

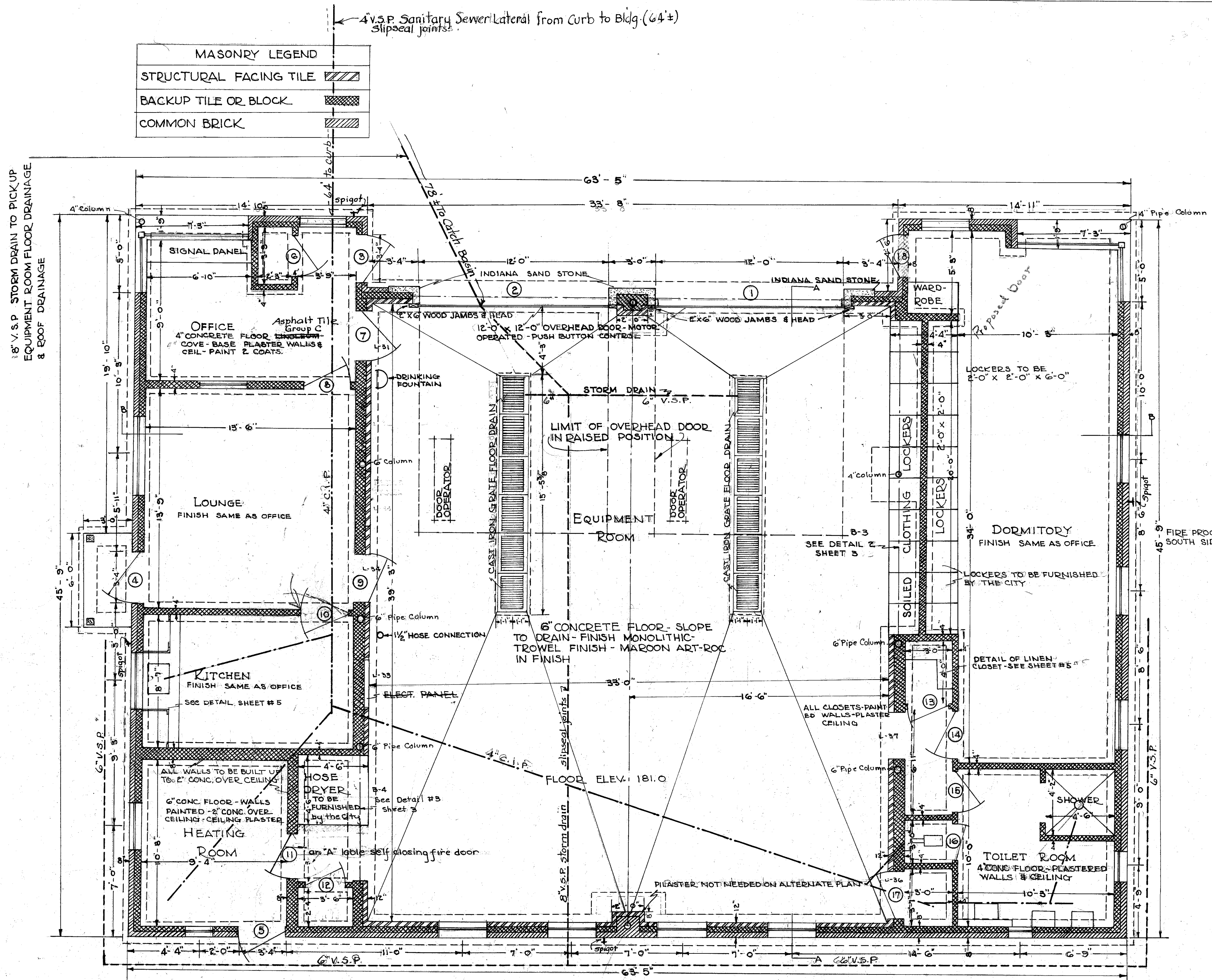
PROPOSED
FIRE STATION
NO. 3

WALES RD. & KENDALL AVE. N.E.
MASSILLON, O.

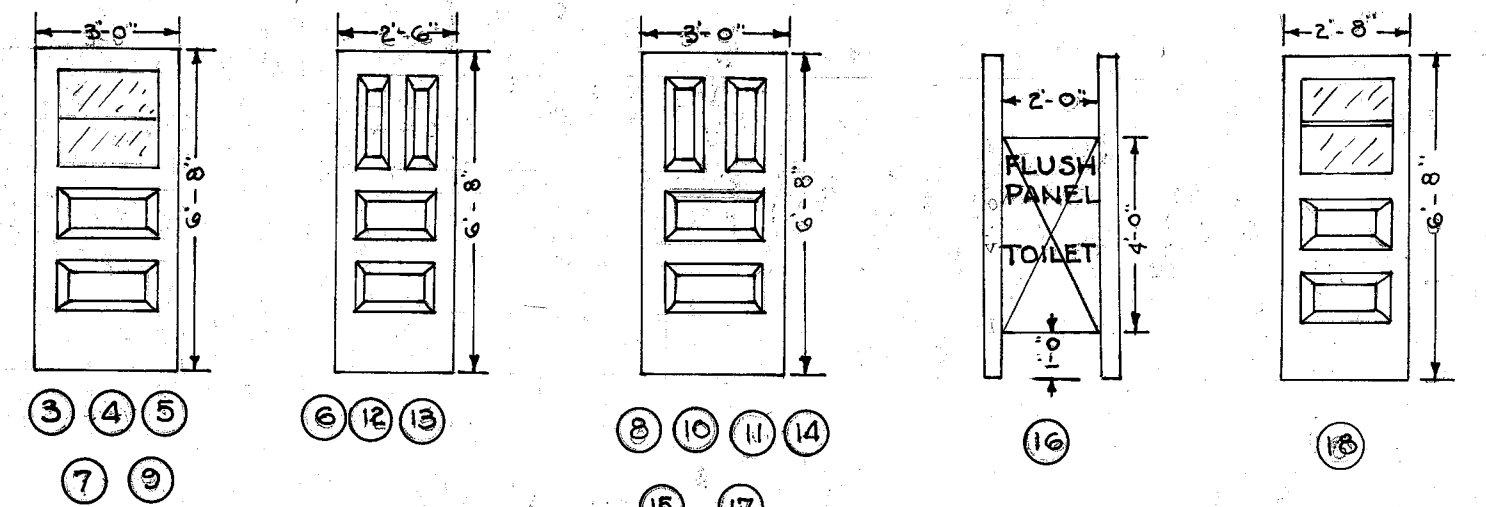
S. R. WEIRICH - MAYOR
J. E. YOUNG - SAFETY-SER. DIRECTOR
H. M. PIPER - CITY ENGINEER

MASONRY LEGEND

STRUCTURAL FACING TILE	
BACKUP TILE OR BLOCK	
COMMON BRICK	



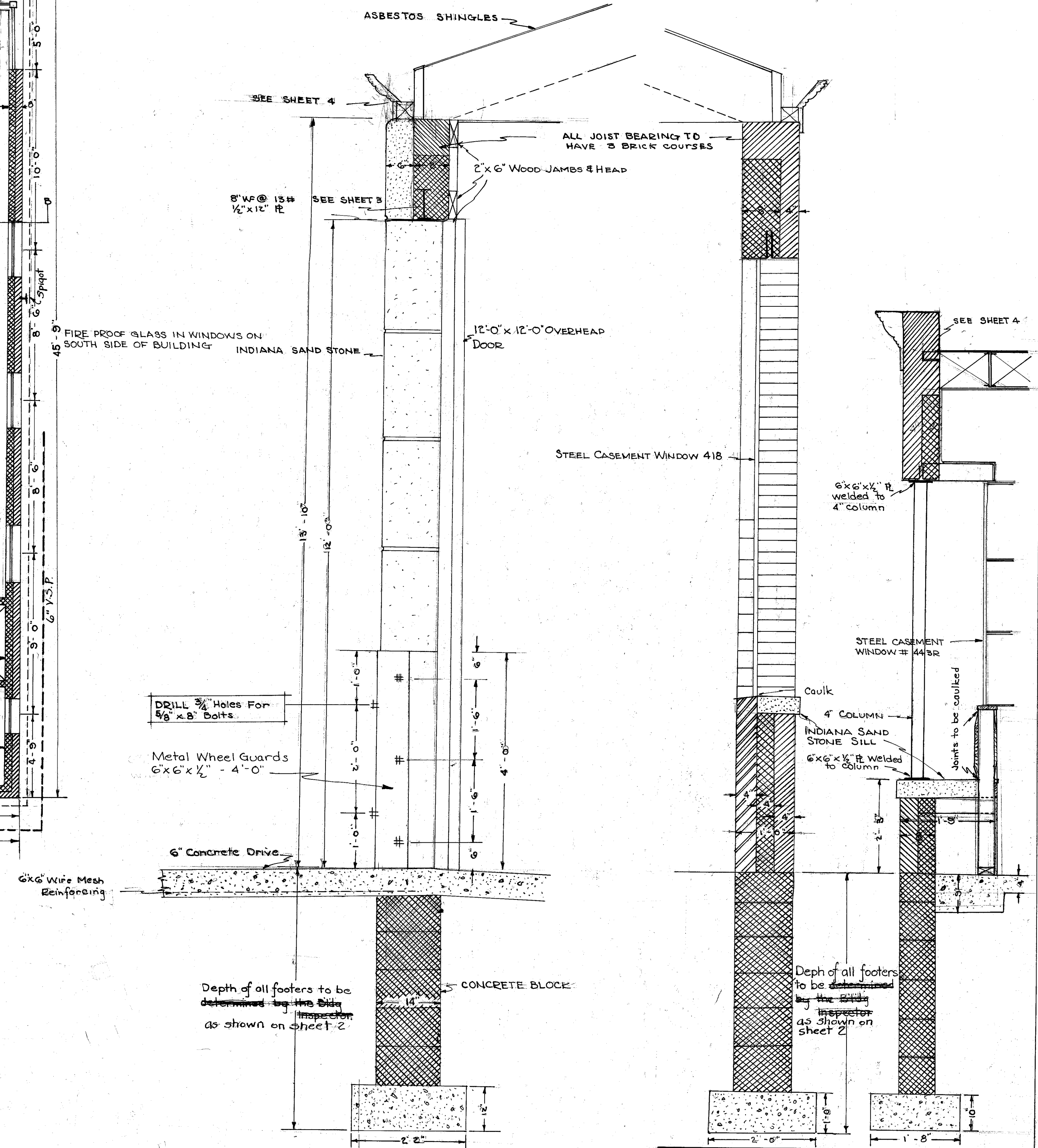
FLOOR PLAN
SCALE 1/4" = 1'-0"



DOOR DETAIL

SCHEDULE OF DOORS

1	12'-0" x 12'-0" OVERHEAD DOOR 2" x 6" JAMBS & HEAD-TRIM		
2	12'-0" x 12'-0" " " " "		
3	3'-0" x 6'-8" x 1 3/4"	PLASTER RET.	BRICK MOLD
4	3'-0" x 6'-8" x 1 3/4"	"	"
5	3'-0" x 6'-8" x 1 3/4"	"	"
6	2'-6" x 6'-8" x 1 3/4"	"	"
7	3'-0" x 6'-8" x 1 3/4"	PLASTER RET.	GLAZED TILE
8	3'-0" x 6'-8" x 1 3/4"	"	2- SIDES
9	3'-0" x 6'-8" x 1 3/4"	"	2- SIDES
10	3'-0" x 6'-8" x 1 3/4"	"	GLAZED TILE
11	3'-0" x 6'-8" x 1 3/4"	"	2- SIDES
12	2'-6" x 6'-8" x 1 3/4"	"	"
13	2'-6" x 6'-8" x 1 3/4"	"	"
14	3'-0" x 6'-8" x 1 3/4"	"	2- SIDES
15	3'-0" x 6'-8" x 1 3/4"	"	GLAZED TILE
16	2'-0" x 4'-0" x 3/4"	TOILET PARTITION DOOR	
17	3'-0" x 6'-8" x 1 3/4"	GLAZED TILE	PLASTER RET.
18	2'-8" x 6'-8" x 1 3/4"	PLASTER RET.	BRICK MOLD



WALL DETAIL
SCALE 3/4" = 1'-0"

CITY OF MASSILLON, OHIO
PROPOSED FIRE STATION # 3
 ON THE S.W. CORNER KENDAL AVE.
 N.E. & WALES RD. N.E.

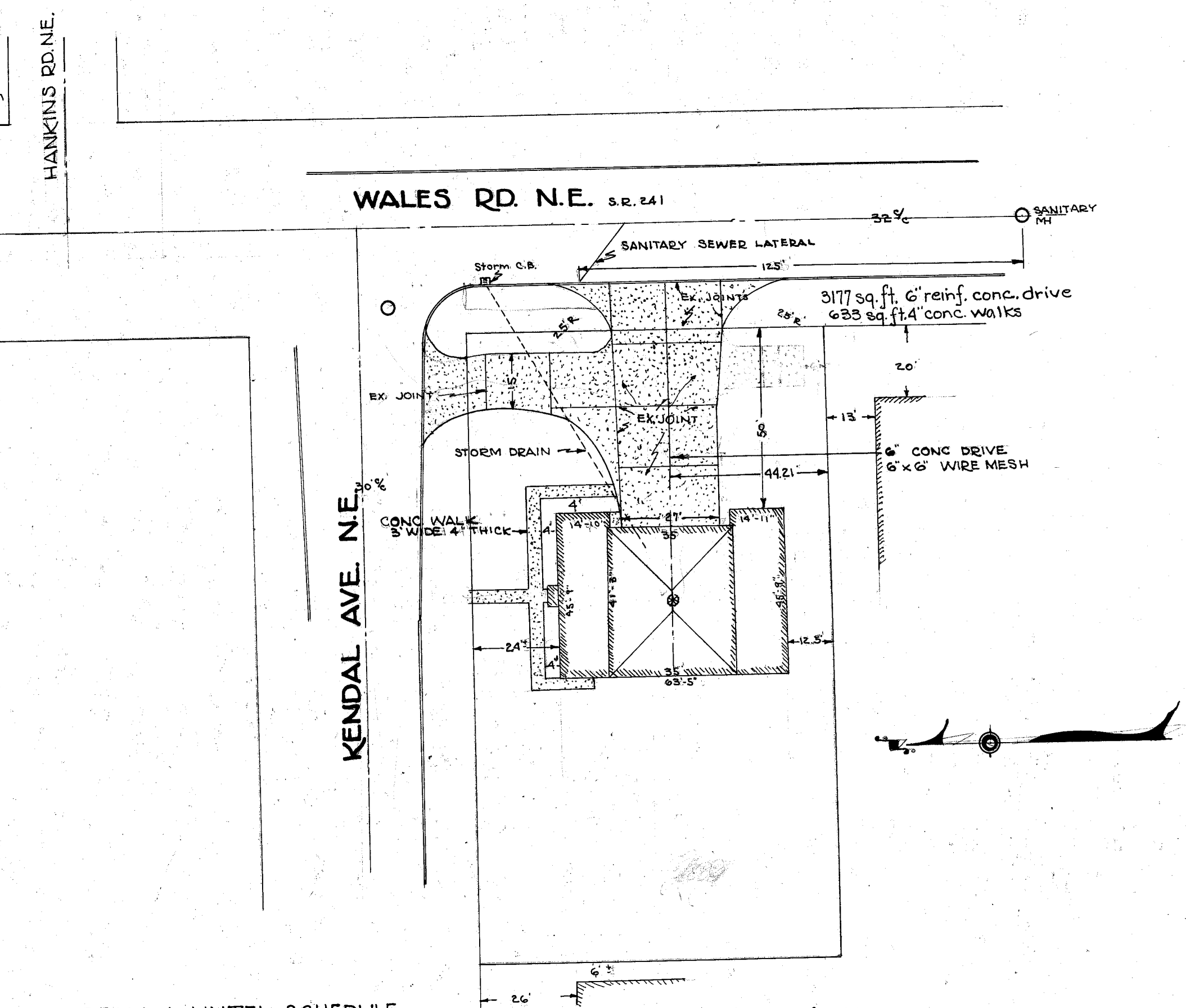
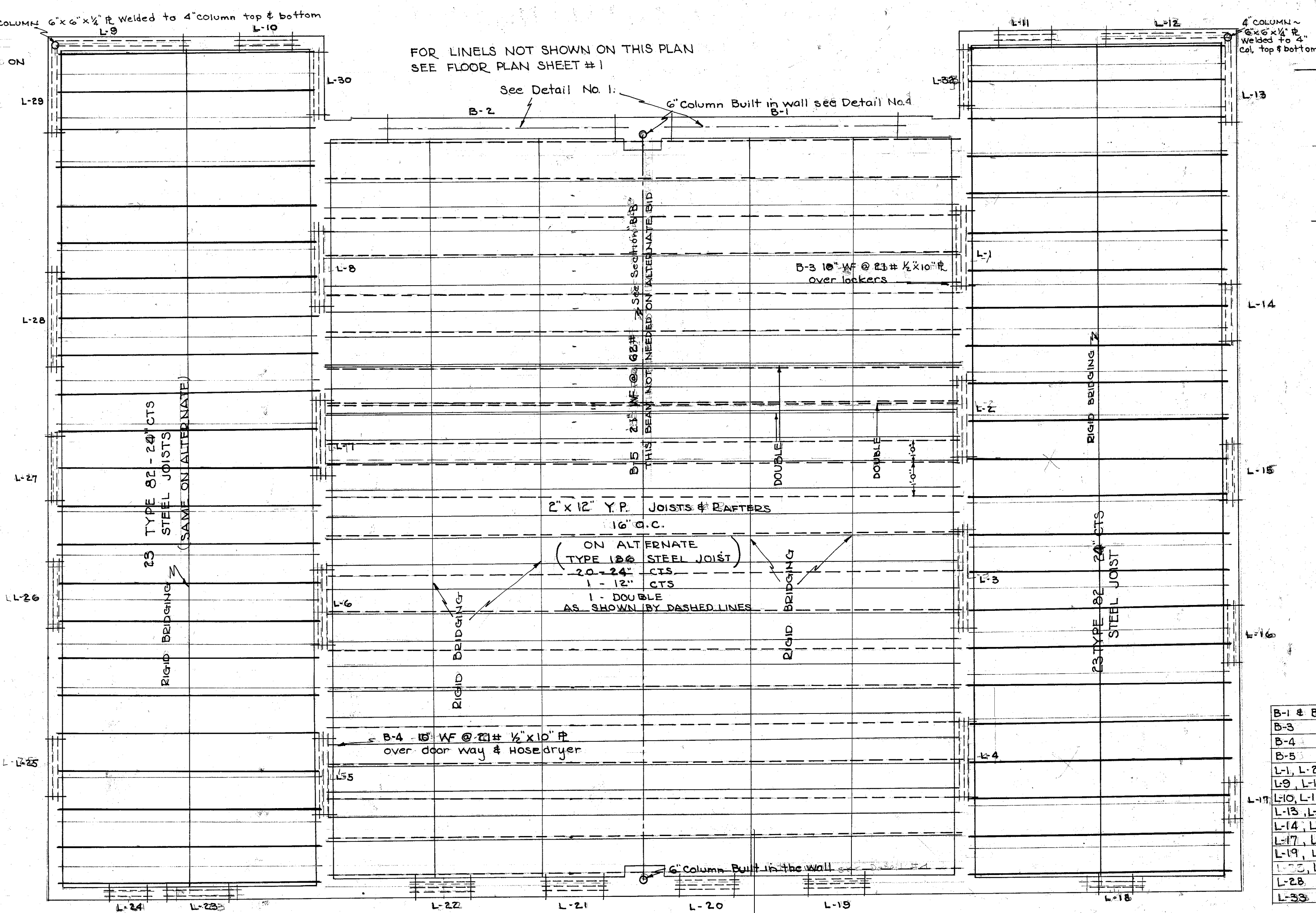
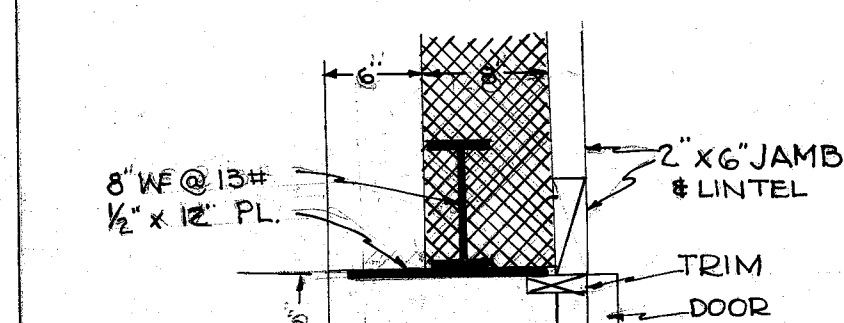
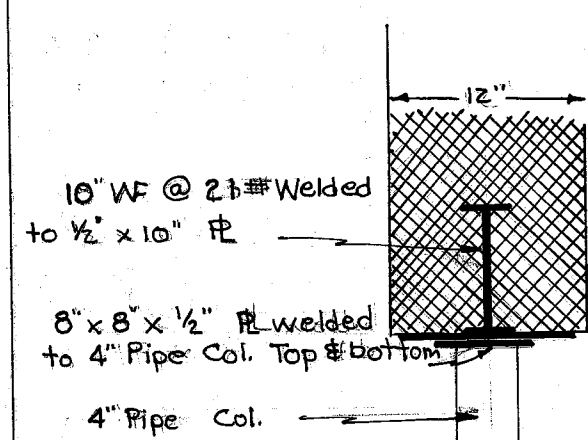
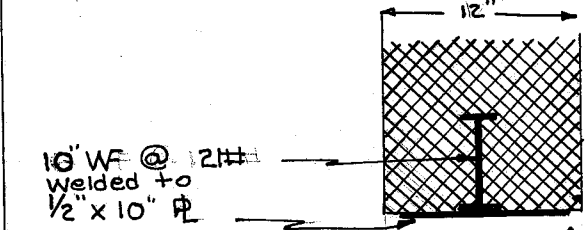
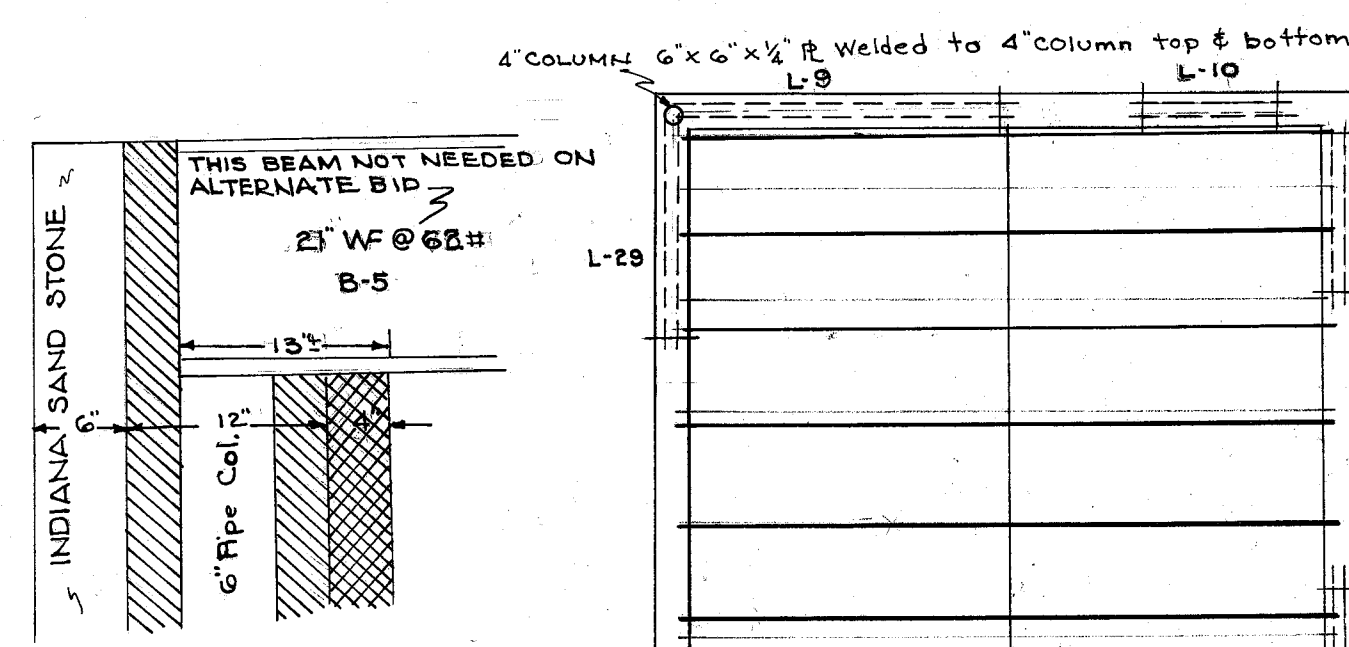
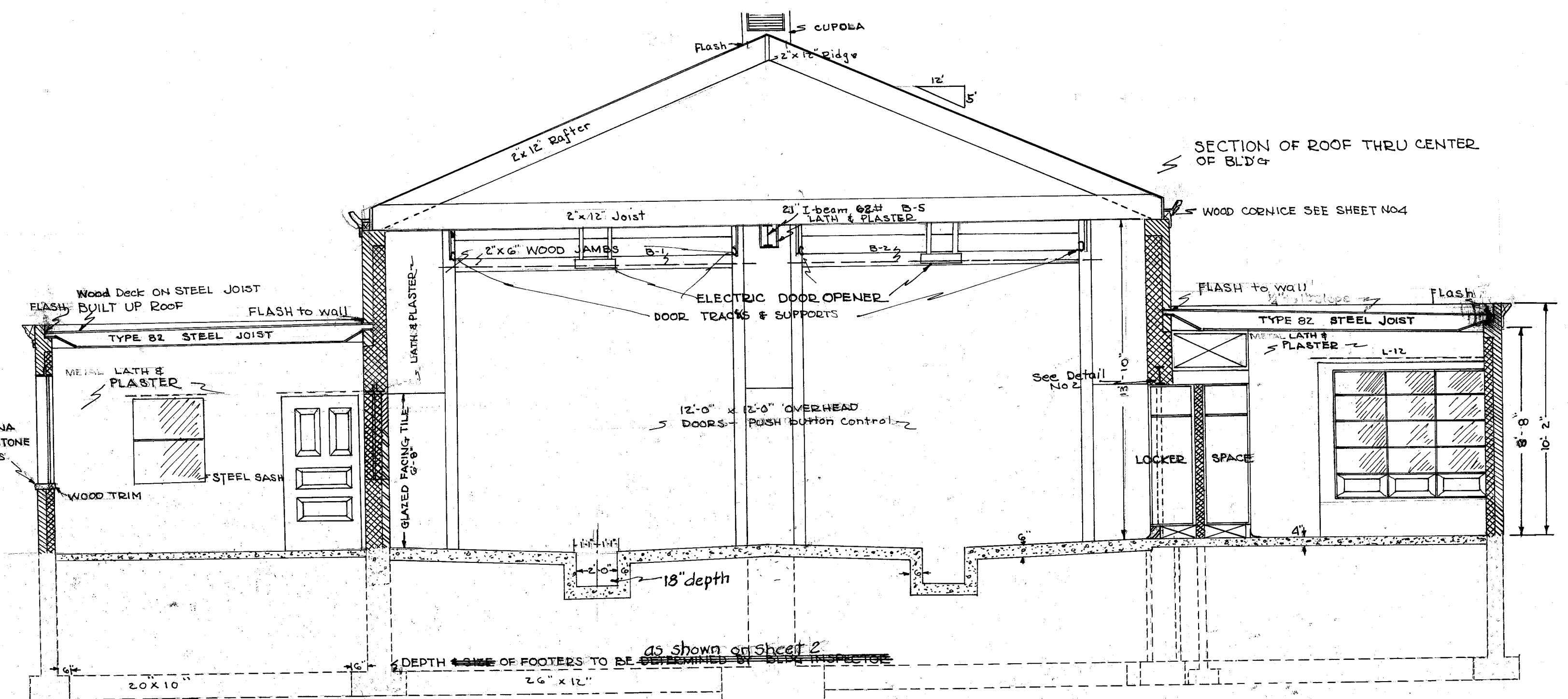
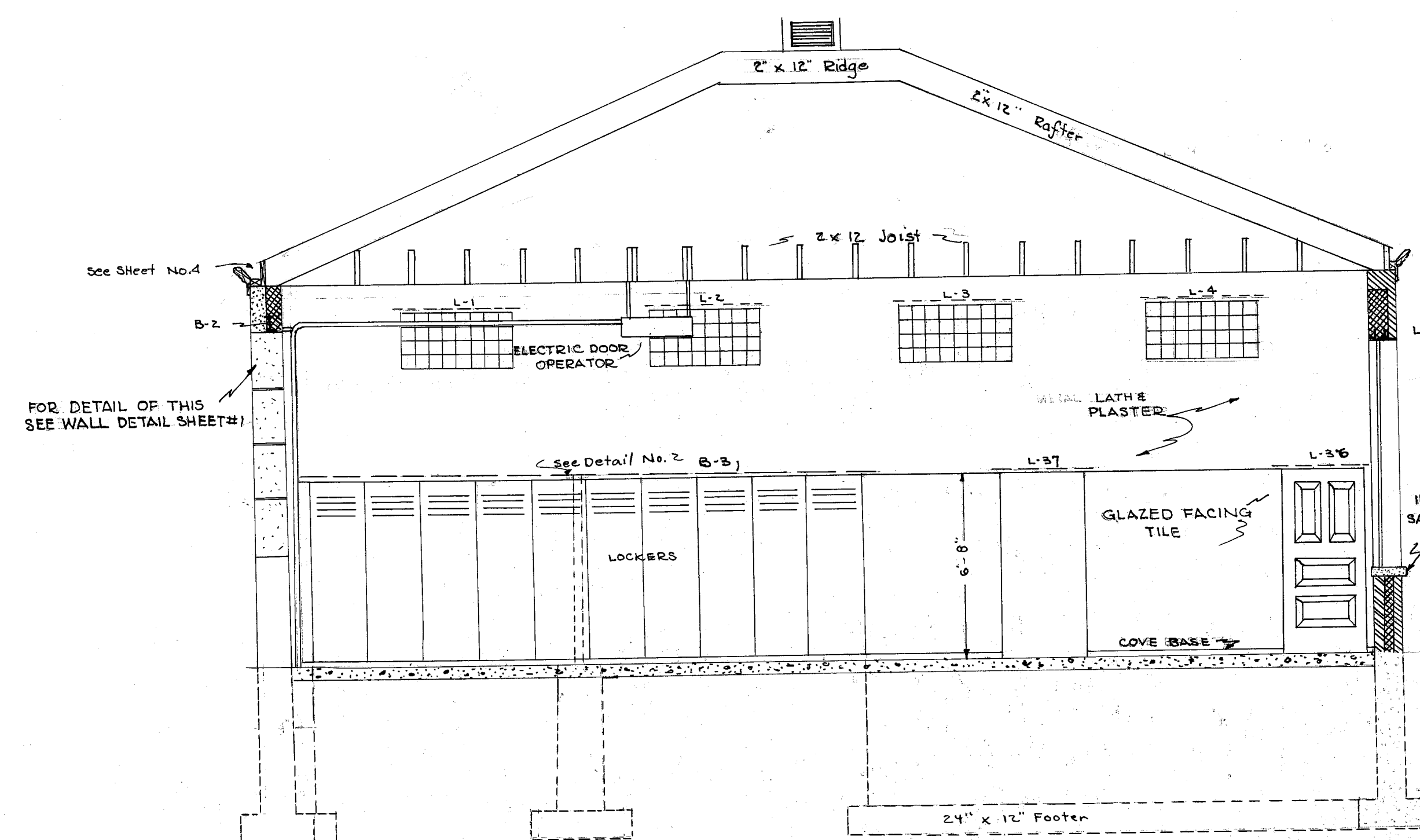
Approved: *Norm Brown*
 CITY ENGINEER

DEPT. OF PUBLIC SERVICE
 ENGINEERING DIVISION

DR BY B. WAGONER
 CK BY R. WAGNER

MAY 2-1950

FILE NO. M 356 ACC NO 1731
 BASE BID PLAN



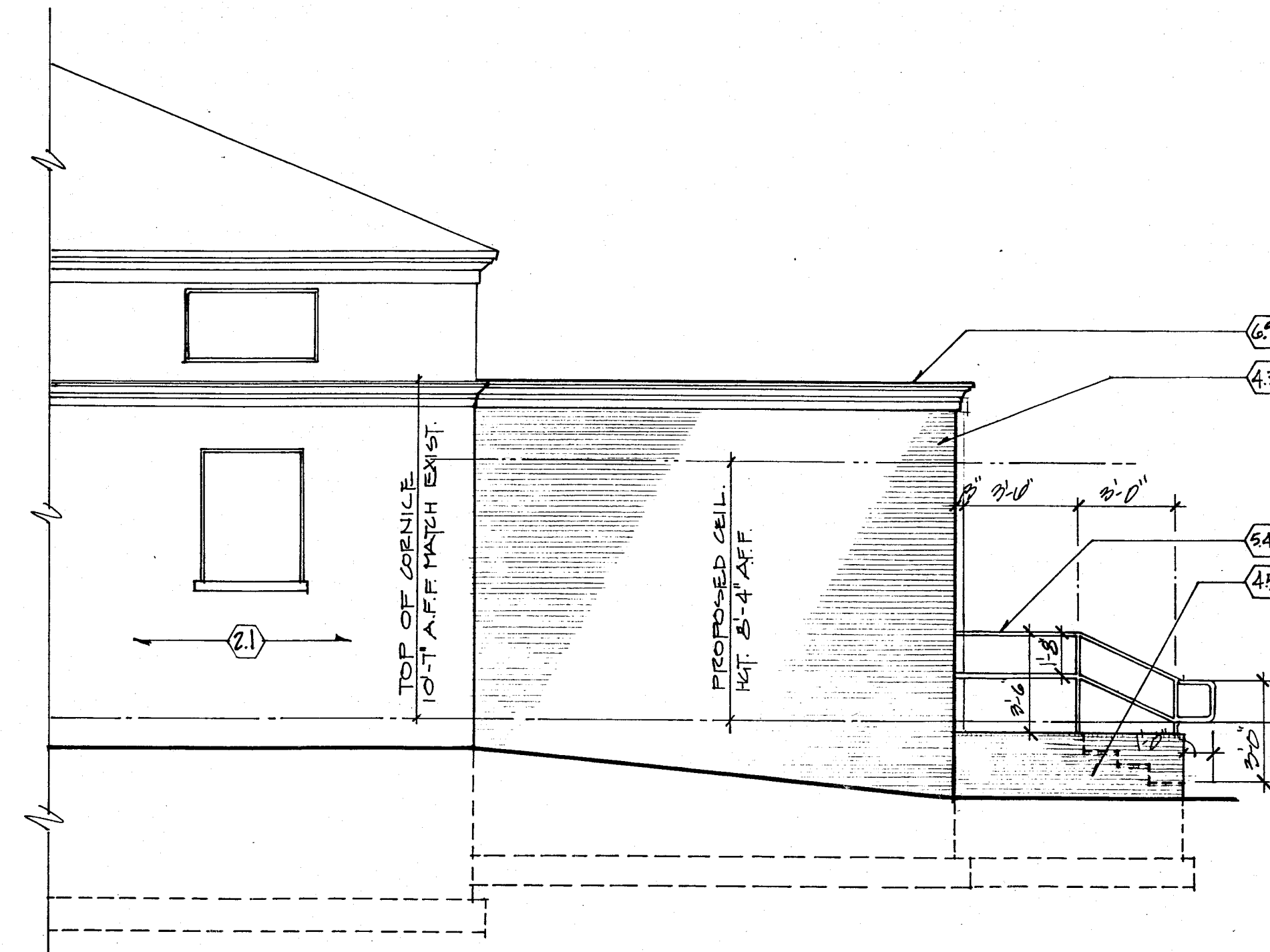
BEAM # LINTEL SCHEDULE						
B-1 # B-2	8" WF @ 13 #	1/2" x 10"	PLATE - See Detail - 1			I
B-3	8" WF @ 13 #	1/2" x 10"	" "	" "	2	I
B-4	6" WF @ 12 #	1/2" x 10"	" "	" "	3	I
B-5	15" WF @ 15 #		See Detail 4			I
L-1, L-2, L-3, L-4, L-5, L-6, L-7, L-8		4" x 6" Long	J/L		4 x 3 1/2 x 5/8	
L-9, L-12		7" x 3"	J/L		4 x 3 1/2 x 3/8	
L-10, L-11, L-22, L-25, L-26		3" x 6"	J/L		2 1/2 x 3 1/2 x 3/4	
L-13, L-23		5" x 0"	J/L		4 x 3 1/2 x 3/8	
L-14, L-15, L-16, L-26, L-23, L-27, L-30		4" x 0"	J/L		2 1/2 x 3 1/2 x 1/2	
L-17, L-18, L-24		2" x 3"	J/L		2 1/2 x 3 1/2 x 1/2	
L-19, L-20, L-21, L-22, L-31, L-32, L-34		4" x 0"	J/L		2 1/2 x 3 1/2 x 1/4	
L-35, L-36, L-37		4" x 0"	J/L		2 1/2 x 3 1/2 x 1/4	
L-28		5" x 0"	J/L		4 x 3 1/2 x 3/8	
L-33		5" x 0"	L		3 1/2 x 3 1/2 x 1/4	

PLAT PLAN
SCALE 1" = 30 FT

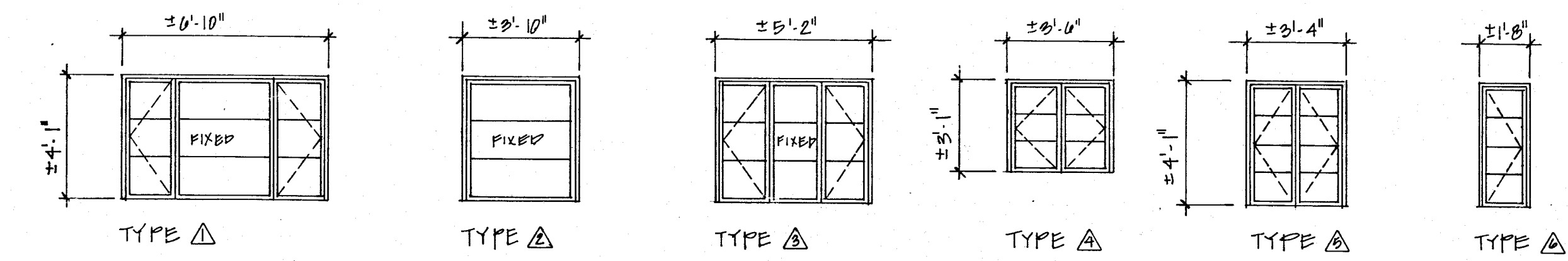
CITY OF MASSILLON, OHIO
PROPOSED FIRE STATION # 3
ON THE S.W. CORNER WALE RD. N.E.
KENDAL AVE. N.E.

Approved <i>J. M. Piper</i> CITY ENGINEER	DEPT. PUBLIC SERVICE ENGINEERING DIVISION
DR BY B. WAGONER. CK BY R. WALISNER	May 2 1950

FILE NO. M 3566 ACC NO. 1733
BASE BID PLAN



NORTH ELEVATION
SCALE - 1/4" = 1'-0"
(SOUTH ELEV. SIMILAR)

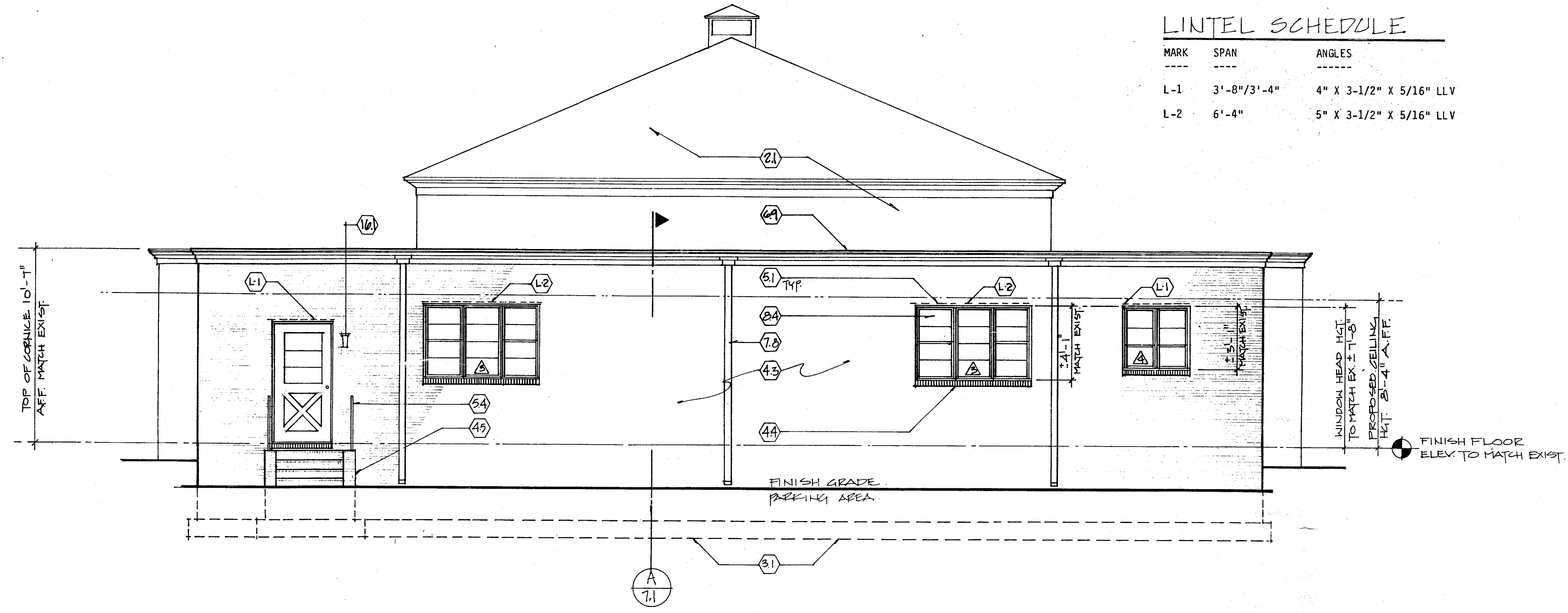


WINDOW SCHEDULE
1/4" = 1'-0"

NOTES:
CONTRACTOR VERIFY ALL DIMENSIONS AND WINDOW CONFIGURATIONS IN FIELD.
SEE PLAN, SHT. 4.1, FOR WINDOW TYPE LOCATION.
CONTRACTOR TO SELECT STANDARD WINDOW UNIT THAT BEST FITS INTO THE EXIST. OPENINGS PROVIDE REBLOCKING AS REQUIRED.

LINTEL SCHEDULE

MARK	SPAN	ANGLES
L-1	3'-8 3/4" X 3'-4"	4" X 3-1/2" X 5/16" LLV
L-2	6'-4"	5" X 3-1/2" X 5/16" LLV



WEST ELEVATION
SCALE - 1/4" = 1'-0"

KEYNOTES.

- 2.1 EXISTING CONSTRUCTION TO REMAIN
- 3.1 CONTINUOUS CONCRETE FOOTER WITH 2 - #4 CONTINUOUS REBAR
- 4.3 BRICK VENEER (MATCH EXISTING BRICK) - ATTACH TO CONCRETE BLOCK AND/OR WOOD STUDS AT 16" O.C. VERTICAL AND 24" O.C. HORIZONTAL
- 4.4 BRICK ROWLOCK SILL
- 4.5 STAIR - BRICK VENEER OVER 4" CMU AT SIDES. STAIR TREADS AND RISERS TO BE CONCRETE WITH 5" THROAT WITH 6 X 6 X 1.4 X 1.4 WMM AND BRICK VENEER
- 5.1 STEEL LINTEL (PAINTED). SEE SCHEDULE. WOOD FRAMING, HEADER (2)-2X10. 1-1/2" DIAMETER STEEL PIPE HANDRAIL 3'-6" H - PAINTED
- 5.4
- 6.9 WOOD FRAMED PARAPET AND CORNICE TO MATCH EXISTING
- 7.8 SCUPPERS AND DOWNSPOUT TO MATCH EXISTING. REPAIR ALL EXISTING DOWNSPOUT AND SCUPPERS TO PROPER WORKING CONDITION
- 8.4 INSTALL NEW VINYL GLAD WOOD (INSULATED) WINDOW UNIT IN NEW OPENING. COORDINATE WINDOW SIZE AND LOCATION WITH GENERAL CONTRACTOR
- 16.1 LIGHT FIXTURE BY ELECTRICAL CONTRACTOR
- 16.2 SMOKE DETECTOR BY ELECTRICAL CONTRACTOR

CITY OF MASSILLON
FIRE STATION 3
955 WALES ROAD N.E.
MASSILLON OHIO

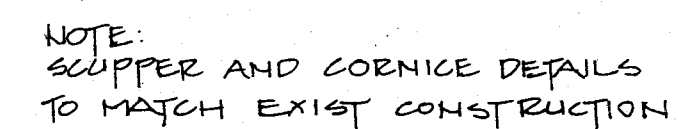
HARRIS/DAY ARCHITECTS
INCORPORATED
3821 WALES ROAD N.W.
MASSILLON, OHIO 44646
PHONE: 216-837-4248

REVISIONS:

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JOB NO. 2945 FIRE
DATE: FEB. 6, 1990
DWN. BY: JFP
CKD. BY:

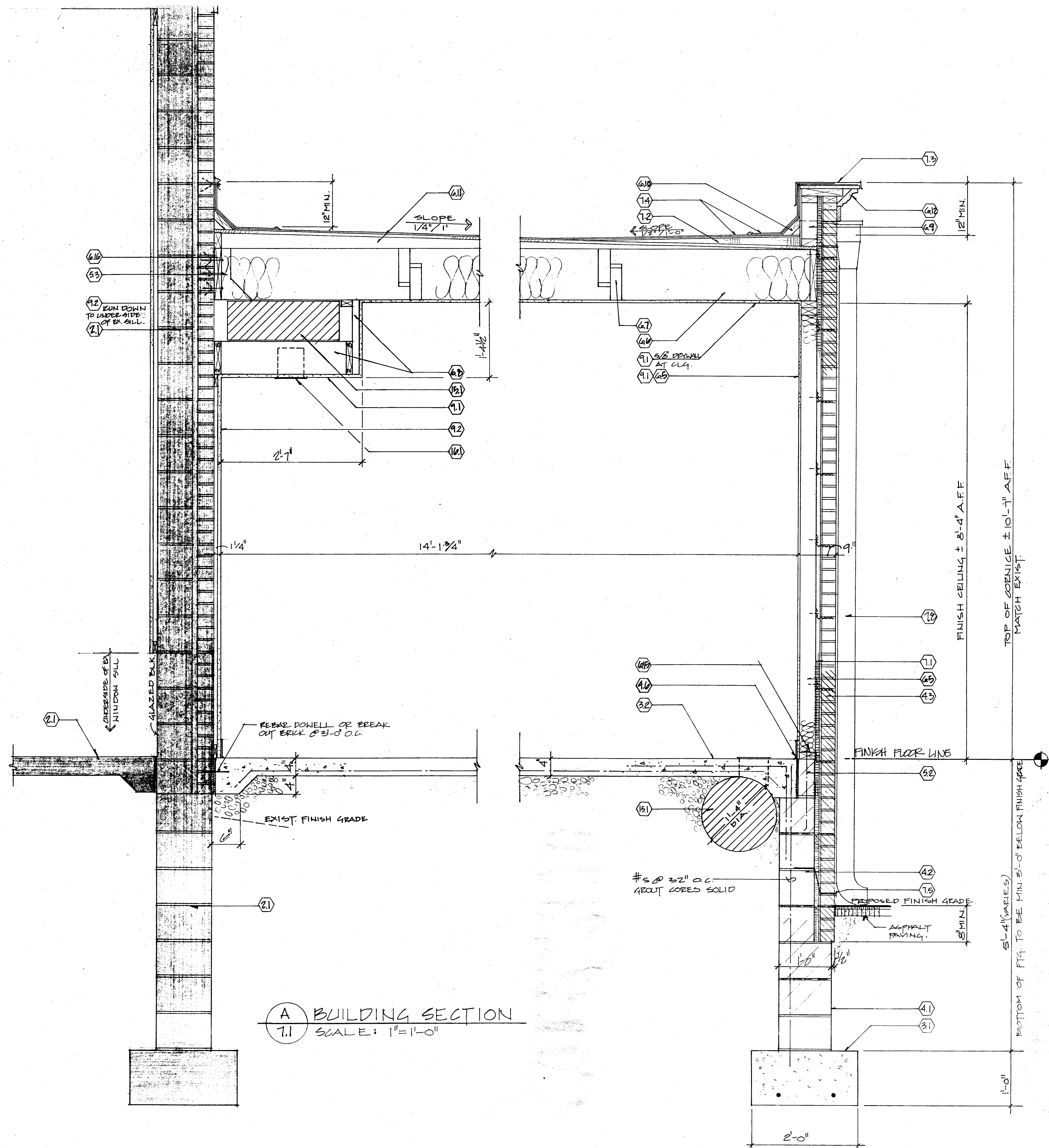
5.1



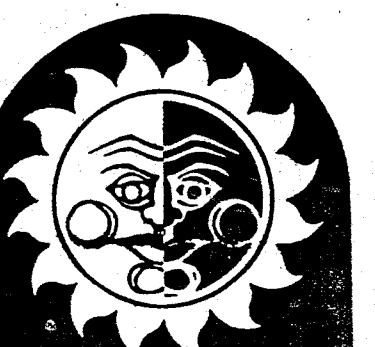
DETAIL @ SCUPPER.
N.T.S.

KEYNOTES

- | | | | |
|------|---------------------------------------|------|-------------------------------------|
| 0.1 | CONTINUOUS CONCRETE FOOTER WITH | 1.1 | 3/4" SHEATHING INSULATION |
| 0.2 | 2 - 4" CONTINUOUS REBAR | | R = 3.75 OVER 2 X 4 STUD WALL |
| 3.2 | 4" CONCRETE SILL WITH 6 X 6 #10/10 | | WITH CORNER BRACING |
| | WMV OVER 6" VAPOR BARRIER OVER | 7.2 | TAPERED ROOF INSULATION |
| | 6" COMPACTED GRAVEL BASE | | SLOPE 1/2" PER 1'-0" |
| 4.1 | 12" CONCRETE BLOCK WALL WITH | 7.3 | ALUMINUM CAP FLASHING. MATCH |
| | REINFORCED CORES. VERTICAL #5 | | EXISTING |
| | AT 2'-8" O.C. HORIZONTAL (TRUSS | 7.4 | BUILT-UP ROOF SYSTEM |
| | TYPE) 1'-4" O.C. | 7.5 | THROUGH WALL FLASHING. PROVIDE |
| 4.2 | 8" CONCRETE BLOCK WALL WITH | | WEEP HOLES AT 4'-0" O.C. |
| | REINFORCED CORES. VERTICAL #5 | 7.7 | 1-1/2" FOUNDATION WALL INSULATION |
| | AT 2'-8" O.C. HORIZONTAL (TRUSS | | (R = 7.5 COMPREHENSIVE STRENGTH |
| | TYPE) 1'-4" O.C. | | 40 PSI) |
| 4.3 | BRICK VENEER (MATCH EXISTING BRICK) | 7.8 | SCUPPERS AND DOWNSPOUT TO MATCH |
| | - ATTACH TO CONCRETE BLOCK AND/OR | | EXISTING. REPAIR ALL EXISTING |
| | WOOD STUDS AT 16" O.C. VERTICAL AND | | DOWNSPOUT AND SCUPPERS TO PROPER |
| | 24" O.C. HORIZONTAL | | WORKING CONDITION |
| 4.6 | 1/2" EXPANSION JOINT | 9.1 | 1/2" GYPSUM DRYWALL |
| 5.2 | 1/2" DIAMETER X 16" ANCHOR BOLT | 9.2 | 1/2" GYPSUM DRYWALL OVER 1 X 3 WOOD |
| | WITH 4" HOOK 4'-0" O.C. GROUT | | FURRING AT 16" O.C. ENTIRE |
| | CORES SOLID - OR PROVIDE STRAP ANCHOR | | WORK OF EQUIP. ROOM |
| 5.3 | METAL JOIST HANGER | 15.1 | DUCTWORK BY MECHANICAL CONTRACTOR |
| | | 16.1 | LIGHT FIXTURE BY ELECTRICAL |
| | | | CONTRACTOR |
| | 2 X 4 STUD WALL AT 16" O.C. WITH | | |
| | CORNER BRACING 3-1/2" KRAFT FACED | | |
| | INSULATION (R = 11-1/2) | | |
| 6.6 | 2 X 12 ROOF RAFTERS AT 24" O.C. | | |
| | WITH FOIL FACED INSULATION 12" | | |
| | (R = 36). "VAPOR BARRIER | | |
| | REQUIRED". TAPE ALL JOINTS IN | | |
| | FOIL FACE | | |
| 6.7 | 1 X 3 WOOD CROSS BRACING AT | | |
| | 1/3 SPANS | | |
| 6.8 | 2 X 2 SOFFIT FRAMING AT 24" | | |
| | O.C. COORDINATE WITH MECHANICAL | | |
| | AND ELECTRICAL CONTRACTOR | | |
| 6.9 | WOOD FRAMED PARAPET AND CORNICE | | |
| | TO MATCH EXISTING | | |
| 6.10 | 2 X 6 CANT. BLOCK | | |
| 6.11 | 3/4" CDX PLYWOOD SHEATHING OVER | | |
| | 2 X 4 SLOPE MEMBER, 4" AT | | |
| | EXISTING WALL TO 0" AT NEW | | |
| | OUTSIDE WALL | | |
| 6.12 | WOOD FRAMED CORNICE. DETAILS TO | | |
| | MATCH EXISTING | | |
| 6.15 | WOLMANIZED WOOD SILL PLATE | | |
| 6.16 | 2X12 LEDGER BOLTED TO | | |
| | WALL WITH (2) 3/4" Ø EXPANSION | | |
| | BOLTS 24" OC (STAGGER BOLTS) | | |



CITY OF MASSILLON
FIRE STATION 3
955 WALES ROAD N.E.
MASSILLON OHIO



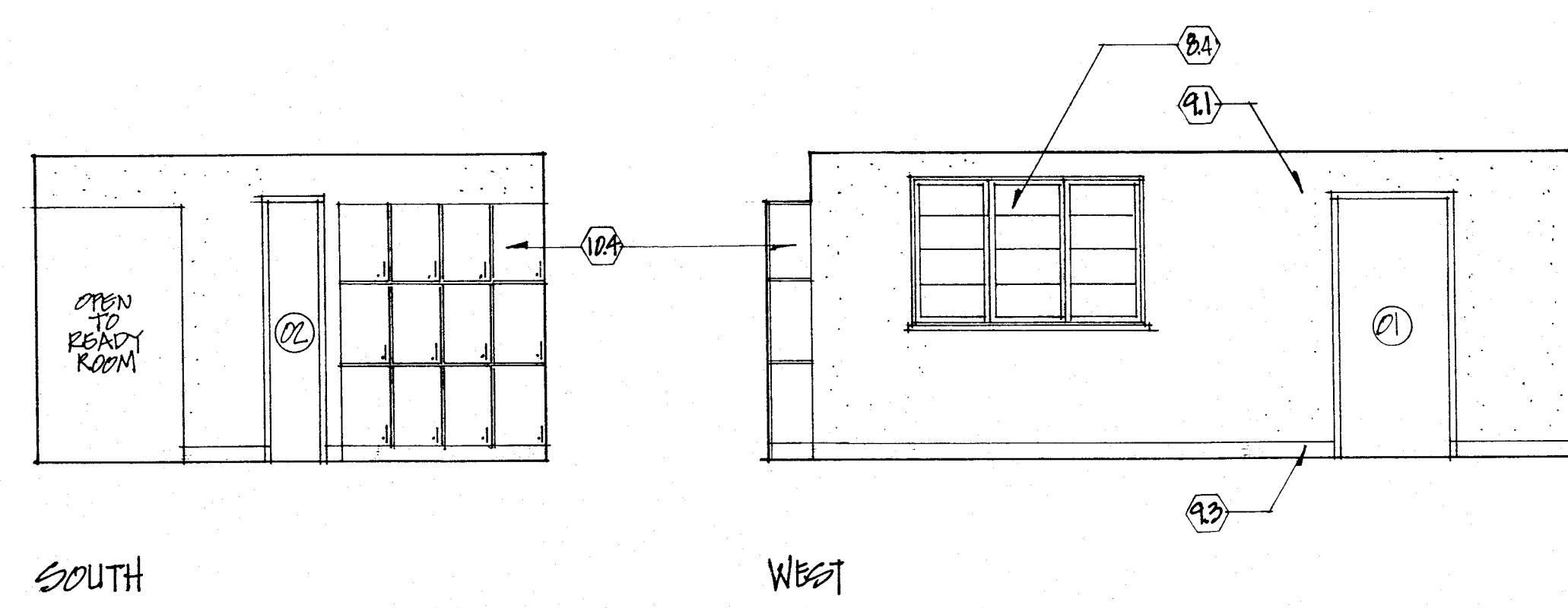
HARRIS/DAY ARCHITECTS

INCORPORATED
821 WALES ROAD N.W.
MASSILLON, OHIO 44646
PHONE: 216-837-4248

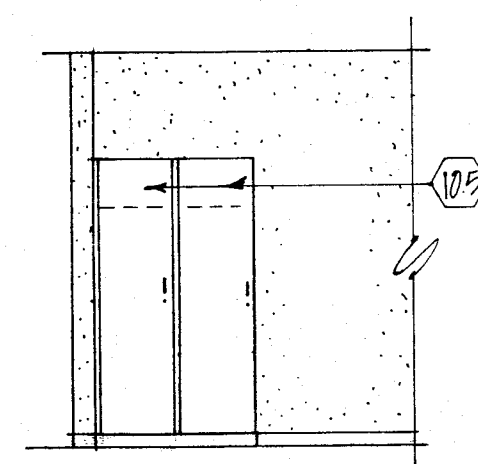
REVISIONS:

DB NO: 8945 FIRE
DATE: FEB 5, 1990.
OWN. BY: J.P.P.
KD. BY:

7. 1

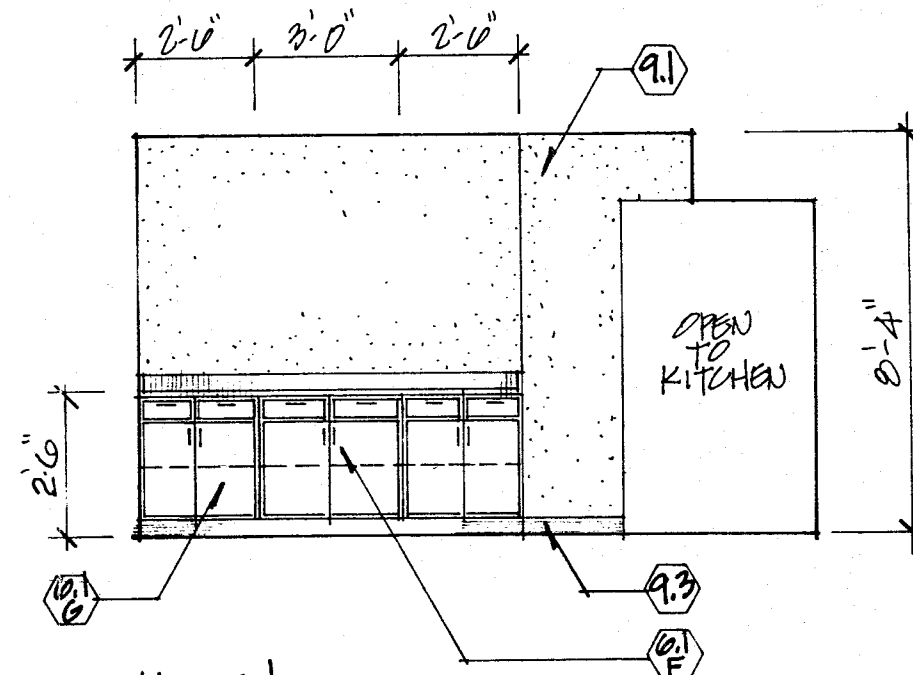


01 KITCHEN

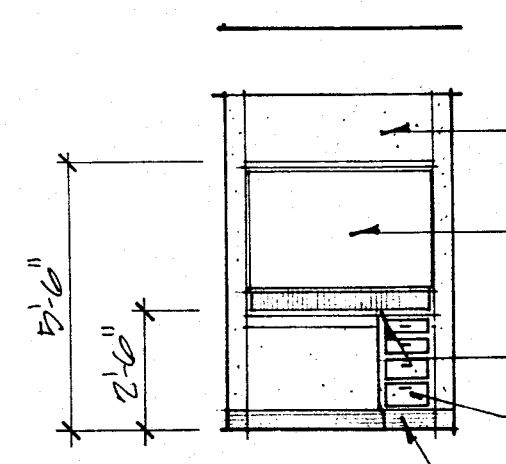


SOUTH

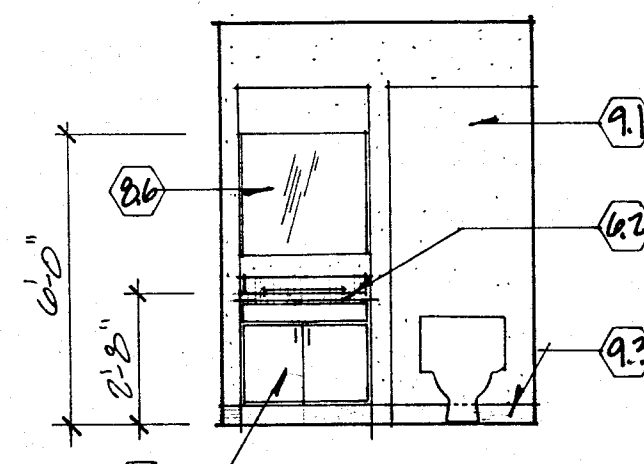
06 W. BATH.



03 READY ROOM

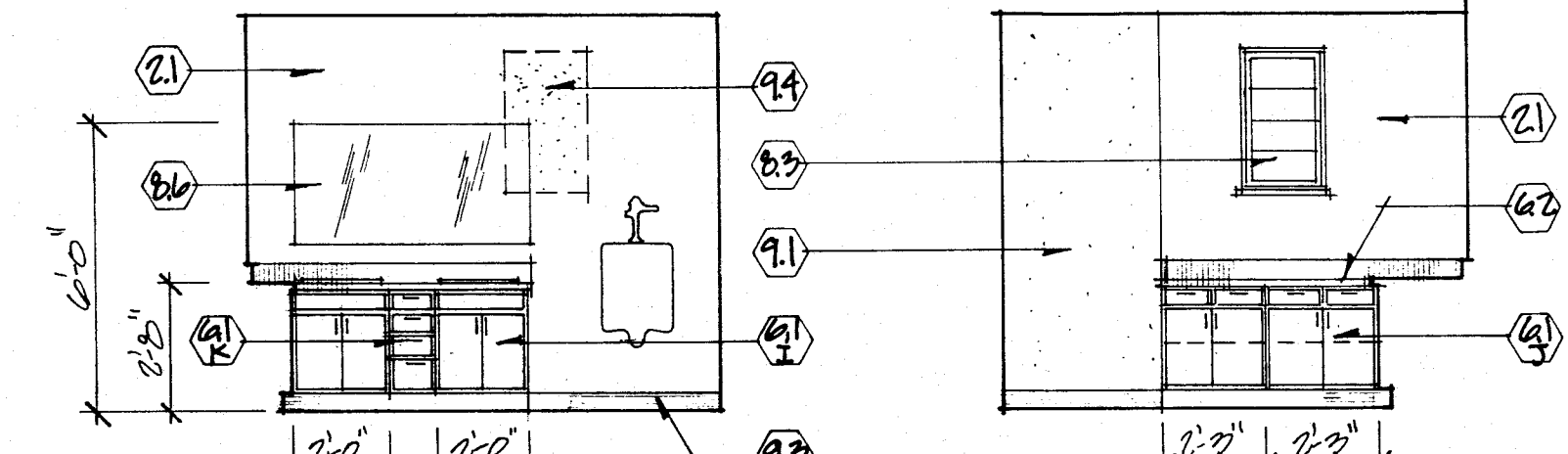


WEST (PARTIAL)
(BETWEEN READY
ROOM & KITCHEN)



NORTH

06 W. BATH



07 M. BATH

ROOM FINISH SCHEDULE						
ROOM	RM. #	FLOORS	BASE	WALLS	C.G.	MISC
KITCHEN	01	SHEET VINYL ✓	VINYL COVE ✓	DRYWALL / PAINTED	DRYWALL / PAINTED	CASEWORK / SHOWN. SEE SHEET 9.1
BROOM CLOSET	02	SHEET VINYL ✓	VINYL COVE ✓	DRYWALL / PAINTED	DRYWALL / PAINTED	TWO SHELVES
READY ROOM	03	CARPET ✓	STRAIGHT VINYL ✓	DRYWALL / PAINTED	DRYWALL / PAINTED	CASEWORK / SHOWN. SEE SHEET 9.1
CLOSET	04	CARPET ✓	STRAIGHT VINYL ✓	DRYWALL / PAINTED	DRYWALL / PAINTED	COAT ROD & ONE SHELF
WOMEN'S DORM	05	CARPET ✓	STRAIGHT VINYL ✓	DRYWALL / PAINTED	DRYWALL / PAINTED	
WOMEN'S BATH	06	SHEET VINYL ✓	VINYL COVE ✓	DRYWALL PAINTED	DRYWALL / PAINTED	CASEWORK / SHOWN. SEE SHEET 9.1
MEN'S BATH	07	SHEET VINYL ✓	VINYL COVE ✓	NEW/EXIST DRYWALL PAINTED	NEW 2X2 ACT 5/99	CASEWORK / SHOWN. SEE SHEET 9.1
STOR./MECH	08	CONCRETE SEALED ✓	VINYL COVE ✓	DRYWALL / PAINTED	DRYWALL / PAINTED	
EXIST MEN'S DORM	-	CARPET ✓	-	-	-	*
EXIST EQUIP. ROOM	-	-	-	DRYWALL / PAINTED/ PAINT ABOVE GLAZED BLOCK	PAINTED	
EXIST READY ROOM	-	CARPET (3 LOGO TO REMAIN EXPOSED) ?	-	-	-	*
EXIST COMMUNICATION ROOM	-	CARPET	-	-	-	*

CASEWORK SCHEDULE

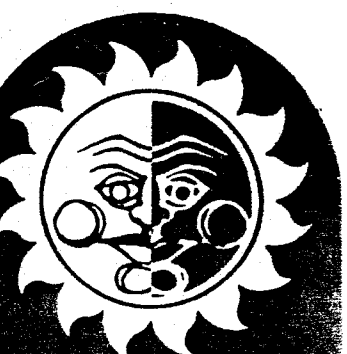
61	A.	WALL CABINET (36 X 12 X 12)	✓
61	B.	WALL CABINET (18 X 30 X 12) WITH TWO (2) SHELVES	✓
61	C.	WALL CABINET (30 X 30 X 12) WITH TWO (2) SHELVES	✓
61	D.	BASE CABINET (18 X 36 X 24) WITH ONE (1) DRAWER, ONE (1) SHELF	✓
61	E.	BASE CABINET (36 X 36 X 24) SINK CABINET	✓
61	F.	BASE CABINET (36 X 36 X 24) WITH TWO (2) DRAWERS, ONE (1) SHELF	✓
61	G.	BASE CABINET (30 X 36 X 24) WITH TWO (2) DRAWERS, ONE (1) SHELF	
61	H.	BASE CABINET (32 X 32 X 24) SINK CABINET	
61	I.	BASE CABINET (24 X 32 X 24) SINK CABINET	
61	J.	BASE CABINET (27 X 32 X 12) WITH TWO (2) DRAWERS, ONE (1) SHELF	
61	K.	BASE CABINET (12 X 32 X 24) WITH FOUR (4) DRAWERS	

* SEE SHEET 4: FOR EXISTING DOORS TO BE PAINTED

KEYNOTES.

- 2.1 EXISTING CONSTRUCTION TO REMAIN
- 6.1 CASEWORK SCHEDULE (SEE DWG. 9.1)
- 6.2 PLASTIC LAMINATE COUNTERTOP,
NOSING AND BACK SPLASH
- 8.3 REMOVE EXISTING WINDOW UNIT.
INSTALL NEW VINYL GLAD WOOD (INSULATED)
WINDOW UNIT IN EXISTING OPENING.
PROVIDE WOOD BLOCKING AS REQUIRED.
CAULK AND SEAL.
- 8.4 INSTALL NEW VINYL GLAD WOOD (INSULATED)
WINDOW UNIT IN NEW OPENING.
COORDINATE WINDOW SIZE AND
LOCATION WITH GENERAL CONTRACTOR
- 8.6 PLATE GLASS MIRROR (1) 2'-8" X
2'-6", (1) 5'-0" X 2'-6"
- 9.1 1/2" GYPSUM DRYWALL
- 9.3 4" VINYL BASE
PATCH WITH DRYWALL TO MATCH EXISTING
- 10.2 MESSAGE BOARD
- 10.4 FOOD LOCKERS - (12) 1'-6" X 2'-0"
X 1'-6" WITH 8" ADJUSTABLE SHELF,
PLASTIC LAMINATE, LOCKABLE,
NUMBERED 1-D.
LOCK: DISC, CAM TYPE, 2 KEYS, EA. DOOR.
- 11.1 KITCHEN EQUIPMENT BY OWNER
- A. STOVE/RANGE
- B. REFRIGERATOR
- C. 30" EXHAUST HOOD.
- 105 WOMEN'S TOILET LOCKER
(2) 1'-6" X 6'-0" X 1'-6" 1/4" 12"
SHELF AT TOP PLASTIC LAM
AND PRACTICAL RECK CONSTRUCTION
LOCKABLE: DISC CAM TYPE
2 KEYS EACH DOOR
(2) 6'-0" X 1'-6" X 1'-6" 1/4" 12"
HOCKER

**CITY OF MASSILLON
FIRE STATION 3
995 WALES ROAD N.E.
MASSILLON OHIO**



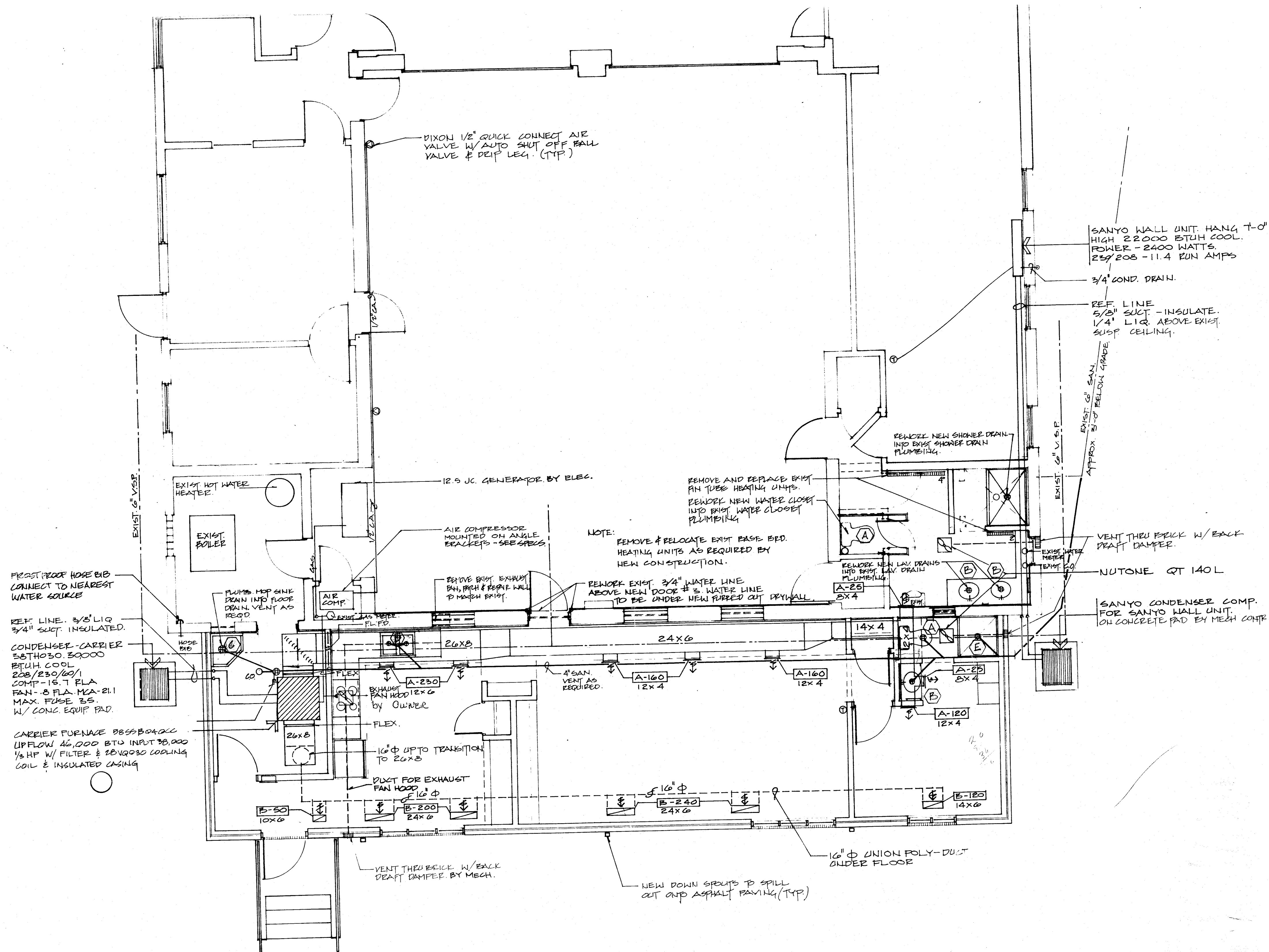
HARRIS DAY ARCHITECTS

INCORPORATED
21 WALES ROAD N.W.
MASSILLON, OHIO 44646
PHONE: 216-837-4248

REVISIONS:
 1 REVISED 15. MAR 90

OB NO: 8945 FIRE
DATE: FEB. 5, 1990
OWN. BY: D.R.F.
CKD. BY:

9.1



PLUMBING FIXTURE SCHEDULE

SYM	DESCRIPTION	PIPING CONNECTIONS				MOUNTING HEIGHT
		HW	CW	TRAP	WASTE	
A	AMERICAN STANDARD #2108.408 18" HIGH ELONGATED "CADET" VITREOUS CHINA WATER CLOSET WITH CLOSE COUPLED TANK, OPEN FRONT SEAT AND SUPPLY WITH STOP.	-	1/2"	INT	3"	FLOOR SET
2						
B	AMERICAN STANDARD #0475.279 20" X 17" COUNTERTOP "AQUALYN" VITREOUS CHINA LAVATORY WITH CHICAGO #74GA-E12 FAUCET WITH POP-UP WASTE, SUPPLIES WITH STOPS, ADJ "P" TRAP AND WALL HANGER. INSULATE HOT WATER SUPPLY AND WASTE PIPE EXPOSED BELOW FIXTURE WITH 1/2" ARMSTRONG ARMAFLEX INSULATION.	1/2"	1/2"	1-1/4"	2"	COUNTER
3						
C	FIAT #MSB-2424 24" X 24" MOP SERVICE BASIN OF MOLDED STONE WITH CHICAGO #897 FAUCET	1/2"	1/2"	3"	3"	FITTING 36"
/						
D	ELKAY #LR-2918 29" X 18" X 7-1/2" DEEP DOUBLE BOWL STAINLESS STEEL SINK WITH DELTA #100 SINGLE LEVER FAUCET, SUPPLIES WITH STOPS, ADJ. "P" TRAP, CRUMB CUP STRAINER IN LEFT BOWL AND DELTA #333	1/2"	1/2"	1-1/4"	3"	COUNTER
/						
E	KOHLER K-1597 "CANCON" 48" FIBERGLASS REINFORCED PLASTIC SHOWER COVE, FAUCET AND SHOWER HEAD K-7226-T, DRAIN K-9132 CROME FINISH. PROVIDE AND INSTALL HEAVY DUTY SHOWER ROD AND CURTAIN.	1/2"	1/2"	1-1/4"	3"	AS REQUIRED BY MANUFACTURER
/						
FD	REMOVABLE SPINLESS STEEL STRAINER PLATE ON HUB OF 3" WASTE.	-	-	3"	3"	FLOOR
#1						

NOTES: CONNECT ALL REQUIRED HOT AND COLD WATER PIPING TO NEAREST AVAILABLE EXIST. PLUMB. SYSTEM.
CONNECT ALL GAS FIRED EQUIPMENT & APPL. TO NEAREST EXIST. GAS LINE.

LOUVER SCHEDULE

I.D.	MFG.	MODEL
A	LIMA	SERIES 100VH
B	LIMA	SERIES 35

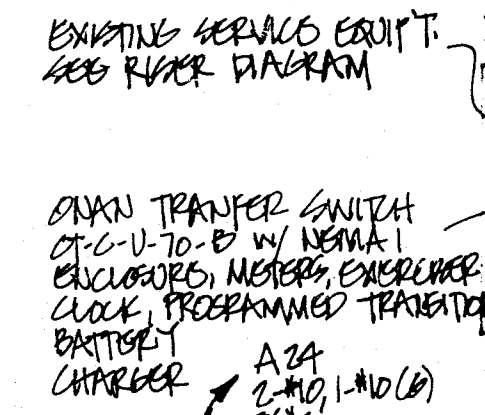
CITY OF MASSILLON
FIRE STATION 3
955 WALES ROAD N.E.
MASSILLON OHIO

HARRIS DAY
ARCHITECTS
INCORPORATED
3821 WALES ROAD N.W.
MASSILLON, OHIO 44646
PHONE: 216-837-4248

REVISIONS:
Δ REVISED 15. MAR. 90

JOB NO. 8945 FIRE
DATE: FEB. 8, 1990.
DWN. BY: J.F.P.
CKD. BY:

M-1



- NOTE:
CAREFULLY COORDINATE ALL WORK WITH
MECHANICAL AND PLUMBING CONTRACTORS
TO AVOID CONFLICT WITH DUCTS, PIPING
AND OTHER EQUIPMENT

E-1

 LIGHTING/POWER PLAN
SCALE - 1/4" = 1'-0"

1. GENERAL CONDITIONS: SEE BID PACKAGE

2. SITE WORK:

Contractor shall provide necessary labor, materials, and equipment to perform all site work shown as specified in these documents.

- a. Excavate, fill, and regrade site to finish grades as directed. Slope all lawn areas and paving away from building. Contractor shall spot elevations at critical points as directed by Architect prior to starting grading. Provide fences, barricades, and/or lights around all open trenches, excavations, and other hazards as required.

- b. The General Contractor shall provide 4" topsoil evenly spread over all lawn areas disrupted/damaged during construction and seeded as follows:

- 1) Loosen, fine grade, rework, rake, and remove all debris and stones larger than 3/4".

- 2) Fertilize with 12-12-12 turf food at a rate of 20 pounds per 1000 square feet.

- 3) Seed shall be 20% Park Kentucky Bluegrass, 30% Glade Kentucky Bluegrass, 30% Baron Kentucky Bluegrass, and 20% Pennlawn Red Fescue at 4 pounds per 1000 square feet.

- 4) Mulch all lawn areas with clean straw mulch at 2-1/2 tons per acre.

c. Asphalt Paving "ALTERNATES-1"

- 1) Regrade and shape existing stone base for complete drainage of the paved area. Provide State Spec 304 gravel as required.

- 2) Prime coat - MC-30 (State Spec 408)

- 3) 2-1/2" binder course (State Spec 301)

- 4) 1" surface course (State Spec 404)

- 5) If paving Alternate is not chosen, Base Bid requires regrading and repairs to existing parking after construction to return area to existing condition.

d. SOIL TREATMENT SOLUTION: Provide soil treatment for termite control.

- 1) Use an emulsible concentrate insecticide for dilution with water, specially formulated to prevent infestation by termites. Fuel oil will not be permitted as a diluent. Provide a working solution of one of the following chemical elements and concentrations.

- 2) Execution: Remove foreign matter which could decrease effectiveness of treatment on areas to be treated. Loosen, rake and level soil to be treated, except previously compacted areas under slab and foundations. Toxicants may be applied before placement of compacted fill under slabs, if recommended by toxicant manufacturer.

Apply one gallon of chemical solution per 10 sq. ft. as an overall treatment under slab and attached slab areas where fill is soil or unwashed gravel. Apply 1-1/2 gallons of chemical solution to areas where fill is washed gravel or other course absorbent material.

3. CONCRETE:

- a. Furnish all labor, materials and services to complete all concrete work as indicated and/or specified, generally consisting of:

b. MATERIALS:

- 1) Water: fit to drink.

- 2) Cement: Portland cement shall conform to the Standard Specifications of the ASTM C150. Type as required.

- 3) Aggregates: Conform to ASTM C-33.

- 4) Reinforcing:

- (a) Reinforcing steel to be grade 60 ASTM A615.

- (b) Mesh: welded wire fabric, ASTM A-185.

- (c) All reinforcing shall be free of scales, foreign coating or rust which reduce bond.

- 5) Provide air entraining admixtures for exterior concrete to produce a total entrained air content in the concrete of between 5% and 7% by volume of the concrete as determined by direct measurement or by ASTM C-260.

- 6) Joint Sealant: Sonneborn Sonotread.

- 7) Curing and Hardening: Sonneborn Kure-N-Seal or Master Builders MasterSeal.

- 8) Granular Fill: No. 6 washed gravel.

c. EXECUTION:

- 1) All concrete shall be ready-mixed. ASTM C-94, latest edition.

- (a) Compressive strength:

Foundations - 3000 PSI
Interior Slabs - 3500 PSI
Exterior - 4000 PSI

- (b) Mix: Minimum 5-1/2 sack. For exterior concrete. Six sack mix.

2) Reinforcement

- (a) Reinforcement for slabs shall be supported by solid concrete masonry blocking at proper height.

- (b) Wire fabric reinforcing shall be 6" x 6" x 10/10 WWF in all slabs on grade, and sidewalks.

3) Placing Concrete

- (a) Where possible, the concrete shall be deposited continuously from the time work is started until the concrete is brought to the finish surface. Work shall be carried on with sufficient rapidity to insure bonding of successive layers.

- (b) Deposit no partially hardened concrete. Avoid "cold" joints but if they occur, treat as bonded construction joints.

- (c) Do not allow concrete to flow horizontally in excess of 5 feet.

- (d) Water accumulated during placing must be removed. Do not place concrete in such accumulations.

- (e) Lay no concrete against frozen soil. Provide adequate protection against frost action during freezing weather.

- (f) Place no concrete for foundations on backfilled or otherwise disturbed soil. All soil bottoms for slabs and footings shall be approved by the Architect before placing concrete.

4) Curing and Protection

- (a) Protect all concrete work against injury from the elements and defacement of any nature during construction operations.

- (b) Furnish and apply sealer and hardener to all concrete after it has dried sufficiently in accordance with the manufacturer's specifications. All concrete that is to remain exposed shall receive a second coat at completion of job after the floor has been thoroughly cleaned.

5) Expansion Joints and Control Joints:

- (a) Install corkboard expansion joints at all exterior slabs and slabs abutting interior column piers and exterior walls.

- (b) Control joints of the floor slab shall be located in a square pattern not to exceed 2.5 times the concrete depth (in feet) in either dimension. Depth of sawcut control joints shall be a minimum of 1/4 the concrete depth, but in no case less than 1" deep.

Cutting shall be completed before shrinkage stresses have developed sufficiently to induce cracking.

6) Finishes:

- (a) All interior slabs shall receive a smooth steel trowel finish.

- (b) Exterior shall have broom finish.

4. MASONRY:

Contractor shall provide necessary labor, materials, and equipment to lay up masonry as shown or specified in these documents. All work shall be laid plumb, true and square with filled joints.

- a. Mortar shall be freshly prepared and uniformly mixed in the ratio by volumes of 1 part cement, 1/2 part lime putty, 4-1/2 parts sand, and shall conform to A.S.T.M. Specification 270, properly tooled as directed.

- b. Masonry units shall be sound, dry, clean, and free from cracks. Concrete block shall be grade A units conforming to A.S.T.M. designation C-90.

- c. Clean all exposed brick of mortar, splatter, drippings, etc. Provide final wash.

- d. Face Brick:

- 1) Building field brick, soldier and rowlock courses: (To match existing brick veneer).

- e. Core Grout: ASTM C-404 coarse grout, 3000 psi.

- f. Wall Flashing: 3 oz., Kraft faced, copper.

- g. Place galvanized metal ties at 2'-0" o.c. horizontally and 1'-4" o.c. vertically.

- h. Weep Holes: Plastic or aluminum straws at 4'-0" o/c horizontally.

- i. Foundation Wall Insulation: Dow Styrofoam Thermadry Type 1250, 1.5" thick. Install in accordance with manufacturer's specs.

- j. Steel Lintels: ASTM 36 with shop coat of paint.

5. METALS: NOT USED

6. CARPENTRY:

Contractor shall provide all labor, materials, and equipment to frame up, sheath, and trim out building as shown or specified in these documents

a. Rough Carpentry Materials:

- 1) Framing Lumber, blocking, grounds shall be No. 2 construction grade or better common L.L. Southern Pine, Douglas Fir, or Western Hemlock

- 2) Rough bucks, curbs, cants, nailers, and furring - No. 3 common White Pine. All members in contact with masonry and concrete below, or used in conjunction with roofing, flashing and waterproofing shall be pressure treated with water-borne preservatives complying with AWPI-LF-2

- 4) Roof Sheathing: 3/4" CDX Plywood glued and nailed.

- b. Finish Carpentry Materials: All finished work to be executed by trained journeymen and shall be filled, sanded smooth, and ready for painter

- 1) Interior Wood Trim: Oak unless noted otherwise. (Stain and clear finish).

- (a) Door and Window Trim: Mahoney or Schneider S-54 casing, 9/16 x 2-1/4. Top, bottom and sides (miter corners)

- 2) Shelving:

- (a) Exposed or open shelves. 3/4" particle board or Plywood with hardwood nose. (paint)

- 3) Counter Tops: Plastic laminate adhered to 3/4" particle board with 4" back and side splashes. Wilson Art, Formica or Nevamar.

6. CARPENTRY CONT.

- 4) Cabinets: LSI, Inc., Capitol Equipment or approved equal base and wall cabinets, plastic laminate finish. Provide necessary filler strips, finished end panels, and hardware as required.

- 5) Exterior Trims:

- (a) Wood cornice trim to be smooth Redwood to match existing. (Paint)

7. THERMAL & MOISTURE PROTECTION:

Contractor shall provide all labor, materials, and equipment to install insulation, roof, and waterproofing as detailed or specified in these documents.

- a. Foundation Insulation: See Division 4

- b. Provide 1/4" Dow Styrofoam Sill Seal under all wood sill plates where exterior walls meet masonry foundations.

- c. Floor Vapor Barrier: 6 mil polyethylene

- d. Sheathing Insulation: 3/4" Dow Styrofoam Square Edge Wall Insulation.

- e. Batt Insulation: Kraft or foil faced fiberglass Thickness as noted.

- f. Scuppers and Round Downspouts: To be Copper to match existing.

- g. All Caulking: Tremco, Sonneborn, or DAP.

- h. Acoustical Sealants: Tremco acoustical sealant or equal applied at perimeter of drywall and electrical devices.

- i. Sealants: One (1) part Dow Corning Silicone 780 or equal. Match adjacent material colors.

- j. Flashing: .027" Zinc alloy or 28 ga. Terne coated S.S.

- k. 4-ply Built-up Roofing System:

Owens-Corning or Manville 4-ply asphalt BUR system (Manville 461C). All roofing plys to be fiberglass reinforced felts. Roof insulation shall be 3/4" mineral board, all boards mechanically attached. Provide mineral surfaced modified bitumen cap sheet and install in strict compliance with manufacturer's specifications for 15 year warranty. Roofing Contractor shall maintain the roof systems against all leaks or defects for the initial 2 years.

1. EPDM Roofing System "ALTERNATE-2"

- 1) Firestone or approved equal fully adhered 15 year warranty Prem 1000 Class FMI-90 installed in strict compliance with manufacturer's specifications. Roofing Contractor shall maintain the roof system against all leaks or defects for the initial 2 years.

8. DOORS, WINDOWS AND GLASS:

Contractor shall supply and install all doors, windows, and glazing as detailed, scheduled, and/or specified

- a. Doors: All doors to be equipped with hardware, shall be sealed, top, bottom and all sides, as defined in Section 9 and shall be operating snug and smoothly

- (1) Exterior Doors: Pease HF 92

- (2) Interior doors select premium grade birch, flush except where noted.

- b. Replacement and New Windows: All windows to be caulked and weather-stripped, sealed on all edges and surfaces.

- (1) Anderson Corporation, vinyl clad wood insulated window or approved equal.

- (a) Applications of wood windows on project includes individual units set in conventional wall construction, and units set into existing masonry openings.

Contractor to select standard window unit that best fits into existing window openings. Provide blocking as required. Contractor selection of units to be approved by Architect. See drawing 4.1 and 5.1 for additional details.

- (b) Window units shall meet the following minimum requirements.

- 1) Vinyl clad insulated wood casement window.

- 2) High performance double-pane insulated glass.

- 3) Weatherstripping

- 4) Extension jambs as required.

- 5) Divided light grilles, match existing window configuration

- 6) Removable aluminum insect screen.

- 7) Corrosion-resistant hardware.

- c. Hollow Metal Frames: 16 ga. steel with concealed reinforcing and anchors. Designated frames to have UL Label.

- d. Plate Glass Mirrors: Unframed,

- One (1) 2'-8" x 2'-6" and
One (1) 5'-0" x 2'-6"

- e. Hardware:

- (1) Four (4) copies of a complete hardware schedule showing hand, location, size, thickness and style of doors shall be submitted to the Architect before ordering any hardware.

- (2) All locks to be keyed and masterkeyed as directed by the Architect.

- (3) Materials: (See Door Schedule)
Schlage: "D" Series Locksets and cylinders, "Orbit" design, Bright Brass.

Hager: Butts US 3
LCN: "4000" Series Closer
Ives: Stops US 3
Reese: Threshold

- a) 1-1/2 pair of butts closer
Lockset - Entrance lock
Dead Bolt with thumb latch
Weatherstripping
Threshold
Wall stop

- b) 1-1/2 pair of butts
Lockset - Passage latch

- c) 1-1/2 pair of butts
Lockset - Classroom lock
Wall stop

- d) 1-1/2 pair of butts
Closer
Brass Push Plate - (only)
Wall stop

- f. Sectional Overhead Doors.

- (1) Provide each sectional overhead door as a complete unit produced by one manufacturer, including frames, sections, brackets, guides, tracks, counterbalance mechanisms, hardware, operators

and installation accessories, to suit openings and headroom allowable.

(2) Sectional Overhead Door.

- a) Wayne Dalton Door Co. "Thermospan 150 Door" with (2) rows of D.S.B. Lites Model 400 or approved equal.

(3) Sectional Overhead Door to include, but not limited to the following components:

- a) Manual Door Operators

- b) Electronic Door Operation

- 1) Commercial Radio Controller

- 2) Electric Door Operation

- 3) Remote Control Station

- 4) Automatic Reversing Control

- c) Heavy-Duty, rust resistant hardware

- d) Weather seals

- (4) Track as required for height and width of door. Provide all brackets necessary for proper support of the track.

- (5) Install door complete in strict accordance with manufacturer's specifications and instructions. Provide all necessary blocking, supports, etc. for the complete installation of the door, tracks and door openers.

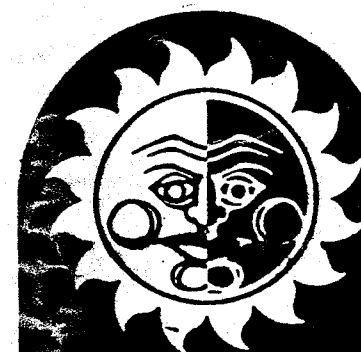
9. FINISHES:

Contractor shall provide all material and labor to finish interior rooms and building exterior, as shown noted, scheduled, or specified in these documents All materials shall be installed in a good workmanship manner in strict accordance with written manufacturer's recommendations.

- a. Sheet Vinyl: Armstrong Classic Corlon "Seagate"

- b. Resilient Base: 4" high Armstrong, vinyl, .080 gauge

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REVISIONS:

JOB NO: 2445 FIRE
DATE: FEB. 9, 1990
DWN. BY:
CKD. BY:

SP-1

9. FINISHES; CARPET: cont't.

- d) Provide cut-outs where required, and bind cut edges properly where not concealed by protective edge guards or overlapping flanges.
- e) Install carpet edge guard where edge of carpet is exposed; anchor guards to substrate.
- f) Carpet improperly installed shall be replaced at no cost to the Owner.
- d. Drywall:
- All drywall shall be Fire Code, (thickness as noted on drawings) taped, filled and sanded smooth. Install drywall sound walls with acoustical sealant as recommended by manufacturer and detailed in the drawings.
- e. All painting shall be of the highest quality workmanship, free of runs and sags, with straight cuts
1. New Drywall: One Coat Glidden 5111 Primer.
Two Coats Glidden Latex 4100
 2. Painted Metal Door and Frames:
Two Coats Glidden 6900 acrylic
 3. Existing Plaster Walls and Ceilings:
Lightly sand and wipe surfaces
One coat Glidden Glid-Guard acrylic Epoxy
 4. Stained Wood Doors and Window Sash:
One Stain Coat: Glidden Wood Master
Two Coats satin finish urethane
Note: See Sheet 4.1 for existing doors to be painted.
 - f. Plastic Laminate: Wilson Art, Formica, or Nevamar. Colors to be selected from manufacturer's standard colors.

g. Ceiling Tile:

1. Acoustic tile ceiling system shall be 2' x 2' suspended aluminum grid system with 24" x 24" x 5/8" lay-in ceiling panels, Armstrong Ceramaguard No. 6019.

10. SPECIALTY ITEMS:

Contractor shall provide all labor and materials to install the specialty items, shown, noted, or specified these documents.

a. Fire Fighting Device:

10 lb. dry chemical Fire Class ABC, semi recessed J. L. Industries, Ambassador, steel cabinet or equal.

b. Toilet Room Accessories:

(by Bradley or equal) Typical at all toilets. Locate as shown or directed.

- 1) One (1) C-Fold paper holder 250-15 stainless steel Satin finish.
- 2) One (1) toilet tissue holder 5084 stainless steel Satin finish.

c. Metal toilet partitions:

Sanymetal, Normandie style, baked enamel finish or equal.

d. Bulletin Board:

Natural cork, seamless sheet, 1/4" thick with washable vinyl finish for writing surface, complete with trim, as furnished and installed by Educational Equipment Corp. of Ohio, Kent, Ohio.

e. Extruded Aluminum Letters: (Alternate 3)

- 1) Furnish 12" x 2-1/4" stroke x 1" D individual extruded aluminum letters. Provide letter style "Helvetica Medium".
- 2) Aluminum gauge to be per manufacturer's recommendation for size indicated. Provide manufacturer's standard white finish on letters and number. standard.
- 3) Building sign to be secured to existing brick veneer. Locate on the existing east elevation, south end. Mounting height shall be as directed by the Architect.

4) Building sign to be read as follows:

MASSILLON
FIRE STATION 3

(Logo "3" to be Helvetica Medium
30" H x 5-5/8" stroke x 4" D)

SECTION 15 - MECHANICAL (PLUMBING AND HVAC)

1. General Requirements:

- a. Work under this Section to include all labor, material, transportation, tools and equipment necessary to install, test and guarantee a complete Mechanical System, as specified and shown on Drawings. Work shall consist, in general, of the following:

PLUMBING:

Sanitary system within building
Potable cold and hot water systems with building
Gas systems within building
Potable hot water heating components
Plumbing fixtures
Compressed air system

HVAC:

Heating system for building
Ventilating systems for building
Air conditioning system for building

b. GENERAL CONDITIONS:

General Conditions of the Contract apply to all work of this Division.

Inspect proposed construction site prior to bidding to become thoroughly acquainted with conditions affecting Contract. Submittal of Bid is considered evidence of site inspection having been performed. No allowance to be made for lack of knowledge concerning such conditions after Bid is submitted.

Obtain and include costs of all permits and licenses required for execution of Contract. (Plumbing and HVAC).

c. DRAWINGS AND SPECIFICATIONS:

Drawings indicate size and approximate location of various parts of work and are to be used as general guide for installation.

Drawings and Specifications to be considered cooperative and anything appearing in Specifications, but not on Drawings, or vice versa, to be considered part of the Contract and to be executed.

Errors or omissions discovered by Contractors prior to Bid opening to be called to attention of Architect without delay.

Where the word "provide" is used in these Specifications, it shall be construed to mean the furnishing of all necessary labor and material to install the equipment and/or system.

Where cutting and patching cannot be avoided, execute carefully to avoid injury to any part of building structure. Remove as little material as possible. In no case cut reinforcing or structural steel without specific permission.

Coordinate all trenching, underground piping, underground insulation and backfilling with General Contractor and completely execute prior to pouring of floor slabs.

Each Contractor and Sub-Contractor shall do all excavating of any materials encountered, as shown or as necessary for the installation of underground sewers, drains and equipment in his Contract. Provide and maintain bracing, shoring or sheathing necessary to support the walls of excavations. Backfill as required free of large stones or rocks, properly compacted.

2. PLUMBING:

a. WATER DISTRIBUTION PIPING:

Provide 120 F. hot water and cold water distribution piping as required, including following features.

Make necessary connections to all fixtures and equipment requiring hot or cold water service with valves.

Conceal pipe wherever possible or as directed by Architect.

Provide for demolition of existing and proper disposal of same for all existing fixtures, piping to be removed.

b. PIPE AND PIPE FITTINGS:

PLUMBING PIPING MATERIALS: Piping furnished under this Contract to be as follows:

SERVICE	OUTSIDE BUILDING	INSIDE ABOVE GROUND SLAB	INSIDE BELOW GROUND SLAB
120 F. hot water	-	a	-
Cold water	-	a	-
Sanitary	-	b	b
Vent	-	c	b
Gas	-	d	d

INDEX:

- 1) Type L seamless copper pipe with 95-5 connections.
- 2) Underground to be ABS Schedule 40, plastic pipe with fittings to match, per ASTM D-2661; or PVC Schedule 40, plastic pipe with fittings to match, per ASTM D-2655.
- 3) ABS Schedule 40, plastic pipe with fittings to match.
- 4) Schedule 40 black steel continuous weld pipe, 2 1/2" and larger to have weld joints; 2" and smaller to have threaded joints.
- 5) Approved plastic as per local gas company recommendations.
- 6) Outside below grade to be PVC SDR 35 sewer pipe with fittings to match, per ASTM D-3034, and inside above and below grade to be PVC DWV pipe with fittings to match, per ASTM D-2665.
- 7) Type K seamless copper pipe with 95-5 connections.

c. PLUMBING FIXTURES:

Provide plumbing fixtures shown on Drawings and listed in Fixture Schedule as manufactured by American Standard, Eljer, Kohler or Crane.

d. GAS PIPING:

Complete connections to all gas burning equipment with approved individual service valves.

e. INSULATION:

Insulate all plumbing components and piping specified below. Apply only over clean, dry metal.

Potable Cold Water and 120 F. Hot Water

Insulate cold water and hot water lines with 3/8" FR/elastomeric thermal insulation, using identical material at fittings with all seams adhered with 520 adhesive. FR/elastomeric thermal insulation must be labeled "Fire Retardant".

15. MECHANICAL: cont't.

f. VALVES:

Manufacturers Jenkins, Hammond, Nibco, Waleworth, ball type 2" and smaller.

g. TESTS AND INSPECTIONS:

Test all hot and cold water piping at not less than 125 psig. Test soil and waste piping as required by local inspection authority. Test gas piping in accordance with requirements of Gas Utility Company.

Provide all tools and equipment required for testing and make all temporary required connections. Promptly repair any defects developed during testing and repeat test to prove installation tight. No caulking of screwed joints, cracks or holes permitted. Repair leaks if required in screwed joints by replacing defective pipe, fittings, or both, with new material.

h. COMPRESSED AIR SYSTEM:

As detailed on drawings, provide the following:

- 1) Quincy, Ingersoll Rand, Craftsman, Air Power of Ohio or equal Air Compressor, two-stage, two cylinder, pressure lubricated, air cooled, horizontal tank mounted, 30 gallon receiver tank, complete with safety valve, tank drain, shut-off valve and motor starter with built-in thermal overload protection and belt guard.

.Air Compressor, Provide 120 PSI.

.Motor starter to be capable of making starts as frequently as required by automatic control system.

.Provide metal nameplate on motor, indicating full identification of manufacturer, ratings, characteristics, construction, special features and similar information.

3. HEATING, VENTILATING AND AIR CONDITIONING:

a. VIBRATION ISOLATION:

Adjust and modify all equipment and connections installed under this Contract which cause objectionable noise in occupied areas.

b. INSULATION:

Provide Owens-Corning, Johns-Manville, Armstrong or Knauf insulation as specified below and shown on Drawings, to meet all performance criteria:

Insulate with materials and finishes tabulated below:

SYSTEM CATEGORIES

INSULATION INDEX

Supply air

a, b

Return air

none

DUCT INSULATION INDEX

Round Ducts - External Insulation:

1 1/2" type IV Fiberglas wrapping with reinforced facing of foil laminate vapor barrier, having 0.5 perm rating, U.L. labeled with #25 flame spread and 50 smoke rating.

Rectangular Distribution Ducts - External:

1 1/2" Type IV Fiberglas wrapping with reinforced facing of foil laminate vapor barrier, having 0.5 perm rating, U.L. labeled with #25 flame spread and 50.0 flame-door staples.

c. SHEET METAL:

All ductwork shall be in compliance with NFPA Pamphlet 90A - 1974 Edition - and 90B - 1973 Edition - and all other applicable Codes.

Provide under floor Union Poly-duct PVC coated. Back fill free of large stones and rock. Slope to fabricated polysteel plenum in Mechanical Room.

Fabricate in accordance with STANDARD PRACTICE IN SHEET METAL WORK, published by National Association of Sheet Metal Contractors.

d. FIRE DAMPERS:

Provide fusible link fire dampers, NFPA approved, in all ducts passing through equipment room.

e. LOUVERS, DIFFUSERS, REGISTERS, GRILLES AND SPECIALTIES:

Provide devices shown on Mechanical Plan as manufactured by Barber Colman, Anemostat, Titus or Tuttle, Bailey and Lima, with the following features:

- 1) Sponge rubber or neoprene gaskets for airtight joints.
- 2) Opposed blade, tight closing, tamper-proof volume dampers where called for in Schedule.
- 3) Plaster frames or cores except where exposed ductwork.
- 4) Prime coat, baked-on factory finish of color selected by Architect.

All Branch or zone low velocity supply and return ducts to have manual balancing dampers.

f. EXHAUST FANS:

Provide Nutone QT 140 L exhaust fans shown on Drawings complete with switch, duct and through wall vent.

g. AIR-COLLED CONDENSING UNIT:

Provide unit as specified on Drawings #M-1.

Five (5) year warrantee on refrigeration compressor. If compressor fails in the first five years, a new one shall be furnished free of charge. Installation labor not included.

Unit to have automatic devices to permit operation and automatic start-up at outside ambient temperature of 30 F.

h. WARM AIR FURNACE:

Provide Carrier, Lennox or Bryant warm air furnace shown on Schedules.

Condensing type furnace, 90% efficiency or higher.

i. TEMPERATURE CONTROL:

Unit manufacturer to provide thermostat to have automatic heat or cooling. Sub-base to have fan switch for on-off-automatic operation. With switch in "on" position, the fan shall run continuously and either gas furnace or refrigeration unit shall operate to control. In the "automatic" position, the fan shall cycle with heat or cooling to maintain thermostat setting. All control wiring the responsibility of Mechanical Contractor. Provide smoke detector in return air to turn off air handler if smoke is detected.

j. TESTING:

Place into operation all other moving parts including fans, exhausters, controls, etc. Assure lubrication of all moving parts.

Measure air velocities, temperatures and pressures with an Anemotherm instrument, manufactured by The Anemostat Corporation and submit letter to Architect that system has been balanced and working properly.

Section 16 - ELECTRICAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions. Division 1 Specifications and other applicable portions of the balance of the divisions in this specification shall apply to work of this section.

SCOPE OF WORK AND GENERAL REQUIREMENTS:

The work includes furnishing all labor, equipment, tools, supplies, materials and services necessary for and incidental to a complete electrical system as shown on the Drawings and specified herein.

All labor, material and equipment not specifically mentioned herein or shown on the plans, but incidental to, or required for, the complete installation and proper operation shall be furnished as if called for in drawings and specifications.

The Electrical Contractor shall coordinate his work with that of the various other trades to allow for an orderly and neat installation of the work of all trades.

The Architect reserves the right to effect minor changes in the location of fixtures, outlets and equipment, up to the time of rough-in without additional cost.

Prior to submitting his Bid, the Contractor shall visit the project site and carefully examine and familiarize himself with all conditions affecting this work. Submission of a Bid shall be indication of his knowledge of all such conditions. No additional payment will be allowed for errors or omissions resulting from lack of knowledge of existing conditions.

Drawings and Specifications shall be considered supplementary to one another and any material or labor called for in one shall be furnished even though not specifically mentioned in both.

The electrical drawings are schematic and are intended to show the approximate location of the fixtures, outlets and equipment. Dimensions, where given in figures on the drawings, shall take precedence over those scaled and shall be field verified.

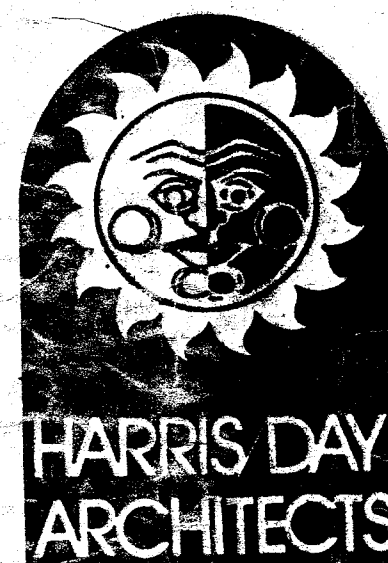
CODES, PERMITS AND FEES

All material shall be new and shall bear certification of Underwriters Laboratories (UL) where such labels or stamps are customary, required or specified.

1.

2.

CITY OF MASSILLON
FIRE STATION 3
955 WALES ROAD N.E.
MASSILLON OHIO



3821 WALES ROAD N.W.
MASSILLON, OHIO 44646
PHONE: 216-837-4248

REVISIONS

JOB NO. 8745 FIRE
DATE: FEB. 5, 1990
DWN. BY:
CKD. BY:

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16. ELECTRICAL CONT.

OPERATING INSTRUCTIONS:

At completion of the project and prior to final payment, instruct the Owner's personnel in the proper operation of all equipment.

Contractor shall submit a complete set of data consisting of all approved equipment submittal drawings, operating instructions, parts lists, maintenance and service manuals, etc. for all equipment installed under this Contract. Data shall be neatly assembled in a three ring binder with alphabetically arranged index tabs. This shall be provided prior to requesting final payment.

SPECIFIED PRODUCTS

Where material or equipment is specified by performance data only, any material or equipment meeting the specified data may be bid.

Where one brand is specified, that product must be bid as Base Bid. Where more than one brand name is specified, that product named first is whose dimensions and performance characteristics were used in the design. Any product so named may be bid as Base Bid, however should building changes be required because of differing dimensions or performance characteristics of that product, the additional cost must be included in the Bid. In such case, submit complete drawings resolving necessary changes.

SHOP DRAWINGS:

Shop drawings shall be submitted for all items listed or as called for in the General Conditions of the contract:

Panelboards
Light fixtures
Starters
Contactors
Generator
Transfer Switch

WORKMANSHIP

The entire electrical system shall be made in a neat and workmanlike manner and shall reflect the best recommended practices.

In case of careless or incompetent work, the Architect reserves the right to have the work done by others with the cost of same charged against this Contractor.

The premises shall at all times be kept clean of debris and waste materials caused by work herein specified.

CUTTING AND PATCHING

Cutting and patching shall be kept to a minimum by anticipating and providing sleeves where required and by scheduling work to prevent cutting. Instruct General Contractor as to size and position of all wall chases, pipe shafts, etc. Openings around sleeves shall be sealed as directed.

In those cases where cutting and patching is required, execute carefully to avoid injury to any part of the building structure. Remove as little material as possible. In no case, shall reinforcing or structural steel be cut without specific written permission from the Architect.

RACEWAY SYSTEMS:

All raceway systems shall be installed in strict accordance with drawings, specifications, applicable codes and ordinances. Raceways shall be one of the following:

Galvanized rigid conduit (GRC)
Electric metallic tubing (EMT)
Flexible metal conduit
Metal wireway
Rigid plastic conduit (PVC)

Conduit smaller than 1/2" shall not be used. Conduit embedded in or under concrete shall be a minimum of 3/4". Other sizes as indicated on drawings or as required by NEC for number and size of conductors installed.

EMT may be used in interior partitions and above suspended ceilings as permitted by NEC. Maximum size is 2". Steel set screw fittings shall be used. Die cast fittings are not permitted. Connectors shall have insulated throats.

GRC shall be used above 2", exterior above grade and as required by NEC.

PVC may be used below grade and under concrete slab. Schedule 40 only.

Flexible metal conduit shall be used for all conduit connections to motors and to all other devices subject to vibration or movement. Liquidtight metal conduit shall be used when installed in damp or wet locations. A separate ground wire shall be installed in all flexible and liquidtight metal conduit.

GRC conduit shall be terminated with double locknut and plastic bushing.

CONDUCTORS:

All conductors shall be stranded copper. Minimum size conductor shall be #12 unless otherwise noted on drawings or in the specifications.

Insulation for all conductors shall be rated for 600 volts. Type THWN insulation shall be used for sizes #12 through #6. Larger than #6 may be THW or THWN.

Splices shall be eliminated where possible but where necessary they shall be made in approved manner in approved junction box.

Splices in #10 or smaller wire shall be made with "Scotchlok" or equal connectors.

Splices in #8 or larger wires shall be made with approved mechanical connectors and covered with "Scotch fil" and "Scotch 33" or equal.

#10 or smaller wires shall be factory color coded. Larger than #10 shall be field color coded at each end and in each pull or junction box with colored phasing tape. Separate color for each phase and neutral shall be used consistently throughout the system.

ELECTRICAL SERVICE:

The existing electrical system service is underground 120/240 volt, 1 phase, 3 wire as supplied by the Ohio Edison Company.

GROUNDING:

The entire power and lighting system shall be permanently and effectively grounded in accordance with the latest edition of the NEC.

FUSES:

All fuses shall be Class R Fusetrons as manufactured by Bussmann or equal.

SAFETY SWITCH:

Safety switches to be quick-make, quick-break type, heavy duty, horsepower rated. Size and type as shown on drawings.

LOAD CENTERS:

Load centers shall be Square D type QO as indicated on Drawings. I.T.E., G.E. or Westinghouse are considered as equal.

Directory cards are to be accurately and neatly typewritten.

Provide lock-on/off devices on night light and other circuits so indicated.

WIRING DEVICES:

Switches, receptacles, plates plugs, etc. shall be heavy-duty specification grade as indicated on drawings or specified herein.

All devices shall be brown unless otherwise noted with stainless steel covers.

LIGHT FIXTURES AND LAMPS:

Furnish and install complete with lamps all fixtures as shown on drawings.

All fixtures to be securely fastened to building structure by the Electrical Contractor.

Provide separate grounding conductor in flexible metal conduit between outlet box and fixture and ground fixtures with same.

Provide all plaster frames, canopies, endcaps, stems etc. as required for a complete installation.

All lamps used for temporary lighting during construction shall be replaced at the completion of the project prior to final acceptance.

TEMPERATURE CONTROL:

Temperature control wiring shall be by Electrical Contractor.

EXCAVATING:

Provide all excavation and backfill required for the installation of work under this Contract.

All exterior conduit to have a minimum cover of 30 inches.

All surfaces to be repaired to original condition.

Backfilling shall be with good clean earth in 6" layers carefully mechanically tamped as required.

Remove from the site and dispose of all excavated material not required or not suitable for backfill.

16. ELECTRICAL CONT.

GENERATOR:

Provide emergency generator, transfer switch and all associated equipment as shown on drawings and required for a complete installation.

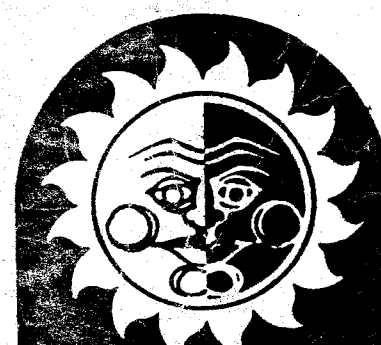
Muffler to be rated for critical application.

Mechanical Contractor shall provide natural gas line to generator. Regulator, solenoid valve and shutoff valve shall be provide by the generator supplier.

Mount generator on isolation pad.

Start-up and instruction to Owner shall be provided by a factory trained manufacturer's representative.

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REVISIONS:

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