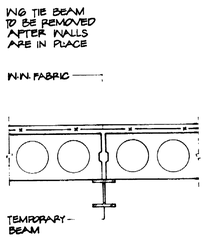

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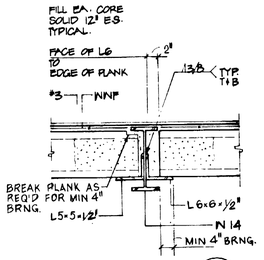

SECTION 1

DATE	17 NOV. 1986
	S2

MAIN FLOOR FRAMING PLAN AND DETAILS SCALE: 1/8" = 1'-0"

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ADDITION AND RENOVATIONS

ARCHITECTS:	ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181
STRUCTURAL ENGINEERS:	BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109
MECHANICAL ENGINEERS:	PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129
ELECTRICAL ENGINEERS:	METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210
LANDSCAPE ARCHITECTS:	MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

MEZZANINE FRAMING PLAN AND DETAILS SCALE: 1/8" & 3/4" = 1'-0"

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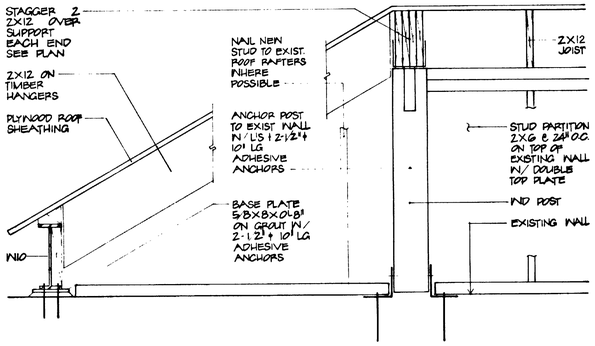
MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129

ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210

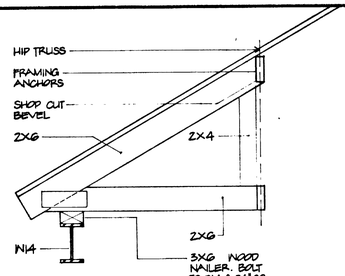
LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

S3

DATE 17 NOV. 1986



SECTION 1



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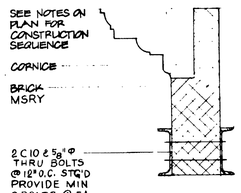

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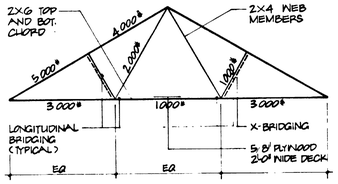
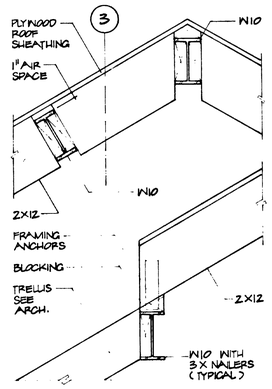
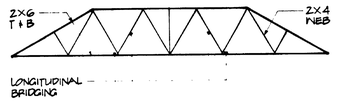


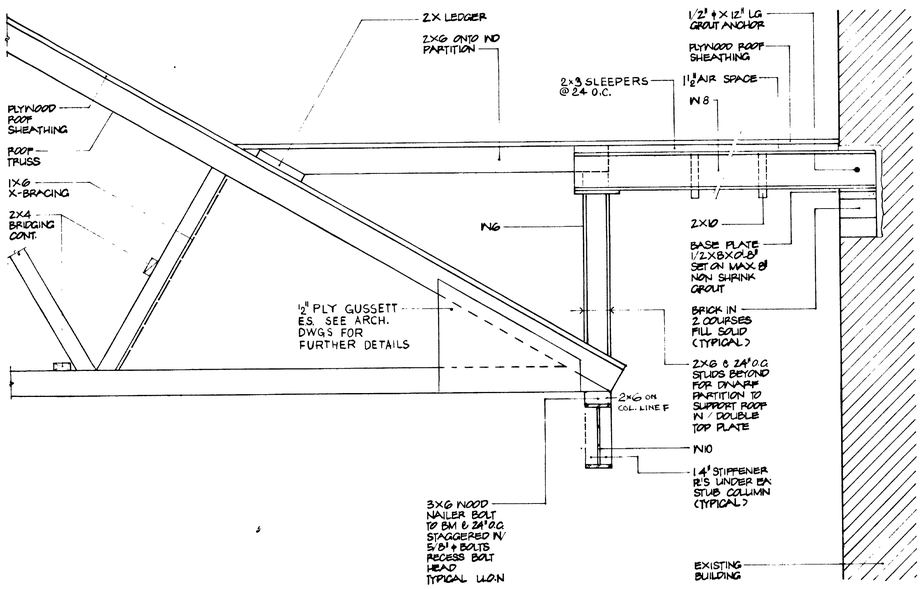
ROOF TRUSS





HIP TRUSS

SECTION 4



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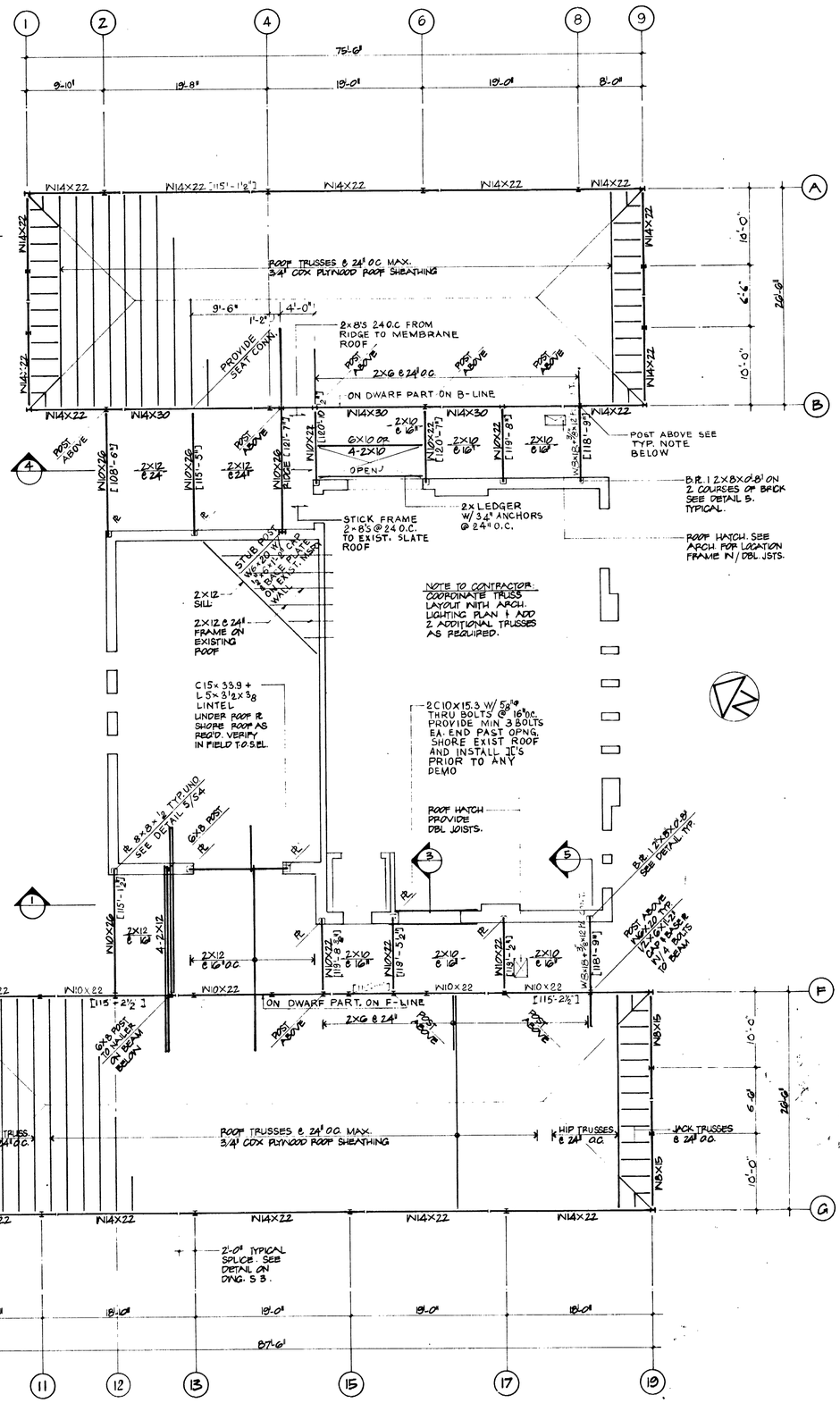

ROOF FRAMING PLAN

[115-1/2] INDICATES TOP OF STEEL ELEV. U.N.O.

ROOF FRAMING PLAN AND DETAILS

SCALE: 1/8" = 1'-0"

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ARCHITECTS: ARCHITECTS DESIGN GROUP II INC. 593 WASHINGTON STREET WELLESLEY MA 02181

STRUCTURAL ENGINEERS: BOSTON BUILDING CONSULTANTS 177 MILK STREET BOSTON MA 02109

MECHANICAL ENGINEERS: PROGRESSIVE CONSULTING ENGINEERS 6 SEVER STREET CHARLESTOWN MA 02129

ELECTRICAL ENGINEERS: METCALF ENGINEERING INC. 286 SUMMER STREET BOSTON MA 02210

LANDSCAPE ARCHITECTS: MASON & FREY 243 TRAPELO ROAD BELMONT MA 02178

S 4

DATE 17 NOV. 1986

GENERAL

1. Refer to detailed project specifications for general contract requirements and detailed requirements for materials, workmanship and shop drawings.

2. All dimensions other than purely structural dimensions shown on the structural drawings shall be field coordinated by the Contractor with the Architectural, Mechanical, and Electrical drawings and any inconsistencies reported to the Architect before proceeding with the work.

3. The structural design of the building is based on the full interaction of all its component parts. No provisions have been made for conditions occurring during construction. Any failure to make proper and adequate provisions for stresses and stability occurring from any cause during construction shall be the sole risk and responsibility of the Contractor.

4. The Contractor shall verify all dimensions and elevations in the field. Notify the Architect immediately, in writing, of any field condition uncovered during construction that is not consistent with the plans, that is structurally inadequate, or that will impair architectural layouts or attachment of finishes.

5. The Contractor shall review and approve all shop drawing submittals prior to submittal to the Architect for review approval. Shop drawings not bearing the Contractor's approval stamp will not be reviewed and shall be returned not approved.

6. Unless otherwise noted, details shown on any drawing are to be considered typical for all similar conditions.

MISCELLANEOUS

1. Unless otherwise indicated on the drawings provide one angle 4" x 3 1/2" x 1/4" for each 4" of masonry thickness for all interior lintels, and one angle 4" x 3 1/2" x 5/16" for each 4" of masonry thickness for all exterior lintels at masonry openings not exceeding 4'-0". For openings from 4'-0" to 6'-0" use 5" x 3 1/2" x (1/4" interior; 5/16" exterior) angles, and for widths from 6'-0" to 8'-0" use 6" x 3 1/2" x 3/8" angles. At 6" masonry walls use structural tees - ST 4 x 9 up to 6'-0" span; WT 8 x 13 up to 8'-0" span. All exterior lintels shall be galvanized.

DESIGN LOADS

1. The various portions of the structure are designed to carry the following live loads in addition to specific machinery and equipment loads:

Roof	35 PSF & allowance for snow drifting
Main Floor Stack Loads	150 PSF
Mezz. Floor & Reading Rooms	60 PSF
Stairs	100 PSF

2. Lateral Loads:

Wind Design Loads: Zone 2 Exposure B per Massachusetts State Code

Seismic Design Loads: In accordance with Section 713 of the Massachusetts State Building Code.

DEMOLITION, SHORING AND UNDERPINNING WORK

1. Before proceeding with any demolition, the area must be surveyed and evaluated by the Contractor to ensure that no damage will be made to any structure beyond the demolition.

2. Remove and relocate as required utilities and underground storage tanks and piping crossing excavations and new foundation work. Contractor shall provide adequate temporary support for all utility lines adjacent to new foundation work.

3. Protect streets, sidewalks, and adjacent building foundations during excavation by sheet piling, bracing, shoring, etc. as required by field conditions.

4. Remove all existing foundation interfering with new work. Contractor shall provide all information pertaining to existing foundations so that the Architect can assess any necessary change to future foundations.

EXCAVATIONS

1. Remove all soft fill or organic materials from under and adjacent to all footings and from under all slabs on grade.

2. Extend and slope sides of excavation to insure stability and safety of the excavation.

3. Shore, sheet and brace excavation as required to insure stability and safety at all times.

4. Pump excavation to remove surface and ground water to permit finishing of excavation and placement of foundations in the dry.

5. Elevations given are minimum in depths and are not to be construed as limiting in any way the amount of excavation required to reach a specified bearing.

6. Blasting shall be in accordance with the specification requirements.

7. Foundations are designed to bear on undisturbed natural sand and fine gravel with a presumptive bearing capacity of 2 TSF on ledge. Do not cast concrete footings until Architect has approved the bearing material.

FOUNDATIONS, BACKFILL AND DRAINAGE

1. The Architect assumes no responsibility for the validity of the subsurface conditions described on the drawings, and the specifications, test borings, or test pits. These data are included only to assist the Contractor during bidding and subsequent construction, and represent conditions only at those specific locations at the particular time they were made.

2. All footings shall be carried down to 4 inches into the undisturbed layer having a minimum bearing capacity of 2 tons per square foot.

3. Assumed bearing material, design bearing pressure and footing elevations indicated on the drawings are based on available information described in soils report, and/or soil borings. If upon excavation to the levels shown, acceptable bearing material is not encountered, the footings shall be lowered or increased in size at the dirertor of the Architect/Engineer.

4. Typical footing excavations will be inspected by the Architect/Engineer before the footings are cast in order to confirm that the foundation material is adequate to sustain the design bearing pressure.

5. All exterior construction shall be carried down a minimum of 4 feet below finished exterior grade, unless otherwise shown on plans.

6. No footing shall be placed in water.

7. All footing excavations are to be finished by hand.

8. Material adjacent to and below footing shall be kept from freezing at all times. If any material is found to be frozen it shall be removed and replaced with concrete. If any frozen material should be found below slab on grade it shall be removed and replaced with granular material compacted to 95% maximum density.

9. Unless otherwise noted all (footings, piles, caissons, piers) shall be centered under supported members.

10. Backfill under slabs on grade and against foundation walls inside and outside the building with an approved granular material placed in 6 inch thick layers and each layer compacted to 95% maximum density at optimum water content. Entire filling and compacting operation to be witnessed by a Testing Laboratory retained by the Owner. Clean excavated materials meeting the specifications may be used for backfill.

11. All foundation walls, retaining walls, and grade beams shall be braced during the operations of backfilling and tamping. Bracing shall be left in position until permanent restraints have been installed.

12. Install drainage foundation wall and under floor system as shown on drawings.

13. Provide 6 mil. continuous vapor barrier under all slabs on grade.

14. See Architectural drawings and specifications for perimeter insulation.

15. Drainage to be coordinated with landscape and site drawings. See drawings for additional notes.

CONCRETE CAST IN PLACE

1. All concrete work shall comply with the latest edition of the Standard Specification for Structural Concrete in Buildings, ACI 301, and the Building Code Requirements for Reinforced Concrete, ACI 318.

2. All structural concrete is controlled concrete and shall be used, proportioned, mixed and placed under the supervision of an approved concrete control engineer.

3. Normal weight concrete shall attain a minimum compressive strength of 3000 psi at the end of 28 days except as noted. Fill over precast concrete floor units and stair fill is to have a minimum compressive strength at 28 days of 4000 psi.

4. All slabs shall be placed without horizontal construction joints. Vertical construction joints and stops in concrete work shall be made at the quarter points of the span or where the combination of minimum shear and moment occurs. Provide 0.0018 x AC x 2'-0" long dowels at top of slab at construction joints unless the equivalent is already provided by normal slab reinforcing in the top.

5. The use of construction joints where shown on the drawings is mandatory.

6. Provide dowels and keyway at all construction joints. Allow 48 hours to elapse between adjacent slab pours.

REINFORCING STEEL

1. All reinforcing steel shall conform to ASTM A615.

2. All welded wire fabric shall conform to ASTM A185. Lab splices shall be 8" minimum between cross ties embed minimum 4" at end supports.

3. Where continuous bars are called for, indicated, or required they shall be run continuously around corners, doweled into intersecting walls, lapped at necessary splices, with splices staggered wherever possible, and hooked at discontinuous ends. Laps shall conform to the requirements of ACI 318-83 Chapter to 12.

4. Clearance of main reinforcing bars from adjacent concrete surfaces shall be:

   a. Where unformed face of concrete is in contact, 3"; except slabs, 1-1/2".

   b. Where formed face of concrete is in contact with earth, 2"; where exposed to weather, 2" for bar sizes larger than #5, for 1-1/2" for #5 and smaller bars.

   c. At columns, 2". At beams, lintels, spandrels, 1 1/2".

   d. At sides or ribs and at interior exposed faces of walls, 1".

   e. In slabs not exposed to earth or weather, 3/4".

   f. The maximum allowable deviation from the figures above, when placing reinforcing in the forms shall be 1/4" for concrete shapes 10" or less in depth or width and 1/2" for concrete shapes more than 10" in depth and width.

STRUCTURAL STEEL

1. Structural steel shall conform to ASTM A36.

2. Shop and field connections shall be by high strength bolts, or welding. Unless otherwise noted, all bolted connections shall be detailed for maximum end reaction of supported element using 3/4" diameter A325 bearing type, Minimum two bolts each connection. All welds shall develop full strength of members to be welded.

3. Where beams bear on masonry or concrete, provide steel bearing plates. Where beams bear on hollow core masonry, fill the blocks with grout for bearing and/or anchorage of bolts, 3 blocks deep and 3 blocks wide; or, fill top 2 courses with minimum 2500 psi grout.

4. All exterior columns encased in continuous masonry units shall be provided with 2" x 1/8" x 8" long steel anchor straps welded to column 16" o.c., staggered each side, to match masonry coursing.

5. Temporary erection bracing shall be provided to hold structural steel securely in position as described on the drawings. It shall not be removed until masonry walls, floors and roof trusses have been installed.

6. Paint one shop coat and field touch-up Tnemec Gray Metal Primer on all structural steel.

7. All steel encased in concrete shall be unpainted and shall be wrapped with a minimum mesh of 4 x 4 #12 gauge wire or preformed wire cages.

ROOF TRUSSES

1. Shop fabricate wood trusses using stress rated 1500 f_b Douglas Fir or Southern Yellow Pine for top and bottom chords and 1200 f_b for webs. Form connections with metal plates. Design joints and proportion members for 60 psf or total load specified on plans. Submit calculations for approval based on Truss Plate Institute specifications.

CONCRETE BLOCK MASONRY

1. All concrete masonry units shall have a minimum compressive strength of 2000 psi and conform to the requirements of ASTM C90, unless otherwise noted on the drawings.

2. All grout shall have a minimum compressive strength of 2500 psi at 28 days.

3. All grouting procedures shall conform to NCMA standards.

5. Mortar strength shall be Type M or S high strength mortar.

6. a. All reinforced masonry walls shall have #5 @ 4'-0" minimum vertical reinforcing.

   b. Provide 2 #5 vertical each side of each wall opening at each corner and at ends of walls unless otherwise noted.

   c. 2 #5 continuous reinforcing rods shall be typical at each floor and roof immediately under the plank and at mid-height of all walls.

7. a. All reinforced masonry walls shall have #9 gage wire (Ladur Type) at 16" o.c. minimum horizontal reinforcement. Scheduled horizontal reinforcing shall be in addition to this minimum reinforcing.

8. a. All cores with vertical reinforcing shall be grouted solid. Filling cores with mortar shall not be acceptable and special care shall be taken to keep cores free of mortar droppings.

9. Grout shall be placed using high or low lift grouting procedure per NCMA recommendations.

PRECAST AND PRESTRESSED CONCRETE

1. All precast and/or prestressed concrete work shall conform to the Building Code Requirements for Reinforced Concrete; ACI 318-83, and to the PCI Manual for Quality Control of Precast Prestressed Concrete, MNL 116-70.

2. All concrete hollow cored floor panels shall have a minimum 28 day compressive strength of 5000 psi.

3. Grout between precast elements shall be non-shrink high strength nonmetalic type grout and shall have a minimum compressive strength of 4000 psi.

4. Bearing strips or pads shall be of plastic as shown on the drawings.

5. Concrete topping shall be structural topping with a minimum compressive strength of 4000 psi at 28 days.

6. Floor plank shall be designed by the supplier to support the live loads shown on the plans plus additional loads from the concrete fill, relieving angles, stud bearing walls and posts as indicated on the plans. Reinforcing of units shall be modified as necessary to safely accommodate openings in the units for mechanical electrical or architectural requirements.

TYPICAL INTERIOR COLUMN FOOTING

TYPICAL CONC. WALL JOINTS

TYP. WALL REINFORCING

GENERAL NOTES AND DETAILS

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ADDITION AND RENOVATIONS

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