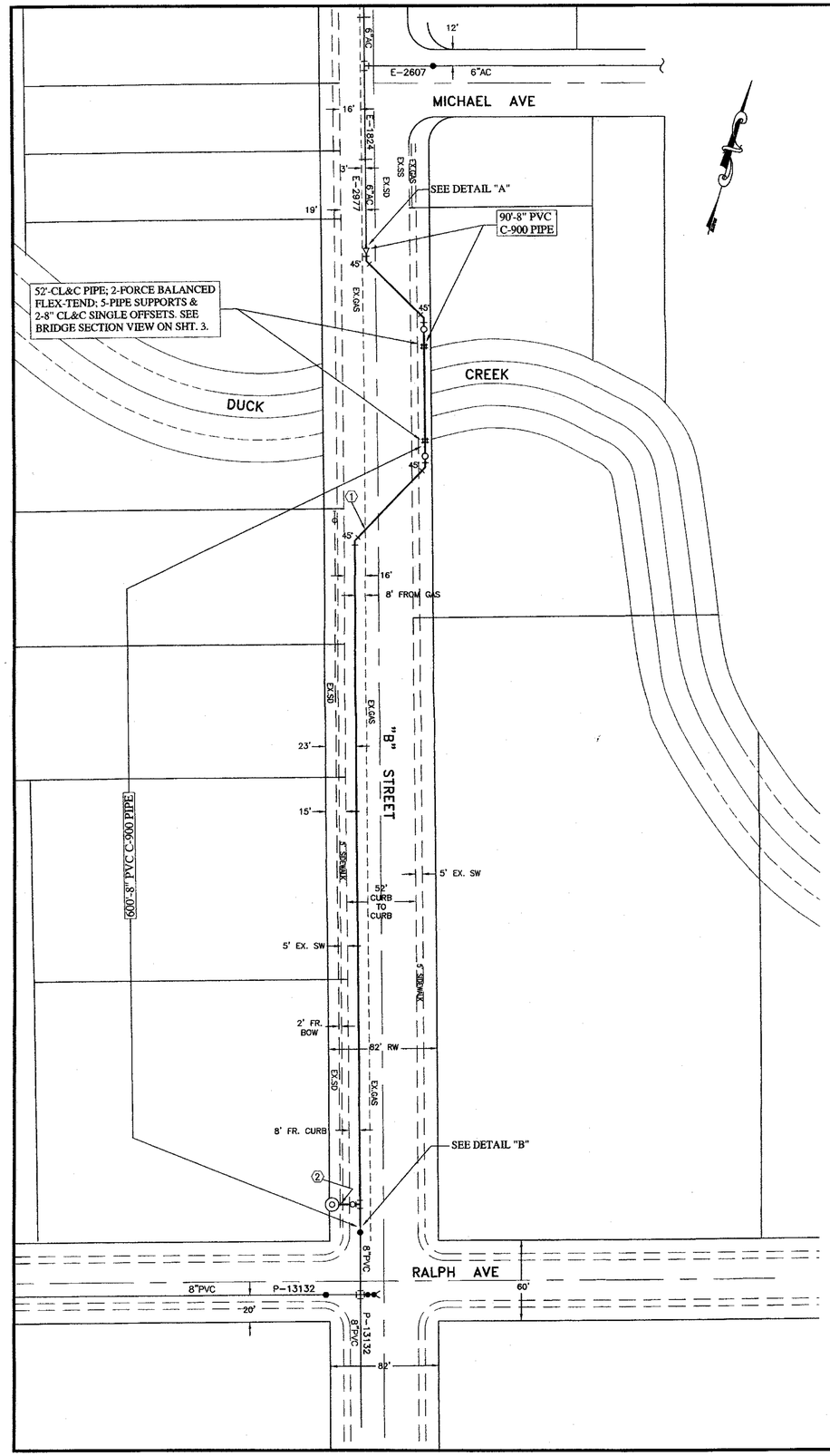
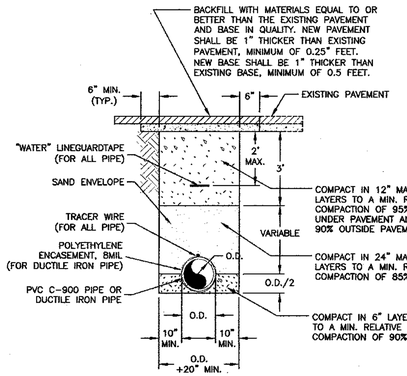




RIGID CONDUIT

NOTES:

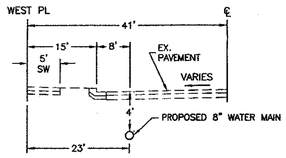
1. ALL EXCESS SPOIL IN TRACT IS TO REMAIN TRENCHSIDE AND ALL EXCESS SPOIL OFF TRACT IS TO BE REMOVED.
2. ALL VALVE CASINGS AND COVERS SHALL BE RAISED TO FINISHED GRADE AFTER PERMANENT PAVEMENT HAS BEEN PLACED.
3. RELATIVE COMPACTION SHALL BE TESTED IN ACCORDANCE WITH THE STATE OF CALIFORNIA, DEPT. OF TRANSPORTATION TESTING MANUALS, TEST METHOD NO. CALIFORNIA 216 OR 231.
4. ALL EXISTING PAVEMENT SHALL BE NEATLY CUT TO LINE PRIOR TO TRENCH EXCAVATION.
5. JETTING OR PONDING WILL BE PERMITTED WITHIN THE STREET RIGHT OF WAY WITH A 3 YEAR BOND.
6. WHEN SHOWN BY SOIL COMPOSITION AND COMPACTABILITY, NINETY PERCENT (90%) COMPACTION MAY BE USED, WHEN APPROVED BY THE DIRECTOR OF PUBLIC WORKS.
7. SPECIAL BEDDING REQUIREMENTS MAY BE SHOWN ON THE PLANS OR SPECIFIED IN SPECIAL PROVISIONS.
8. SHOULDERS SHALL BE SHOWN ON THE PLANS OR SPECIFIED IN THE SPECIAL PROVISIONS BUT IN NO CASE SHALL THE SHOULDER BE LESS THAN THREE FEET WIDE AS MEASURED FROM THE EDGE OF PAVEMENT.

TYPICAL TRENCH BACKFILL

N.T.S.

TYPICAL STREET CROSS SECTION

N.T.S.



'B' STREET

PIPELINE CROSSING INFORMATION

AT WATER MAIN CROSSINGS IN CONFLICT WITH OTHER FACILITIES: When the water main is in conflict with existing facilities or proposed facilities that require more than a 2 foot adjustment from the nominal 4 feet of cover, a fabricated steel cement mortar lined and cement mortar coated offset will be installed at the crossing per CWS Co. standards.

(1) EXISTING GAS MAIN — FINISHED GRADE ELEV. = VERIFY; INVERT ELEV. = VERIFY
FIELD VERIFY EXACT LOCATION, DEPTH & SIZE OF EX. GAS PRIOR TO EXCAVATION.

(2) EXISTING STORM DRAIN — FINISHED GRADE ELEV. = VERIFY; INVERT ELEV. = VERIFY
FIELD VERIFY EXACT LOCATION, DEPTH & SIZE OF EX. SD PRIOR TO EXCAVATION.

NOTE: THESE WATER MAIN INSTALLATION PLANS WERE PREPARED FROM INCOMPLETE IMPROVEMENT PLANS. FIELD VERIFY ALL UTILITIES PRIOR TO EXCAVATION.

GENERAL NOTES:

1. CONTRACTOR SHALL BECOME FAMILIAR WITH PROJECT SURROUNDINGS, WORKING CONDITIONS, AND SITE LIMITATIONS AND WILL INCLUDE ALLOWANCES IN THEIR BID TO COVER ANY PROJECT CONSTRAINTS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO AND COMPLYING WITH LOCAL GOVERNING AGENCY PERMIT RESTRICTIONS, WHICH MAY AFFECT ALLOWABLE WORKING HOURS AND NOISE LEVELS.
3. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED BY APPLICABLE LOCAL GOVERNING AGENCY. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN PER CALTRANS STANDARDS TO OWNER PRIOR TO CONSTRUCTION.
4. CONTRACTOR SHALL APPLY NPDES BEST MANAGEMENT PRACTICES TO PREVENT CHLORINATED WATER AND SEDIMENT FROM ENTERING NAVIGABLE WATERWAYS. CONTRACTOR TO SUBMIT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), INCLUDING DUST CONTROL, TO OWNER FOR APPROVAL WITHIN 5 WORKING DAYS OF AWARD AND PRIOR TO ANY SOIL DISTURBANCE. SEE SPECIFICATIONS FOR DETAILS.
5. CONTRACTOR TO CONTACT "UNDERGROUND SERVICES ALERT" 48 HOURS PRIOR TO ANY EXCAVATION.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES.
7. TRENCH TO BE SHORED IN ACCORDANCE WITH CALIFORNIA OSHA REGULATIONS.
8. PLACE A CONTINUOUS WIRE AND STRIP OF DETECTOR TAPE OVER ALL PIPES AND EXTEND UP INTO ALL VALVE BOXES. TRACER WIRE IS REQUIRED ON ALL PIPE. (SEE CW-850 R2).
9. SEE CW-435R4 FOR TYPICAL THRUST BLOCK INSTALLATION.
10. WATER MAIN SHALL BE INSTALLED AT LEAST 10 FT. HORIZONTALLY FROM AND ONE FOOT HIGHER THAN STORM AND SANITARY SEWERS LOCATED PARALLEL TO THE MAIN IF FEASIBLE. CENTER A 20 FOOT LENGTH AT ALL STORM AND SANITARY SEWER CROSSINGS. MINIMUM SEPARATION BETWEEN SEWER AND WATER MAIN SHALL BE ONE FOOT UNLESS OTHERWISE INDICATED.
11. WHEN ASSEMBLING A PVC C-900 PIPE TO AN IRON FITTING (PUSH-ON OR MECHANICAL JOINT). REMOVE ALL BUT 1/4 INCH OF THE FACTORY MADE BEVEL FROM THE SPIGOT END OF THE PIPE PRIOR TO INSTALLATION.
12. USE PVC 1° ± DEFLECTION AND 5' ± DEFLECTION WITH HIGH DEFLECTION CPLGS TO ACHIEVE PROPER RADIUS FOR CURVES. DO NOT DEFLECT PIPE AT FITTINGS.
13. VALVE CANS AND COVERS SHALL BE PLACED OVER ALL VALVES. COVERS SHALL BE SET TO EXISTING FINISHED GRADE AND RESET IF NECESSARY ONCE THE STREET IS AT FINAL GRADE. (SEE CW-14 R3 AND CW-439 R3).
14. NO VALVE COVERS ARE TO LIE IN SIDEWALKS, CROSS GUTTER, CURB OR DRIVEWAYS. EACH SERVICE SHOULD ALSO BE LOCATED TO PROVIDE PROTECTION TO THE METER BOX FROM VEHICLE TRAFFIC AND PARKING.
15. PROTECT UNDERGROUND FLEXIBLE COUPLINGS, BARE STEEL, MJ x MJ SLEEVES, AND ALL BOLTS (INCLUDING STAINLESS STEEL) AS FOLLOWS:
    A. THE ENTIRE AREA OF THE FITTING MUST BE DRY AND FREE OF DUST, DIRT, AND OTHER FOREIGN MATTER. RUST OR OTHER FOREIGN MATTER MUST BE REMOVED BY SCRAPING OR WIRE BRUSHING. WIPING WITH A DRY CLEAN CLOTH MAY BE NECESSARY TO REMOVE THE PARTICLES FROM BRUSH CLEANING. ANY OIL OR GIREASE MUST BE REMOVED BY USING A LOW RESIDUE, VOLATILE PETROLEUM SOLVENT BEFORE APPLICATION OF GREASE AND WRAPPING.
    B. THE EXPOSED AREA SHOULD BE COATED) WITH A HEAVY COATING OF METALGUARD301 GREASE BY THE GLOVE METHOD TO A THICKNESS OF AT LEAST 1/4".
    C. FIRMLY WRAP THE ENTIRE GREASE AREA WITH LAYERS HALF LAPPED OF A WOVEN GLASS FILAMENT MESH (RES OR BIT WRAP, 4" WIDE).
    D. APPLY A SECOND LAYER OF METALGUARD301 GREASE ON TOP OF THE GLASS FILAMENT BY THE GLOVE METHOD TO A THICKNESS OF AT LEAST 1/4".
    E. FIRMLY WRAP THE ENTIRE GREASE AREA WITH A SECOND LAYER, HALF LAPPED OF THE WOVEN GLASS FILAMENT MESH.
    F. COVER THE ENTIRE MESH WRAPPED AREA OF THE FITTING WITH A THIRD AND FINAL COATING AT LEAST 1/4" THICK OF METALGUARD 301 GREASE BY THE GLOVE METHOD.
    G. FIRMLY APPLY 2 LAYERS OF POLYWRAP, HALF LAPPED OVER ALL AREAS OF THE COATED AND WRAPPED FITTING. BACKFILLING MAY FOLLOW IMMEDIATELY AFTER THIS WRAPPING.
16. TRENCH BACKFILL AND PAVING SHALL CONFORM TO TRENCH SECTION DETAILS. (SEE CW-236 R2).
17. NEW PIPELINE SHALL BE INSTALLED WITH 4 FEET OF COVER, EXCEPT WHERE SPECIFIED.
18. CONTRACTOR SHALL LIMIT DAILY TRENCHING OPERATIONS TO THE LENGTH OF PIPE THAT CAN BE INSTALLED AND BACKFILLED THAT DAY.
19. CONTRACTOR SHALL INSTALL NEW MAIN AND ADJUST FROM NOMINAL LINE AND GRADE TO MATCH THE EXISTING FACILITIES AT ALL LOCATIONS. THE CONTRACTOR SHALL INSTALL A TEMPORARY CAP AND BLOW-OFF AT TIE-IN LOCATIONS FOR TESTING, (SEE DWGS. CW-122 R2 & CW-638 R1). CONTRACTOR WILL TIE THE NEW MAIN FROM THIS LOCATION.
20. THE NEW PIPELINE SHALL BE TESTED AT 150 PSI FOR A PERIOD OF 4 HOURS. SEE SPECIFICATIONS TO DETERMINE EXACT TESTING REQUIREMENTS.
21. TIE-INS TO BE MADE AT A TIME THAT IS CONVENIENT TO OWNER WHICH MAY BE AT NIGHTS OR WEEKENDS. THE ADDITIONAL COST DUE TO OVERTIME PAY SHALL BE AT OWNER'S EXPENSE.
22. CONTRACTOR SHALL PROVIDE MISC. MATERIAL REQUIRED TO COMPLETE THE TIE-IN SUCH AS, BUT NOT LIMITED TO: PROTECTION COATING MATERIAL FOR PIPE AND FITTINGS, LINEGUARD TAPE, CONCRETE FOR THRUST BLOCKS, EMBEDMENT BACKFILL AROUND AND OVER THE PIPE, FINAL BACKFILL TO MEET COMPACTION REQUIREMENTS, AND PAVEMENT REPLACEMENT.
23. CONTRACTOR SHALL BE RESPONSIBLE TO ABANDON ALL PIPE ENDS BY PLUGGING WITH BRICK AND MORTAR. ABANDON ALL GATE VALVES BY REMOVING COVER, CUT CASING DOWN TO SUBGRADE, AND BACKFILL VALVE CASING WITH CONCRETE SLURRY TO REMOVE VOIDS. REPLACE BASE ROCK AND PERMANENT PAVEMENT AS NECESSARY. WHEN REMOVING EXISTING FITTINGS CONTRACTOR SHALL ALSO REMOVE EXISTING CONCRETE THRUST BLOCK
24. CONTRACTOR SHALL RESTORE LAWN, GUTTER, PAVEMENT, BERM, AND CURB TO MATCH EXISTING PER GOVERNING AGENCY'S STANDARDS.
25. SPOILS SHALL NOT REMAIN ON-SITE. DISPOSAL OF ALL PROJECT GENERATED SPOILS SHALL BE AT A FACILITY LICENSED AND CLASSIFIED TO ACCEPT THE MATERIALS. CONTRACTOR TO PROVIDE OWNER WITH A FORMAL RECEIPT FROM THE ACCEPTING FACILITY. ALL MATERIALS THAT WILL REQUIRE TESTING PRIOR TO DISPOSAL SHALL BE SAMPLED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE DISPOSAL FACILITY IN ADVANCE OF THE NEED FOR DISPOSAL.
26. THE LIST OF MATERIALS FOR THIS PROJECT IS FOR CWS CO. ESTIMATING AND REFERENCE PURPOSES ONLY, AND IS NOT INTENDED AS A FULL TAKE-OFF OF ALL MATERIALS REQUIRED TO COMPLETE THE PROJECT PER CWS CO. STANDARD SPECIFICATIONS.
27. AT TIE-INS, CONTRACTOR SHALL SPRAY OR SWAB ALL FITTINGS WITH CHLORINE SOLUTION FOR DISINFECTION PRIOR TO FINAL CONNECTIONS.
28. CONTRACTOR TO ENSURE AIR IN THE PIPELINE IS REMOVED USING EXISTING OUTLETS, SUCH AS FIRE HYDRANTS AND BLOW OFFS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AIR RELEASES IF EXISTING OUTLETS ARE INSUFFICIENT.
29. (◎) = Indicates fire hydrant (Stockton)

    The following items are not a part of the refundable extension agreement for each fire hydrant. Others to provide materials & labor:

    1 - 6 Inch Outlet Tee POxFLG CI CL
    1 - 6x8-3/4x1/16 Inch Ring Gasket W/CI
    8- 3/4x3-1/2 Inch Machine Bolts W/Hex Nuts, 18-8 Stainless Steel
    1 - 6 Inch Gate Valve FLGxMJ NRS NO RS
    1 - Valve Casing and Cover Assembly
    +/- 7 Feet of 6 Inch PVC Pipe CL150
    1 - 6 Inch Fire Hydrant Bury FLGxMJ
    1 - 6 Inch Fire Hydrant Head

    Polywrap Tubing, PVC Tape, Line Guard and misc. coating mat'l.

    Hydrant assembly W/City of Stockton approval.

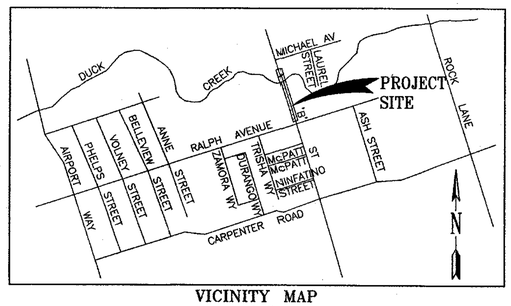
    The CWS Co portion of the installation of the fire hydrant shall be limited to the POxFLG tee and FLGxMJ gate valve. The gate valve, gasket & bolts shall be supplied by others.

    The remainder of the fire hydrant materials shall be installed by others with the City of Stockton fire department approval.

    The City of stockton owns the Fire Hydrant assembly.

LEGEND:

- = TEE
- = ELBOW, 45°
- = ELBOW, 90°
- = BLOWOFF (PROPOSED)
- = BLOWOFF (EXISTING)
- = GATE VALVE (PROPOSED)
- = GATE VALVE (EXISTING)
- = REDUCER (PROPOSED)
- = REDUCER (EXISTING)
- = SOLID PLUG
- = PROPOSED WATER MAIN
- = EXISTING WATER MAIN
- = SANITARY SEWER
- = STORM DRAIN
- = FIRE HYDRANT (PROPOSED)
- = FIRE HYDRANT (EXISTING)
- = BUTTERFLY VALVE
- = CHECK VALVE
- = FLEX CPLG.



VICINITY MAP

N.T.S.

BILL OF MATERIALS

8" MAIN
690'-8" PVC C-900 PIPE
760'-LINEGUARD TAPE
760'-TRACER WIRE #12AWG SOLID COPPER w/45 MILS HMWPE INSULATION
2-8" GATE VALVE PO
2-VALVE CASING & COVER ASSY
4-8" ELL 45° PO
12-8" RINGS F/PO FITTINS
30'-POLYWRAP F/DI FITTINGS
(1) TIE-IN MATERIALS PER DETAIL "A"
(1) TIE-IN MATERIALS PER DETAIL "B"

8" CL&C PIPE
1-8" CL&C STEEL PIPE (40' SECTION)
2-8" CL&C FAB PIPE w/FLG ON ONE END, PCS. MK. "Y" (6' SECTIONS)
2-8.63"IDx4"x¾" STEEL BUTT STRAPS
5-PIPE SUPPORTS (SEE DETAIL ON SHEET 2 F/TYPICAL MATERIALS)
2-8" CL&C FAB SINGLE OFFSETS, PCS. MK. "X" PER DWG. CW-570 ON SHEET 3
2-8" STDxDI FLEX COUPLINGS, 10" SLV
2-8" FORCE BALANCED FLEXIBLE EXPANSION JOINT

SERVICES
4-1" SHORT SERVICES
2-1" LONG SERVICES
EXACT LOCATION OF SERVICES TO BE DETERMINED AT INSTALLATION

FIRE HYDRANT
1-6" FIRE HYDRANT
1-8"x6" TEE POxFLG
SEE NOTE #29 F/TYPICAL MATERIALS

SUMMARY

690'-8" PVC C-900 PIPE
1-8" CL&C PIPE (40' SECTION)
2-8" CL&C FAB PIPE (6' SECTIONS)
2-8" FORCE BALANCED FLEXIBLE EXPANSION JOINT
5- PIPE SUPPORTS
2-8" CL&C FAB SINGLE OFFSETS
4-1" SHORT SERVICES
2-1" LONG SERVICES
1-6" FIRE HYDRANT TEE

ENGINEERING

CALIFORNIA WATER SERVICE CO.

DEPARTMENT

REVISIONS:
R1. Change bridge crossing design. Original design approved on 10/27/08. LP
R2. Minor corrections, add notes, change trench backfill detail. LP

		DATE:	INIT.
INDEXIMPOSITION MAP	X		
PLAT SHEET	X		
SYSTEM SCHEMATIC	☐		
STATION SCHEMATIC	☐		
ZONE MAP	☐		
VALVE REMOVED	☐		

PLAT SHEET NO.: 38-32

SCALE: 1"=50'

DRAWN BY: Peralta

DESIGNED BY: Prasanna

CHECKED BY: J Prasanna DATE: 5/4/12

APPROVED BY: T.L. DATE: 5/15/2012

REGISTERED PROFESSIONAL ENGINEER — HANG MEI HE — No. C60340 — CIVIL — STATE OF CALIFORNIA

TITLE: "B" STREET DUCK CREEK TO RALPH AVENUE

DISTRICT: STOCKTON

DATE: 5/4/12

PROJECT ID.: 16817

DRAWING NO.: STK-8600R2

SHT 1 OF 3