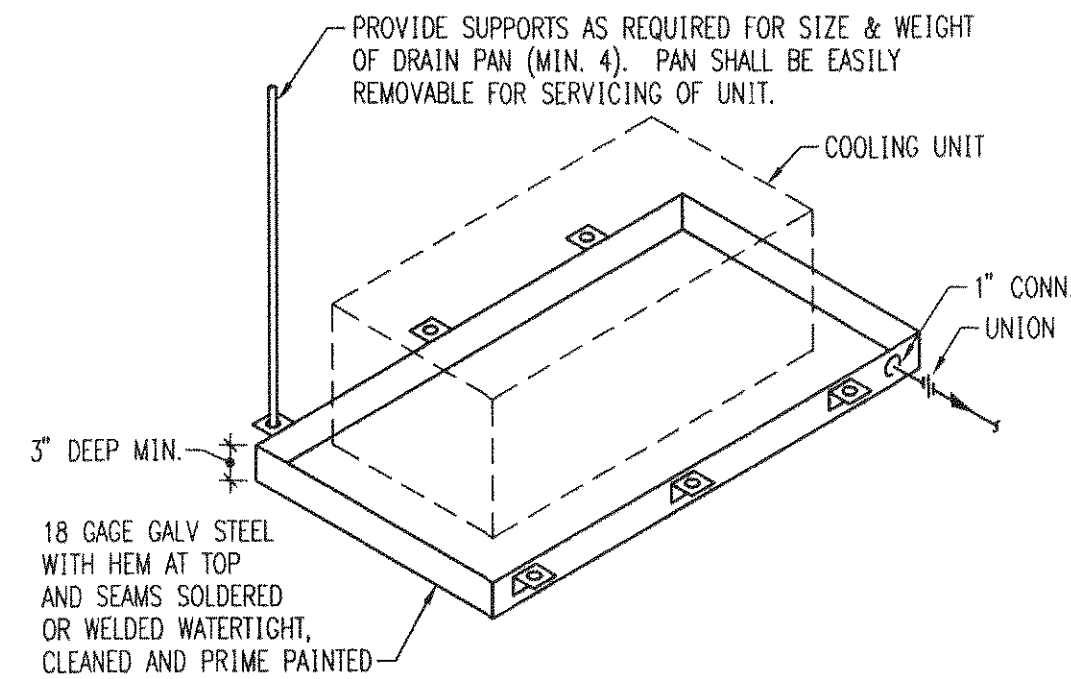
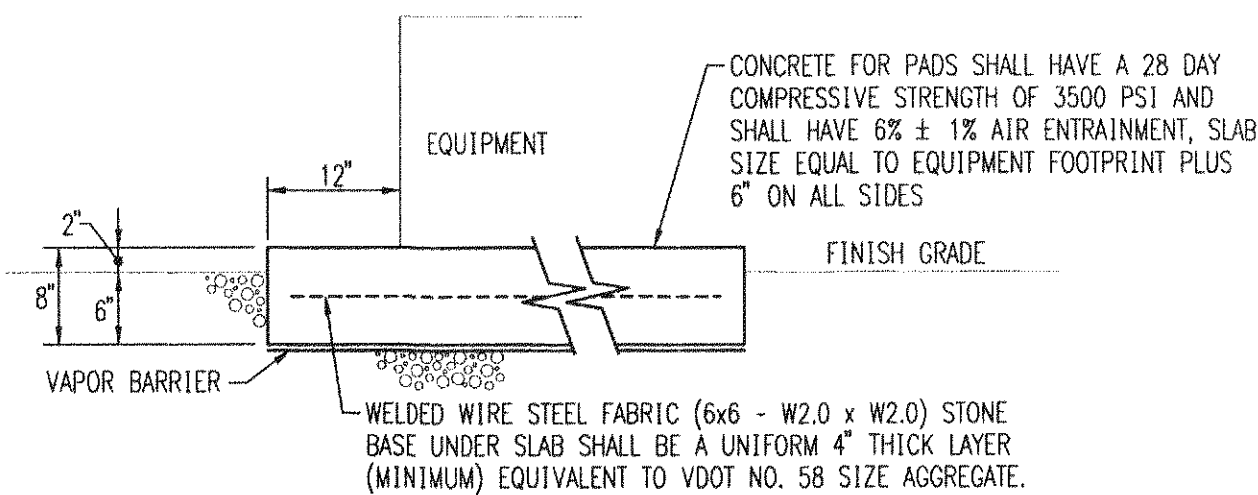


BRANCH CONNECTIONS DETAIL  
FOR SUPPLY DUCT (TYP)  
SCHEMATIC

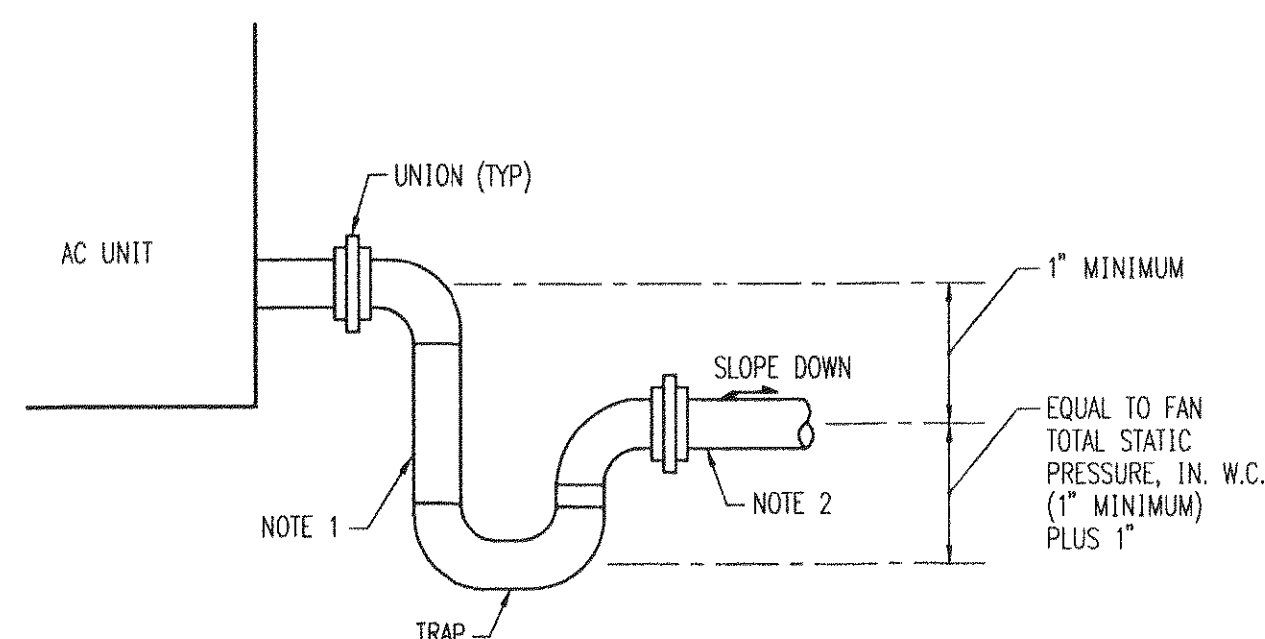


- NOTES:  
1. DRAIN PAN SHALL BE REINFORCED WITH GALVANIZED STEEL ANGLES TO PREVENT SAGGING OR FLEXING WHEN FULL OF WATER.  
2. PAN SHALL EXTEND A MINIMUM 3" BEYOND SIDES OF COOLING UNIT.

AUXILIARY DRAIN PAN  
NO SCALE

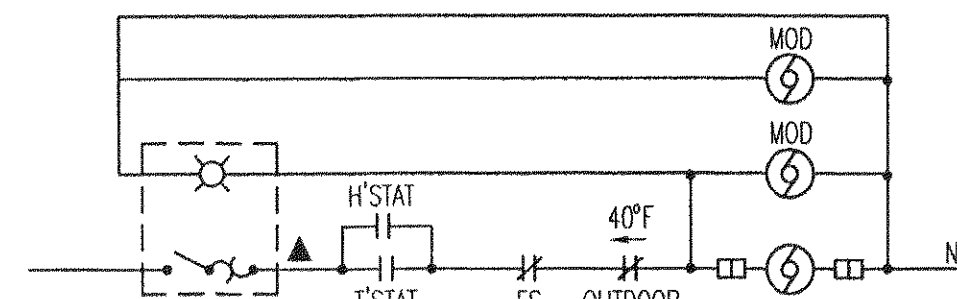


TYPICAL OUTDOOR EQUIPMENT PAD  
NO SCALE

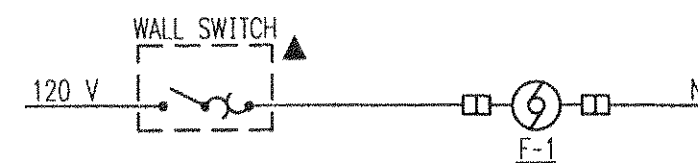


- NOTES:  
1. DRAIN LINE SHALL BE FULL SIZE OF AC UNIT CONNECTION.  
2. EXTEND TO NEAREST FLOOR DRAIN UNLESS NOTED OTHERWISE.

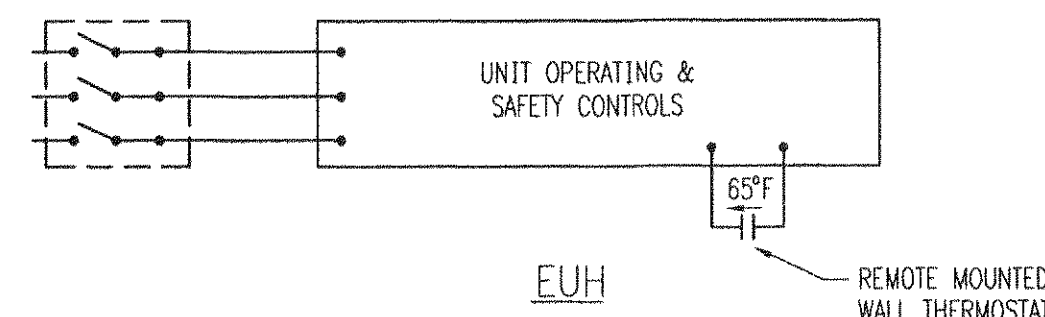
COOLING COIL CONDENSATE DRAIN  
NO SCALE



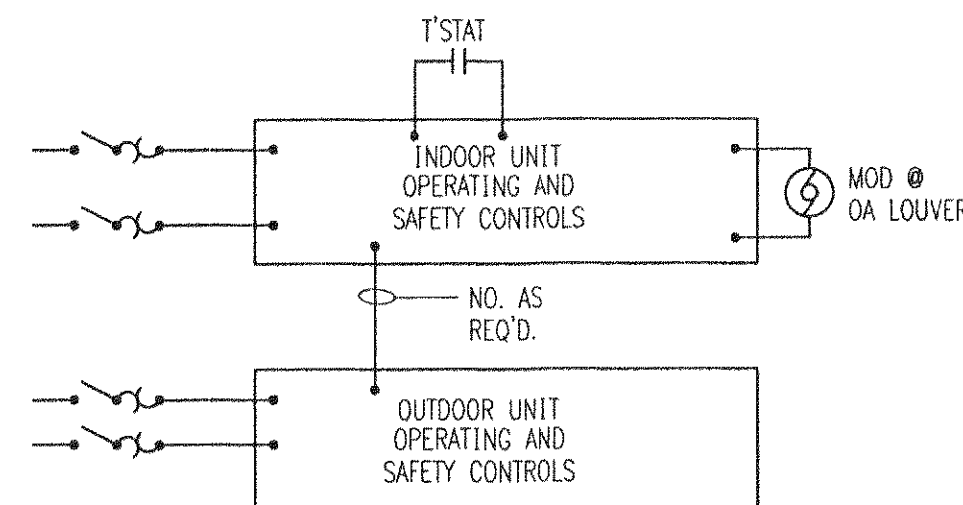
EXHAUST FAN



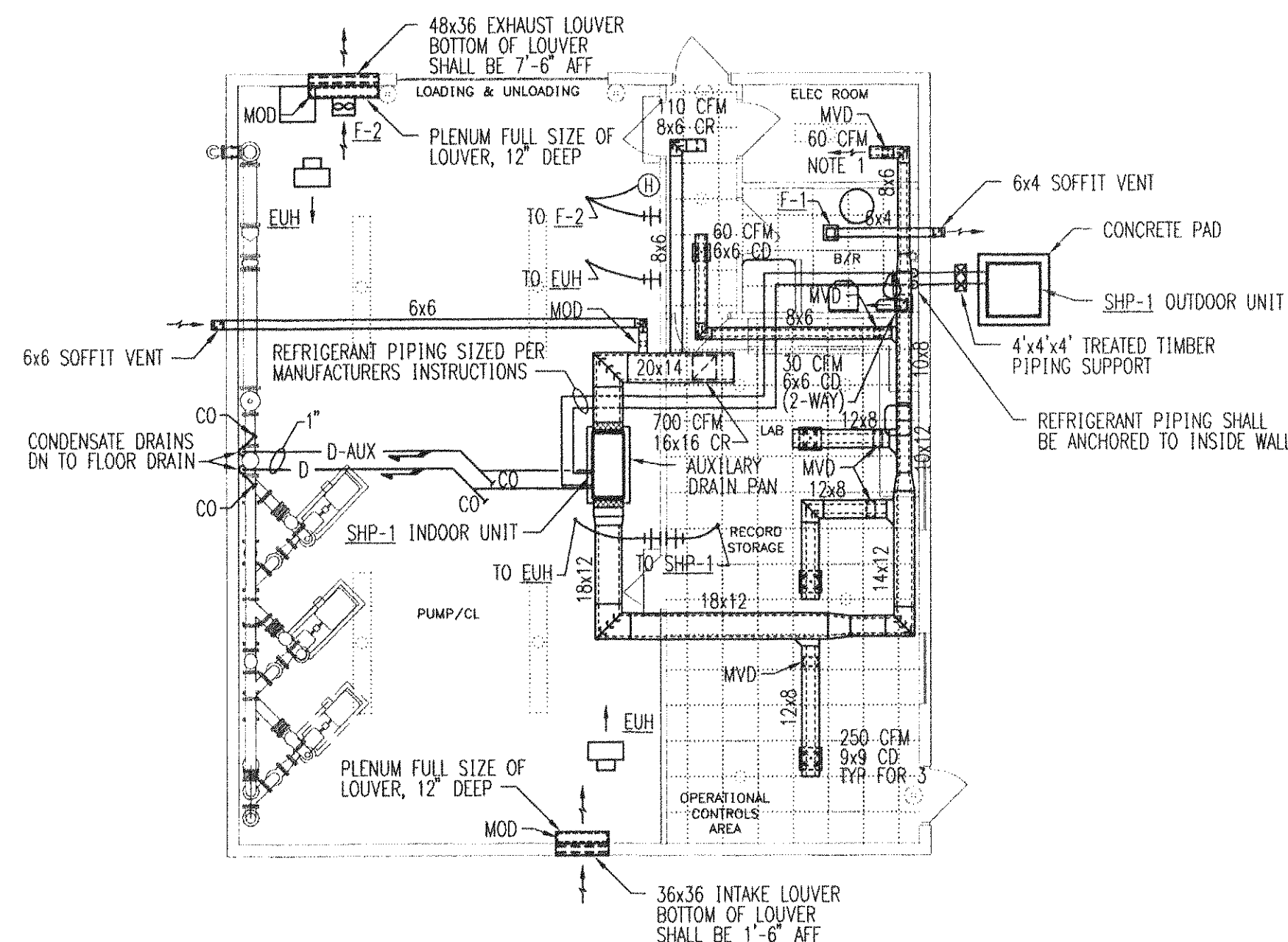
CEILING EXHAUST FAN



ELECTRIC UNIT HEATERS



SPLIT SYSTEM HEAT PUMP



FLOOR PLAN - MECHANICAL  
SCALE: 1/8" = 1'-0"

- NOTES:  
1. OPEN END DUCT, COVER WITH 1/2" WIRE MESH.

## CONTROL LEGEND

HOLDING COILS	COMBINATION FUSIBLE MOTOR STARTER RELAY	(S)
MOTOR		(M)
MOTOR PROTECTIVE SWITCH		(MPS)
DISCONNECT SWITCH (FUSED)		(DS)
DISCONNECT		(D)
PILOT LIGHT		(PL)
T'STAT OR RELAY		(T)
SET POINT-CLOSE BELOW 65°F		(65°F)
SET POINT-CLOSE ABOVE 65°F		(65°F)
ELECTRICAL WIRING, ABOVE 100 VOLT		(PW)
TWIST SHIELDED PAIR, 24 VOLT		(TW)
CURRENT RELAY	CTR	
FIRESTAT	FS	
START-STOP	S/S	

ALL ITEMS SHOWN ON CONTROL DIAGRAMS AND WIRING 100 VOLTS OR LESS SHALL BE INCLUDED AS A PART OF SECTION 15900 EXCEPT POWER WIRING OVER 100 VOLTS. ITEMS MARKED ▲ OR ITEMS SPECIFIED TO BE FURNISHED WITH EQUIPMENT. WIRING OVER 100 VOLTS AND ITEMS MARKED ▲ SHALL BE FURNISHED AS A PART OF DIVISION 16. ALL OVERLOADS, HOA SWITCHES, AUXILIARY CONTACTS AND PILOT LIGHTS SHALL BE INTEGRAL WITH THE MOTOR STARTERS UNLESS SHOWN OTHERWISE.

ALL WIRING SHOWN ON ELECTRIC SEQUENCE CONTROLS SHALL BE OVER 100 VOLTS UNLESS NOTED OTHERWISE. RELAYS FROM THE CONTROL SYSTEM SHALL BE LOCATED ADJACENT TO THE CONTROLLED DEVICE (MOTOR OR MOTOR STARTER), AND MAY BE LOCATED WITHIN STARTER HOUSINGS WHERE SPACE IS AVAILABLE AND WHERE APPROVED BY NEC.

CONTROL ITEMS MARKED THUS "VENTILATION-ON-OFF" SHALL HAVE PLATE ENGRAVED WITH THE WORDING CONTAINED WITHIN THE QUOTE "... MARKS PLUS EQUIPMENT IDENTIFICATION.

FANS: GREENHECK

MARK	CAP. CFM	S.P., IN. H <sub>2</sub> O	MAX. TIP SPEED-FPM	H.P.	MODEL NO.	LOCATION
F-1	90	0.1	1500 *	40 **	SP-6	TOILET
F-2	2800	0.15	4750	1/4	SBE-1H20	PUMP ROOM

\* LISTED FAN SPEED, RPM

\*\* LISTED WATTS (INPUT)

## LEGEND

ELECTRIC THERMOSTAT	(T)
HUMIDISTAT	(H)
DIRECTION OF SLOPE DOWN	(S)
ANCHOR	(A)
ACOUSTIC LINED DUCT	(ALD)
DUCT TRANSITION	(DT)
FLEXIBLE DUCT CONNECTION	(FDC)
NEW WORK	(NW)

## STANDARD ABBREVIATIONS

ABOVE FINISHED FLOOR	AFF	MANUAL VOLUME DAMPER	MVD
CEILING DIFFUSER	CD	MOTOR OPERATED DAMPER	MOD
CEILING REGISTER	CR	OUTSIDE AIR	OA
CLEANOUT	CO		

ELECTRIC UNIT HEATER: MARKEL

MARK	CFM	HEATING CAPACITY KW	MBH	MOTOR HP	MODEL NO.
EUH	400	5.0	17.1	1/125	5105

SPLIT SYSTEM HEAT PUMP SYSTEMS: TRANE

MARK	SHP-1
INDOOR UNIT	
MODEL NO.	TWE 036
SUPPLY FAN	
TOTAL AIR, CFM	900
OUTSIDE AIR, CFM	80
*EXT. S.P., IN. H <sub>2</sub> O	0.7
FAN HORSEPOWER	1/2
COOLING COIL	
TOTAL CAP., MBH	24.6
ENT. AIR, °DB	76.8
*WB	64.0
LEAV. AIR, °DB	58.3
*WB	60.0
HEATING COIL	
TOTAL CAP., MBH	23.0
ENT. AIR, °DB	63.8
KW	2.12
FILTERS	
TYPE	THROWAWAY
EFFICIENCY	30%
OUTDOOR UNIT	
MODEL NO.	TWN 024
COND. FANS, NO. - HP	1 @ 1/6
COMP. MOTOR, KW	2
OAT, °F DB	95
MAX SUCTION TEMP @ COMP, °F	45

\*INCLUDES .25" H<sub>2</sub>O S.P. LOSS THRU FILTERS.

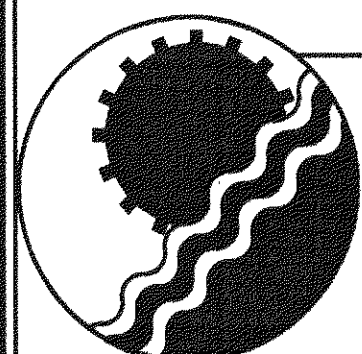


WHITESCARVER, HURD & OBENCHAIN, INC.

CONSULTING ENGINEERS  
4932 FRONTAGE ROAD NW  
ROANOKE, VIRGINIA 24019  
540/265-4444  
A C E C

DES: EEC DRF: SDR CHK: BGH COMM: 99110

Drawn	SDR	GREENFIELD CHLORINATION FACILITY	SEE PLAN
Designed	EEC		JUNE 1999
Checked	BGH	MECHANICAL	PROJECT: 97075
Approved	JBO		18 of 19



ENGINEERING CONCEPTS, INC.

20 S. ROANOKE ST., PO BOX 619  
FINCASILE, VIRGINIA 24090  
540.473.1253 FAX: 540.473.1254