

KENNECOTT COPPER CORPORATION, MACHINE SHOP  
Wrangell-St. Elias National Park & Preserve  
On Copper River & Northwestern Railroad  
Kennicott  
Valdez-Cordova Census Area  
Alaska

HAER AK-1-G  
AK-1-G

PHOTOGRAPHS

REDUCED COPIES OF MEASURED DRAWINGS

FIELD RECORDS

HISTORIC AMERICAN ENGINEERING RECORD  
National Park Service  
U.S. Department of the Interior  
1849 C Street NW  
Washington, DC 20240-0001

ADDENDUM TO:  
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# HISTORIC AMERICAN ENGINEERING RECORD

## INDEX TO PHOTOGRAPHS

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Photographs AK-1-G-1 through AK-1-G-6 are photogrammetric images.

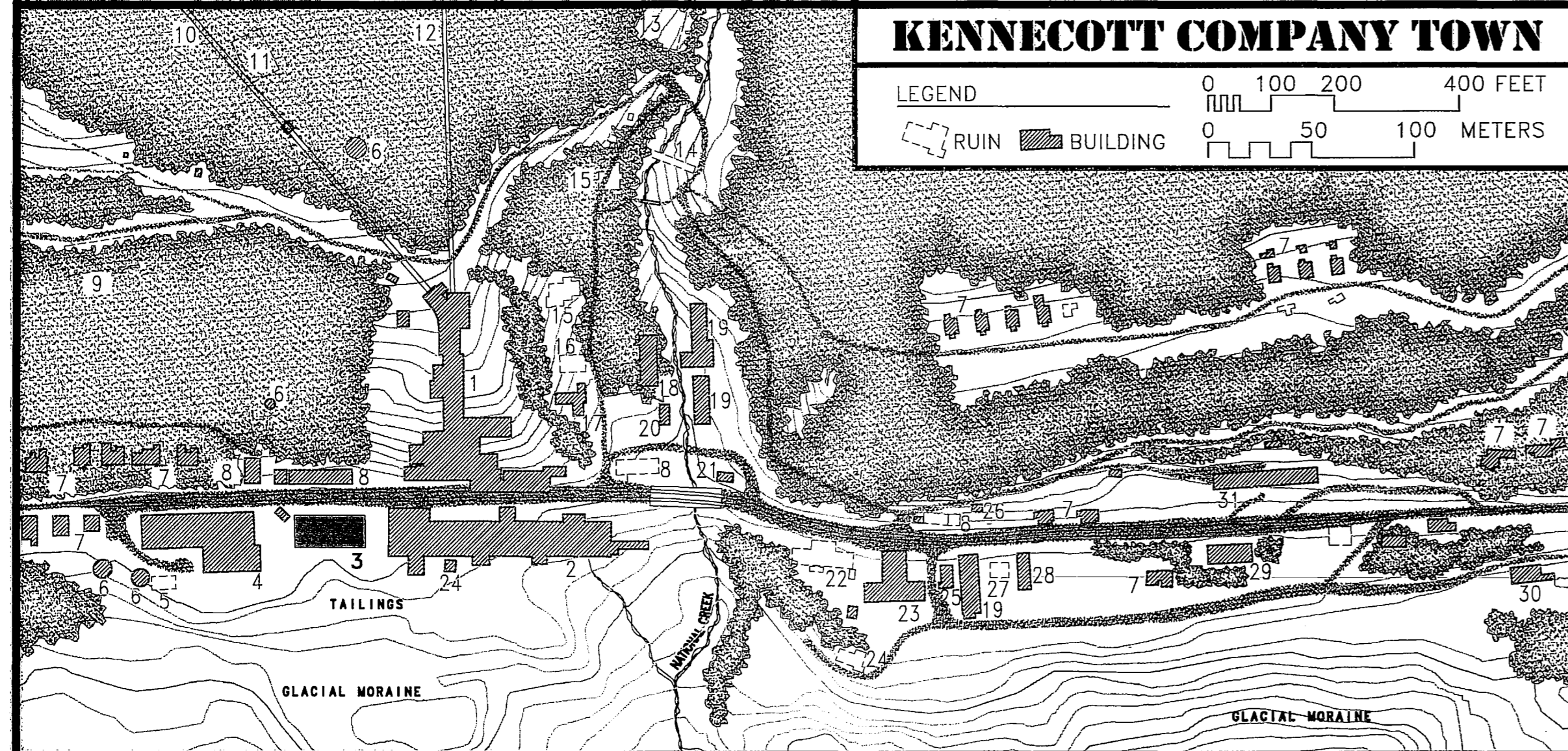
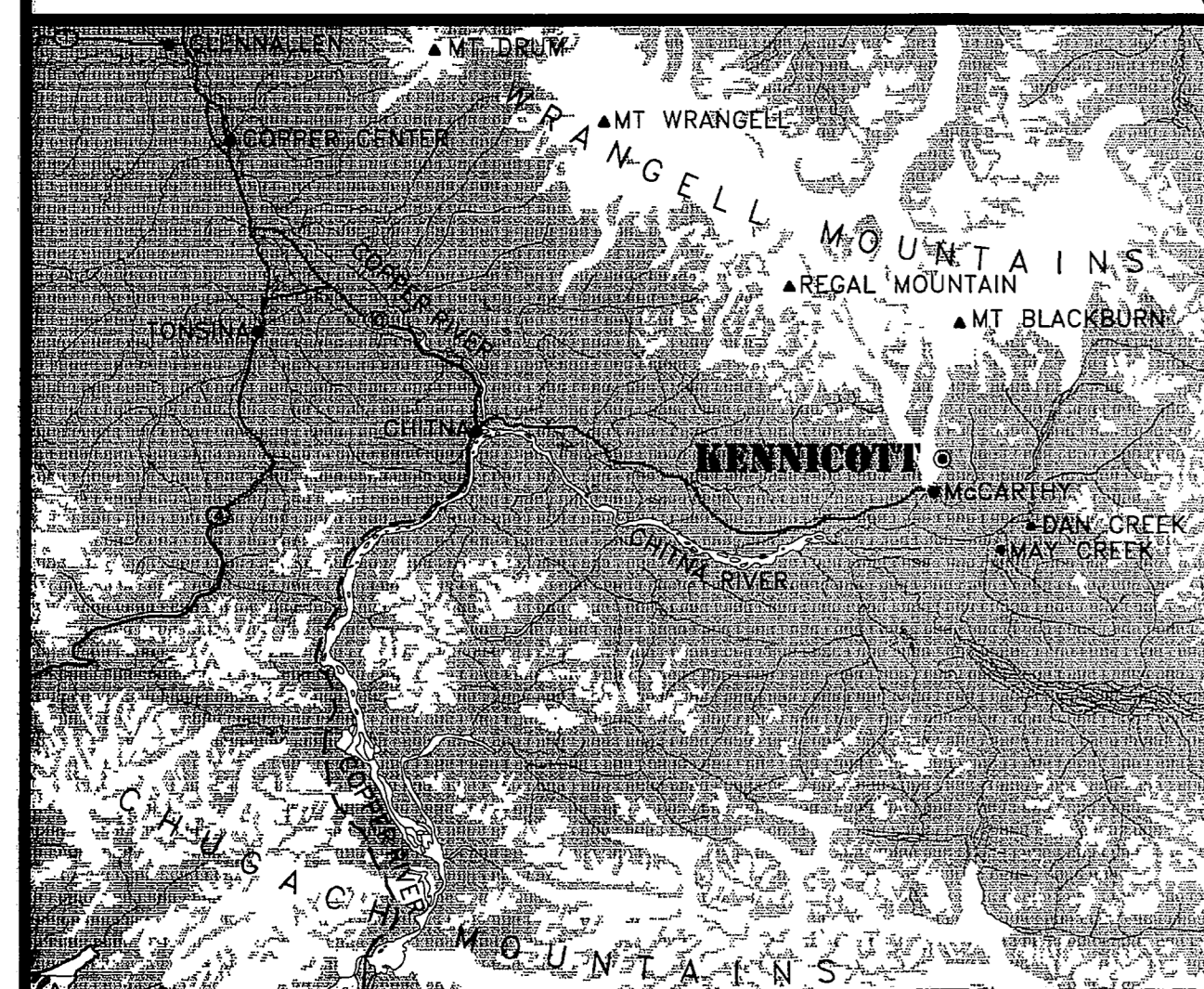
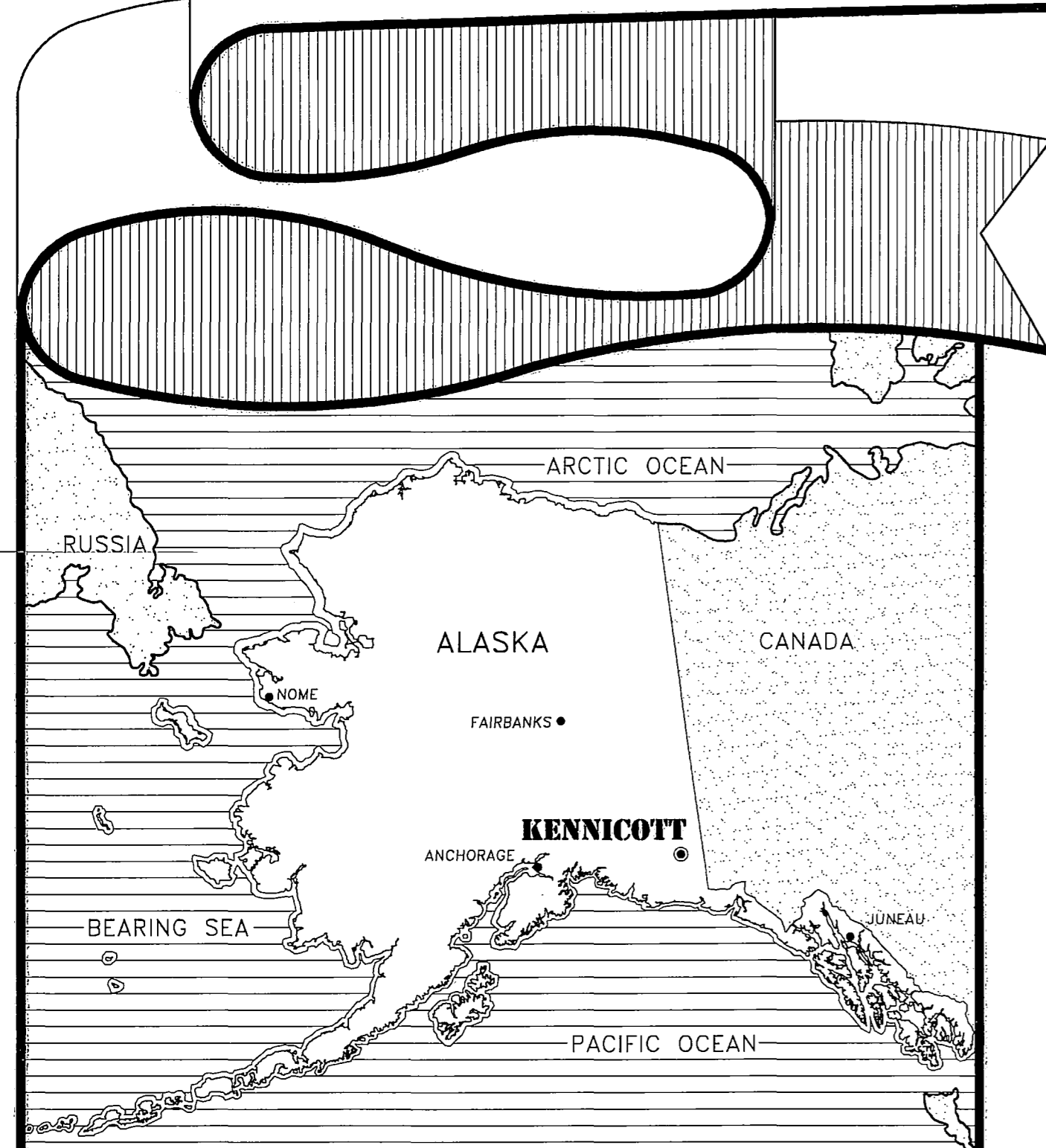
## INDEX TO BLACK AND WHITE PHOTOGRAPHS

Mark Schara, photographer, June 1999

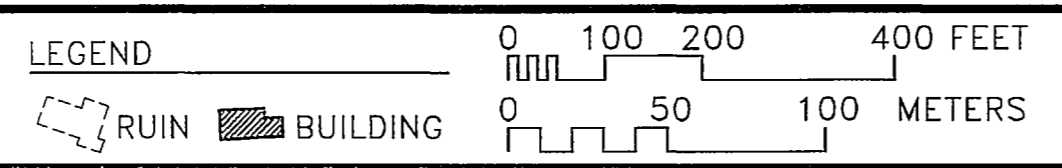
AK-1-G-1	View looking northwest toward east (front) elevation
AK-1-G-2	Detail of entrance in center of east elevation
AK-1-G-3	View looking southeast of north gable end
AK-1-G-4	View looking southeast of west (rear) elevation
AK-1-G-5	View looking northeast of south gable end
AK-1-G-6	View looking northwest of south gable end

# MACHINE SHOP

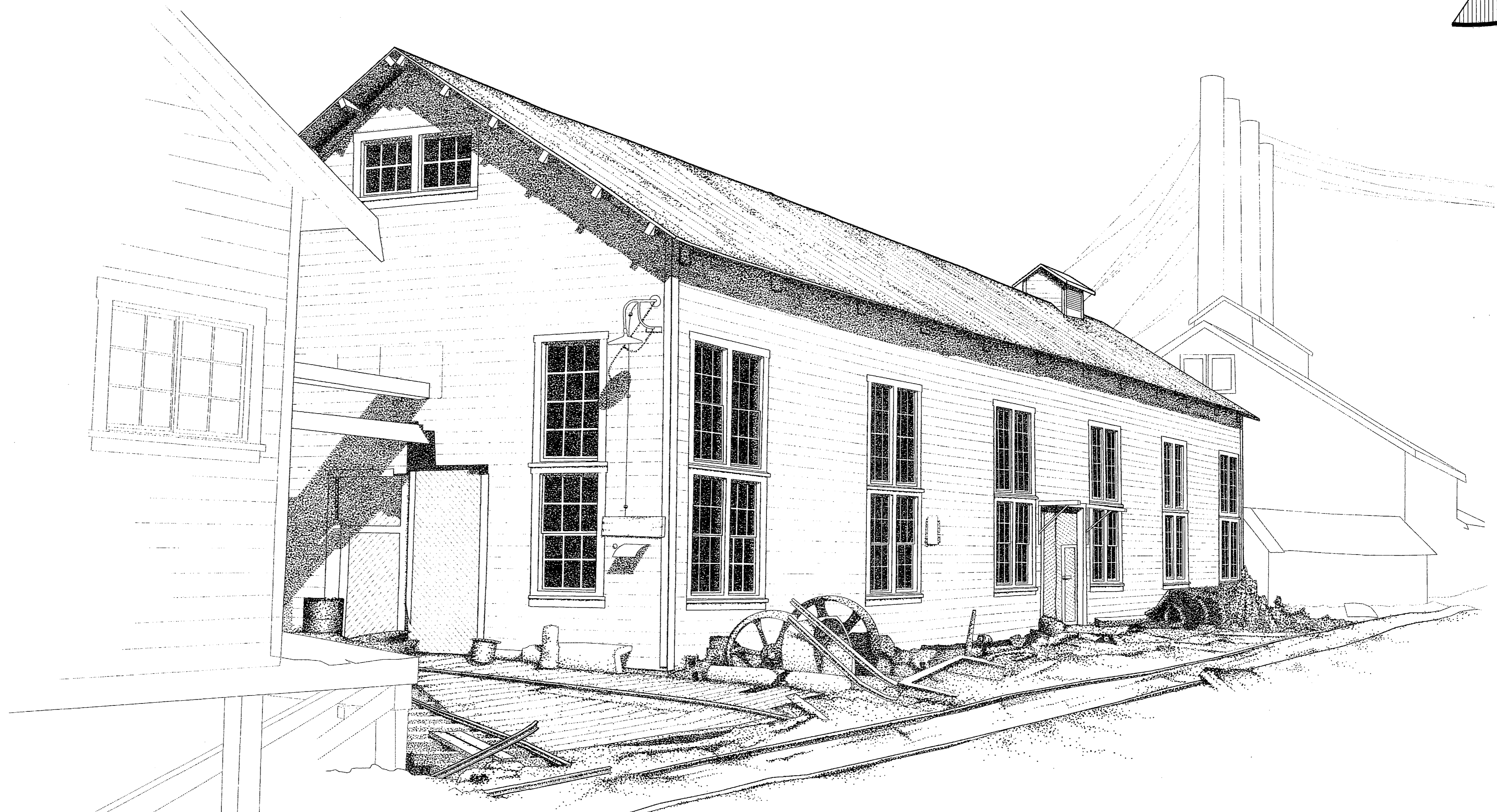
## KENNICOTT, ALASKA



### KENNICOTT COMPANY TOWN



- 1 CONCENTRATION MILL
- 2 AMMONIA LEACHING PLANT
- 3 **MACHINE SHOP**
- 4 POWER PLANT
- 5 OIL HOUSE
- 6 WATER OR OIL TANK
- 7 COTTAGES
- 8 STORAGE OR WAREHOUSE
- 9 TENNIS COURT
- 10 TRAM TO GLACIER & JUMBO MINE
- 11 WATER STORAGE POND
- 12 TRAM TO BONANZA MINE
- 13 COMMUNITY GARDEN
- 14 NATIONAL CREEK DAM
- 15 MANAGER'S HOUSE
- 16 STAFF HOUSE
- 17 GENERAL MANAGER'S OFFICE
- 18 HOSPITAL
- 19 BUNKHOUSE
- 20 ASSAY OFFICE
- 21 RAILROAD DEPOT
- 22 SAWMILL & CARPENTER'S SHOP
- 23 COMPANY STORE & WAREHOUSE
- 24 TAILINGS HOIST HOUSE
- 25 REFRIGERATION PLANT
- 26 BATH HOUSE
- 27 HANDBALL COURT
- 28 SCHOOLHOUSE
- 29 RECREATION HALL
- 30 DAIRY BARN
- 31 OLD APARTMENT HOUSE SITE



IN 1998, THE NATIONAL PARK SERVICE BEGAN TO DOCUMENT THE HISTORIC BUILDINGS OF THE KENNICOTT NATIONAL HISTORIC LANDMARK TO THE STANDARDS OF THE HISTORIC AMERICAN BUILDING SURVEY / HISTORIC AMERICAN ENGINEERING RECORD (HABS/HAER). THE PROJECT WAS EXECUTED UNDER THE PROGRAM DIRECTION OF BLAINE CLIVER, CHIEF OF HABS/HAER; AND ROBERT L. ARNBERGER, ALASKA REGIONAL DIRECTOR, NATIONAL PARK SERVICE. DOCUMENTATION WAS CARRIED OUT DURING THE SUMMERS OF 1999 AND 2000 UNDER THE GENERAL DIRECTION OF STEVEN M. PETERSON, SENIOR HISTORICAL ARCHITECT; CHRIS HOUSTON AND LAURA HOUSTON, HISTORICAL ARCHITECTURAL INTERNS WITH THE ALASKA SUPPORT OFFICE; MARK SCHARA, NAOMI HERNANDEZ AND HOLLY LOTT, HABS ARCHITECTS; AND JET LOWE, HAER PHOTOGRAPHER.

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## BUILDING HISTORY

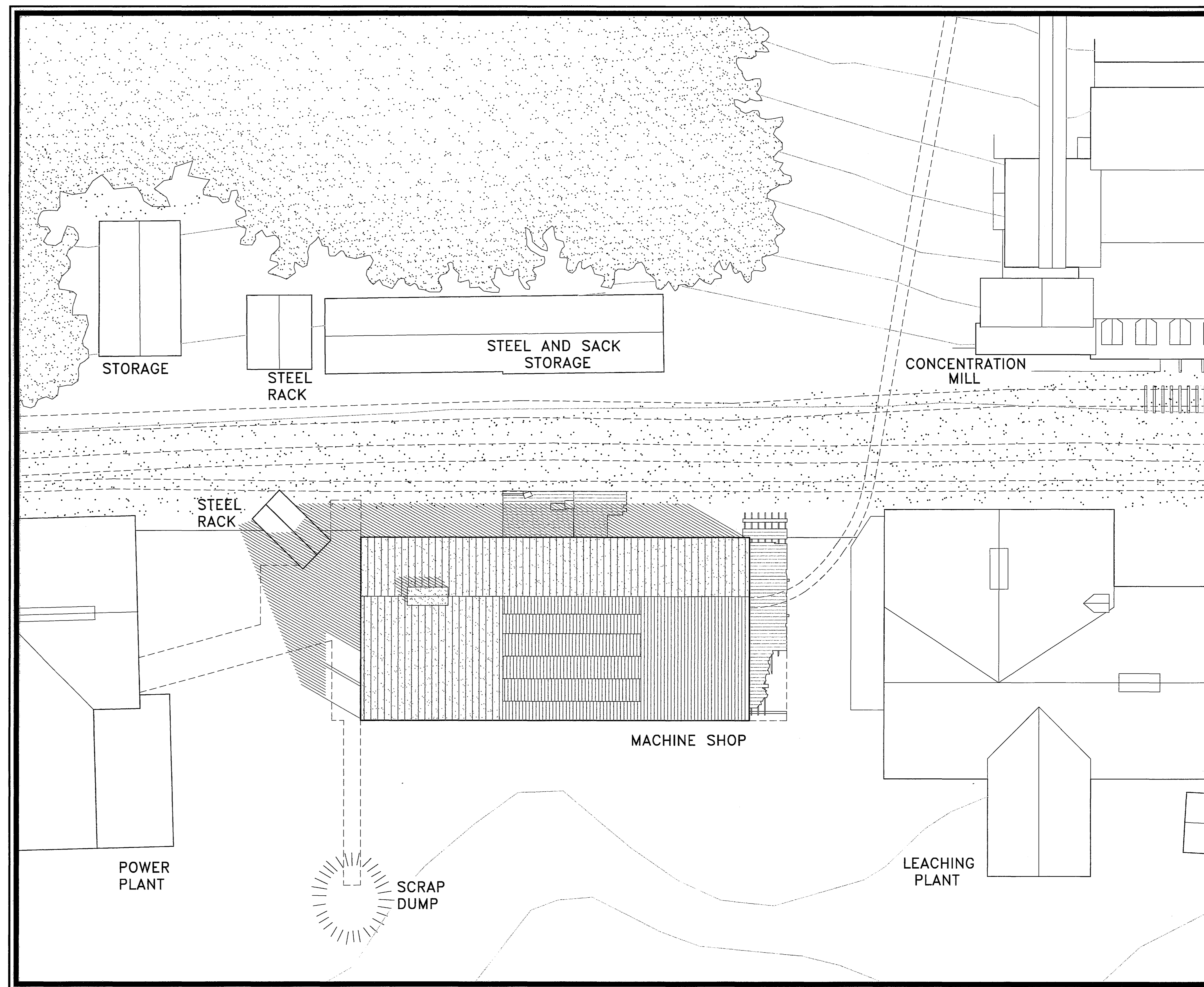
THE MACHINE SHOP WAS ERECTED IN 1916 AS PART OF THE GENERAL EXPANSION OF THE KENNECOTT FACILITIES THAT TOOK PLACE BETWEEN 1915 AND 1918. OTHER ACTIVITIES AT THE SAME TIME INCLUDED ENLARGEMENT OF THE LEACHING PLANT, EXPANSION OF THE POWER PLANT, AND CONSTRUCTION OF THE HOSPITAL, RECREATION HALL AND STORE. THESE CHANGES REFLECTED THE MATURITY OF THE MINING AND MILLING OPERATIONS, AS WELL AS THE CHANGING CORPORATE STRUCTURE, AS THE ALASKA SYNDICATE GAVE WAY TO THE KENNECOTT COPPER CORPORATION.

THE LONG NARROW BUILDING ERECTED IN 1916 HOUSED A LARGE PUNCH, SHEERS, AN OVERHEAD TRAVELING CRANE AND OTHER NEW EQUIPMENT PURCHASED THAT YEAR. THE SHOP WAS CONNECTED WITH THE STORE AND WAREHOUSE TO THE SOUTH AND THE POWER PLANT TO THE NORTH VIA A NARROW GAUGE RAILWAY. THE TRACK PERMITTED CREWS TO MOVE HEAVIER EQUIPMENT ABOUT THE SITE. A SECOND LINE CROSSED THE MAIN RAILWAY TRACKS ON A DRAWBRIDGE AND RAN UP HILL BESIDE THE MILL TO RAISE AND LOWER HEAVY EQUIPMENT.

OVER TIME, THE MACHINE SHOP WAS EXPANDED TO INCLUDE ADDITIONAL FUNCTIONS. THE BLACKSMITH'S SHOP WAS LOCATED IN THE NORTH END OF THE BUILDING. AN ADDITION TO THE WEST SIDE INCLUDED STOREROOMS AND A LARGE BRICK FLOORED WELDING SHOP. A LARGE HATCH IN THE FLOOR PROVIDED ACCESS TO A GROWING STORE OF SUPERCEDED MILLING EQUIPMENT KEPT BENEATH THE SHOP.

WHILE EVERY EFFORT WAS MADE TO STOCK THE SPARE PARTS NEEDED TO KEEP THE MINES AND THE MILL RUNNING, THE MACHINE SHOP, ALONG WITH THE SKILLED MACHINISTS AND MILLWRIGHTS WHO WORKED THERE, ENSURED THAT ANY MISSING PARTS COULD BE MADE AND INSTALLED IN A TIMELY MANNER. THE MACHINE SHOP WAS THE HEART OF THE REGULAR MAINTENANCE PROGRAMS AND THE SOUL OF ANY AND ALL EMERGENCY REPAIRS NEEDED TO KEEP THE COMPLEX OPERATION WORKING.

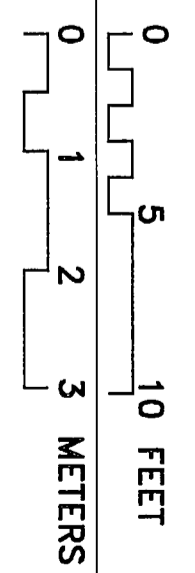
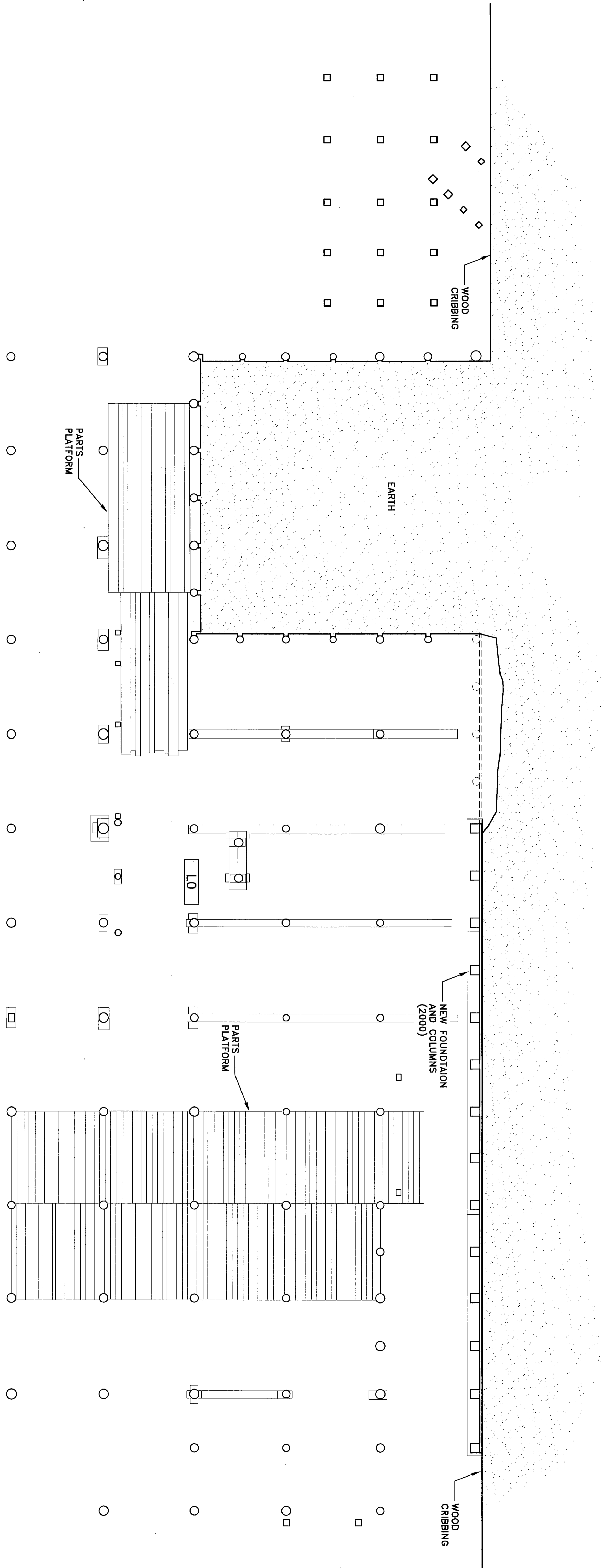
WHEN THE KENNECOTT MINES CLOSED IN 1938, THE EQUIPMENT IN THE MACHINE SHOP WAS DISMANTLED AND SHIPPED OUT AS PART OF THE SALVAGE OPERATIONS CONDUCTED IN THE FINAL MONTHS. MANY OF THE TOOLS WENT TO ANOTHER ALASKAN MINE, THE GOLDEN ZONE MINE JUST TO THE SOUTH OF THE PRESENT BOUNDARIES OF DENALI NATIONAL PARK AND PRESERVE.



ROOF PLAN  
SCALE: 1/16" = 1'-0"

0 10 20 30 FEET  
0 1 2 4 6 8 METERS

FOUNDATION PLAN  
SCALE: 3/16" = 1'-0"



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NATIONAL PARK SERVICE  
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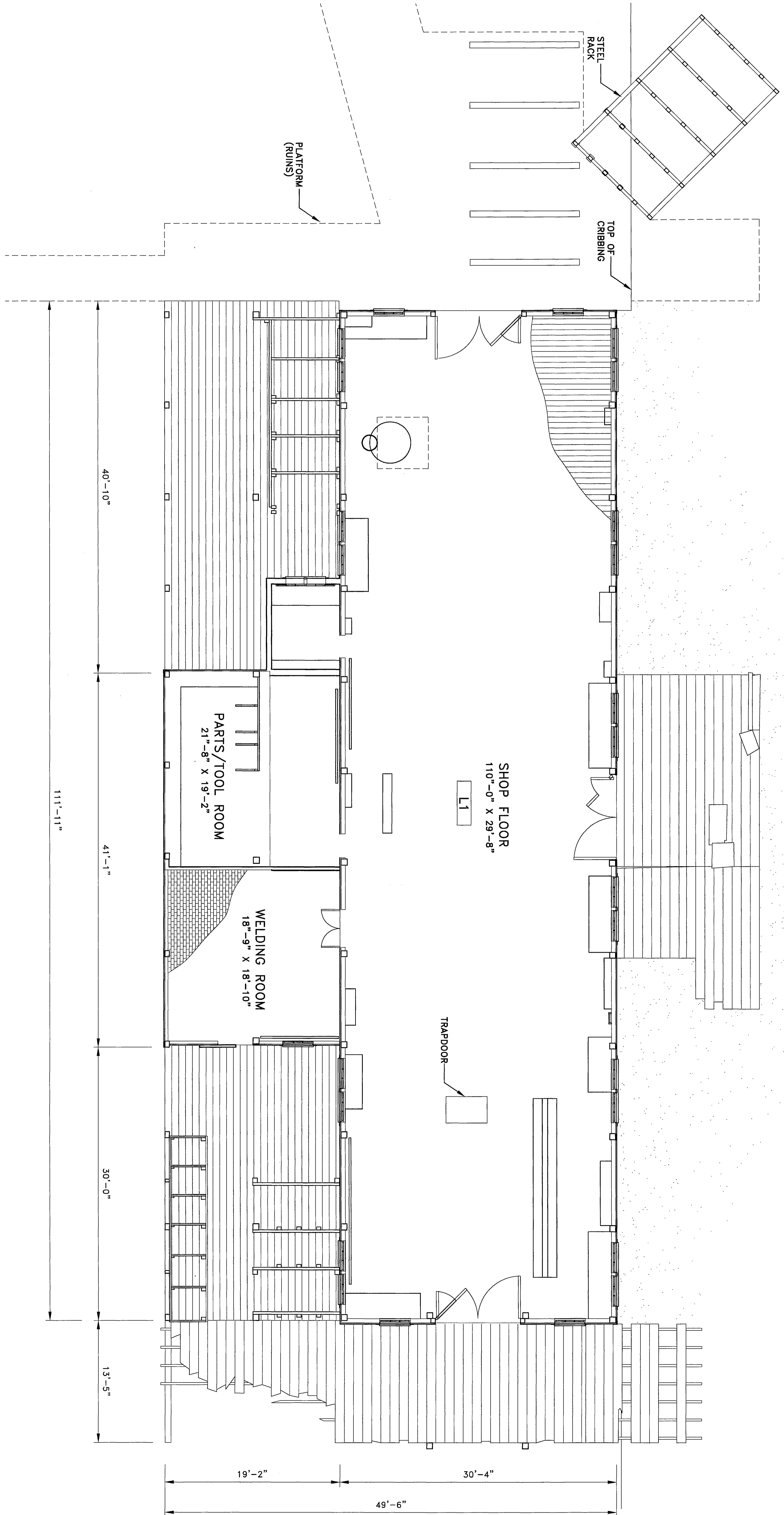
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LEVEL ONE FLOOR PLAN  
SCALE: 3/16" = 1'-0"



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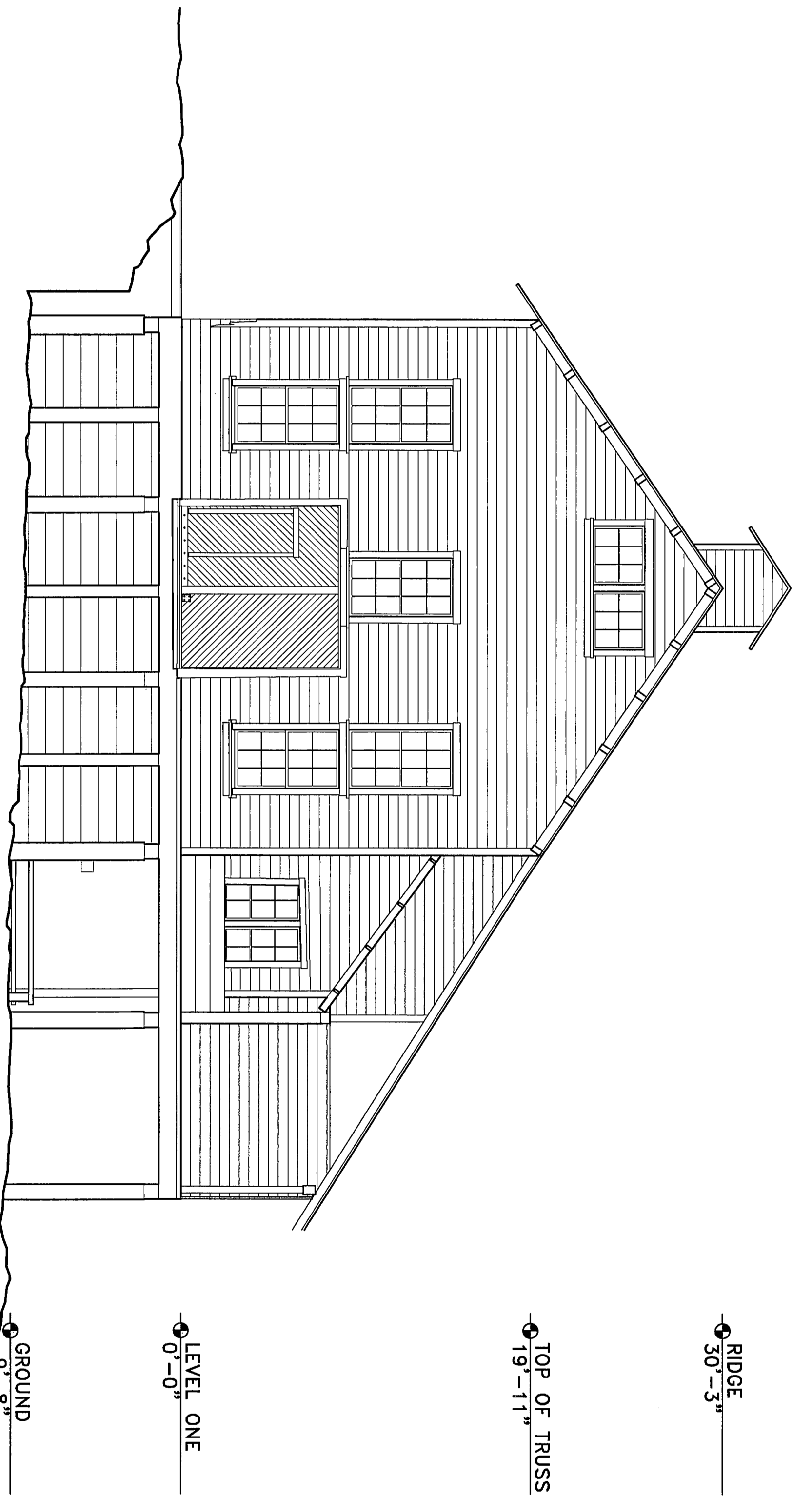
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ALASKA

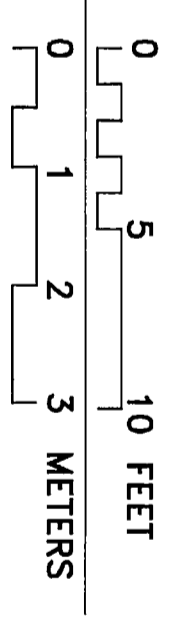
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NORTH ELEVATION  
SCALE: 3/16" = 1'-0"

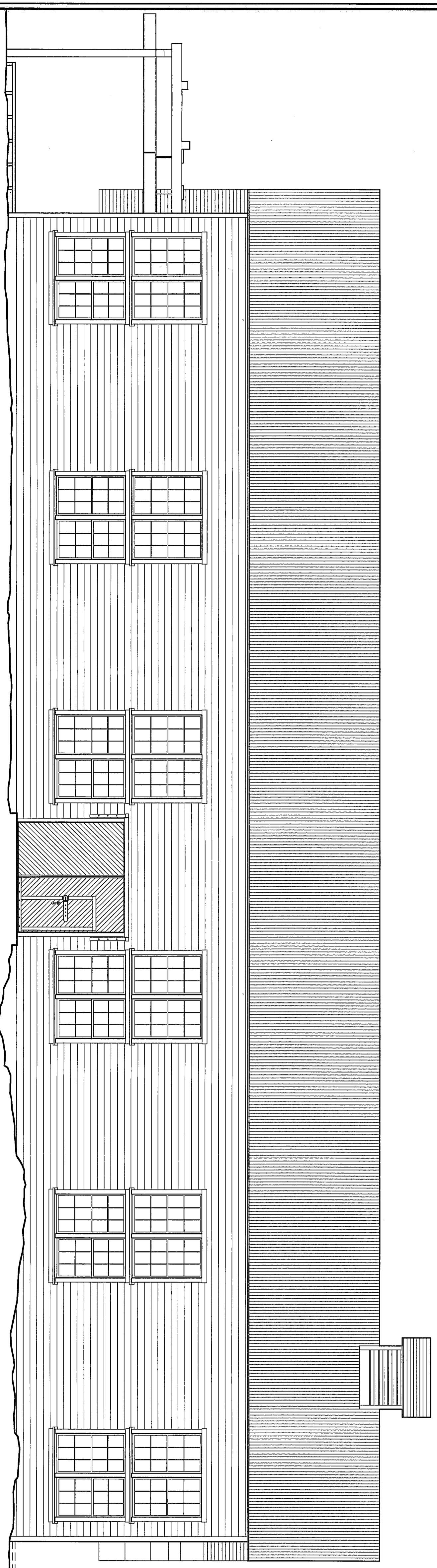


RIDGE  
30'-3"

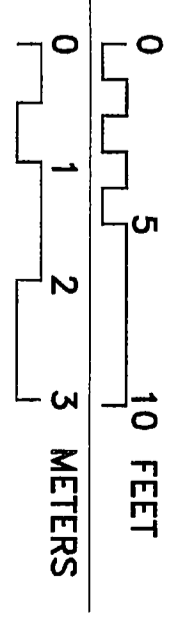
TOP OF TRUSS  
19'-11"

LEVEL ONE  
0'-0"

GROUND  
-9'-8"



EAST ELEVATION  
SCALE: 3/16" = 1'-0"



RIDGE  
30'-3"

TOP OF TRUSS  
19'-11"

LEVEL ONE  
0'-0"

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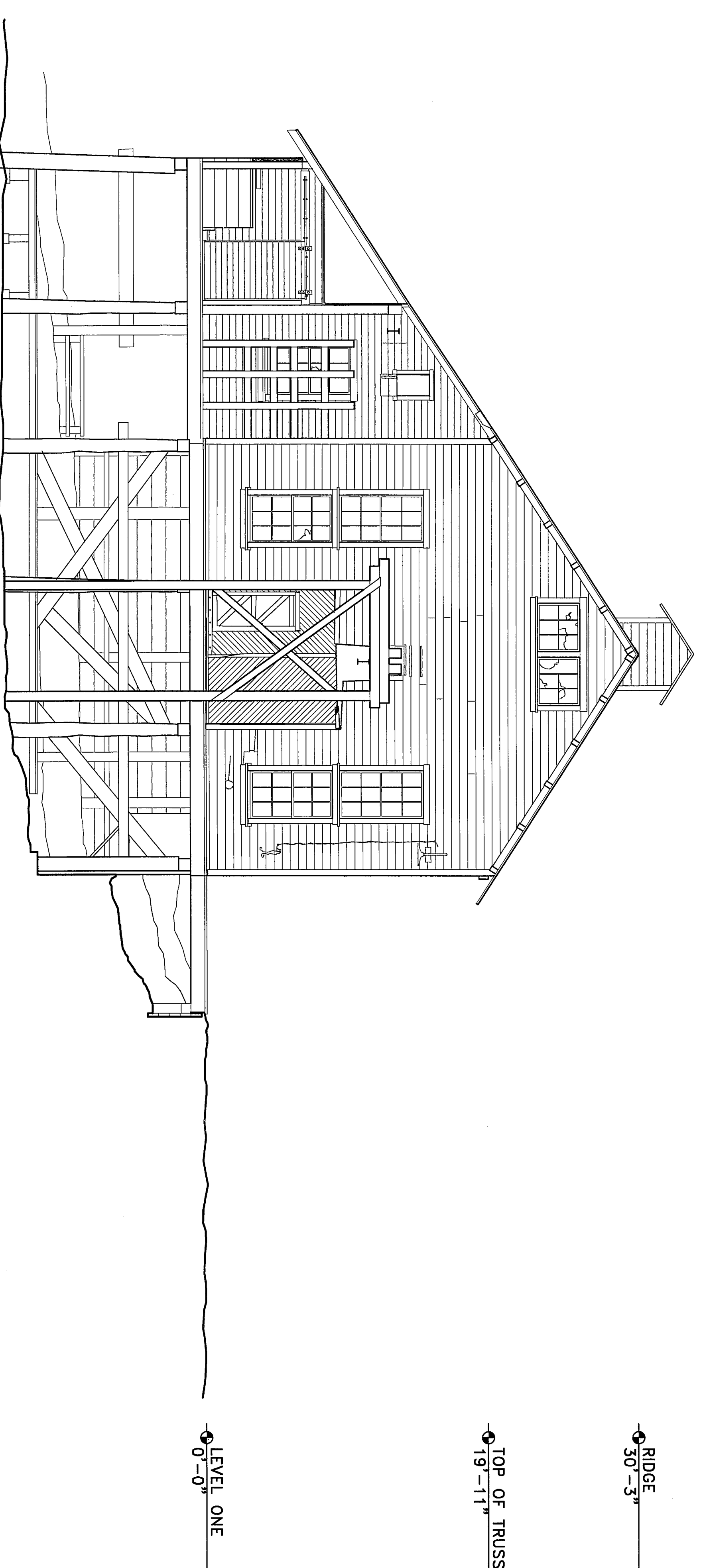
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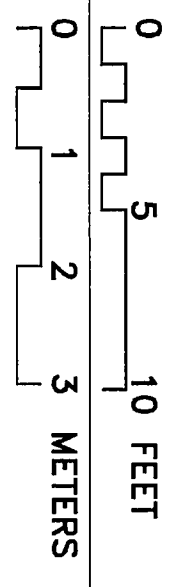
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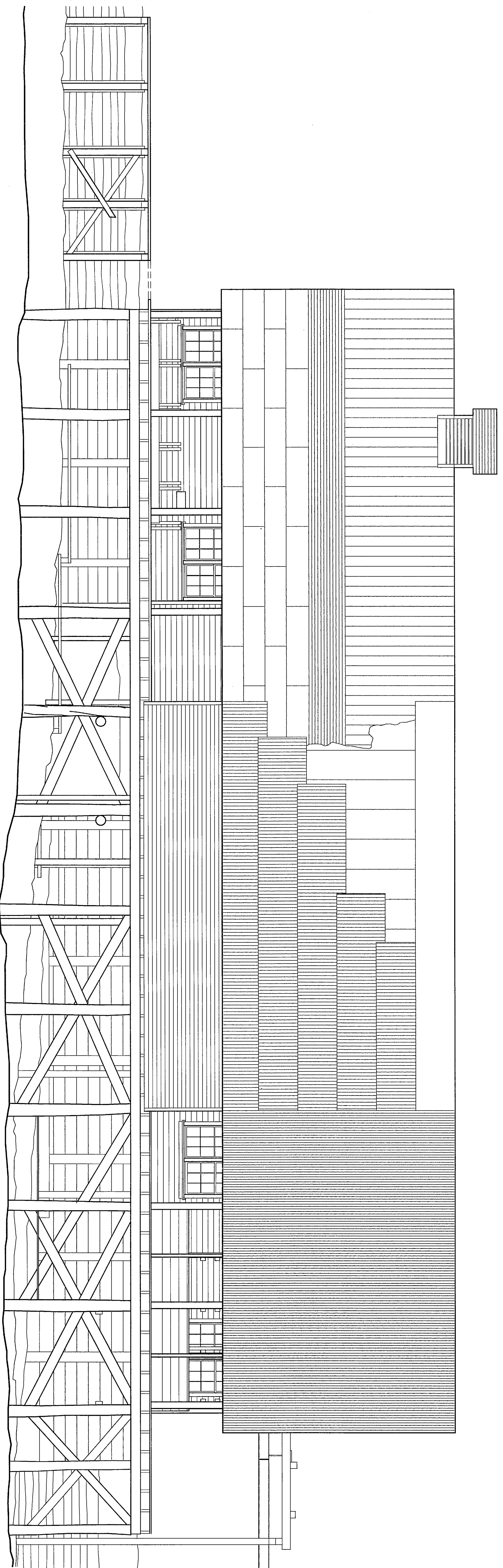
SOUTH ELEVATION  
SCALE: 3/16" = 1'-0"



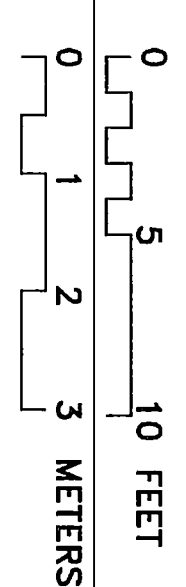
→ RIDGE  
30'-3"

→ TOP OF TRUSS  
19'-11"

→ LEVEL ONE  
0'-0"



WEST ELEVATION  
SCALE: 3/16" = 1'-0"



→ RIDGE  
30'-3"

→ TOP OF TRUSS  
19'-11"

→ LEVEL ONE  
0'-0"

→ GROUND  
-14'-5"

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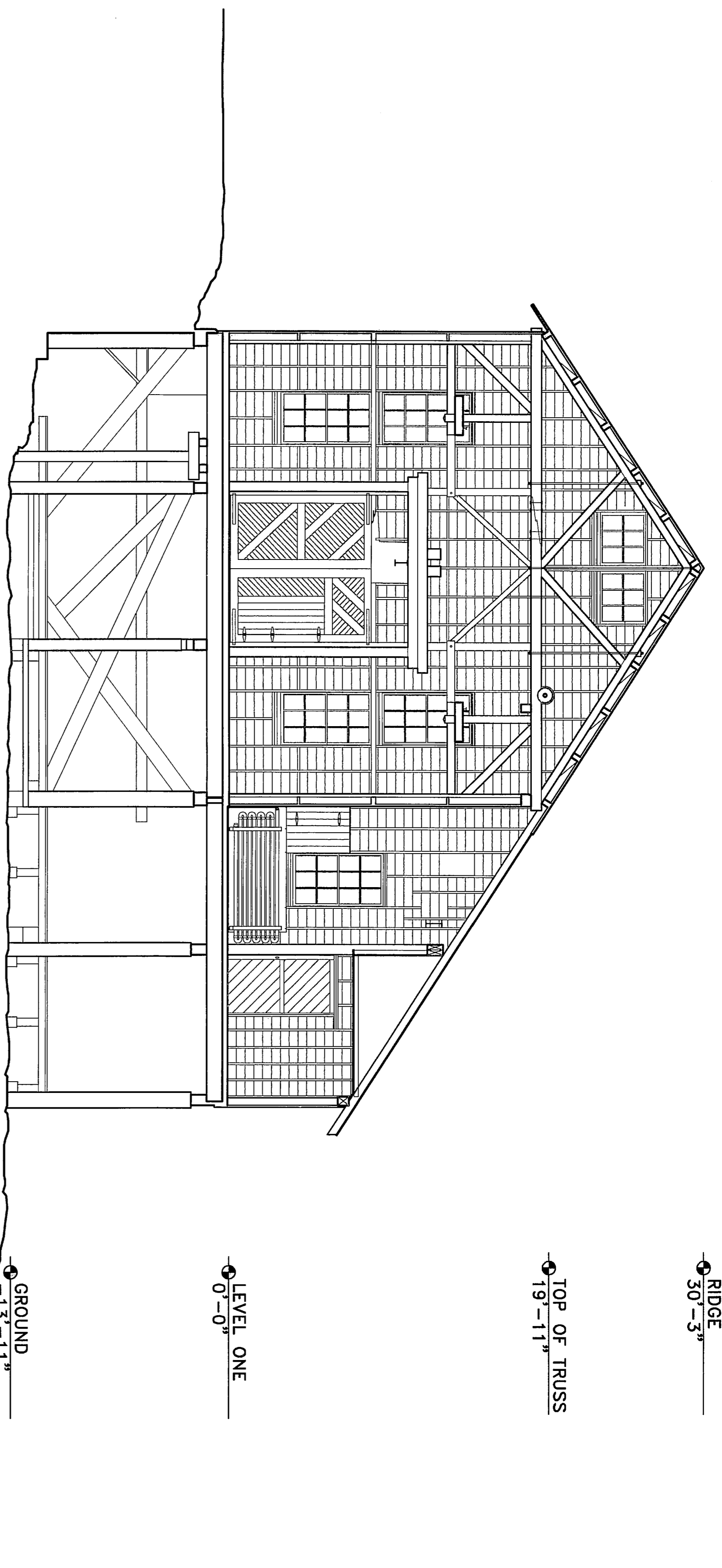
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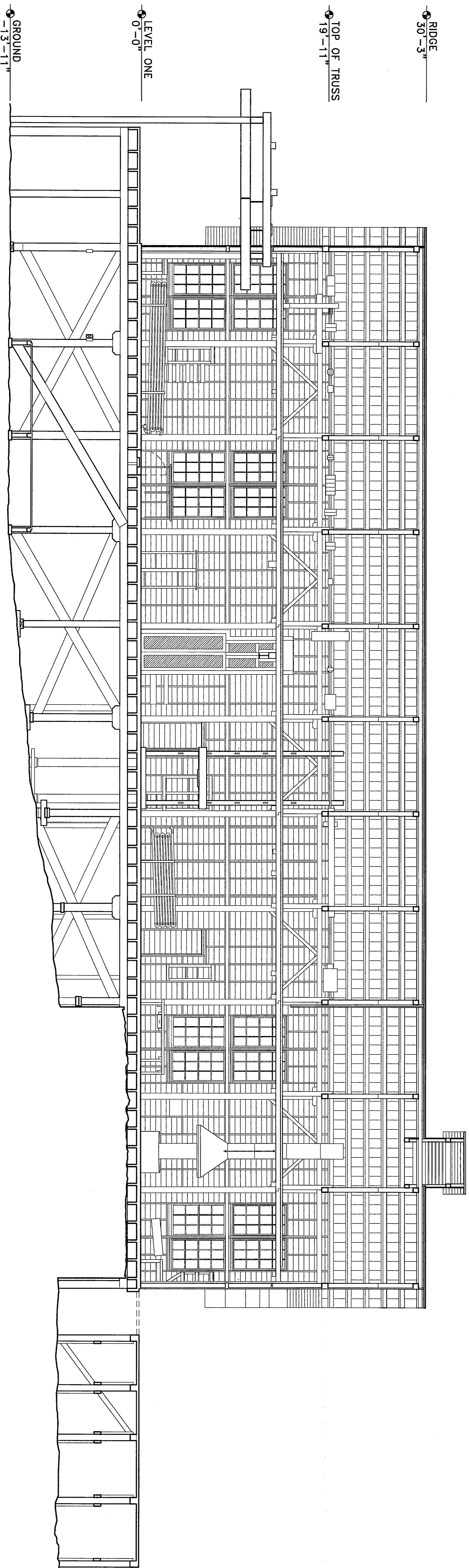
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SECTION B-B  
SCALE: 3/16" = 1'-0"



SECTION A-A  
SCALE: 3/16" = 1'-0"

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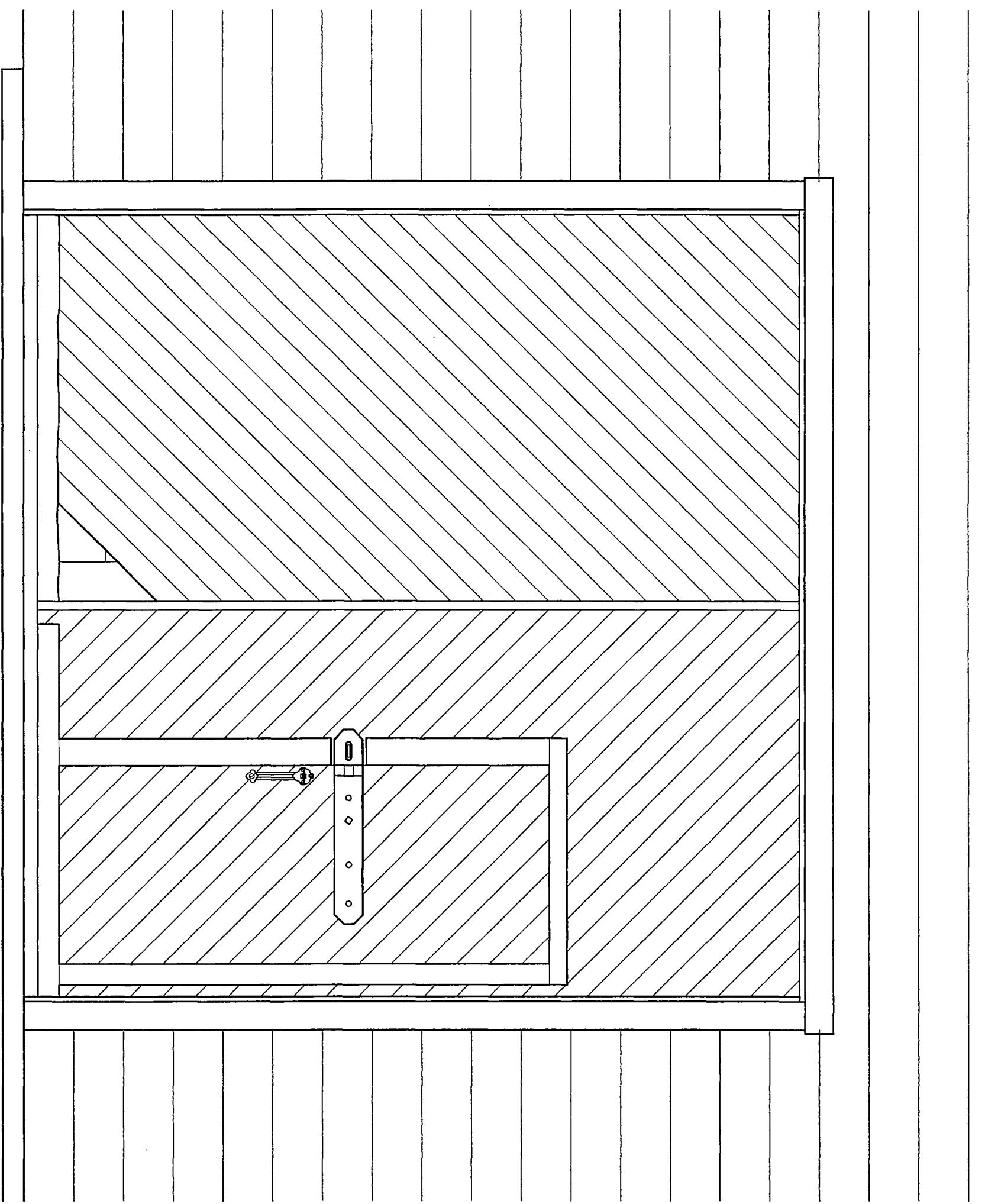
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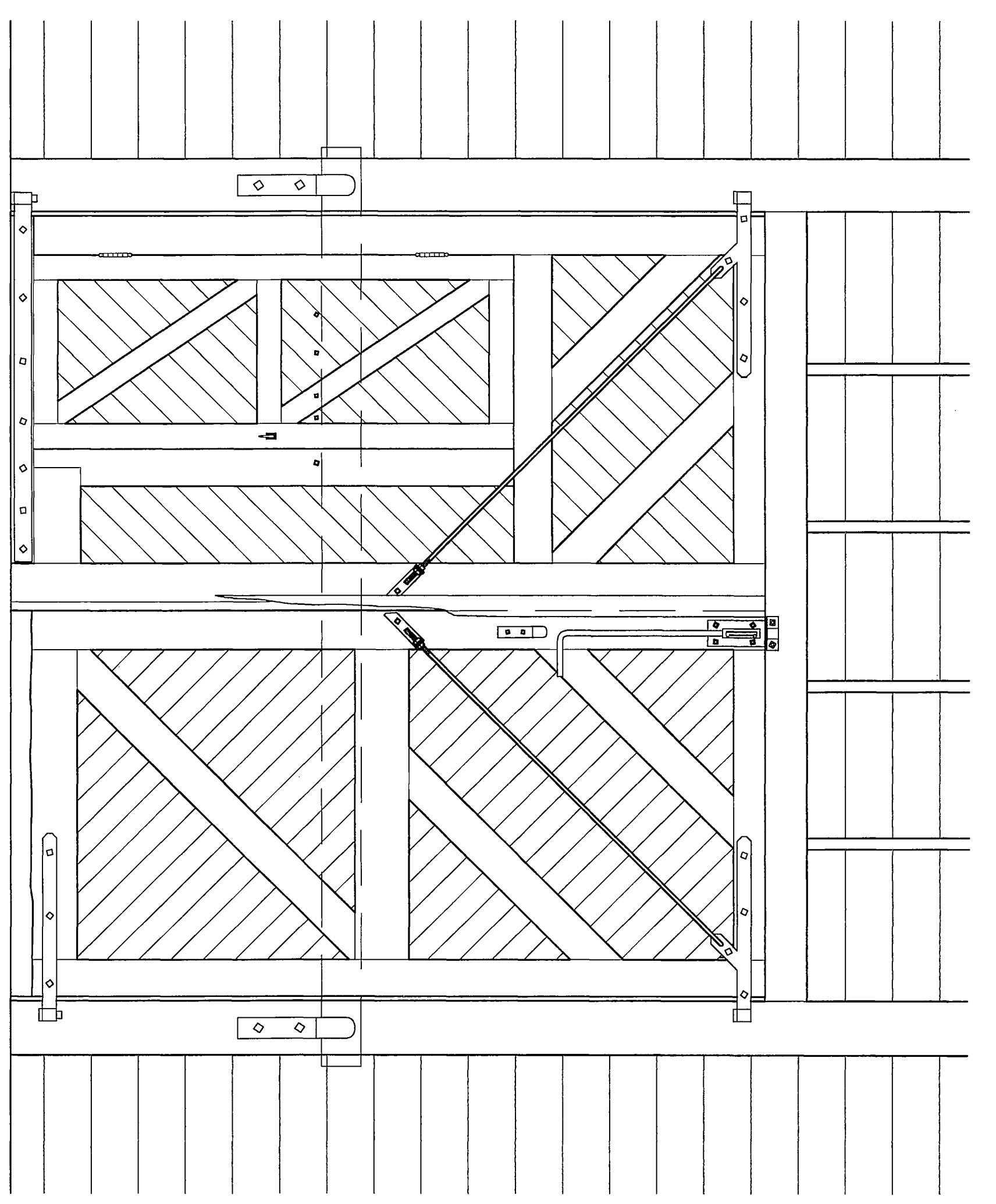
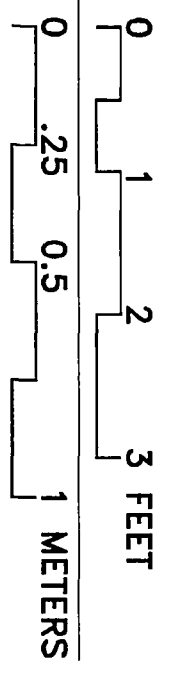
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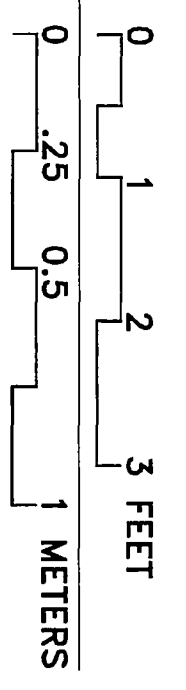
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EAST DOOR ELEVATION-EXTERIOR  
SCALE: 3/4"=1'-0"

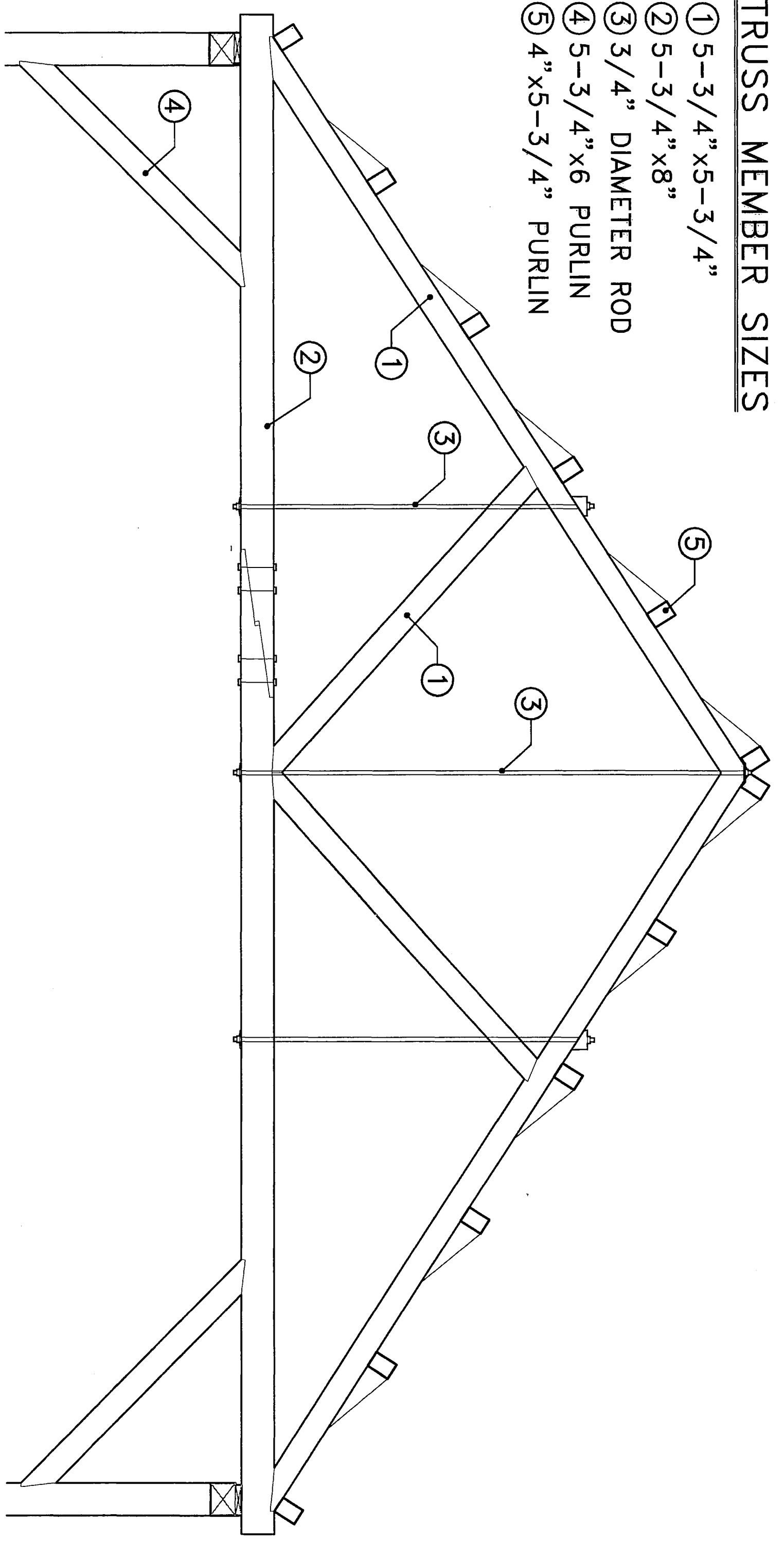


EAST DOOR ELEVATION-INTERIOR  
SCALE: 3/4"=1'-0"

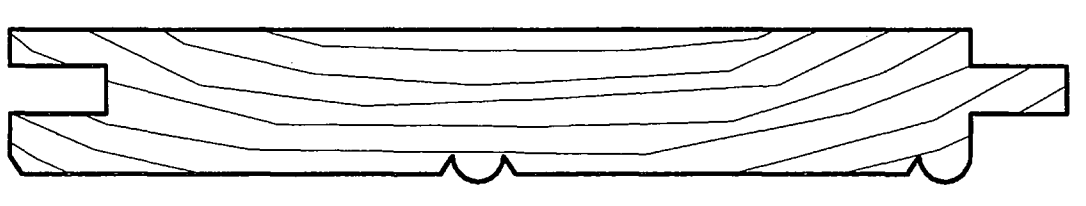
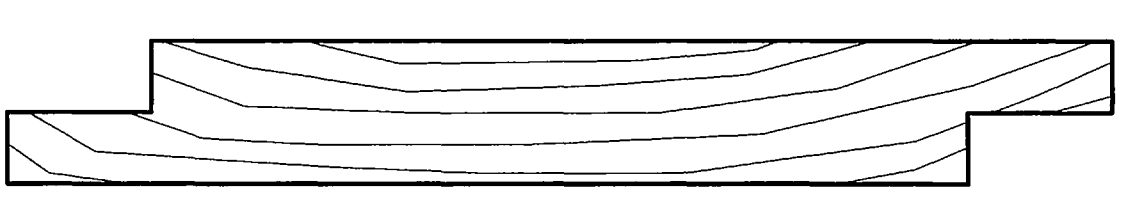
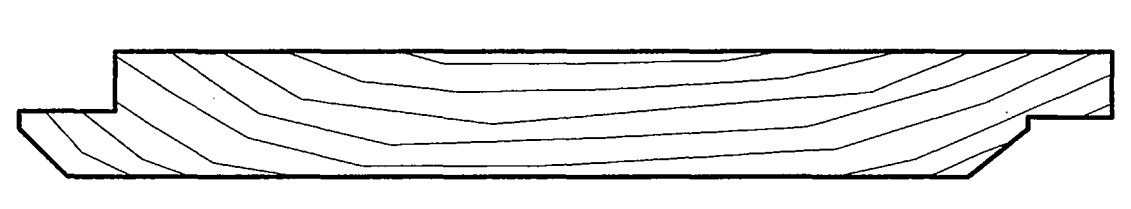
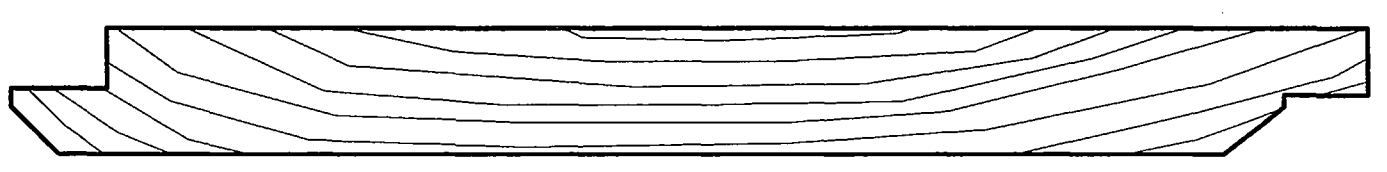
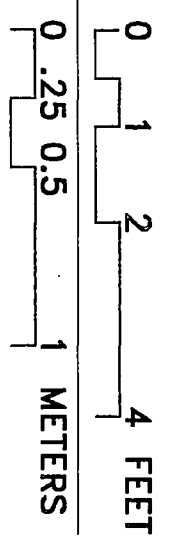


TRUSS MEMBER SIZES

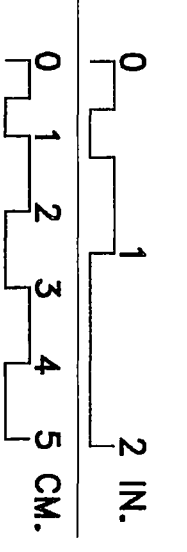
- ① 5-3/4" x 5-3/4"
- ② 5-3/4" x 8"
- ③ 3/4" DIAMETER ROD
- ④ 5-3/4" x 6 PURLIN
- ⑤ 4" x 5-3/4" PURLIN



SOUTH LAB/OFFICE ADDITION TRUSS  
SCALE: 1/2"=1'-0"



TYPICAL SIDING & SHEATHING TYPES  
SCALE: FULL SIZE



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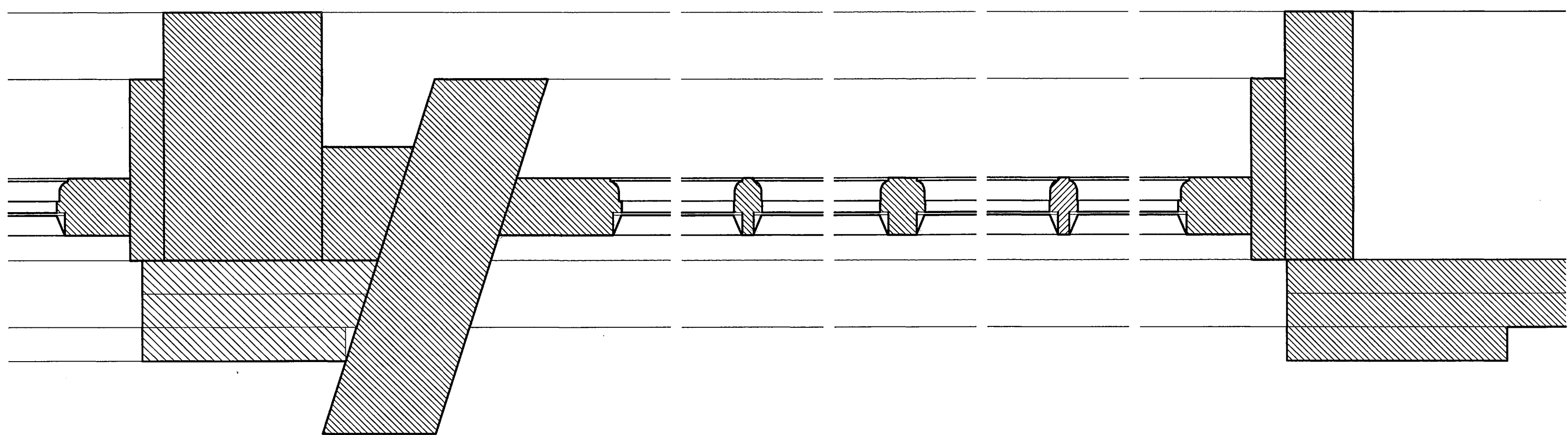
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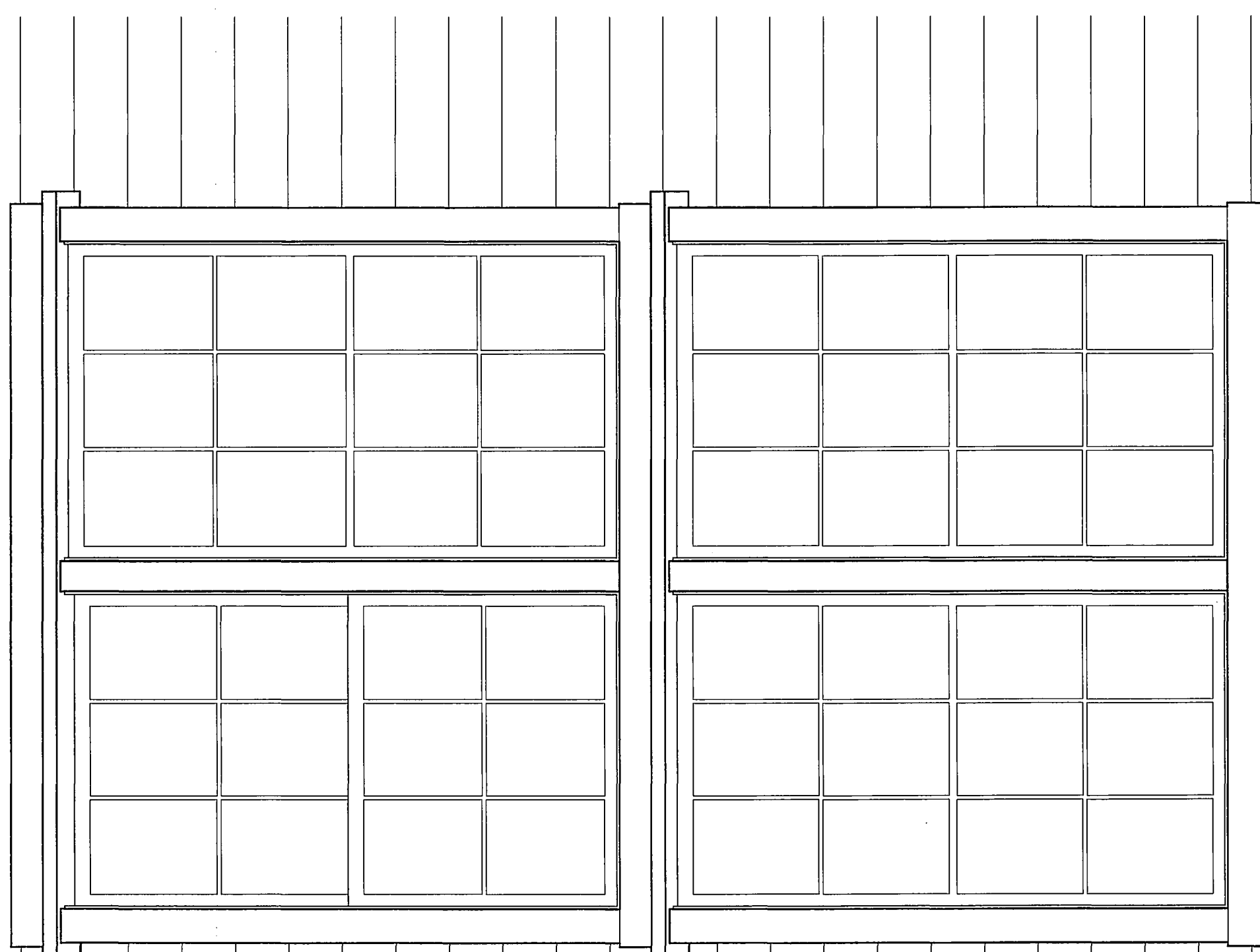
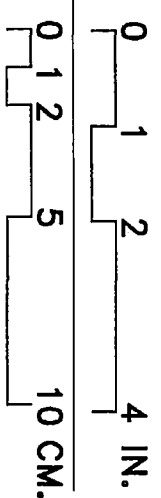
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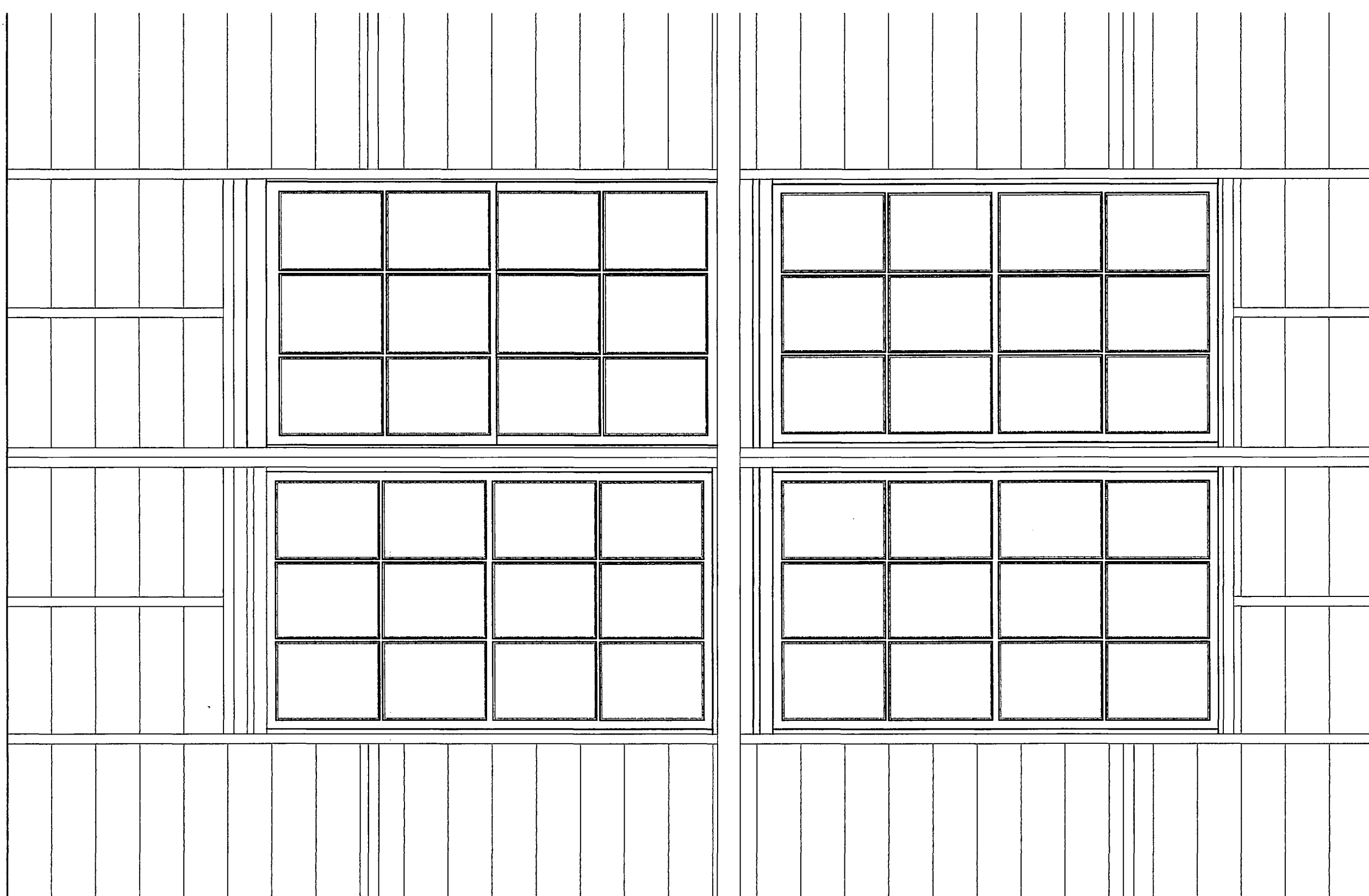
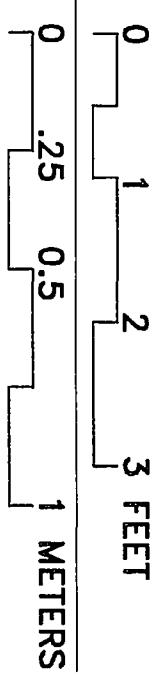
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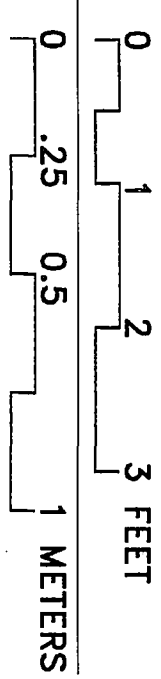
WINDOW SECTION DETAIL  
SCALE: HALF SCALE



WINDOW ELEVATION-EXTERIOR  
SCALE: 3/4"=1'-0"



WINDOW ELEVATION-INTERIOR  
SCALE: 3/4"=1'-0"



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