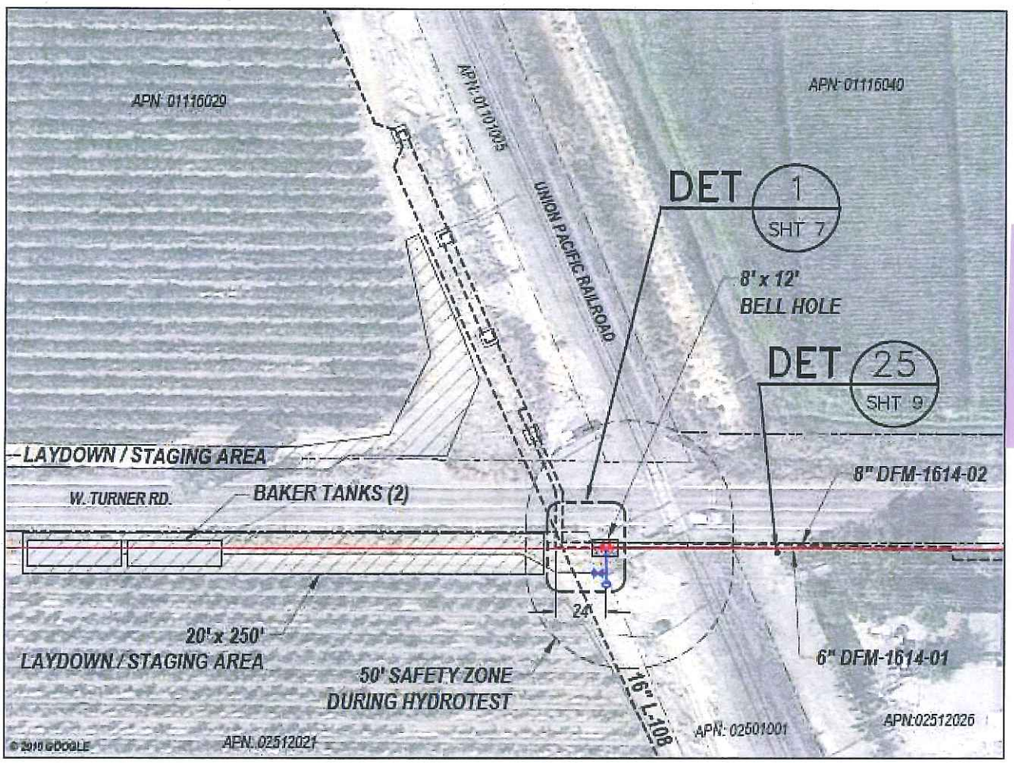
PG&E Hydrotest TIM-136-12
W. Turner Rd & U.P.R.R. Crossing
San Joaquin County, California
(Not to Scale)

08/27/2012



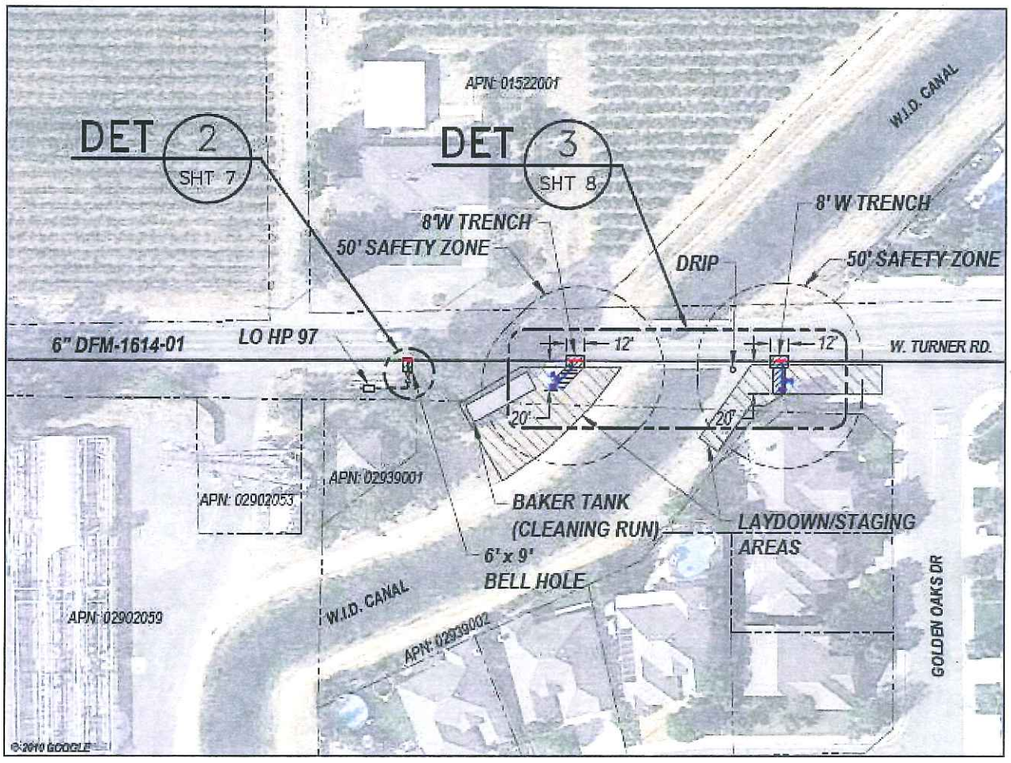
PS-12-02130

Location A

PS-12-02130

PG&E Hydrotest TIM-136-12
W. Turner Rd & Golden Oaks Dr
City of Lodi, California
San Joaquin County, California
(Not to Scale)

08/27/2012



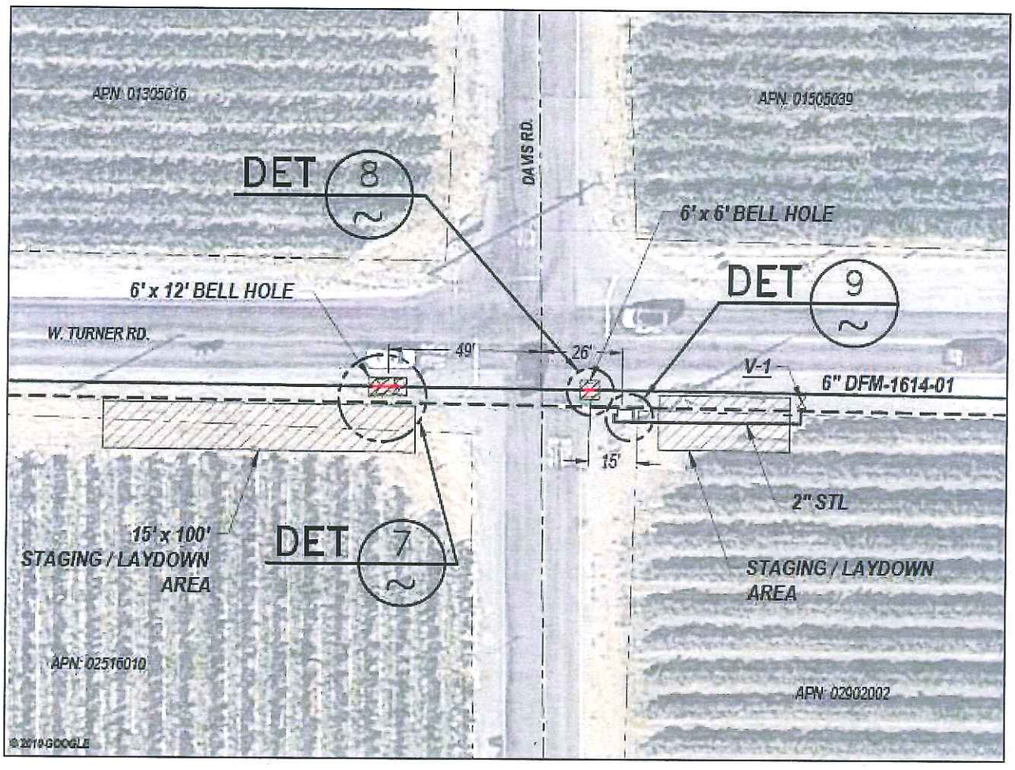
Location B

PS-12-02130

PG&E Hydrotest TIM-136-12
W. Turner Rd & Davis Rd
San Joaquin County, California

(Not to Scale)

08/27/2012

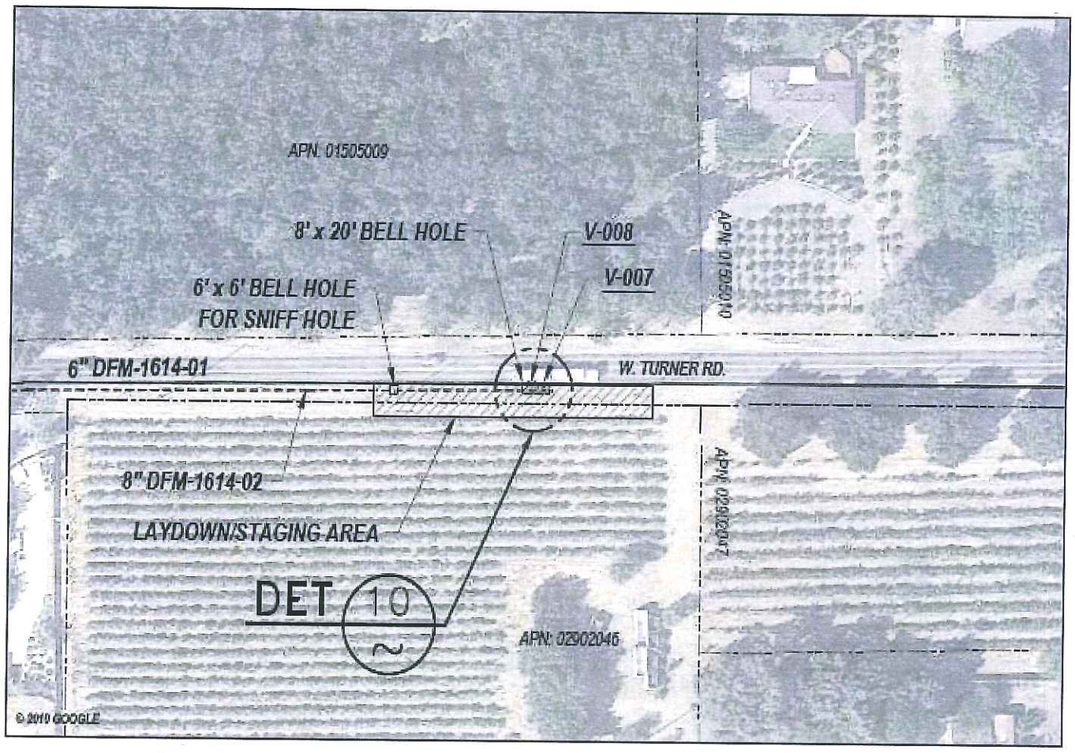


Location E

PS-12-02130

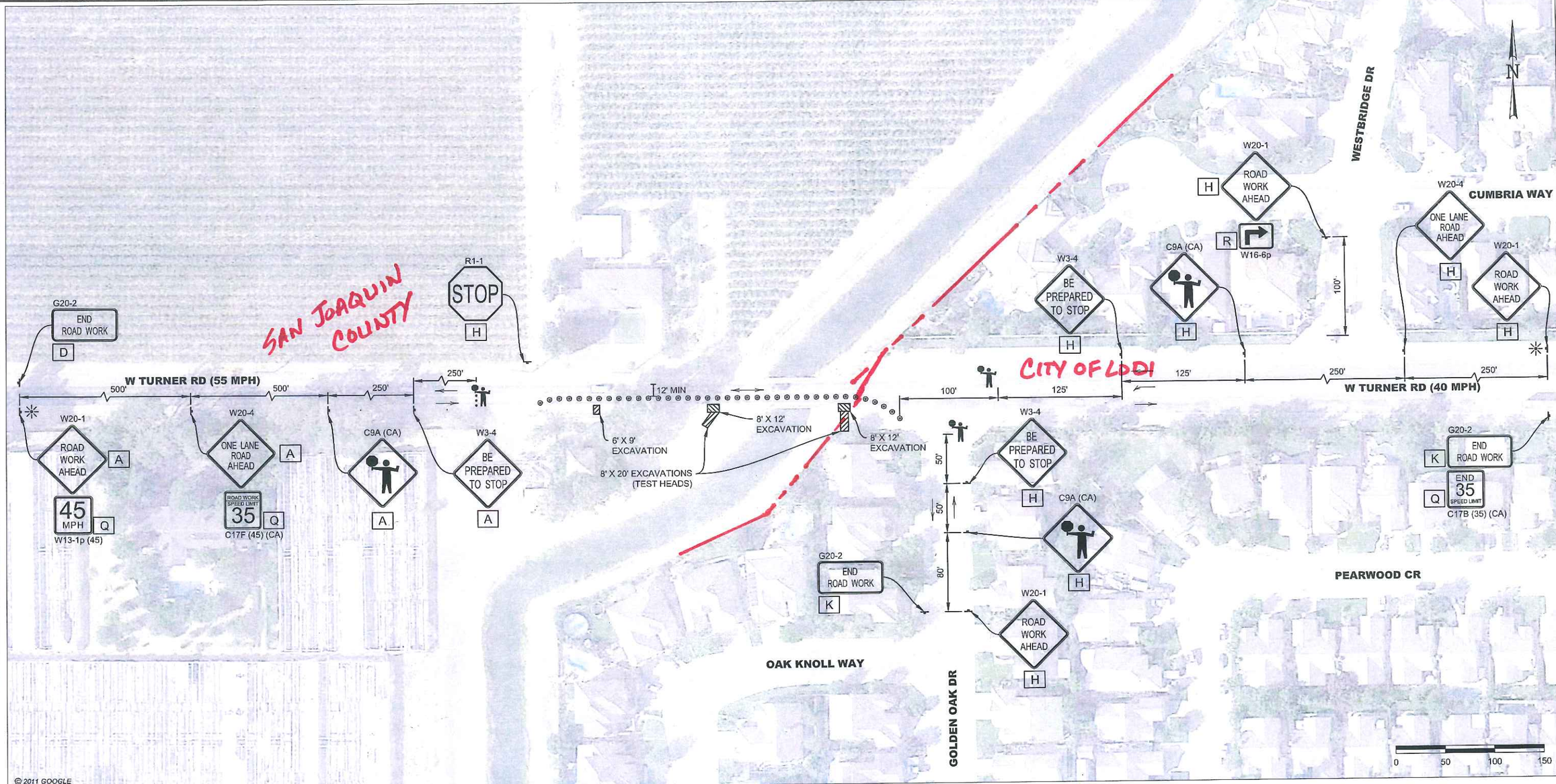
PG&E Hydrotest TIM-136-12
W. Turner Rd
San Joaquin County, California
(Not to Scale)

08/27/2012



Location F

PS-12-02130



CONTRACTOR NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND CALTRANS STANDARD PLANS AND SPECIFICATIONS.
2. THE LOCAL FIRE DEPARTMENT, SHERIFF/POLICE DEPARTMENT, CALIFORNIA HIGHWAY PATROL, LOCAL SCHOOL DISTRICT, TRANSIT SERVICE PROVIDERS AND UNITED STATES POSTAL SERVICE SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF CONSTRUCTION WORK.
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO EXISTING IMPROVEMENTS RESULTING FROM THE CONTRACTOR'S OPERATION. THIS REPAIR SHALL INCLUDE ALL CONSTRUCTION AND MATERIALS TO RESTORE THE SITE TO EXISTING CONDITIONS.
4. EACH ADVANCED WARNING SIGN ON EACH SIDE OF THE ROADWAY SHALL BE EQUIPPED WITH AT LEAST TWO FLAGS. FLASHING BEACONS SHALL BE PLACED AT THE LOCATION INDICATED FOR LANE CLOSURE DURING HOURS OF DARKNESS.
5. ALL WORKERS SHALL BE EQUIPPED WITH A REFLECTIVE VEST AND HARD HAT. ALL FLAGGERS SHALL ALSO BE EQUIPPED WITH A C28 "STOP/SLOW" PADDLE AND SHALL BE TRAINED IN THE PROPER FUNDAMENTALS OF FLAGGING TRAFFIC.
6. NO PARKING SIGNS SHALL BE PLACED 72 HOURS PRIOR TO SET UP. SIGNS SHALL BE POSTED EVERY 20 LINEAR FEET OF OCCUPIED SPACE WITH AT LEAST ONE SIGN AT EACH END OF OCCUPIED SPACE.
7. ANY CONFLICTING SIGNS WILL BE COVERED FOR THE LENGTH OF THE JOB.
8. CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE AND DRIVEWAY ACCESS AT ALL TIMES.
9. Y&C TRANSPORTATION CONSULTANTS ASSUMES NO LIABILITY WHEN CONTRACTOR DOES OWN SET UP OR MAKES CHANGES TO THE ORIGINAL TRAFFIC CONTROL PLAN.
10. CITY/COUNTY ENGINEER OR HIS REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO ASSURE PUBLIC SAFETY.
11. TRAFFIC CONTROL IS TO BE IN OPERATION 24 HOURS A DAY, 7 DAYS A WEEK DURING THE LENGTH OF THE JOB UNLESS OTHERWISE NOTED.
12. CONTRACTOR SHALL FENCE EXCAVATED AREA AND PROVIDE PROTECTION AGAINST PEDESTRIAN ACCESS DURING NON-WORKING HOURS.

LEGEND

- ⊗ = PLASTIC TRAFFIC DRUM (10' SPACING O.C.)
- ▬ = TEMPORARY SIGN POST
- ✳ = PORTABLE FLASHING BEACON
- ⟶ = TRAFFIC FLOW DIRECTION

OK as noted on plans
Dodgie
8/4/12

SIGN PANEL SIZE	
A	48" X 48"
D	48" X 24"
H	36" X 36"
K	36" X 18"
Q	24" X 24"
R	24" X 18"

PRELIMINARY
NOT
ISSUED FOR CONSTRUCTION

MICROFILM

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	08/27/12	ISSUED FOR PERMIT	41640623	DOC	SKL	DKY	

REVISIONS

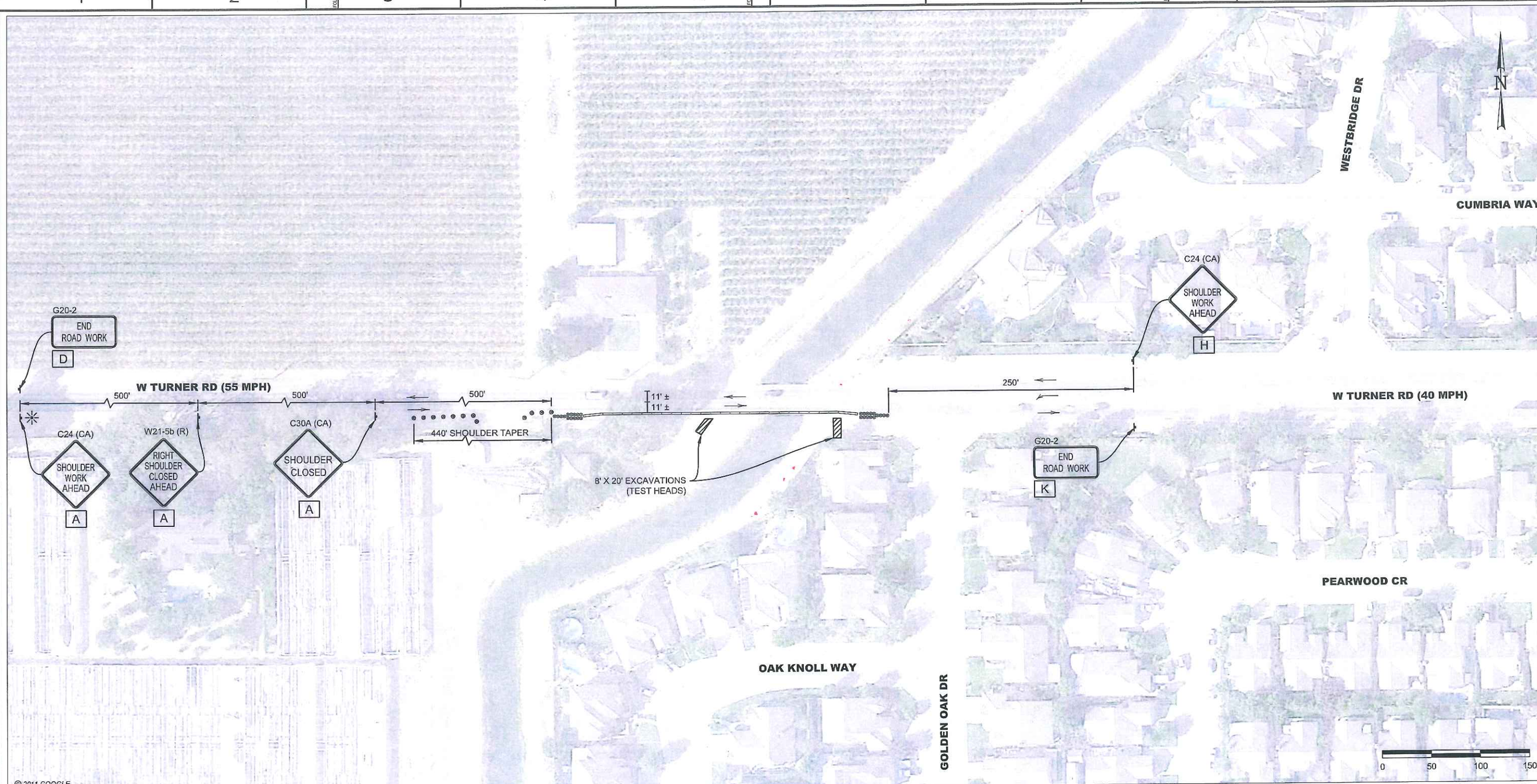
APPROVED BY	GM 41640623	
	SUPV	
	DSGN	SKL
DOC	DWN	DOC
	CHKD	SKL
SKL	QK	DKY
DKY	DATE 08/27/12	
	SCALES	AS SHOWN

HYDROTEST TIM–136–12
DFM 1614–01, LOCATION B CONFIGURATION 1
MP 0.9894 – 1.35
CITY OF LODI, CALIFORNIA
SAN JOAQUIN COUNTY, CALIFORNIA
PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

BILL OF MATL
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 1 OF 6 SHEETS
41640623 0

C:\Users\Station\Desktop\TIM-136\TIM-136_LOC-B1.dwg, 8/27/2012 2:26:57 PM

PS-12-0230



CONTRACTOR NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND CALTRANS STANDARD PLANS AND SPECIFICATIONS.
2. THE LOCAL FIRE DEPARTMENT, SHERIFF/POLICE DEPARTMENT, CALIFORNIA HIGHWAY PATROL, LOCAL SCHOOL DISTRICT, TRANSIT SERVICE PROVIDERS AND UNITED STATES POSTAL SERVICE SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF CONSTRUCTION WORK.
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO EXISTING IMPROVEMENTS RESULTING FROM THE CONTRACTOR'S OPERATION. THIS REPAIR SHALL INCLUDE ALL CONSTRUCTION AND MATERIALS TO RESTORE THE SITE TO EXISTING CONDITIONS.
4. EACH ADVANCED WARNING SIGN ON EACH SIDE OF THE ROADWAY SHALL BE EQUIPPED WITH AT LEAST TWO FLAGS. FLASHING BEACONS SHALL BE PLACED AT THE LOCATION INDICATED FOR LANE CLOSURE DURING HOURS OF DARKNESS.
5. ALL WORKERS SHALL BE EQUIPPED WITH A REFLECTIVE VEST AND HARD HAT. ALL FLAGGERS SHALL ALSO BE EQUIPPED WITH A C28 "STOP/SLOW" PADDLE AND SHALL BE TRAINED IN THE PROPER FUNDAMENTALS OF FLAGGING TRAFFIC.
6. NO PARKING SIGNS SHALL BE PLACED 72 HOURS PRIOR TO SET UP. SIGNS SHALL BE POSTED EVERY 20 LINEAR FEET OF OCCUPIED SPACE WITH AT LEAST ONE SIGN AT EACH END OF OCCUPIED SPACE.
7. ANY CONFLICTING SIGNS WILL BE COVERED FOR THE LENGTH OF THE JOB.
8. CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE AND DRIVEWAY ACCESS AT ALL TIMES.
9. Y&C TRANSPORTATION CONSULTANTS ASSUMES NO LIABILITY WHEN CONTRACTOR DOES OWN SET UP OR MAKES CHANGES TO THE ORIGINAL TRAFFIC CONTROL PLAN.
10. CITY/COUNTY ENGINEER OR HIS REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO ASSURE PUBLIC SAFETY.
11. TRAFFIC CONTROL IS TO BE IN OPERATION 24 HOURS A DAY, 7 DAYS A WEEK DURING THE LENGTH OF THE JOB UNLESS OTHERWISE NOTED.
12. CONTRACTOR SHALL FENCE EXCAVATED AREA AND PROVIDE PROTECTION AGAINST PEDESTRIAN ACCESS DURING NON-WORKING HOURS.

LEGEND

- = TEMPORARY SIGN POST
- = TEMPORARY CONCRETE BARRIER (TYPE K)
- = CRASH CUSHION (TB14 ARRAY)
- = TRAFFIC FLOW DIRECTION
- = PLASTIC TRAFFIC DRUM (10' SPACING O.C.)

SIGN PANEL SIZE	
A	48" X 48"
D	48" X 24"
H	36" X 36"
K	36" X 18"
Q	24" X 24"
R	24" X 18"

PRELIMINARY
NOT
ISSUED FOR CONSTRUCTION

MICROFILM

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	08/27/12	ISSUED FOR PERMIT	41640623	DOC	SKL	DKY	

REVISIONS

APPROVED BY	GM 41640623
	SUPV
	DSGN SKL
DOC	DWN DOC
	CHKD SKL
SKL	OK DKY
DKY	DATE 08/27/12
	SCALES AS SHOWN

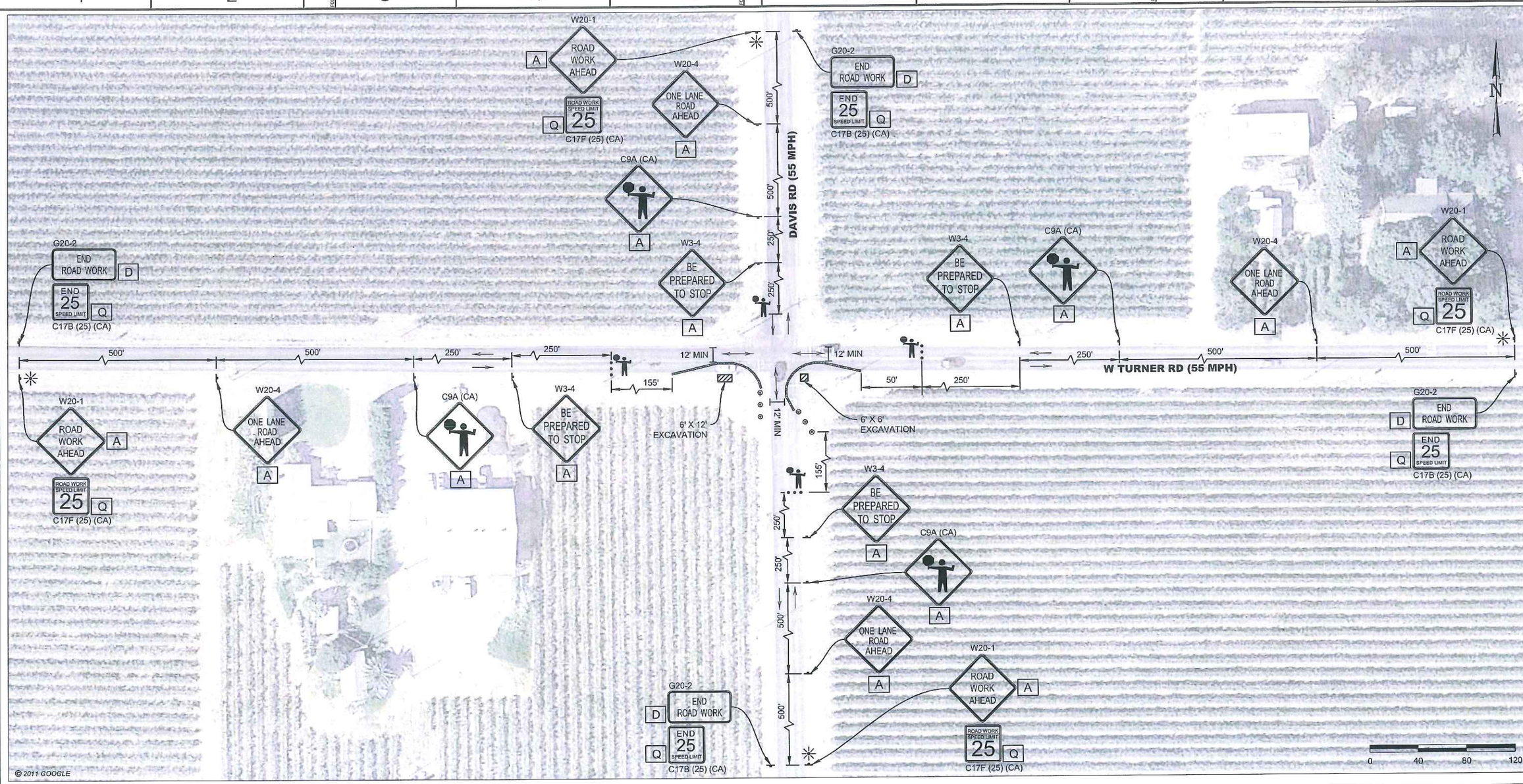
HYDROTEST TIM-136-12
DFM 1614-01, LOCATION B CONFIGURATION 2
MP 0.9894 – 1.35
CITY OF LODI, CALIFORNIA
SAN JOAQUIN COUNTY, CALIFORNIA
PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

BILL OF MATL
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 2 OF 6 SHEETS

41640623 | 0

C:\Users\Station\Desktop\TIM-136\TIM-136_LOC-B2.dwg, 8/27/2012 2:31:11 PM

PS-12-02130



CONTRACTOR NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND CALTRANS STANDARD PLANS AND SPECIFICATIONS.
2. THE LOCAL FIRE DEPARTMENT, SHERIFF/POLICE DEPARTMENT, CALIFORNIA HIGHWAY PATROL, LOCAL SCHOOL DISTRICT, TRANSIT SERVICE PROVIDERS AND UNITED STATES POSTAL SERVICE SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF CONSTRUCTION WORK.
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO EXISTING IMPROVEMENTS RESULTING FROM THE CONTRACTOR'S OPERATION. THIS REPAIR SHALL INCLUDE ALL CONSTRUCTION AND MATERIALS TO RESTORE THE SITE TO EXISTING CONDITIONS.
4. EACH ADVANCED WARNING SIGN ON EACH SIDE OF THE ROADWAY SHALL BE EQUIPPED WITH AT LEAST TWO FLAGS. FLASHING BEACONS SHALL BE PLACED AT THE LOCATION INDICATED FOR LANE CLOSURE DURING HOURS OF DARKNESS.
5. ALL WORKERS SHALL BE EQUIPPED WITH A REFLECTIVE VEST AND HARD HAT. ALL FLAGGERS SHALL ALSO BE EQUIPPED WITH A C28 "STOP/SLOW" PADDLE AND SHALL BE TRAINED IN THE PROPER FUNDAMENTALS OF FLAGGING TRAFFIC.
6. NO PARKING SIGNS SHALL BE PLACED 72 HOURS PRIOR TO SET UP. SIGNS SHALL BE POSTED EVERY 20 LINEAR FEET OF OCCUPIED SPACE WITH AT LEAST ONE SIGN AT EACH END OF OCCUPIED SPACE.
7. ANY CONFLICTING SIGNS WILL BE COVERED FOR THE LENGTH OF THE JOB.
8. CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE AND DRIVEWAY ACCESS AT ALL TIMES.
9. Y&C TRANSPORTATION CONSULTANTS ASSUMES NO LIABILITY WHEN CONTRACTOR DOES OWN SET UP OR MAKES CHANGES TO THE ORIGINAL TRAFFIC CONTROL PLAN.
10. CITY/COUNTY ENGINEER OR HIS REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO ASSURE PUBLIC SAFETY.
11. TRAFFIC CONTROL IS TO BE IN OPERATION 24 HOURS A DAY, 7 DAYS A WEEK DURING THE LENGTH OF THE JOB UNLESS OTHERWISE NOTED.
12. CONTRACTOR SHALL FENCE EXCAVATED AREA AND PROVIDE PROTECTION AGAINST PEDESTRIAN ACCESS DURING NON-WORKING HOURS.

LEGEND

- • = CHANNELIZER (10' SPACING O.C.)
- ◎ = PLASTIC TRAFFIC DRUM (10' SPACING O.C.)
- = TEMPORARY SIGN POST
- = PLASTIC WATER FILLED BARRIER
- ✳ = PORTABLE FLASHING BEACON
- → = TRAFFIC FLOW DIRECTION

SIGN PANEL SIZE	
A	48" X 48"
D	48" X 24"
Q	24" X 24"

PRELIMINARY
NOT
ISSUED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	08/27/12	ISSUED FOR PERMIT	41640623	DOC	SKL	DKY	

REVISIONS

APPROVED BY	GM 41640623
	SUPV
	DSGN SKL
DOC	DWN DOC
	CHKD SKL
SKL	DK DKY
DKY	DATE 08/27/12
	SCALES AS SHOWN

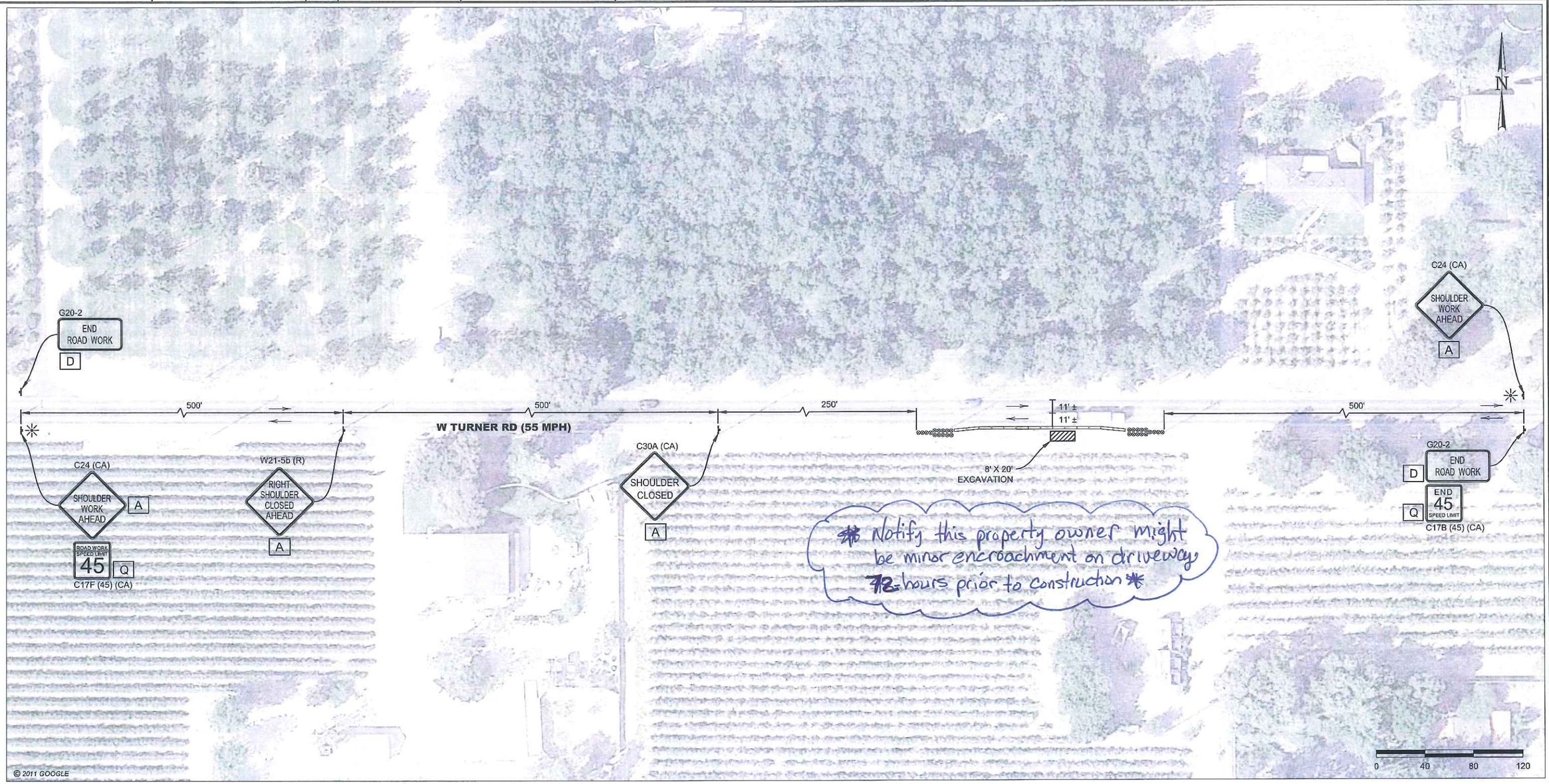
HYDROTEST TIM-136-12
DFM 1614-01, LOCATION E
MP 0.9894 – 1.35
SAN JOAQUIN COUNTY, CALIFORNIA

PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

MICROFILM
BILL OF MATL
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 4 OF 6 SHEETS
41640623 0

C:\Users\Station\Desktop\TIM-136\TIM-136_LOC-E.dwg, 8/27/2012 2:46:55 PM

PS-12-02130



CONTRACTOR NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND CALTRANS STANDARD PLANS AND SPECIFICATIONS.
2. THE LOCAL FIRE DEPARTMENT, SHERIFF/POLICE DEPARTMENT, CALIFORNIA HIGHWAY PATROL, LOCAL SCHOOL DISTRICT, TRANSIT SERVICE PROVIDERS AND UNITED STATES POSTAL SERVICE SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF CONSTRUCTION WORK.
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO EXISTING IMPROVEMENTS RESULTING FROM THE CONTRACTOR'S OPERATION. THIS REPAIR SHALL INCLUDE ALL CONSTRUCTION AND MATERIALS TO RESTORE THE SITE TO EXISTING CONDITIONS.
4. EACH ADVANCED WARNING SIGN ON EACH SIDE OF THE ROADWAY SHALL BE EQUIPPED WITH AT LEAST TWO FLAGS. FLASHING BEACONS SHALL BE PLACED AT THE LOCATION INDICATED FOR LANE CLOSURE DURING HOURS OF DARKNESS.
5. ALL WORKERS SHALL BE EQUIPPED WITH A REFLECTIVE VEST AND HARD HAT. ALL FLAGGERS SHALL ALSO BE EQUIPPED WITH A C28 "STOP/SLOW" PADDLE AND SHALL BE TRAINED IN THE PROPER FUNDAMENTALS OF FLAGGING TRAFFIC.
6. NO PARKING SIGNS SHALL BE PLACED 72 HOURS PRIOR TO SET UP. SIGNS SHALL BE POSTED EVERY 20 LINEAR FEET OF OCCUPIED SPACE WITH AT LEAST ONE SIGN AT EACH END OF OCCUPIED SPACE.
7. ANY CONFLICTING SIGNS WILL BE COVERED FOR THE LENGTH OF THE JOB.
8. CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE AND DRIVEWAY ACCESS AT ALL TIMES.
9. Y&C TRANSPORTATION CONSULTANTS ASSUMES NO LIABILITY WHEN CONTRACTOR DOES OWN SET UP OR MAKES CHANGES TO THE ORIGINAL TRAFFIC CONTROL PLAN.
10. CITY/COUNTY ENGINEER OR HIS REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO ASSURE PUBLIC SAFETY.
11. TRAFFIC CONTROL IS TO BE IN OPERATION 24 HOURS A DAY, 7 DAYS A WEEK DURING THE LENGTH OF THE JOB UNLESS OTHERWISE NOTED.
12. CONTRACTOR SHALL FENCE EXCAVATED AREA AND PROVIDE PROTECTION AGAINST PEDESTRIAN ACCESS DURING NON-WORKING HOURS.

LEGEND

- = TEMPORARY SIGN POST
- = TEMPORARY CONCRETE BARRIER (TYPE K)
- = CRASH CUSHION (TB14 ARRAY)
- = PORTABLE FLASHING BEACON
- = TRAFFIC FLOW DIRECTION

SIGN PANEL SIZE	
A	48" X 48"
D	48" X 24"
Q	24" X 24"

PRELIMINARY
NOT
ISSUED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	08/27/12	ISSUED FOR PERMIT	41640623	DOC	SKL	DKY	

REVISIONS

APPROVED BY	
GM	41640623
SUPV	
DSGN	SKL
DWN	DOC
CHKD	SKL
OK	DKY
DATE	08/27/12
SCALES	AS SHOWN

DOC
SKL
DKY

HYDROTEST TIM-136-12
DFM 1614-01, LOCATION F
MP 0.9894 – 1.35
SAN JOAQUIN COUNTY, CALIFORNIA

PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

MICROFILM
BILL OF MATL
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 5 OF 6 SHEETS
41640623 0

C:\Users\Station\Desktop\TIM-136\TIM-136_LOC-F.dwg, 8/27/2012 2:45:44 PM

PS-12-02130

CP AREA # F-05
WALL MAP 2868, 2869
PLAT C1-C8
SAN JOAQUIN COUNTY

HYDROTEST TIM-136-12
DFM-1614-01, MP 0.016 - 3.932

EXPENSE ORDER # 41640623
CAPITAL ORDER # 30920175
CAPITAL ORDER # 30889963

SCHEDULE OF SHEETS

SHEET 1 - GENERAL / CONSTRUCTION NOTES
SHEET 2 - HYDROTEST PLAN VIEW / TEST LOCATIONS
SHEET 3 - TAP LOCATIONS
SHEET 4 - TAP LOCATIONS
SHEET 5 - TAP LOCATIONS
SHEET 6 - HYDROTEST PROFILE VIEW / PIPELINE FEATURES
SHEET 7 - CONSTRUCTION DETAILS
SHEET 8 - CONSTRUCTION DETAILS
SHEET 9 - CONSTRUCTION DETAILS
SHEET 10 - MATERIAL OF RECORD / BILL OF MATERIALS

VICINITY SKETCH
NOT TO SCALE

SUMMARY OF PROPOSED WORK:

TEST 6" DFM 1614-01 FROM MP 0.016 TO MP 3.932 PER DRAWINGS AND STRENGTH TEST PRESSURE REPORTS (#41640623) AND MATERIAL OF RECORD DRAWING #41640623 SHEET 10 OF 10.

EXPENSE ORDER # 41640623

1. INSTALL 25' OF 6.625"OD x 0.188"WT, API 5L, X-52, HFW, FBE COATED PIPE.
2. INSTALL 2'-8" OF 3.500"OD x 0.154"WT, API 5L, GR B, SMLS PIPE.
3. REMOVE 16' OF 6.625"OD x 0.188"WT, 30,000 SMYS, SMLS PIPE INSTALLED ON GM 48478 (1934).
4. REMOVE 4' OF 6.625"OD x 0.188"WT, X-42, ERW PIPE INSTALLED ON GM 171044 (1969).
5. REMOVE 5' OF 6.625"OD x 0.188"WT, API 5L, 30,000 SMYS, SMLS PIPE INSTALLED ON GM 452629 (1969).
6. REMOVE 2' OF 4.500"OD x 0.237"WT, API 5L, GR B, SMLS PIPE INSTALLED ON GM 30677563 (2009).
7. REMOVE 2'-8" OF 3.500"OD x 0.216"WT, API 5L, GR B, SMLS PIPE INSTALLED ON GM 449843 (1969).

CAPITAL ORDER # 30889963-REPLACE TAP VALVES AND PIPING

1. INSTALL 3' OF 8.625"OD x 0.188"WT, API 5L, X-52, HFW BARE PIPE.
2. INSTALL 20'-3" OF 6.625"OD x 0.188"WT, API 5L, X-52, HFW BARE PIPE.
3. INSTALL TWO 6" BALL VALVES, ANSI 300.
4. REMOVE 11'-9" OF 8.625" OD x 0.188" WT, 30,000 SMYS, SMLS PIPE INSTALLED ON GM 171044 (1969).
5. REMOVE 8'-6" OF 6.625"OD x 0.216"WT, 30,000 SMYS, SMLS PIPE INSTALLED ON GM 171044 (1969).
6. REMOVE 3" OF 6.625"OD x 0.216"WT, 30,000 SMYS, SMLS PIPE INSTALLED ON GM 48478 (1934).
7. REMOVE TWO 6" PCF LSF INSTALLED GM 171044 (1969).

CAPITAL ORDER # 30920175-PIGGABILITY UPGRADES

1. INSTALL 20' OF 6.625"OD x 0.188"WT, API 5L, X-52, HFW BARE PIPE.
2. INSTALL 2'-6" OF 3.500" OD x 0.216"WT, API 5L, GR B, SMLS, BARE PIPE.
3. INSTALL 5'-3" OF 4.500"OD x 0.237"WT, API 5L, GR B, SMLS, FBE COATED PIPE.
4. INSTALL 1' OF 2.375"OD X 0.154"WT, API 5L, GR B, SMLS, BARE PIPE.
5. INSTALL 1 EA. 6" PCF, LSF, MUELLER #H-17256, 720 PSIG PRESSURE RATING.
6. INSTALL 1 EA. 2" BALL VALVE, ANSI 300.
7. REMOVE 1' OF 6.625"OD x 0.188"WT, X-42, ERW PIPE INSTALLED ON GM 171044 (1969).
8. REMOVE 12' OF 6.625"OD x 0.188"WT, API 5L, 30,000 SMYS, SMLS PIPE INSTALLED ON GM 48478 (1934).
9. REMOVE 7' OF 6.625"OD x 0.188"WT, API 5L, 30,000 SMYS, SMLS PIPE INSTALLED ON GM 106893 (1949).
10. REMOVE 2'-6" OF 3.500"OD x 0.154"WT, API 5L, 30,00 SMYS, SMLS PIPE INSTALLED ON GM 44983 (1969).
11. REMOVE 6'-4" OF 4.500"OD x 0.237"WT, API 5L, GR B, SMLS PIPE INSTALLED ON GM 30677563 (2009).
12. REMOVE 2' OF 2.375"OD x 0.154"WT, API 5L, 30,000 SMYS, SMLS PIPE INSTALLED ON GM 48478 (1934).
7. REMOVE 2 EA. 6" PCF LSF INSTALLED ON GM 106893 (1949).
8. REMOVE 1 EA. 6" PCF LSF INSTALLED ON GM 171044 (1969).
9. REMOVE 1 EA. 6" BOTTOM TAP PCF, LSF INSTALLED ON GM 30677563 (2009).
10. REMOVE 1 EA. 6" BOTTOM TAP PCF, LSF INSTALLED ON GM 449843 (1969).
11. REMOVE 1 EA. 6" BOTTOM TAP PCF, LSF INSTALLED ON GM 448478 (1934).
12. REMOVE 1 EA. 2" PCF, LSF INSTALLED GM 48478 (1934).
13. REMOVE 1 EA. 2" PLUG VALVE INSTALLED GM 48478 (1934).

SEQUENCE OF OPERATIONS:

1. PRIOR TO TAKING PIPELINE CLEARANCE THE FOLLOWING MUST BE PERFORMED:
   A. PG&E T&R TO CHECK ANY DRIPS IN SHUT-IN SEGMENT FOR PRESENCE OF PIPELINE LIQUIDS.
   B. CONTRACTOR TO REMOVE 2' OF PIPE WRAP AT EACH END OF CUT OUT SECTIONS AND SANDBLAST TO NEAR WHITE WHERE DESIGNATED ON DRAWINGS FOR H-FORM INSPECTION.
   C. H-FORM INSPECTION TO BE PERFORMED ON PIPELINE BY PG&E APPROVED VENDOR. PERFORM H-FORM INSPECTION PRIOR TO REMOVAL OF CUT-OUT SECTION.
   D. PERFORM H-FORM INSPECTION AS DESIGNATED ON DRAWINGS. IF UT W.T. MEASUREMENTS IN SECTION 2.5 DO NOT MATCH EXISTING PIPE SPECIFICATIONS AS SHOWN ON DRAWINGS, IMMEDIATELY NOTIFY ENGINEER.
   E. COMPLETE A-FORMS ON ALL EXPOSED PIPE AND INCLUDE IN AS-BUILT PACKAGE.
   F. G.C. GAS TO INSTALL SAVE-A-VALVES FOR OIL TESTING AND SNIFF HOLES WHERE DESIGNATED IN THE TIE-IN PROCEDURE. G.C. GAS FOREMAN TO CONFIRM LOCATION AND NUMBER OF SAVE-A-VALVE LOCATIONS AND ENSURE WELD PRESSURE CALCULATIONS ARE PROVIDED BY ENGINEERING PRIOR TO WELDING SAVE-A-VALVES ON PIPELINE.

SEQUENCE OF OPERATIONS (CONT.):

2. AFTER CLEARANCE CONTRACTOR TO TRANSPORT 3' OF EACH H-FORM TESTED PIPE SEGMENT TO 2000 CROWS LANDING RD., MODESTO. UTILIZE CHAIN OF CUSTODY PROCESS FOR ALL SHIPMENTS.
3. UPON ARRIVAL AT MODESTO, ATS TO PERFORM FURTHER TESTING AND ANALYSIS OF CUT-OUT SECTIONS.
4. SEE TIM-136-12 TEST PROCEDURES FOR SEQUENCING OF HYDROSTATIC & NITROGEN TEST TASKS.

CONSTRUCTION NOTES:

1. WELDING REQUIREMENTS:
   ALL ARC WELDING IS TO BE PERFORMED IN ACCORDANCE WITH GAS STANDARD D-22.
2. HYDROSTATIC TEST REQUIREMENTS:
   HYDROSTATIC TESTING SHALL MEET PRESSURE AND DURATION REQUIREMENTS OF GAS STANDARD A-34 AND SHALL BE CONDUCTED IN ACCORDANCE WITH GAS STANDARD A-37. SEE ATTACHED STPR AND SITE SPECIFIC TEST PROCEDURE.
3. ALL WELDS THAT HAVE NOT BEEN STRENGTH TESTED AND ALL NON-WELDED FITTINGS SHALL BE SOAP TESTED AT 100 PSIG AND OPERATING PRESSURE.
4. PAINTING AND COATING REQUIREMENTS:
   ALL EXPOSED PIPE AND FITTINGS ARE TO BE PAINTED IN ACCORDANCE WITH GAS STANDARD E-30. ALL COATING ON BURIED PIPE AND FITTINGS ARE TO BE APPLIED IN ACCORDANCE WITH GAS STANDARD E-35. FOR COATING SELECTIONS ON BURIED PIPE SEE DIRECT BURIAL SELECTIONS TABLE.
5. CALL USA AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION (811).
6. LOCATION OF EXISTING SUBSTRUCTURES ARE APPROXIMATE. BEFORE POWER OR HEAVY EQUIPMENT IS USED FOR EXCAVATION, THE EXACT DEPTH AND LOCATION OF SUBSTRUCTURES SHALL FIRST BE DETERMINED BY HAND EXCAVATION, IF NECESSARY.
7. ALL BENDS ARE SMOOTH FIELD BENDS EXCEPT WHERE ELBOWS ARE NOTED. FIELD BEND SHALL BE MADE IN ACCORDANCE WITH GAS STANDARD A-36 SECTION 4-D.
8. ALL ANGLES SHOWN IN THE PLAN AND PROFILE ARE APPROXIMATE AND SHALL BE CUT TO SUIT FIELD CONDITION.
9. THIS PIPELINE MUST BE INSTALLED WITH AT LEAST 12 INCHES OF CLEARANCE FROM ANY OTHER UNDERGROUND STRUCTURE NOT ASSOCIATED WITH THE PIPELINE.
10. COATING REMOVAL:
    BEFORE REMOVING THE PIPE COATING ON PRE-1972 PIPE (DOES NOT INCLUDE PLASTIC TAPE OR FUSION BONDED EPOXY COATINGS) THE FOLLOWING STEPS SHALL BE TAKEN:
    -FOR ALL NON-EMERGENCY WORK, PRE-1972 PIPE WRAP MUST BE EVALUATED TO DETERMINE IF IT CONTAINS ASBESTOS PRIOR TO REMOVAL.
    -FOR EMERGENCY WORK ON PRE-1972 PIPE, ASSUME THE WRAP CONTAINS > 1% ASBESTOS UNTIL THE WRAP CAN BE TESTED.
    -OBTAIN SAMPLES OF THE WRAP, AND HAVE SAMPLES TESTED FOR ASBESTOS IN ACCORDANCE WITH RP 4711.
    -TEST RESULTS ARE TO BE INCLUDED WITH AS-BUILTS.
    -FOLLOW PROCEDURE IN RP 4711 FOR REMOVAL OF PIPE WRAP.
11. BONDING CABLES TO BE INSTALLED ACROSS PIPELINE CUT-OUTS AT ALL LOCATIONS THE PIPELINE IS SEVERED TO INSTALL TEST HEADS PRIOR TO REMOVAL. CHAIN CLAMPS, MAGNETIC CLAMPS, OR OTHER CONSTRUCTION MANAGEMENT APPROVED CLAMPS AND #6 (MIN.) STRANDED COPPER CABLE SHALL BE UTILIZED.
12. ALL BALL VALVES USED FOR TAPS IN TEST SECTION ARE TO BE CLOSED 50% FROM FULL OPEN POSITION PRIOR TO FILL AND FOR DURATION OF STRENGTH TEST. ALL PLUG VALVES USED FOR TAPS/BLOWOFFS IN TEST SECTION ARE TO BE IN FULL OPEN POSITION PRIOR TO FILL AND FOR DURATION OF STRENGTH TEST UNLESS SPECIFICALLY CALLED OUT TO BE IN CLOSED POSITION ON DRAWING.
13. ALL EXCAVATIONS WITHIN EXISTING STATIONS SHALL BE HAND DUG OR EXCAVATED USING SOFT DIG METHODS (e.g. VACUUM EXCAVATIONS OR SIMILAR).
14. COPIES OF REFERENCE DRAWINGS ARE AVAILABLE TO FIELD PERSONNEL (PG&E, INSPECTION OR CONTRACTOR) ON AN AS NEEDED BASIS. CONTACT THE ASSIGNED ENGINEER IDENTIFIED IN CONTACTS TO OBTAIN COPIES OF ANY REFERENCE DRAWINGS.

GENERAL NOTES:

1. THIS DRAWING HAS BEEN CREATED BY REVIEW OF THE AS-BUILT DRAWINGS & RECORDS. ACCURACY IS DEPENDENT UPON THE SOURCE DOCUMENTS LISTED ON THE REFERENCE DRAWINGS.
2. "R" STATIONING ON THIS DRAWING DENOTES "REFERENCE" STATIONING AND IS A RESULT OF PG&E GIS SHAPEFILE OVERLAID UPON GOOGLE EARTH IMAGERY AND MIGHT NOT ACCURATELY DEPICT EXACT DISTANCES. FIELD VERIFY ALL DISTANCES.
3. PIPELINE CROSSES TRANSMISSION ELECTRIC R/W NEAR LOCATION A ON THE WEST END OF TIM-136-12. USE CAUTION TO MAINTAIN SAFE WORKING DISTANCE FROM OVERHEAD ELECTRIC TRANSMISSION LINES WHEN USING CRANES, SIDEBOOMS, OR OTHER LIFTING EQUIPMENT. MINIMUM SAFE WORKING DISTANCE IS 20' FROM HIGH VOLTAGE ELECTRIC CONDUCTORS.
4. DISTANCES TO ALL UTILITIES SHOWN ON DRAWING ARE APPROXIMATE BASED UPON REVIEW OF PG&E & OTHER UTILITY/AGENCY DRAWINGS & AS-BUILTS. CONTRACTOR TO CALL USA TO HAVE LOCATION OF THESE FACILITIES MARKED AND POTHOLE TO EXPOSE/VERIFY LOCATION.

CONTACT INFORMATION:

CONSTRUCTION MANAGER -------- GLEN YOUNG (307) 631-2811
T&R SUPERVISOR ---------- GARY KRAHMER (209) 932-6555
CLEARANCE SUPERVISOR ------ GARY KRAHMER (209) 932-6555
PROJECT COORDINATOR ---------- JOSH KIRTLEY (510) 230-3069
LEAD ENGINEER ---------- JOEL PASILLAS (530) 646-5275
ENGINEER ---------- CHRIS GAMBETTI (916) 517-8088
H-FORM ---------- ANDRE FILIATRAULT, GE (832) 457-1252
MATERIALS (PIPE) ---------- MICHAEL LACHINA (510) 468-1924
MATERIALS (FITTINGS) -------- MICHAEL DE HART (209) 728-4603
MATERIALS CHAIN OF CUSTODY --- MICHAEL PAINTER (209) 275-7241
CORROSION ENGINEER -------- JONATHAN RIGOTTI (530) 902-0147

CONTRACTOR

WELDING INSPECTED PER PG&E GAS STANDARD D-40
VISUAL _____ ☐
MAGNETIC PARTICLE _____ ☐
INSPECTOR _____
DATE _____

G.C. GAS

WELDING INSPECTED PER PG&E GAS STANDARD D-40
VISUAL _____ ☐
MAGNETIC PARTICLE _____ ☐
INSPECTOR _____
DATE _____

DIRECT BURIAL COATING SELECTIONS
LISTED IN ORDER OF PREFERENCE

MAIN LINE COATING	FBE
MINOR REPAIRS	PROTAL 7200, POWERCRETE J, DEVGRIP 238
TIE-IN WELDS	PROTAL 7200, POWERCRETE J, DEVGRIP 238
GIRTH WELDS	PROTAL 7200, POWERCRETE J, DEVGRIP 238
BUTT WELDED FITTINGS	PROTAL 7200, POWERCRETE J, DEVGRIP 238
VALVE ASSEMBLIES	DEVGRIP 238
SHORT SEGMENTS OF PIPE	PROTAL 7200, POWERCRETE J, DEVGRIP 238
AIR-TO-SOIL TRANSITIONS	DEVGRIP 238, POWERCRETE J
PRESSURE CONTROL BODY FITTINGS	PROTAL 7200 FLANGE WAX TAPE
TIE-INS/COATING TRANSITIONS	PROTAL 7200, WAXTAPE, POLYKEN TAPE

BORED COATING SELECTIONS
LISTED IN ORDER OF PREFERENCE

MAIN LINE COATING	ARC APPLIED OVER FBE
MINOR REPAIRS	PROTAL 7200, POWERCRETE J
GIRTH WELDS	PROTAL 7200, POWERCRETE J

NOTES:

1) CONTACT THE RESPONSIBLE PIPELINE ENGINEER TO REQUEST A VARIANCE FROM THE ABOVE COATING SELECTIONS
2) ALL COATINGS ARE TO BE APPLIED IN ACCORDANCE WITH GS&S E-30 AND E-35

EXPENSE PSRS# 26326
CAPITAL PSRS# 27162
CAPITAL PSRS# 25614

DESIGN & CONSTRUCTION REVIEW FOR INTERNAL CORROSION

DESCRIPTION	ACTION SELECTED	INITIAL	DATE
CORROSION ENGINEER HAS REVIEWED THIS LOCATION AND THERE IS NO KNOWN THREAT OF INTERNAL CORROSION. NO INTERNAL CORROSION DESIGN OR CONSTRUCTION CONSIDERATIONS ARE NECESSARY.			
INTERNAL CORROSION MAY BE A THREAT AND THE CONSTRUCTION DESIGNS HAVE BEEN REVIEWED WITH CORROSION ENGINEERING. DOCUMENTATION OF THE REVIEW AND ACTIONS TAKEN ARE IN THE JOB PACKAGE AND INCORPORATED IN THIS DESIGN.			

NOTIFIED U.S.A.
DATE _____
TICKET NUMBER _____
BY _____

Installation Tested or Inspected and Noted on Drawing. All Levels Satisfactory per PG&E GS&S 0-16
Qualified Employee _____ Date _____
Corrosion mechanic's signature is required when a CPA boundary is within the scope of the project

COPY

UNDERGROUND SERVICE ALERT USA CALL BEFORE YOU DIG.
CALL: 811

REFERENCE DRAWINGS:

385160 CHANGE 65 - - - OPERATING MAP
081929 REV. 15 - - OPERATING DIAGRAM TURNER RD. REG. STATION
381495 SHT 1 - - - 6" H.P. MAIN ON TURNER ROAD. LODI UNINC.
LE#GL 8-8 SHTS 1-8 - - - 8" DISTRIBUTION REINFORCEMENT TURNER RD., LODI DISTRIBUTION LINE VALVES.
30850391 SHT 1-3 - - - TURNER RD. AND DEVRIES RD. INSTALL 4" PL. MAIN AND REPLACE (11) GAS SERVICES
LE 1611G91209 - - INSTALL NEW 2" TAP & 2" FIRE CONTROL VALVE. LO-HP-10
30677563 SHT 1-3 - - - LODI HIGH PRES. REG STATION, LO-HP-97
30613015 - - - REPLACE REGULATORS LO-HP 11
1611G05154 - - - INSTALL NEW GAS FACILITIES TO SERVE GENERAL MILLS-LODI
0731N9-4172 SHTS 1-3 - - - TURNER RD. PHASE #3-PRP INSTALL 6" STEEL MAIN
30850390 REV. 1 - ABANDON HPR'S
30850392 REV. 0 SHT 1-3 - CITY OF LODI-INSTALL 4495' OF 4" PLASTIC GAS MAIN
30850393 REV. 1 SHT 1 - TURNER ROAD W/O WID CANAL

SAFETY
SAFETY PLEDGE
I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE OTHERS TO ACT SAFELY.

ISSUED FOR BID
NOT
ISSUED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	8/27/12	ISSUED FOR BID	41640623	PRC	CRG	JP	DF MAC

REVISIONS

APPROVED BY: GM 41640623; SUPV; DSGN; DWN PRC; CHKD CRG; OK JP; DATE; SCALES AS SHOWN

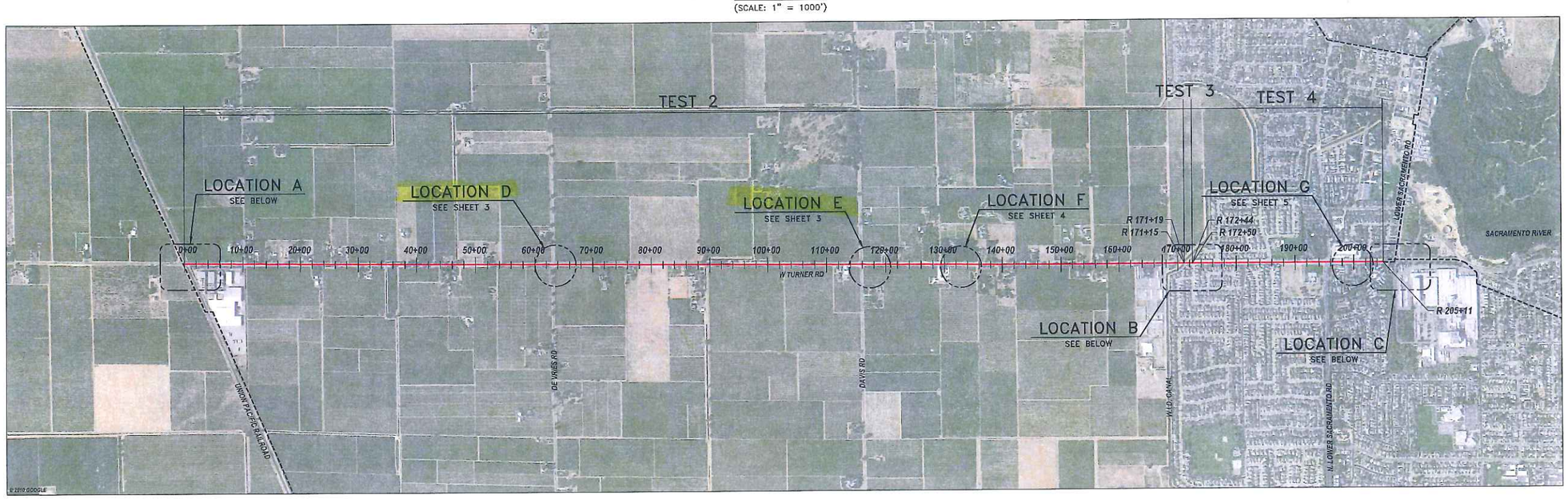
HYDROTEST TIM-136-12
DFM-1614-01
MP 0.016 - 3.932
LODI, CALIFORNIA

PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

MICROFILM
BILL OF MATL SHEET 10
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 01 OF 10 SHEETS
41640623 0

PS-12-02130

PLAN VIEW
(SCALE: 1" = 1000')

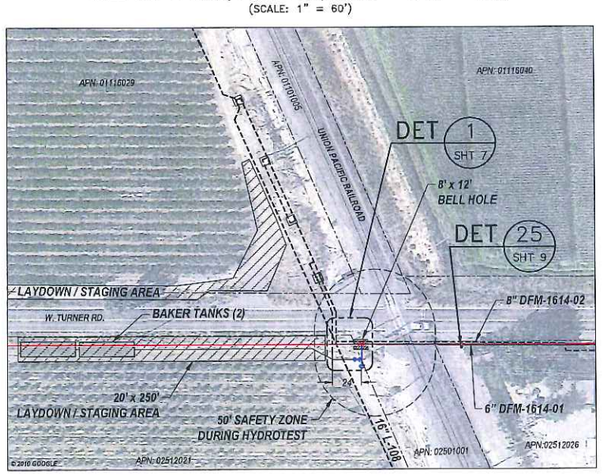


TEST 2, LOCATIONS A–B
ESTIMATED VOLUME OF WATER:
26,767 GALLONS.

TEST 3, LOCATION B
ESTIMATED VOLUME OF NITROGEN AT RAMP PRESSURE:
1,716 CUBIC FEET.

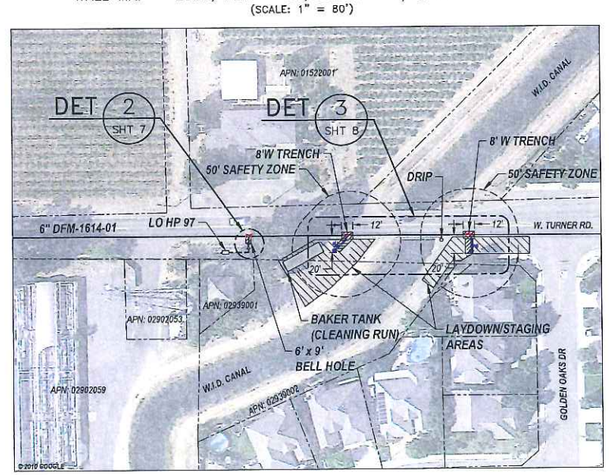
TEST 4, LOCATIONS B–C
ESTIMATED VOLUME OF WATER
REQUIRED TEST 4:
5,463 GALLONS.

LOCATION A
W. TURNER RD. & UPRR CROSSING
WALL MAP – 2868; PLAT – C6; BLOCK – 1; MP – 0.16
(SCALE: 1" = 60')

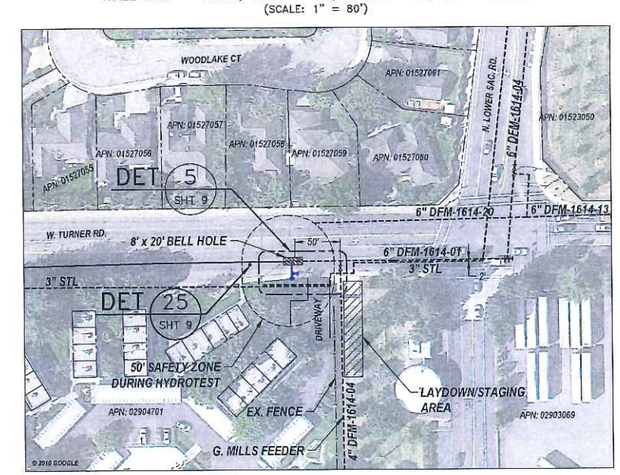


CAUTION: HIGH VOLTAGE ELECTRIC TRANSMISSION IN VICINITY OF LOCATION A. SEE GENERAL NOTE #3, PAGE 1. CONTRACTOR SHALL USE CAUTION TO MAINTAIN SAFE WORKING DISTANCE FROM OVER–HEAD HIGH VOLTAGE CONDUCTORS.

LOCATION B
W. TURNER RD. & GOLDEN OAKS DR.
WALL MAP – 2869; PLAT – C6; BLOCK – N/A; MP – 3.2335
(SCALE: 1" = 80')



LOCATION C
W. TURNER RD. & N. LOWER SAC. RD.
WALL MAP – 2869; PLAT – C7; BLOCK – 2; MP – 3.932
(SCALE: 1" = 80')



COPY

SAFETY
SAFETY PLEDGE
I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE OTHERS TO ACT SAFELY.

ISSUED FOR BID
NOT
ISSUED FOR CONSTRUCTION

UNDERGROUND SERVICE ALERT USA
CALL BEFORE YOU DIG.
CALL: 811

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	8/27/12	ISSUED FOR BID	41640623	PRC	CRG	JP	DF MAC

REVISIONS

APPROVED BY	
GM	41640623
SUPV	
DSGN	
DWN	PRC
CHKD	CRG
OK	JP
DATE	
SCALES	AS SHOWN

HYDROTEST TIM–136–12
DFM–1614–01
MP 0.016 – 3.932
LODI, CALIFORNIA

PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

MICROFILM
BILL OF MATL SHEET 10
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 02 OF 10 SHEETS
41640623 0

PS-12-02130

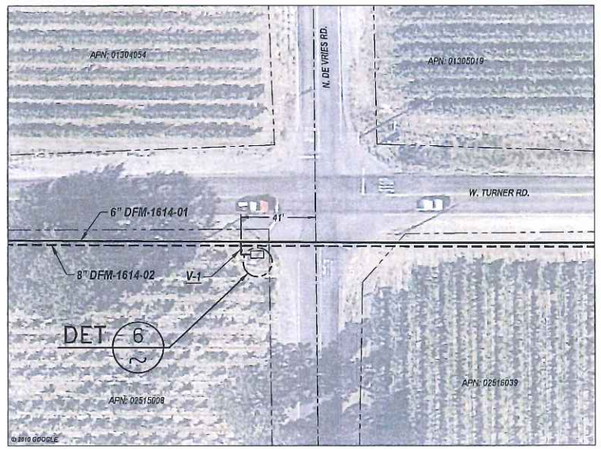
JOB NO. 30920175
BOM # 101

DESIGN CRITERIA

LOCATION CLASS 3
DESIGN FACTOR 0.5
FDP 720 PSIG 24.40 % SMYS
MAOP 300 PSIG 10.17 % SMYS
STRENGTH TEST PRESSURE
MAX. 740 PSIG 25.07 % SMYS
MIN. 660 PSIG 22.36 % SMYS
2655 PSIG=90% SMYS
TEST MEDIUM WATER
PIPE SPEC API 5L, X-52, HFW
O.D. 6.625"
W.T. 0.188"
WELD INSPECTION (GAS STD.D-40)*
☒RADIOGRAPHIC:
☐20% MIN. (% OF EACH WELDER'S DAILY WORK)
☒100%
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)

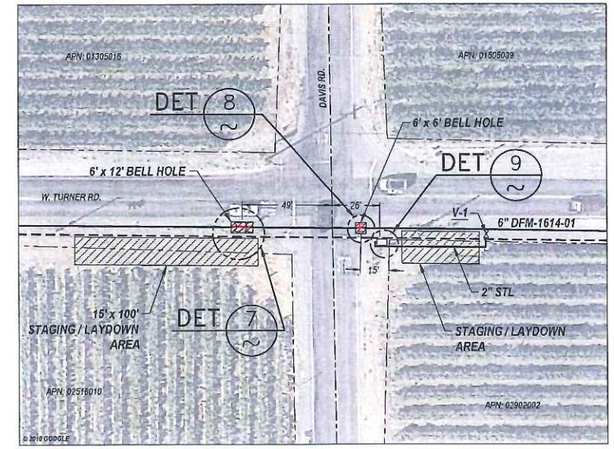
LOCATION D

W. TURNER RD. & N. DE VRIES RD.
WALL MAP – 2869; PLAT – C1; BLOCK – 1,2; MP – 1.213
(SCALE: 1" = 40')



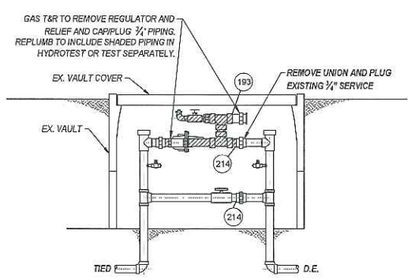
LOCATION E

W. TURNER RD. & DAVIS RD.
WALL MAP – 2869; PLAT – C3; BLOCK – 1; MP – 2.2373
(SCALE: 1" = 40')

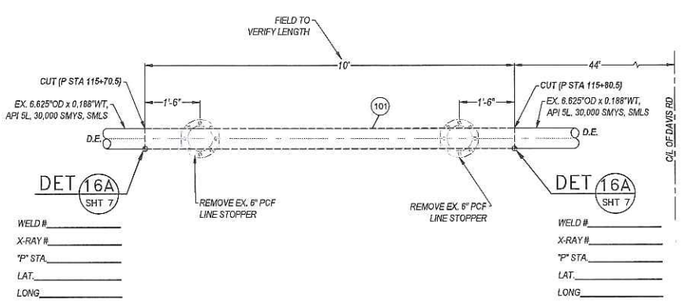


N

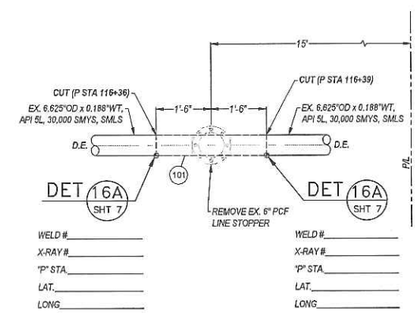
ALL WORK DEPICTED IN DETAILS 7 & 8 TO BE CHARGED TO CAPITAL ORDER #30920175
SEE STPR #30920175 TEST 2 (SHT 1 OF 1)



DETAIL 6 — ISOLATE 3/4" HPR SET-DREG 4913
NOT TO SCALE
LOC. D: W. TURNER R. & N. DE VRIES RD

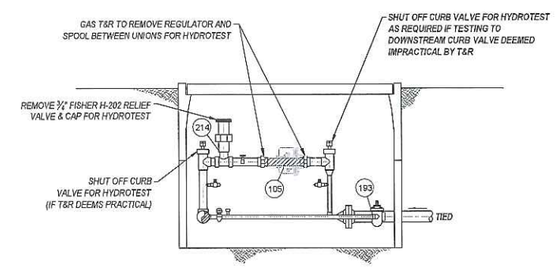


DETAIL 7 — REMOVE 6" PCF'S
SCALE: 1/2" = 1'
LOC E: W. TURNER RD & DAVIS RD



DETAIL 8 — REMOVE 6" PCF
SCALE: 1/2" = 1'
LOC E: W. TURNER RD & DAVIS RD

NOTE: IF PRACTICAL AND HPR CAN BE SATISFACTORLY ISOLATED FROM DISTRIBUTION PIPING, IT IS DESIRED TO TEST TO DOWNSTREM CURB VALVE



DETAIL 9 — ISOLATE 3/4" HPR SET-DREG 4914
NOT TO SCALE
LOC. E: W. TURNER RD & DAVIS RD

SAFETY

SAFETY PLEDGE
I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE OTHERS TO ACT SAFELY.

GM 48478 (1934)

EXIST PIPE SPECS
HEADER SIZE: 6.625"
PIPE SPECS: API-5L 30,000 SMYS,SMLS
WALL THICKNESS: 0.188"
PRESENT MAOP: 300
% SMYS @ MAOP: 17.62

MAXIMUM ALLOWABLE PRESSURE DURING WELDING (G.S.&S. D-22)
EVALUATE THE FOLLOWING OPERATING PRESSURE LIMITATIONS TO DETERMINE THE MAXIMUM ALLOWABLE PRESSURE PERMITTED DURING WELDING:

A) (300 PSIG) WHEN WELDING ON BODY OF THE PIPE UNLESS,

B) (300 PSIG) WHEN WELDING WITHIN 3" OF THE LONGITUDINAL SEAM (EXCEPT, SEAM WELDING) OR WITHIN 3" OF ANY BRANCH WELD, OR WITHIN 3" OF ANY DEFECT (SUCH AS CORROSION, LAMINATIONS, ETC.) IN THE PIPE WHICH REDUCES THE WALL THICKNESS TO LESS THAN 40% OF THE NOMINAL WALL THICKNESS IN DEPTH AND/OR 1/4" OR THE NOMINAL PIPE DIAMETER IN LENGTH.

COPY

ISSUED FOR BID
NOT ISSUED FOR CONSTRUCTION

UNDERGROUND SERVICE ALERT USA CALL BEFORE YOU DIG
CALL: 811

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	8/27/12	ISSUED FOR BID	41640623	PRC	CRG	JP	DF MAC

REVISIONS

APPROVED BY GM 41640623
SUPV
DSGN
DWN PRC
CHKD CRG
OK JP
DATE
SCALES AS SHOWN

HYDROTEST TIM-136-12
DFM-1614-01
MP 0.016 – 3.932
LODI, CALIFORNIA

PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

MICROFILM
BILL OF MATL SHEET 10
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 03 OF 10 SHEETS
41640623 0

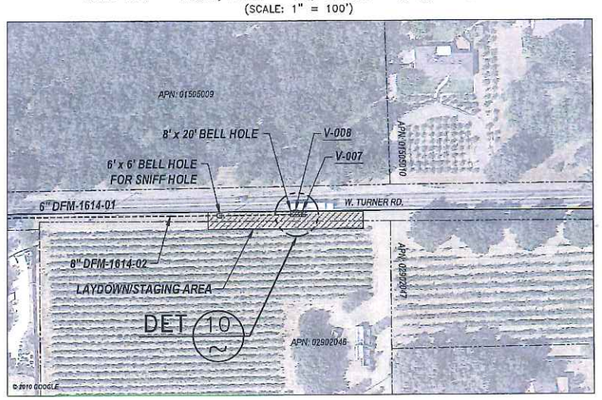
PS-12-02130

LOCATION F

W. TURNER RD.

WALL MAP – 2869; PLAT – C3; BLOCK – 1; MP – 2.6007

(SCALE: 1" = 100')



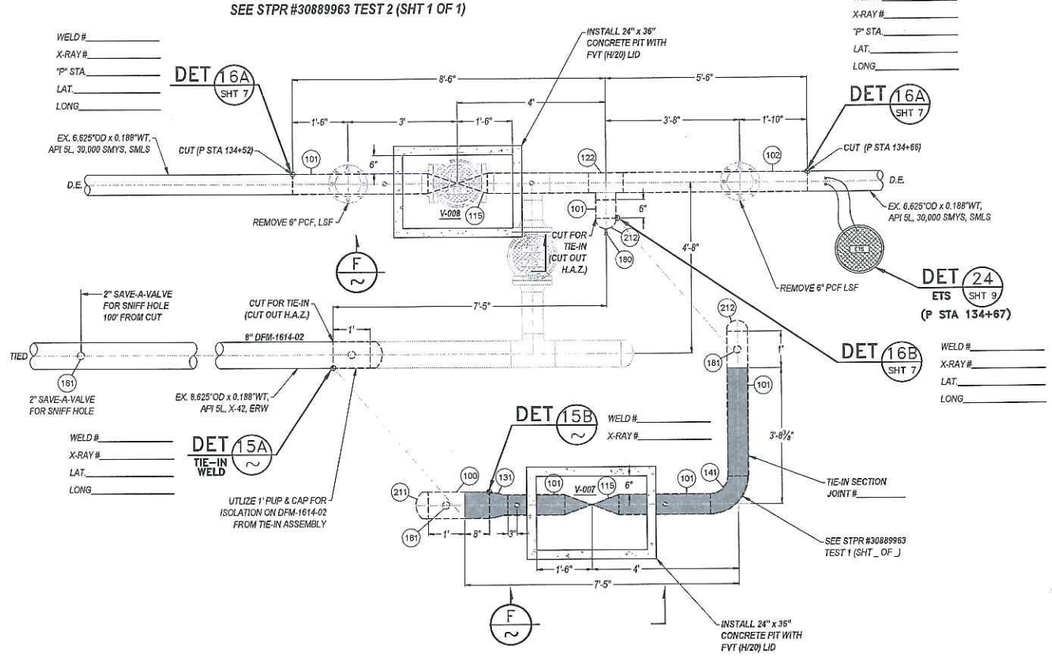
TEST 1

JOB NO. 30889963	JOB NO. 30889963	JOB NO. 30889963	
BOM # 100	BOM # 101	BOM # 105	
DESIGN CRITERIA	DESIGN CRITERIA	DESIGN CRITERIA	
LOCATION CLASS 3	LOCATION CLASS 3	LOCATION CLASS 3	
DESIGN FACTOR 0.5	DESIGN FACTOR 0.5	DESIGN FACTOR 0.5	
FDP 720 PSIG 31.76 % SMYS	FDP 720 PSIG 24.40 % SMYS	FDP 720 PSIG 7.01 % SMYS	
MAOP 300 PSIG 13.23 % SMYS	MAOP 300 PSIG 10.17 % SMYS	MAOP 300 PSIG 2.92 % SMYS	
STRENGTH TEST PRESSURE	STRENGTH TEST PRESSURE	STRENGTH TEST PRESSURE	
MAX. 740 PSIG 32.64 % SMYS	MAX. 740 PSIG 25.07 % SMYS	MAX. 740 PSIG 7.21 % SMYS	
MIN. 660 PSIG 29.11 % SMYS	MIN. 660 PSIG 22.36 % SMYS	MIN. 660 PSIG 6.43 % SMYS	
2040 PSIG=90% SMYS	2656 PSIG=90% SMYS	9240 PSIG=90% SMYS	
TEST MEDIUM WATER	TEST MEDIUM WATER	TEST MEDIUM WATER	
PIPE SPEC API 5L, X-52, HFW	PIPE SPEC API 5L, X-52, HFW	PIPE SPEC API 5L, GR B, SMLS	
O.D. 6.625"	O.D. 6.625"	O.D. 1.050"	
W.T. 0.188"	W.T. 0.188"	W.T. 0.154"	
WELD INSPECTION (GAS STD.D-40)*	WELD INSPECTION (GAS STD.D-40)*	WELD INSPECTION (GAS STD.D-40)*	
☒RADIOGRAPHIC:	☒RADIOGRAPHIC:	☐RADIOGRAPHIC:	
☐20% MIN. (% OF EACH WELDER'S	☐20% MIN. (% OF EACH WELDER'S	☐20% MIN. (% OF EACH WELDER'S	
☒100% DAILY WORK)	☒100% DAILY WORK)	☐100% DAILY WORK)	
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)	*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)	*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)	

TEST 2

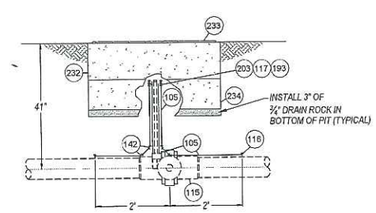
JOB NO. 30889963	JOB NO. 30889963
BOM # 101	BOM # 105
DESIGN CRITERIA	DESIGN CRITERIA
LOCATION CLASS 3	LOCATION CLASS 3
DESIGN FACTOR 0.5	DESIGN FACTOR 0.5
FDP 720 PSIG 24.40 % SMYS	FDP 720 PSIG 7.01 % SMYS
MAOP 300 PSIG 10.17 % SMYS	MAOP 300 PSIG 2.92 % SMYS
STRENGTH TEST PRESSURE	STRENGTH TEST PRESSURE
MAX. 740 PSIG 25.07 % SMYS	MAX. 740 PSIG 7.21 % SMYS
MIN. 660 PSIG 22.36 % SMYS	MIN. 660 PSIG 6.43 % SMYS
2656 PSIG=90% SMYS	9240 PSIG=90% SMYS
TEST MEDIUM WATER	TEST MEDIUM WATER
PIPE SPEC API 5L, X-52, HFW	PIPE SPEC API 5L, GR B, SMLS
O.D. 6.625"	O.D. 1.050"
W.T. 0.188"	W.T. 0.154"
WELD INSPECTION (GAS STD.D-40)*	WELD INSPECTION (GAS STD.D-40)*
☒RADIOGRAPHIC:	☐RADIOGRAPHIC:
☐20% MIN. (% OF EACH WELDER'S	☐20% MIN. (% OF EACH WELDER'S
☒100% DAILY WORK)	☐100% DAILY WORK)
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)	*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)

ALL WORK ON DETAIL 10 TO BE CHARGED TO CAPITAL ORDER #30889963
SEE STPR #30889963 TEST 2 (SHT 1 OF 1)

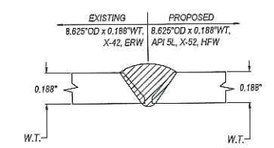


DETAIL 10 — 8" 1614-02 TO 6" 1614-01 CROSS-TIE
SCALE: 1/2" = 1'
LOCATION F – TURNER RD

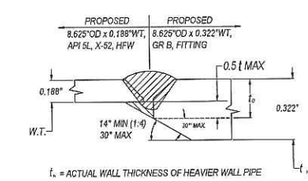
NOTE:
ALL DIMENSIONS AND MATERIALS CALLED OUT IN ELEVATION "F" ARE TYPICAL FOR BOTH VALVE AND GAUGE LINE INSTALLATIONS



ELEVATION F
SCALE: 1/2" = 1'



DETAIL 15A — WELD DETAIL
NOT TO SCALE
GS&S D-22 FIG. 2



t_s = ACTUAL WALL THICKNESS OF HEAVIER WALL PIPE

t_r = THE REQUIRED WALL THICKNESS DESIGNED FOR HEAVY WALL PIPE WHICH IS JOINED TO THINNER PIPE.

THE t_r VALUE MAY NOT EXCEED 1.5 t

DETAIL 15B — WELD DETAIL
NOT TO SCALE
GS&S D-22 FIG. 5

SAFETY

SAFETY PLEDGE

I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE OTHERS TO ACT SAFELY.

ISSUED FOR BID
***NOT* ISSUED FOR CONSTRUCTION**

COPY

GM 48478 (1934) EXIST PIPE SPECS	GM 171044 (1969) EXIST PIPE SPECS
HEADER SIZE: 6.625"	HEADER SIZE: 8.625"
PIPE SPECS: API-5L, 30,000 SMYS,SMLS	PIPE SPECS: API 5L, X-42, ERW
WALL THICKNESS: 0.188"	WALL THICKNESS: 0.188"
PRESENT MAOP: 300	PRESENT MAOP: 300
% SMYS @ MAOP: 17.62	% SMYS @ MAOP: 16.38
MAXIMUM ALLOWABLE PRESSURE DURING WELDING (G.S.&S. D-22) EVALUATE THE FOLLOWING OPERATING PRESSURE LIMITATIONS TO DETERMINE THE MAXIMUM OPERATING PRESSURE PERMITTED DURING WELDING: A) (300 PSIG) WHEN WELDING ON BODY OF THE PIPE UNLESS, B) (300 PSIG) WHEN WELDING WITHIN 3" OF THE LONGITUDINAL SEAM (EXCEPT ERW PIPE), THE GIRTH SEAM (BRANCH) AND ANY BRANCH WELD OR WITHIN 3" OF ANY DEFECT (SOUNDS, CORROSION, LAMINATIONS, ETC.) IN THE PIPE WHICH EXCEEDS 1/3 OF THE NOMINAL WALL THICKNESS OR 20% OF THE NOMINAL THE NOMINAL PIPE DIAMETER IN LENGTH.	MAXIMUM ALLOWABLE PRESSURE DURING WELDING (G.S.&S. D-22) EVALUATE THE FOLLOWING OPERATING PRESSURE LIMITATIONS TO DETERMINE THE MAXIMUM OPERATING PRESSURE PERMITTED DURING WELDING: A) (300 PSIG) WHEN WELDING ON BODY OF THE PIPE UNLESS, B) (300 PSIG) WHEN WELDING WITHIN 3" OF THE LONGITUDINAL SEAM (EXCEPT ERW PIPE), THE GIRTH SEAM (BRANCH) AND ANY BRANCH WELD OR WITHIN 3" OF ANY DEFECT (SOUNDS, CORROSION, LAMINATIONS, ETC.) IN THE PIPE WHICH EXCEEDS 1/3 OF THE NOMINAL WALL THICKNESS OR 20% OF THE NOMINAL THE NOMINAL PIPE DIAMETER IN LENGTH.

MANUALLY OPERATED VALVE DATA STAMP	MANUALLY OPERATED VALVE DATA STAMP
BOM# 115	BOM# 115
TECH ID (VALVE #) V-007	TECH ID (VALVE #) V-008
VALVE TYPE 6" ANSI 300 BALL VALVE	VALVE TYPE 6" ANSI 300 BALL VALVE
MANUFACTURE	MANUFACTURE
MODEL #	MODEL #
SERIAL#	SERIAL#
COMMISSIONING: VALVE TO BE COMMISSIONED BY GAS T&R OR DISTRICT PRIOR TO ANYTHING BEING WELDED OR BOLTED TO THE VALVE ASSEMBLY	COMMISSIONING: VALVE TO BE COMMISSIONED BY GAS T&R OR DISTRICT PRIOR TO ANYTHING BEING WELDED OR BOLTED TO THE VALVE ASSEMBLY
COMMISSIONED BY	COMMISSIONED BY
DATE	DATE
NUMBER OF TURNS	NUMBER OF TURNS

UNDERGROUND SERVICE ALERT USA CALL BEFORE YOU DIG. CALL: 811

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD	BY
0	8/27/12	ISSUED FOR BID	41640623	PRC	CRG	JP	DF	MAC

REVISIONS

APPROVED BY	GM 41640623
	SUPV
	DSGN
	DWN PRC
	CHKD CRG
	OK JP
	DATE
	SCALES AS SHOWN

HYDROTEST TIM-136-12
DFM-1614-01
MP 0.016 – 3.932
LODI, CALIFORNIA

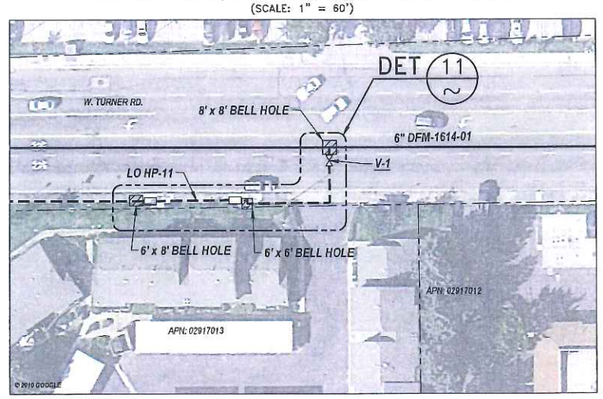
PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

MICROFILM	
BILL OF MATL SHEET 10	
DWG LIST	
SUPSDS	
SUPSD BY	
SHEET NO. 04 OF 10	SHEETS
41640623	0

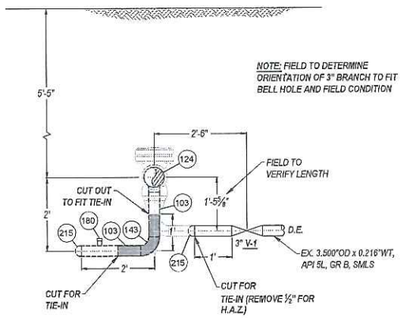
PS-12-02130

LOCATION G

W. TURNER RD. & N. LOWER SACRAMENTO RD
WALL MAP – 2869; PLAT – C7; BLOCK – 4; MP – 3.7929
(SCALE: 1" = 60')



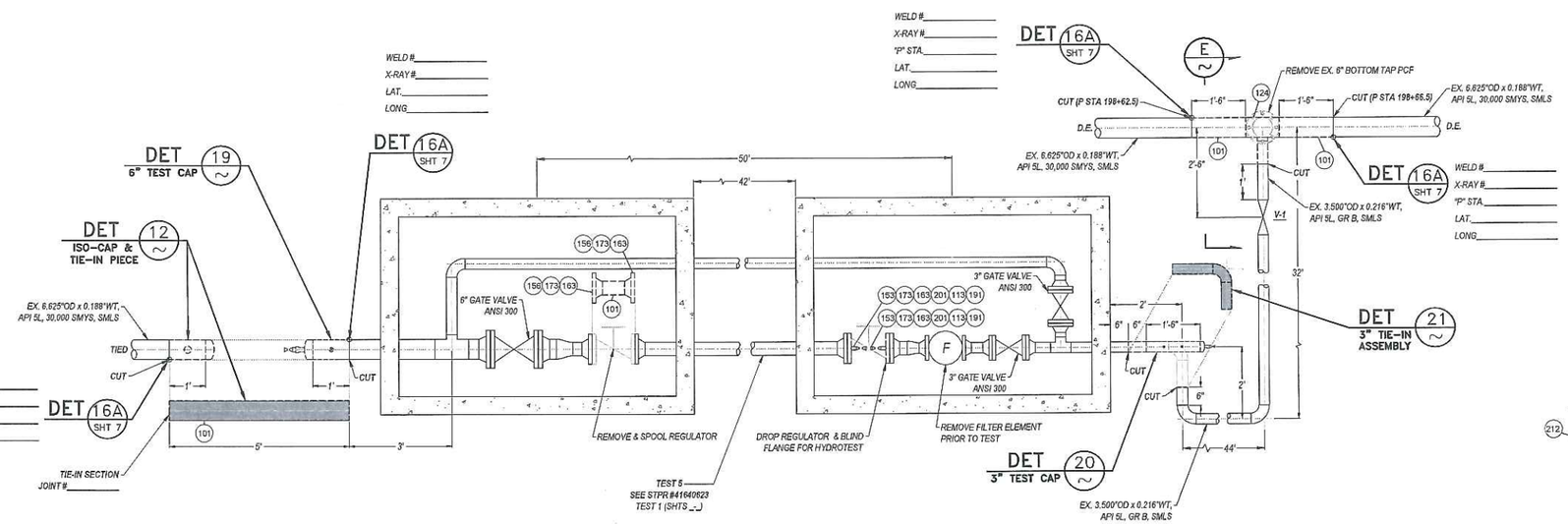
ALL WORK ON ELEVATION E TO BE CHARGED TO CAPITAL ORDER #30920175
SEE STPR #30920175 TEST 4 (SHT 1 OF 1)



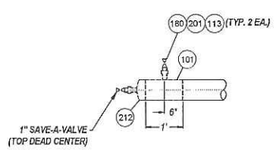
ELEVATION E
SCALE: 1/2" = 1'

JOB NO. 41640623/30920175
BOM # 101
DESIGN CRITERIA
LOCATION CLASS 3
DESIGN FACTOR 0.5
FDP 720 PSIG 24.40 % SMYS
MAOP 300 PSIG 10.17 % SMYS
STRENGTH TEST PRESSURE
MAX. 740 PSIG 25.07 % SMYS
MIN. 660 PSIG 22.36 % SMYS
2656 PSIG=90% SMYS
TEST MEDIUM WATER
PIPE SPEC API 5L, X-52, HFW
O.D. 6.625"
W.T. 0.188"
WELD INSPECTION (GAS STD.D-40)*
☒RADIOGRAPHIC:
☐20% MIN. (% OF EACH WELDER'S
☒100% DAILY WORK)
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)

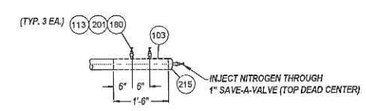
JOB NO. 30920175
BOM # 103
DESIGN CRITERIA
LOCATION CLASS 3
DESIGN FACTOR 0.5
FDP 720 PSIG 16.67 % SMYS
MAOP 300 PSIG 6.94 % SMYS
STRENGTH TEST PRESSURE
MAX. 740 PSIG 17.13 % SMYS
MIN. 660 PSIG 15.28 % SMYS
3888 PSIG=90% SMYS
TEST MEDIUM WATER
PIPE SPEC API 5L, GR B, SMLS
O.D. 3.500"
W.T. 0.216"
WELD INSPECTION (GAS STD.D-40)*
☐RADIOGRAPHIC:
☐20% MIN. (% OF EACH WELDER'S
☐100% DAILY WORK)
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)



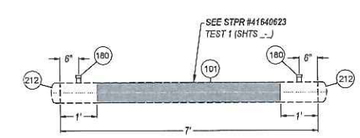
DETAIL 11 — REMOVE 6" BOTTOM TAP PCF/ STRENGTH DREG-4616
SCALE: 1/2" = 1'
LOCATION G – W. TURNER RD & N. LOWER SACRAMENTO DR



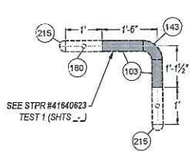
DETAIL 19 — 6" TEST CAP
SCALE: 1/2" = 1'



DETAIL 20 — 3" TEST CAP
SCALE: 1/2" = 1'



DETAIL 12 — 6" ISO-CAPS & TIE-IN PIECE
SCALE: 1/2" = 1'
HYDROTEST CONFIGURATION



DETAIL 21 — 3" TIE-IN ASSEMBLY
SCALE: 1/2" = 1'
HYDROTEST CONFIGURATION

SAFETY
SAFETY PLEDGE
I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE OTHERS TO ACT SAFELY.

ISSUED FOR BID
***NOT* ISSUED FOR CONSTRUCTION**

COPY

GM 48478 (1934)
GM 452629 (1969)

EXIST PIPE SPECS
HEADER SIZE: 6.625"
PIPE SPECS: API 5L,30,000 SMYS,SMLS
WALL THICKNESS: 0.188"
PRESENT MAOP: 300
% SMYS @ MAOP: 17.62
MAXIMUM ALLOWABLE PRESSURE DURING WELDING (G.S.&S. D-22) EVALUATE THE FOLLOWING OPERATING PRESSURE LIMITATIONS TO DETERMINE THE MAXIMUM OPERATING PRESSURE PERMITTED DURING WELDING A) (300 PSIG) WHEN WELDING ON BODY OF THE PIPE UNLESS, B) (300 PSIG) WHEN WELDING WITHIN 3" OF THE LONGITUDINAL SEAM (EXCEPT DSAW PIPE) THE CIRCUMFERENTIAL AND ANY BRANCH WELDS OR WITHIN 3" OF ANY DEFECTS (SUCH AS SEAMS, LAMINATIONS, ETC.) IN THE PIPE WHICH EXCEEDS 1/3 OF THE NOMINAL WALL THICKNESS IN DEPTH AND/OR 1/4 OF THE NOMINAL PIPE DIAMETER IN LENGTH.

GM 449843 (1969)

EXIST PIPE SPECS
HEADER SIZE: 3.500"
PIPE SPECS: API 5L, GR B, SMLS
WALL THICKNESS: 0.216"
PRESENT MAOP: 300
% SMYS @ MAOP: 6.94
MAXIMUM ALLOWABLE PRESSURE DURING WELDING (G.S.&S. D-22) EVALUATE THE FOLLOWING OPERATING PRESSURE LIMITATIONS TO DETERMINE THE MAXIMUM OPERATING PRESSURE PERMITTED DURING WELDING A) (300 PSIG) WHEN WELDING ON BODY OF THE PIPE UNLESS, B) (300 PSIG) WHEN WELDING WITHIN 3" OF THE LONGITUDINAL SEAM (EXCEPT DSAW PIPE) THE CIRCUMFERENTIAL AND ANY BRANCH WELDS OR WITHIN 3" OF ANY DEFECTS (SUCH AS SEAMS, LAMINATIONS, ETC.) IN THE PIPE WHICH EXCEEDS 1/3 OF THE NOMINAL WALL THICKNESS IN DEPTH AND/OR 1/4 OF THE NOMINAL PIPE DIAMETER IN LENGTH.

UNDERGROUND SERVICE ALERT USA CALL BEFORE YOU DIG
CALL: 811

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	8/27/12	ISSUED FOR BID	41640623	PRC	CRG	JP	DF MAC

REVISIONS

APPROVED BY	
GM	41640623
SUPV	
DSGN	
DWN	PRC
CHKD	CRG
OK	JP
DATE	
SCALES	AS SHOWN

HYDROTEST TIM-136-12
DFM-1614-01
MP 0.016 – 3.932
LODI, CALIFORNIA

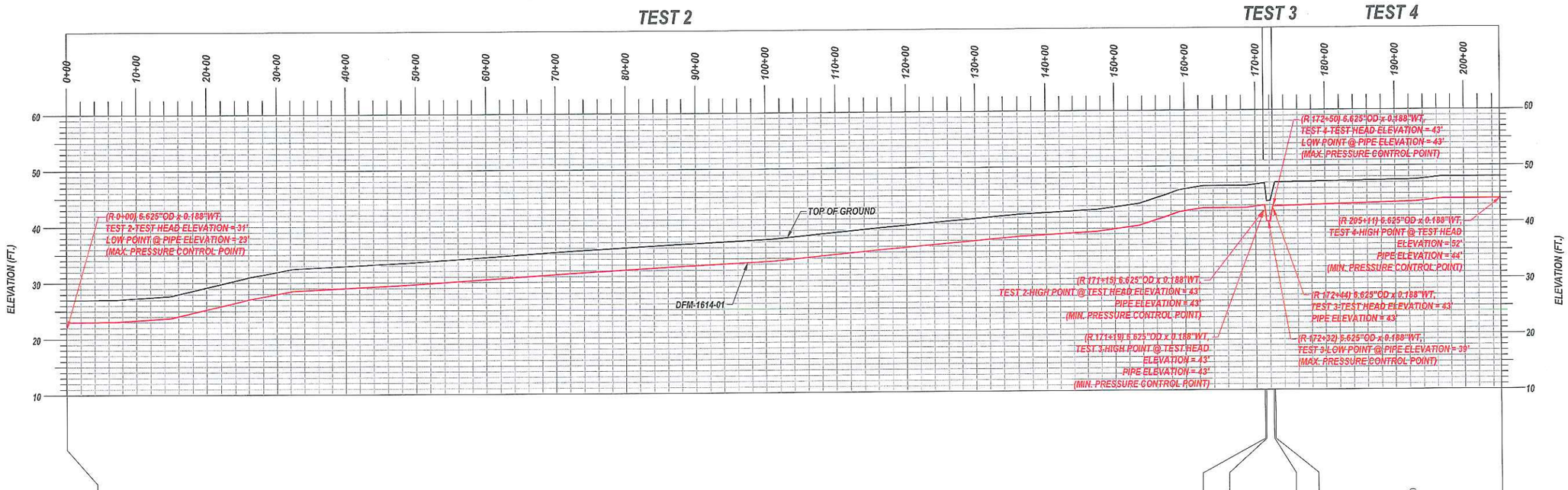
PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

MICROFILM
BILL OF MATL SHEET 10
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 05 OF 10 SHEETS
41640623 0

PS-12-02130

PROFILE VIEW

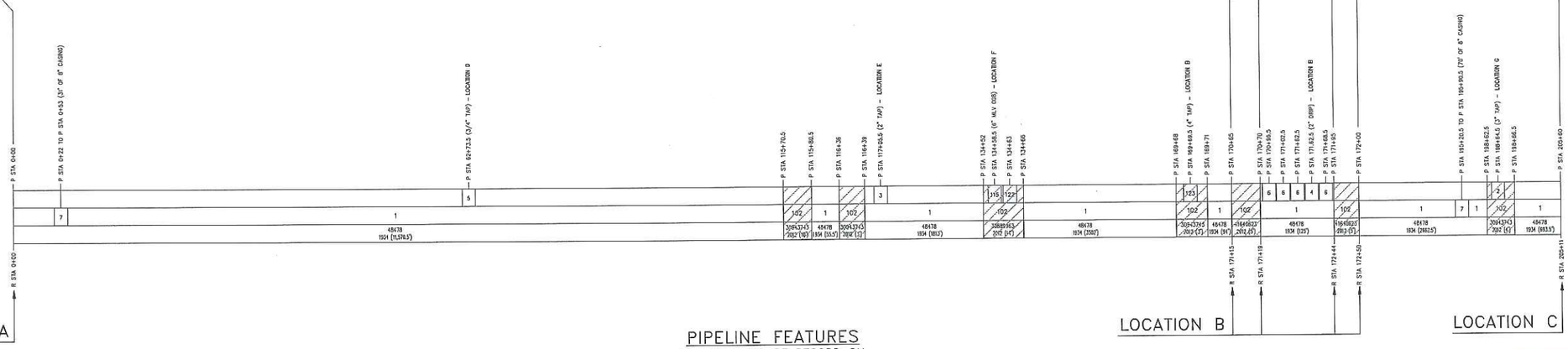
(HORIZONTAL 1" = 800')
(VERTICAL 1" = 10')



NOTE:
FIELD TO VERIFY WITH GPS LAT./LONG. WHERE SPECIFIED.

P STATION
FITTING (MATERIAL OF RECORD)
PIPE (MATERIAL OF RECORD)
GM NUMBER
YEAR INSTALLED (LENGTH)
R STATION

NOTE:
INSTALL PRIOR TO HYDROTEST



PIPELINE FEATURES

SEE MATERIAL OF RECORD ON SHEET 10 OF 10
(NOT TO SCALE)

TEST 2

LOCATION	R STA.	ELEV.	RAMP PRESSURE	MIN. PRESS	MAX. PRESS
MIN. PRESSURE CONTROL POINT	171+15	43'	726 psig	660 psig	
MAX. PRESSURE CONTROL POINT	0+00	23'	735 psig		698 psig
LOCATION A (TEST STATION)	**0+00**	**31'**	**732 psig**	**666 psig**	**695 psig**
LOCATION B (WEST END)	171+15	43'	726 psig	660 psig	689 psig

TEST 3

LOCATION	R STA.	ELEV.	RAMP PRESSURE	MIN. PRESS	MAX. PRESS
MIN. PRESSURE CONTROL POINT	171+19	43'	726 psig	660 psig	
MAX. PRESSURE CONTROL POINT	172+32	40'	726 psig		689 psig
LOCATION B (EAST END)	172+44	43'	726 psig	660 psig	689 psig
LOCATION B (WEST END) (TEST STATION)	**171+19**	**43'**	**726 psig**	**660 psig**	**689 psig**

NOTE:ELEVATIONS AT TEST LOCATIONS ASSUME TOP OF HYDROTEST PIPING IS 4' ABOVE GROUND ELEVATION

TEST 4

LOCATION	R STA.	ELEV.	RAMP PRESSURE	MIN. PRESS	MAX. PRESS
MIN. PRESSURE CONTROL POINT	205+11	52'	726 psig	660 psig	
MAX. PRESSURE CONTROL POINT	172+50	43'	730 psig		693 psig
LOCATION C (WEST END)	205+11	52'	726 psig	660 psig	689 psig
LOCATION B (TEST STATION)	**172+50**	**43'**	**730 psig**	**664 psig**	**693 psig**

SAFETY

SAFETY PLEDGE

I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE OTHERS TO ACT SAFELY.

COPY

ISSUED FOR BID
NOT
ISSUED FOR CONSTRUCTION

UNDERGROUND SERVICE ALERT USA CALL BEFORE YOU DIG.
CALL: 811

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	8/27/12	ISSUED FOR BID	41640623	PRC	CRG	JP	DF MAC

REVISIONS

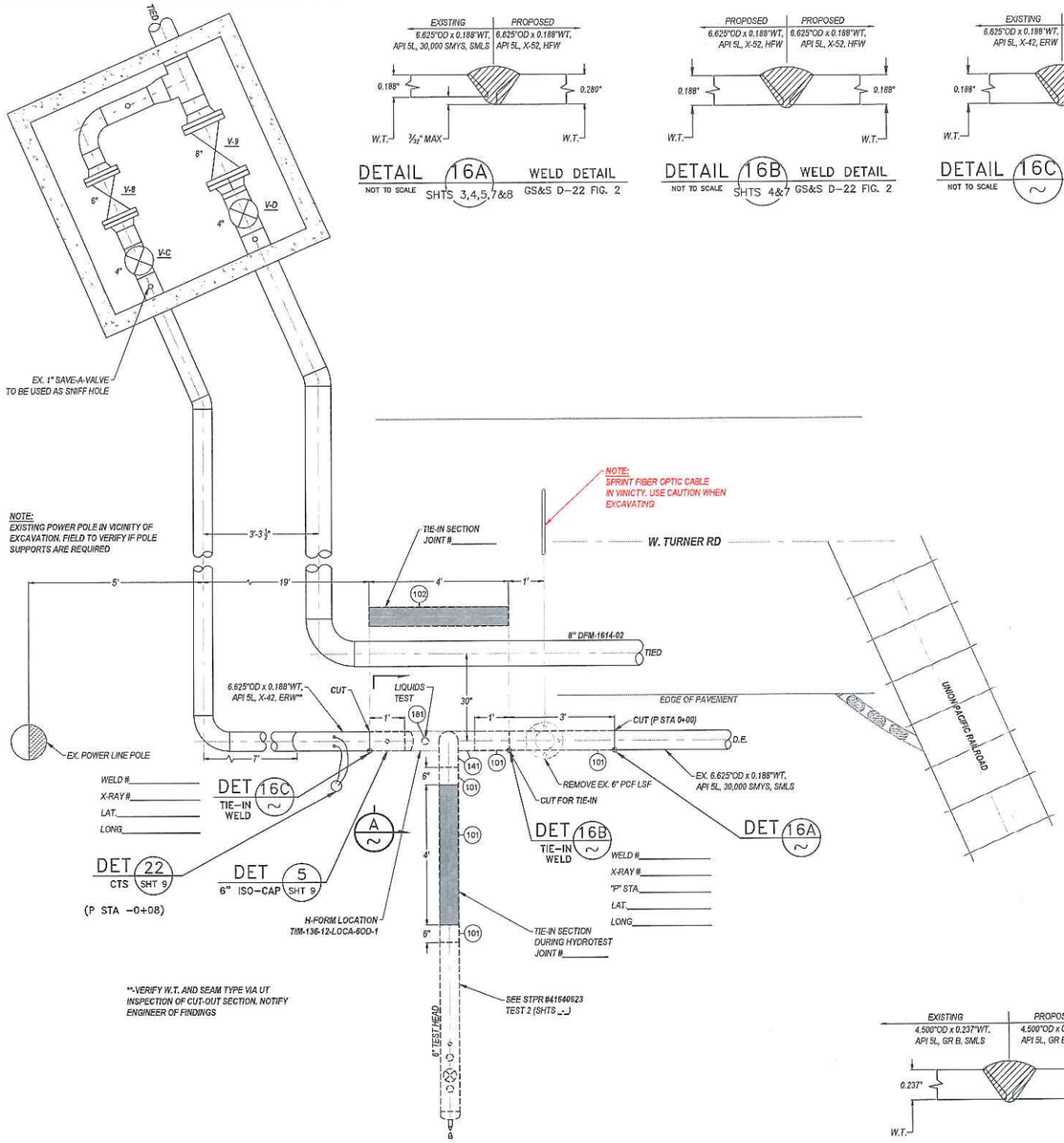
APPROVED BY: GM 41640623
SUPV
DSGN
DWN PRC
CHKD CRG
OK JP
DATE
SCALES AS SHOWN

HYDROTEST TIM-136-12
DFM-1614-01
MP 0.016 – 3.932
LODI, CALIFORNIA

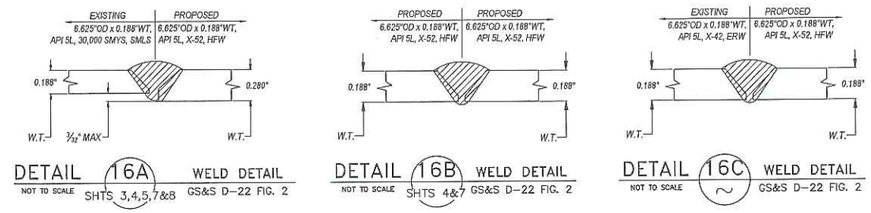
PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

MICROFILM
BILL OF MATL SHEET 10
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 06 OF 10 SHEETS
41640623 0

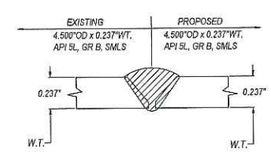
PS-12-02130



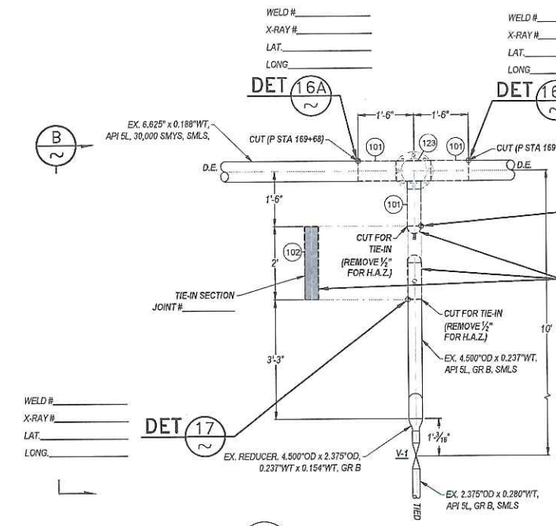
DETAIL 1 SHT 2 HYDROTEST CONFIGURATION
SCALE: 1/2" = 1' LOCATION A – W. TURNER RD. & UPRR CROSSING



DETAIL 16A NOT TO SCALE SHTS 3,4,5,7&8 WELD DETAIL GS&S D-22 FIG. 2
DETAIL 16B NOT TO SCALE SHTS 4&7 WELD DETAIL GS&S D-22 FIG. 2
DETAIL 16C NOT TO SCALE WELD DETAIL GS&S D-22 FIG. 2

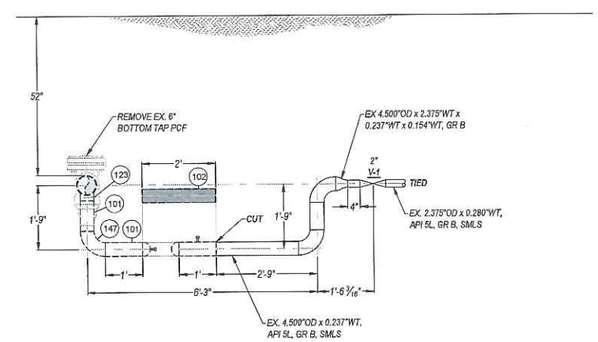


DETAIL 17 NOT TO SCALE WELD DETAIL GS&S D-22 FIG. 2

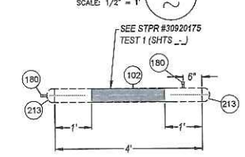


DETAIL 2 SHT 2 HYDROTEST CONFIGURATION
SCALE: 1/2" = 1' LOCATION B – TURNER RD & GOLDEN OAK DR.

ALL WORK ON ELEVATION B TO BE CHARGED TO CAPITAL ORDER #30920175
SEE STPR #30920175 TEST 2 (SHT _ OF _)



ELEVATION B
SCALE: 1/2" = 1'



DETAIL 14 4" ISOLATION CAPS & TIE-IN PIECE
SCALE: 1/2" = 1' HYDROTEST CONIFGURATION

JOB NO. 41640623/30920175
BOM # 101
DESIGN CRITERIA
LOCATION CLASS 3
DESIGN FACTOR 0.5
FDP 720 PSIG 24.40 % SMYS
MAOP 300 PSIG 10.17 % SMYS
STRENGTH TEST PRESSURE
MAX. 740 PSIG 25.07 % SMYS
MIN. 660 PSIG 22.36 % SMYS
2636 PSIG=90% SMYS
TEST MEDIUM WATER
PIPE SPEC API 5L, X-52, HFW
O.D. 6.625"
W.T. 0.188"
WELD INSPECTION (GAS STD.D-40)*
☒RADIOGRAPHIC:
☐20% MIN. (% OF EACH WELDER'S DAILY WORK)
☒100%
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)

JOB NO. 41640623
BOM # 102
DESIGN CRITERIA
LOCATION CLASS 3
DESIGN FACTOR 0.5
FDP 720 PSIG 19.53 % SMYS
MAOP 300 PSIG 8.14 % SMYS
STRENGTH TEST PRESSURE
MAX. 740 PSIG 20.07 % SMYS
MIN. 660 PSIG 17.90 % SMYS
3318 PSIG=90% SMYS
TEST MEDIUM WATER
PIPE SPEC API 5L, GR B, SMLS
O.D. 4.500"
W.T. 0.237"
WELD INSPECTION (GAS STD.D-40)*
☒RADIOGRAPHIC:
☐20% MIN. (% OF EACH WELDER'S DAILY WORK)
☒100%
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)

GM 30677563 (2009)

EXIST PIPE SPECS
HEADER SIZE: 4.500"
PIPE SPECS: API 5L, GR B,
WALL THICKNESS: 0.237"
PRESENT MAOP: 300
% SMYS @ MAOP: 8.14

MAXIMUM ALLOWABLE PRESSURE DURING WELDING (G.S.&S. D-22)
EVALUATE THE FOLLOWING OPERATING PRESSURE LIMITATIONS TO DETERMINE THE MAXIMUM OPERATING PRESSURE PERMITTED DURING WELDING
A) (300 PSIG) WHEN WELDING ON BODY OF THE PIPE, UNLESS,
B) (300 PSIG) WHEN WELDING WITHIN 3" OF A CIRCUMFERENTIAL SEAM (EXCEPT SEAM 3" WITHIN THE CIRCUMFERENTIAL AND ANY BRANCH WELD, OR WITHIN 3" OF ANY DEFECT (SCUFFS, CORROSION, LAMINATIONS, ETC.) IN THE PIPE WHICH EXCEEDS 1/4" OR 10% OF THE NOMINAL WALL THICKNESS IN DEPTH AND/OR 1/4" OF THE NOMINAL PIPE DIAMETER IN LENGTH.

GM 48478 (1934)

EXIST PIPE SPECS
HEADER SIZE: 6.625"
PIPE SPECS: API-5L,30,000 SMYS,SMLS
WALL THICKNESS: 0.188"
PRESENT MAOP: 300
% SMYS @ MAOP: 17.62

MAXIMUM ALLOWABLE PRESSURE DURING WELDING (G.S.&S. D-22)
EVALUATE THE FOLLOWING OPERATING PRESSURE LIMITATIONS TO DETERMINE THE MAXIMUM OPERATING PRESSURE PERMITTED DURING WELDING
A) (300 PSIG) WHEN WELDING ON BODY OF THE PIPE, UNLESS,
B) (300 PSIG) WHEN WELDING WITHIN 3" OF A CIRCUMFERENTIAL SEAM (EXCEPT SEAM 3" WITHIN THE CIRCUMFERENTIAL AND ANY BRANCH WELD, OR WITHIN 3" OF ANY DEFECT (SCUFFS, CORROSION, LAMINATIONS, ETC.) IN THE PIPE WHICH EXCEEDS 1/4" OR 10% OF THE NOMINAL WALL THICKNESS IN DEPTH AND/OR 1/4" OF THE NOMINAL PIPE DIAMETER IN LENGTH.

UNDERGROUND SERVICE ALERT USA CALL BEFORE YOU DIG. CALL: 811

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	8/27/12	ISSUED FOR BID	41640623	PRC	CRG	JP	DF MAC

REVISIONS

APPROVED BY: GM 41640623; SUPV; DSGN; DWN PRC; CHKD CRG; OK JP; DATE; SCALES AS SHOWN

HYDROTEST TIM-136-12
DFM-1614-01
MP 0.016 – 3.932
LODI, CALIFORNIA

PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

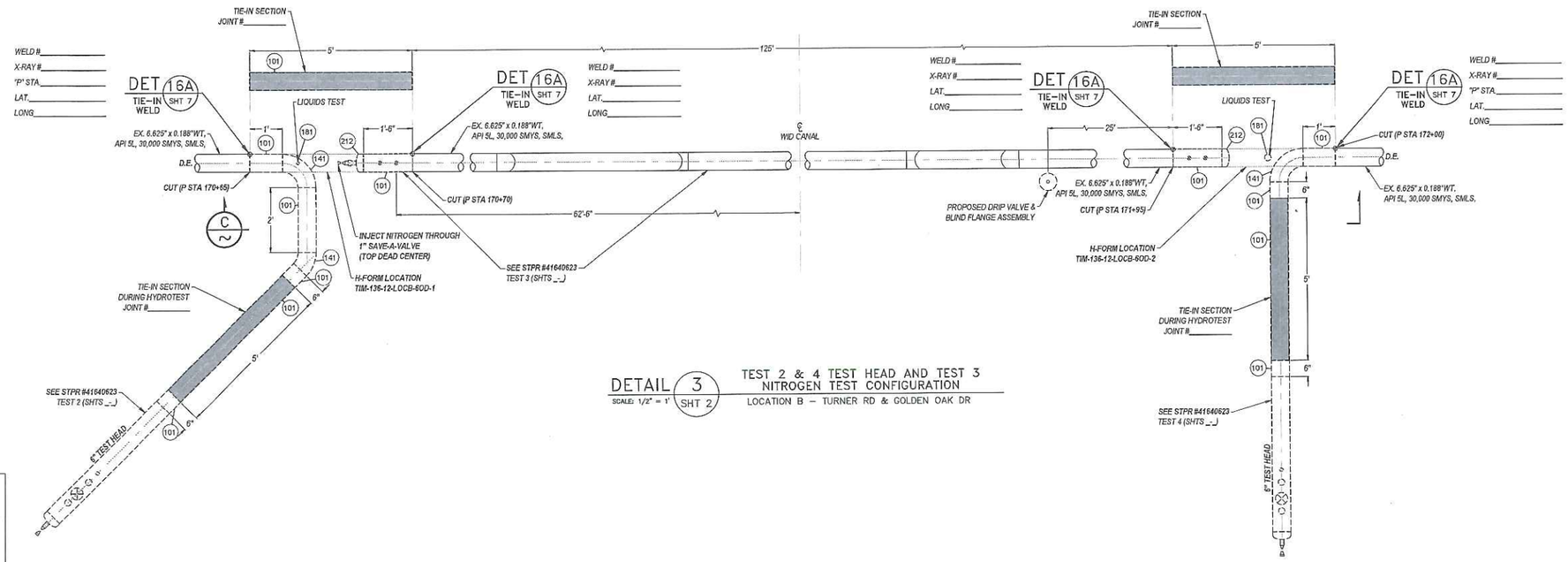
SAFETY
SAFETY PLEDGE
I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE OTHERS TO ACT SAFELY.

ISSUED FOR BID
NOT ISSUED FOR CONSTRUCTION

COPY

MICROFILM
BILL OF MATL SHEET 10
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 07 OF 10 SHEETS
41640623 0

PS-12-02130



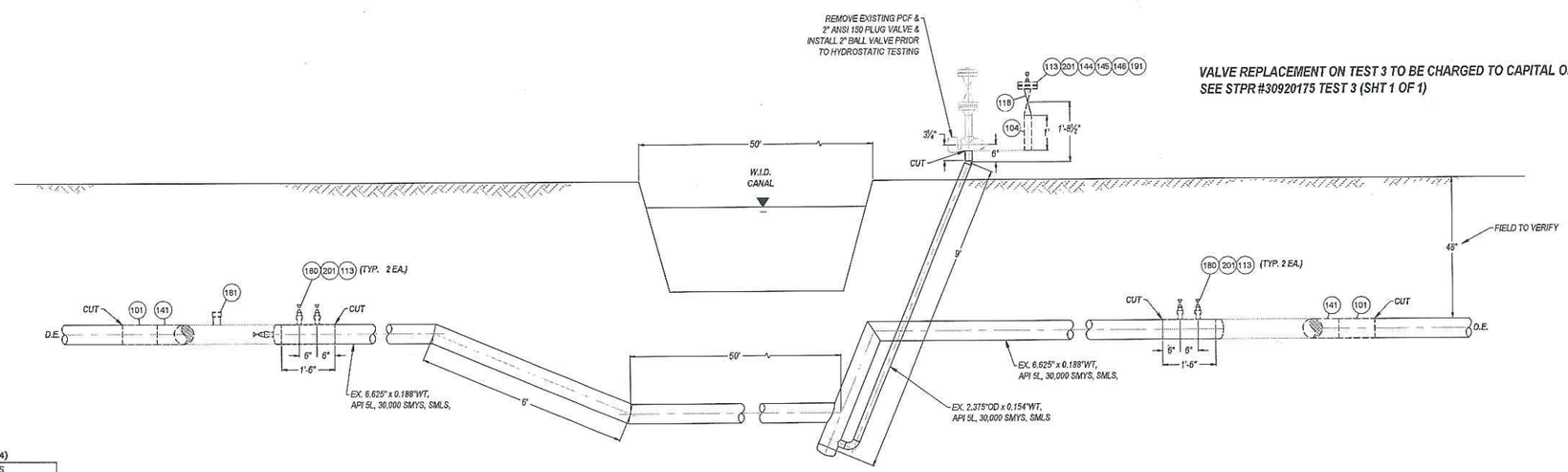
DETAIL 3 SHT 2 — TEST 2 & 4 TEST HEAD AND TEST 3 NITROGEN TEST CONFIGURATION

SCALE: 1/2" = 1'

LOCATION B – TURNER RD & GOLDEN OAK DR

NOTE: ALL DIMENSIONS AND ANGLES SHOWN IN ELEVATION C ARE SCALED FROM AVAILABLE AS-BUILT INFORMATION

VALVE REPLACEMENT ON TEST 3 TO BE CHARGED TO CAPITAL ORDER #30920175
SEE STPR #30920175 TEST 3 (SHT 1 OF 1)



ELEVATION C — HYDROTEST/NITROGEN TEST CONFIGURATION

SCALE: 1/2" = 1'

LOCATION B – TURNER RD & N. LOWER SACRAMENTO DR

TEST 3

JOB NO. 41640623
BOM # 101
DESIGN CRITERIA
LOCATION CLASS 3
DESIGN FACTOR 0.5
FDP 720 PSIG 24.40 % SMYS
MAOP 300 PSIG 10.17 % SMYS
STRENGTH TEST PRESSURE
MAX. 740 PSIG 25.07 % SMYS
MIN. 660 PSIG 22.36 % SMYS
2656 PSIG=90% SMYS
TEST MEDIUM NITRGOEN
PIPE SPEC API 5L, X-52, HFW
O.D. 6.625"
W.T. 0.188"
WELD INSPECTION (GAS STD.D-40)*
☒RADIOGRAPHIC:
☐20% MIN. (% OF EACH WELDER'S
☒100% DAILY WORK)
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)

JOB NO. 30943743
BOM # 104
DESIGN CRITERIA
LOCATION CLASS 3
DESIGN FACTOR 0.5
FDP 720 PSIG 15.86 % SMYS
MAOP 300 PSIG 6.61 % SMYS
STRENGTH TEST PRESSURE
MAX. 740 PSIG 16.30 % SMYS
MIN. 660 PSIG 14.54 % SMYS
4085 PSIG=90% SMYS
TEST MEDIUM NITROGEN
PIPE SPEC API 5L, GR B, SMLS
O.D. 2.375"
W.T. 0.154"
WELD INSPECTION (GAS STD.D-40)*
☐RADIOGRAPHIC:
☐20% MIN. (% OF EACH WELDER'S
☐100% DAILY WORK)
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)

GM 48478 (1934)

EXIST PIPE SPECS
HEADER SIZE: 6.625"
PIPE SPECS: API-5L,30,000 SMYS,SMLS
WALL THICKNESS: 0.188"
PRESENT MAOP: 300
% SMYS @ MAOP: 17.62

MAXIMUM ALLOWABLE PRESSURE DURING WELDING (G.S.&S. D-22)
EVALUATE THE FOLLOWING OPERATING PARAMETERS TO DETERMINE THE MAXIMUM OPERATING PRESSURE PERMITTED DURING WELDING
A) (300 PSIG) WHEN WELDING ON BODY OF THE PIPE UNLESS,
B) (300 PSIG) WHEN WELDING WITHIN 3" OF ANY CIRCUMFERENTIAL SEAM (EXCEPT SEAM WHEN THE CIRCUMFERENTIAL AND ANY BRANCH WELD, OR WITHIN 3" OF ANY DEFECT (SERVICE CORROSION, LAMINATION, ETC.) WHICH EXTENDS MORE THAN EXCEEDS 1/3 OF THE NOMINAL WALL THICKNESS IN DEPTH AND/OR 1/4 OF THE NOMINAL PIPE DIAMETER IN LENGTH.

GM 48478 (1934)

EXIST PIPE SPECS
HEADER SIZE: 2.375"
PIPE SPECS: API 5L, 30,000 SMYS, SMLS
WALL THICKNESS: 0.154"
PRESENT MAOP: 300
% SMYS @ MAOP: 7.71

MAXIMUM ALLOWABLE PRESSURE DURING WELDING (G.S.&S. D-22)
EVALUATE THE FOLLOWING OPERATING PARAMETERS TO DETERMINE THE MAXIMUM OPERATING PRESSURE PERMITTED DURING WELDING
A) (300 PSIG) WHEN WELDING ON BODY OF THE PIPE UNLESS,
B) (300 PSIG) WHEN WELDING WITHIN 3" OF ANY CIRCUMFERENTIAL SEAM (EXCEPT SEAM WHEN THE CIRCUMFERENTIAL AND ANY BRANCH WELD, OR WITHIN 3" OF ANY DEFECT (SERVICE CORROSION, LAMINATION, ETC.) WHICH EXTENDS MORE THAN EXCEEDS 1/3 OF THE NOMINAL WALL THICKNESS IN DEPTH AND/OR 1/4 OF THE NOMINAL PIPE DIAMETER IN LENGTH.

JOB NO. 41640623
BOM # 101
DESIGN CRITERIA
LOCATION CLASS 3
DESIGN FACTOR 0.5
FDP 720 PSIG 24.40 % SMYS
MAOP 300 PSIG 10.17 % SMYS
STRENGTH TEST PRESSURE
MAX. 740 PSIG 25.07 % SMYS
MIN. 660 PSIG 22.36 % SMYS
2656 PSIG=90% SMYS
TEST MEDIUM WATER
PIPE SPEC API 5L, X-52, HFW
O.D. 6.625"
W.T. 0.188"
WELD INSPECTION (GAS STD.D-40)*
☒RADIOGRAPHIC:
☐20% MIN. (% OF EACH WELDER'S
☒100% DAILY WORK)
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)

MANUALLY OPERATED VALVE DATA STAMP
BOM# 118
TECH ID (VALVE #)
VALVE TYPE 2" ANSI 300 BALL VALVE
MANUFACTURE
MODEL #
SERIAL #
COMMISSIONING
VALVE TO BE COMMISSIONED BY GAS TAPE OR DISTRICT PRIOR TO ANYTHING BEING WELDED OR BOLTED TO THE VALVE ASSEMBLY
COMMISSIONED BY
DATE
NUMBER OF TURNS

SAFETY PLEDGE
I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE OTHERS TO ACT SAFELY.

ISSUED FOR BID
NOT ISSUED FOR CONSTRUCTION

COPY

UNDERGROUND SERVICE ALERT USA CALL BEFORE YOU DIG. CALL: 811

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	8/27/12	ISSUED FOR BID	41640623	PRC	CRG	JP	DF MAC

REVISIONS

APPROVED BY: GM 41640623
SUPV
DSGN
DWN PRC
CHKD CRG
OK JP
DATE
SCALES AS SHOWN

HYDROTEST TIM-136-12
DFM-1614-01
MP 0.016 – 3.932
LODI, CALIFORNIA

PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

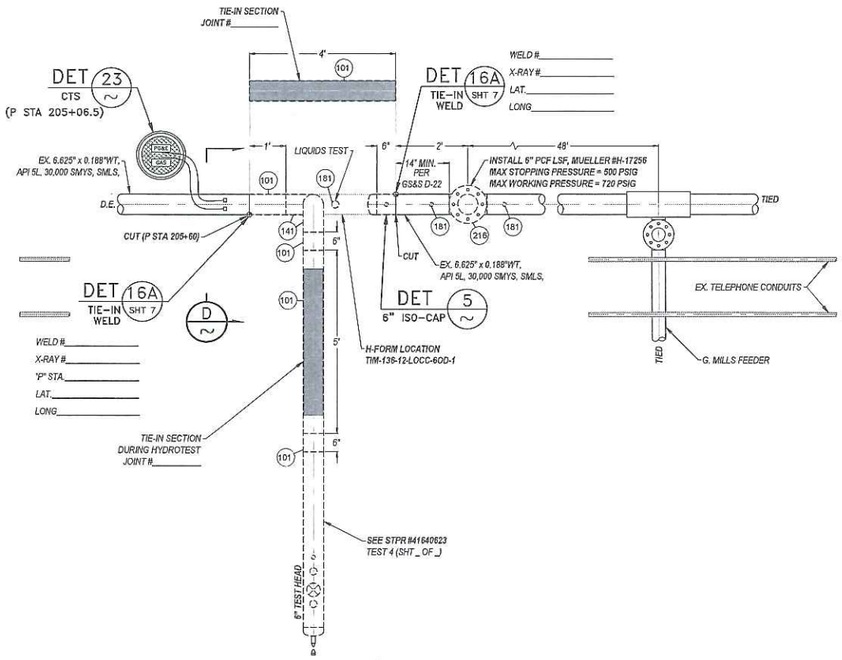
MICROFILM
BILL OF MATL SHEET 10
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 08 OF 10 SHEETS
41640623 0

PS-12-02130

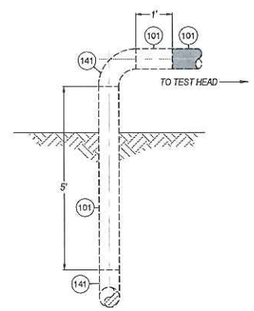
JOB NO. 41640623
BOM # 101

DESIGN CRITERIA

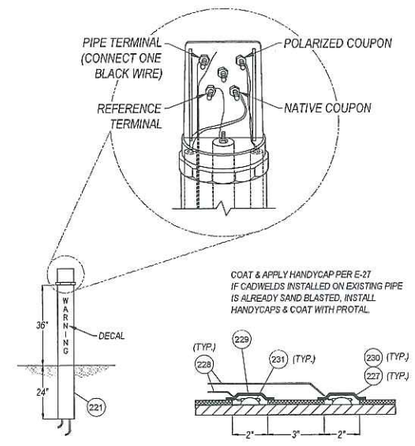
LOCATION CLASS 3
DESIGN FACTOR 0.5
FDP 720 PSIG 24.40 % SMYS
MAOP 300 PSIG 10.17 % SMYS
STRENGTH TEST PRESSURE
MAX. 740 PSIG 25.07 % SMYS
MIN. 660 PSIG 22.36 % SMYS
2656 PSIG=90% SMYS
TEST MEDIUM WATER
PIPE SPEC API 5L, X-52, HFW
O.D. 6.625"
W.T. 0.188"
WELD INSPECTION (GAS STD.D-40)*
☒ RADIOGRAPHIC:
☐ 20% MIN. (% OF EACH WELDER'S
☒ 100% DAILY WORK)
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)



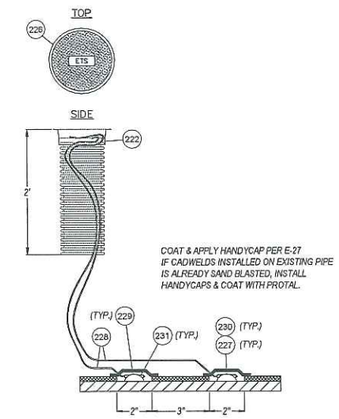
DETAIL 5 SHT 2 — LOCATION C
SCALE: 1/2" = 1' — W. TURNER RD. & N. LOWER SACRAMENTO RD.



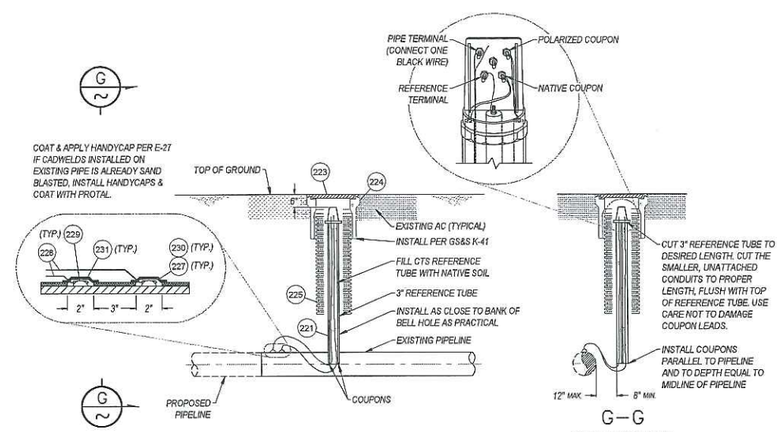
ELEVATION D
SCALE: 1/2" = 1'



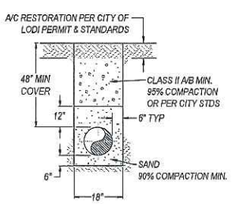
DETAIL 22 SHT 7 — COUPON TEST STAION-R/W INSTALL
NOT TO SCALE — GS&S O-10.1, FIG. 2 & O-10, FIG. 1



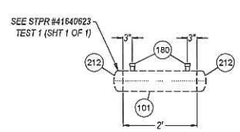
DETAIL 24 SHT 4 — ETS TYPE A - FRAME & COVER
NOT TO SCALE — GS&S O-10 FIG. 1 & K-40



DETAIL 23 SHT 2 — COUPON TEST STATION-STREET INSTALL
NOT TO SCALE — GAS STD O-10.2 & K-41



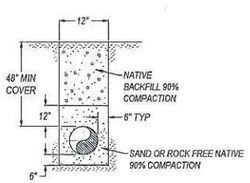
DETAIL — ROAD CROSSING / BELL HOLES
NOT TO SCALE — TYPICAL



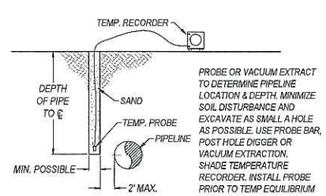
DETAIL 5 SHTS 7&9 — 6" ISOLATION CAP
SCALE: 1/2" = 1' — HYDROTEST CONFIGURATION

GM 48478 (1934)

EXIST PIPE SPECS
HEADER SIZE: 6.625"
PIPE SPECS: API-5L, 30,000 SMYS,SMLS
WALL THICKNESS: 0.188"
PRESENT MAOP: 300
% SMYS @ MAOP: 17.62
MAXIMUM ALLOWABLE PRESSURE DURING WELDING (G.S.&S. D-22) EVALUATE THE FOLLOWING OPERATING PRESSURE LIMITATIONS TO DETERMINE THE MAXIMUM OPERATING PRESSURE PERMITTED DURING WELDING: A) (300 PSIG) WHEN WELDING ON BODY OF THE PIPE UNLESS, B) (300 PSIG) WHEN WELDING WITHIN 3" OF THE LONGITUDINAL SEAM (EXCEPT, GAS SAW WELDS) OR WITHIN 3" OF ANY BRANCH WELD, OR WITHIN 3" OF ANY DEFECT (COUGHS, CORROSION, LAMINATIONS, ETC.) IN THE PIPE WHICH REDUCES THE ORIGINAL WALL THICKNESS IN DEPTH MORE THAN 1/4" OF THE NOMINAL PIPE DIAMETER IN LENGTH.



DETAIL — R/W TRENCH
NOT TO SCALE — TYPICAL



DETAIL 25 SHT 2 — TEMPERATURE PROBE
NOT TO SCALE — MIN. 100' FROM TEST STATION

SAFETY

SAFETY PLEDGE
I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE OTHERS TO ACT SAFELY.

ISSUED FOR BID
NOT
ISSUED FOR CONSTRUCTION

COPY

UNDERGROUND SERVICE ALERT USA — CALL BEFORE YOU DIG — CALL: 811

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	8/27/12	ISSUED FOR BID	41640623	PRC	CRG	JP	DF MAC

REVISIONS

APPROVED BY	
GM	41640623
SUPV	
DSGN	
DWN	PRC
CHKD	CRG
OK	JP
DATE	
SCALES	AS SHOWN

HYDROTEST TIM-136-12
DFM-1614-01
MP 0.016 - 3.932
LODI, CALIFORNIA

PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

MICROFILM
BILL OF MATL SHEET 10
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 09 OF 10 SHEETS
41640623 0

PS-12-02136

MATERIAL OF RECORD

Item Number	Description	UNITS	Quantity	ABI SMYS Results
1	Pipe, 6.625" OD, x 0.188" WT, API 5L, 30,000 SMYS, SMLS*	Ft.	20516.0	
2	Tap, Branch Piping, 3.500" OD x 0.216" WT, GR B, SMLS	Ft.	140	
	Pipe, 6.625" OD x 0.188" WT, 30,000 SMYS, SMLS	Ft.	5	
	Pipe, 4.500" OD x 0.148" WT, 28,000 SMYS, BW*	Ft.	50	
	Valve, 6", Gate, ANSI 300	Ea.	1	
	Valve, 3", Gate, ANSI 300	Ea.	2	
	Valve, 3"	Ea.	1	
	Reducer, 6.625" OD x 4.500" OD, STD WT, GR B	Ea.	1	
	Reducer, 4.500" OD x 3.500" OD, STD WT, GR B	Ea.	1	
	Filter, 4", RF, ANSI 300	Ea.	1	
	Elbow, 3.500" OD x 0.216" WT, 24,000 SMYS*	Ea.	5	
	Tee Reducing, 6.625" OD x 3.500" Outlet x 0.280" WT x 0.216" WT, 24,000 SMYS*	Ea.	1	
	Tee Straight, 3.500" OD x 3.500" Outlet x 0.216" WT, 24,000 SMYS*	Ea.	1	
3	Tap, Branch Piping, 2.375" OD x 0.154" WT, 33,000 SMYS, SMLS	Ft.	63	
	Pipe, 1.050" OD x 0.113" WT, GR B, SMLS	Ft.	2.5	
	Valve, 2", Plug, ANSI 300, V-1	Ea.	1	
	Reducer, 2.375" OD x 1.660" OD, STD WT, GR B	Ea.	1	
	Elbow, 2.375" OD x 0.154" WT, GR B	Ea.	3	
	Tee Reducing, 2.375" OD x 1.050" Outlet, STD WT, GR B	Ea.	2	
4	Tap, Branch Piping, 2.375" OD x 0.148" WT, 30,000, SMLS*	Ft.	9.5	
5	Tap, Branch Piping, 1.050" OD x 0.113" WT, API 5L, GR B, SMLS	Ft.	67	
6	Elbow, 6.625" OD x 0.280" WT, 24,000 SMYS*	Ea.	4	
7	Casing, 8.625" OD	Ft.	101	

*-ASSUMED VALUES PER PG&E TECHNICAL SPECIFICATION, RESOLVING UNKNOWN PIPELINE FEAUTURES 8/01/11

BILLS OF MATERIAL

Item Number	Description	PG&E Material Code	Units	Quantity	Catalog or Drawing Refrence	Heat Number (As Built for Pipe and HY Fittings)	Serial Number (As Built for Pipe and HY Fittings)
	EXPENSE ITEMS ORDER # 41640623						
101	Pipe, 6.625" OD x 0.188" WT, API 5L, X-52, HFW, FBE Coated	M010944	Ft.	54	GS&S A-15		
103	Pipe, 3.500" OD x 0.216" WT, API 5L, GR B, SMLS, Bare	M011692	Ft.	4	GS&S A-15		
105	Pipe, 1.05" OD x 0.154" WT, API 5L, GR B, SMLS, Bare	M010067	Ft.	2	GS&S A-15		
113	Valve, 1/2", Ball 2500MWP, Threaded Ends	M034280	Ea.	8	GS&S F-20		
141	Elbow, 6.625" OD x 0.280" WT, GR B, LR, 90 Deg	M022091	Ea.	7	GS&S B-20		
153	Flange, 4", RF, ANSI 300, Blind, with 1/2" Tap	M020862	Ea.	2	GS&S B-43.2		
156	Flange, 4", RF, ANSI 300, Weldneck, with 1/2" Tap	M025242	Ea.	2	GS&S B-43		
163	Bolt, 0.750" x 4.50", ANSI 300, with matching Nut, for 4" Flange	M192514	Ea.	32	GS&S B-46		
173	Gasket, ANSI 300, PSI Linebacker, Type F, 4"	M016688	Ea.	8	GS&S B-45.1		
180	Save-A-Valve Nipple, 1"	M022287	Ea.	14	GS&S C-14		
181	Save-A-Valve Nipple, 2"	M022289	Ea.	4	GS&S C-14		
191	Plug, 1/2", Hex-Head, Threaded, Forged Steel	M021249	Ea.	2	GS&S B-10.1		
193	Plug, 3/4", Hex-Head, Threaded, Forged Steel, 6000MWP	M021250	Ea.	3	GS&S B-10.1		
201	Nipple, 1/2" x 4", API-5L, GR B, SMLS, EH	M020681	Ea.	8	GS&S B-13.1		
212	Cap, 6.625" OD x 0.280" WT, GR B	M022038	Ea.	4	GS&S B-20		
214	Cap, 3/4" Forged Steel, Threaded, 3000#	M021464	Ea.	1	GS&S B-10.1		
215	Cap, 3.500" OD x 0.216" WT, GR B	M022078	Ea.	1	GS&S B-20		
221	Coupon Test Station	M560691	Ea.	2	GS&S O-10.2		
222	Body Plastic Valve Frame 13"OD x 3' Deep	M043498	Ea.	1	GS&S K-40		
223	Cover, Valve, Cast Iron Christy # G5-C275, 11-1/8" DIA	M043225	Ea.	1	GS&S K-41		
224	Body, Concrete Valve Frame, Christy # G5, 10-3/8" DIA x 12" High	M043271	Ea.	1	GS&S K-41		
225	Pipe, Valve Box Extension, Plastic, 8" IPS, Brandon Supply #851 Black ABS Corrugated, 10' Lengths	M016063	Ea.	1	GS&S K-41		
226	Cover, Concrete, ETS	M043497	Ea.	1	GS&S K-40		
227	Royston Roybond, 16 ounce spray can, 12 per box	M130850	Ea.	1	GS&S E-27		
228	Wire, 500' Coil #10, HMWPE with 47 Mil Thickness, 600 Volts, Solid Copper, Black Insulation	M294991	Ft.	500	GS&S O-10		
229	Cartridges, Cadweld CA-15, or Thermoweld 15P, 15-Gram, 20 Per Box	M159260	Ea.	1	GS&S O-10		
230	Royston Handy Cap (1 Per Weld), 20 Per Box	M562324	Ea.	1	E-27O-10		
231	Sleeve, Copper, Thermoweld A200 or Equivalent	M303755	Ea.	6	GS&S O-10		
	CAPITAL ITEMS ORDER # 30889963						
100	Pipe, 8.625" OD x 0.188" WT, API 5L, X-52, HFW, Bare	M010717	Ft.	2	GS&S A-15		
101	Pipe, 6.625" OD x 0.188" WT, API 5L, X-52, HFW, FBE Coated	M010944	Ft.	21	GS&S A-15		
105	Pipe, 1.05" OD x 0.154" WT, API 5L, GR B, SMLS, Bare	M010067	Ft.	24	GS&S A-15		
115	Valve, Ball, 6", ANSI 300, Ends to match 0.280" WT, X-42 pipe, Gear Operated Per GS&S F-21.1, Fig 3,	M031117	Ea.	2	GS&S F-21.1		
116	Valve Tee, 1" Mueller H-17656, 1440 MWP	M022445	Ea.	4	GS&S C-11		
117	Valve, 3/4", Ball, Threaded, KF, Contramatics, 2000 MWP	M034405	Ea.	4	GS&S F-20		
122	Tee, Straight,6.625" OD, 0.280" WT, GR B	M022150	Ea.	1	GS&S B-20		
131	Reducer, 8.625" OD x 6.625" OD, STD WT, GR B, Concentric	M022042	Ea.	1	GS&S B-20		
141	Elbow, 6.625" OD x 0.280" WT, GR B, 90 Deg, LR	M022091	Ea.	1	GS&S B-20		
142	Elbow, 3/4", Socketweld, FS, 45 Deg, 3000#	M022587	Ea.	8	GS&S B-21		
180	Save-A-Valve Nipple, 1"	M022287	Ea.	1	GS&S C-14		
181	Save-A-Valve Nipple, 2"	M022289	Ea.	3	GS&S C-14		
193	Plug, 3/4", Hex-Head, Threaded, Forged Steel, 6000#	M021250	Ea.	4	GS&S B-10.1		
203	Nipple, 3/4", STL, Threaded, 3" Long, EH	M020687	Ea.	4	GS&S B-13.1		
211	Cap, 8.625" OD x 0.322" WT, GR B	M022080	Ea.	1	GS&S B-20		
212	Cap, 6.625" OD x 0.280" WT, GR B	M022038	Ea.	2	GS&S B-20		
232	Box, B2436, H/20 Loadiing w/Bolts, 24" x 36"		Ea.	2	B2436BOX		
233	Cover, Steel Check Plate, H/20,Bolt Down		Ea.	2	B2436-52JH		
234	Extension, 12" Reinforced Concrete, H/20 Loading		Ea.	2	B2436X12		
	CAPITAL ITEMS ORDER # 30920175						
101	Pipe, 6.625" OD x 0.188" WT, API 5L, X-52, HFW, FBE Coated	M010944	Ft.	9	GS&S A-15		
103	Pipe, 3.500" OD x 0.216" WT, API 5L, GR B, SMLS, Bare	M011692	Ft.	3	GS&S A-15		
102	Pipe, 4.500" OD x 0.237" WT, API 5L, GR B, SMLS, FBE Coated	M010364	Ft.	5	GS&S A-15		
104	Pipe, 2.375" OD x 0.154" WT, API 5L, GR B, SMLS, Bare	M010147	Ft.	1	GS&S A-15		
113	Valve, 1/2", Ball 2500MWP, Threaded Ends	M034280	Ea.	1	GS&S F-20		
118	Valve, 2", Ball, WE X FE, ANSI 300	M034596	Ea.	1	GS&S F-21		
123	Tee,Reducing, 6.625" OD x 6.625" OD x 4.500" Outlet, STD WT, GR B	M022205	Ea.	1	GS&S B-20		
124	Tee,Reducing, 6.625" OD x 6.625" OD x 3.500" Outlet, STD WT, GR B	M022364	Ea.	1	GS&S B-20		
143	Elbow, 3.500" x 0.216" WT, GR B, 90 Deg, LR	M022103	Ea.	1	GS&S B-20		
144	Gasket, ANSI 300, PSI Linebacker, Type F, 4"	M016686	Ea.	1	GS&S B-45.1		
145	Flange, 4", RF, ANSI 300, Weldneck, with 1/2" Tap	M020858	Ea.	1	GS&S B-43		
146	Bolt, 0.625" x 3.50", ANSI 300, with matching Nut, for 2" Flange	M192684	Ea.	8	GS&S B-46		
147	Elbow, 4.500" OD x 0.237" WT, GR B, 90 Deg	M022039	Ea.	1	GS&S B-20		
181	Save-A-Valve Nipple, 2"	M022289	Ea.	2	GS&S C-14		
191	Plug, 1/2", Hex-Head, Threaded, Forged Steel	M021249	Ea.	1	GS&S B-10.1		
201	Nipple, 1/2" x 4", API-5L, GR B, SMLS, EH	M020681	Ea.	1	GS&S B-13.1		
213	Cap, 4.500" OD x 0.237" WT, GR B	M022079	Ea.	2	GS&S B-20		
215	Cap, 3.500" OD x 0.216" WT, GR B	M022078	Ea.	1	GS&S B-20		
216	PCF, Mueller H-17256 LSF, 720 PSI Pressure Rating	M022874	Ea.	1	GS&S C-15.3		
	CONTINGENCY ITEMS ORDER # 41640623						
101	Pipe, 6.625" OD x 0.188" WT, API 5L, X-52, HFW, FBE Coated	M010944	Ft.	40	GS&S A-15		
141	Elbow, 6.625" OD x 0.280" WT, GR B	M022091	Ea.	4	GS&S B-20		

SAFETY

SAFETY PLEDGE

I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE OTHERS TO ACT SAFELY.

ISSUED FOR BID
***NOT* ISSUED FOR CONSTRUCTION**

COPY

UNDERGROUND SERVICE ALERT USA CALL BEFORE YOU DIG
CALL: 811

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
0	8/27/12	ISSUED FOR BID	41640623	PRC	CRG	JP	DF MAC

REVISIONS

APPROVED BY: GM 41640623; SUPV; DSGN; DWN PRC; CHKD CRG; OK JP; DATE; SCALES AS SHOWN

HYDROTEST TIM-136-12
DFM-1614-01
MP 0.016 – 3.932
LODI, CALIFORNIA

PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

MICROFILM
BILL OF MATL SHEET 10
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 10 OF 10 SHEETS
41640623 0

PS-12-02130