APPENDIX K

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

AUTOCAD STANDARDS



City of San Bernardino Municipal Water Department 195 North "D" Street San Bernardino, CA 92402

AUTOCAD™ AND GIS STANDARDS

1.0 INTRODUCTION

The San Bernardino Municipal Water Department (SBMWD) AutoCAD $^{\text{TM}}$ and GIS Standards have been developed to aid in the preparation of drawings and to ensure consistency and uniformity on all SBMWD contracts and specifications. The Engineering section has made every attempt to assure that the SBMWD Standard Drawings are complete and accurate. However, the issuance of these standards does not relieve the Engineer of Record from assuring that the standard details are correct and applicable to their specific project.

2.0 DRAWING SUBMITTALS

2.1 General

When $AutoCAD^{TM}$ files are prepared for submittal to SBMWD, the paper set and electronic views must be the same. What is seen on the paper copy is also the electronic view on screen when the file is opened.

The Consultants shall use the title block in C-XXXX-G-G1.dwg for all contract drawing sheets. The title block is located in the AutoCAD $^{\text{TM}}$ and GIS Standards section of the SBMWD Uniform Design and Construction Standards. Due to the SBMWD document management system, the title block is not allowed to be exploded. If the title block has been exploded, the submittal will not be accepted.

Due to SBMWD printing requirements, Model Space and Paper/Layout Space drawings are only permitted. The drawing shell shall always be inserted into Paper/Layout Space at (1:1 scale) 22" x 34" and drawing plot scale to be set at "1". The Model Space viewport drawing scale shall be horizontal scale: 1"=40' and vertical scale: 1"=4' for plan and profiles. The Consultant and SBMWD Engineering Manager shall determine all other drawing scales.

Layering shall be labeled per standards listed herein. All layering nomenclature shall be clearly delineated between survey information, water improvements, existing utilities, etc. according to the layering convention standards herein.

North arrow and all text are to be oriented to be read from the bottom and right (Unless approved by SBMWD Engineering Manager).

All Stationing is to be oriented from left to right (Unless approved by SBMWD Engineering Manager). Stations are to be consistent at all match lines and station equations are not permitted. Stations are to be on the pipeline itself not the street centerline.

All text and construction notes that are pertinent to the design shall have a hide box placed around it to remove any lines from behind the text. The hide box shall be created from a 3dface in $AutoCAD^{TM}$ and shall be elevated such that all lines are hidden from behind the text and construction notes. The hide boxes shall be placed on the hide layer and the hideplot option for the viewports under the mview command shall be toggled to on. Also the hidetext command shall be toggled to off for all drawings.

All original signatures are to be in blue ink prior to the acceptance of the final submittal.

All files must be named in accordance with the file nomenclature standards herein and submitted on CD.

AutoCAD $^{\text{TM}}$ drawings created in version AutoCAD $^{\text{TM}}$ 2000i or more recent will be accepted.

2.2 All Progress Submittals

X-refs are permitted and must be provided with the drawing files. X-refs should be inserted on the "xref" layer. If more than one x-ref is used a layer should be created for each x-ref attached. For example layer names would read "c-xref-base" and "c-xref-topo" for a base and topo x-ref. Nested x-refs will not be accepted. All detail file names and dates are to remain by detail titles to verify the SBMWD AutoCAD $^{\text{TM}}$ Standards version currently being used.

2.3 100 Percent and Final Submittals

X-refs are permitted however, all x-ref files shall be saved and mapped in the same folder as the drawing files. All x-refs should be inserted on their appropriate layers as defined in the paragraph above. All layers are to be turned on and thawed. (Exception: "mview" to be frozen.) All information not pertinent to the final design must be deleted from the drawings and the file must be purged to smallest possible size. Detail file names and dates are to be removed from detail titles.

Any SBMWD AutoCAD $^{\text{TM}}$ Standards revisions or updates made prior to the 100 percent submittal will be required to be incorporated into the contract drawings prior to the acceptance of the final submittal.

2.4 Revisions or Addendums

When revisions or post signature changes are necessary, the following standard is required:

All changes are to be clouded in AutoCAD™ (provide AutoCAD™ drawing files with all changes). Numbered revision triangles will be placed within the clouded areas and in the drawings title block revision area. Detailed description of the changes shall also be provided in the revision area of the title block.

2.5 Record Drawing Submittal

2.5.1 Record Drawing Electronic Submittal

Upon completion of the work, all required information, dimensions and adjustments to the original contract drawings shall be submitted to the SBMWD to be transferred to the record drawings. Facilities and items to be located and verified on the record drawings shall include the following:

- a. Point of connections.
- b. Utility locations.

- c. Water mains: where deviations along installed water mains are more than 1/2 foot vertically and more than 1 foot horizontally, actual location (line and grade) shall be noted on the plans at intervals of 100 feet.
- d. Services: where service tie-in differs from the plan station by more than 1 or when meter box is perpendicular from the corporation stops shall be stationed. all service lines that directional changes, such as in the cul-de-sacs, of the installation shall be noted regardless of field changes, and shall adequately referenced the to satisfaction of the SBMWD Inspector.
- e. Any material changes, including additions, deletions, and substitutions.
- f. Other related facilities, as required by the SBMWD Inspector.
- g. Contractor shall write on all sheets where the water improvements were built per plan that the construction was made "Per Plan".
- h. Each As-Built sheet shall be signed and sealed by the Engineer of Record and stamped "As-Built" for approval by the SBMWD Engineering Manager.

The SBMWD's receipt and acceptance of all document submittals shall be a condition precedent to the release of the Contractor's retention/final payment. For projects constructed by Developers, the SBMWD will not accept final conveyance of water system improvements to the SBMWD until approved record plans and other required documents per the Developer-

Installed Agreement have been received and are correct.

2.5.2 GIS Data Electronic Submittal

The Developer shall provide the Department with a digital electronic file of the water system design and as-constructed water system compatible with the Department's GIS data system. The data files shall consist of the following:

2.5.2.1 Survey Information

Survey accurate GIS layers of centerline, right-of-way line, easements and lot lines. This survey information shall be within GIS subfoot accuracy.

2.5.2.2 Water System Information

All water system improvements GIS layers including mains, valves, service laterals, meter locations, fire hydrants, and other appurtenances shall be placed physically to within GIS subfoot accuracy, relative to the SURVEY INFORMATION in Subsection 2.5.2.1.

2.5.2.3 Street Improvements

All curbs, sidewalks, and other hard improvements visible from the street. These facilities shall be placed physically to within GIS subfoot accuracy, relative to the SURVEY INFORMATION in 2.5.2.1.

2.5.2.4 File Format

All information shall be provided to the Water Department in GIS format in either a shapefile or geodatabase. The format must comply with the Department's GIS system. The GIS data shall be in the Stateplane NAD83, California, Zone 5, feet coordinate system.

2.5.2.5 GIS Layer Data Information

The Survey Information, the Water System Information, and the Street Improvements shall each be on separate GIS shapefiles or geodatabases. The GIS layer information shall include the File Name(s), Description, Feature Type, and any comments as follows:

GIS DATA ELECTRONIC SUBMITTAL FILE REQUIREMENTS

File Name(s) ⁽¹⁾	Description	Feature Type	Comment(s)
Valves	Valve type; turns to close; size; manufacturer; location; installation date; valve purpose; pressure zone; status.	Point	Varies
Mains	Main type; size; length; material; installation date; location; pressure zone; manufacturer; status.	Line	Varies
Service Laterals	Lateral type; size; length; material; installation date; location; manufacturer; assessor parcel number (APN); pressure zone; status.	Line	Varies
Hydrants	Hydrant size; configuration; barrel diameter; manufacturer; installation date; location; pressure zone; status; nozzle diameter 1-2-3.	Point	Varies
Survey	Survey street centerlines; right of ways; easements; and lot lines.	Line	Varies

Notes: (1) File name shall be named appropriately to the item(s) in question.

2.5.2.6 Annotation

Annotation shall be easily readable with the default characteristics or as approved by the Department. Annotation for each of the information categories listed above shall be provided in its own GIS shapefile or geodatabase independent from the information itself as described in Section 2.5.2.5. Annotation will include but is not limited to: street names, valve numbers, parcel address, reducer size, distance from main to centerline, main size, type, and year installed. All appurtenances shall be shown according to the Department's GIS feature standards and will be provided to the Applicant in an electronic format upon request.

2.5.2.7 Additional Information

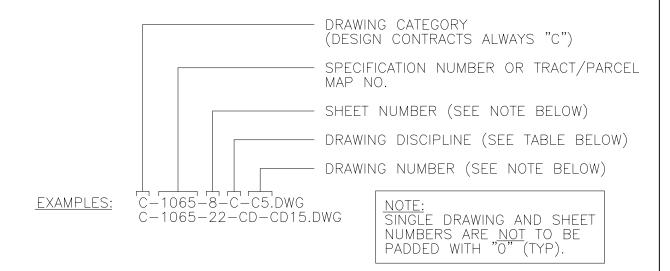
Files containing more information than what is specifically listed above are NOT acceptable and will be returned to the Applicant for correction.

AUTOCAD STANDARDS

FILE NOMENCLATURE TABLE
LAYERING NOMENCLATURE TABLE
MASTER LAYER LIST
PEN TABLE SETTINGS
LINE TYPES
TEXT FORMATS
DETAIL REFERENCES
REVISIONS/ADDENDUMS STANDARD
POTHOLE STANDARD
DISTRIBUTION SHEET STANDARD BLOCKS

W:\AUTOCAD\SBMWD CAD STANDARDS\BLOCKS-NOTES\SB-STD.DWG

FILE NOMENCLATURE FOR AUTOCAD GENERATED CONTRACT DRAWINGS



А	ARCHITECTURAL PLAN SHEETS
AD	ARCHITECTURAL DETAIL SHEETS
С	CIVIL PLAN SHEETS
CD	CIVIL DETAIL SHEETS
D	DEMOLITION PLANS
Ε	ELECTRICAL PLAN SHEETS
ED	ELECTRICAL DETAIL SHEETS
F	FIRE PROTECTION PLAN SHEETS
FD	FIRE PROTECTION DETAIL SHEETS
G	GENERAL SHEETS
	INSTRUMENTATION PLAN SHEETS
ID	INSTRUMENTATION DETAIL SHEETS
L	LANDSCAPING AND IRRIGATION PLAN SHEETS
LD	LANDSCAPE AND IRRIGATION DETAIL SHEETS
М	MECHANICAL SHEETS
MD	MECHANICAL DETAIL SHEETS
Р	PLUMBING PLAN SHEETS
PD	PLUMBING DETAIL SHEETS
S	STRUCTURAL PLAN SHEETS
SD	STRUCTURAL DETAIL SHEETS
SV	SURVEY SHEETS

TRAFFIC PLAN SHEETS

TRAFFIC DETAIL SHEETS

EXHIBIT/INTERPRETIVE SHEET

EXHIBIT/INTERPRETIVE DETAIL SHEET

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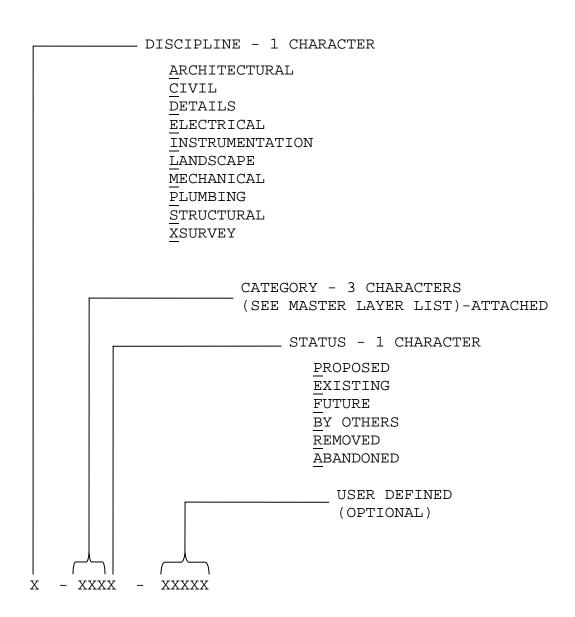
Χ

XD

DRAWING DISCIPLINE TABLE

LAYER FORMAT FOR AUTOCAD

GENERATED CONTRACT DRAWINGS



EXAMPLES: C-RDSP-EAST (CIVIL-ROADS PROPOSED-EAST ROAD)

> C-WTRX-36IN (CIVIL-WATER EXISTING-36 INCH WATER LINE)

L-LANP-ROCK (LANDSCAPE-LANDSCAPE PROPOSED-ROCKS)

X-TEXT1-SURVEY (SURVEY-TEXT1-SURVEY TEXT LAYER)

MASTER LAYER LIST

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* - REFERENCE LAYER

MASTER LAYER LIST

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' - REFERENCE LAYER

MASTER LAYER LIST (DETAILS ONLY)

	DESCRIPTION SEE LEGEND	ALL CENTER LINES	PROPOSED PIPE LINES	PROPOSED DETAIL PERTAINING TO TITLE	PROPOSED HIDDEN LINES OF DETAIL	PROPOSED DETAIL	ALL EXISTING	ALL HARD TO SEE SMALL PARTS SUCH AS BOLTS	VAULT												
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- REFERENCE LAYER

BLACK AND WHITE PLOTTER PEN EXAMPLES

PEN NUMBER	COLOR	INCHES
1	RED	0.005
2	YELLOW	0.008
3	GREEN	0.012
4	CYAN	0.018
5	BLUE	0.028
6	MAGENTA	0.038
7	WHITE	0.050
9	GRAY	0.010
11	PINK	0.010
252	GRAY	0.008

NOTE: COLOR #9 IS TO BE USED FOR ALL EXISTING, REMOVED, AND ABANDONED LAYERS AND SCREENED TO 70%. COLOR #11 IS TO BE USED FOR MVIEWS, HIDE BOXES, AND ALL NON-PLOTTING OBJECTS ONLY AND SCREENED TO 0%. COLOR #252 IS TO BE USED FOR CONTOURS AND PROFILE GRIDS ONLY AND BE SCREENED TO 50%. OTHER USES SCREENINGS AND PEN WIDTHS OF COLORS #9, #11, AND #252 SHALL BE DETERMINED AND APPROVED BY SBMWD PRINCIPAL ENGINEER.

LINETYPES

DESCRIPTION	LINETYPE
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CONTINUOUS	
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DASHEDX2	
HIDDEN	
HIDDEN2	
PHANTOM	
PHANTOM2	
DOT2	

AUTOCAD TEXT FORMAT FOR CONTRACTS

STYLE: TEXT1

FONT: ROMANS.SHX

SIZE: 0.10 x DRAWING SIZE

WIDTH: 1 OBLIQUING ANGLE: 0

LAYER: TEXT1

<u>USAGE:</u> ALL OTHER TEXT, DIMENSIONING, LEADERS, ARROWS, AND NOTES.

EXAMPLE: 10'-0", (TYP), STA. 10+00.00

STYLE: TEXT2

FONT: BOLD.SHX

SIZE: 0.24 x DRAWING SIZE

WIDTH: 1 OBLIQUING ANGLE: 0

LAYER: TEXT2

USAGE: STREET NAMES

EXAMPLE: RIALTO AVENUE

STYLE: TEXT3

FONT: BOLD.SHX

SIZE: 0.20 x DRAWING SIZE

WIDTH: 1 OBLIQUING ANGLE: 0

LAYER: TEXT3

USAGE: DETAIL AND DRAWING TITLES

EXAMPLE: SITE PLAN, BLOW-OFF DETAIL

STYLE: TEXT4

FONT: ROMANS.SHX

SIZE: 0.15 x DRAWING SIZE

WIDTH: 1 OBLIQUING ANGLE: 0

LAYER: TEXT4

<u>USAGE:</u> MATCHLINES, PROFILE GRID STA. AND ELEV., INTERMEDIATE DETAIL TITLES

EXAMPLE: DETAIL "C", TRENCH SECTIONS

ALL TEXT IS TO BE UPPER CASE, UNLESS APPROVED OTHERWISE BY SBMWD PRINCIPAL ENGINEER.

ALL TEXT IS TO BE UPPER CASE, UNLESS APPROVED OTHERWISE BY SBMWD PRINCIPAL ENGINEER.

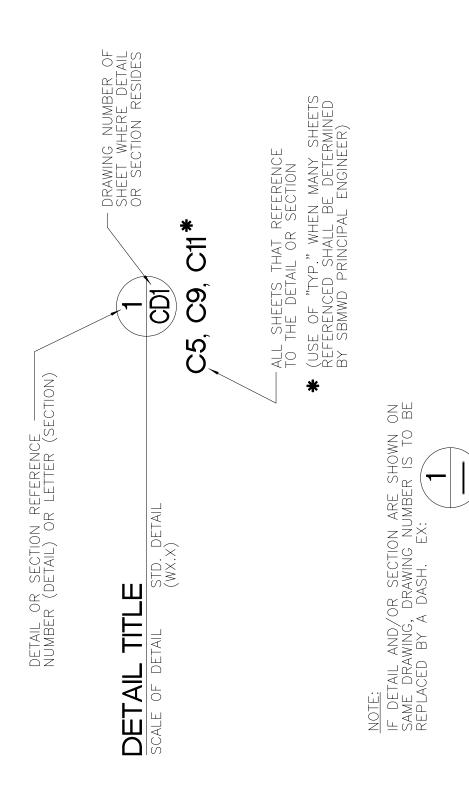
ALL TEXT IS TO BE UPPER CASE,

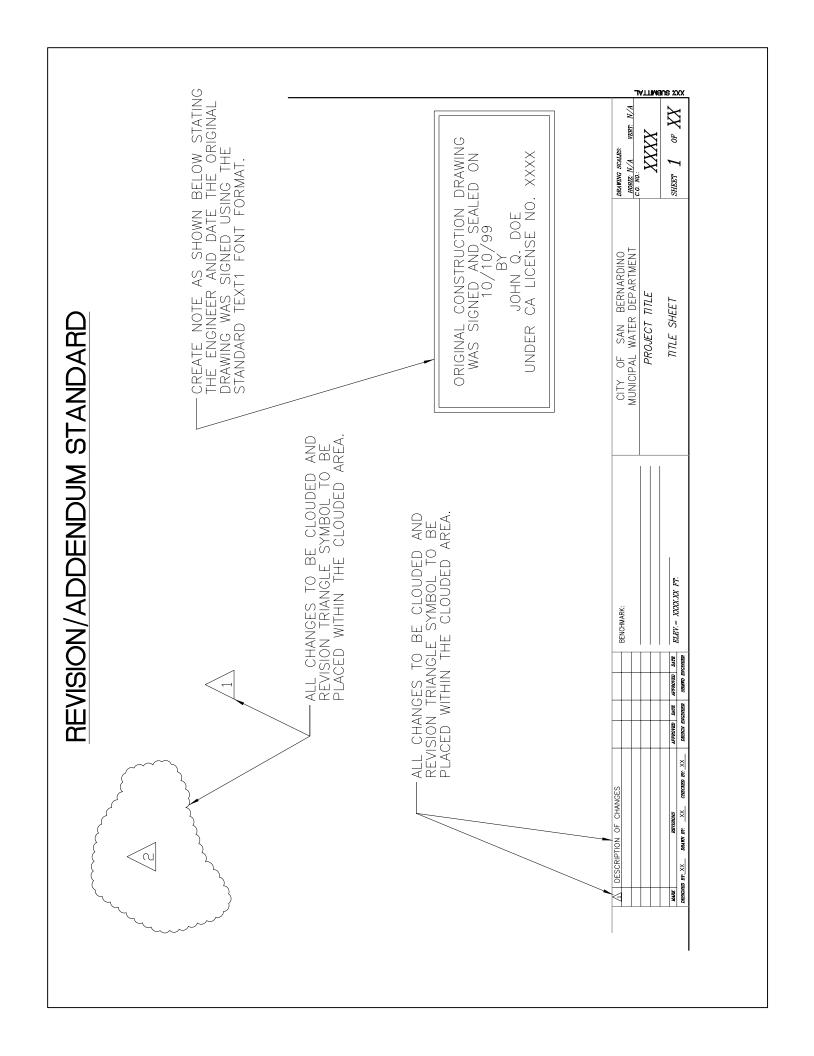
UNLESS APPROVED OTHERWISE BY SBMWD PRINCIPAL ENGINEER.

ALL TEXT IS TO BE UPPER CASE,

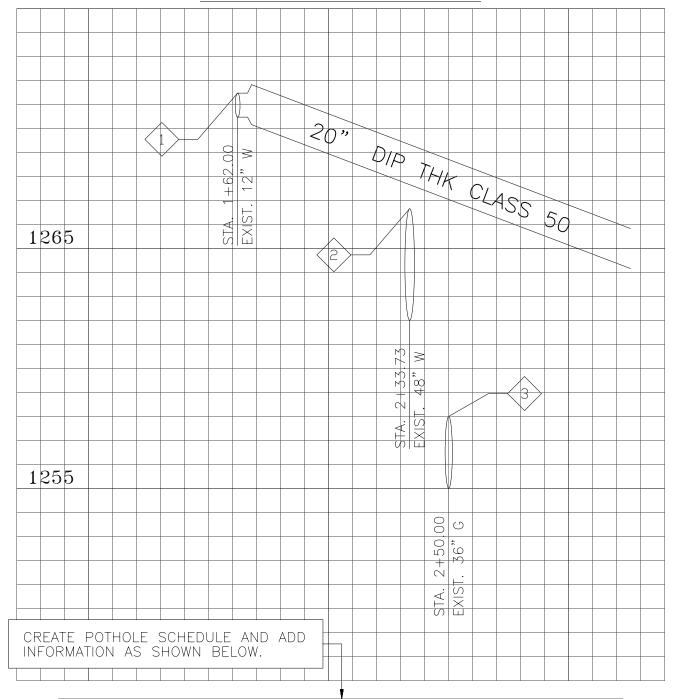
UNLESS APPROVED OTHERWISE BY SBMWD PRINCIPAL ENGINEER.

SAMPLE REFERENCE IDENTIFICATION STANDARD





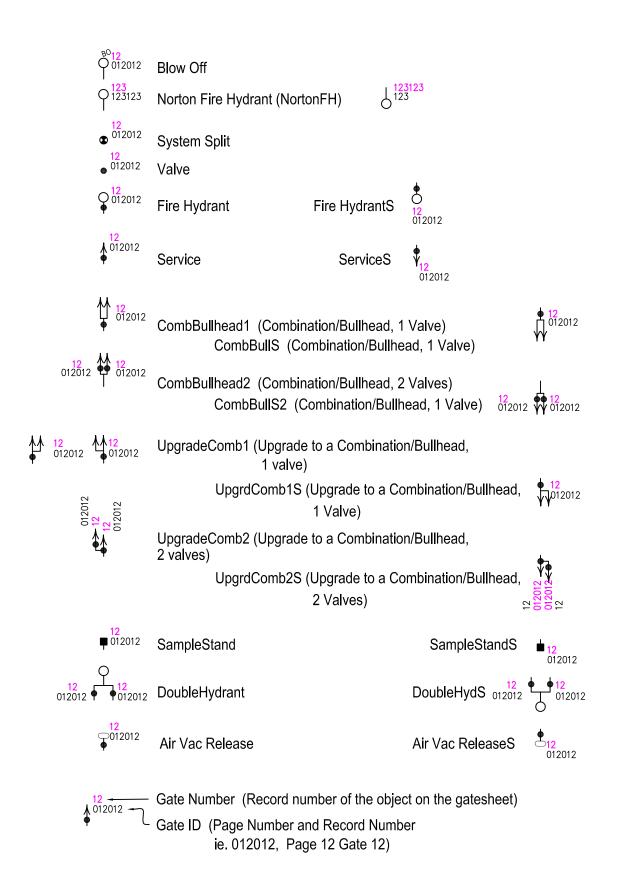
POTHOLE STANDARD



		POTHOLE SCHEDULE
NO.	ELEVATION	DESCRIPTION
1	1270.5'± FL	12" DIP WATERLINE
2	1262.0'± FL	48" CML/C STEEL WATERLINE
3	1258.0'±	36" STEEL GAS

^{*} CONTRACTOR IS STILL REQUIRED TO POTHOLE ALL UTILITIES PRIOR TO CONSTRUCTION.

Distribution Sheet Standard Blocks



01/07/05 W:\Autocad\SBMWD CAD Standards\Blocks&Notes\SBMWD Standard Blocks.dwg

AS-BUILT AND CONFORMED BLOCKS STANDARD

THE FOLLOWING BLOCK SHALL BE PLACED ON EACH MYLAR SHEET AND TECHNICAL SPECIFICATIONS COVER SHEET WHEN ALL ADDENDUMS HAVE BEEN INCORPORATED INTO THE BIDDING PHASE WATER IMPROVEMENT PLANS AND CONTRACT DOCUMENTS AND HAS BEEN APPROVED BY SBMWD ENGINEERING

CITY OF SAN BERNARDINO WATER DEPARTMENT
CONFORMED APPROVED FOR CONSTRUCTION
BY:
DATE:

THE FOLLOWING BLOCK SHALL BE PLACED ON EACH MYLAR SHEET OF THE WATER IMPROVEMENT PLANS WHEN ALL FIELD CHANGES HAVE BEEN INCORPORATED INTO THE CONFORMED WATER IMPROVEMENT PLANS AND APPROVED BY SBMWD ENGINEERING

CITY OF SAN BERNARDINO
WATER DEPARTMENT
AS - BUILT
BY:
DATE:

DEVELOPER-INSTALLED AUTOCAD STANDARDS

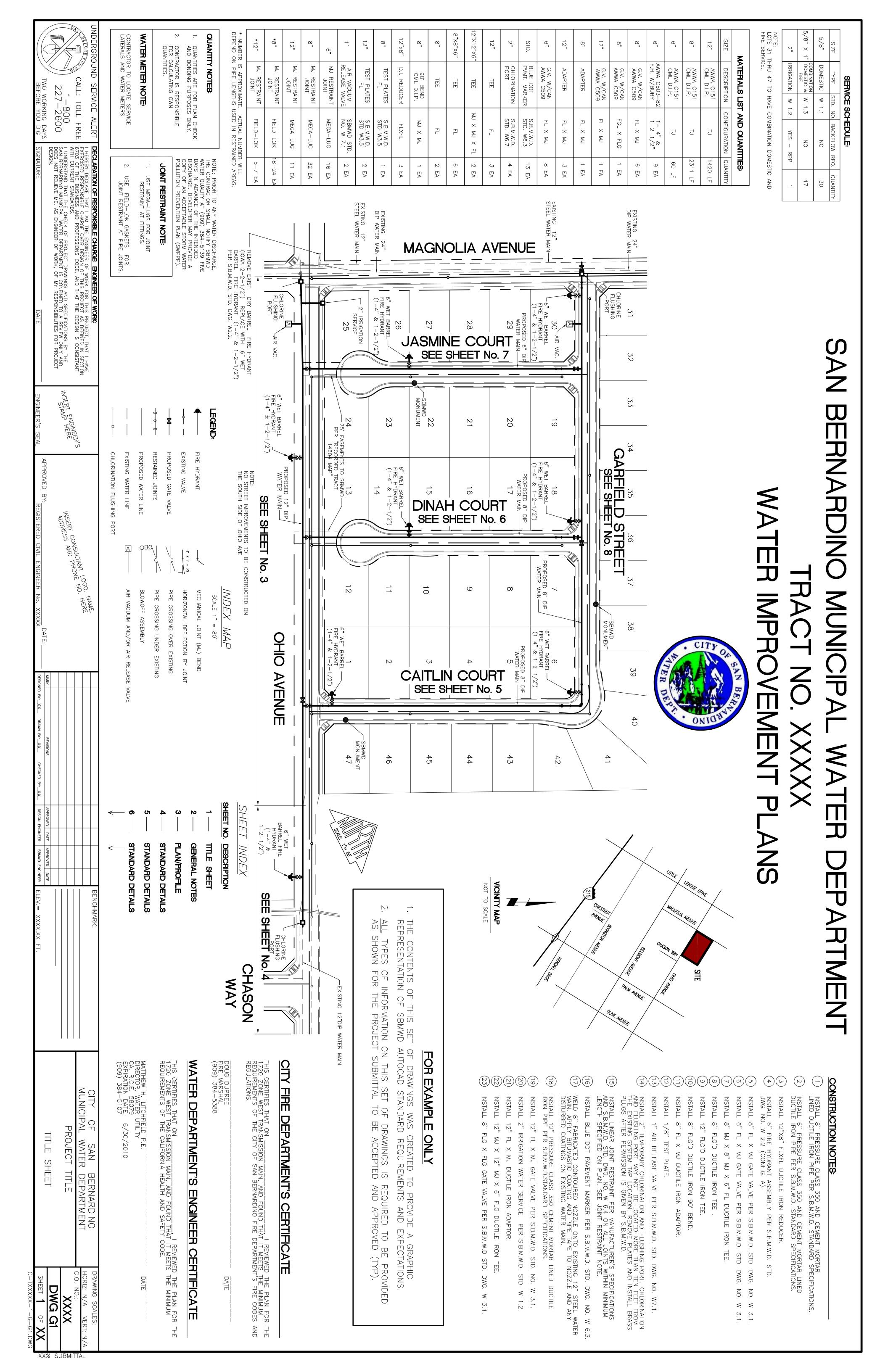
W:\AUTOCAD\SBMWD CAD STANDARDS\TRACTS\

C-TXXXX-G-G1.dwg

C-TXXXX-G-G2.dwg

C-TXXXX-C-C1.dwg

C-TXXXX-CD-CD1.dwg



GENERAL WATER NOTES

- PLANS HAVE BEEN PREPARED FOR THE SAN BERNARDINO MUNICIPAL WATER DEPARTMENT (SBMWD). PLANS ARE INTENDED TO SUPPLEMENT THE DEPARTMENT'S TECHNICAL SPECIFICATIONS AND THESE P THESE P DETAILS.
 - F A VANCE ALL UTILITY LOCATIONS SHOWN ARE FROM RECORD INFORMATION ONLY AND ARE NOT A RESULT OF FIELD SURVEY. CALL UNDERGROUND SERVICE ALERT AT 1-800-227-2600 -- 48 HOURS IN ADVOF CONSTRUCTION.

 - ALL WATER LINE CONNECTION POINTS AND CRITICAL UTILITY CROSSING POINTS SHALL BE EXPOSED AND ACCURATELY LOCATED AT THE START OF CONSTRUCTION, AND THE SBMWD SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO THE CONTINUATION OF WORK.

 ALL ELEVATIONS SHOWN ON PLANS SHALL BE BASED ON A U.S.G.S. DATUM, AND SHALL SHOW ELEVATION FROM MEAN SEA LEVEL.

 ALL HORIZONTAL OR VERTICAL CHANGES IN PIPE ALIGNMENT DELINEATED ON THE PLANS AS "DEFLECTION BY JOINT" OR SHOWN WITHOUT BENDS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. TOTAL ANGULAR DISPLACEMENT SHALL BE DISTRIBUTED THROUGH AS MANY JOINTS AS PRACTICABLE. 5.
 - 6
- ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK, LATEST EDITION), SBMWD STANDARD SPECIFICATIONS, AND A.W.W.A. STANDARDS AND SPECIFICATIONS.

 APPROVAL OF THIS PLAN BY THE SBMWD DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OR OF THE EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES WITHIN THE LIMITS OF THE PROJECT.

 DURING THE PERIOD OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN SUCH WARNINGS, SIGNS, STOP SIGNS, SIGNALS, BARRICADES, AND OTHER SAFETY MEASURES AS DIRECTED BY THE CITY OF SAN BERNARDINO, DEPARTMENT OF PUBLIC WORKS WITH REFERENCE TO THE W.A.T.C.H.
- WERNOAL (CATES) EQUIDNA).

 9. THE CONTRACTOR SHALL NOT OPEN MORE TRENCHES THAN CAN BE PROPERLY PROSECUTED IN A DAY'S OPERATION. ANY TRENCH UNAVOIDABLY LEFT OPEN DURING THE HOURS OF DARKNESS OR OVER A WEEKEND SHALL BE FENCED WITH 6-FOOT CHAIN LINK AND PROPERLY LIGHTED OR BRIDGED BY A WETER DEPARTMENT APPROVED TRAFFIC PLATE WITH REFERENCE TO THE WA.T.C.H. MANUAL (LATEST ED.).

 10. THE CONTRACTOR SHALL PROVIDE SAFE AND CONTINUOUS PASSAGE FOR LOCAL PEDESTRIAN AND VEHICULAR TRAFFIC STALL TRAFFIC SIGNAL FORWARD. THE CONTRACTOR SHALL BE PROVIDE SAFE AND CONTINUOUS PASSAGE FOR LOCAL PEDESTRIAN AND VEHICULAR TRAFFIC SIGNAL FUNCTIONS SHALL BE APPROVED BY THE CITY OF SAN BERNARDINO, DEPARTMENT OF VUBLIC WORKS. HOWEVER, THE CONTRACTOR IS REQUIRED TO GIVE 48 HOUR NOTICE PRIOR TO ANY CONSTRUCTION THAT WILL DAMAGE OR AFFECT ANY BURIED TRAFFIC DETECTORS.

 14. THE CONTRACTOR SHALL SO CONDUCT HIS OPERATIONS AS TO OFFER THE LEAST POSSIBLE OBSTRUCTION OR AMOUNT OF WORK THAN HE CAN PROSECUTE PROPERLY WITH DUE RECARD TO THE RIGHTS OF THE PUBLIC, CONVENIENCE TO THE PUBLIC, AND HE SHALL HAZE UNDER CONSTRUCTION NO GREATER LENGTH OR AMOUNT OF WORK THAN HE CAN PROSECUTE PROPERLY WITH DUE RECARD TO THE RIGHTS OF THE WITHOUT THE APPROVAL OF THE TRAFFIC/VAILER DEPARTMENT SIGNIER. THE LOSTED AT ANY ONE TIME WITHOUT THE APPROVAL OF THE TRAFFIC/VAILER DEPARTMENT SIGNIER. THE CONTRACTOR SHALL BE ROWINED AND MAINTAINED IN GOOD CONDITION. TO BE ENCOUNTERED AS A RESULT OF THE PUBLIC AT ALL TIMES OF ANY DANGEROUS CONDITIONS TO BE ENCOUNTERED AS A RESULT OF THE CONSTRUCTION WORK AND TO GIVE DIRECTIONS TO THE PUBLIC. TO BE ENCOUNTERED AS A RESULT OF THE CONSTRUCTION WORK AND TO GIVE DIRECTIONS TO THE PUBLIC. TO BE ENCOUNTERED AS A RESULT OF THE CONSTRUCTION WORK AND TO GIVE DIRECTIONS TO THE PUBLIC. TO BE ENCOUNTERED AS A RESULT OF THE CONSTRUCTION WORK AND TO GIVE DIRECTIONS TO THE PUBLIC. TO BE ENCOUNTERED SO DETAINED TO AND TO STANDED TO THE PUBLIC. TO BE ENCOUNTED TO BE SOUTH DEFORMENTED TO BE SOUTH AUCTION ENGTH OF THE K SHALL ON. NOT
- 16.
- ALL REMOVALS IN PAVED AREAS SHALL BE SAW CUT ON A NEAT, STRAIGHT LINE PARALLEL TO THE PIPE LINE. THE EDGE SHALL BE PROTECTED FROM CRUSHING AND ALL BROKEN EDGES SHALL BE RE—CUT PRIOR TO PAVING OPERATIONS.

 DUST SHALL BE CONTROLLED AT ALL TIMES BY APPROVED METHODS.

 PUBLIC STREETS SHALL BE KEPT CLEAN AND FREE FROM DIRT AND/OR DEBRIS ON A DAILY BASIS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED IN STREET CLEANING NECESSITATED BY HIS OPERATION. 7. %
 - TANCE. ALL TRENCH BACKFILLS SHALL BE TESTED AND CERTIFIED BY A SOILS ENGINEER PRIOR TO ACCEPTAN 24 HOURS ADVANCE NOTICE IS REQUIRED FOR INSPECTION AND FIELD TIES. ARRANGEMENTS CAN BE MADE BY CALLING (909) 384—5391 BETWEEN 7:00 A.M. AND 4:30 P.M. WEEKDAYS. 20. 19.
- BILLED RTIME VAILABILITY. 0
 - NORMAL INSPECTION HOURS ARE 7:30 A.M. TO 4:00 P.M. MONDAY THROUGH FRIDAY EXCEPT LEGAL HOLIDAYS. REQUESTS FOR INSPECTION AT OTHER TIMES OR ON OTHER DAYS MUST BE SUBMITTED THE SBMWD ENGINEERING SECTION A MINIMUM OF 5 WORKING DAYS BEFORE THE INSPECTION IS REQUIRED. THE CONTRACTOR MUST BEAR THE COST OF SUCH OVERTIME INSPECTIONS AND WILL BI ACCORDINGLY. NORMAL OVERTIME RATES ARE 1.5 TIMES THE BASE RATE PLUS OVERHEAD. OVERTININSPECTIONS WILL BE MADE SOLELY AT THE DISCRETION OF THE SBMWD AND BASED ON STAFF AVAILABLE. 22.
- THE WATER THE CONTRACTOR WILL BE REQUIRED TO OBTAIN CITY BUSINESS LICENSES, INSURANCE, AND PROVIDI EVIDENCE OF SAME TO INSPECTION STAFF UPON REQUEST.

 THE CONTRACTOR SHALL NOT PLACE CONCRETE OR ASPHALT ON THE PROJECT PRIOR TO WATER

 DEPARTMENT/PUBLIC WORKS REVIEW AND APPROVAL OF CONTRACTOR—SUPPLIED COMPACTION TESTS. NO DEVIATIONS SHALL BE MADE FROM THIS PLAN WITHOUT THE REVIEW AND APPROVAL OF DEPARTMENT ENGINEER. 23. 24.
- THE CONTRACTOR SHALL NOT MAKE ANY CONNECTION TO THE EXISTING SBMWD DISTRIBUTION SYSTEM WITHOUT FIRST GAINING WRITTEN PERMISSION TO DO SO FROM THE WATER DEPARTMENT ENGINEER. IN THE EVENT THAT PERMISSION IS GRANTED, A SBMWD INSPECTOR MUST BE PRESENT ON—SITE TO WITHOUT SITE TO WITHOUT SITE TO WITHOUT SITE TO WITHOUT SITE TO MITHOUGH AND THE NEW CONNECTION OF SIDE OF ALL MAIN CONNECTION POINTS.

 ALL FLUSHING, CHLORINATION, AND TESTING SHALL BE PERFORMED EITHER BY (A) WATER TRUCK, OR (B) HYDRANT—TO—HYDRANT CONNECTION THROUGH AN APPROVED BACKFLOW PREVENTION ASSEMBLY. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH THE NPDES PERMIT.

 ALL WATER MAINS AND APPURTENANCES SHALL BE PRESSURE TESTED AND DISINFECTED PRIOR TO ACCEPTANCE BY THE SBMWD.

 TESTING AND DISINFECTION OF WATER MAINS AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE APPLICABLE A.W.W.A. STANDARDS AND THE CONTRACTOR OBTAINED NPDES PERMIT, EXCEPT AS HEREIN MODIFIED. (SEE ATTACHED SBMWD STANDARD)
 - 26.
- ALL TESTING AND DISINFECTION SHALL BE MADE IN THE PRESENCE OF THE SBMWD INSPECTOR AND SHALL COMPLY WITH THE NPDES PERMIT REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN TWENTY—FOUR (24) HOURS IN ADVANCE OF THE ACTUAL TIME OF TESTING AND/OR DISINFECTION SO THAT THE ENGINEER OR DESIGNEE MAY OBSERVE THE PROCEDURE. IF THE PRESSURE TEST, CHLORINATION, OR BACTERIOLOGICAL TEST FAIL TO MEET THE REQUIREMENT OF THE SPECIFICATIONS, THE CONTRACTOR SHALL MAKE NECESSARY REPAIRS, REPLACEMENTS, OR REPETITION OF PROCEDURES AT HIS OWN EXPENSE. 29.
- PLANS. THE SBMWD MAY HAVE POTHOLED AND LOCATED CERTAIN EXISTING UTILITIES, AS SPECIFIED IN THE PLANS
 THE CONTRACTOR SHALL POTHOLE & LOCATE ALL EXISTING UTILITIES TO VERIFY DEPTH AND
 LOCATION IN ADVANCE OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS REQUIRED
 FOR POTHOLING. CONTRACTOR SHALL PROVIDE A SHOP DRAWING (PLAN & PROFILE) SHOWING HOW THE
 PROPOSED PIPE ALIGNMENT SHOULD BE CHANGED TO AVOID EXISTING UTILITIES.
 ALL SERVICES ARE TO REMAIN ACTIVE DURING NON-WORKING HOURS. AT DEAD END LOCATIONS, WATER SERVICE SHALL BE TAPPED AT THE END OF THE WATER MAIN.
 - ALL SERVICES ARE TO REMAIN ACTIVE DURING NON-WORKING HOURS.
 ANY UNDERCUT SEWERS WILL REQUIRE A 1-SACK SAND SLURRY BACKFILL UP TO THE SPRING LINE OF THE SEWER PIPE.
- S GENERAL REFERENCE ONLY IMPLIED. ARE INTENDED AS CONDUCTED OR IT PROPERTY RIGHT OF WAY LINES ARE APPROXIMATE AND FOR THIS PROJECT. THERE IS NO RECORD OF SURVEY 34.

DESIGN STANDARD NOTES:

AND LARGER) VALVED OUTLETS (6" OF APPROVAL CONDITIONAL

THESE PLANS MAY SHOW ONE OR MORE VALVED OUTLETS EXTENDING OUT OF PAVED AREAS. INSTALLATION OF THESE OUTLETS IS ACCEPTABLE. HOWEVER, IF THE OUTLETS ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON WHEN THE PROPERTY IS ACTUALLY DEVELOPED, THE DEVELOPER SHALL ABANDON THE OUTLETS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH SBMWD'S STANDARDS AND AT THE DEVELOPER'S EXPENSE. APPROVAL OF THE VALVED OUTLET DOES NOT PROVIDE OR IMPLY A WATER COMMITMENT BY THE SBMWD.

ABANDONMENTS

SOLE DESCRETION OF REMOVAL OF A VALVE ACCEPTANCE OF THE DESIGN FOR VALVE / PIPE ABANDONMENT IS AT THE ON A CASE BY CASE BASIS. IN MANY CASES, THE SBMWD WILL REQUIRE LIEU OF ABANDONMENT.

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION (UNLESS SHOWN OTHERWISE), BY REMOVING A MINIMUM OF THE TOP TWENTY—FOUR (24) INCHES OF THE VALVE BOX, AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2,000) PSI. THE LATERAL MUST BE COMPLETELY REMOVED FROM THE ABANDONED VALVE AND CAPPED WITH A BLIND FLANGE OR PLUG. VALVES ABANDONED

SMALLER) AND (2," SERVICE LATERALS EXISTING ABANDONMENT OF

THE CONTRACTOR SHALL NOTIFY SBMWD TWO (2) FULL BUSINESS DAYS PRIOR TO THE REQUESTED REMOVAL TIME TO ALLOW SBMWD TO TAKE THE FINAL SERVICE READING. THE CONTRACTOR MAY THEN BEGIN REMOVAL PROCEDURES FOR THE AFFECTED SERVICE AS FOLLOWS:

EXISTING SERVICE LATERALS TO BE ABANDONED FROM EXISTING WATER MAINS SHALL HAVE THE CORPORATION STOPS TURNED OFF AT THE MAIN, A MINIMUM OF TWELVE (12) INCHES OF THE LATERAL CUT OUT NEAR THE CORPORATION STOPS, AND A BRASS CAP OR PLUG INSTALLED ON THE CORPORATION STOP. IF THE CORPORATION STOP IS DAMAGED BEYOND REPAIR OR PULLED FORM THE EXISTING WATER MAIN, THE MAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE IN A MANNER APPROVED BY SBMWD. IF IT IS DISCOVERED THE CORPORATION STOP IS NOT WATER TIGHT, THROUGH NO FAULT OF THE CONTRACTOR, THE CONTRACTOR SHALL NOTIFY SBMWD FOR FURTHER DIRECTION. THE EXISTING SERVICE(S) SHALL BE REMOVED AND RECYCLED. THE SBMWD MAY REQUIRE REUSABLE COMPONENTS (METERS, ETC.) TO BE DELIVERED TO SBMWD.

(3" AND LARGER) OF EXISTING SERVICE LATERALS **ABANDONMENT**

THE CONTRACTOR SHALL NOTIFY SBMWD TWO (2) FULL BUSINESS DAYS PRIOR TO THE REQUESTED REMOVAL TIME TO ALLOW SBMWD TO TAKE THE FINAL SERVICE READING AND TO NOTIFY SBMWD'S INSPECTOR OF THE IMPENDING WORK. THE CONTRACTOR MAY THEN BEGIN REMOVAL PROCEDURES FOR THE AFFECTED SERVICE AS FOLLOWS:

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION (UNLESS SHOWN OTHERWISE), BY REMOVING A MINIMUM OF THE TOP TWENTY—FOUR (24) INCHES OF THE VALVE BOX, AND THEN FILLING THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2,000) PSI.

IF THE VALVE IS TO BE ABANDONED IN THE CLOSED POSITION, THE LATERAL MUST BE CUT WITHIN THREE (3) FEET OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS UNCOVERED AT THE CUT AND CAP LOCATIONS, THE INSTALLATION OF A RESTRAINED PLUG MAY BE PERMITTED WITH SBMWD APPROVAL. THE CONTRACTOR SHALL INSTALL A CONCRETE THRUST BLOCK IN ACCORDANCE WITH THE PROVISIONS OF THE SBMWD STANDARD DRAWING NO. W6.4A AT ALL CAP OR PLUG LOCATIONS.

THE EXISTING SERVICE(S) SHALL BE REMOVED AND RECYCLED. THE CONTRACTOR SHALL THEN REMOVE AND/OR BACKFILL THE ABANDONED VAULT WITH SELECT MATERIAL AND RESTORE ALL DAMAGED SURFACE FEATURES AS DIRECTED BY SBMWD. THE SBMWD MAY REQUIRE REUSABLE COMPONENTS (METERS, ETC.) TO BE DELIVERED TO SBMWD.

INSTALLATION OF METER AND VAULT

SHALL BE INSTALLED IN VAULTS APPROVED BY SBMWD E-CAST OR CAST-IN PLACE THE METER(S) AND VAULT(S) WITH TRAFFIC/NON—TRAFFIC BEARING COVERS(S) S ACCORDANCE WITH THE STANDARD DRAWINGS AND SPECIFICATIONS. PRE—CAST MAY BE USED IN LIEU OF THE FIBERGLASS VAULTS. THE DESIGNATION OF PREMUST BE MADE PRIOR TO PLAN APPROVAL.

AROUND THE OUTSIDE PIPING FROM THE DESIGNED AND CONSTRUCTED TO THE VAULT(S) AND INLET ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE OF THE EASEMENT(S) TO ALLOW SBMWD DIRECT ACCESS ADJACENT RIGHT-OF-WAY.

DE

OF CONSTRUCTION. ASSEMBLIES EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START

THE DETECTOR CHECK(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD DRAWINGS. INSTALLATION OF DOUBLE CHECK DETECTOR

EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

EXISTING PRIVATE WELLS TO REMAIN IN SERVICE

IF THE EXISTING PRIVATE WELL IS TO REMAIN IN SERVICE, SBMWD APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED IMMEDIATELY DOWNSTREAM OF SBMWD'S WATER METER IN ACCORDANCE WITH STANDARD DRAWING W4.2. THE NEW SERVICE SHALL NOT BE ACTIVATED UNTIL THE BACKFLOW PREVENTION ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY CERTIFIED PERSONNEL AND APPROVED BY THE SBMWD. BE REMOVED FROM SERVICE PRIVATE WELLS TO

AND MADE THE IF THE EXISTING PRIVATE WELL IS TO BE ABANDONED, THE INSTALLATION OF A BACKFLOW PREVENTION ASSEMBLY WILL NOT BE REQUIRED. HOWEVER, SBMWD WATER SERVICE WILL REMAIN IN THE OFF POSITION LOCKED OUT UNTIL THE WELL HAS BEEN ABANDONED. AN INSPECTION OF THE ON-SITE SYSTEM WILL BE BY SBMWD'S INSPECTOR TO VERIFY THE WELL HAS BEEN DISCONNECTED FROM THE ON-SITE SYSTEM AND WELL IS NO LONGER FUNCTIONAL.

ATERALS) EXISTING 닝 (EXTENSION **HYDRANTS** FIRE P RELOCATION

THE CONTRACTOR SHALL REMOVE AND RELOCATE BOTH THE UPPER AND LOWER BARRELS OF THE EXISTING FIRE HYDRANT(S) WHERE SHOWN, EXTEND THE EXISTING LATERAL AS REQUIRED, AND REINSTALL SUCH HYDRANT(S) AT THE NEW LOCATION(S) INDICATED. FIRE HYDRANTS SHALL BE TESTED PRIOR TO AND AFTER RELOCATION UNDER THE DIRECTION OF SBMWD TO ENSURE QUALITY OF THE FIRE HYDRANTS. INSTALLATION SHALL BE IN ACCORDANCE WITH STANDARD DRAWING W2.2. LATERALS MADE OF UNAPPROVED MATERIALS SHALL BE REPLACED FROM THE MAIN TO THE FIRE HYDRANT.

AND LATERAL D NOTES (CONT.) DESIGN STANDAR

ABANDONMENT (EXISTING LATERAL

RELOCATION (NED) E HYDRANT F BE ABANDON

WHERE SHOWN ON THE DRAWING(S), THE CONTRACTOR SHALL ABANDON THE EXISTING FIRE HYDRANT TO THE HYDRANT SEMBLAND LATERAL OF THE FIRE HYDRANT TO THE MAIN. FIRE HYDRANTS SHALL BE TESTED PRIOR TO AND AFTER RELOCATION UNDER THE DIRECTION OF SBMWD TO ENSURE QUALITY OF THE FIRE HYDRANT(S). THE EXISTING HYDRANT SHALL BE INSTALLED AT THE NEW LOCATION AS INDICATED ON THE DRAWING, IN ACCORDANCE WITH STANDARD DRAWING NOS. W2.1 AND W2.2. THE EXISTING VALVE SHALL BE ABANDONED IN A CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY—FOUR (24) INCHES OF THE VALVE BOX, AND THEN FILLING THE BOTTOM OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO—THOUSAND (2,000) PSI. THE LATERAL SHALL BE CUT WITHIN THREE (3) FEET OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS UNCOVERED AT THE CUT AND CAP LOCATION, THE INSTALLED AT ALL CUT AND CAP LOCATIONS IN ACCORDANCE WITH THE PROVISIONS OF STANDARD DRAWING W6.4A.

ABANDONMENT AND LATERAL FIRE HYDRANT

WHERE SHOWN ON THE DRAWING(S), THE CONTRACTOR SHALL ABANDON THE EXISTING FIRE HYDRANT TO THE FIRE HYDRANT TO THE FIRE HYDRANT BARRELS AND LATERAL OF THE FIRE HYDRANT TO THE FIRE HYDRANT MAY BE DELIVERED TO SBMWD AT SBMWD'S OWN DISCRETION. THE EXISTING VALVE SHALL BE ABANDONED IN A CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY—FOUR (24) INCHES OF THE VALVE BOX, AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR APPROVED AGGREGATE BASE, THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO—THOUSAND (2,000) PSI. THE REMAINING PORTION OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE EXISTING CONCRETE HYDRANT PAD SHALL BE REMOVED.

(CALTRANS) TRANSPORTATION OF. DEPARTMENT ORNIA OF CALIFOR REQUIRED P

MUST SBMWD AN APPROVED CALTRANS ACCEPTANCE PERMIT SHALL BE OBTAINED THROUGH SBMWD PRIOR TO ANY CONSTRUCTION WITHIN CALTRANS RIGHT—OF—WAY. PLANS SHOWING WORK IN CALTRANS RIGHT—OF—WAY SHOW CALTRANS STATIONING. THE DEVELOPER ASSUMES ALL LIABILITY FOR WORK CONDUCTED UNDER OBTAINED PERMIT THROUGH WARRANTY EXPIRATION.

NTATION NOTES SURVEY MONUMER 1. CONTRACTOR SHAL

1. CONTRACTOR SHALL ESTABLISH SUFFICIENT MONUMENTS SO THAT A MINIMUM OF THREE HORIZONTAL AND VERTICAL CONTROL POINTS EXIST FOR EACH PROJECT. ALL MONUMENTS SHALL BE DURABLE, PERMANENT MONUMENTS WISH BRASS DISK AS SHOWN ON STANDARD DRAWINGS. MONUMENT SHALL BE CONCRETE MONUMENT WITH BRASS DISK AS SHOWN ON STANDARD DRAWING NO. WHEN BRASS DISK MONUMENT IS NOT APPLICABLE, OTHER ACCEPTABLE MONUMENTS WOULD. INCLUDE:

2—INCH GALVANIZED STEEL PIPE 30—INCHES LONG, WITH BRASS DISK OR PLASTIC PLUG 5/8" DIAMETER REBAR, 30—INCHES LONG WITH CAP BRASS DISK OR PLASTIC PLUG 5/8" DIAMETER REBAR, 30—INCHES LONG WITH CAP BRASS DISK OR PLASTIC PLUG 5/8" DIAMETER STABLE MONUMENTS OF BRIDGE ABUTMENT ANY EXISTING STABLE MONUMENTS.

2. CONTRACTOR SHALL SET HORIZONTAL CONTROL MONUMENTS AS REQUIRED BY PROJECT CONDITIONS, NO MORE THAN ½ MILE APART. IF LONGER SPACING IS USED, ESTABLISH MONUMENTS IN PAIRS FOR INTERVISIBLITY. MINIMUM SPACING FOR MONUMENTS IS 500 FEET WHEN USING GPS).

3. MONUMENTS SHALL BE ACCESSIBLY LOCATED, WITHIN PUBBLC RIGHT—OF—WAY OR EASEMENT, TO MINIMIZE DISTURBANCE BY CONSTRUCTION AND BE CLEAR OF TRAFFIC.

4. HORIZONTAL CONTROL MONUMENTS SHALL BE SET SO THEY ARE INTER VISIBLE WITH A MINIMUM OF TWO OTHER MONUMENTS.

5. CONTRACTOR SHALL SET VERTICAL CONTROL MONUMENTS AS REQUIRED BY PROJECT CONDITIONS, NO MORE THAN ½ MILE APART. CONTRACTOR SHALL UTILIZE HORIZONTAL CONTROL MONUMENTS WHENEVER POSSIBLE.

6. CONTRACTOR SHALL SET VERTICAL CONTROL MONUMENT AT EACH MAJOR STRUCTURE, WHENEVER POSSIBLE.

- 2
- 4.
- 5
- L SET VERTICAL CONTROL MONUMENTS AS REQUIRED BY PROJECT CONDITIONS, NO LE APART. CONTRACTOR SHALL UTILIZE HORIZONTAL CONTROL MONUMENTS AS VERTICAL NTS WHENEVER POSSIBLE.

 L SET VERTICAL CONTROL MONUMENT AT EACH MAJOR STRUCTURE, WHENEVER POSSIBLE.

6

TWO WORKING DAYS BEFORE YOU DIG 1-800 227-2600 IDEIN

CALL: TOLL FREE

SERVICE ALERT

UNDERGROUND

XXX SUBMITTAL

BERNARDINO DEPARTMENT

SAN WATER

CITY OF MUNICIPAL

PROJECT

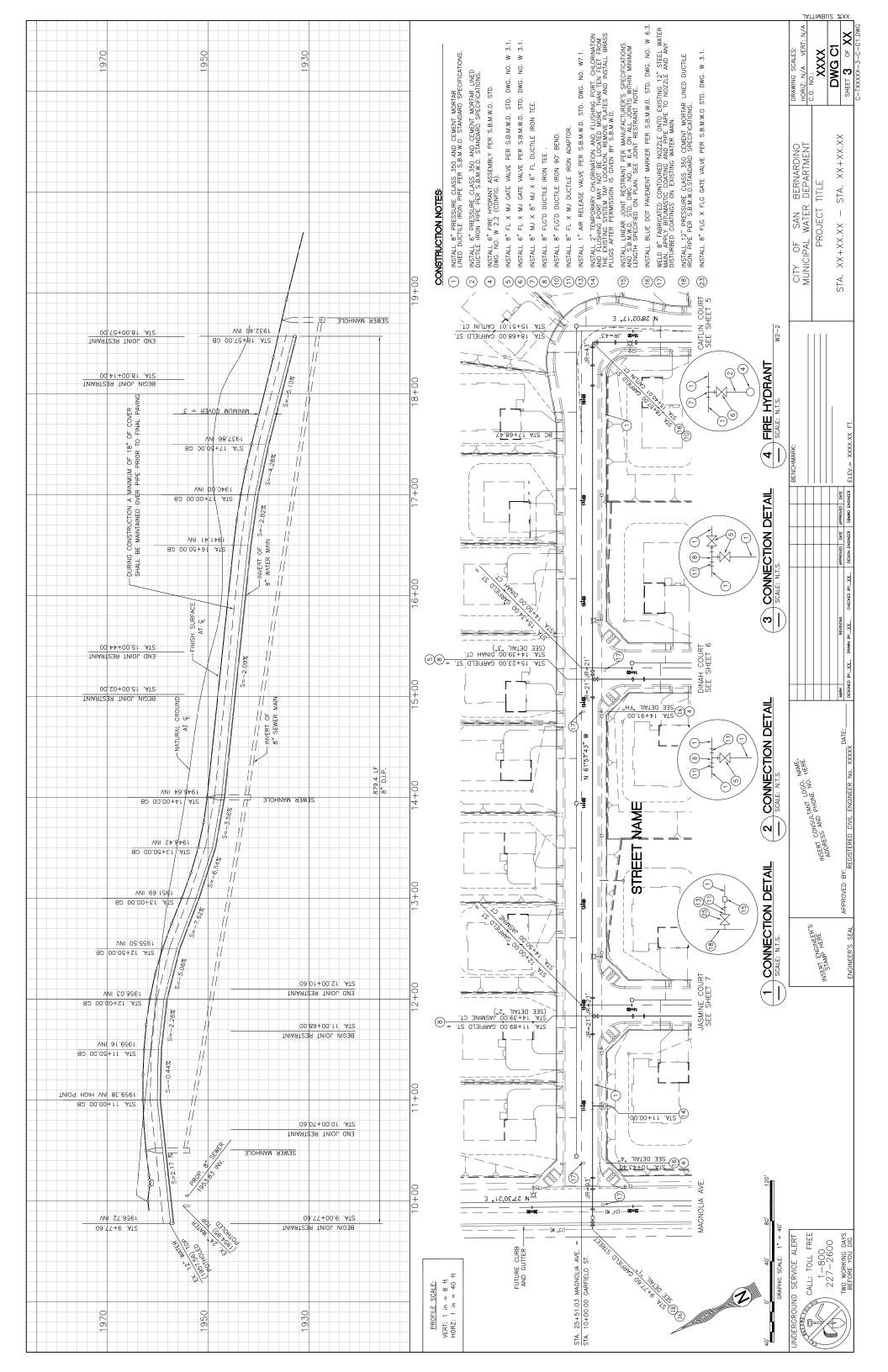
NOTES

GENERAL

DATE:

BY:

INSERT CONSULTANT LOGO, N INSERT CONSULTANT LOGO, P ADDRESS AND PHONE NO. F



STANDARD AUTOCAD DRAWINGS

W:\AUTOCAD\SBMWD CAD STANDARDS\SPECIFICATIONS\

C-XXXX-1-G-G1.dwg

C-XXXX-2-G-G2.dwg

C-XXXX-3-G-G3.dwg

C-XXXX-4-G-G4.dwg

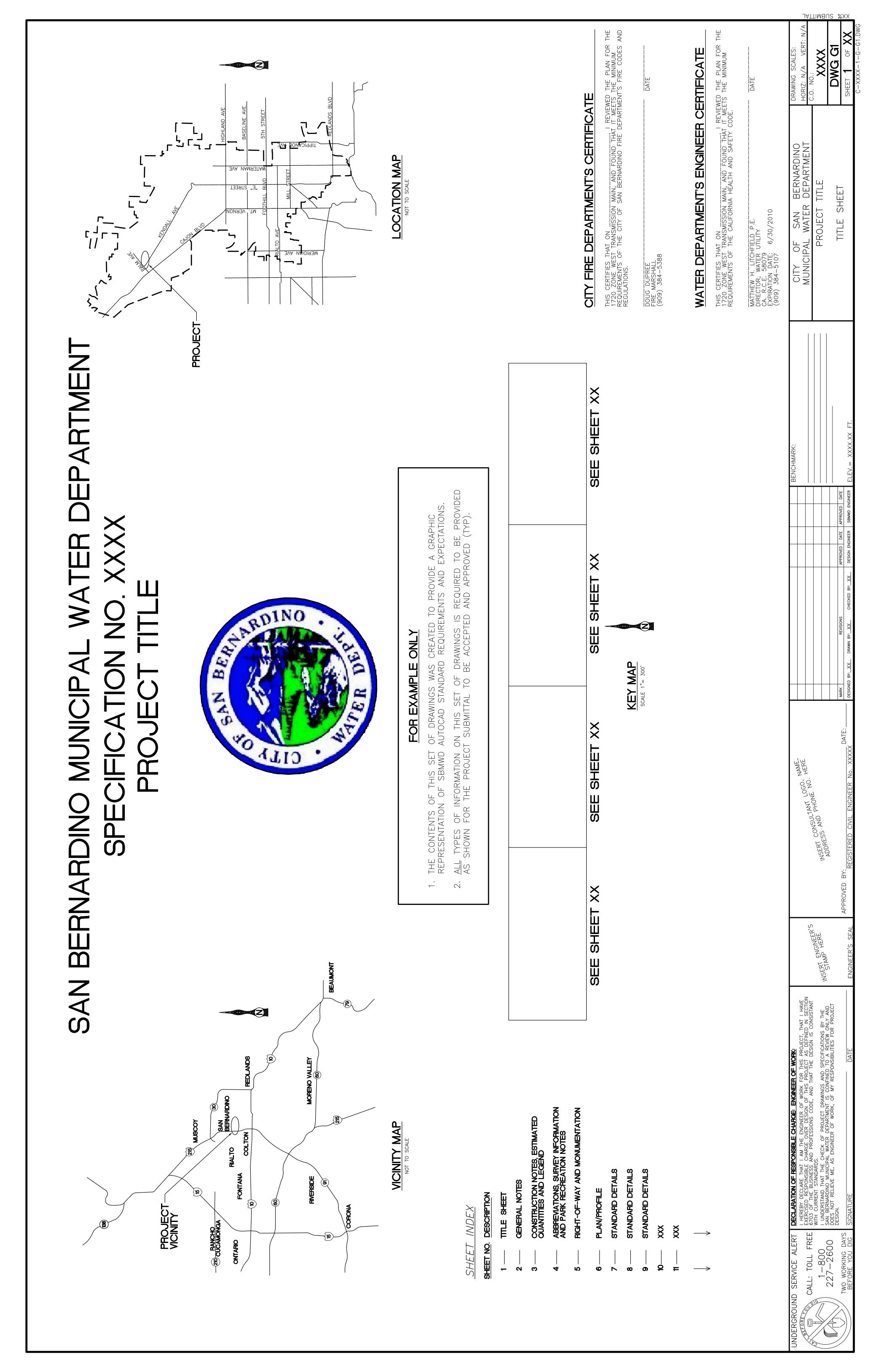
C-XXXX-5-SV-SV1.dwg

C-XXXX-6-C-C1.dwg

C-XXXX-7-CD-CD1.dwg

XXXX-BASE.dwg

XXXX-TOPO.dwg



GENERAL WATER NOTES

- THESE PLANS HAVE BEEN PREPARED FOR THE SAN BERNARDINO MUNICIPAL, WATER DEPARTMENT (SBMMD), THESE PLANS ARE INTENDED TO SUPPLEMENT THE DEPARTMENT'S TECHNICAL SPECIFICATIONS AND DETAILS.
 - ALL UTILITY LOCATIONS SHOWN ARE FROM RECORD INFORMATION ONLY AND ARE NOT A RESULT OF A FIELD SURVEY. CALL UNDERGROUND SERVICE ALERT AT 1-800-227-2600 -- 48 HOURS IN ADVANCE OF CONSTRUCTION.
- ALL WATER LINE CONNECTION POINTS AND CRITICAL UTILITY CROSSING POINTS SHALL BE EXPOSED AND ACCURATELY LOCATED AT THE START OF CONSTRUCTION, AND THE SBAWD. SHALL BE NOTHEID OF ANY DISCREPANCIES PRORR TO THE COMMINATION OF WORK.

 ALL ELEVATIONS SHOWN ON PLANS SHALL BE BASED ON A U.S.G.S. DATUM, AND SHALL SHOW ELEVATION FROM MEAN SEA LEVEL.

 "DEFLECTION FOR WERTICAL CHANGES IN PIPE ALIGNMENT DELINEATED ON THE PLANS AS "DEFLECTION BY JOINT" OF SHOWN WITHOUT BENDS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. TOTAL ANGULAR DISPLACEMENT SHALL BE DISTRIBUTED
 - ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS SONSTRUCTIONS, AND A.W.W.A. STANDARD SPECIFICATIONS, AND A.W.W.A. STANDARDS SPECIFICATIONS.
- APPROVAL OF THIS PLAN BY THE SBMWD DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OR OF THE EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THE PROJECT. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES WITHIN THE LIMITS OF THE PROJECT. DURING THE PERIOD OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN SUCH WARNINGS, SIGNS, STOP SIGNS, SIGNALS, BARRICADES AND OTHER SAFETY MASSURES AS DIRECTED BY THE CITY OF SAN BERNARDINO, DEPARTMENT OF PUBLIC WORKS WITH REFERENCE. THE CONTRACTOR SHALL NO OPEN MORE TRENCHES THAN CAN BE FROPERLY PROSECUED IN A DAY'S OPERATION. ANY TRENCH UNAWOUDABLY LEFT OPEN DURING THE HOURS OF DARKNESS OR OVER A WERKEND SHALL BE FENCED WITH 6-FOOT CHAIN LINK AND PROPERLY LIGHTED, OR BRIDGED BY A MATER DEPARTMENT APPROVED TRAFFOR PLAIR WITH REPRENCE TO THE WAT, I.C.H. MANUAL.

 THE CONTRACTOR SHALL REINSTALL PAREMENT MARKINGS AND STEPPING DISTURBED BY HIS OFFICIALITY.

CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. CONTRACTOR FURTHER AGREES THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNITY, AND HOLD THE OWNERS HOAM SON AND ALL LIBBILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT. EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

- 10.
- A CAL/OSHA PERMIT IS REQUIRED FOR TRENCHES OVER 5' IN DEPTH. THE CONTRACTOR SHALL PROVIDE SAFE AND CONTINUOUS PASSAGE FO VEHICULAR TRAFFIC AT ALL TIMFS WITH PERFORMANCE. 12.
- 13.
- 11. THE CONTRACTOR SHALL PROUBE SAFE AND CONTINUOUS PASSAGE FOR LOCAL PEDESTRIAN AND
 12. THE CONTRACTOR SHALL PROUBE SAFE AND CONTINUOUS PASSAGE FOR LOCAL PEDESTRIAN AND
 13. THE CONTRACTOR SHALL PROUBE SAFE AND CONTINUOUS PASSAGE FOR LOCAL PEDESTRIAN AND
 14. THE THE CONTRACTOR SHALL BE APPROVED BY THE CITY OF SAN BERNARDINO, DEPARTMENT OF
 15. TRAFFIC SIGNAL FUNCTIONS SHALL BE APPROVED BY THE CITY OF SAN BERNARDINO, DEPARTMENT OF
 16. THE CONTRACTOR SHALL SO CONDUCT HIS OPERATIONS AS TO OFFER THE LEAST POSSIBLE
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 10. STREET CLIN ON WORK AND TO GIVE DIRECTIONS TO THE PUBLIC.

 19. STREET CLIN ONE THE CONTRACTOR THE CITY OF SAN BERNARDINO PUBLIC WARRAND.
 - 15.

MONUMENTATION

- 7. .
- STREET CUT PERMITS MUST BE OBTAINED FROM THE CITY OF SAN BERNARDINO PUBLIC WORKS DEPARMENT.

 ALL REMOVALS. IN PAYED AREAS SHALL BE ENDIECTED FROM CRUSHING AND ALL BROKEN EDGES SHALL BE PROTECTED FROM CRUSHING AND ALL BROKEN EDGES SHALL BE RESECUT PRIOR TO PANING OPERATIONS.

 DUST SHALL BE CONTROLLED AT ALL TIMES BY APPROVED METHODS.

 PUBLIC STREETS SHALL BE REFORM DIRT AND/OR DEBRIS ON A DAILY BASIS. IN CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED IN STREET CLEANING.

 - ALL TRENCH BACKFILLS SHALL BE TESTED AND CERTIFIED BY A SOILS ENGINEER PRIOR TO ACCEPTANCE. 19.
- 24 HOURS ADVANCE NOTICE IS REQUIRED FOR INSPECTION AND FIELD TIES, ARRANGEMENTS CAN BE MADE BY CALLING (909) 384-5391 BETWEEN 7:00 A.M. AND 4:30 P.M. WEEKDAYS. NORMAL INSPECTION HOURS ARE 7:30 A.M. TO 4:00 P.M. MONDAY THROUGH FRIDAY EXCEPT LEGAL TOLONAYS. REQUESTS FOR INSPECTION AT OTHER TIMES ON OTHER BAYS MUST BE SUBMITTED TO THE SUBMO ENGINERING SECTION A MINIMUM OF S. WORKING DAYS BEFORE THE INSPECTION SECTION AND MILL SECORED. HE DEFECTION AND WILL BILLED ACCORDINGLY. ROSERING FOR SECORED OF STATE OF SECORED AND SECORED SEC 20.
 - 22. 23.
- 24.
 - THE CONTRACTOR SHALL NOT MAKE ANY CONNECTION TO THE EXISTING SBMWD DISTRIBUTION SYSTEM WITHOUT FIRST GAINING WRITEN PERMISSION TO DO SO FROM THE WATER DEPARTMENT ENGINEER. IN THE EVENT THAT PERMISSION IS GRANTED. A SBMWD INSPECTOR MUST BE PRESENT ON SITE TO WITHESS SAID CONNECTION(S), ITEST PLATES SHALL BE INSTALLED ON THE NEW CONSTRUCTED SIDE OF ALL MAIN CONNECTION POINTS. THE CONTRACTORS WILL BE REQUIRED TO OBTAIN CITY BUSINESS LICENSES, INSURANCE AND PROVIDE EVIDENCE OF SAME TO INSPECTION STAFF UPON REQUEST.

 THE CONTRACTOR SHALL NOT PLACE CONCRETE OR ASPHALT ON THE PROJECT PRIOR TO WATER DEPARTMENT/PUBLIC WORKS REVIEW APPROVAL OF CONTRACTOR—SUPPLIED COMPACTION TESTS.

 NO DEVATIONS SHALL BE MADE FROM THIS PLAN WITHOUT THE REVIEW AND APPROVAL OF THE WATER DEPARTMENT ENGINEER.

 THE CONTRACTOR SHALL NOT MAKE ANY CONNECTION TO THE EXISTING SBMWD DISTRIBUTION SYS WITHOUT FIRST GANING WRITER PERMISSION TO DO SO FROM THE WATER PERMISSIENT ENGINEER. 25.

ALL CONDUITS DISTURBED BY THIS WATER LINE SHALL BE REPLACED. NEW CONDUCTORS SHALL BE REPLICED WITH APPROPRIATE SPARES FROM PULL BOX TO PULL BOX. IN PRECONNECT CABLE SHALL BE REPLACED FROM CONTROLLER. ALL LOOPS SHALL BE REPLACED WITHIN 48 HOURS OF BEING DISTURBED. CONTRACTOR SHALL MAINTAIN LABILITY UNTIL SIGNALS ARE IN APPROVED WORKING ORDER.

- FLUSHING, CHLORINATION, AND TESTING SHALL BE PERFORMED EITHER BY (A) WATER TRUCK, OF HYDRANI-TO HYDRANI CONNECTION THROUGH AN APPROVED BACKFLOW PREVENTION ASSEMBLY. ATRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH THE NPDES PERMIT.
 - ALL WATER MAINS AND APPURTENANCES SHALL BE PRESSURE TESTED AND DISINFECTED PRIOR TO ACCEPTANCE BY THE SBMWD. 26. 27.
- IESTING AND DISINEFCTION OF WATER MAINS AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE APPLICABLE AWIWA. STANDARDS AND THE CONTRACTOR OBTAINED INFOES PERMIT, EXCEPT AS HERIN MODIFIED. (SEE ATTACHED SBAWD STANDARD)
- ALL TESTING AND DISINFECTION SHALL BE MADE IN THE PRESENCE OF THE SBMWD INSPECTOR AND SHALL COMPLY WITH THE NOTIFY THE REQUIREMENTS. THE COMPLACIONS SHALL NOTIFY THE NOTINEER NOT LESS THAN TWENTY-FOUR (24) HOURS IN ADVANCE OF THE ACTUAL TIME OF TESTING AND/OR DISINFECTION SO THAT THE ENGINEER OR DESIGNEE MAY OBSERVE THE PROCEDURE. 28.
 - IF THE PRESSURE TEST, CHLORINATION OR BACTERIOLOGICAL TEST FAIL TO MEET THE REQUIREMENT OF THE SPECIFICATIONS. THE CONTRACTOR SHALL MAKE NECESSARY REPAIRS, REPLACEMENTS OR REPETITION OF PROCEDURES AT HIS OWN EXPENSE. 29.
- AT DEAD END LOCATIONS, WATER SERVICE SHALL BE TAPPED TO THE END OF WATER MAIN.
 THE SBWWD HAS POTHOLE AND LOCATED CERTAIN EXISTING ULTIFES IN THE PLANS.
 THE CONTRACTOR SHALL POTHOLE & LOCATE ALL EXISTING ULTIFIES TO VERIFY DEPTH AND
 LOCATION IN ADVANCE OF CONSTRUCTION, IS RESPONSIBLE FOR ALL PERMITS REQUIRED
 FOR POTHOLING. CONTRACTOR SHALL PROVIDE A SHOP DRAWING (PLAN & PROFILE) SHOWING HOW
 THE PROPOSED PIPE ALIGNMENT SHOULD BE CHANGED TO AVOID EXISTING UTILITIES. 30.

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP WINTY—FORD (24) INCHES OF THE VALVE BAND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF BIGHT (8) INCHES OF SAND, THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STREAMENT OF ALL LEAST TWO THOUSAND (2,000) PSI, THE JATERAL MIST BE COMPLETELY REMOVED FROM THE ABANDONED VALVE AND CAPPED WITH A BLIND FLANGE OR PLUG.

THE CONTRACTOR SHALL NOTIFY SBMWD TWO (2) FULL BUSINESS DAYS PRIOR TO THE REQUESTED REMOVAL THE TO ALLOW SBMWD TO TAKE THE FINAL SERVICE RADING. THE CONTRACTOR MAY THEN BEGIN REMOVAL PROCEDURES FOR THE AFFECTED SERVICE AS FOLLOWS:

ABANDONMENT OF EXISTING SERVICE LATERALS (2" AND SMALLER)

- ALL SERVICES ARE TO REMAIN ACTIVE DURING NON-WORKING HOURS.
 ANY UNDERCUT SEWERS WILL REQUIRE A 1—SACK SAND SLURRY BACKFILL UP TO THE SPRING LINE OF THE SEWER PIPE. 32. 33.
- PROPERTY RIGHT OF WAY LINES ARE APPROXIMATE AND ARE INTENDED AS GENERAL REFERENCE ONLY FOR THIS PROJECT. NO RECORD OF SURVEY CONDUCTED OR IMPLIED.

CALL: TOLL FREE

UNDERGROUND SERVICE ALERI

1-800 227-2600

DAYS

TWO WORKING BEFORE YOU

APPROVED BY: ENGINEER'S SEAL

DATE: REGISTERED CIVIL ENGINEER No. XXXXX

ELEV.= XXXX.XX FT

APPROVED DATE APPROVED DATE

DESIGN ENGINEER

CHECKED BY: XX

DRAWN BY: XX

MARK
DESIGNED BY: XX (NSERT CONSULTANT LOGO. H. NSERT CONSULTANT PHONE NO. HADDRESS AND PHONE NO.

DESIGN STANDARD NOTES (CONT.):

 $\exists \mathbb{H}$

Z

THERE ARE NO DEVIATIONS FROM APPLICABLE SBMWD STANDARDS, UNLESS STATED SPECIFICATIONS.

DEVIATIONS FROM STANDARDS

EXISTING SERVICE LATERALS TO BE ABANDONED FROM EXISTING WATER MAINS SHALL HAVE THE CORPORATION STOPS TURNED OF TAI THE MAIN, A MINIMUM OF TWELVE (12) NOLFES OF THE LATERAL CUT OUT NEAR THE CORPORATION STOPS AND A BRASS CAP OR PLUG INSTALLED ON THE CORPORATION STOP IS DAMAGED BEYOND REPAIR OR PULLED FORM THE EXISTING WATER MAIN. HE MAIN SHALL BE REPREADED AT THE CONTRACTORS EXPENSE IN A MANINER APPROVED BY SBAWNO. IF IT IS DISCOVERED THE CORPORATION STOP IS NOT WATER TIGHT, THROUGH NO FALLI OF THE CONTRACTOR SHALL NOTIFY SBAWD FOR FURTHER DIRECTION. THE EXISTING SERVICE(S) SHALL BE REMOVED AND RECOURSE REUSABLE COMPONENTS (WEITERS) ETC. TO BE DELIVERED TO SBAWD.

FOR THE CONTRACTOR SHALL NOTIFY SBAWD TWO (2) FULL BUSINESS DAYS PRIOR TO THE REQUESTED REMOVAL, THE TO ALLOW SBAWD TO TAKE THE FINAL SERVICE READING AND TO NOTIFY SBAWD'S INSPECTOR OF THE IMPENDING WORS. THE CONTRACTOR MAY THEN BEGIN REMOVAL PROCEDURES FIHE AFFECTED SERVICE AS FOLLOWS: ABANDONMENT OF EXISTING SERVICE LATERALS (3" AND LARGER)

THE CONTRACTOR IS HEREBY NOTHED THAT ESSENTIAL AND PERTINENT INFORMATION REGARDING CONTRACTION AND COMPLETION OF WORK FOR THIS PROJECT IS CONTAINED IN THE CONTRACT DOCUMENTS AND SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO READ PROPERTOR HIS INFORMATION TO THEIR OWN ASTISACTION PROJECT PERFORMING ANY WORK. DEFICIENT, INCOMPLETE OR INCORPECT WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR'S SOLE EXPENSE.

DOCUMENTS AND SPECIFICATIONS

ADDITIONAL NOTES
CONTRACT DOCUM

NEITHER THE OWNER NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR RECOURTIONS. THE CONTRACTOR SHOLES, ONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.

SAFETY AND RESPONSIBILITY

AND ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION, UNLESS SHOWN NETWINGS BY PROMOVING A MINIMUM OF THE TOP TWENTY—FOR (24) INCHES OF THE YALL'E BOX THEN PILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (6) INCHES OF SAND. THE SALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STREAMING PORTION OF THE YALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2,000) PSI.

IF THE VALVE IS TO BE ABANDONED IN THE CLOSED POSITION, THE LATERAL MUST BE CUT WITHIN THREE (3) FEET OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED, WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS UNCOVERED AT THE CUT AND CAP LOCATIONS, THE INSTALLATION OF A RESTRAINED PLUG MAY BE PERMITTED WITH SBRWD APPROVAL. THE CONTRACTOR SHALL INSTALL A CONCRETE THRUST BLOCK IN ACCORDANCE WITH THE PROVISIONS OF THE SBRWD STANDARD DRAWING NO. WE.4A AT ALL CAP OR PLUG LOCATIONS.

THE EXISTING SERVICE(S) SHALL BE REMOVED AND RECYCLED. THE CONTRACTOR SHALL THEN REMOVE AND/OR BACKFILL THE ABANDONED VALIT WITH SELECT MATERIAL AND RESTORE ALL DAMAGED SURFACE FEATURES AS DIRECTED BY SBMWD MAY REQUIRE REUSABLE COMPONENTS (METERS) FTC. TO BE DELIVERED TO SBMWD.

INSTALLATION OF METER AND VAULT

THE WETER(S) AND VAULT(S) WITH TRAFFIC/NON-TRAFFIC BEARING COVER(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD DRAWNINGS AND SPECFICATIONS. PRE-CAST VALUES APPROVED BY SBMWD MAY BE USED IN LIEU OF THE FIBERGLASS VALUES. THE DESIGNATION OF PRE-CAST OR CAST—IN PLACE MUST BE MADE PRIOR TO PLAN APPROVAL.

THE PIPING ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND OUTSIDE OF THE EASIMENT(S). TO ALLOW SBMWD DIRECT ACCESS TO THE VAULT(S) AND INLET FROM THE ADJACENT RIGHT-OF-WAY.

THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (U.S.A.) AT 1—(800) 422—4133 FOR MARKOUT OF EXISTING UTILITIES A MINIMUM OF 48 HOURS PRIOR TO ANY WORK OR EXCAVATION. EXPLORATORY EXCAVATIONS

LOCATION OF PROPERTY BOUNDARIES, RIGHT OF WAY, AND EASEMENTS SHOWN ON THE DRAWINGS AR APPROXIMATE AND BASED ON RECORD DOCUMENTS. IF NO FIELD BOUNDARY OR EASEMENT SURVEY HAS BEEN PERFORMED, CONTRACTION IS RESPONSIBLE TO VERIFY ANY AND ALL PROPERTY OR EASEMENT DATA DEEMED NECESSARY TO PERFORM THE WORK AS SHOWN.

UTILITY MARKOUT

PROPERTY LINES

THE LOCATION AND ELEVATION OF BOTH NEW AND EXISTING IMPROVEMENTS TO BE WET BY WORK TO BE DONE, AND ALL OF NEW OR EXISTING BURGEROUND UITLIES AND STRUCTURES. SHALL BE CONFIRMED BY FIELD MASSINGBURDEN TO CONSTRUCTION. CONTRACTOR WILL BE ECONFIRMED FOR DELIVERY OF SAN BERNARDINO FUBLIC WORKS PERMIXED ROOMS AND EXCLORATORY EXCLORATIONS. CONTRACTOR SHALL MAKE EXPLORATORY EXCANATIONS. AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT PREVIOUS OF THE PLANS, SHOULD REVISIONS BE NECESSARY DUE TO THE ACTUAL LOCATION OF FACILITIES.

PRIOR TO CONSTRUCTION, THE CONTRACTOR'S LICENSED SURVEYOR SHALL TIE OUT ALL AFFECTED STREET AND PROPERTY MONIMENTS WHICH MAY BE DISTURBED AS PART OF THE MORK.

RE-ESTAGLISHMENT AND FILING OF CORNER RECORDS AND/OR A RECORD OF SURVEY FOR ALL DISTURBED, REMOVED/REPLACED MONUMENTS WILL BE REQUIRED PRIOR TO ACCEPTANCE OF THE WORK. WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE CITY OF SAN BERNARDINO OR OTHER AGENCIES HAVING JURISDICTION AND SHALL BE PERFORMED AT THE CONTRACTOR'S SOLE EXPENSE.

ALL EXISTING IMPROVEMENTS, BOTH PUBLIC AND PRIVATE, INTENTIONALLY OR UNINTENTIONALLY DISTURBED. DESTROYED, OR REMOVED AS PART OF CONSTRUCTION, SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.

DAMAGED IMPROVEMENTS

DRAWINGS. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTTION. INSTALLATION DOUBLE CHECK DETECTOR CHECK ASSEMBLY THE DETECTOR CHECK(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD

EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTTION.

IF THE EXISTING PRIVATE WELL IS TO REMAIN IN SERVICE, SBWWD APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED IMMEDIATELY DOWNSTRAM OF SBWWD'S WATER METER IN ACCORDANCE WITH STANDARD DRAWING W4.2. THE NEW SERVICE SHALL NOT BE ACTIVATED UNTIL THE BACKFLOW PREVENTION ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY SBWWD. EXISTING PRIVATE WELLS TO REMAIN IN SERVICE

PRIVATE WELLS TO BE REMOVED FROM SERVICE

IF THE EXISTING PRIVATE WELL IS TO BE ABANDONED, THE INSTALLATION OF A BACKFLOW PREVENTION ASSEMBLY WILL NOT BE REQUIRED; HOWEYER, SBAWD WATER SERVICE WILL REMAIN IN THE OFF POSITION AND LOCKED OUT UNTIL THE WELL HAS BEEN ABANDONED. AN INSPECTION OF THE ON-SITE SYSTEM WILL BE MADE BY SBAWD'S; INSPECTOR TO VERIFY THE WELL HAS BEEN DISCONNECTED FROM THE ON-SITE SYSTEM AND THE WELL IS NO LONGER FUNCTIONAL.

THE CONTRACTOR SHALL REMOVE AND RELOCATE BOTH THE UPPER AND LOWER BARRELS OF THE EXISTING LEFERAL AS REQUIRED, AND REINSTALL SUCH HYDRANI(S) AIR THE NEW LOCATION(S) INDICATED. FIRE HYDRANIS SHALL BE TESTED PRIOR TO AND ATTER RELOCATION UNDER THE DIRECTION OF SBWAN TO ENSURE QUALITY. INSTALLATION SHALL BE IN ACCORDANCE WITH STANDARD DRAWINING W.2. LATERALS MADE OF UNAPPROVED MATERIALS SHALL BE REPLACED FROM THE MAIN TO THE FIRE HYDRANI. RELOCATION OF FIRE HYDRANTS (EXTENSION OF EXISTING LATERALS)

FIRE HYDRANT RELOCATION AND LATERAL ABANDONMENT (EXISTING LATERAL TO BE ABANDONED)

NOT

BUT

CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED TO COMPLETE THE WORK INCLUDING, LIMITED TO, COUNTY TRAFFIC CONTROL PERMITS.

TRAFFIC SIGNALS

MAINTAIN 3 FOOT MINIMUM DEPTH OF COVER OVER ALL PIPELINES

MINIMUM COVER

WHERE SHOWN ON THE DRAWING(S), THE CONTRACTOR SHALL ABANDON THE EXISTING FIRE HYDRANT(S) BY REMOVING BOTH THE UPPER AND LOWER BARRELS AND LATERAL OF THE FIRE HYDRANT TO THE FIRE HYDRANT TO THE MAIN. THE HYDRANT SHALL BE TESTED PRIOR TO AND AFTER RELOCATION UNDER THE DIRECTION OF SAWIND TO ENSURE QUALITY OF THE FIRE HYDRANT(S). THE ACCORDANCE WITH STANDARD DRAWING NOS. WZ.1 AND WZ.2. THE EXISTING WALVE SHALL BE NOTOWER TO STANDED IN A CLOSED POSITION, UNLESS SHOWN OFFICE ON THE DRAWING, IN CASTS OF THE WALVE BOX. AND THEN FILLING THE BOTTOM OF THE TOP WINNING OF EIGHT (S) INCHES OF THE WALVE BOX. AND THEN FILLING THE BOTTOM OF THE BOX WITH A TWO—THOUSAND (Z) COOD PSI. THE LATERAL SHALL BE FILLED WITH CONCRETE HANNO & COMPRESSIVE STRENGTH OF AT LEAST TWO—THOUSAND (Z) COOD PSI. THE LATERAL SHALL BE COMPRESSIVE STRENGTH OF AT LEAST TWO—THOUSAND (Z) COOD PSI. THE LATERAL SHALL BE COMPRESSIVE STRENGTH OF AT LEAST SWANCE OF THE CUT AND CAPPED. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE SWANCE, OR AS SHOWN ON PLANS, AND CAPPED. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE SWANCE OF THE CUT AND CAP LOCATION OF A PLUG MAY BE PERMITED. WITH A SCORDANGE AT THE PROVISIONS OF STANDARD DRAWING.

FIRE HYDRANT AND LATERAL ABANDONMENT

OF THE

THE WATER PLANS SHOW ONE OR MORE VALVED OUTLETS EXTENDING OUT OF PAVED AREAS. INSTALLATION OF THESE OUTLETS AS ACCEPTABLE, HOWEVER, IF THE OUTLETS ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON WHEN THE PROPERTY IS ACTUALLY DEVELOPED. THE DEVELOPER SHALL ABANDON THE OUTLETS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH SBAWN'S STANDARDS AND A THE DEVELOPER'S EXPENSE. APPROVAL OF THE ALACIDATE OUTLET DOES NOT PROVIDE OF MAILTY A WATER COMMINMENT.

ABANDON VAI

OF VALVED OUTLET (6" AND LARGER)

DESIGN STANDARD NOTES

WHERE SHOWN ON THE DRAWING(S), THE CONTRACTOR SHALL ABANDON THE EXISTING FIRE HYDRANIT(S) BY REMOVING BOTH THE UPPER AND LOWER FIRE HYDRANI BARRELS. AND LAFERAL OF THE FIRE HYDRANI THE UPPER AND LOWER FIRE HYDRANI TO THE FIRE HYDRANI WAY BE SHOUGHD IN THE EXISTING WAVE SHALL BE ABANDONED IN A CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE BOX WITH A MINIMUM OF EIGHT (S) INCHES OF THE VALVE BOX. AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STREAMINIO FORTION OF THE WALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO-THOUSAND FIRE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE EXISTING CONCRETE HYDRANI PAB SHALL BE REMONED.

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) 9

AN APPROVED CALTRANS ACCEPTANCE PERMIT SHALL BE OBTAINED THROUGH SBMWD PRIOR TO ANY CONSTRUCTION WITHIN CALITRANS RIGHT—OF—WAY. PLANS SHOWING WORK IN CALITRANS RIGHT—OF—WAY WINST SHOWN CALITRANS STATIONING. THE DEPENDENCE ASSUMES ALL LABILLY FOR WORK CONDUCTED UNDER SBWWO OBTAINED PERMIT THROUGH WARRANIY EXPIRATION.

GENERAL STRUCTURAL NOTES GENERAL DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED WITHOUTION, THE STRUCTIONES SHALL BE PROTECTED NETBERVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR. STRUCTURES HAVE BEEN STRUCTURES. DURING COI BRACING AND BALANCING STRUCTURAL

DESIGN IN ACCORDANCE WITH UBC 1997, ACI 318-99 AND AISC ASD 9th EDITION. LOCATION OF ALL CONSTRUCTION JOINTS SHALL BE AS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER. TRENCH EXCANATION SHORING SHALL CONFORM TO OSHA REGULATIONS 29 CFR PART 1926, SUBPART P, APPENDIX C.

ALL STRUCTURAL SHAPES, THREADED ROD, PLATES AND SHEET SHALL BE OF STEEL METING SASIM A-36 SPECIFICATIONS. STEEL PIPE SHALL BE ASIM A500 GRADE B. ALL STRUCTURAL STEEL ASSEMBLIES SHALL BE GALVANIZED AFTER FABRICATION UNLESS NOTED OTHERWISE. STEEL CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS AND STANDARDS CONTAINED IN THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL. STRUCTURAL STEEL

9 SPECIFICATIONS CONFORM ALL WELDING SHALL BE BY THE SHIELDED ARC METHOD AND SHALL AWS CODE FOR ARC AND GAS WELDING IN BULLIONS CONSTRUCTION. OF WELDERS SHALL BE IN ACCORDANCE WITH THE SI FOR STANDARD QUALIFICATION PROCEDURE OF THE AWS.

BOLTS SHALL CONFORM TO ASTM A-325X.

CONCRETE (EXCEPT PRECAST CONCRETE)

2 UNLESS OTHERWISE NOTED OR SPECIFIED, ALL STRUCTURAL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI IN 28 DAYS. REINFORCEMENT STEEL SHALL BE DEFORMED BARS CONFORMING IN QUALITY THE REQUIREMENTS OF ASTIN A -615 "SPECIFICATIONS FOR DEFORMED THELT -STEEL BARS FOR CONVRETE REINFORCEMENT". GRADE 60. ALL DETAILING, FABRICATION AND PLACING OF REINFORCING BARS, UNLESS OTHERWISE INDICATED, SHALL BE IN ACCORDANCE WITH ACI—315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" LATEST EDITION.

TOLERANCES IN PLACING REINFORCEMENT SHALL BE:

UNLESS OTHERWISE INDICATED, ASIDE FROM NORMAL ACCESSORIES USED TO HOLD REINFORCING BARS FIRMLY IN POSITION, THE FOLLOWING SHALL BE ADDED: DOWELS, WATERSTOPS AND OTHER INSTALLED MATERIALS AND ACCESSORIES SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED. $\pm~3/8$ INCH FOR MEMBERS WITH D $\leq~8$ INCHES $\pm~1/2$ INCH FOR MEMBERS WITH D >~8 INCHES

IN SLABS #5 RISER BARS AT 36 INCHES OC MAXIMUM TO SUPPORT TOO PERNYCORGING BARS.
IN WALLS WITH 2 CURTAINS #3 U OR Z SHAPE SPACERS AT 6 FEET OC EACH WAY. ∂ G

METAL CLIPS OR SUPPORTS SHALL NOT BE PLACED IN CONTACT WITH THE FORMS OR THE SUBGRADE. CONCRETE BLOCKS (OR DOBIES) SUPPORTING BARS ON SUBGRADE SHALL BE IN SUFFICIENT NUMBERS SUCH SUPPORT THE BARS WITHOU'S SETTLEMENT, BUT IN NO CASE SHALL SUCH SUPPORT BE CONTINUOUS.

THEY DOWELS SHALL BE WIRED OR OTHERWISE HELD IN POSITION. SHALL NOT BE PLACED AFTER CONCRETE HAS BEEN POURED.

UNLESS OTHERWISE INDICATED ON THE DRAWINGS. LAPS OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF ACI-318. REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH MEAL PARTS RUBEDDED IN CONCRETET. A MINIMUM OF 1-1/2" CLERANCE SHALL BE PROVIDED AT ALL TIMES.

UNLESS OTHERWISE SHOWN ON THE DRAWINGS CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS: FOR CONCRETE PLACED AGAINST EARTH

FORMED AND FOR SURFACES IN CONTACT WITH WATER OR WEATHER SURFACES IN CONTACT WITH EARTH:

 $\frac{2}{1-1/2}$ " #6 OR LARGER #4 TO #5

UNLESS OTHERWISE NOTED, WALLS AND SLABS SHOWN WITH A SINGLE LAYER OF REINFORCEMENT SHALL HAVE THAT REINFORCEMENT CENTERED.

UTILITY NOTES

1. ALL WORK SHALL BE COORDINATED WITH CITY FORCES.

2. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES PRIOR TO STAFTING WORK NEEDS COMPANY FACILITIES AND COORDINATE WORK WITH COMPANY REPESTENTATIVES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE UTILITY COMPANIES, ANDIES THEN OF THE PRODSED IMPROVEMENTS AND ELEVATION OF THE COST OF RELOCATION, IF NEEDED.

3. LOCATION AND ELEVATION OF MACVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO PREPARATION OF SHOW DRAWNINGS. CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. - 2

4. ω.

WORK SOILS INSPECTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER OF BY A QUALIFIED SOILS ENOINEER WHICH CERTIFY THAT TRENCH BACKFILL COMPACTIED IN ACCORDANCE WITH THE SPECIFICATIONS. δ.

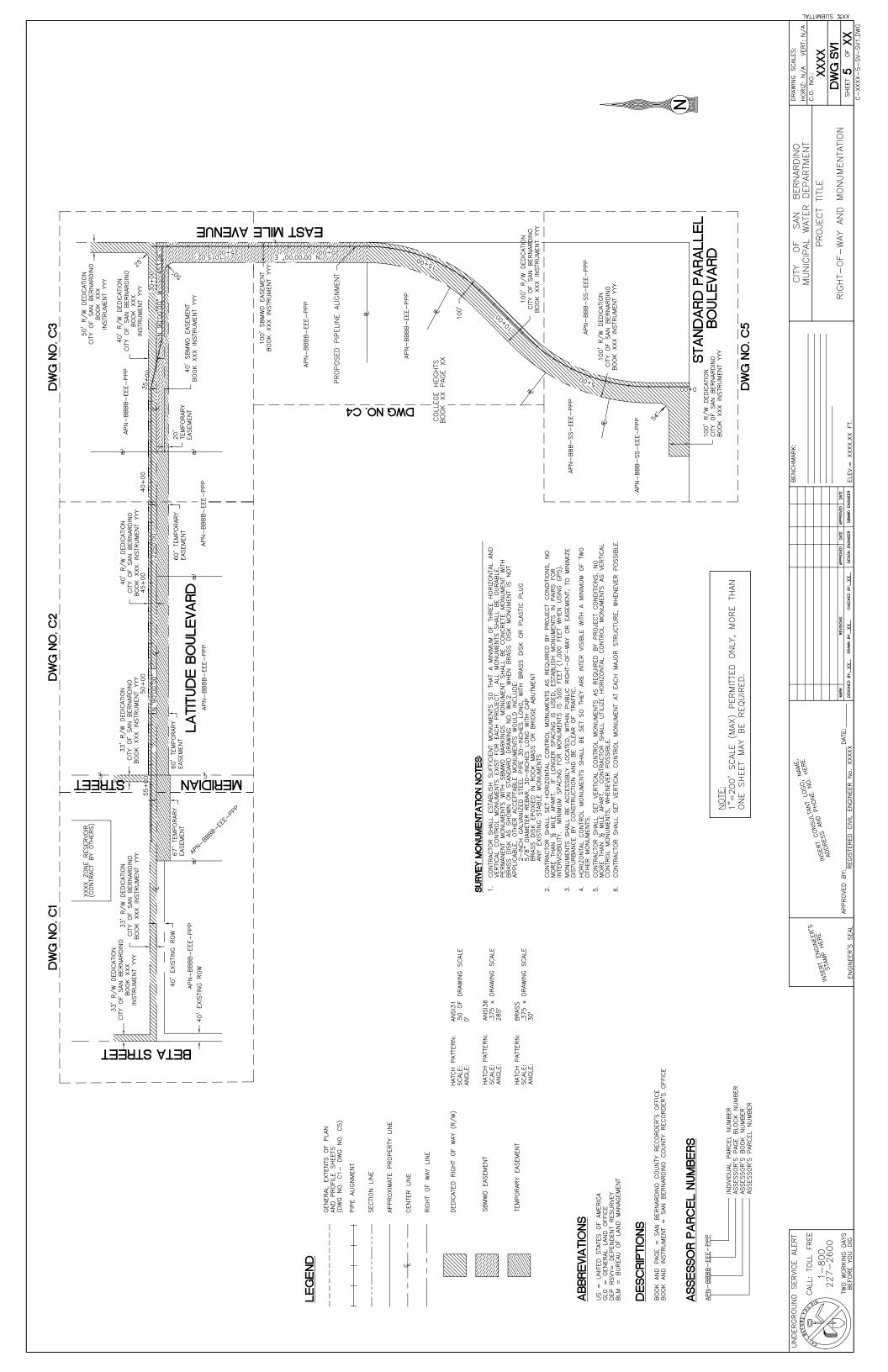
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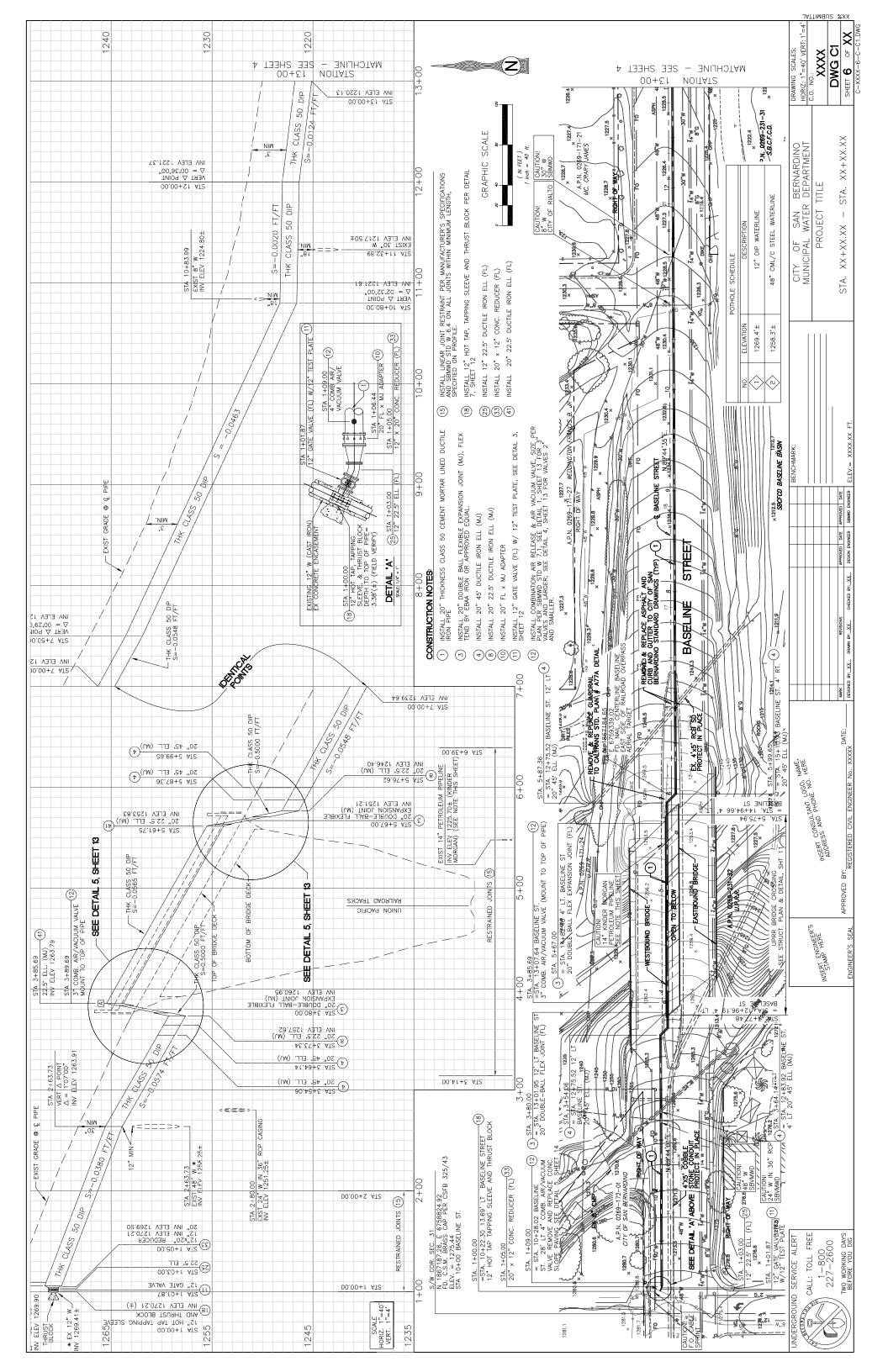
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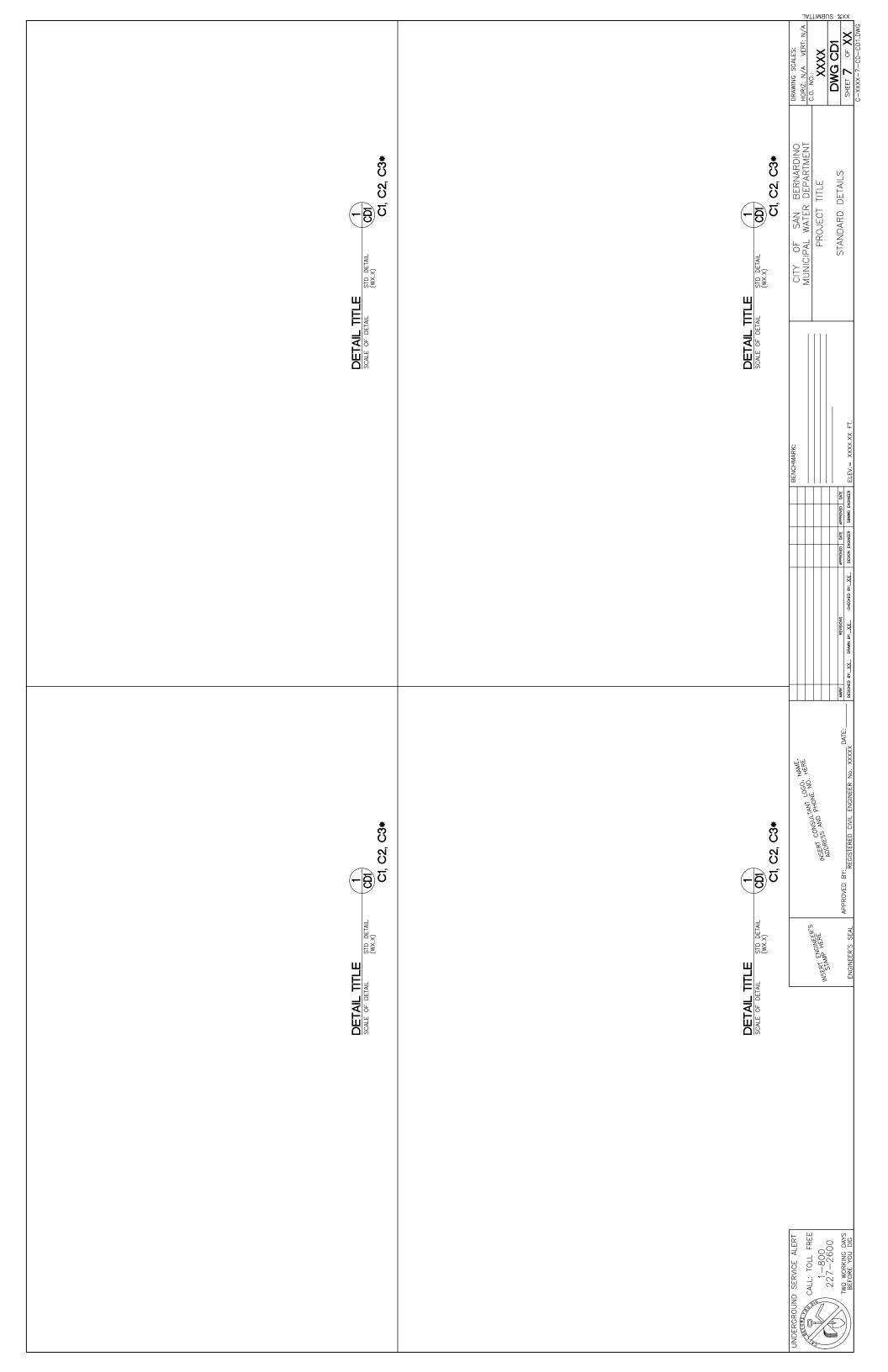
SHEET 2 OF XX DWG G2

ESTIMATED QUANTITIES	(FOR MATERIAL PRE—PURCHASING PURPOSES BY SBMWD)	ITEM - DESCRIPTION UNIT QUANTITY		XX	XX	XX	XX	XX	XX XX XX	XX	NOTE: FOR COMPLETE DESCRIPTION, REFER TO THE BID PROPOSAL OF THE CONTRACT SPECIFICATIONS.																																	JARDINO DRAWING SCALES: ARTMENT HORIZ: N/A VERT: N/A C.O. NO.:	PROJECT TITLE XXXX SUBMIT CONSTRUCTION NOTES, DWG G3	SHEET 3 OF XX C-XXXX-3-G-G3.DWG
CONSTRUCTION NOTES																																												NAME. BENCHMARK:		DATE: DESIGNED BY: XX DRAWN BY: XX ORGAND BY: XX DESIGN EMPLETS STAMO EMPLETS [ELEV. = XXXX.XX FT.
	SYMBOL	EXISTING	12" PVC		٥				Δ		${\otimes}$	△ *	MW 🗆				(\$)	(as)			•		CELEC	PANEL	- CIV	* * * * * * * * * * * * * * * * * * * *	, , , , , , , , , , , , , , , , , , ,		10" SS	24" SD		OGTEL			ابلي							(SECTION) ESIDES		NAME, OSO, TANT LOSO, NAME. HERE	NSERT ENGINE MISERT CONTO PHO:	APPROVED BY: REGISTERED CIVIL ENGINEER NO
LEGEND		PROPOSED	12" PVC	— 66" MLCP — ()ACCESS MH	9 (960	— \ \	⊢ [-	_ •	С	—— 以——	♣	MW	(1,)	\$																				- Let				X			DETAIL OR SECTION REFERENCE NUMBER (DETAIL) OR LETTER DRAWING NUMBER OF SHEET WHERE DETAIL OR SECTION RAIL SHEET STAIL DESCREAMENT AND DESCREAMENT OF SECTION RAIL SHEET SHALL DESCREAMENTS	5			
	NOTAIRDAN		12" WATER PIPELINE	66" WATER PIPELINE	IN-LINE VALVE VAULT	ACCESS MANHOLE (TO PIPELINE)	BLOWOFF	COMBINATION AIR VALVE TEST STATION (CATHODIC)	REDUCER	END CAP FOR WATER PIPELINE	WATER VALVE	FIRE HYDRANT ASSEMBLY	WATER METER	WATER METER SIZE	IDENTIFICATION HEXAGON	EDGE OF PAVEMENT	SANITARY SEWER MANHOLE	STORM DRAIN MANHOLE	POWER POLE W/GUY WIRE	STREET LIGHT	SURVEY MONUMENT	POLYGON FOR TRANSMISSION POLE	ELECTRICAL BOX	ELECTRICAL PANEL BOX	CABLE IV	FENCE	GAS LINE	DITCH	SANITARY SEWER	STORM DRAIN	UNDERGROUND POWER	UNDERGROUND TELEPHONE	CURB, GUTTER AND SIDEWALK	PROPERTY LINE	CENTER LINE	BLOCK WALL	MIGHT-OF-WAT LINE	SECTION LINE	ANGLE (HORIZONTAL OR VERTICAL)	ANGLE OF CURVE	FIELD WELD	REFERENCE BUBBLE		NDERGROUND SERVICE ALERT		TWO WORKING DAYS BEFORE YOU DIG

CITY OF SAN BETMURDINO, PARKS RECREATION AND COMMUNITY SERVICES REPORTABLEMENT CONSTRUCTION NOTICES 1. COMMUNITY SERVICE (Reveal SERVICES DEVERSABLE) 1. COMMUNITY SERVICE (Reveal SERVICES) 2. COMMUNITY SERVICE (Reveal SERVICES) 2. COMMUNITY SERVICE (Reveal SERVICES) 3. COMMUNITY SERVICE (Reveal SERVICES) 3. COMMUNITY SERVICE (Reveal SERVICES) 4. ALL MADERS PROPERTY SHALL BE RECORDED SERVICES SERVICES 5. ALL MADERS SERVICE (Reveal SERVICES) 5. ALL MADERS SERVICES DEVERSABLE SERVICES SERVICES 6. ALL MADERS SERVICES SERVICES SERVICES FROM SERVICES 6. ALL MADERS SERVICES SERVICES SERVICES FROM SERVICES 7. ALL MADERS SERVICES SERVICES SERVICES FROM SERVICES 8. ALL MADERS SERVICES SERVICES SERVICES FROM SERVICES 8. ALL MADERS SERVICES SERVICES SERVICES FROM SERVICES 9. ALL MADERS SERVICES SERVICES FROM SERVICES FROM SERVICES 9. ALL MADERS SERVICES SERVICES FROM SERVICES FROM SERVICES 9. ALL MADERS SERVICES SERVICES FROM SERVICES FROM SERVICES 9. ALL MADERS SERVICES SERVICES FROM SERVICES FROM SERVICES 9. ALL MADERS SERVICES SERVICES FROM SERVICES FROM SERVICES 9. ALL MADERS SERVICES SERVICES FROM SERVICES FROM SERVICES 9. ALL MADERS SERVICES SERVICES SERVICES SERVICES 9. SERVICES 9. SERVICES SERV	CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT C.O. NO: XXXX ABBREVIATIONS, SURVEY INFORMATION AND PARK RECREATION NOTES C-XXXX-4-6-G4.DWG
TANGENT TO THE BOOK THE TOO TH	D DATE APPROVED DATE BYONEEN SSHIND BYONEEN ELEV.= XXXX.XX FT.
PROPERTY PROCEDURE PROPERTY PROPERTY PROCEDURE PROPERTY PROPERTY PROCEDURE PROPERTY PROCEDURE PROPERTY PROCEDURE PROPERTY PROCEDURE PROPERTY PROCEDURE PROCEDURE PROPERTY PROCEDURE PROPERTY PROCEDURE PROCEDURE PROCEDURE PROPERTY PROCEDURE PROCEDURE PROPERTY PROCEDURE PRO	DATE: WARK REVISIONS APPROVED SYLXXXX
IN STATE OF THE PROPERTY OF TH	NOWEER'S NERE APPRO
PER CONTRICT FROM PIPE DISCUSSION OF CURB ESCHOOL DISCUSSION OF COURER PROPERTY AND CONTRICT FROM PIPE DISCUSSION OF COURE FOR ELECTRON OF CURB ESCHOOL DISCUSSION OF COURE FOR ELECTRON OF COURT FOR ELECTRON OF COURT FOR ELECTRON OF CO	HEGHT HOSE VALVE HIGHWAY
ANCHOR BOLT BOLT BOLT BOLT BOLT BOLT BOLT BOLT	UNDERGROUND SERVICE ALERT CALL: TOLL FREE 1-800 227-2600 TWO WORKING DAYS BEFORE YOU DIG







PLANT MAP AUTOCAD STANDARDS

W:\AUTOCAD\SBMWD CAD STANDARDS\PLANT MAP\

C-XXXX-1-G-G1.dwg

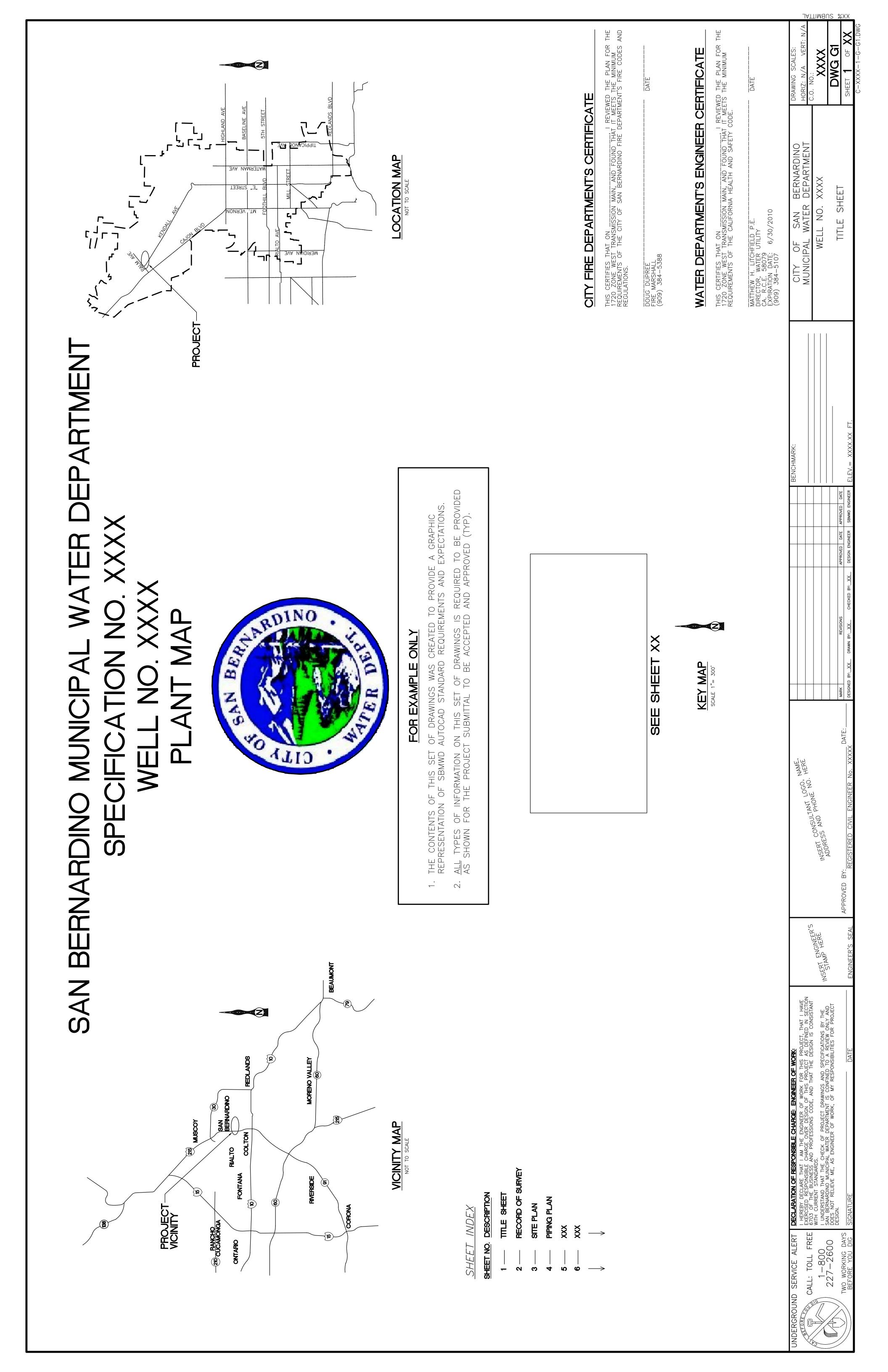
C-XXXX-2-SV-SV1.dwg

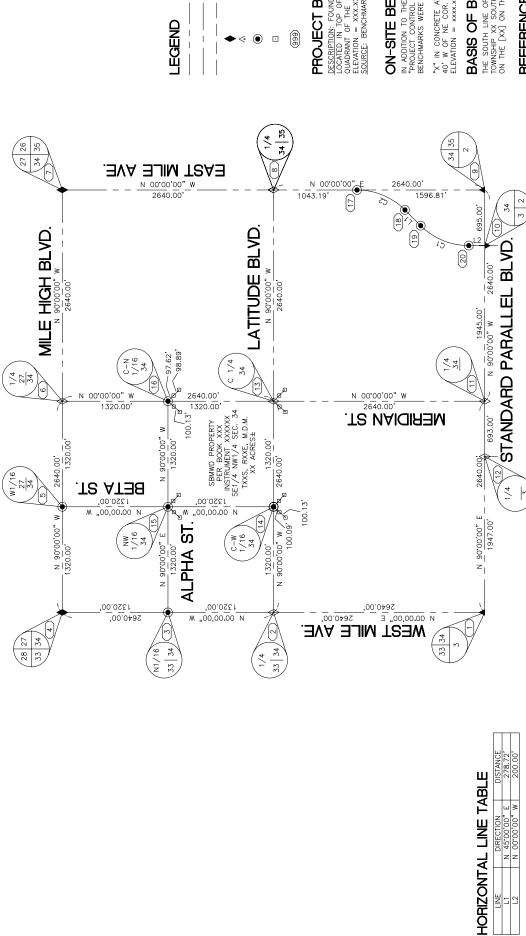
C-XXXX-3-C-C1.dwg

C-XXXX-4-C-C2.dwg

XXXX-BASE.dwg

XXXX-TOPO.dwg





CENTERLINE DEDICATED RIGHT-OF-WAY TIE DISTANCE DIMENSION LINE CADASTRAL LINE

1/4 SECTION CORNER, SEE PROVENANCE SECTION CORNER, SEE PROVENANCE

SET P/K & TAG, PLS 9677 IN-LINE REFERENCES 100.00 FEET SPACING UNLESS STATED OTHERWISE MONUMENT IDENTIFICATION NUMBER SEE "PROJECT CONTROL COORDINATE TABLE" FOUND OR SET, SEE PROVENANCE

PROJECT BENCHMARK

DESCRIPTION: FOUND 1-1/2" X 2" ALUMINUM PLATE AND RIVET LICATED IN TOP OF CURB AT THE NORTH RETURN, NORTHEAST QUADRANT OF THE INTERSECTION OF XXXXX ST. WITH XXXXX AVE. ELENATION = XXXXXX FET (NAVD 88)

SOURCE: BENCHMARK STATION XC21 XXSWWX

ON-SITE BENCHMARKS

IN ADDITION TO THE 3 DIMENSIONAL POSITIONS FOUND WITHIN THE "PROJECT CONTROL VERIFIED COORDINATE TABLE", THE FOLLOWING BENCHMARKS WERE SET FOR ON—SITE VERTICAL CONTROL:

"X" IN CONCRETE AT NE COR. ELECTRIC VAULT, 80' S OF AND 40' W OF NE COR. SE1/4 NW1/4 SECTION 34. ELEVATION = xxxxxxx (U.S. SURVEY FEET NAVD'83)

BASIS OF BEARINGS
THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SECTION XX,
TOWNSHIP XX SOUTH, RANGE XX EAST, XX MERIDAN, AS SHOWN
ON THE [XX] ON THE FIELD AT COUNTY OF SAN BERNARDINO.

REFERENCES

NOTES

E

ELLIPSOID HT.

LONGITUDE

LATITUDE

EASTING

NORTHING

VENANCE

SURVEY FEET

VERTICAL: NAVD 88 U.S.

PROJECT COORDINATE INFORMATION

PROJECT CONTROL COORDINATE TABLE

HORIZONTAL CURVE TABLE

DESCRIPTION

ELEV

EASTING

NORTHING

POINT NO.

HORIZONTAL: U.S. SURVEY FEET

CHORD 650.56 648.38

43.3486

237894.505

8158849.766

EP RSVY, 9/58 R REFERENCES

MPLE ONLY

FOR EXA

8157242.484 8158046.988 8158449.240 8158851.492

XXX, PG XXX
XXX, PG XXX
XXX, PG XXX

F 3-1/2" DIA. AL CP PLS 2050 RS, FL XXX F 1-1/2" DIA. AL CP PLS 5072 PM. BK XXX F 1-1/2" DIA. AL CP PLS 4046 SD, BK XX F 3-1/4" DIA. BC BLM "1956" BLM DEP F S 1-1/4" DIA. BC PLS 99577 SET PER R

2550.00

GEOGRAPHIC COORDINATES
NAD 83
HARN BASED

STATE OF CALIFORNINA COORDINATE SYSTEM 1983 HARN BASED EAST ZONE (METERS)

1. THIS SURVEY WAS PERFORMED UTILIZING TRIMBLE STATIC AND FAST STATIC GPS SURVEING TECHNIQUES. THE PUBLISHED TECHNICAL ACCURACY SPECIFICATIONS USING THIS EQUIPMENT AND PROCESSING SOFTWARE ARE LISTED AS FOLLOWS: HORIZONTAL: ±[5MM + (1PPM X BASELINE)] (1 SIGMA)
VERTICAL: ±[10MM + (1PPM X BASELINE)] (1 SIGMA)
THE PRECEDING REQUIRES THE FOLLOWING MINIMUM FIELD CONDITIONS:
P.D.O.P. <6. R.M.S.<-56. SAFIELLIES>5. OBSTRUCTION MASK ANGLEC13*
(TRIMBLE LIT. 1D# TID10358 11/95, TRIMBLE NAVIGATION LTD.)

2. TRIMBLE SOFTWARE USED FOR THIS SURVEY INCLUDES: PROJECT MANAGEMENT: GPSURVEY VERSION 2.20

LEAST SQUARES ADJUSTMENT: TRIMNET VERSION 2.20 BASELINE PROCESSOR: WAVE VERSION 2.20

FOR

1. THE CONTENTS OF THIS DRAWING WERE CREATED TO PROVIDE A GRAPHIC REPRESENTATION OF SBMWD AUTOCAD STANDARD REQUIREMENTS AND EXPECTATIONS FOR SURVEY SHEETS.

ALL TYPES OF INFORMATION ON THIS DRAWING ARE REQUIRED TO BE PROVIDED AS SHOWN

EQUIPMENT USED FOR THIS SURVEY INCLUDES:

* 3 TRAMBLE 4000SSI RECEIVERS,

* 2 L1/L2 COMPACT ANTENNAS WITH GROUND PLANE

* SOKKIA, WOODEN TRIPODEN T

GENERAL: ELEV = ELEVATION NO. = NUMBER

"1958" = DATE SET BY BLM/GLO PLS = PROFESSIONAL LAND SURVEYOR HARN = HIGH ACCURACY REF. NETWORK

= CAP = ALUMINUM : = BRASS CAP (DISK)

 $_{\rm BC}^{\rm CP}$

DESCRIPTION: F = FOUND S = SET, THIS SURVEY DIA. = DIAMETER (CIRCULAR)

RECORDER) BLM = BUREAU OF LAND MANAGEMENT RECORDER) GLO = GENERAL LAND OFFICE RECORDER) DEP RSVY= DEPENDENT RESURVEY

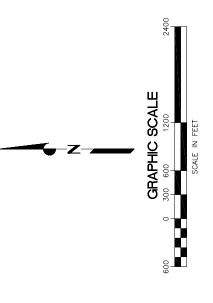
FL = FILE (CLARK CO. PG = PAGE (CLK. CO. BK = BOOK (CLK. CO.

PROVENANCE:
RS = RECORD OF SURVEY F
RM = PARCEL MAP
PM = SUBDIVISION MAP
RM = MISCELLANEOUS MAPS

THE PROJECT SUBMITTAL TO BE ACCEPTED AND APPROVED (TYP).

CONTROL COORDINATE TABLE ABBREVIATION LISTING

2



SURVEYOR'S CERTIFICATE

1. THIS PLAT REPRESENTS THE RESULTS OF A SURVEY CONDUCTED UNDER MY DIRECT SUPERVISION AT THE INSTANCE OF THE SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

2. THE LANDS SURVEYED LIES WITHIN THE XX QUARTER OF SECTION XX, TOWNSHIP XX SOUTH, RANGE XX EAST, [XX] SAN BERNARDINO COUNTY, CALIFORNIA, AND THE SURVEY WAS COMPLETED ON XX/XX/XX.

3. THIS PLAT COMPLIES WITH APPLICABLE STATUTES OF THIS STATE AND ANY LOCAL ORDINANCES IN EFFECT ON THE DATE THAT THE SURVEY WAS COMPLETED.

4. THE MONUMENTS DEPICTED ON THE PLAT ARE OF THE CHARACTER SHOWN, OCCUPY THE POSITIONS INDICATED, AND ARE OF SUFFICIENT DURABILITY.

5. THIS PLAT AND THE SURVEY ON WHICH IT IS BASED UPON WAS PERFORMED IN RECOGNITION OF THE RELATIVE POSITIONAL TECHNICAL ACCURACY SPECIFICATIONS AS PUBLISHED BY THE MANUFACTURER (SEE "NOTES").

XXXXXXX X. XXXXXXX PROFESSIONAL LAND SURVEYOR CALIFORNIA PLS NO. XXXX

ENVELOPING EXTERIOR CONTROL THE FOLLOWING GEODETIC CONTROL POINTS WERE HELD FIXED DURING THE FINAL CONSTRAINED LEAST SQUARES ADJUSTIMENT:

NAME		GENE	GENERAL	AL PROVENANCE	IANC	ببا		LOC	ΆL	OCAL PROVENANCE	ENA	JOE.	
XXX	NGS	NGS DATASHEETS, MAY 1995, CD ROM 1236900	MAY	1995,	9	ROM	1236900	MM,	댐	MM, FL 002, PG (PG	032	
XXX	NGS	NGS DATASHEETS, MAY 1995, CD ROM 1236900	MAY	1995,	CD	ROM	1236900	MM,	님	MM, FL 002, PG (PG	032	
													ı

TRANSFORMATION-CONVERSION PARAMETERS

20,396,000 20,998804

20,906,000 + 2409.93 + 90.05 = 0.9998804

2 PROJECT CENTRAL (MEAN E-W EXTENT) ELLIPSOID TO GRID FACTOR: 0.9999181

3 PROJECT COMBINED FACTORS: GRID TO GROUND 1.0002015

4 EAST OF CENTRAL MENDIAN ROTATIONAL PARAMETER: 00' 14' 45' CLOCKWISE FROM THIS PROJECT CARTESIAN CORDINATE SYSTEM TO THE STATE PLANE GRID SYSTEM.

5. ENCLISH/METRIC CONVERSIONS: METRER > 3937

2D CONFORMAL TRANSFORMATION PARAMETERS U.S. SURVEY FEET $\times (\frac{1200}{3937}) = METERS$

Equations: $\alpha X - bY + TX = X2 + vx; \ bX + \alpha y + ty = Y2 + vy$ where: (x,y) are state plane values and (x,y) are project coordinates.

JNDERGROUND SERVICE ALERT	CALL: TOLL FREE	1-800	22/-2600	TWO WORKING DAYS BEFORE YOU DIG
UNDERGROUND				

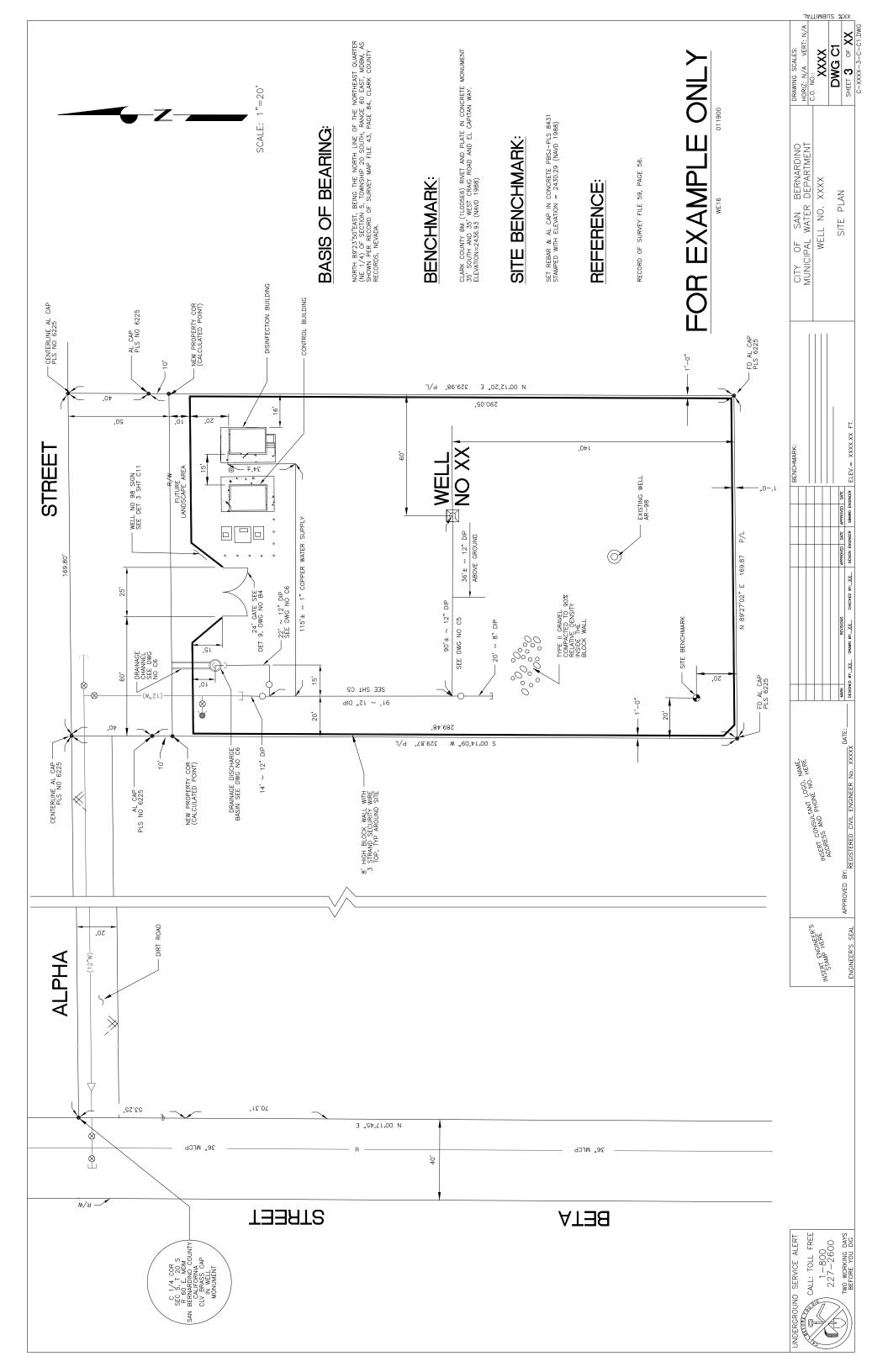
DATE APPROVED BY: REGISTERED CIVIL ENGINEER No. XXXXX NSERT CONSULTANT LOGO. H. INSERT SAND PHONE NO. H. ADDRESS AND ENGINEER'S SEAL

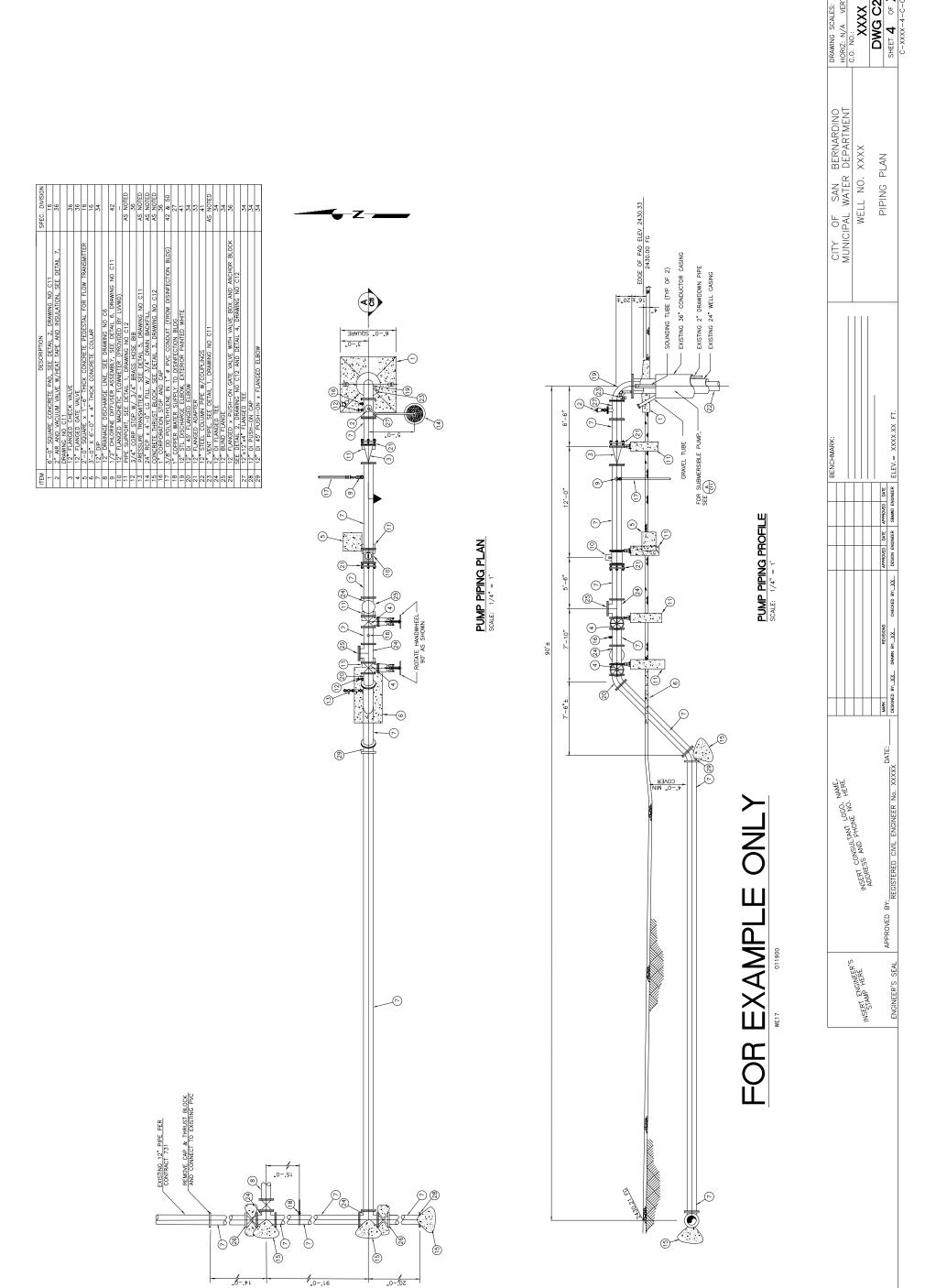
APPROVED DATE APPROVED DATE
DESIGN ENGINEER SBAWD ENGINEER CHECKED BY: XX MARK
DESIGNED BY: XX_ DRAWN BY: XX_

ELEV.= XXXX.XX FT

BENCHMARK

HORIZ: N/A VERT: N/A C.O. NO.: SHEET 2 OF XX DWG SV ×× DRAWING SCALES RECORDER'S NOTE
ANY SUBSEQUENT CHANGES TO THIS MAP MAY BE
DETERMINED BY REFERENCE TO THE COUNTY
RECORDER'S CUMULATIVE MAP INDEX. NRS 278.5695 CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT SURVEY WELL NO. XXXX RECORD OF





UNDERGROUND SERVICE ALERT

CALL: TOLL FREE

1-800

277-2600

TWO WORKING DAYS
BEFORE YOU DIG