THE OIL CAN, LLC of BALTIMORE

Baltimore, OH

BUILDING CODE REQUIREMENTS & DESIGN ASSUMPTIONS

BUILDING DATA:

JURISDICTION:	BALTIMORE, OH
BUILDING CODE:	2008 OHIO BUILDING CODE
AREA OF BUILDING:	1,260 SF (FIRST FLOOR)
	1,260 SF (LOWER LEVEL)

SCOPE OF WORK:
NEW OIL CHANGE FACILITY

LOAD DESIGN CRITERIA:

FLOOR LIVE LOADS:	
GENERAL	50 psf
STAIRS AND RAMPS	100 psf
MECHANICAL	50 psf
ROOF LIVE LOAD:	20 psf
GROUND SNOW LOAD:	20 psf
FLAT-ROOF SNOW LOAD:	12.6 psf
SNOW EXPOSURE FACTOR:	0.9
SNOW LOAD IMPORTANCE FACTOR:	1.0
THERMAL FACTOR:	1.0
BASIC WIND SPEED:	90 mph
WIND EXPOSURE:	B
WIND PRESSURE:	11.8 psf
BASIC STRUCTURAL SYSTEM:	MASONRY
SEISMIC RESISTING SYSTEM:	ORDINARY PLAIN W/MASONRY SHEAR WALLS
SEISMIC DESIGN CATEGORY:	B (Ss = 14.1%g, S1 = 5.8%g)
SITE CLASS:	D
ASSUMED SOIL BEARING PRESS.	1500 psf

BUILDING CODE ANALYSIS:

USE GROUP CLASSIFICATION:	S-1 (MODERATE-HAZARD STORAGE)
CONSTRUCTION CLASSIFICATION:	TYPE V-B (COMBUSTIBLE, UNPROTECTED)

FIRE SUPPRESSION:
NONE

ALLOWABLE HEIGHT AND BUILDING AREA (TABLE 503):
3 FLOOR, 4,000 SQ. FT.

PROPOSED BUILDING

FIRST FLOOR	1260
LOWER LEVEL	1260
TOTAL	2520

EXIT REQUIREMENTS:
2 MINIMUM (1-500 OCCUPANTS)

MAXIMUM LENGTH TO EXIT (TABLE 1015.1):
NON SPRINKLERED = 200 FEET

FIRE RESISTIVE CONSTRUCTION: PER TABLE 601 & TABLE 602, 3Ø':

STRUCTURAL FRAME	Ø	HR
BEARING WALLS, EXTERIOR	Ø	HR
BEARING WALLS, INTERIOR	Ø	HR
NONBEARING WALLS/PARTITIONS, EXTERIOR	Ø	HR
NONBEARING WALLS/PARTITIONS, INTERIOR	Ø	HR
FLOOR CONSTRUCTION (INCL. BMS/JSTS)	Ø	HR
ROOF CONSTRUCTION	> Ø	HR

INTERIOR WALL & CEILING FINISH REQUIREMENTS:

VERTICAL EXITS	CLASS B MATERIAL
CORRIDORS	CLASS B
ROOMS	CLASS C

INTERIOR FLOOR FINISH REQUIREMENTS:
INTERIOR FLOOR FINISHES IN VERTICAL EXITS, EXIT PASSAGEWAYS AND EXIT ACCESS CORRIDORS SHALL BE CLASS I OR CLASS II. ALL OTHER AREAS SHALL USE MATERIALS COMPLYING WITH DOC FF-1 "PILL TEST."

PLMBG FIXTURES SEE MECHANICAL SHEETS FOR DETAILS AND MIN. DESIGN REQUIREMENTS

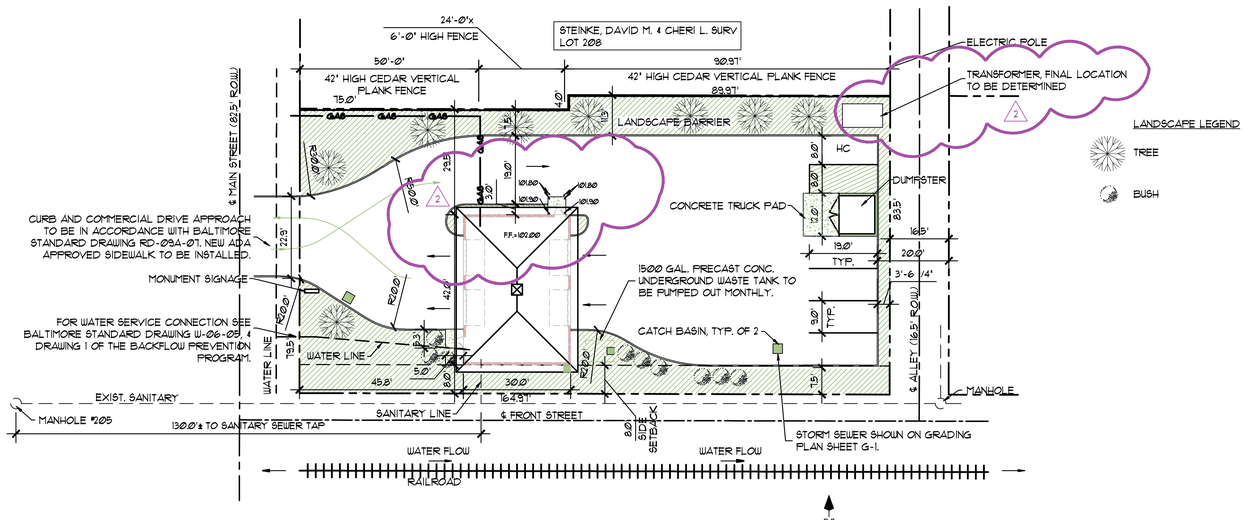
OCCUPANCY:

Occupiable Areas by Use Group & Floor, and Occupant Calc'ns Per Table 1004.1.1

Floor	Use Group M			SFT Per Occpt	Total # Occupts
Lower Level/storage	1,534			300	5
1st Floor	940			100	10
Totals	2,474				15

BISHOP OIL CHANGE FACILITY
600 NORTH MAIN STREET
BALTIMORE, OHIO

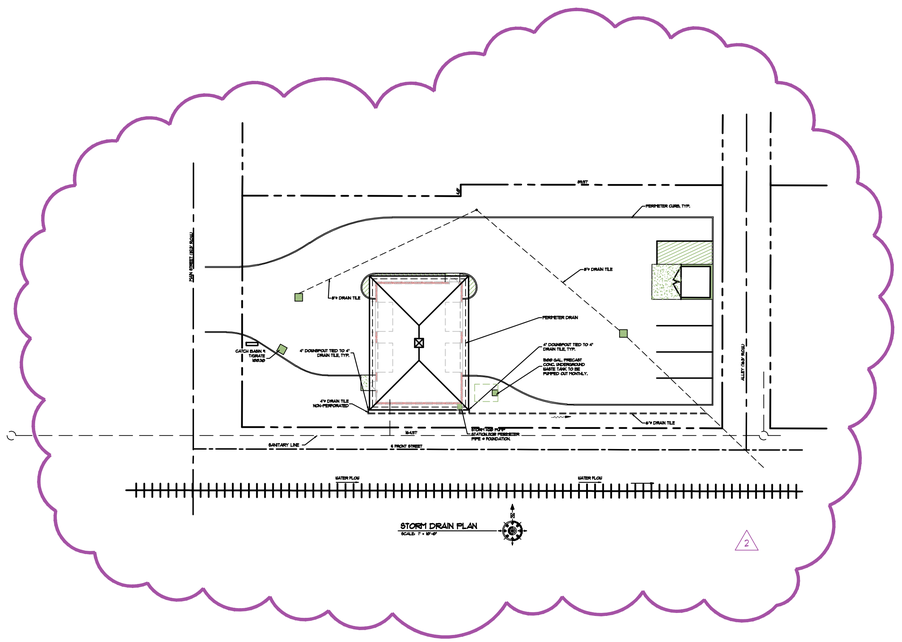
VICINITY MAP



SITE PLAN

SCALE: 1" = 20'-Ø"

NOTE: THE FIRST FLOOR WATER WASH DOWN GOES TO AN EXTERNAL WASTE TANK TO BE PUMPED BY PUMP TRUCK CO. MONTHLY. SEE ATTACHED LETTER FROM CLEAN WATER LIMITED.



THE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE FOLLOWING BALTIMORE, OHIO OFFICIALS:

SIGNATURE: _____

SIGNATURE: _____

SIGNATURE: _____

SIGNATURE: _____

SIGNATURE: _____

DRAWING INDEX

SHEET	SHEET TITLE
T-1	TITLE SHEET & SITE PLAN
G-1	GRADING & DRAINAGE PLAN (BOB WOLFE ENG.)
ARCHITECTURAL	
A-1	FIRST FLOOR & BASEMENT PLAN
A-2	WEST & EAST ELEVATIONS
A-3	SECTIONS & DETAILS
A-4	SECTIONS & DETAILS
A-5	DUMPSTER DETAILS
A-6	SCHEDULES
S-1	FOUNDATION PLAN
S-2	HOLLOW CORE FRAMING PLAN
S-3	ROOF FRAMING PLAN
S-4	STRUCTURAL NOTES
P-1	PLUMBING PLAN & ISO'S.
M-1	FIRST FLR. MECH. PLAN
E-1	LIGHTING & POWER PLAN
E-2	RISER DIAG. & SCHEDULES

M2 DESIGN GROUP

7140 NORTH HIGH ST., SUITE 230
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614 . 844 . 5855

PROJECT

THE OIL CAN, LLC
of
BALTIMORE

600 N. MAIN STREET
BALTIMORE, OHIO

BUILDER

PROJECT NO. 08-0036
DRAWN JCW/NVS
CHECKED RWM

REVISIONS
3/7/08 MOVED WASTE TANK LOCATION
6/3/08 ADJUD. LETTER #2 DATED 4/16/08

CONSTRUCTION SET

DATE

March 6, 2008

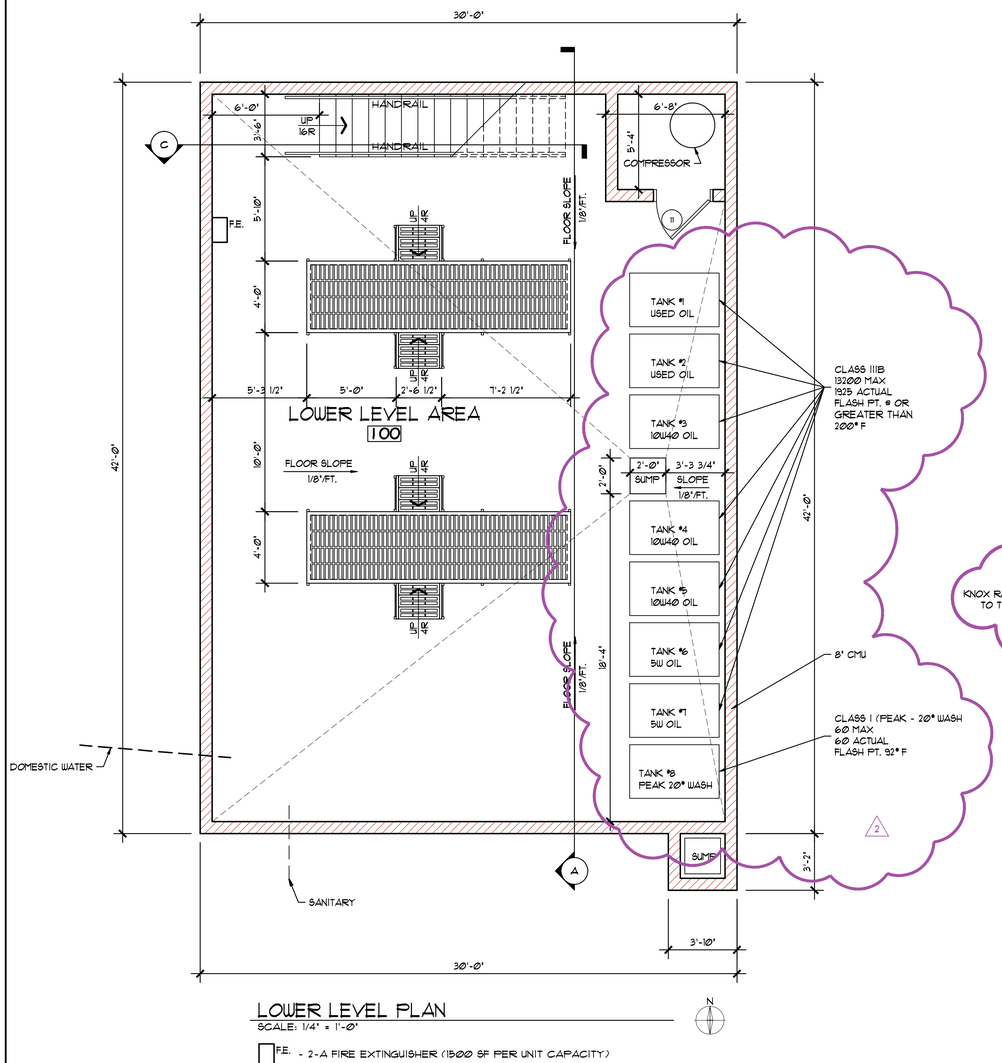
TITLE

TITLE SHEET

SHEET NUMBER

T-1

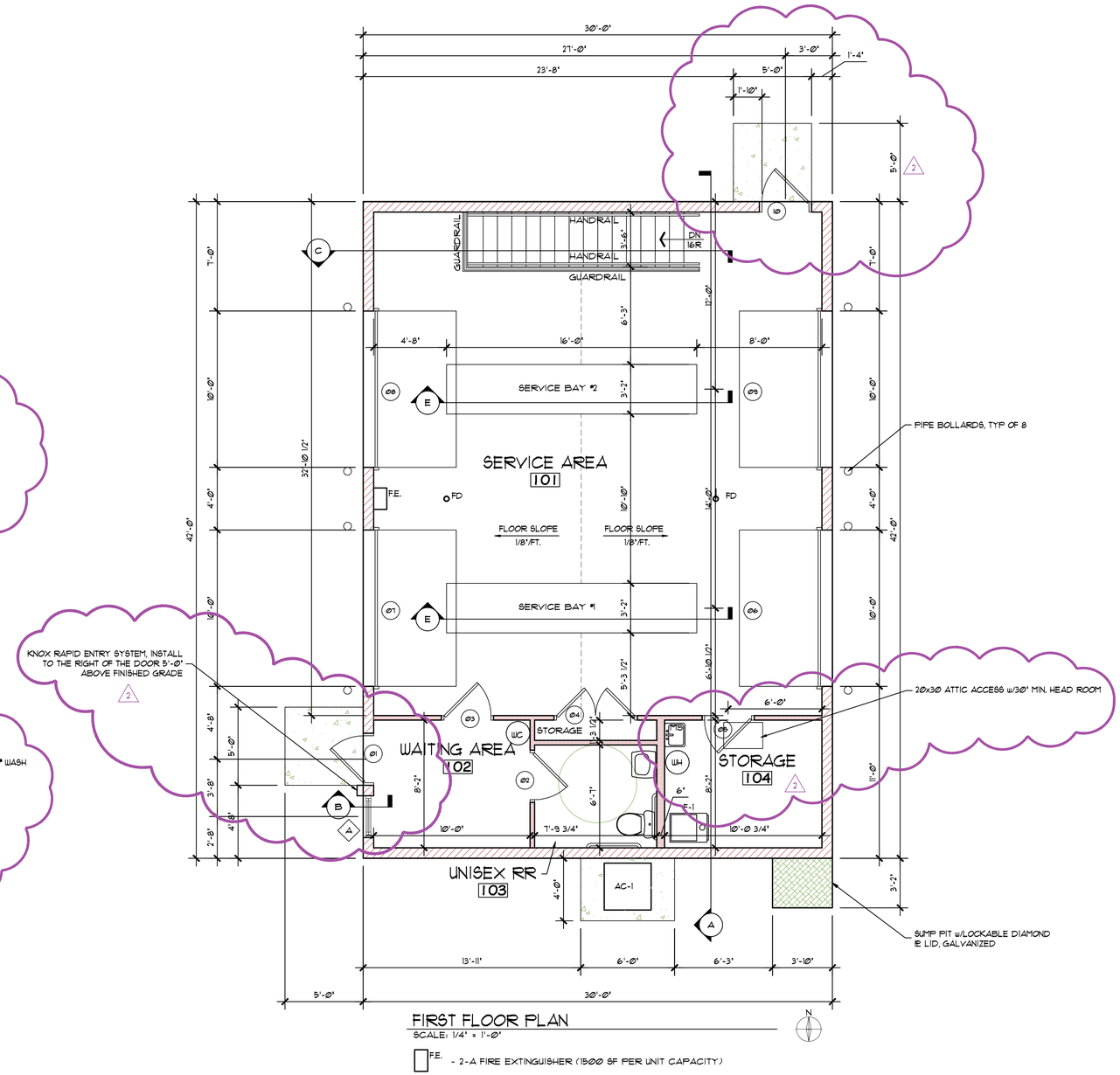
CONTAINMENT CALCULATION	
LARGEST VESSEL	= 275 GAL. x 110% = 303 GAL. (CF/7.48 GAL. = 40.5 CF
AREA	= 28.67' x 41.67' = 1194 SF
CONTAINMENT HEIGHT	= 40.5/1194 = Ø.41'
(POND BLADDER AND WATERSTOP ADEQUATE TO CONTAIN)	



LOWER LEVEL PLAN

SCALE: 1/4" = 1'-Ø"

F.E. - 2-A FIRE EXTINGUISHER (1500 SF PER UNIT CAPACITY)



FIRST FLOOR PLAN

SCALE: 1/4" = 1'-Ø"

F.E. - 2-A FIRE EXTINGUISHER (1500 SF PER UNIT CAPACITY)

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6/3/08	ADJUD. LETTER #2 DATED 4/16/08

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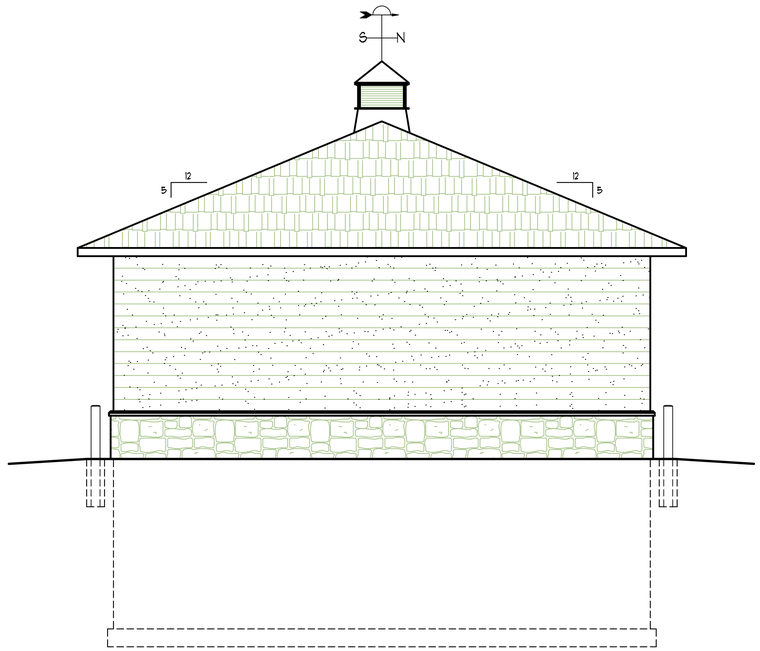
March 6, 2008

TITLE

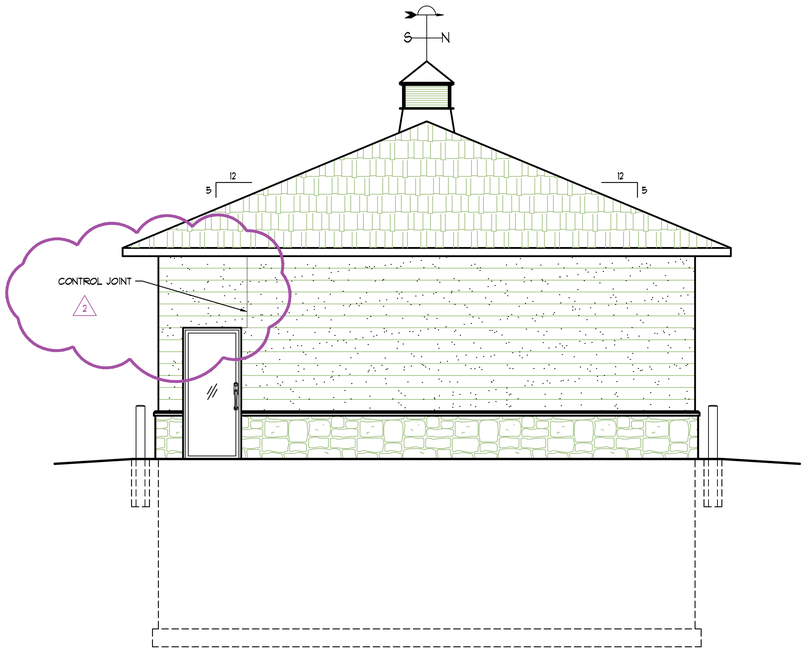
FIRST & LOWER FLOOR PLANS

SHEET NUMBER

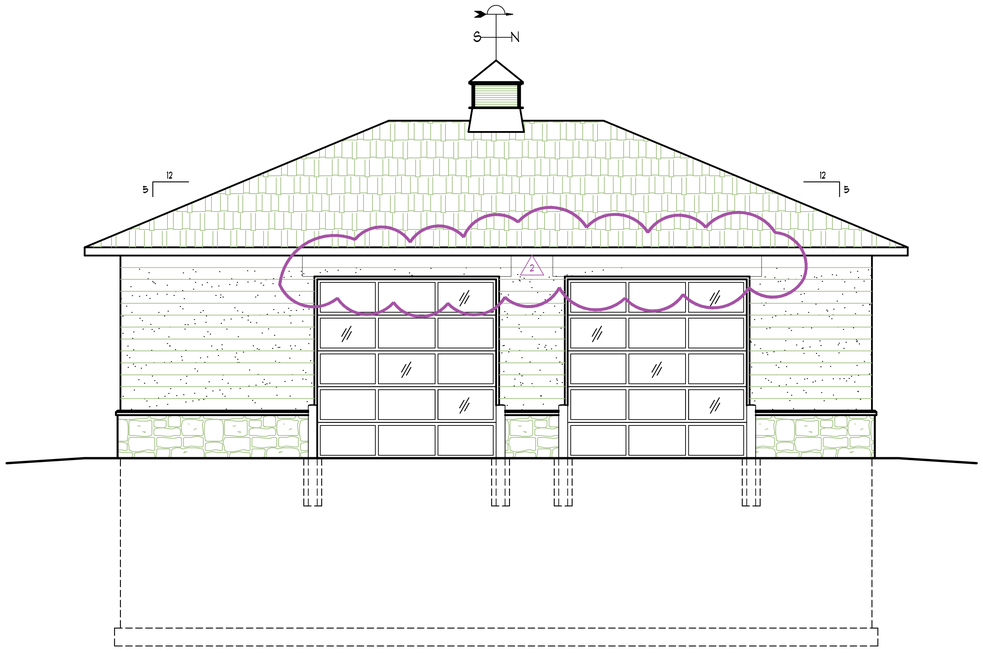
A-1



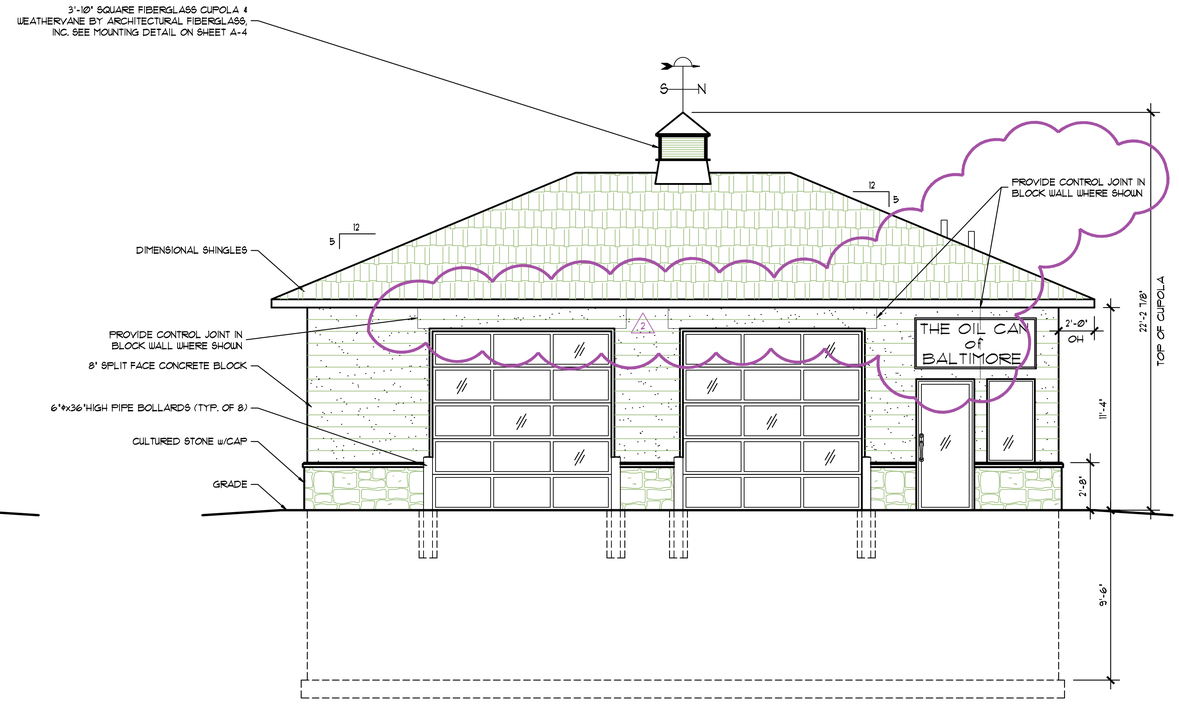
SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



NORTH ELEVATION
SCALE: 1/4" = 1'-0"



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



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

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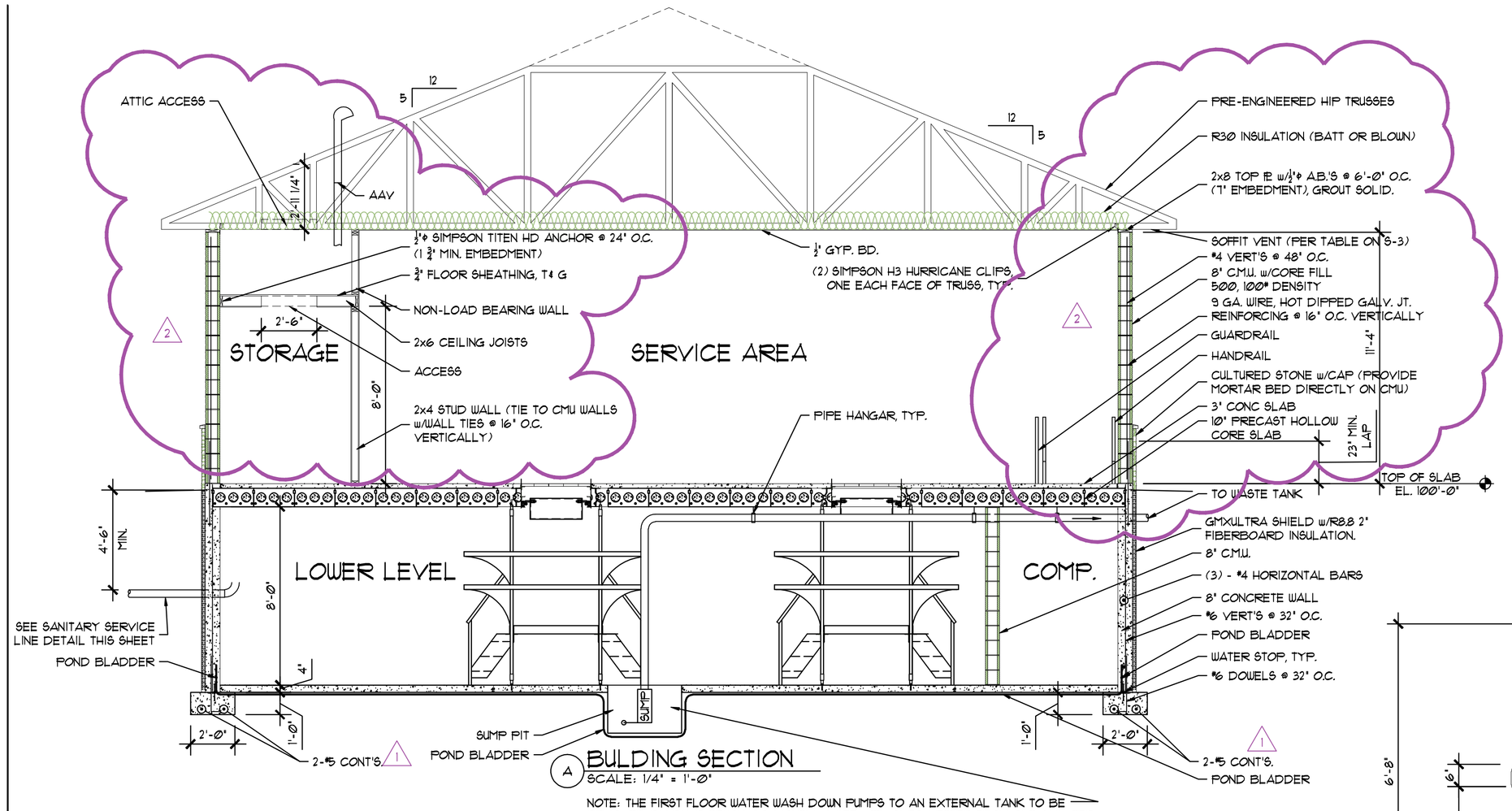
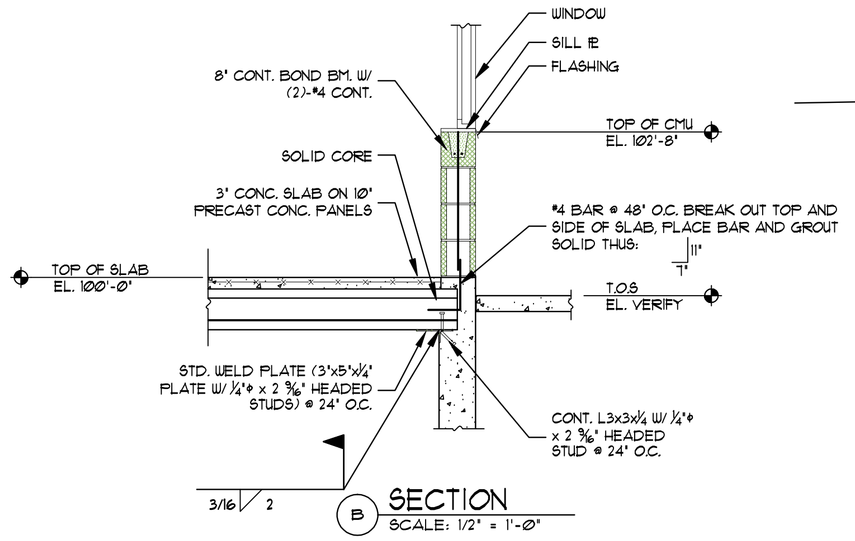
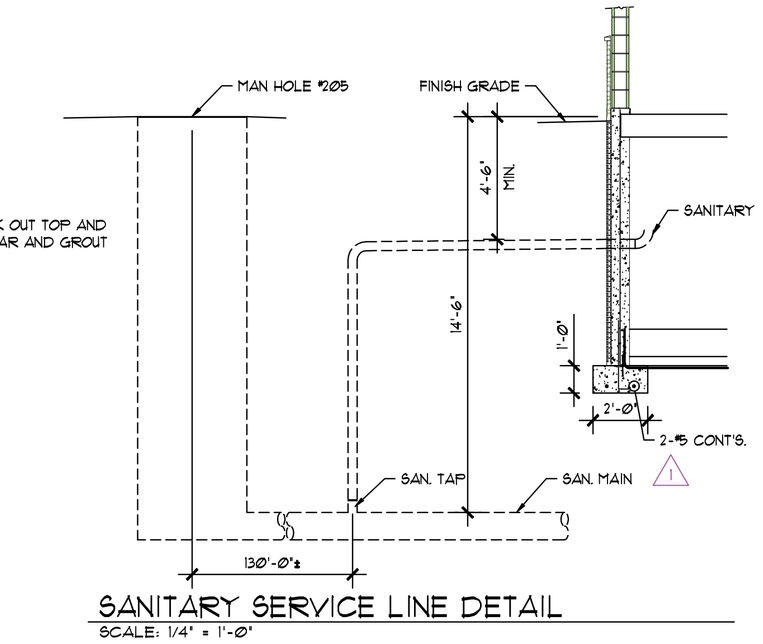
March 6, 2008

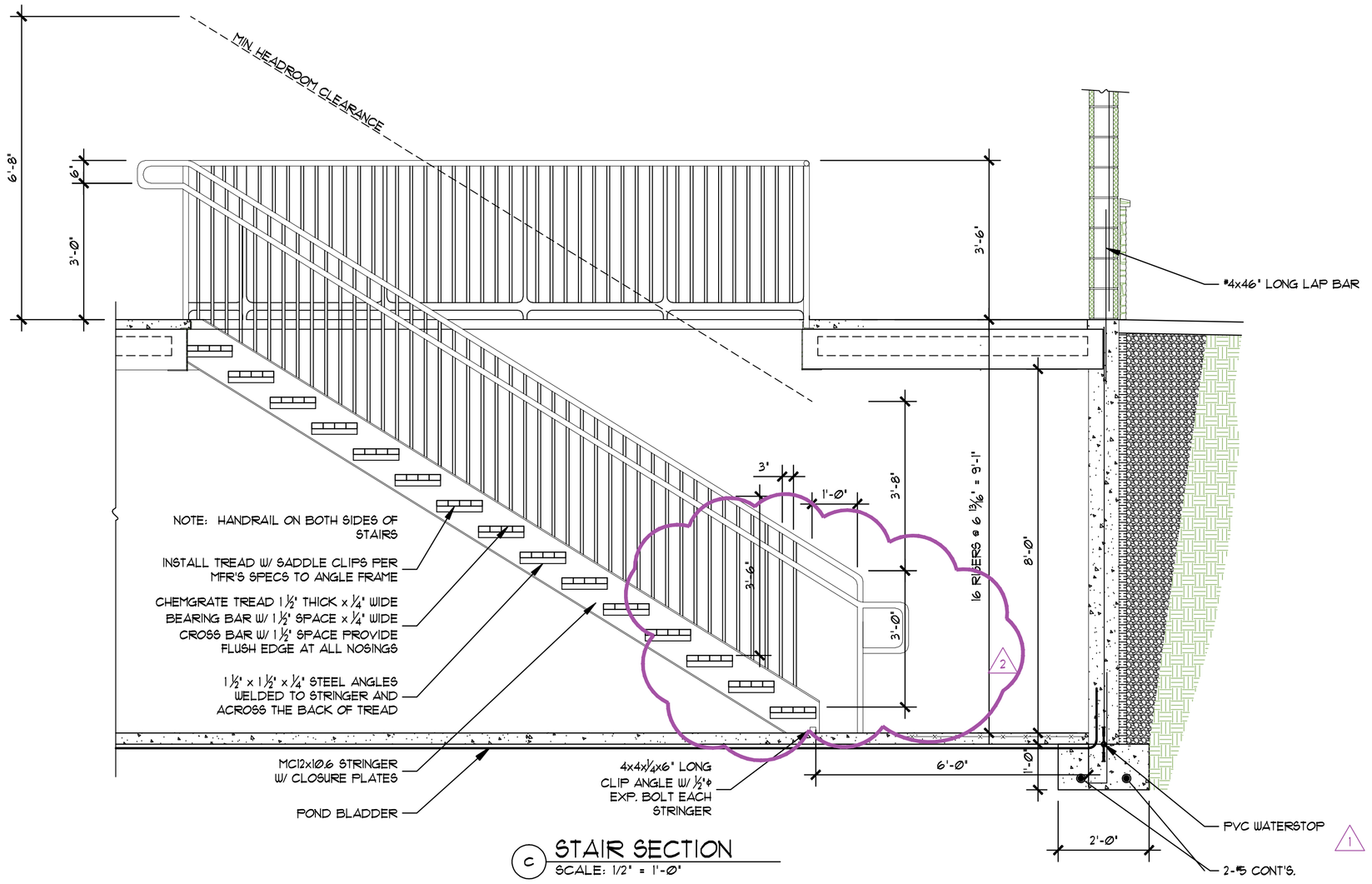
TITLE
ELEVATIONS

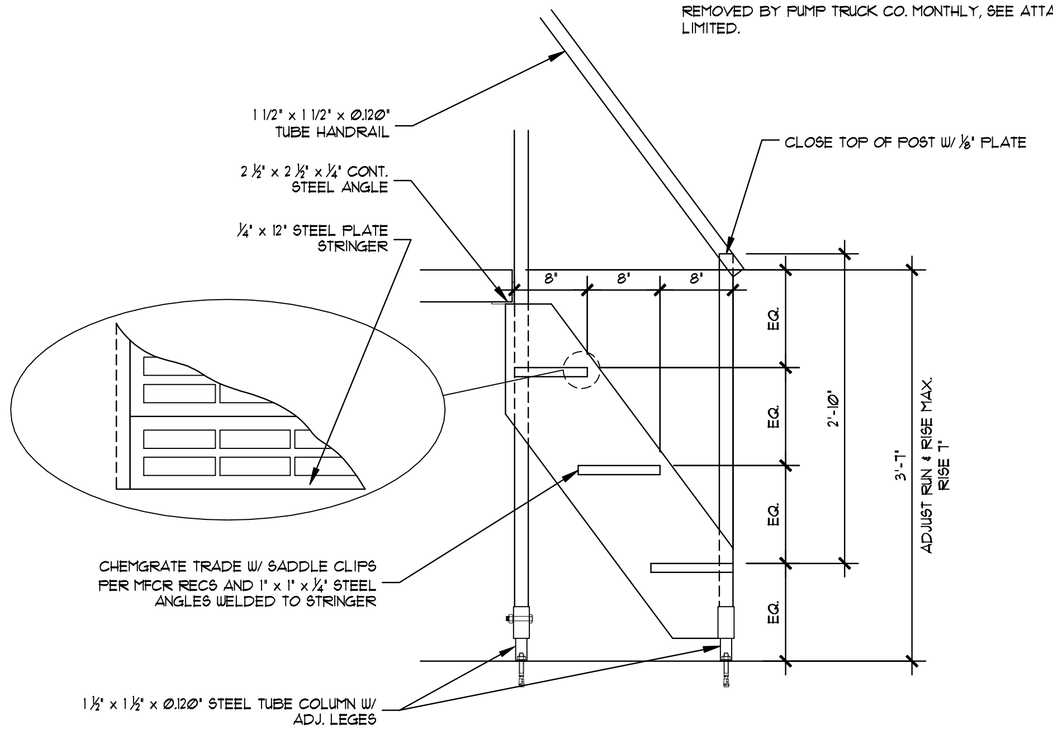
SHEET NUMBER
A-2

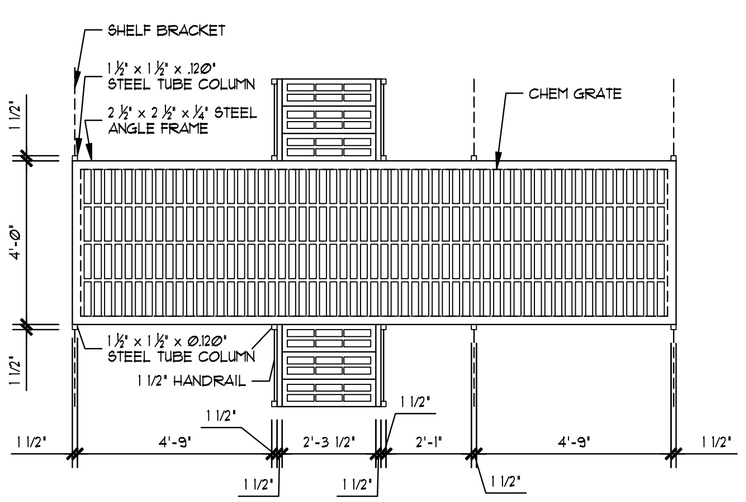


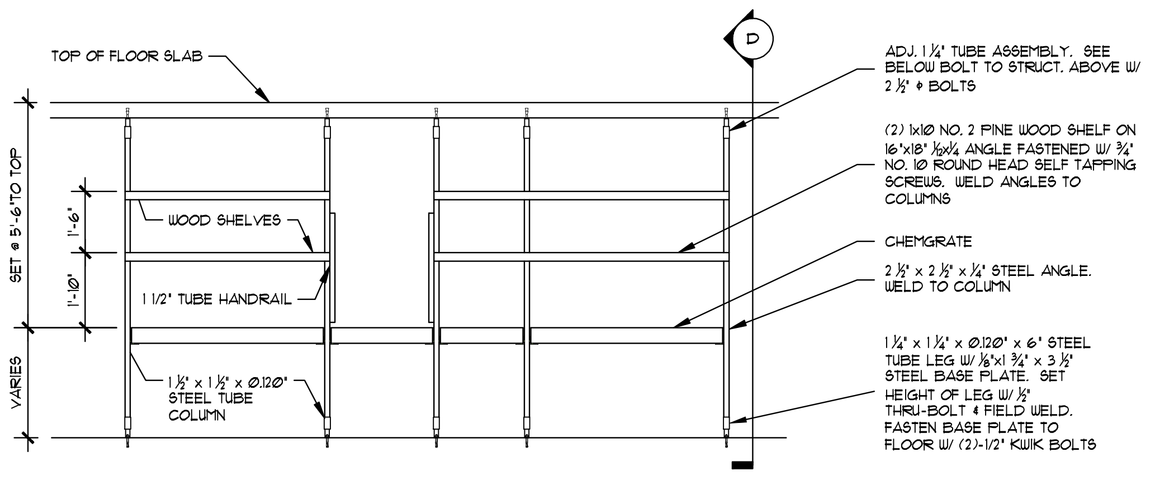


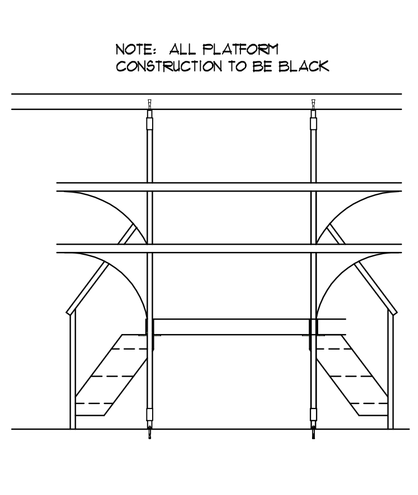


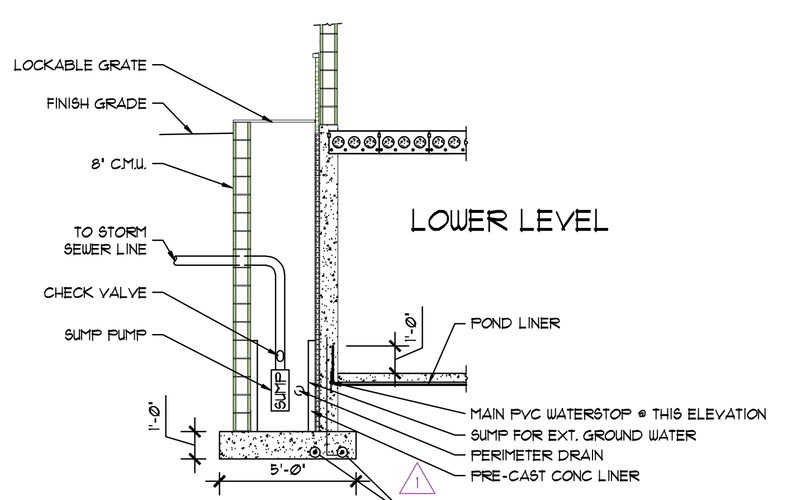












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REVISIONS

4/14/08	ADJUD. LETTER #1 DATED 4/13/08
6/3/08	ADJUD. LETTER #2 DATED 4/16/08

CONSTRUCTION SET

DATE

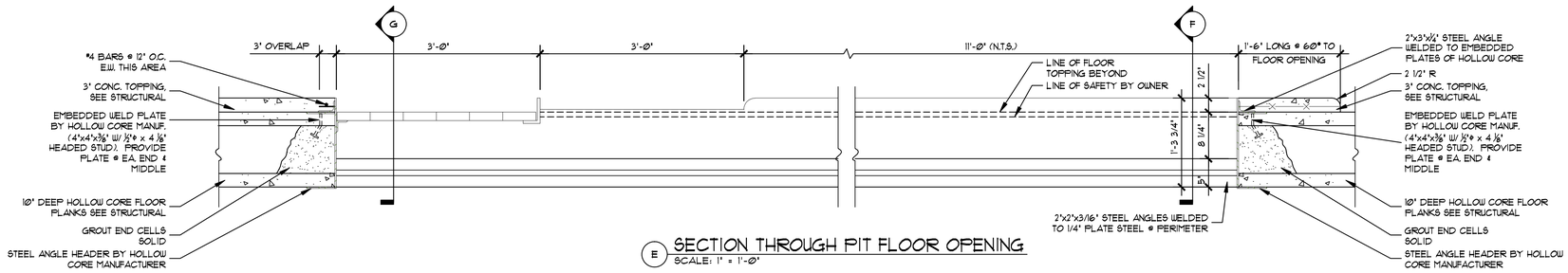
March 6, 2008

TITLE

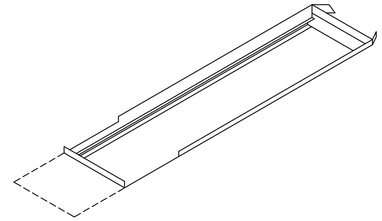
SECTIONS & DETAILS

SHEET NUMBER

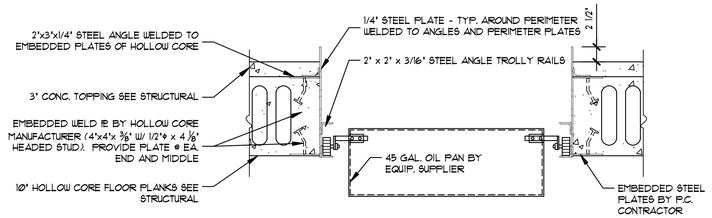
A-3



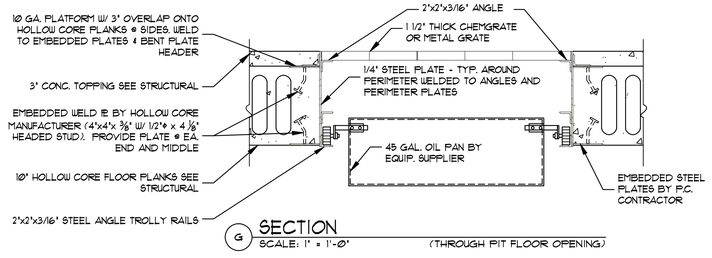
E SECTION THROUGH PIT FLOOR OPENING
SCALE: 1" = 1'-Ø"



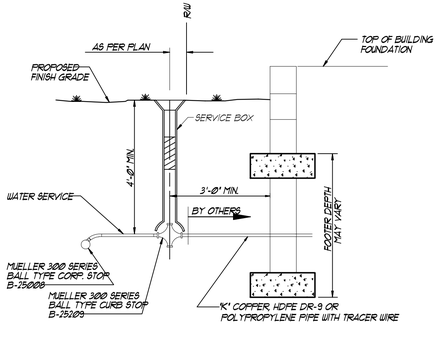
ISOMETRIC @ PIT OPENING
SCALE: N.T.S.



F SECTION
SCALE: 1" = 1'-Ø" (THROUGH PIT FLOOR OPENING)



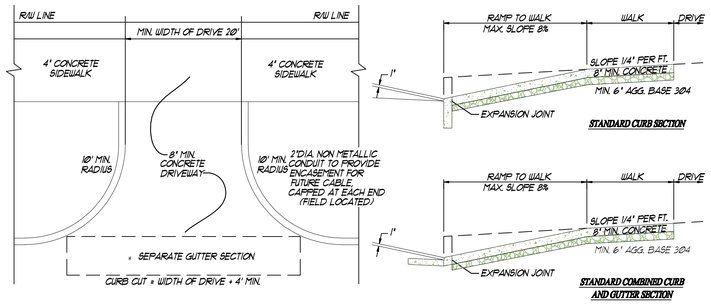
G SECTION
SCALE: 1" = 1'-Ø" (THROUGH PIT FLOOR OPENING)



NOTE: MUELLER PATTERN TYPE CURB STOP OR EQUAL WITH STEM AND BOX (2" LESS) HEAVY DUTY BUFFALO TYPE CURB BOX (LARGER THAN 2")

TYPICAL WATER SERVICE CONNECTION
SCALE: NTS

BALTIMORE STANDARD DWG.



* CURB OR COMBINED, CURB AND GUTTER SHALL BE TAKEN OUT AND REPLACED WITH CONCRETE, SEPARATED FROM THE RAMP BY 1/2" PREMOLDED EXPANSION JOINT, WHEN LESS THAN 5' OF A CURB SECTION REMAINS AFTER THE CURB CUT IS LOCATED, IT SHALL ALSO BE REMOVED AND REPLACED.

FILLS, IF REQUIRED, SHALL BE OF EARTH, COMPACTED IN 2" LAYERS, OR OF ITEM 340, SUBBASE, COMPACTED IN LAYERS NOT EXCEEDING 4'.

DRIVEWAYS AND SIDEWALKS SHALL BE CONSTRUCTED AS SHOWN IN DETAILS OF PLAIN PORTLAND CEMENT CONCRETE, ITEM 482, 5% TO 8% AIR ENTRAINED, CONTAINING 6 (501) BAGS OF CEMENT (CLS. 6EC.4S) PER C.Y., AND 3" MAX. SLUMP.

EXPANSION JOINTS SHALL BE PLACED TO FORM UTILITY STRIPS WHERE REQUIRED, AND WHEREVER NEW CONCRETE TOUCHES EXISTING CONSTRUCTION.

FORMS SHALL CONSIST OF WOOD 2" NOMINAL THICKNESS OR METAL OF EQUAL STRENGTH.

A STANDARD CURING COMPOUND SHALL BE PROPERLY APPLIED IMMEDIATELY AFTER FINISH.

ALTERNATE ASPHALT CONCRETE APPROACH: INSTEAD OF PLAIN PORTLAND CEMENT CONCRETE THE PORTIONS OF THE DRIVEWAY OUTSIDE OF THE LIMITS OF THE SIDEWALK MAY BE CONSTRUCTED TO THESE MINIMUM REQUIREMENTS (TO BE USED ON UNCURBED STREETS ONLY) (RESIDENTIAL USE ONLY)

6" AGGREGATE BASE, ITEM 304.
2" HOT MIXED, HOT LAID ASPHALT CONCRETE, ITEM 402
2" HOT MIXED, HOT LAID ASPHALT CONCRETE, ITEM 404

NOTE: ALTERNATE ASPHALT CONCRETE APPROACH SHALL NOT BE USED ON A CURBED STREET.

ITEM NUMBERS REFER TO STANDARD SPECIFICATIONS AND ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE SPECIFICATIONS.

NOTIFY THIS OFFICE WHEN FORMS WILL BE READY FOR INSPECTION, AT LEAST 24 HOURS BEFORE CONCRETE IS TO BE PLACED. IN NO CASE SHALL CONCRETE BE PLACED WITHOUT APPROVAL OF FORM WORK BY THE INSPECTOR.

* CURB SHALL BE CONSTRUCTED IN MINIMUM 5' SECTIONS AND MAXIMUM 10' SECTIONS.
NO CONCRETE SHALL BE PLACED UNTIL TEMPERATURE IS 35?F. MIN. CONCRETE SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 451.06 OF ITEM 451.

STANDARD DRIVEWAY (COMMERCIAL) ON PUBLIC R/W REF. RD-09A-07
SCALE: NTS

BALTIMORE STANDARD DWG.

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REVISIONS

CONSTRUCTION SET

DATE

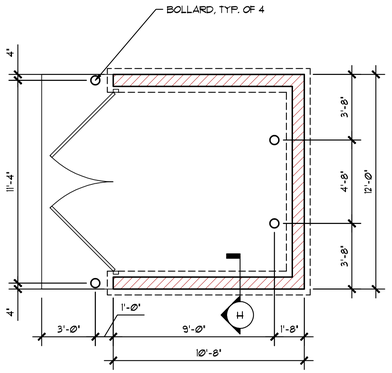
March 6, 2008

TITLE

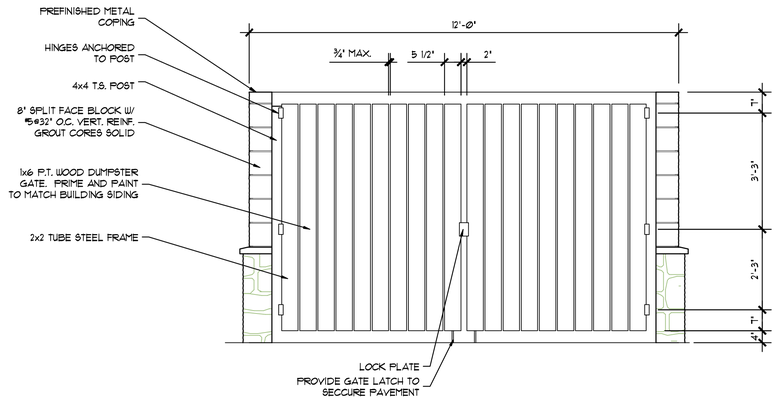
SECTIONS & DETAILS

SHEET NUMBER

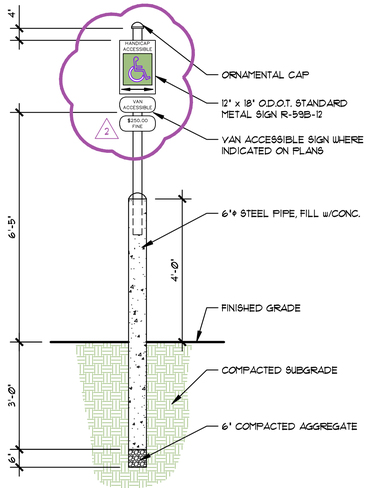
A-4



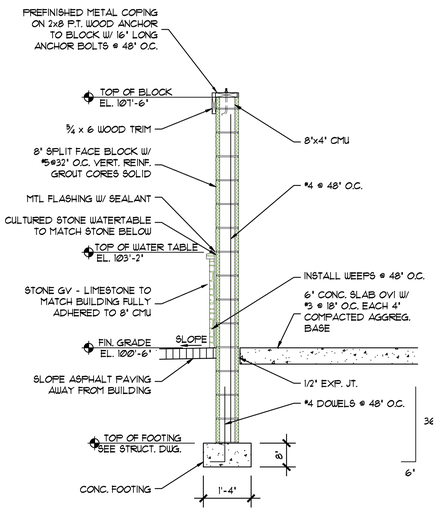
DUMPSTER PLAN
SCALE: 1/4" = 1'-0"



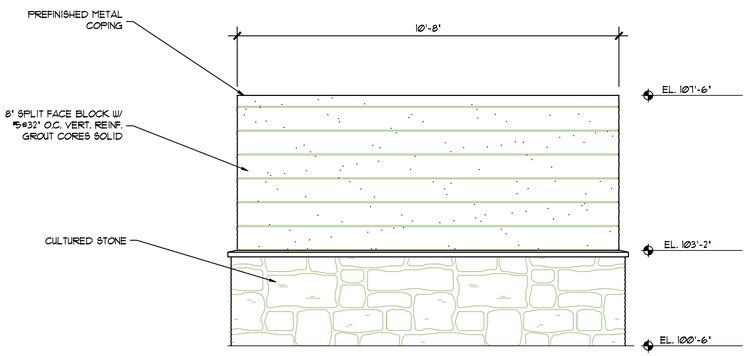
ELEVATION @ DOORS
SCALE: 1/2" = 1'-0"



BOLLARD DETAIL
SCALE: 1/2" = 1'-0"



H SECTION
SCALE: 1/2" = 1'-0"



TYP. SIDE ELEVATION (REAR SIMILLIAR)
SCALE: 1/2" = 1'-0"

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CONSTRUCTION SET

DATE

March 6, 2008

TITLE

DUMPSTER PLAN & DETAILS

SHEET NUMBER

A-5

ROOM FINISH SCHEDULE

ROOM NO. XXX	DESIGNATION	FLOOR	BASE	WALLS	CEILING	REMARKS
100	LOWER LEVEL	E	-	J	O	EXPOSED M.C. CEILING
101	SERVICE AREA	E	-	J	P	
102	WAITING AREA	E	1	JK	P	
103	UNISEX RESTROOM	E	1	JK	P	
104	STORAGE ROOM	E	1	JK	P	

ROOM FINISH NOTES

FLOOR
A. WOOD FLOOR
B. VCT TILE
C. CERAMIC TILE
D. CARPET
E. CONCRETE (SEALED)

BASE
F. QUARRY TILE
G. CERAMIC TILE
H. WOOD BASE TRIM
I. 6" VINYL COVE BASE

WALL
J. PAINTED MASONRY
K. 1/2" GYP. BD. PAINTED
L. CERAMIC TILE
M. WAINSCOT TO 32" A.F.F.

CEILING
N. ACOUSTICAL TILE
O. EXPOSED CONSTRUCTION
P. 1/2" GYP. BD. PAINTED
Q. SMOOTH PLASTER FINISH ON

REMARKS
S. PAINT MTL. DOOR FRAME
T. STAIN DOOR BOTH SIDES
U. PLASTIC LAMINATE COUNTER
V. WOOD TRIM CAP @ 5'-0" A.F.F.
W. LIGHT COVE
X. NEW MATERIAL & COLORS TO MATCH EXISTING

OTHERS
Y. RUBBER STAIR TREADS
Z. LAY-IN CEILING GRID & TILE
AA. CARPET BASE
BB. SHEET VINYL
CC. 6" VINYL BASE
DD. FRP PANELS
EE. PAINTED STAIR TREADS
FF. VCT @ STAIR LANDING
GG. CONCRETE PAVERS
HH. VINYL SOFFIT MATERIAL
II. EXPOSED WOOD CEILING
JJ. ACID ETCHED CONCRETE

DOOR SCHEDULE

DOOR NO. (XX)	DOOR SIZE	DOOR TYPE	THICKNESS	CONSTRUCTION	HINGES	LOCKSET	CLOSER	FRAME	STOPS	REMARKS
01	3'-0"x7'-0"	A	1 3/4"	A	H-2	L-4	C-1	1	S-1	
02	3'-0"x6'-8"	B	1 3/4"	B	H-1	L-3	C-1	1	S-1	
03	3'-0"x7'-0"	A	1 3/4"	A	H-2	L-4	C-1	1	S-1	
04	2-2'-6"x6'-8"	B	1 3/4"	C	H-1	L-1	-	2	-	
05	3'-0"x6'-8"	B	1 3/4"	C	H-1	L-1	-	2	-	
06	10'-0"x10'-0"	C	1 3/4"	A	-	L-7	-	1	-	GLASS OVERHEAD DOOR
07	10'-0"x10'-0"	C	1 3/4"	A	-	L-7	-	1	-	GLASS OVERHEAD DOOR
08	10'-0"x10'-0"	C	1 3/4"	A	-	L-7	-	1	-	GLASS OVERHEAD DOOR
09	10'-0"x10'-0"	C	1 3/4"	A	-	L-7	-	1	-	GLASS OVERHEAD DOOR
10	3'-0"x7'-0"	A	1 3/4"	A	H-2	L-4	C-1	1	S-1	
11	3'-0"x6'-8"	B	1 3/4"	C	H-1	L-2	-	2	-	

GENERAL NOTES

1. DOOR HARDWARE TO COMPLY WITH ADA REQUIREMENTS
2. ALL DOOR FRAMES SHALL BE PROVIDED AND INSTALLED TO BE NO LESS FIRE RATING THAN THE RATING OF THE DOOR INSTALLED.
3. ALL SIDELIGHT GLASS SHALL BE SAFETY GLASS
4. DOOR THRESHOLDS TO BE NO MORE THAN 1/2"
5. EGRESS DOORS SHALL BE READILY OPENABLE FROM EGRESS SIDE WITHOUT THE USE OF KEY OR DEVICE

CONSTRUCTION TYPE
A - ALUMINUM
B - WOOD
C - HM

HINGE, LOCKSET, CLOSER & STOP TYPES

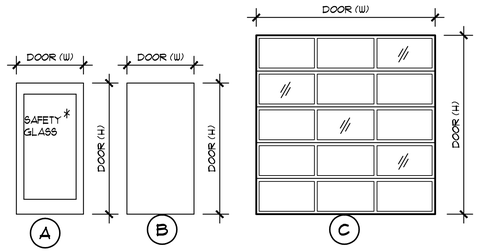
HINGES
H-1 McKINNEY MODEL TA-TB2714 STEEL OR APPROVED EQUAL
H-2 ALUM. STOREFRONT

LOCKSETS
L-1 SCHLAGE STOREROOM AL80FD. OUTSIDE LEVER FIXED. ENTRANCE BY KEY ONLY. INSIDE LEVER ALWAYS UNLOCKED.
L-2 SCHLAGE PASSAGE AL10S. BOTH LEVERS ALWAYS UNLOCKED.
L-3 BATHROOM LOCK AL40S. PUSH BUTTON LOCKING. CAN BE OPENED FROM OUTSIDE W/ SMALL SCREWDRIVER. TURNING INSIDE LEVER OR CLOSING DOOR RELEASES BUTTON.
L-4 ALUM ENTRY, PUSH/PULL AND LOCK SET W/INTERIOR LEVER .
L-5 PUSH BUTTON LOCKING, PUSH BUTTON LOCKS OUTSIDE LEVER UNTIL UNLOCKED WITH KEY OR BY ROTATING INSIDE LEVER
L-6 POCKET DOOR TYPE FULL
L-7 OVERHEAD DOOR INTERIOR LOCK ONLY

WINDOW SCHEDULE

MARK	WINDOW CALL OUT
A	3256 FIXED

SEE WINDOW SUPPLIER FOR R/O DIMENSIONS



DOOR TYPES

SCALE: NTS

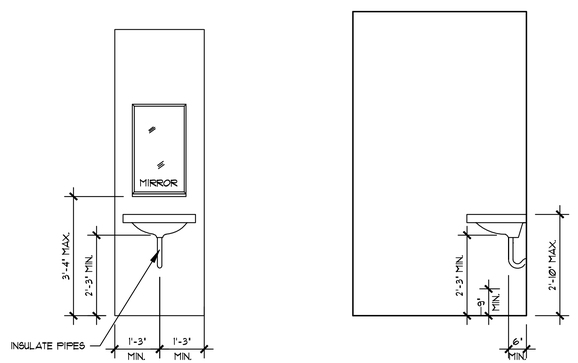
LEGEND

* ALL GLAZING SHALL CARRY SAME FIRE RATING AS THE WALL ITS DOOR IS ON.

CLOSURES
C-1 DORMA MODEL 8600 SERIES SURFACE APPLIED DOOR CLOSURE

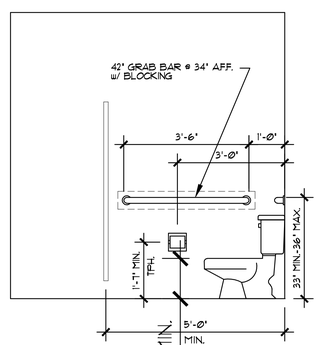
STOPS
S-1 ACCENT MODEL 241F FLOOR MOUNTED DOME STOP
S-2 WALL MOUNTED STOP

FRAME
1 ALUM STOREFRONT
2 METAL JAMB



TYP. RR ELEVATION (ADA)
SCALE: 1/2" = 1'-0"

TYP. RR ELEVATION (ADA)
SCALE: 1/2" = 1'-0"



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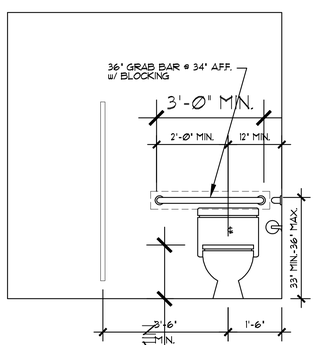
SCALE: 1/2" = 1'-0"



TYP. RR ELEVATION (ADA)
SCALE: 1/2" = 1'-0"

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PROJECT

THE OIL CAN, LLC
of
BALTIMORE

600 N. MAIN STREET
BALTIMORE, OHIO

BUILDER

PROJECT NO. 08-0036
DRAWN JCW/NVS
CHECKED RWM

REVISIONS
6/3/08 ADJUD. LETTER #2 DATED 4/16/08

CONSTRUCTION SET

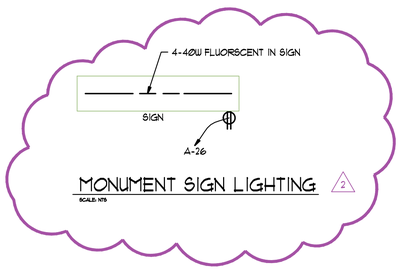
DATE
March 6, 2008

TITLE
SCHEDULES

SHEET NUMBER
A-6

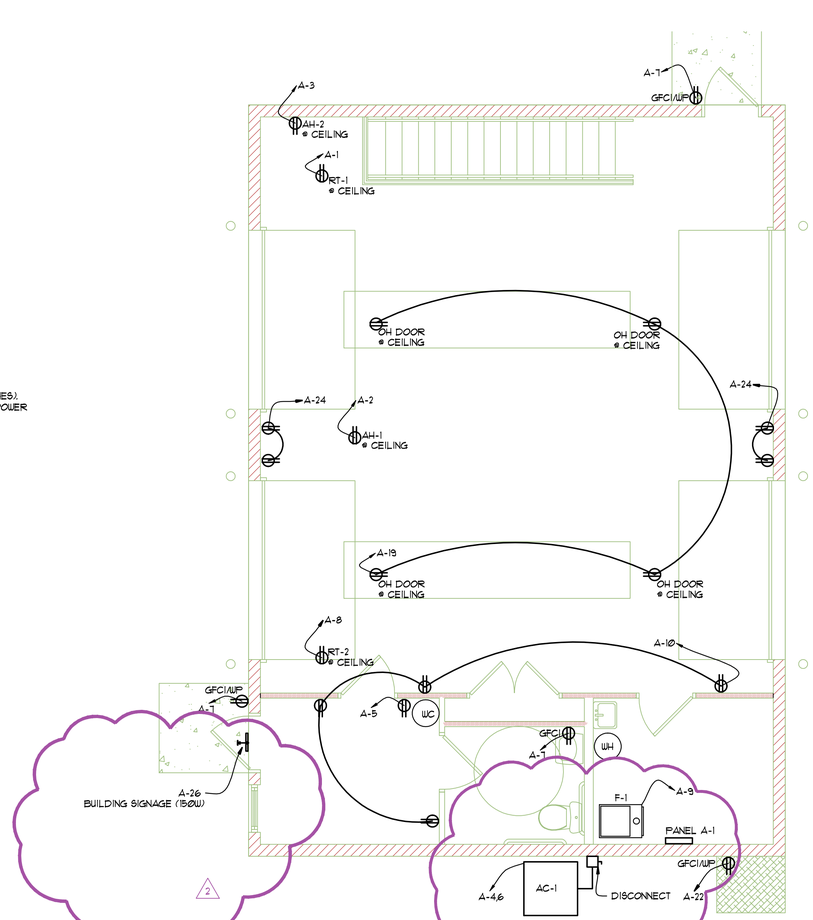
ELECTRIC LEGEND

A-1	8' T8S5 (2) 28T5, 54TSHO LAMPS, 54 WATTS/LAMP, NO REFLECTOR, WHITE, MVOLT
NL.	NIGHT LIGHT. SAME AS ABOVE. WIRE AHEAD OF ALL SWITCHES.
A-2	4' T8S5 (2) 28T5, 54TSHO LAMPS, 54 WATTS/LAMP, NO REFLECTOR, WHITE, MVOLT
C-1	CAN LIGHT - WITH GE 25418 - EL23/R25/5W COMPACT FLUORESCENT LAMP (23 W PER BULB)
B-1	BATHROOM LIGHT ABOVE LAV. (46W)
EF-1 FAN	RESTROOM FAN 75 CFM
WP	WALL PACK, WEATHER PROOF (150W) HPS
	EXIT LIGHT/EMERGENCY LIGHT W/ BATTERY BACKUP (MUST BE AHEAD OF ALL SWITCHES). IF CONNECTED TO EXIT DISCHARGE LIGHT, UNIT MUST HAVE SUFFICIENT CAPACITY TO POWER BOTH FIXTURES. E.C. TO CONFIRM THIS CONDITION.
	REMOTE DISCHARGE LIGHT
	BATTERY POWERED EMERGENCY LIGHT, (MUST BE AHEAD OF ALL SWITCHES).
$	SINGLE POLE SWITCH
3$	THREE POLE SWITCH
3$DIM	THREE POLE SWITCH W/DIMMER SWITCH
F	110V FLOOR RECEPT
	110V DUPLEX RECEPT
GFCI	110V DUPLEX RECEPT ON GFCI CIRCUIT
GFCI/WP	110V DUPLEX RECEPT ON GFCI CIRCUIT/WEATHER PROOF
	(P) PHONE OUTLET (C) COMPUTER OUTLET
	CABLE OUTLET



MONUMENT SIGN LIGHTING

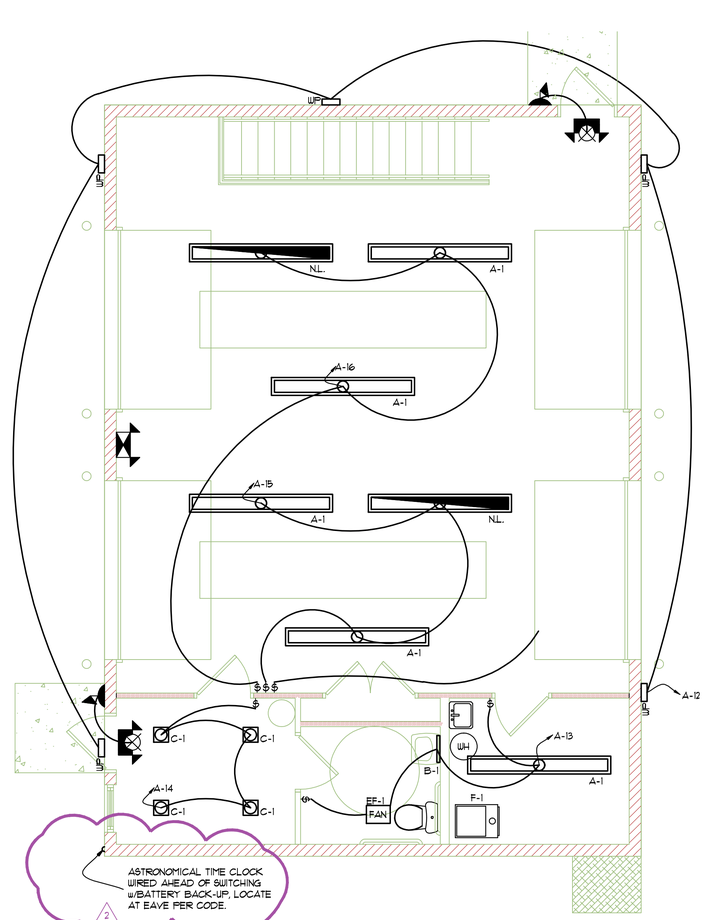
SCALE: NTS



FIRST FLOOR POWER PLAN

SCALE: 1/4" = 1'-0"

- OUTLETS TO BE 48" A.F.F. IN THE SERVICE AREA



FIRST FLOOR LIGHTING PLAN

SCALE: 1/4" = 1'-0"

- BULBS TO BE CLASS ONE, DIVISION 2, GROUP D FOR THE LOWER LEVEL AND SERVICE ROOM.
- OUTLETS TO BE 48" MIN. OFF FINISH FLOOR.

ELECTRICAL NOTES

1. ALL ELECTRICAL WIRING, EQUIPMENT, AND INSTALLATIONS SHALL BE IN COMPLIANCE WITH STATE AND LOCAL CODES AND THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
2. ALL BRANCH CIRCUITRY SHALL BE TYPE THHW, 100% COPPER, UNLESS STATED OTHERWISE ON THE PLANS.
3. ALL BRANCH CIRCUITS SHALL BE RUN IN THIN WALL CONDUIT WITH THE EXCEPTION OF WHERE CONDUCTORS ARE LOCATED IN A PERMANENT CONCEALED WALL, IN WHICH CASE TYPE MC MAY BE USED.
4. UNLESS NOTED OTHERWISE, LIGHT SWITCHES SHALL BE LOCATED 48" AFF. ELECTRIC AND COMMUNICATION SYSTEM OUTLETS SHALL BE LOCATED AT 18" AFF. BOTH DIMENSIONS ARE TO CENTER OF WORKBOX. THE HIGHEST CIRCUIT BREAKER SWITCH SHALL BE 54" (MAX) AFF. THERE SHALL BE CLEAR FLOOR SPACE IN FRONT OF ALL CONTROLS, CONVENIENCE RECEPTACLES, DISPENSERS AND OTHER OPERABLE EQUIPMENT THAT ALLOWS FORWARD OR PARALLEL APPROACH BY A WHEELCHAIR.
5. THE ELECTRICIAN SHALLCLEARLY LABEL CICUIT BREAKER SWITCHES THAT CONTROL SALES OFFICE LIGHTING CIRCUITS SO THAT EMPLOYEES EASILY UNDERSTAND WHICH BREAKER SWITCHES ARE TO BE TURNED ON AND OFF DURING SALES HOURS AND WHICH CIRCUIT ACTS AS THE NIGHT LIGHT. THEY SHALL ALSO LABEL WHICH BREAKERS TO TURN ON OR OFF OUTSIDE OF SALES HOURS IN ORDER TO PROVIDE AMBIENT LIGHTING FOR EMPLOYEES, YET REDUCES LIGHTING CURRENT BY ABOUT 50%.

WP. - INDICATES WEATHER PROTECTED. ALL EXTERIOR OUTLETS SHALL BE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTED.

- ELECTRICAL CONTRACTOR RESPONSIBILE FOR CONCRETE CUTTING AND TRENCHING.

- BULBS TO BE CLASS ONE, DIVISION 2, GROUP D FOR THE LOWER LEVEL AND SERVICE ROOM.

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CHECKED	RWM

REVISIONS

6/3/08 ADJUD. LETTER #2 DATED 4/16/08

CONSTRUCTION SET

DATE

March 6, 2008

TITLE

FIRST FLOOR ELEC. PLAN

SHEET NUMBER

E-1

PANEL SCHEDULE

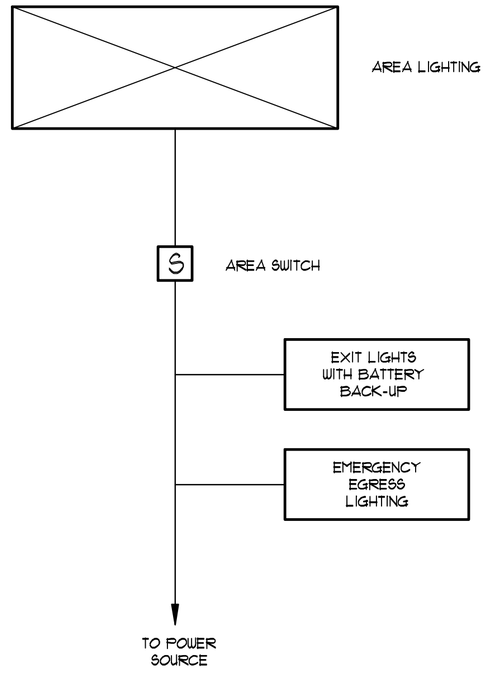
PANEL ID:	A-1 (NEW)					VOLTAGE:	120/240		
LOCATION:	STORAGE ROOM 104					PHASE:	1Φ		
MOUNTING:	SURFACE					WIRE:	3		
MAIN TYPE:	-					MAIN SIZE:	225A		

V*A	WIRE SIZE	BRANCH-CIRCUIT DESCRIPTION	BRK /P	CIRCUIT NUMBER		BRK /P	BRANCH-CIRCUIT DESCRIPTION	WIRE SIZE	V*A
16600	4	RADIANT TUBE RT-1	50/1	1	2	20/1	AIR HANDLER AH-1	12	655
655	12	AIR HANDLER AH-2	20/1	3	4	20/2	AC-1	12	833
180	12	WATER COOLER	20/1	5	6	20/2	"	12	833
540	12	GFCI/UP RECEPT.	20/1	7	8	20/1	RADIANT TUBE RT-2	4	16600
360	12	FURNACE F-1	20/1	9	10	20/1	RECEPT.	12	720
0		SPARE		11	12	20/1	OUTDOOR LIGHTS WP	12	180
236	12	RR/STORAGE LIGHTS	20/1	13	14	20/1	WAITING AREA LIGHTS	12	92
464	12	SERVICE LIGHTS	20/1	15	16	20/1	SERVICE LIGHTS	12	464
0		SPARE		17	18	20/1	LOWER LEVEL LIGHTS	12	696
720	12	OVERHEAD DOORS	20/1	19	20	20/1	LOWER LEVEL LIGHTS	12	522
180	12	WASTE SUMP PIT	20/1	21	22	20/1	STORM SUMP	12	180
540	12	LOWER LEVEL RECPT.	20/1	23	24	20/1	SERVICE RECEPT.	12	180
1865	10	COMPRESSOR	20/2	25	26	20/1	SIGNAGE	12	360
1865	10	"	30/2	27	28		SPARE		
		SPARE		29	30		SPARE		
		SPARE		31	32		SPARE		
		SPARE		33	34		SPARE		
		SPARE		35	36		SPARE		
		SPARE		37	38		SPARE		
		SPARE		39	40		SPARE		
24025									23115

2

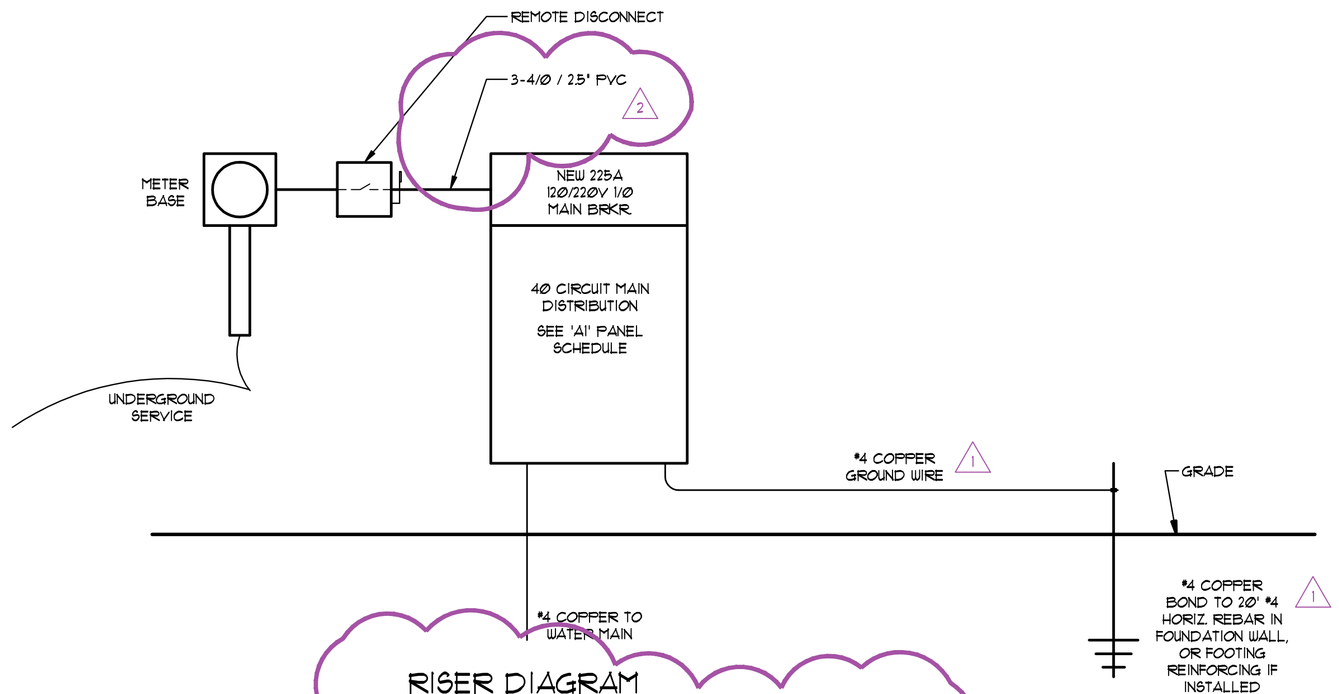
RECEPTACLE LOAD = 22 REC'S @ 180 V = 3,960 V*A
LIGHTING LOAD = 0.5 V*A / SQ. FT. = 0.5 * (2332 SF) = 1,166 V*A
TOTAL CONNECTED LOAD = 3,960 + 2,332 = 6,292 V*A
LOAD DEMAND REDUCTION = 100% OF FIRST 10,000 + 50% OF REMAINDER
LIGHTING LOAD = 6,292 * 100% + 0 * 50% = 6,292 V*A
ADD HEATING LOAD = 33,200 V*A
TOTAL DESIGN SERVICE LOAD = 6,292 + 33,200 = 39,492 V*A
TOTAL DESIGN AMPERAGE = 39,492 V*A / 220 V = 180.0 AMPS
DESIGN FACTOR = 180.0 AMPS / 80% = 224 AMPS

THEREFOR, PROVIDE 225 AMP SERVICE, FOR # OF CIRCUITS.



EMERGENCY LIGHTING DETAIL

SCALE: 3/4" = 1'-0"

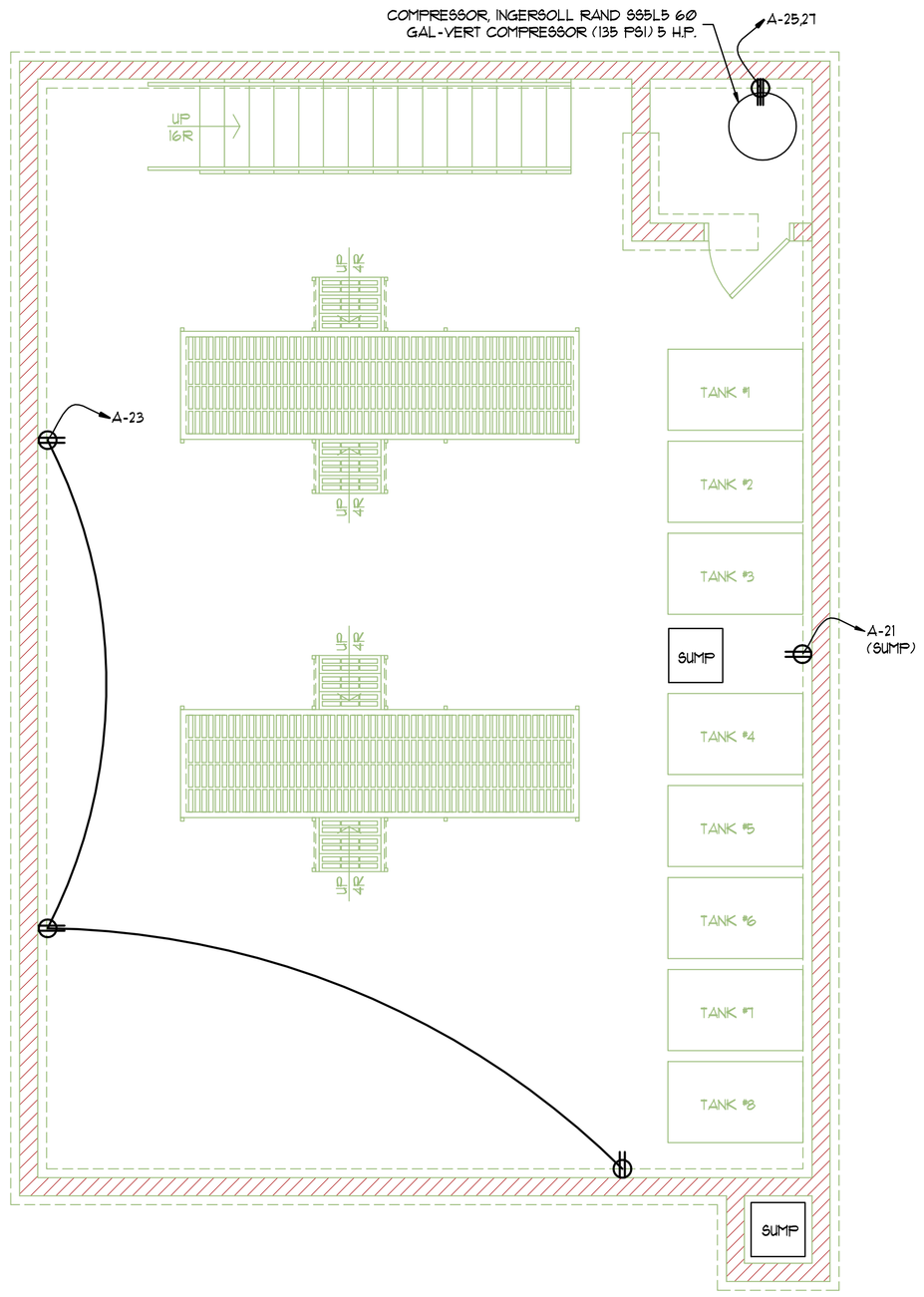


RISER DIAGRAM

SCALE: NTS

- REMOTE DISCONNECTS AND PANEL A-1 ARE TO BE A MINIMUM 20,000 A.I.C.

2

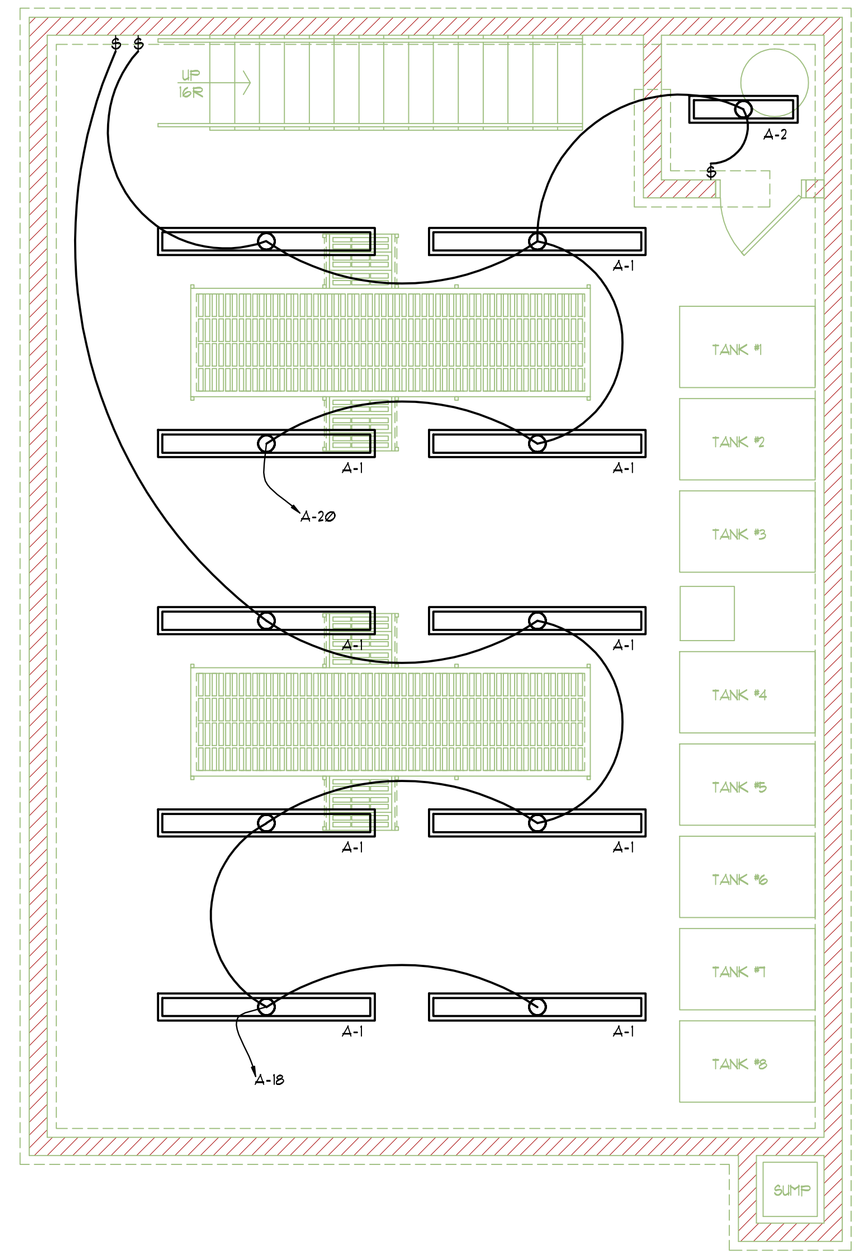


LOWER LEVEL POWER PLAN

SCALE: 1/4" = 1'-0"

- ALL OUTLETS ¢ TO BE 48" A.F.F.

2



LOWER LEVEL LIGHTING PLAN

SCALE: 1/4" = 1'-0"

- BULBS TO BE CLASS ONE, DIVISION 2, GROUP D FOR THE LOWER LEVEL AND SERVICE ROOM.

2

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REVISIONS
4/14/08 ADJUD. LETTER #1 DATED 4/13/08
6/3/08 ADJUD. LETTER #2 DATED 4/16/08

CONSTRUCTION SET

DATE

March 6, 2008

TITLE

MEZZANINE ELEC. PLAN

SHEET NUMBER

E-2

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY THAT ALL EQUIPMENT, AS SHOWN ON THESE DRAWINGS, WILL NOT CONFLICT WITH ANY DRAINS, SCUTTLES, JOINTS, VENTS, PIPING, EQUIPMENT, ETC.
2. CONTRACTOR SHALL PROVIDE COMPLETE INFORMATION AND COOPERATION TO THE OTHER CONTRACTORS AND TRADES AS REQUIRED FOR COMPLETION AND COORDINATION OF THE COMPLETE PROJECT.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ADMINISTERING ALL WARRANTIES ON EQUIPMENT IN WHICH THIS CONTRACTOR INSTALLS. THIS INCLUDES ALL CONDENSERS, REFRIGERANT LINES, AND OTHER ITEMS FURNISHED BY OTHERS AS WELL AS THOSE FURNISHED BY THIS CONTRACTOR.
4. ALL FLEXIBLE DUCTS SHALL BE SUPPORTED EVERY 3'-0" WITH 2" WIDE BANDS. MINIMUM ONE PER EACH SECTION OF FLEXIBLE DUCT. THE MAXIMUM ALLOWABLE LENGTH OF THE FLEX DUCT SHALL BE 8'-0" AND MAY NOT BE USED AS AN ELBOW.
5. CONTRACTOR SHALL COORDINATE ALL DUCT AND DIFFUSER LOCATIONS WITH LIGHTING LAYOUTS AS REQUIRED.
6. CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES, ALL REQUIRED OPENINGS AND EXCAVATIONS. ALL REQUIRED OPENINGS IN FOUNDATIONS, FLOORS, WALLS AND ROOF SHALL BE DESIGNED INTO THE STRUCTURE WITH THE USE OF SLEEVES, CURBS, ETC. CUTTING AND PATCHING SHALL BE HELD TO A MINIMUM.
7. ALL SUPPLY DIFFUSERS AND RETURN GRILLES LOCATED IN THE SERVICE AND/OR DINING AREA SHALL BE PAINTED TO MATCH THE CEILING, FLOOR OR WALL, AS NEEDED, BY THE PAINTING CONTRACTOR.
8. THERMOSTAT FOR NEW UNIT SHALL BE LOCATED GENERALLY AS SHOWN. EXACT LOCATIONS SHALL BE FIELD COORDINATED WITH OWNER TO AVOID INTERFERENCE WITH WALL MOUNTED WORK. IT SHALL BE PROGRAMMABLE AND FULLY COMPATIBLE WITH THE UNIT.
9. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE FABRICATING DUCTWORK.
10. CONTRACTOR SHALL FOLLOW ALL APPLICABLE STATE AND LOCAL CODES AND OBTAIN ALL PERMITS IN A TIMELY FASHION AS TO NOT DELAY THE JOB. CONTRACTOR IS REQUIRED TO SUBMIT "AS BUILT" DRAWING PRIOR TO FINAL PAYMENT.

CODED NOTES

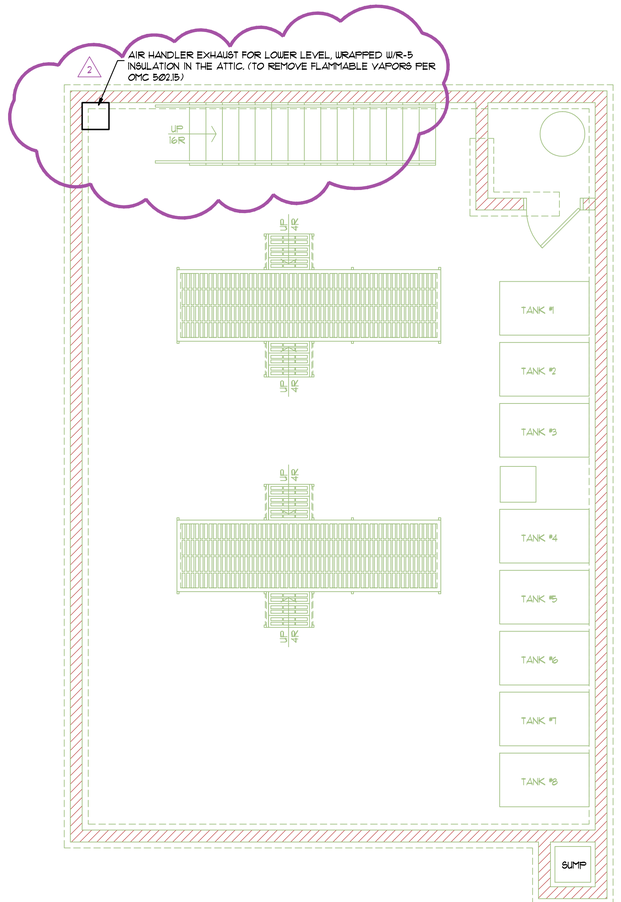
(1) EXHAUST TERMINUS TO PENETRATE TO EXTERIOR, BE DAMPERED AND SCREENED TO PROTECT FROM VERMIN. PENETRATION TO BE SEALED W/ONE HR. RATED MATERIAL

MECHANICAL EQUIPMENT SCHEDULE

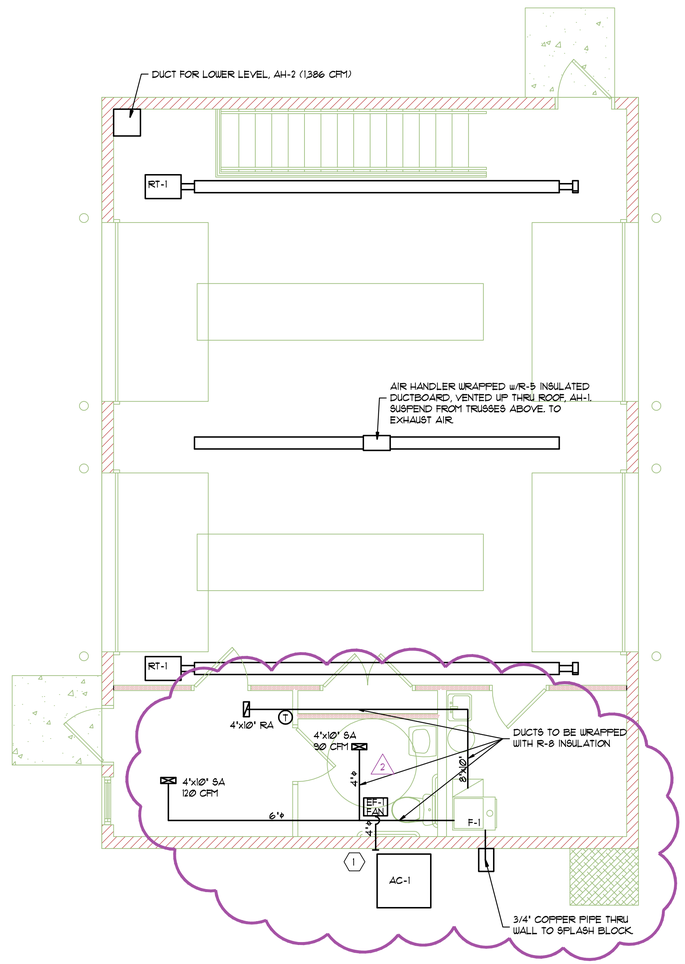
MARK	CFM	EFFICENCY RATING	INTPUT	OUTPUT	MANUFACTURER / MODEL
F-1	760	90.0 AFUE	45, BTU/h	40,300 BTU/h	LENNOX G43UH-24B-045
AC-1	-	13 SEER	-	48K	LENNOX MERIT 13ACD
RT-1 & 2	-	-	20,062 BTU/h	22KW	REZNOR/RADIANT TUBE RARBL22 SERIES
EF-1	80	0.3 SONES	-	-	NUTONE/QTXEN080
AH-1	1,386	-	-	-	LENNOX CBX32M-048, VENTILATION ONLY
AH-2	1,750	-	-	-	LENNOX CBX32U-060, VENTILATION ONLY

VENTILATION (OMC 401.2)

NATURAL:	
FIRST FLOOR AREA OCCUPIED SPACE	975
LOWER LEVEL (ADJOINING SPACE)	1260
TOTAL SF	2235
MIN. OPERABLE AREA TO OUTDOOR (4%)	90
OPENINGS PROVIDED (4-10" x 10")	400
OPENINGS TO ADJOING SPACE (8%) .08 x 975SF	78
SERVICE BAY OPENINGS & STAIRWELL OPG.	148
MECHANICAL:	
AIR HANDLER 1	1,386
AIR HANDLER 2	1,750
EXHAUST FAN EF-1	(80)
TOTAL: 3,136	



LOWER LEVEL HVAC PLAN
SCALE: 1/4" = 1'-0"



FIRST FLOOR HVAC PLAN
SCALE: 1/4" = 1'-0"

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6/3/08 ADJUD. LETTER #2 DATED 4/16/08

CONSTRUCTION SET

DATE
March 6, 2008

TITLE
LOWER LEVEL MECH. PLAN

SHEET NUMBER
M-1

GENERAL NOTES

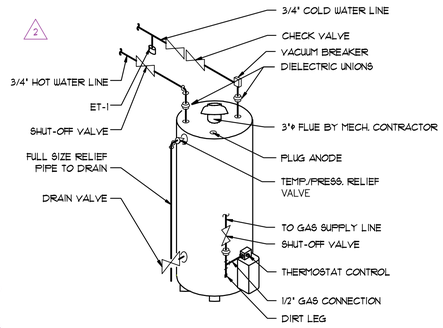
1. THE PLUMBING CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR FOR ALL CONCRETE FLOOR CUTS. THE CUTTING OF THE SLAB IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR.
2. THE PLUMBING CONTRACTOR SHALL VERIFY SANITARY LINE CONNECTIONS (LOCATIONS AND SIZES) WITH SITE CONTRACTOR, PRIOR TO INSTALLING ANY UNDERGROUND PIPING.
3. ALL SANITARY PIPING SHALL BE CAST IRON.
4. ALL VENT PIPING CAN BE COPPER OR PVC DO NOT MIX TYPES USED.
5. ALL DOMESTIC WATER PIPING MUST BE COPPER. PLUMBING CONTRACTOR IS TO FURNISH AND INSTALL ½" FIBERGLASS INSULATION ON ALL WATER PIPES.
6. THE PLUMBING CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL HANGERS, SUPPORTS AND ACCESSORIES AS REQUIRED BY ALL CODES.
7. ALL WORK SHALL BE PERFORMED IN A PROFESSIONAL MANNER AND SHALL MEET OR EXCEED ALL CODES HAVING JURISDICTION.
8. THE PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL SHOCK ABSORBERS ON ALL WATER PIPING AS REQUIRED.
9. THE PLUMBING CONTRACTOR IS RESPONSIBLE TO MAKE ALL FINAL CONNECTIONS TO FIXTURES THAT ARE NOT SUPPLIED BY KITCHEN EQUIPMENT CONTRACTOR. SEE SCHEDULE ON SHEET P-4.
10. THE PLUMBING CONTRACTOR IS RESPONSIBLE TO PAY FOR AND OBTAIN ALL REQUIRED PERMITS AND SCHEDULE INSPECTIONS, ALL IN A TIMELY MANNER AS TO NOT DELAY PROJECT.
11. THE PLUMBING CONTRACTOR SHALL VERIFY ALL LOCATIONS AND CONDITIONS IN THE FIELD PRIOR TO STARTING ANY WORK. ANY CONFLICTS FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
12. THE PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL A SHUT-OFF VALVE AND 6" DIRT LEG AT ALL CONNECTIONS TO ALL GAS EQUIPMENT. PROVIDE A SEPARATE SHUT-OFF FOR EACH OF THE TABLE TOP 'PLATE COOKER' BURNERS.
13. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL SHUT-OFF VALVES TO ALL FIXTURES NOT OTHERWISE EQUIPPED.
14. THE PLUMBING CONTRACTOR MUST FURNISH AN AS-BUILT SET OF DRAWINGS SHOWING THE EXACT LOCATION/ELEVATION OF ALL UNDERGROUND PIPING TO THE OWNER, ARCHITECT AND ENGINEER AT COMPLETION OF THE PROJECT PRIOR TO FINAL PAYMENT.

CODED NOTES

(1) FLOOR DRAINS TO SCUPPER, OUTLET TO WASTE TANK, TYP. OF 2.

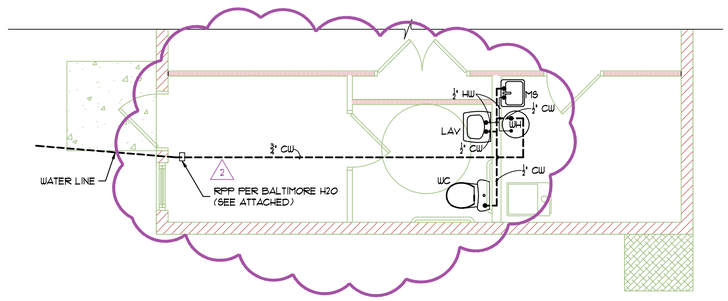
PLUMBING FIXTURE SCHEDULE

WC	WATER CLOSET	AMERICAN STANDARD 2371.100, 16 1/2"H, ELONGATED w/PRESSURE ASSISTED JET FLUSH OR EQUAL.
LAV	LAVATORY	AMERICAN STANDARD 0355.012 WALL HUNG, w/A.S. 2385.407 FAUCET, w/TRUEBRO LAV GUARD ADA OR EQUAL. w/WATER TEMPERATURE DEVICE TO TEMPER WATER TO MAX. 110°.
MS	MOP SINK	AMERICAN STANDARD
WH	WATER HEATER	GAS WATER HEATER w/HEAT TRAP KIT FROM WATER HEATER MFG. & THERMAL EXPANSION CONTROL DEVICE.



NOTE: FOR CAPACITY SEE WATER HEATER SCHEDULE

GAS WATER HEATER DETAIL
N.T.S.



FIRST FLOOR SUPPLY PLAN
SCALE: 1/4" = 1'-0"

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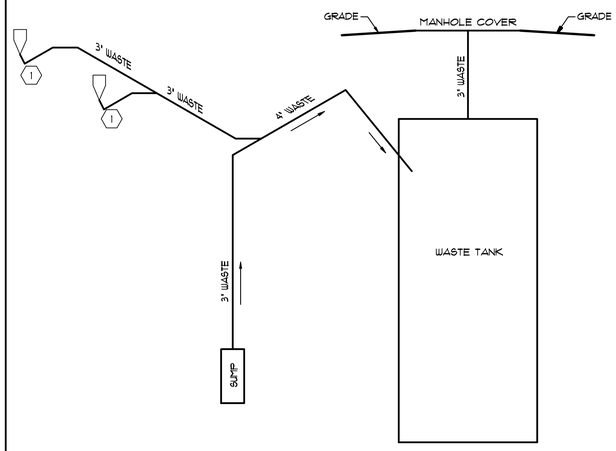
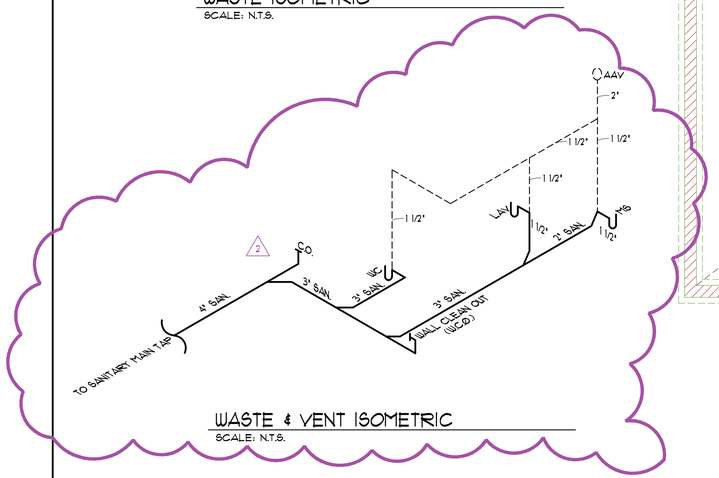
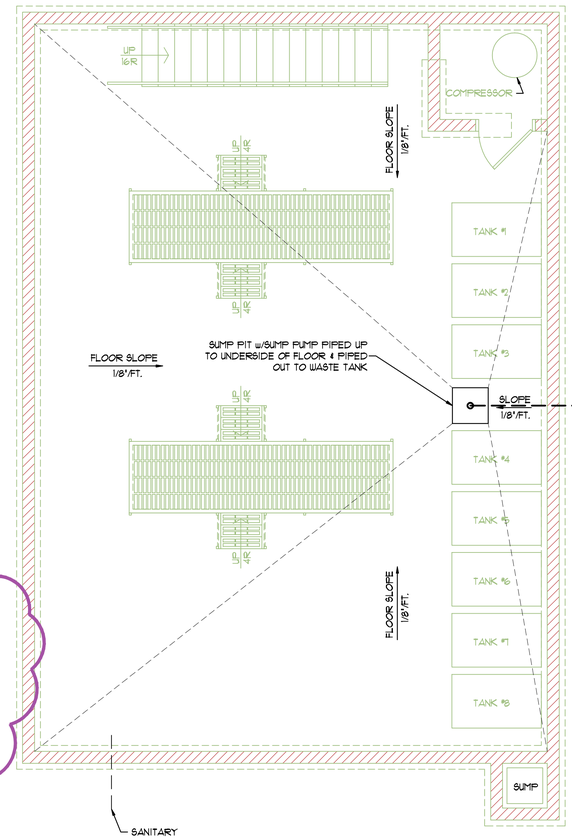


WASTE ISOMETRIC
SCALE: N.T.S.

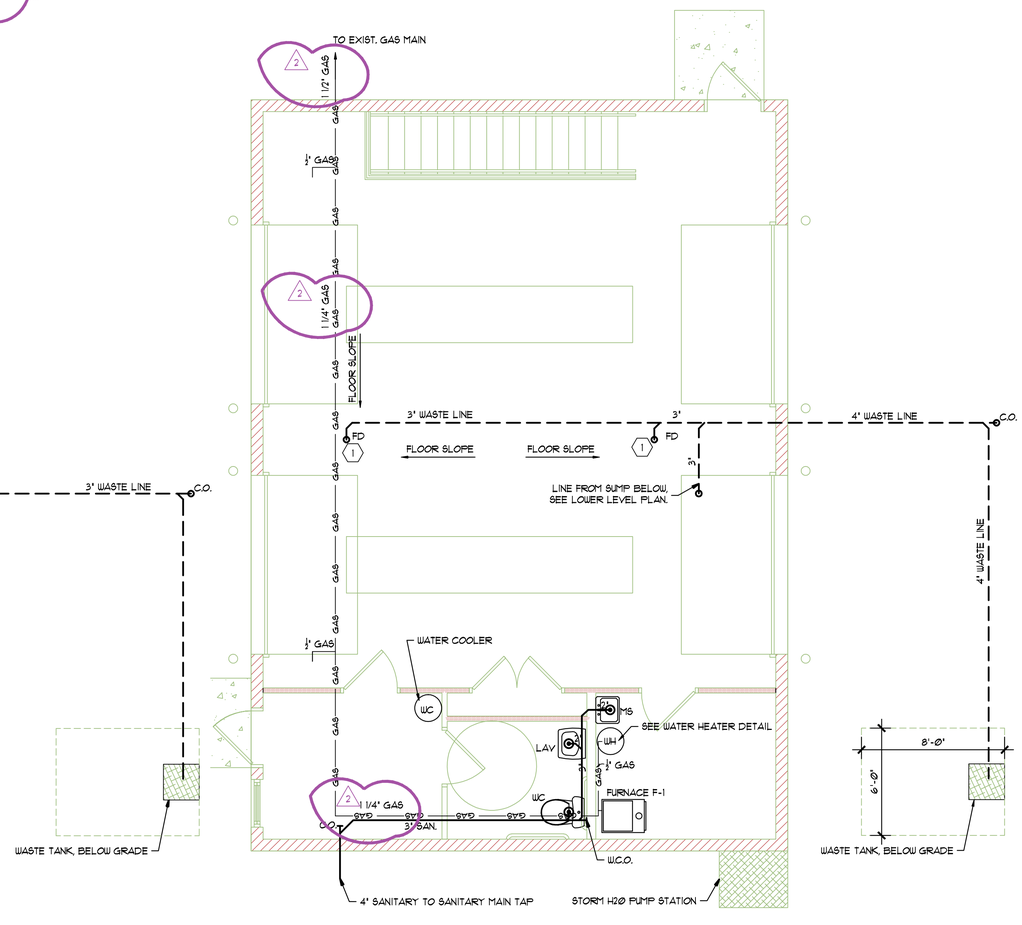


WASTE & VENT ISOMETRIC
SCALE: N.T.S.



LOWER LEVEL WASTE PLAN
SCALE: 1/4" = 1'-0"

N



FIRST FLOOR WASTE & VENT PLAN
SCALE: 1/4" = 1'-0"

N

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PROJECT

THE OIL CAN, LLC
of
BALTIMORE

600 N. MAIN STREET
BALTIMORE, OHIO

BUILDER

PROJECT NO. 08-0036
DRAWN JCW/MVS
CHECKED RWM
REVISIONS
5/9/08 ADJUD. LETTER #1 DATED 4/16/08

CONSTRUCTION SET

DATE

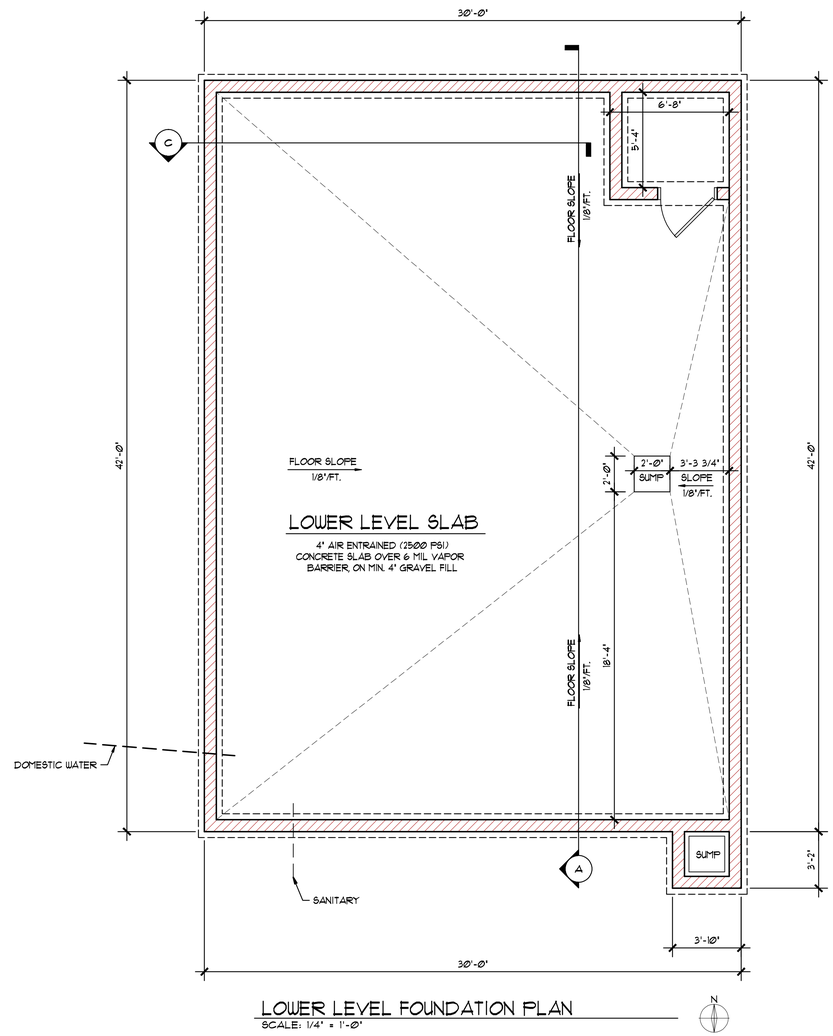
March 6, 2008

TITLE

FIRST FLOOR PLUMBING PLAN

SHEET NUMBER

P-1



LOWER LEVEL FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

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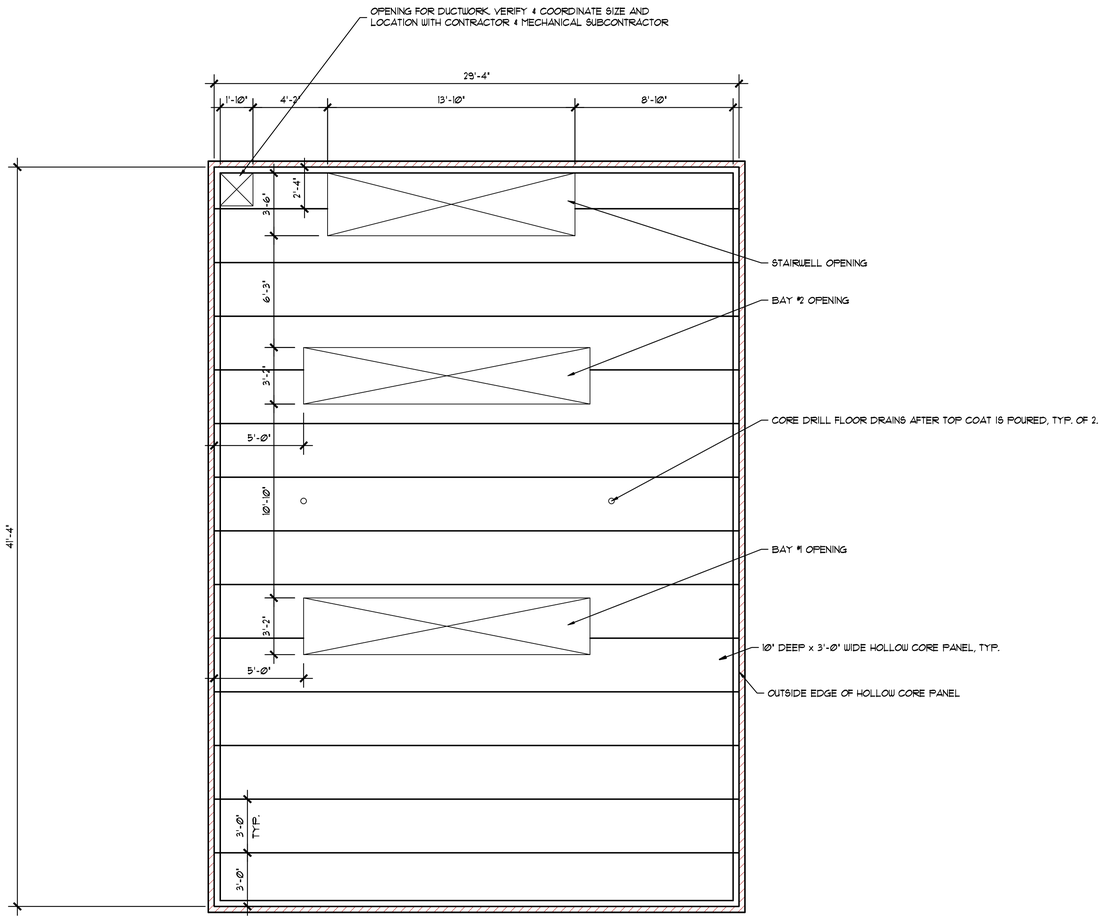
TITLE

FOUNDATION PLAN

SHEET NUMBER

S-1



HOLLOW CORE PLAN

SCALE: 1/4" = 1'-0"

N

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CONSTRUCTION SET

DATE

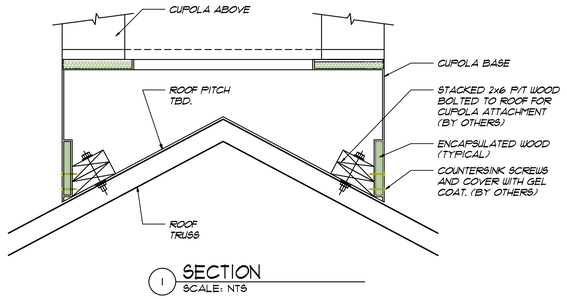
March 6, 2008

TITLE

HOLLOW CORE FRAMING PLAN

SHEET NUMBER

S-2



1 SECTION
SCALE: NTS

ATTIC VENTILATION CALCULATIONS

REQUIRED VENTILATION:

AREA OF ATTIC SPACE	X	(1/300)	=	REQUIRED ATTIC VENT	
1564	X	0.003334	=	**5.2**	**SF**

VENTILATION PROVIDED:

NUMBER OF HAT VENTS	X	0.33 SF/EA	=	TOTAL VENT (SF)	
8	X	0.33	=	2.6	SF
OR LENGTH OF RIDGE VENT	X	0.079 SF/FT	=	TOTAL VENT (SF)	
OR 34	X	0.079	=	2.7	SF
# OF 8"x16" SOFFIT VENTS	X	0.40 SF/EA	=	TOTAL VENT (SF)	
7	X	0.40	=	2.8	SF
TOTAL AREA OF VENTILATION PROVIDED			=	**5.4**	**SF**

PLAN NOTES

1. FINAL TRUSS LAYOUT AND DESIGN ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER. GIRDER TRUSS LOCATIONS AND ALL INTERIOR BEARING LOCATIONS FOR ROOF FRAMING SHALL BE PER THIS ROOF FRAMING PLAN UNLESS OTHERWISE APPROVED BY M2 DESIGN GROUP, LLC.
2. THE TRUSS MANUFACTURER SHALL DESIGN ALL GIRDER TRUSSES FOR AN ALLOWABLE BEARING STRESS OF 425 PSI. TRUSS MANUFACTURER MAY PROVIDE BEARING BLOCKS OR SIMPSON TBE (TRUSS BEARING ENHANCERS) IN PLACE OF ADDITIONAL GIRDER TRUSS PLIES TO MEET ALLOWABLE BEARING REQUIREMENTS.
3. GIRDER TRUSSES SHALL BE SUPPORTED BY MINIMUM (2)-2x4 POST (GLUED AND NAILED). MINIMUM POST WIDTH TO MATCH GIRDER TRUSS WIDTH. POSTS SHALL BE FULLY BLOCKED TO BEAM OR FOUNDATION WALL BELOW.

UPLIFT HOLD DOWN TABLE

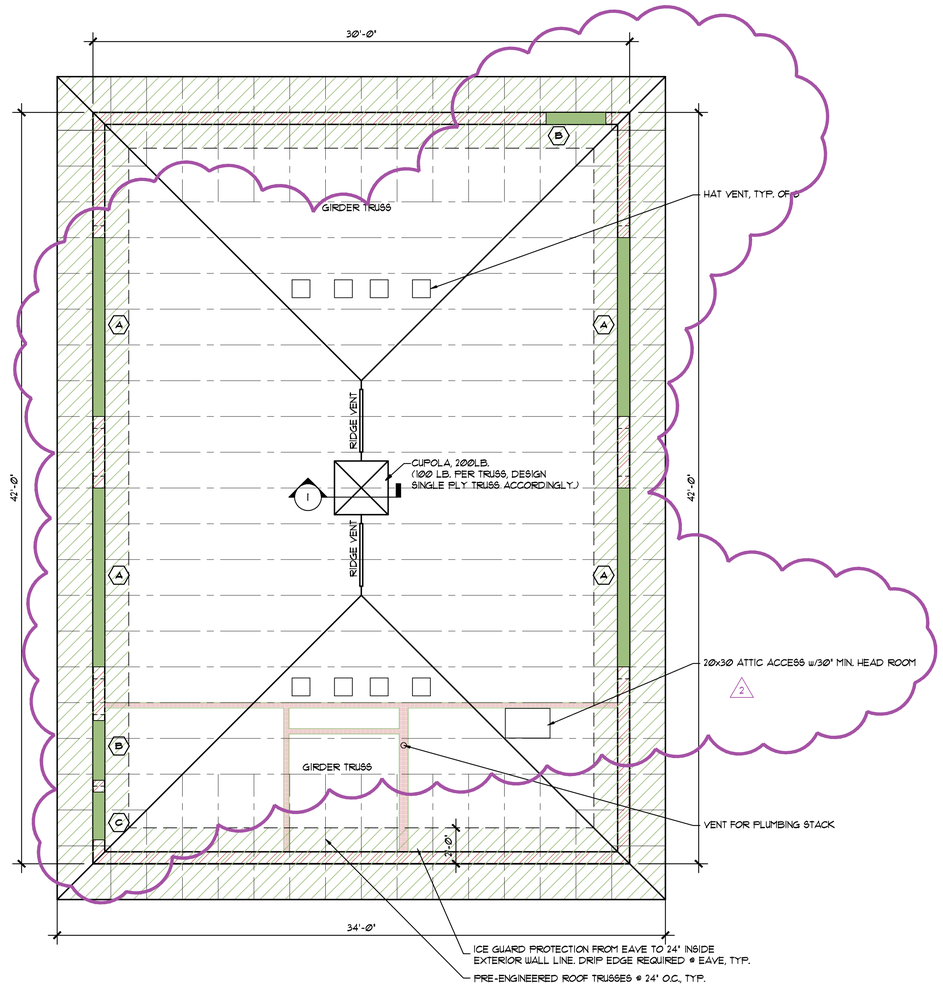
SINGLE TRUSSES		
SPAN (FT.)	UPLIFT (LB.)	HOLD DOWN
12	-91	STANDARD NAILED CONNECTION
20	-151	STANDARD NAILED CONNECTION
24	-181	STANDARD NAILED CONNECTION
28	-212	SIMPSON H5 OR EQUIVALENT
32	-242	SIMPSON H5 OR EQUIVALENT
36	-272	SIMPSON H8 OR EQUIVALENT
40	-302	SIMPSON H8 OR EQUIVALENT
GIRDER TRUSSES		(2) SIMPSON HTS20 MINIMUM UNLESS NOTED ON PLAN

TABLE NOTES:
ABOVE UPLIFT LOADS BASED ON 90 MPH EXPOSURE B
STANDARD NAILED CONNECTION ASSUMES (3) 16d TOENAILED

LINTEL SCHEDULE

MARK	CLEAR SPAN	TOTAL LENGTH	MATERIAL	SIZE
A	10'-0"	11'-4"	STEEL	W8x15 w/3/8 x 7 1/2 PL WELDED TO BOTOM
B	3'-2"	4'-0"	PRECAST CONCRETE	(2) - 4x8
C	3'-4"	4'-0"	PRECAST CONCRETE	(2) - 4x8

2



ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

N

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6/3/08 ADJUD. LETTER #2 DATED 4/16/08

CONSTRUCTION SET

DATE
March 6, 2008

TITLE
ROOF FRAMING PLAN

SHEET NUMBER
S-3

STRUCTURAL SPECIFICATIONS

GENERAL

1. THESE REQUIREMENTS MAY BE SUPERCEDED BY MORE STRINGENT INFORMATION CONTAINED WITHIN THE DRAWINGS. THE MORE STRINGENT SHALL BE FOLLOWED.

2. SOIL CONDITIONS SHALL CONFORM TO THE FOLLOWING CONDITIONS:

   A. BEARING CAPACITY - 1,500 PSF MAX.

3. BOTTOM OF ALL FOOTINGS SHALL EXTEND TO BELOW FROST LINE OF THE LOCALITY.

4. FREE DRAINING GRANULAR BACKFILL SHALL BE USED AGAINST FOUNDATION WALLS. ALL BACKFILL SHALL BE FREE OF VEGETATION AND FOREIGN MATERIAL SUCH AS ORGANIC MATERIALS, DEBRIS, PIECES OF DEMOLISHED CONCRETE, OR ANY OTHER HARD AND/OR POINTED OBJECTS SPECIFICALLY ROCKS LARGER THAN FOUR INCHES IN DIAMETER. FOUNDATION WALLS ARE DESIGNED FOR A MAXIMUM LATERAL SOIL PRESSURE OF 45 PCF, UNLESS NOTED OTHERWISE ON THE FOUNDATION DETAILS. FOR WALLS WITH UNBALANCED BACKFILL GREATER THAN 4-FEET, BRACING IS REQUIRED TO PREVENT DAMAGE BY THE BACKFILL. THE MINIMUM HEIGHT OF BACKFILL ABOVE THE FOOTING SHALL BE 6-INCHES ABOVE THE FOOTING FOR A MINIMUM WIDTH OF 12-INCHES BEYOND THE FOOTING EDGE. ALL DRAIN TILES SHALL SIT ON TOP OF A MINIMUM OF 2-INCHES OF WASHED GRAVEL, AND BE COVERED BY NOT LESS THAN 6-INCHES OF THE SAME MATERIAL.

5. SURFACE DRAINAGE SHALL BE DIVERTED AWAY FROM THE FOUNDATION WALLS, PREFERABLY TO A STORM SEWER SYSTEM, BY GRADING THE SURFACE TO FALL A MINIMUM OF 6-INCHES WITHIN THE FIRST 10 FEET OF THE PERIMETER OF THE BUILDING. SWALES MAY BE INCORPORATED WHERE NECESSARY WHERE LOT LINES PROHIBIT THE ABOVE.

7. THE MINIMUM DESIGN LIVE LOADS USED IN THE CALCULATIONS FOR THIS SET OF DRAWINGS ARE AS FOLLOWS:

   SEE SHEET T-1

8. THE MINIMUM DESIGN WIND LOADS USED IN THE CALCULATIONS FOR THIS SET OF DRAWINGS ARE AS FOLLOWS:

WIND SPEED	-	90 MPH
EXPOSURE	-	B

9. THE STRUCTURAL ELEMENTS OF THIS BUILDING HAVE BEEN DESIGNED TO MEET STANDARD DEFLECTION CRITERIA AS FOLLOWS: (MAXIMUM LIVE LOAD DEFLECTION OF 1/2-INCH FOR ALL CASES WITH ATTACHED DRYWALL)

ROOF TRUSSES	-	L/180
DECK	-	L/360
EXTERIOR WALLS	-	H/360
INTERIOR WALLS	-	H/240
ALL OTHER STRUCT. ELEMENTS	-	L/240

CONCRETE

1. ALL CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM 28-DAY COMPRESSIVE STRENGTHS (f'c) AS FOLLOWS:

FOUNDATION WALLS	-	3,000 psi (6% air-entrained)
PIERS	-	3,000 psi (6% air-entrained at exterior)
INTERIOR SLABS	-	2,500 psi
EXTERIOR SLABS	-	3,500 psi (6% air-entrained)
GARAGE SLABS	-	3,500 psi (6% air-entrained)
RETAINING WALLS	-	3,000 psi (6% air-entrained)

2. ALL REINFORCING STEEL (REBAR, OR BAR) SHALL CONFORM TO ASTM A-615, GRADE 60. (60,000 psi)

3. ALL WELDED WIRE MESH SHALL CONFORM TO ASTM A-185, LAPPING A MINIMUM OF 8-INCHES.

4. ALL OPENINGS IN FOUNDATION WALLS SHALL BE REINFORCED WITH A MINIMUM OF ONE #5 REBAR x 48-INCHES LONG, PLACED DIAGONALLY AT EACH CORNER.

5. MAXIMUM SLUMP OF 5-INCHES.

6. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 318-05.

HOLLOW CORE:

1. ALL HOLLOW CORE SLABS SHALL BE PRECAST/PRESTRESSED CONCRETE FROM A PLANT THAT IS PCI CERTIFIED, FOLLOWING GUIDLINES PRESCRIBED BY THE PCI MANUAL MNL-116, LATEST EDITION.

2. SHOP DRAWINGS SHALL BE SUBMITTED DEFINING ALL OPENING LOCATIONS, CONNECTION DETAILS, EDGE CONDITIONS, SUPPORT CONDITIONS, DEAD LOAD, LIVE LOAD AND A TYPICAL CROSS SECTION.

3. INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR REGARDING INITIAL HANDLING AND ERECTION.

4. MATERIALS:

a. PORTLAND CEMENT	- ASTM C150, TYPE I OR III
b. AGGREGATES	- ASTM C33 OR C330
c. WATER	- FREE FROM FOREIGN MATERIALS IN AMOUNTS HARMFUL TO CONCRETE OR EMBEDDED STEEL
d. REINFORCING BARS	- ASTM A615
e. REINFORCING WIRE MESH	- ASTM A496
f. WELDED STUDS	- AWS D1.1 AND ASTM A108
g. STRUCTURAL STEEL	- A36
h. GROUT	- CEMENT GROUT SHALL BE A MIXTURE OF NOT LESS THAN ONE (1) PART PORTLAND CEMENT TO THREE (3) PARTS FINE SAND, AND THE CONSISTENCY SHALL BE SUCH THAT JOINTS CAN BE SUBSTANIALLY FILLED, BUT WITHOUT SEEPAGE OVER ADJACENT SURFACES. ANY GROUT THAT SEEPS FROM THE JOINT SHALL BE COMPLETELY REMOVED BEFORE IT HARDENS. GROUT STRENGTH SHALL BE 3,500 psi MINIMUM.
i. BEARING PADS	- STANDARD BEARING PADS. PLASTICS - MULTI-MONOMER CONTINUOUS PLASTIC STRIPS SHALL BE NON-LEACHING AND SUPPORT CONSTRUCTION LOADS WITH NO VISIBLE OVERALL EXPANSION.

STRUCTURAL SPECIFICATIONS - CONTINUED

LUMBER

1. ALL STRUCTURAL WOOD JOISTS AND HEADERS SHALL BE STRESS GRADED #2 SPRUCE-PINE-FIR (SPF), 19% M.C. IN ACCORDANCE WITH NDS, UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL LUMBER SHALL COMPLY TO THE FOLLOWING MINIMUM SPECIFICATIONS:

HEM-FIR NORTH (NO. 2)		(HFN #2)
Fb	-	1150 psi (REPETITIVE USE)
Fb	-	1000 psi (NON-REPETITIVE)
E	-	1,600,000 psi
Fv	-	145 psi
Fc	-	1,450 psi
Fc, perp	-	405 psi

SPRUCE PINE FIR (NO. 2)		(SPF #2)
Fb	-	006 psi (REPETITIVE USE)
Fb	-	875 psi (NON-REPETITIVE)
E	-	1,400,000 psi
Fv	-	135 psi
Fc	-	1,150 psi
Fc, perp	-	425 psi

SOUTHER YELLOW PINE (NO. 2) (10" WIDE)		(SYP #2)
Fb	-	1208 psi (REPETITIVE USE)
Fb	-	1050 psi (NON-REPETITIVE)
E	-	1,600,000 psi
Fv	-	175 psi
Fc	-	1,500 psi
Fc, perp	-	565 psi

ENGINEERED LUMBER - LVL		(1.9E)
Fb	-	2990 psi (REPETITIVE USE)
Fb	-	2600 psi (NON-REPETITIVE)
E	-	1,900,000 psi
Fv	-	285 psi
Fc	-	2,310 psi
Fc, perp	-	750 psi

ENGINEERED LUMBER - PSL		(2.0E)
Fb	-	3335 psi (REPETITIVE USE)
Fb	-	2900 psi (NON-REPETITIVE)
E	-	2,000,000 psi
Fv	-	290 psi
Fc	-	1,600 psi
Fc, perp	-	650 psi

SPRUCE PINE FIR (Stud Grade)		(SPF Stud)
Fb	-	776 psi (REPETITIVE USE)
E	-	1,200,000 psi
E	-	1,200,000 psi
Fv	-	135 psi
Fc	-	725 psi
Fc, perp	-	425 psi

2. ALL MANUFACTURED WOOD TRUSSES (INCLUDING GIRDERS) SHALL BE DESIGNED BY THE SUPPLIER OR MANUFACTURER AND IN ACCORDANCE WITH ANSI TPI 1, NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION. MANUFACTURER/SUPPLIER SHALL SUBMIT STAMPED (SEALED BY PROFESSIONAL ENGINEER, REGISTERED IN THE GOVERNING JURISDICTION) SHOP DRAWINGS TO THE BUILDING DEPARTMENT, UNLESS THE DESIGN DOES NOT MEET THE DESIGN OF THE ENGINEER OF RECORD. IN THIS CASE, SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER OF RECORD, PRIOR TO CONSTRUCTION OF THE TRUSSES.

3. THESE DRAWINGS HAVE BEEN DESIGNED BY A STRUCTURAL ENGINEER. THE TRUSS SUPPLIER/MANUFACTURER SHALL DESIGN THEIR ELEMENTS (TRUSSES AND GIRDERS) FOR A MAXIMUM BEARING PRESSURE OF 425 psi, AS IF SET ON SPF #2 WALL PLATES.

4. ERECTION OF TRUSSES SHALL BE IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE'S (TPI) RECOMMENDATIONS AND COMPLY WITH THE MANUFACTURER'S SPECIFICATIONS.

5. PRESSURE TREATED WOOD IS REQUIRED IN ALL OF THE FOLLOWING AREAS OF CONSTRUCTION:
   A. ALL STRUCTURAL WOOD EXPOSED TO THE OUTSIDE ELEMENTS
   B. ALL STRUCTURAL WOOD BEARING DIRECTLY ON CONCRETE OR MASONRY AND IS LESS THAN 8-INCHES FROM EXPOSED GROUND
   C. ALL STRUCTURAL WOOD BEARING DIRECTLY ON A CONCRETE SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND
   D. ALL WOOD SIDING, SHEATHING, AND FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6-INCHES FROM THE GROUND

6. FASTENERS FOR PRESSURE TREATED OR FIRE-RETARDANT WOOD SHALL BE HOT-DIPPED GALVANIZED STEEL, STAINLESS STEEL, OR COPPER WITH ONE EXCEPTION. ONE-HALF-INCH DIAMETER OR GREATER STEEL BOLTS ARE ALLOWED.

7. ALL WALL SILL PLATES BEARING DIRECTLY ON FOUNDATION WALLS SHALL BE ANCHORED WITH 1/2" DIAMETER ANCHOR BOLTS OR APPROVED GALVANIZED STEEL ANCHORS INTO THE WALL A MINIMUM OF 7-INCHES OF EMBEDMENT. MINIMUM TWO ANCHORS PER SECTION OF PLATE. MAXIMUM SPACING OF ANCHORS IS 6'-0". ANCHORS SHALL BE PLACED WITHIN 12-INCHES FROM EACH END OF EACH PLATE.

8. UNLESS NOTED SPECIFICALLY OTHERWISE ON THE DRAWINGS, ALL STRUCTURAL WOOD HEADERS UNDER 4'-0" SPAN, SHALL BE A MINIMUM OF 2-2x6.

9. ALL PLYWOOD OR OSB ROOF, FLOOR, AND WALL SHEATHING SHALL BE APA APPROVED.

STRUCTURAL SPECIFICATIONS - CONTINUED

STEEL

1. ALL ROLLED STRUCTURAL STEEL SPECIFIED IN THESE DRAWINGS SHALL CONFORM TO ASTM A-992.

2. ALL STEEL PIPE COLUMNS SHALL CONFORM TO ASTM A-53

3. STRUCTURAL STEEL POSTS SPECIFIED ON THESE DRAWINGS WERE SELECTED ACCORDING TO THE FOLLOWING SPECIFICATIONS:

SIZE	MIN. THICK	MANUFACTURER	CAPACITY 7'-4" HT.	CAPACITY 8'-4" HT.
3" DIA. ADJUSTABLE	11 GA	SUBURBAN STEEL	14.3K	13.1K
3 1/2" DIA ADJUSTABLE	SCHD 40	SUBURBAN STEEL	34.5K	32.9K

4. ALL WELDS SHALL COMPLY WITH THE STRUCTURAL WELDING CODE, 2004 AWS D1.1

5. ALL BOLTS IN BOLTED CONNECTIONS SHALL CONFORM TO ASTM A-325.

6. ALL REQUIRED STEEL ANCHOR STRAPS, JOIST HANGERS, ETC. SHALL BE CONSTRUCTED OF CODE APPROVED GALVANIZED STEEL, PAYING PARTICULAR ATTENTION TO GALVANIZED STEEL CONNECTORS ON PRESSURE TREATED LUMBER. SEE NOTE ON THE FOUNDATION SHEET FOR CLARIFICATION.

7. ALL CONNECTIONS SHALL CONFORM TO AISC STANDARDS.

MASONRY

1. MATERIALS: MORTAR: TYPE 'S' ASTM C270; FACE BRICK: ASTM C-216; HOLLOW CMU: ASTM C-90; GROUT AGGREGATE: ASTM C-404

2. ALL MASONRY SHALL BE PROTECTED FROM FREEZING FOR NOT LESS THAN 48 HOURS AFTER INSTALLATION AND SHALL NOT BE CONSTRUCTED BELOW 40 deg. F WITHOUT PRECAUTIONS NECESSARY TO PREVENT FREEZING. NO ANTI-FREEZE ADMIXTURES SHALL BE ADDED TO THE MORTAR

3. CMU SHALL BE REINFORCED PER WALL SECTION "A" ON SHEET A-3.

4. PROVIDE WEEP HOLES AT 2'-0" ON-CENTER AT FIRST COURSE ABOVE GRADE.

5. THE TOP COURSE OF ALL MASONRY WALLS SHALL BE CONSTRUCTED OF SOLID MASONRY UNITS OR GROUT FILLED HOLLOW UNITS.

6. ALL MASONRY WORK SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA) AND THE BRICK INDUSTRY ASSOCIATION (BIA).

7. MASONRY WALLS AND RELATED COMPONENTS HAVE BEEN DESIGNED USING THE ALLOWABLE STRESS DESIGN METHOD.

THERMAL & MOISTURE PROTECTION

1. ALL SLABS-ON-GRADE IN CONDITIONED SPACES (i.e. WALKOUT BASEMENTS) SHALL BE INSULATED WITH A MINIMUM R-5 RIGID INSULATION FROM THE TOP OF SLAB DOWNWARD OR INWARD TO 24-INCHES BELOW SLAB AT ALL EXPOSED PERIMETER AREAS. INSULATION SHALL BE TAPERED 45 deg. AT THE TOP.

2. DAMPPROOF ALL EXTERIOR FOUNDATION WALLS (BASEMENTS AND CRAWL SPACES) BELOW GRADE ENCLOSING ALL HABITABLE AND USABLE SPACES AT EXTERIOR FACE OF WALL. WATERPROOFING MEMBRANES ARE REQUIRED IN LIEU OF DAMPPROOFING IN AREAS WHERE HIGH WATER TABLE OR OTHER SEVERE SOIL-WATER CONDITIONS ARE KNOWN TO EXIST. ICF FOUNDATION WALLS SHALL NOT BE WATERPROOFED WITH ORGANIC SOLVENT BASED PRODUCTS SUCH AS HYDROCARBONS, ETC.

3. CODE APPROVED CORROSION RESISTIVE FLASHING SHALL BE PROVIDED AT TOP AND SIDES OF ALL EXTERIOR WINDOW AND DOOR OPENINGS IN SUCH MANNER AS TO BE LEAKPROOF. SIMILAR FLASHINGS SHALL BE INSTALLED AT THE INTERSECTION OF CHIMNEYS OR ORTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS. ALSO ABOVE ALL PROJECTING WOOD TRIM AT WALL AND ROOF INTERSECTIONS, AT JUNCTIONS OF CHIMNEYS AND ROOFS, IN ALL ROOF VALLEYS AND AROUND ALL ROOF OPENINGS.

4. REFER TO THE APPROVED COM-CHECK DOCUMENT, WHETHER ATTACHED TO THESE DRAWINGS OR NOT, FOR SPECIFIC MINIMUM REQUIREMENTS FOR INSULATION ENERGY EFFICIENCIES.

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REVISIONS

6/3/08 ADJUD. LETTER #2 DATED 4/16/08

CONSTRUCTION SET

DATE

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TITLE

STRUCTURAL NOTES

SHEET NUMBER

S-4