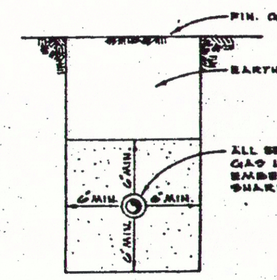
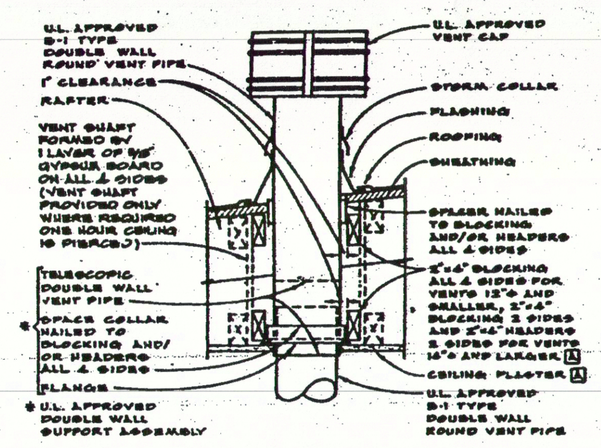
PLUMBING SYMBOLS & ABBREVIATIONS

SOIL, WASTE, DRAIN & SEWER	
EXISTING SOIL, WASTE, DRAIN & SEWER	
STORM DRAIN	
SANITARY VENT	
COLD WATER	C.W.
HOT WATER	H.W.
HOT WATER RETURN	H.W.R.
TEMPERED WATER	T.W.
HIGH TEMPERATURE WATER	H.T.W.
SOFT WATER	S.W.
INDUSTRIAL WATER	
AIR LINE	A.
FIRE LINE	F.L.
GOLF LINE	G.L.
FUEL GAS (LOW PRESSURE)	G
FUEL GAS (HIGH PRESSURE)	
INDIRECT WASTE	I.W.
IRRIGATION MAIN	I.M.
SHUT-OFF VALVE	S.O.V.
GATE VALVE	G.V.
GLOBE VALVE	GL.V.
PRESSURE REDUCING VALVE	P.R.V.
PRESSURE RELIEF VALVE	P.R.L.V.
PRESSURE-TEMP. RELIEF VALVE	P.T.R.L.V.
CHECK VALVE	C.V.
PLUG COCK	P.C.
SHUT-OFF VALVE IN BOX	
CLEANOUT	C.O.
WALL CLEANOUT	W.C.O.
HOSE BIBB	H.B.
SOAP DISPENSER	S.D.
DROP	
RISE	
FIRE SPRINKLER HEAD	
UNION	
SOIL	
WASTE	
VENT	
VENT RISE	
VENT DOWNCOMER	
VENT THRU ROOF	
PLUGGED TEE	
PLUGGED WYE	
FIRE EXTINGUISHER	
FIRE EXTINGUISHER & CABINET	
FIRE HYDRANT	
FIRE HOSE CABINET	
FIRE PUMP	
WATER HEATER	
DOWNSPOUT	
MANHOLE	
CATCH BASIN	
CAST IRON	
V.C.	VITRIFIED CLAY
X.H.	EXTRA HEAVY
HDR.	HEADER
G.H.V.	GARDEN HOSE VALVE
L.S.T.	LIQUID SOAP TANK
A.B.	ACCESS BOX
A.P.	ACCESS PANEL
C.O.	CEILING
I.E.	INVERT ELEVATION
ABV.	ABOVE
BEL.	BELOW
FIN. FLR.	FINISHED FLOOR
L.K.S.	LOOSE KEY STOP
L.K.P.S.	LOOSE KEY PARTITION STOP
P.O.C.	POINT OF CONNECTION
C.O.T.G.	CLEANOUT TO GRADE
F.G.	FINISHED GRADE
EXP.	EXPOSED
CONT.	CONTINUATION
N.I.C.	NOT IN CONTRACT
R.I. & C.	ROUGH-IN & CONNECT
U.O.B.	UNDER OTHER SECTION
W.H.A.	WATER HAMMER ARRESTOR
PREPTA'S	INDICATES EXISTING



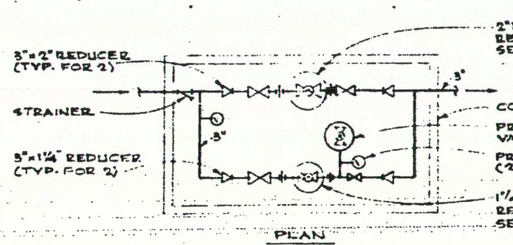
PIPE TRENCH DETAIL

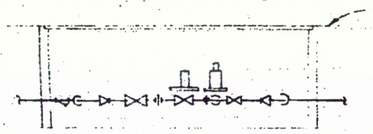
NO SCALE. DETAIL M1/A



DETAIL

NO SCALE M1/B



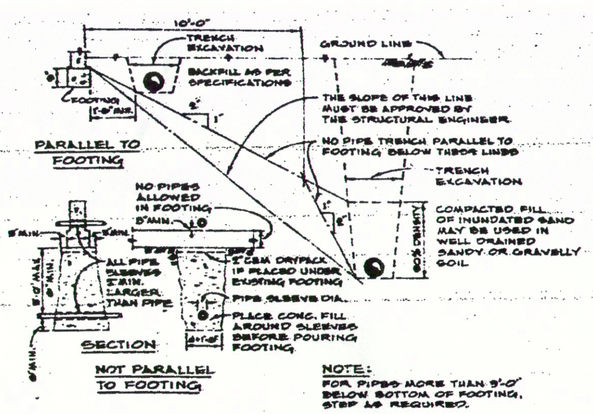


DETAIL

NO SCALE M1/C

PLUMBING NOTES:

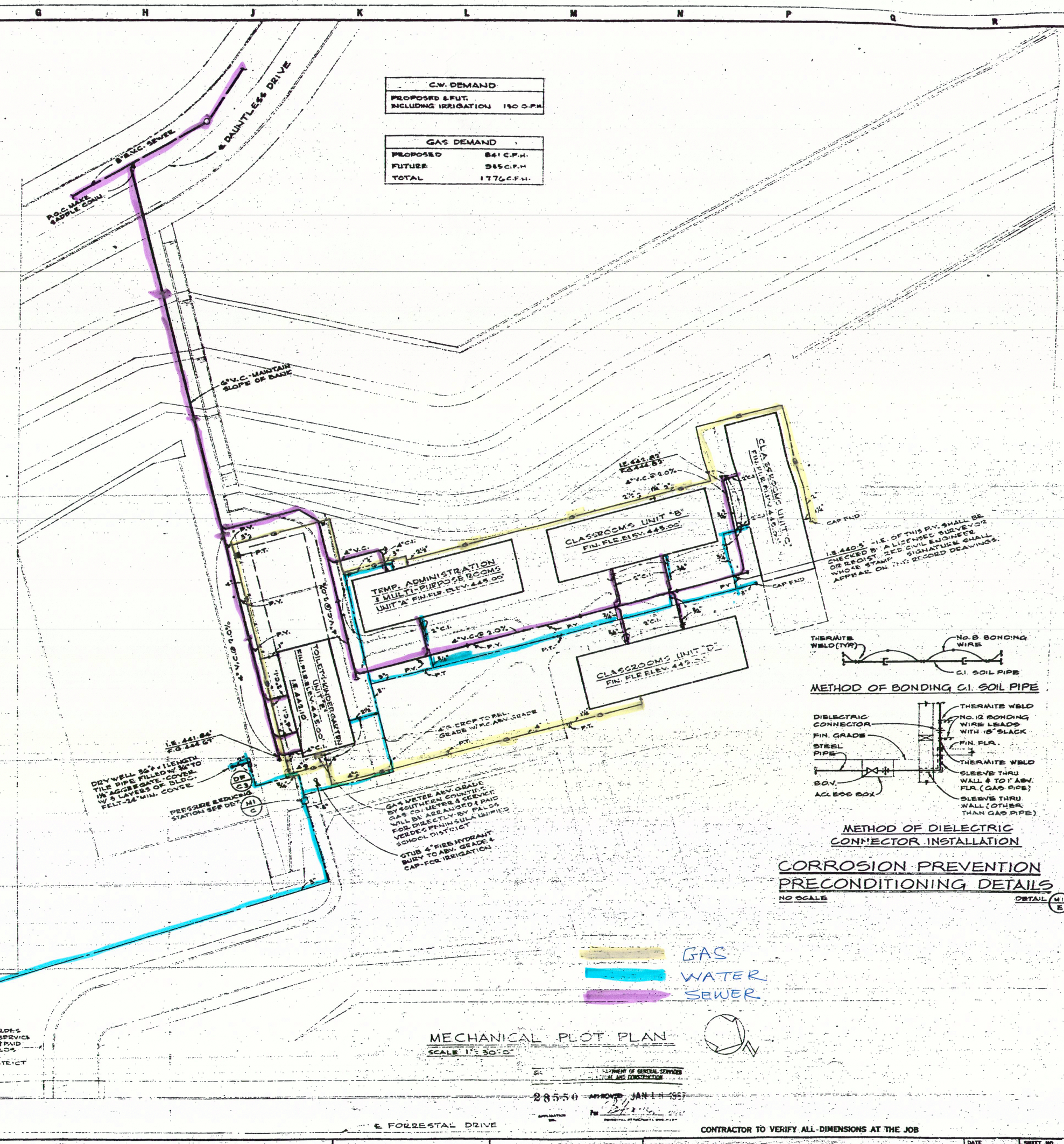
1. ALL SHUT-OFF VALVES OUTSIDE THE BUILDINGS SHALL BE INSTALLED IN CONCRETE BOXES WITH THE NAME OF THE SERVICE CONSPICUOUSLY CAST IN COVER.
2. ALL HOSE BIBBS AND GARDEN HOSE VALVES SHALL BE INSTALLED 18" ABOVE FINISHED FLOOR OR FINISHED GRADE.
3. PLUGGED TEES AND PLUGGED WYES SHALL BE LINE SIZES UNLESS OTHERWISE NOTED.
4. FOR ALL BENCH MARKS SEE CIVIL DRAWINGS.
5. WATER HAMMER ARRESTER CODING IS SMITH HYDROTROL AND IS TO BE USED FOR REFERENCE ONLY.
6. LOCATIONS OF EXISTING LINES ARE ASSUMED AND SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE.



NOTE:
FOR PIPES MORE THAN 3'-0" BELOW BOTTOM OF FOOTING, STEP AS REQUIRED.

TYPICAL PIPE INSTALLATIONS AT CONCRETE FOOTINGS

NO SCALE DETAIL M1/D



MECHANICAL PLOT PLAN

SCALE 1" = 30'-0"

METHOD OF BONDING C.I. SOIL PIPE

METHOD OF DIELECTRIC CONNECTOR INSTALLATION

CORROSION PREVENTION PRECONDITIONING DETAILS

NO SCALE DETAIL M1/E

H & K ENGINEERING, INC.
CONSULTING MECHANICAL ENGINEERING
LOS ANGELES, CALIFORNIA 90017
PHONE 482-0416

STATE FIRE MARSHAL
STATE OF CALIFORNIA
APPROVED 1-6-67

CONTRACTOR TO VERIFY ALL DIMENSIONS AT THE JOB

ARCHITECT | MECHANICAL ENGINEER | ELECTRICAL ENGINEER | STRUCTURAL ENGINEER | CIVIL ENGINEER

KISTNER, WRIGHT & WRIGHT

ARCHITECTS AND ENGINEERS LOS ANGELES, CALIFORNIA

MECHANICAL PLOT PLAN
LADERA LINDA ELEM.
PALOS VERDES PENINSULA UNIFIED SCHOOL DISTRICT
ROLLING HILLS, CALIFORNIA

DATE
DR. BY G.
CHECKED BY
JOB NO. 22-2
H&K 6034

SHEET NO. M1
OF SHEETS