- A -

A/C	AIR CONDITIONING
AB	ANCHOR BOLT
ABAN	ABANDON
ABC	AGGREGATE BASE COURSE
ABS	ABSOLUTE
ABUT	ABUTMENT
ABV	ABOVE
AC	ASPHALTIC CONCRETE
ACKV	AUTOMATIC CHECK VALVE
ACP	ASBESTOS CEMENT PIPE
ACS	ACCESS
ADA	AMERICAN DISABILITY ACT
AD	AREA DRAIN
ADDL	ADDITIONAL
ADDM	ADDENDUM
ADJ	ADJUSTABLE
AGGR	AGGREGATE
AHD	AHEAD
AL	ALUMIINUM
ALT	ALTERNATE
AMS	ANGLE METER STOP
AMT	AMOUNT
&	AND
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANT	ANTENNA
AP	ACCESS PANEL
APN	ASSESSOR PARCEL NUMBER
APPROX	APPROXIMATE
APPVD	APPROVED
ASPH	ASPHALT
ASSN	ASSOCIATION
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AUX	AUXILIARY
AV	AIR VENT/AIR VALVE
AVAR	AIR VACUUM AIR RELEASE VALVE
AVE	AVENUE
AWG	AMERICAN WIRE GAUGE
AWWA	AMERICAN WATER WORKS ASSOCIATION

- B -

B/H	BUMPED HEAD
B&S	BELL & SPIGOT
BAL	BALANCE
BC	BOLT CIRCLE/BACK OF CURB
BCV	BUTTERFLY CHECK VALVE
BE	BELL END
BETW	BETWEEN
BFP	BACKFLOW PREVENTER
BFV	BUTTERFLY VALVE
BK	BOOD/BACK
BL-FLG	BLIND FLANGE
BLDG	BUILDING
BLK	BLOCK
BLM	BUREAU OF LAND MANAGEMENT
BLVD	BOULEVARD
BM	BENCHMARK
BO	BLOW OFF ASSEMBLY
BOC	BACK OF CURB
BOT	BOTTOM
BOW	BACK OF WALK
BPV	BACK PRESSURE VALVE
BRG	BEARING
BS	BACK SIGHT
BUR	BURIED
BV	BALL VALVE
BW	BOTH WAYS/BACK OF SIDEWALK

- C -

C/C	CENTER TO CENTER
C	CONDUIT
C&G	CURB & GUTTER
CAL	CALIBRATE
CAP	CAPACITY
CAV	COMBINATION AIR VALVE
CB	CATCH BASIN
CEM	CEMENT
CI	CAST IRON
CIP	CAST IRON PIPE/CAST IN PLACE
CIR	CIRCLE
CIRCUM	CIRCUMFERENCE
CJP	COMPLETE JOINT PENETRATION
CL OR ℄	CENTERLINE
CL2	CHLORINE
CLG	CEILING
CLO	CLEANOUT
CLP	CLAMP
CLR	CLEAR
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CM	CENTIMETER
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	COUNTY/COMPANY/CONTRACT
COL	COLUMN
COMB	COMBINATION
COMM	COMMUNICATION
COMPL	COMPLETE
CON	CONCENTRIC
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUE OR CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
COR	CORNER
CORP STOP	CORPORATION STOP
COV PL	COVER PLATE
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE PIPE
CT	COURT
CTR	CENTER
CTV	CABLE TELEVISION
CU	CUBIC/COPPER
CUST	CUSTOMER
CV	CONTROL VALVE
CW	CLOCKWISE
CY	CUBIC YARD
CYL	CYLINDER

- D -

D OR △	DELTA ANGLE
D/W	DRIVEWAY
DEC	DECIMETER
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DEV	DEVELOPMENT
DI	DROP INLET OR DUCTILE IRON
DIA OR Ø	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DIR	DIRECTION
DISCH	DISCHARGE
DIST	DISTANCE
DISTR	DISTRIBUTE
DIV	DIVISION
DL	DEAD LOAD
DMH	DROP MANHOLE
DN	DOWN
DR	DRIVE
DRW	DRY WELL
DUPL	DUPLICATE
DWG	DRAWING
DWR	STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES

- E -

E	EAST OR EDGE
EA	EACH
EC	EPOXY COATED/END OF CURB
ECC	ECCENTRIC
EF	EACH FACE
EL	EPOXY LINED
ELEC	ELECTRICAL
ELEV	ELEVATION
ELL	ELBOW
ENG	ENGINE/ENGINEERING
ENGR	ENGINEER
EOP	EDGE OF PAVEMENT
EOS	EDGE OF SHOULDER
EQ	EQUAL OR EQUATION
EQ SP	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ESMT	EASEMENT
EST	ESTIMATE
ETC	ETCETERA
EW	EACH WAY
EXC	EXCAVATE
EXIST	EXISTING
EXP JT	EXPANSION JOINT
EXT	EXTENSION

- F -

F/F	FACE TO FACE
FABR	FABRICATION/FABRICATED
FC	FACE OF CURB
FD	FLOOR DRAIN
FDN	FOUNDATION
FEXT	FIRE EXTINGUISHER
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIG	FIGURE
FL OR ℄	FLOW LINE
FLG	FLANGE
FLR	FLOOR
FMCT	FLOW METER COMPOUND TORRENT
FMH	FLEXIBLE METAL HOSE
FN	FENCE
FND	FOUND
FO	FIBER OPTIC
FOC	FACE OF CURB
FOW	FACE OF WALL/FRONT OF WALK
FPC	FLEXIBLIE PIPE COUPLING
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FPT	FEMALE PIPE THREAD
FREQ	FREQUENCY
FRP	FIRE RETARDANT POLYESTER RESIN/ FIBERGLASS REINFORCED POLYMER
FSTNR	FASTENER
FT	FOOT OR FEET
FTG	FOOTING
FUT	FUTURE

- G -

G/B	GRADE BREAK
G	GAS
GA	GAGE
GAL(S)	GALLON(S)
GALV	GALVANIZED
GENL	GENERAL
GIS	GEOGRAPHIC INFORMATION SYSTEM
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GRD	GRADE
GRT	GRATE
GV	GATE VALVE

- H -

H	HOUSE
H&V	HEATING & VENTILATION
HARN	HIGH ACCURACY FREQUENCY NETWORK
HB	HOSE BIB
HD	HEAD
HDR	HEADER
HEX	HEXAGONAL
HMWPE	HIGH MOLECULAR WEIGHT POLYETHYLENE
HORIZ	HORIZONTAL
HP	HORSEPOWER

- H - (CONT.)

HPI	HORIZONTAL POINT OF INTERSECTION
HPG	HIGH PRESSURE GAS
HR	HOUR
HT	HEIGHT
HV	HOSE VALVE
HWY	HIGHWAY

- I -

ID	INSIDE DIAMETER
IN	INCH
INST	INSTALL
INSTR	INSTRUMENT
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
IPS	IRON PIPE SIZE
IRR	IRRIGATION

- J -

JT	JOINT

- K -

kg	KILOGRAM
km	KILOMETER

- L -

LAD	LADDER
LB OR #	POUND
LDR	LEADER
LEN OR L	LENGTH OF CURVATURE
LF	LINEAR FOOT
LG	LONG
LN	LANE
LT	LEFT/LIGHT
LWR	LOWER

- M -

M	METER
MATL	MATERIAL
MAX	MAXIMUM
MC	MORTAR COATED
MEAS	MEASUREMENT
MECH	MECHANICAL
MFR	MANUFACTURER
MG	MILLION GALLONS
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MKR	MARKER
ML	MORTAR LINED
MLC	MORTAR LINED & COATED
MON	MONUMENT
MOV	MOTOR OPERATED VALVE
MPT	MALE PIPE THREAD
MSD	MAIN SERVICE DISTRIBUTION
MSDS	MATERIAL SAFETY DATA SHEET
MTD	MOUNTED

- N -

N	NORTH
N/A	NOT APPLICABLE
NaOCL	SODIUM HYPOCHLORITE
NAVD	NORTH AMERICAN VERTICAL DATUM
NAP	NOT-A-PART
NBS	NATIONAL BUREAU OF STANDARDS
NC	NATIONAL COURSE
NE	NORTHEAST
NF	NORTH FACE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NG	NATURAL GROUND
NIC	NOT IN CONTRACT
NIP	NOT IN PROJECT
NO. #	NUMBER
NOM	NOMINAL
NPS	NOMINAL PIPE SIZE
NPT	NATIONAL TAPER PIPE THREAD
NTS	NOT TO SCALE
NW	NORTHWEST

- O -

O/O	OUT TO OUT
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OFC	OFFICE
OH	OVER HEAD
OHP	OVER HEAD POWER
OHTEL	OVER HEAD TELEPHONE
OPER	OPERATOR
OPNG	OPENING
OPP	OPPOSITE
ORF	ORIFACE
ORIG	ORIGINAL
OS&Y	OUTSIDE SCREW & YOKE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OVFL	OVERFLOW
oz	OUNCE

- P -

P	POLE/PRESSURE/PIPE/POWER
P/L OR P ℄	PROPERTY LINE
PAT	PATENT
PAVMT	PAVEMENT
PB	PULL BOX
PC	PRESSURE CLASS
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
PDL	PUMP DISCHARGE LINE
PE	PLAIN END/POLYETHYLENE PIPE
PED	PEDESTAL
PERM	PERMANENT
PERP	PERPENDICULAR
PG	PRESSURE GAUGE
PH	PHASE
PI	POINT OF INTERSECTION
PHYD	POST HYDRANT
PKG	PACKAGE
PKWY	PARKWAY
PL	PLACE/PLATE/PARCEL LINE
PLS	PROFESSIONAL LAND SURVEYOR
PLT	PLATE (DRAWING)
PO	PUSH-ON
POLY	POLYETHYLENE
PP	POWER POLE
PPM	PARTS PER MILLION
PR	PAIR
P/R	PATENT RESERVATION
PRC	PRECAST REINFORCED PIPE/ POINT OF REVERSE CURVE
PRELIM	PRELIMINARY
PRIM	PRIMARY
PROP	PROPOSED
PRV	PRESSURE REGULATING VALVE
PS	PRESSURE SWITCH/PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT/POINT OF TANGENCY
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE PIPE

- Q -

QCV	QUICK COUPLER VALVE
QDC	QUICK DISCONNECT COUPLING
QS	QUAD SHEET
QTR	QUARTER
QTY	QUANTITY

- R -

R	RADIUS
(R)	RADIAL
R/W	RIGHT-OF-WAY
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REC	RECESSED
RECT	RECTANGULAR
RED	REDUCER
REF	REFERENCE (DIMENSION)
REG	REGULATING (REGULATOR)
REINF	REINFORCED (REBAR)
REQD	REQUIRED
RES	RESIDENTIAL OR RESERVOIR
RET	RETURN
REV	REVISION OR REVERSE
RF	RAISED FACE
RHWC	RIVERSIDE HIGHLAND WATER COMPANY
RM	ROOM
RME	RESIDENTIAL MAIN EXTENSION
RPM	REVOLUTIONS PER MINUTE
RPS	REVOLUTIONS PER SECOND
RPPA	REDUCED PRESSURE PRINCIPLE ASSEMBLY
RR	RAILROAD
RSGV	RESILIENT SEALED GATE VALVE
RT	RIGHT/RING TITE
RV	RELIEF VALVE

- S -

S	SOUTH/SLOPE
SA	SAMPLE LINE
SBCFCD	SAN BERNARDINO COUTNY FLOOD CONTROL DISTRICT
SBMWD	SAN BERNARDINO MUNICIPAL WATER DEPARTMENT
SBVMWD	SAN BERNARDINO VALLEY MUNICIPAL WATER DEPARTMENT
S/C	SAW CUT
SCCP	STEEL CYLINDER CONCRETE PIPE
SCH	SCHEDULE
SD	STORM DRAIN
SDWK	SIDEWALK
SDR	STANDARD DIMENSION RATIO
SE	SOUTHEAST
SEC	SECTION/SECOND(ARY)
SEG	SEGMENT
SHLDR	SHOULDER
SHT	SHEET
SID	SPECIAL IMPROVEMENT DISTRICT
SIG	SIGNAL
SIM	SIMILAR
SL	SLOPE
SLV	SLEEVE
SO	STUBOUT
SPC	STATE PLANE COORDINATES
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SQ FT	SQUARE FOOT (FEET)
SQ YD	SQUARE YARD
SR	SAMPLE RETURN
SRM	SINGLE RESIDENTIAL MAIN
SS	SANITARY SEWER
SSL	SANITARY SEWER LATERAL
ST	STREET
STA	STATION
STD	STANDARD
STIR	STIRRUP

- S - (CONT.)

STL	STEEL
STLT	STREET LIGHT
SSPWC	STANDARDS & SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
SSTL	STAINLESS STEEL
SUPPL	SUPPLEMENT
SUR	SURVEY
SV	SOLENOID VALVE
SW	SIDEWALK OR SOUTHWEST
SWP	STATE WATER PROJECT
SY	SQUARE YARD
SYM	SYMBOL
SYMM	SYMMETRICAL
SYS	SYSTEM

- T -

t	THICKNESS OF WELD
T	TELEPHONE/TANGENT
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
TAN	TANGENT
TBE	THREAD BOTH ENDS
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPORARY
THK	THICK(NESS)
THR BLK	THRUST BLOCK
THRD	THREADED
TK	TANK
TMH	TOP OF MANHOLE
TOE	THREAD ONE END
TOF	TOP OF FOOTING
TOG	TOGETHER
TOGR	TOP OF GRATE
TOP	TOP OF PIPE
TOR	TOP OF RIM
TOS	TOP OF SLAB
TOSTL	TOP OF STEEL
TOSW	TOP OF SIDEWALK
TOT	TOTAL
TOW	TOP OF WALL
TP	TELEPHONE POLE/TOP OF PIPE
TR	TRAIL OF TRACK/TOP OF RIM
TRANS	TRANSITION/TRANSMISSION
(TYP)	TYPICAL

- U -

UDS	UNIFORM DESIGN STANDARDS FOR SAN BERNARDINO MUNICIPAL WATER DEPARTMENT
UE	UNDERGROUND ELECTRIC
UFC	UNIFORM FIRE CODE
UG	UNDERGROUND
UGC	UNDERGROUND CONDUIT
UGP	UNDERGROUND POWER
UGT	UNDERGROUND TELEPHONE
UL	UNDERWRITERS LABORATORIES
UNC	AMERICAN STANDARD UNIFIED COARSE THREAD
UNF	AMERICAN STANDARD UNIFIED FINE THREAD
UNIV	UNIVERSAL
UNO	UNLESS NOTED OTHERWISE
UPC	UNIFORM PLUMBING CODE
UPRR	UNION PACIFIC RAILROAD
USGS	UNITED STATES GEODETIC SURVEY
UTIL	UTILITIES

- V -

V	VOLT OR VALVE
VAC	VACUUM
VAR	VARIES
VB	VALVE BOX
VCP	VITRIFIED CLAY PIPE
VEL	VELOCITY
VENT	VENTILATOR
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VG	VALLEY GUTTER
VHF	VERY HIGH FREQUENCY
VIB	VIBRATION
VIN	VINYL
VISC	VISCOSITY
VOL	VOLUME
VPI	VERTICAL POINT OF INTERSECTION
VS	VALVE SHEET
VT	VENT

- W -

W/	WITH
W	WEST/WATER
W/O	WITHOUT
WD	WIDTH
WDH	WASTE DRAIN
WF	WIDE FLANGE
WH	WALL HYDRANT
WI	WROUGHT IRON
WL	WASTE LINE
WLD	WELDED
WM	WATER METER
WP	WORK POINT/WEATHER PROOF
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
WSTP	WATER STOP
WT	WEIGHT
WTR	WATER
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

SURVEY INFORMATION

SURVEYOR

SURVEYING FIRM NAME
SURVEYING FIRM ADDRESS

BENCHMARK

CITY OF SAN BERNARDINO BM GI-29, 2" BRASS DISC SET IN BACK OF SW 9.0 FT. NORTH OF NORTH EAST BCR OF RIALTO AVE. & 'K' ST.
ELEV.= XXXX.XX FT. NGVD29 OR NAVD88

BASIS OF BEARING

CENTERLINE OF "J" STREET BEING N00°24'04"E.

DATE OF SURVEY

MAR 26, 2018

- X -

XARM	CROSS ARM
XFMR	TRANSFORMER
XFR	TRANSFER
XSEC	CROSS SECTION

- Y -

YD	YARD
YH	YARD HYDRANT
YLD	YIELD

NOTE:
THIS IS A STANDARD ABBREVIATION SHEET.
SOME ABBREVIATIONS MAY APPEAR ON THIS SHEET BUT ARE NOT USED IN THE PLANS. ALL ABBREVIATIONS USED ON THE PLANS MUST APPEAR ON THIS SHEET.

FOR EXAMPLE ONLY

1. THE CONTENTS OF THIS SET OF DRAWINGS WAS CREATED TO PROVIDE A GRAPHIC REPRESENTATION OF SBMWD AUTOCAD STANDARD REQUIREMENTS AND EXPECTATIONS.
2. ALL TYPES OF INFORMATION ON THIS SET OF DRAWINGS IS REQUIRED TO BE PROVIDED AS SHOWN FOR THE PROJECT SUBMITTAL TO BE ACCEPTED AND APPROVED (TYP).

UNDERGROUND SERVICE ALERT
CALL BEFORE YOU DIG
CALL: TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

INSERT ENGINEER'S STAMP HERE

INSERT CONSULTANT LOGO, NAME, ADDRESS AND PHONE NO. HERE

APPROVED BY: _____ DATE: _____
REGISTERED CIVIL ENGINEER No. XXXXX

MARK	REVISIONS	APPROVED	DATE	APPROVED	DATE

DESIGNED BY: XX DRAWN BY: XX CHECKED BY: XX DESIGN ENGINEER SBMWD ENGINEER

BENCHMARK:
ELEV.= XXXX.XX FT.

CITY OF SAN BERNARDINO WATER DEPT.

PROJECT MANAGER: ROBERT LINDBERG, ENGINEERING ASSOCIATE
ENGINEERING MANAGER: WARREN HUANG, P.E., CA. R.C.E. 49208
GENERAL MANAGER: MIGUEL GUERRERO, P.E., CA. R.C.E. 73239

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT

PROJECT TITLE

ABBREVIATIONS AND SURVEY INFORMATION

DRAWING SCALES:
HORIZ: N/A VERT: N/A
C.O. NO.: XXXXX
G4
SHEET 4 OF XX

"PROJECT TITLE" - XX% SUBMITTAL

C-XXXXX-4-G-G4.DWG