PLUMBING NOTES:

1. ALL WORK SHALL CONFORM TO THE 2010 UNIFORM PLUMBING CODE STANDARDS, CALIFORNIA CPC 2010.
2. DRAWINGS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES AND POINTS OF CONNECTION BEFORE START OF WORK. MAKE A SURVEY OF ALL EXISTING CONDITIONS THAT MAY AFFECT THE WORK UNDER THIS SECTION.
4. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF PLUMBING FIXTURES AND FLOOR DRAINS.
5. ALL CLEANOUTS SHALL BE OF CAST IRON AND SHALL BE ACCESSIBLE.
6. DO NOT SCALE FLOOR PLAN DRAWING FOR EXACT HORIZONTAL LOCATION OF PIPE RUNS.
7. ALL PLUMBING FIXTURES AND EQUIPMENT SHALL HAVE ISOLATING VALVES ON WATER SUPPLY LINES.
8. ALL VALVES AND FITTINGS SHALL BE "LEAD FREE" PER CODE.
9. VERIFY JACUZZI / BATH TUB TRIM LOCATIONS IN FIELD. SEE ARCHITECTURAL DRAWINGS.
10. ALL PIPING IN FINISHED AREAS SHALL BE RUN CONCEALED.
11. ALL PIPING PENETRATING WALL, CEILINGS AND FLOORS SHALL BE ISOLATED FROM BUILDING STRUCTURES WITH RESILIENT SEALS. CLEARANCE FOR CAULKING AROUND PIPES ARE TO PREVENT NOISE AND VIBRATION. SEE NOT NO. 38 BELOW.
12. COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
13. CONTRACTOR SHALL FURNISH AND INSTALL, AT NO EXTRA COST TO THE OWNER, TRAP PRIMERS WHERE REQUIRED BY CODE. WHERE A COLD WATER SERVICE LINE TO A FREQUENTLY USED FIXTURE IS AVAILABLE, THE PRIMER SHALL BE "PRECISION PRODUCTS" WITH INTEGRAL VACUUM BREAKER. PROVIDE ADAPTER FITTINGS WITH PRIMER TAPS AS REQUIRED INCLUDING ACCESS PANEL.
14. REFER TO PIPE MATERIAL SCHEDULE ON THIS SHEET FOR PIPING MATERIALS.
15. IF WATER PRESSURE IN STREET IS 80 PSI OR MORE, INSTALL PRESSURE REGULATOR.
16. ALL PIPING PENETRATING (1) HOUR WALLS SHALL BE FIRE SAFE BY CAULKING AROUND OPENINGS WITH "3M" FOLLOWING MANUFACTURER'S INSTRUCTIONS.
17. ALL CLEAN-OUTS SHALL BE INSTALLED PER UPC ART. 707.
18. CONTRACTOR IS TO TAKE CARE TO PRESERVE ALL EXISTING UTILITIES IN THE SCOPE OF WORK FOR THIS PROJECT. CONTRACTOR IS TO REPAIR OR REPLACE ALL UTILITIES DAMAGED DURING CONSTRUCTION.
19. NO SANITARY VENT SHALL TERMINATE CLOSER THAN 10'0" FROM ANY FRESH AIR INTAKE, OR ANY OPERABLE WINDOW.
20. THE CONTRACTOR IS TO SUBMIT TO THE OWNER FOR APPROVAL, CATALOG CUTS OF ALL FIXTURES.
21. THE CONTRACTOR IS TO VISIT THE JOB SITE PRIOR TO BIDDING TIME AND VERIFY ALL DIMENSIONS, LOCATIONS, AND CONDITIONS.
22. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A LABOR AND MATERIAL WARRANTY FOR A PERIOD OF (1) YEAR OR AS PER SPECIFIC AGREEMENT.
23. CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ARCHITECT OR ENGINEER ANY ADDITIONAL LABOR AND/OR MATERIALS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM BEFORE PROCEEDING WITH THE WORK.
24. CONTRACTOR SHALL PERFORM ALL TESTING AND PAY FOR ALL PERMITS.
25. ALL HOT WATER PIPING SHALL BE INSULATED WITH ½" THERMOCELL PIPE INSULATION.
26. PLANS ARE DIAGRAMATIC ONLY. FIELD CONDITIONS SHALL DETERMINE EXACT LOCATION AND ROUTING OF PIPES.
27. ALL HORIZONTAL DRAIN LINES SHALL RUN WITH 2% SLOPE MINIMUM.
28. PROVIDE PRIMARY AND SECONDARY CONDENSATE DRAIN PIPING FROM ALL AIR CONDITIONING UNITS PER PLANS.
29. PLUMBING FIXTURES AND FITTINGS SHALL MEET THE FOLLOWING STANDARDS:
    - A) WATER CLOSETS: ASME A112.19.233.2–1.28 GPF (TESTED / APPROVED PER U.S. EPA WATERSENSE TANK–TYPE HIGH–EFFICIENCY TOILET SPECIFICATION)
    - B) SHOWERHEADS: 2.0 GPM (@ 80 PSI)
    - C) LAVATORY FAUCETS: ASME A 112.18.1/CSA B125.1 – 2.2 GPM (@ 60 PSI)
    - C) SINK FAUCETS: ASME A 112.18.1/CSA B125.1 – 2.2 GPM (@ 60 PSI)
30. SHOWER SHALL BE PROVIDED WITH SHOWER CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE. ALSO DELIVER MAXIMUM OF 120°F TEMPERATURE: UPC 420
31. ALL CLEANOUTS SHALL BE PROVIDED IN COMPLIANCE WITH ART. 707.0 – UPC.
32. ALL COPPER LINES FOR DOMESTIC WATER USE SHALL BE REAMED TO FULL I.D. AND USE APPROVED FLUX AND SOLDER.
33. PROVIDE 2x6 MIN. WALLS WHERE PLUMBING IS INSTALLED. NOTCHING AND DRILLING TO COMPLY WITH 2010 UBC.
34. COORDINATE WASTE BELOW SLAB ROUTING W./STRUCTURAL FOUNDATION DRAWINGS.
35. OFFSET WATER HEATER FLUE VENT PER CODE ARTICLE CPC–516 & 517
36. USE ACUSTO–PLUMB MANUF. ISOLATION MATERIALS FOR PIPE STUD PENETRATIONS ETC. SEE DRAWING P–1.1 FOR DETAILS.

WET AUTOMATIC SPRINKLER SYSTEM: NFPA 13D UNDER SEPARATE PERMIT

1. SCOPE
   - A. DESIGN AND CONSTRUCT A WET AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM COVER COMPLETELY OCCUPIED AND UNOCCUPIED SPACES OF THE RESIDENCE, INCLUDING SPACES UNDER CANOPIES AND EXTERIOR OVERHANGS.
   - B. ALL WORK AND MATERIALS SHALL CONFORM TO THE LATEST CODES HAVING JURISDICTION; RECOMMENDATIONS AND REQUIREMENTS OF THE OWNER'S INSURANCE COMPANY, AND THE FIRE DEPARTMENT OF THE COUNTY OF LOS ANGELES: THE OSHA AND ANY LOCAL OR STATE ORDINANCES AND REGULATIONS PERTAINING TO ADEQUATE AND/OR GUARDING OF ANY MOVING OR OTHERWISE HAZARDOUS LOCATIONS.
   - C. INSTALLATION SHALL BE BY SKILLED MECHANICS EXPERIENCED IN THIS WORK AND BE IN STRICT ACCORD WITH THESE SPECIFICATIONS AND MATERIAL MANUFACTURER'S PRINTED INSTRUCTIONS.
   - D. THE WORK ON THE SECTION SHALL BE INSTALLED ONLY UNDER SUPERVISION AND CONTROL OF A LICENSED FIRE SPRINKLER FIRM USING QUALIFIED PERSONNEL HAVING
   - E. PREPARE AND SUBMIT TO THE ARCHITECT A REFLECTED CEILING PLAN SHOWING THE PROPOSED FIRE SPRINKLER HEADS IN RELATION TO THE CEILING TILE PATTERN, LIGHT FIXTURES AND DUCT OPENINGS. APPROVAL OF THESE DRAWINGS SHALL BE A PREREQUISITE FOR THE PREPARATION OF FURTHER SHOP DRAWINGS.
   - F. CONTRACTOR SHALL PERFORM A FIRE FLOW TEST AT POINT OF CONNECTION TO EXISTING WATER MAIN. SUBMIT A CERTIFICATE OF TESTING WITH THE PLANS.
2. DESIGN CRITERIA AND SUBMITTALS FOR APPROVAL
   - A. PLANS AND CALCULATIONS SHALL BE SUBMITTED TO OFFICE OF LOS ANGELES COUNTY FIRE DEPARTMENT FOR APPROVAL PRIOR TO STARTING ANY WORK. THEY WILL REVIEW THE PLANS AND PREPARE A PLAN CORRECTION SHEET.
   - B. THE SPACING AND DETAILS OF THE SUPPORT AND BRACING OF THE SPRINKLER PIPING SHALL COMPLY WITH THE 1997 EDITION OF NFPA 13D. PROVIDE CALCULATIONS AND SHOW DETAILS FOR THE SUPPORTS, BRACING MEMBERS AND CONNECTIONS NOT COVERED BY NFPA 13. WHERE APPLICABLE, SHOW THE EXISTING STRUCTURAL FRAMING MEMBERS AND PROVIDE CALCULATIONS SIGNED BY THE LICENSED STRUCTURAL ENGINEER OF RECORD TO SHOW ADEQUACY OF STRUCTURAL FRAMING MEMBERS.
3. MATERIALS
   - A. GENERAL: ALL MATERIALS SHALL BE AS LISTED AND AS APPROVED BY THE UL'S LIST OF INSPECTED FIRE PROTECTION AND EQUIPMENT AND MATERIALS OR APPROVED BY ANY ACCEPTABLE, APPROPRIATE, NATIONALLY RECOGNIZED TESTING LABORATORY FOR USE IN SPRINKLER SYSTEMS SHALL BE LATEST DESIGN OF THE MANUFACTURER.
   - B.1. SPRINKLER HEADS: SPRINKLER HEADS SHALL BE UL APPROVED FOR USE INTENDED; SAME AS MANUFACTURED BY RELIABLE, OR EQUAL. ALL PIPING FOR FLUSH TYPE HEADS SHALL BE CONCEALED.
     - 2. LOCATION:
       - A. FLUSH HEADS SHALL BE INSTALLED IN AREAS WITH SUSPENDED CEILINGS. FINISH SHALL BE BRONZE HEAD WITH WHITE LACQUER FINISH ESCUTCHEON.
       - B. UPRIGHT HEADS SHALL BE INSTALLED IN ALL AREAS WITHOUT SUSPENDED CEILINGS. HEADS SHALL BE ROUGH GRASS FINISH.
       - C. SPRINKLER HEADS AND PIPING SHALL BE COORDINATED WITH CEILING PATTER TO MISS DUCTS, GRILLS, DIFFUSERS, LIGHTS AND PIPING, AND TO MATCH THE CEILING PATTERN.
     - 3. EXTRA HEADS: PROVIDE EXTRA HEADS, SIX EACH TYPE, ENCLOSED IN A LABELLED SPRINKLER CABINET, AND ONE HEAD WRENCH FOR EACH TYPE. CABINET SHALL BE MOUNTED WHERE DIRECTED BY THE ARCHITECT.
     - 4. SUBMIT TO THE ARCHITECT FOR APPROVAL, PRIOR INSTALLATION, ONE SAMPLE EACH TYPE AND FINISH OF SPRINKLER HEAD WITH ESCUTCHEON THAT WILL BE INSTALLED.
   - C.1. MATERIALS AND METHODS – FIRE SPRINKLER SYSTEM: PIPING:
     - A. INTERIOR SPRINKLER PIPING ABOVE GRADE:
       - (1) PIPE: SCHEDULE 40, BLACK STEEL OR LIGHT WALL AS LISTED IN NFPA PAMPHLET #13 AND APPROVED BY UL AND FM.
       - (2) FITTINGS: CAST IRON, STANDARD WEIGHT OR VICTAULIC COUPLINGS AND FITTINGS, UL APPROVED
     - B. DRAIN PIPING:
       - (1) PIPE: SCHEDULE 40, GALVANIZED STEEL.
       - (2) FITTINGS: CAST IRON, DRAINAGE PATTERN, STANDARD WEIGHT, SCREWED.
4. INSTALLATION
   - A. INSTALLATION SHOULD BE IN ACCORD WITH THE COUNTY FIRE DEPARTMENT REQUIREMENTS AND NFPA PAMPHLET #13D
   - B. SUPPORT SPRINKLER PIPING FROM BUILDING STRUCTURE BY MEANS OF HANGARS, BRACING, INSERTS, AND OTHER SUPPORTS AS PER REQUIREMENTS OF NFPA PAMPHLET #13.
   - C. THE LOCATION AND ELEVATION OF ALL PIPING, VALVES, ETC., SHALL BE COORDINATED WITH ALL OTHER TRADES, STRUCTURAL CONDITIONS, CEILING HEIGHTS AND BUILDING CONSTRUCTION PRIOR TO FABRICATION OR INSTALLATION. PIPING SHALL BE AS HIGH AS POSSIBLE; OR AS INDICATED ON THE DRAWINGS SHALL BE MAINTAINED. IF CO–ORDINATION CANNOT BE ACHIEVED OR REQUIREMENTS NOT MET, A CLARIFICATION FROM THE ARCHITECT SHALL BE REQUESTED PRIOR TO FABRICATION OR INSTALLATION.
   - D. ESCUTCHEONS: FINNISH AND INSTALL STEEL (PRIME COATED) SET SCREW TYPE ESCUTCH–EON ON ALL EXPOSED PIPES PASSING THROUGH WALLS, FLOORS, AND PARTITIONS.
5. TESTING
   - A. UPON COMPLETION OF THE SYSTEM, THE CONTRACTOR SHALL SUBJECT SAME TO A HYDROSTATIC PRESSURE OF 200 PSI, FOR A TWO–HOUR CONTINUOUS PERIOD. ANY DEFECTS DUE TO MATERIALS AND WORKMANSHIP OCCURRING DURING THIS TEST SHALL BE WITNESSED BY THE OWNER.

1 GENERAL NOTES
SCALE: NONE

SYMBOLS	ABBREVIATION	DESCRIPTION
	S OR W	SEWER OR WASTE ABOVE FLOOR OR GRADE
	S OR W	SEWER OR WASTE BELOW FLOOR OR GRADE
	V	VENT
	CW	COLD WATER
	HW	HOT WATER
	HWR	HOT WATER RETURN
—CD—	CD	CONDENSATE DRAIN
—D—	D	DRAIN
—G—	G	GAS (LOW PRESSURE)
—MPG—	MPG	GAS (MEDIUM PRESSURE)
—SD—	SD	STORM DRAIN
—OD—	OD	OVERFLOW DRAIN
	PCW	PURIFIED COLD WATER
	SOV	SHUT–OFF VALVE
	GC	GAS COCK
	BV	BALANCING VALVE
	CV	CHECK VALVE
	U	UNION
	FCO	FLOOR CLEANOUT
	WCO	WALL CLEANOUT
	CO	CLEANOUT
	YCO	YARD CLEANOUT
	POC	POINT OF CONNECTION
	VTR	VENT THRU ROOF

2 PLUMBING LEGEND
SCALE: N.T.S.

680 CHAUTAUQUA BLVD. LOS ANGELES CA

WATER PRESSURE INFORMATION:

WATER PRESSURE MAX.: 112 PSI MIN.: 83 PSI ELEV.: FT. METER SIZE: SEE CIVIL

DEVELOPED LENGTH (LENGTH FROM PRV TO FURTHEST FIXTURE) = 180 FT.
25% FITTINGS: 180x1.25 = 225 FT.

IF THE MAXIMUM WATER PRESSURE IS OVER 80 PSI. THEN A PRESSURE REDUCING VALVE IS REQUIRED. UNIFORM PLUMBING CODE, SECTION 608.2.

PRESSURE LOSS THRU METER @ 48GPM =	13.0	PSI
OUTSIDE PIPING PRESS. DROP: 2"ø @ 48GPM =	4.0	PSI
AVAILABLE PRESS AT PRV: 83–17PSI =	66.0	PSI SET
RESIDUAL PRESSURE=	25.0	PSI
LOSS DUE TO ELEVATION 20 FT. X 0.435 =	9.0	PSI
LOSS THRU PRV @ 42GPM =	5.0	PSI

PRESSURE AVAILABLE FOR FRICTION LOSS 66 – 39 = 27 PSI
FRICTION LOSS PER 100 FEET. = 27 P.S.I. X 100 FT. /225 = 12 PSI PER 100 FT.

PIPE SIZE SCHEDULE 2" TYPE "L" COPPER
BASED ON MAX. PRESSURE DROP OF 6 PSI/100FT

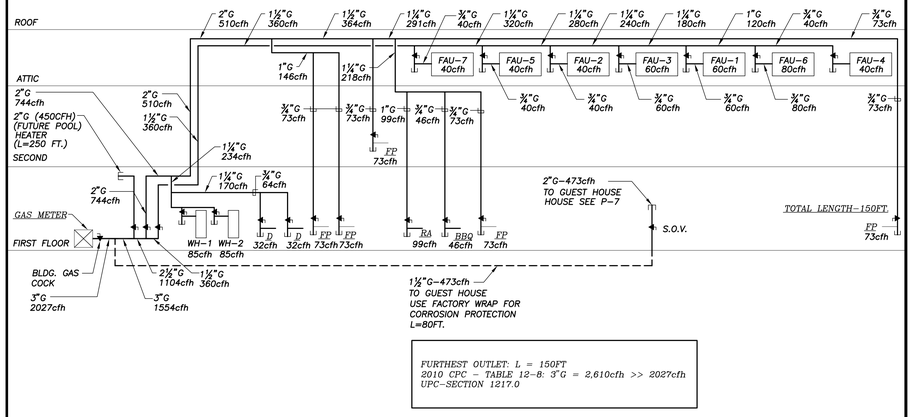
SIZE	FLUSH TANK FIXTURE UNITS
1/2"	1
3/4"	6
1"	15
1–1/4"	28
1–1/2"	52
2"	194

FIXTURE COUNT

NUMBER	TYPE OF FIXTURE	UNITS PER FIXTURE CW	HW	W	TOTAL CW	HW	W
13	LAV	1	1	1	13	13	13
11	WC	2.5	–	3	27.5	–	33
3	BT	4	4	2	12	12	6
1	WP	10	10	4	10	10	4
6	SH	2	2	2	10	10	10
1	KS	1.5	1.5	2	1.5	1.5	2
1	VS	2	2	2	2	2	2
3	RE	.5	–	–	1.5	–	–
3	DW	–	1.5	2	–	4.5	6
2	LT–1	2	2	2	4	4	4
5	S–1/ S–2	2	2	2	10	10	10
3	WA	4	4	3	12	12	9
7	HB–1	1	–	–	7	–	–
1	HB–2	2.5	–	–	2.5	–	–
1	TP–1	.5	–	–	.5	–	–
2	FD–1	–	–	1	–	–	2
1	SB–1	.5	–	–	.5	–	–
	TOTAL FIXTURE UNITS				114	84	101

114 FU = 48 GPM
TOTAL DOMESTIC WATER DEMAND GPM = 48 + (POOL MAKE–UP=.02) = 48.2

3 PRESSURE DROP WATER CALCULATION
SCALE: N.T.S.



4 GAS RISER DIAGRAM
SCALE: N.T.S.

PIPE MATERIAL SCHEDULE

SERVICE		COPPER TYPE 'L'	COPPER TYPE 'K'	ABS	BLACK STEEL	CAST IRON	PVC SCH 40	REMARKS
WATER	INSIDE	•						WRAP COPPER PIPES BELOW GRADE
	OUTSIDE						•	
SANITARY DRAINAGE	INSIDE			✱		✱		✱ SEE NOTE 1 AND NOTE 2 BELOW
	OUTSIDE			•				
SANITARY VENT	INSIDE			•				
	OUTSIDE							
CONDENSATE AND INDIRECT DRAINAGE	INSIDE						•	
	OUTSIDE						•	
GAS	INSIDE				•			WRAP BELOW GRADE
	OUTSIDE				•			

NOTES:

1. BELOW SLAB AND OUTSIDE, SANITARY DRAINAGE SHALL BE "ABS".
2. INSIDE RISERS USE CAST IRON IN FIRST FLOOR CEILING IN MEDIA ROOM, LIVING, DINING, FAMILY ROOM, BREAKFAST, KITCHEN AND ALL DIVIDING AND/OR ADJACENT WALLS OF THESE ROOMS. INSULATE ALL HORIZ. OVERHEAD WASTE PIPING FOR ROOMS DESCRIBED ABOVE WITH 2" THICK FIBERGLASS INSULATION SECURED TO PIPING. FOR FIXTURE TRAPS USE CAST IRON PIPE, ONLY. TRAPS SHALL BE INSULATED ABOVE CRITICAL ROOMS.
3. ALL HOT WATER LINES SHALL BE INSULATED PER CEC T–24 (2008) TABLE 123–1. WATER HEATER CONDENSATE VERTICAL RISERS SHALL ALSO BE INSULATED.

UTILITY SCHEDULE

	F.U.	G.P.M.	FIRE PROTECT.	G.P.M.	IRR.	G.P.M.	POOL	G.P.M.	TOTAL G.P.M	METERS	STREET PRESSURE
WATER	114	48	2"	SEE FIRE	–	–	–	50	50	SEE CIVIL	80 P.S.I.
	F.U.		BUILDING SEWER		STREET SEWER						
SEWER	101		4"		SEE CIVIL						
	SPACE HEATING		WATER HEATING		COOKING		POOL	MISC	PRESSURE		TOTAL
GAS	360		350		145		450	722	8" W.C.		2027
	TOTAL DEVELOP LENGTH FROM GAS METER TO FURTHEST OUTLET = 150 FT.										

5 SCHEDULES
SCALE: N.T.S.

MARK	DESCRIPTION	MIN. BRANCH SIZE W	V	C.W.	H.W.	TRAP	REMARKS
WC	WATER CLOSET	3"	2"	1/2"	—	INT.	FLOOR MOUNTED, TANK TYPE
LAV	LAVATORY	2"	1 1/2"	1/2"	1 1/2"	COUNTER MOUNTED	
SH	SHOWER	2"	1 1/2"	3/4"	3/4"	1 1/2"	ALL TILE
BT	BATHTUB/SHOWER	2"	1 1/2"	3/4"	3/4"	2"	
WP	WHIRLPOOL BATH	2"	1 1/2"	3/4"	3/4"	2"	W/ PUMP SYSTEM
BI	BIDET	2"	1 1/2"	1/2"	1/2"	1 1/2"	VERIFY IF FLR. OR WALL TYPE
KS	KITCHEN SINK	2"	1 1/2"	1/2"	1/2"	1 1/2"	WITH GARBAGE DISPOSAL
HB–1	HOSE BIBB	—	—	3/4"	—	—	WITH VACUUM BREAKER
HB–2	HOSE BIBB	—	—	3/4"	—	—	WITH VACUUM BREAKER
WA	CLOTHESWASHER BOX	2"	1 1/2"	3/4"	3/4"	2"	SEE "A" DWGS. FOR AP LOC.
DW	DISHWASHER	HOSE	—	—	1/2"	—	INSTALL AIR GAP FITTING
BBQ	BARBECUE	—	—	—	—	—	¾" G (46 CFH)
LT–1	LAUNDRY TRAY	2"	1 1/2"	1/2"	1/2"	1 1/2"	
VS	VEGETABLE SINK	2"	1 1/2"	1/2"	1/2"	1 1/2"	WITH GARBAGE DISPOSAL
RE	REFIGERATOR	—	—	1/2"	—	—	WITH GARBAGE DISPOSAL
FP	GAS LOG, FIRE PLACE	—	—	—	—	—	1/2"G (73CFH)
OV	OVEN	—	—	—	—	—	ELECTRICAL
RA	GAS RANGE	—	—	—	—	—	1"G (99 CFH)
D	CLOTHES DRYER	—	—	—	—	—	3/4"G (32 CFH)
SB–1	STEAM SHOWER	—	—	1/2"	—	—	MPC STEAM – MS400 (INSTALLED IN ATTIC)
DP–1	DRIP PAN	2"	1 1/2"	1/2"	—	2"	WITH TP–1 CONN.
S–1	SINK–1	2"	1 1/2"	1/2"	—	1 1/2"	COUNTER MOUNTED
FD–1	FLOOR DRAIN	2"	1 1/2"	1/2"	—	1 1/2"	J.R. SMITH 2005 W/ TP–1

6 PLUMBING FIXTURES
SCALE: N.T.S.

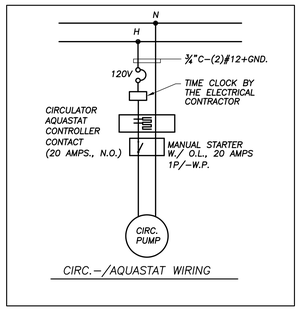
DOMESTIC WATER HEATER SCHEDULE

MARK	DESCRIPTION	LOCATION	MANUFACTURER	MODEL NO.	STORAGE CAP. GAL.	GAS INPUT BTU/HR.	STANDBY LOSS	ENERGY FACTOR	FIRST HOUR RATING	REMARKS
WH 1 / WH 2	GAS WATER HEATER	GARAGE	BRADFORD–WHITE	MI–100T6BN	100 GALLON	85,000	N/A	0.8	92	RESIDENTIAL ATMOSPHERIC VENT ENERGY SAVER GAS WATER HEATER, 10–YEAR WARRANTY. SHIP WT. = 375 LBS., OP. WT. = 1,025 LBS. 120V–1ø–3.1AMPS. CIRC. PUMP (CP–1): LAING # UCT–303–B, 1/150HP MOTOR, 3400RPM, 115VAC/60, 33WATT INCLUDE INTEGRAL ADJ. AQUA–STAT, 24–HR TIMER, AND 6–FT. CORD/PLUG (115VAC)

DOMESTIC HOT WATER THERMAL EXPANSION TANK SCHEDULE

MARK	LOCATION	SERVING	MANUFACTURER & MODEL NO.	TYPE	CAPACITY SCFM@19HG	SIZE (INCHES)	REMARKS
ET 1	AT WATER HEATER	WH–1 & WH–2	THERM–X–TROL (AMTROL) ST–5–C	IN LINE	5	12–5/8"X8"D	ASME APPROVED, OPERATING WT.: 38 LBS

NOTES:
1. EXTERNAL TANK INSULATION REQUIRED
2. ¾"T&PR SPILL 6" ABOVE GRADE SHALL NOT CONTAIN TRAPS AND SHALL NOT TO EXCEED 24" ABOVE ADJACENT GRADE. THE TERMINAL END SHALL NOT BE THREADED. THIS LINE IS INSTALLED WITH A MINIMUM OF ¼"PER FOOT DROP. CPC 608.5.



CALCULATED FLOW RATE METHOD

680 CHAUTAUQUA BLVD. WATER USE --- **BASELINE**

BASED ON 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE, CHAPTER 8, WORKSHEET (WS–1), TOTAL BEDROOMS FOR 680 CHAUTAUQUA BLVD. = 7 ; MAX OCCUPANTS = 8

Fixture Type	Flow Rate (GPM)		Duration (min)		Daily Uses		Occupants		Gallons Per Day
Showerheads, residential	2.50	x	8.00	x	1	x	8	=	160.00
Lavatory faucets, residential	2.20	x	0.25	x	3	x	8	=	13.2
Kitchen faucets Note 1	2.20								
Gravity tank–type water closets Note 2	1.60	x	1.00	x	3	x	8	=	38.40
								TOTAL =	211.6 Baseline Water Use (BWU)
								211.6 x 0.80 =	169.28 Allowable Water Use

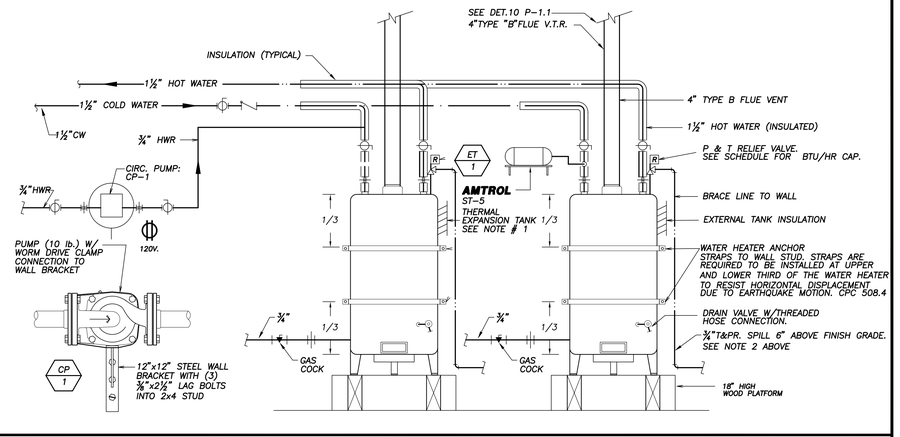
680 CHAUTAUQUA BLVD WATER USE --- **CALCULATED**

Fixture Type	Flow Rate (GPM)		Duration (min)		Daily Uses		Occupants		Gallons Per Day
Showerheads, residential	2.00	x	8.00	x	1	x	8	=	128.00
Lavatory faucets, residential	1.50	x	0.25	x	3	x	8	=	9.00
Kitchen faucets Note 1	2.20								
Gravity tank–type water closets Note 2	1.28	x	1.00	x	3	x	8	=	30.72
								TOTAL =	167.72 Calculated Water Use

Note 1 – Per 4.303.1(2), kitchen faucet fixture types are not included in water use calculations.

Note 2 – For Gravity tank–type water closets, duration is measured in flushes.

7 GREEN BUILDING STANDARDS
SCALE: N.T.S.



8 WATER HEATER DETAIL FOR 100 GALLON DIRECT VENT CONDENSING TYPE BRADFORD WHITE – MI–100T6BN
SCALE: NONE

CONSULTING WEST ENGINEERING
31240 VIA COLINAS SUITE 102
WESTLAKE VILLAGE CA 91362
TEL 818/889-5988 FAX 818/889-4827

PROJECT:
SMOLINSKY RESIDENCE
680 CHAUTAUQUA BLVD
LOS ANGELES, CA

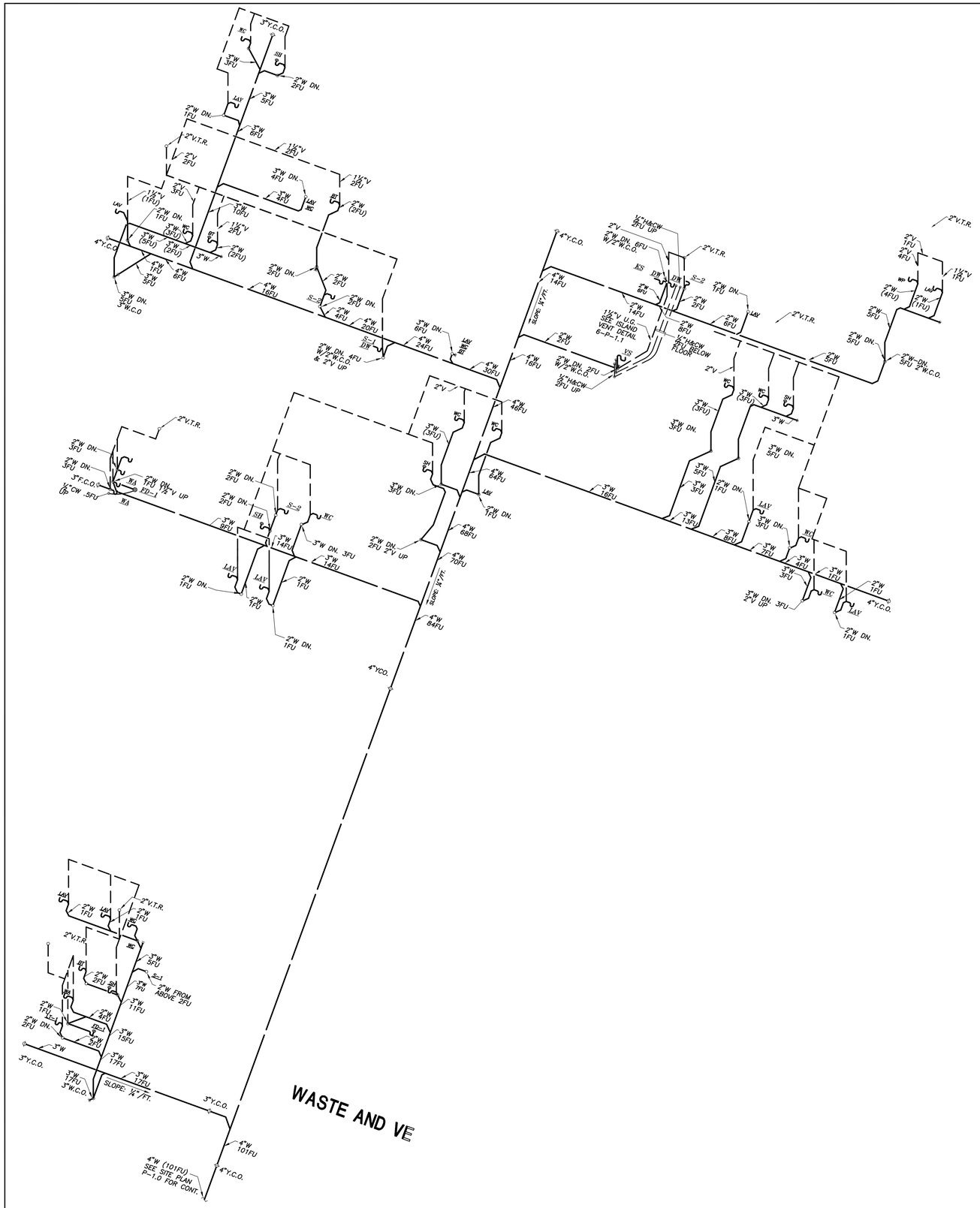
SHEET TITLE:
PLUMBING NOTES, LEGEND AND SYMBOLS

DRAWING SCALE: AS NOTED

DATE: SEPTEMBER 16, 2011

REVISIONS:
10/11/11 90% COMPLETE ISSUED FOR REVIEW
11/04/11 ISSUED FOR BID

SHEET NO.
P-1



ENGINEERING CONSULTING WEST

31340 VIA COLINAS SUITE 102
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PROJECT: SMOLINISKY RESIDENCE

680 CHAUTAUQUA BLVD
LOS ANGELES, CA

SHEET TITLE: PLUMBING RISERS

DRAWING SCALE:
AS NOTED

DATE:
SEPTEMBER 16, 2011

REVISIONS:

10/11/11
90% COMPLETE
ISSUED FOR REVIEW

11/04/11
ISSUED FOR BID

SHEET NO.

P-8