# CITY OF GLOBE, ARIZONA DAYBREAK DRIVE WATER LINE PROJECT

# CONTROL AND BENCHMARK

BASE CONTROL POINT #99

NORTHING: 866926.424
EASTING: 517306.346
ELEVATION: 3673.649
DESCRIPTION: SET 1/2" REBAR WITH RED CONTROL CAP

# PROJECT BENCHMARK:

POINT 51 (REMOTE ELEVATION) SPECTRA—SURVEY PRO (GPS) DESCRIPTION: FOUND STEEL ROD IN HANDHOLE.

NGS POINT PID DK7980, DESIGNATION AZR DESCRIPTION: FOUND STEEL ROD IN HANDHOLE

ELEVATION = 3886.4 NAVD 88. (NGS POINT PID DK7980)

### **METADATA**

ARIZONA STATE PLANE (EAST) INTERNATIONAL FEET NAD83 (2011) GRID COORDINATES NAVD88 VERTICAL DATUM (GEOID 18)

OPUS SOLUTION — FILE: 99 TR3741637659288 RINEX FILE: 99\_\_3350.220 DATED: JANUARY 03, 2023 NEAREST NGS PUBLISHED CONTROL POINT PID DU0234 T16

COMBINED SCALE FACTOR 0.99976675

SOUTHWEST GAS

# **ENGINEER**

RICK ENGINEERING COMPANY
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# **OWNER**

CITY OF GLOBE
150 NORTH PINE STREET
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### List of Sheets Sheet Sheet Sheet Description Number | Title CV-01 COVER SHEET GN-01 GENERAL NOTES DT-01 DETAILS DT-02 SURVEY LAYOUT AND CONTROL STA 10+00 TO 12+50 DAYBREAK/MONTECITO STA 12+50 TO 17+00 PLAN & PROFILE PP-02 PP-03 STA 17+00 TO 20+00 PP-04 STA 50+00 TO 54+50 DAYBREAK SOUTH PLAN & PROFILE PP-05 STA 54+50 TO 59+00 PRIVATE WATER CONNECTION PLAN 10 PL-01

### UTILITY COORDINATION REPRESENTATIVE PHONE NO. UTILITY OWNER UTILITY (928) 200-3480 CITY OF GLOBE WATER AND SEWER (928) 812-3816 CABLE ONE-GLOBE (SPARKLIGHT) CATV/FIBER OPTIC CHRIS GUTHREY LUMEN (CENTURYLINK) CATV/FIBER OPTIC (502) 838-3038 NATE HICKS (928) 200-0061 ARIZONA PUBLIC SERVICE ELECTRIC BRYAN GOSLIN

GAS

# PLAN SHEET LEGEND

FERNANDO SOTO

HERNANDEZ

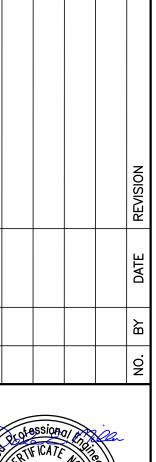
- MAILBOX  - DOWNGUY  - DOWNGUY  - GUARDRAIL  - GUARDRAIL  - FENCE  - SC  - SADDLE CONNECTION  - SEWER MAIN  - BURIED TELE. LINE  - GAS LINE  - WATER VALVE  - FIRE HYDRANT  - REDUCER FITTING  - LEFT  RT  - RIGHT  - DUCTILE IRON PIPE  CLR  - CLEARANCE  SC  - SADDLE CONNECTION  GB  - GRADE BREAK  ARV  - AIR RELEASE VALVE  OHE  - OVERHEAD ELECTRIC LINE  R/W  - RIGHT OF WAY  EDR  - EDGE OF DIRT ROAD  EP  - EDGE OF PAVEMENT  CLF  - CHAIN LINK FENCE  GV  - GATE VALVE			DOWNGUY GUARDRAIL FENCE SEWER MAIN BURIED TELE. LINE GAS LINE WATER VALVE FIRE HYDRANT	RT DIP CLR SC GB ARV OHE R/W EDR EP CLF	- - - - -	RIGHT DUCTILE IRON PIPE CLEARANCE SADDLE CONNECTION GRADE BREAK AIR RELEASE VALVE OVERHEAD ELECTRIC LINE RIGHT OF WAY EDGE OF DIRT ROAD EDGE OF PAVEMENT CHAIN LINK FENCE
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VICINITY MAP		
(60) TO PHOENIX	OW LOW	TO SAFFORD

# ESTIMATED QUANTITIES

ITEM # ITEM DESCRIPTION

ITEM#	ITEM DESCRIPTION	QTY	UNIT
1	REMOVE & REPLACE ASPHALT PAVEMENT, 3" AC ON 12" ABC	360	SY
2	REMOVE METER BOX & RELOCATE WATER METER	9	EA
3	CONNECT TO EXISTING WATER LINE, 6" DIA	2	EA
4	CONNECT TO EXISTING WATER LINE, 2" DIA	1	EA
5	INSTALL WATER LINE, PVC C900 PIPE, 4" DIA	830	LF
6	INSTALL WATER LINE, PVC C900 PIPE, 8" DIA	970	LF
7	INSTALL WATER SERVICE SADDLE, 4" X 3/4"	19	LF
8	INSTALL WATER SERVICE SADDLE, 8" X 3/4"	12	EA
9	INSTALL WATER SERVICE SADDLE, 8" X 1"	2	EA
10	INSTALL WATER SERVICE LINE, TYPE K COPPER, 3/4" DIA	1,880	LF
11	INSTALL WATER SERVICE LINE, TYPE K COPPER, 1" DIA	70	LF
12	INSTALL GATE VALVE, 4" DIA	3	EA
13	INSTALL GATE VALVE, 8" DIA	4	EA
14	INSTALL METER BOX, MAG DTL 319 BOX NO 1324	10	EA
15	INSTALL AIR RELEASE VALVE	2	EA
16	INSTALL CURB STOP WITH FLUSHING PIPE	2	EA
17	CAP & ABANDON EXISTING WATER LINE, 6" DIA	2	EA
18	CAP & ABANDON EXISTING WATER LINE, 2" DIA	4	EA
19	TRAFFIC CONTROL	1	LS
20	MOBILIZATION	1	LS
20A	BONDING	1	LS
20B	TAXES	1	LS





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DAYBREAK DRIVE
ATER LINE PROJECT
CITY OF GLOBE, ARIZONA



DRAWING NO.

CV-01

SHEET NO. 1 OF 10

# RICK ENGINEERING COMPANY NOTES

PROPOSED IMPROVEMENTS FOR CONSTRUCTION PURPOSES

### GENERAL

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL IMPROVEMENTS ARE BUILT, CONSTRUCTED, AND/OR INSTALLED IN ACCORDANCE WITH THESE PROJECT PLANS AND THE TECHNICAL SPECIFICATIONS FOR THE WORK
- AND THE TECHNICAL SPECIFICATIONS FOR THE WORK

  2. THE CONTRACTOR IS RESPONSIBLE FOR THE SURVEY, LAYOUT, AND STAKING OF THE
- 3. IF THERE ARE ANY QUESTIONS REGARDING THE PLANS OR THE INTENT OF THE DESIGN, THE CONTRACTOR SHALL CONTACT THE ENGINEER AND DISCUSS THE ISSUE SO THAT IT IS CLARIFIED OR RESOLVED PRIOR TO THE START OF CONSTRUCTION
- 4. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS AND PRECAUTIONS TO PROTECT AND SAFEGUARD ADJACENT IMPROVEMENTS AND PROPERTY FROM DAMAGE DUE TO CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND OBTAINING ANY PERMITS NEEDED TO COMPLETE THE PROJECT, POTENTIALLY INCLUDING AN AGENCY BUSINESS LICENSE, RIGHT OF WAY WORK PERMIT, WATER USAGE AGREEMENT, ETC., AND INCLUDE THE COSTS FOR THE SAME, IF ANY, IN THE PROJECT BID PRICES
- 6. THE CONTRACTOR SHALL ALSO EMPLOY EFFECTIVE STORM WATER MANAGEMENT TO PREVENT EROSION AND/OR SILT AND DEBRIS FROM LEAVING THE CONSTRUCTION SITE DURING THE ENTIRE DURATION OF THE PROJECT BY APPROPRIATE MEANS INCLUDING THE USE OF SAND BAGS, WADDLES, HAY BALES, TEMPORARY SILTATION BASINS, SILT DIKES/DAMS, SHORING, FTC.
- 7. ALL PROJECT IMPROVEMENTS INCLUDING BUT NOT LIMITED TO MANHOLE FRAMES, VALVE BOXES, VAULTS, HANDHOLES, FIRE HYDRANTS, ETC., SHALL BE SET OR RESET TO FINISHED GRADE OF THE SURROUNDING GROUND OR PAVEMENT SURFACE WHETHER OR NOT SPECIFICALLY CALLED OUT ON THE PLANS OR IN THE SPECIFICATIONS
- 8. QUANTITIES SHOWN ON THE PLANS ARE ESTIMATES ONLY FOR BIDDING PURPOSES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND NOTIFYING THE OWNER AND THE ENGINEER IF ANY SIGNIFICANT DIFFERENCES HAVE BEEN IDENTIFIED.

### | UTILITIES

- 1. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR UTILITY STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM UTILITY MAPPING PROVIDED BY THE VARIOUS UTILITY COMPANIES BASED ON AN AZ811 UTILITY MAPPING REQUEST
- 2. THE LOCATION OF THE UTILITIES MAY OR MAY NOT BE ACCURATELY SHOWN ON THE UTILITY MAPPING PROVIDED AND ON THE PROJECT PLANS
- 3. THERE MAY BE OTHER UTILITY LINES AND FACILITIES PRESENT THAT ARE IN SERVICE OR HAVE BEEN ABANDONED WITHIN THE PROJECT CORRIDOR OR AREA THAT ARE NOT SHOWN ON THE MAPPING AND ON THE PLANS
- 4. THE CONTRACTOR IS RESONSIBLE FOR CONTACTING AZ811 (BLUE STAKE) PRIOR TO COMMENCING ANY DIGGING ACTIVITIES TO HAVE THE LOCATIONS OF THE UTILITIES MARKED IN THE FIELD AT THE PROJECT SITE
- 5. THE CONTRACTOR IS ALSO RESPONSIBLE FOR VISUALLY INSPECTING THE MARKED UTILITIES AT THE PROJECT SITE TO ASCERTAIN IF ANY POTENTIAL CONFLICTS EXIST BETWEEN THE PROPOSED IMPROVEMENTS UNDER THIS PROJECT AND THE EXISITING UTILITY FACILITIES
- 6. THE CONTRACTOR SHALL 'POTHOLE' TO DETERMINE THE EXACT LOCATION AND DEPTH OF EXISTING UTILITY FACILITIES TO IDENTIFY ANY POTENTIAL CONFLICTS BETWEEN UTILITY FACILITIES AND THE PROPOSED IMPROVEMENTS AND, IF NEEDED, REVIEW THE INFORMATION WITH THE OWNER AND THE ENGINEER TO RESOLVE ANY POTENTIAL CONFLICT PRIOR TO CONSTRUCTION
- 7. THE CONTRACTOR SHALL OBSERVE ALL POSSIBLE PRECAUTIONS WHEN WORKING IN CLOSE PROXIMITY TO EXISTING UTILTY LINES AND/OR STRUCTURES TO PROTECT THE SAME AND AVOID ANY DAMAGE TO THE UTILITY FACILITIES
- 8. SHOULD ANY UTILITY FACILITY BE DAMAGED BY THE CONTRACTOR'S ACTIVITIES, THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH THE UTILITY OWNER FOR THE REPAIR OF THE FACILITY AT NO ADDITIONAL COST TO THE PROJECT

# CONSTRUCTION JOBSITE SAFETY

- 1. THE CONTRACTOR ASSUMES SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS
  DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL
  PERSONS AND PROPERTY
- 2. THIS SAFETY REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS
- 3. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER
- 4. NEITHER THE OWNER NOR THE ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS
- 5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, CONSTRUCTION, AND MAINTENANCE OF ALL SAFETY DEVICES INCLUDING SHORING
- 6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS
- 7. THE CONTRACTOR SHALL FOLLOW THE GUIDELINES AND REGULATIONS AS SET FORTH BY OSHA CONCERNING THE PROJECT WORK AND JOBSITE ACTIVITIES

# RICK ENGINEERING WATER NOTES

### STANDARDS

- 1. ALL WATER LINE CONSTRUCTION SHALL CONFORM TO THE LATEST REVISION OF THE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION.
- 2. ALL WORK SHALL BE PERFORMED BY A CONTRACTOR LICENSED BY THE STATE OF ARIZONA FOR POTABLE WATER SYSTEMS AS SHOWN IN THE ARIZONA REGISTRAR OF CONTRACTORS.
- 3. A COPY OF THE PLANS, BID/CONTRACT DOCUMENTS, SPECIFICATIONS, AND ALL APPLICABLE DETAILS SHALL BE ON THE PROJECT SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED.
- 4. PRECONSTRUCTION PROCEDURE:
  - A. ALL PLANS MUST BE APPROVED AND SIGNED BY THE AGENCY/OWNER.
  - B. WORK SHALL NOT COMMENCE UNTIL A WRITTEN 'NOTICE TO PROCEED HAS BEEN ISSUED BY THE AGENCY/OWNER.
- C. THE CONTRACTOR SHALL NOTIFY THE AGENCY/OWNER A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE OF CONSTRUCTION TO REQUEST A PRECONSTRUCTION MEETING AND ONLY AFTER THE AGENCY/OWNER HAS RECEIVED APPROVED PLANS AND THE "CERTIFICATE OF APPROVAL TO CONSTRUCT" FROM THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY, IF REQUIRED, AND THE SIGNED CONSTRUCTION AGREEMENT.
- D. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND FOR ALL FEES AND TAXES REQUIRED TO COMPLETE THE WORK.
- 5. THE CONTRACTOR SHALL COMPLY WITH APPLICABLE ARIZONA REVISED STATUTES PERTAINING TO "ARIZONA 811" (BLUE STAKE) UTILITY LOCATIONS PRIOR TO STARTING CONSTRUCTION.
- 6. EXISTING UTILITY LOCATIONS ARE TAKEN FROM PUBLIC RECORD AND ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THE PROTECTION OF ALL UNDERGROUND AND OVERHEAD UTILITIES AND FACILITIES IN THE PROJECT AREA, WHETHER SHOWN ON THE APPROVED PLANS OR NOT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY REPAIRS OF DAMAGED UTILITY LINES AND FACILITIES AT THE CONTRACTOR'S SOLE EXPENSE.

### POTABLE WATER SYSTEM REQUIREMENTS

- 7. ONLY IMPROVEMENTS SHOWN ON THE APPROVED WATER PLANS MAY BE INSTALLED AS PART OF THE PUBLIC WATER SYSTEM.
- 8. APPROVED PLANS REQUIRING REVISION SHALL BE RE-APPROVED BY THE AGENCY/OWNER AND ENGINEER OF RECORD PRIOR TO START OF REVISED WORK. CHANGES REQUIRING A REVISION:
- A. ADDING OR DELETING NEW WATER MAINS
- B. REROUTING OF NEW WATER MAIN GREATER THAN 12" FROM THE ORIGINAL LOCATION
- C. ADDING, DELETING, RELOCATING, OR CHANGING THE SIZE OF A NEW WATER SERVICE
- D. ADDING, DELETING, OR CHANGING THE SIZE OF A NEW FIRE SERVICE OR RELOCATING A NEW FIRE HYDRANT
- E. CHANGE IN AN EASEMENT LOCATION
- 9. PASSING MICROBIOLOGICAL TEST RESULTS ARE REQUIRED PRIOR TO FINAL ACCEPTANCE. THE TEST IS THE RESPONSIBILITY OF THE CONTRACTOR. HOWEVER, THE CHAIN OF CUSTODY MUST BE THROUGH THE AUTHORIZED AGENCY/OWNER WATER DEPARTMENT REPRESENTATIVE. COMPLY WITH MAG SPECIFICATION SECTION 611 AND AWWA STANDARDS C601 & C651.
- 10. DISINFECTION SAMPLING RESULTS FOR THE WATER LINE SHALL BE PROVIDED BY THE CONTRACTOR ON ADEQ'S APPROVAL OF CONSTRUCTION (AOC) FORM. THE FORM CAN BE FOUND AT: WWW.AZDEQ.GOV WEBSITE.
- 11. TOTAL COLIFORM DISINFECTION RESULTS MUST BE PROVIDED FROM AN AZ STATE ACCREDITED LABORATORY ON ACCREDITED LABORATORY LETTERHEAD AND SHALL BE INCLUDED WITH THE ENGINEER'S CERTIFICATE OF COMPLETION IN ORDER FOR THE APPROVAL OF CONSTRUCTION (AOC) PERMIT TO BE ISSUED.
- 12. PRESSURE AND LEAKAGE TESTING RESULTS SHALL BE PROVIDED BY THE CONTRACTOR FOR INCLUSION IN THE APPROVAL OF CONSTRUCTION (AOC) APPLICATION IN ORDER FOR THE AOC PERMIT TO BE ISSUED BY ADEQ. DATA REQUIRED FOR THE ENGINEER'S CERTIFICATE OF COMPLETION AND THE AOC CAN BE FOUND AT THE WWW.AZDEQ.GOV WEBSITE.
- 13. ANY MATERIAL OR PRODUCT THAT COMES INTO CONTACT WITH THE PUBLIC WATER SUPPLY SHALL CONFORM TO ANSI/NSF STANDARD 61.
- 14. WATER AND SEWER SEPARATION DISTANCE SHALL MEET THE MINIMUM SEPARATION DISTANCES PER AAC R18-5-502.C, MAG STANDARD SPECIFICATIONS SECTION 610, AND MAG STANDARD DETAILS 404-1, 404-2, AND 404-3.

### CONSTRUCTION REQUIREMENTS

SECTION 345.

- 15. WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 48" OF COVER FROM FINAL GRADE EXCEPT AS OTHERWISE NOTED ON THE APPROVED PLANS.
- 16. BEDDING AND BACKFILL MATERIAL SIEVE ANALYSIS RESULTS AND TRENCH BACKFILL COMPACTION TEST RESULTS ARE REQUIRED PRIOR TO FINAL ACCEPTANCE.
- 17. LIMITS OF PAVEMENT CUTS SHALL BE AS SHOWN ON THE PLANS OR AS DETERMINED BY AGENCY/OWNER'S REPRESENTATIVE.
- 18. THE BACKFILL MATERIAL, COMPACTION, AND PAVEMENT PATCHING SHALL BE IN ACCORDANCE WITH MAG SECTION 601 AND MAG STD DETAILS 200-1 AND 200-2, OR PER THE WRITTEN DIRECTION OF THE AGENCY/OWNER 'S REPRESENTATIVE.

19. ALL METER BOXES MUST BE INSTALLED ACCORDING TO THE MAG STANDARD SPECIFICATIONS AND

- DETAILS. METER BOXES AND/OR LIDS BROKEN OR REMOVED BY THE CONTRACTOR WILL BE REPLACED OR RESET IN ACCORDANCE WITH THE APPLICABLE STANDARDS AT THE CONTRACTOR'S SOLE EXPENSE.

  20. ANGLE METER STOPS SHALL NOT BE INSTALLED AT THE SAME LOT CORNER AS THE ELECTRIC
- FEET.

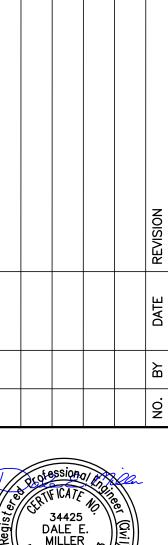
  21. THE CONTRACTOR SHALL HAVE ALL WATER VALVES IDENTIFIED AND LOCATED PRIOR TO PAVING AND SHALL HAVE ALL VALVE BOXES SET TO FINAL GRADE AFTER PAVING IN ACCORDANCE WITH MAG

SERVICE OR TRANSFORMER. WHERE THIS CANNOT BE ACCOMPLISHED, THE WATER SERVICE AND THE ELECTRICAL SERVICE OR TRANSFORMER MUST HAVE A MINIMUM HORIZONTAL SEPARATION OF 5

- 22. WHERE EXISTING WATER SERVICES ARE TO BE RELOCATED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING THOSE SERVICES TO THE NEW LOCATIONS AS SHOWN ON THE APPROVED PLANS. RELOCATION WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, NEW SERVICE SADDLES AND TAPS, CORPORATION STOPS, SERVICE LINE PIPE, ANGLE METER STOPS, BALL VALVES, TRACER WIRE, AND DETECTOR TAPE. THE WORK SHALL ALSO INCLUDE SETTING AND CONNECTING METERS AND METER BOXES, AND ALL WORK NECESSARY TO RECONNECT THE WATER SERVICE TO THE CLISTOMER
- 23. CONTRACTOR COORDINATION WITH RESIDENTS AND BUSINESS MANAGERS REGARDING ADVANCE NOTIFICATION OF SCHEDULED WATER OUTAGES TO CHANGE OVER SERVICE CONNECTION TO THE NEW WATER MAIN AND SERVICE LINE SHALL INCLUDE THE DAY, TIME, AND EXPECTED DURATION. ADVANCE NOTIFICATION IS REQUIRED TO BE IN ENGLISH AND SPANISH.
- 24. SALVAGED MATERIALS, FITTINGS AND APPURTENANCES ARE THE PROPERTY OF THE AGENCY/OWNER AND SHALL BE DELIVERED TO A STORAGE SITE AS DIRECTED. ANY SALVAGED MATERIALS NOT WANTED BY THE AGENCY/OWNER SHALL BE PROPERLY DISPOSED OF AT A LANDFILL OR OTHER LEGAL DISPOSAL SITE. SALVAGE AND HANDLING ARE THE RESPONSIBILITY OF THE CONTRACTOR AND THE COST IS CONSIDERED TO BE INCIDENTAL TO THE PROJECT CONSTRUCTION.
- 25. WATER LINE ABANDONMENT IN PLACE WILL BE EXAMINED ON A CASE-BY-CASE BASIS. VALVE RISERS AND RISER PIPE WILL ALWAYS BE REMOVED FROM PAVED AREAS. EXCAVATED AREAS SHALL BE BACKFILLED AND COMPACTED WITH AGGREGATE BASE COURSE COMPACTED TO THE MINIMUM DENSITY SPECIFIED IN MAG SECTION 601 (100% ASTM D698).
- 26. THE PAVEMENT REPAIR SHALL BE AS SHOWN ON THE APPROVED PLANS. ANY OPEN PIPES WILL BE PROPERLY PLUGGED OR CAPPED TO SEAL OFF THE ABANDONED PIPE.
- 27. THE CONTRACTOR SHALL MAINTAIN WATER SERVICE TO THE GREATEST EXTENT POSSIBLE AT ALL TIMES AND SHALL MINIMIZE WATER SERVICE INTERRUPTION TO EXISTING WATER SERVICES DURING ALL CONSTRUCTION ACTIVITIES WITHIN THE PROJECT AREA. ALL EXISTING METERS AND LINES FOUND IN CONFLICT WITH THE NEW WATER LINE ALIGNMENTS WHETHER OR NOT SHOWN ON PLANS SHALL BE SUPPORTED ACROSS THE TRENCH BY THE CONTRACTOR. EXISTING WATER METERS SHALL REMAIN IN PLACE AND ARE NOT TO BE DISTURBED BY THE CONTRACTOR DURING WATER MAIN TRENCHING AND INSTALLATION OPERATIONS AND SHALL REMAIN ACCESSIBLE FOR READING OR MAINTENANCE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGES TO EXISTING WATER METERS AND/OR SERVICE LINES THAT OCCUR AS A RESULT OF HIS TRENCHING AND WATER MAIN INSTALLATION OPERATIONS.
- 28.ONLY APPROVED MATERIALS PER THE APPROVED MATERIALS LIST AND/OR PROJECT SPECIFICATIONS WILL BE ACCEPTED.
- 29.FIRE HYDRANTS SHALL BE CLOW MEDALLION (5-1/4" OPENING), WATEROUS PACER (5-1/4" OPENING). OR A PRE-APPROVED EQUIVALENT HYDRANT.
- 30.ALL FITTINGS, VALVES, FLEXIBLE COUPLINGS, AND REPAIR CLAMPS SHALL BE ENCASED IN A 10 MIL POLYETHYLENE BARRIER WRAP IN ACCORDANCE WITH AWWA C-105, METHOD C.
- 31.PIPE, FITTINGS, VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES SHALL CONFORM TO THE CURRENT STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION.
- 32. WATER MAIN AND SERVICES LINES ARE DESIGNED FOR A MINIMUM NORMAL INTERNAL WORKING PRESSURE OF 150 PSI PLUS APPROPRIATE ALLOWANCES FOR WATER HAMMER, OR AS OTHERWISE DENOTED ON THE PROJECT PLANS AND/OR IN THE TECHNICAL SPECIFICATIONS.
- 33. WATERLINES WITH UNRESTRAINED JOINTS SHALL BE BLOCKED AS REQUIRED BY MAG STANDARD SPECIFICATION SECTION 610.14 AND MAG STANDARD DRAWINGS 301, 380, AND 381.

### INSPECTION REQUIREMENTS

- 34.INSPECTORS EMPLOYED BY THE AGENCY/OWNER ARE AUTHORIZED TO INSPECT ALL WORK DONE AND MATERIALS FURNISHED. SUCH INSPECTION MAY EXTEND TO ALL OR ANY PARTS OF THE WORK AND TO THE PREPARATION, FABRICATION, OR MANUFACTURING OF THE MATERIALS USED. THE INSPECTOR SHALL NOT BE AUTHORIZED TO ALTER OR WAIVE THE PROVISIONS OF THE CONTRACT. THE INSPECTOR SHALL BE AUTHORIZED TO ISSUE INSTRUCTIONS IN KEEPING WITH THE DESIGN INTENT OF THE PLANS AND SPECIFICATIONS. THE INSPECTOR SHALL HAVE THE AUTHORITY TO REJECT DEFECTIVE MATERIALS OR WORK. THE INSPECTOR SHALL BE THE INTERPRETER OF THE PLANS AND SPECIFICATIONS.
- 35.ITEMS OF WORK REQUIRING INSPECTION PRIOR TO BEING BACKFILLED OR OTHERWISE CONCEALED BY THE CONTRACTOR, INCLUDE BUT ARE NOT LIMITED, TO THE TRENCH DEPTH AND LOCATION, PIPE MATERIALS, INSTALLATION OF TEMPORARY PLUGS, TAPS AND TIE—INS, SERVICES, DRAIN ASSEMBLIES, BEDDING, AND DETECTABLE WIRING AND MARKING TAPE INSTALLATION. ANY WORK DONE OR MATERIALS USED WITHOUT INSPECTION BY THE OWNER/AGENCY WATER DEPARTMENT MAY BE ORDERED UNCOVERED AND REMOVED OR REPLACED AT THE CONTRACTOR'S EXPENSE EVEN IF THE UNCOVERED WORK IS DETERMINED TO BE ACCEPTABLE.





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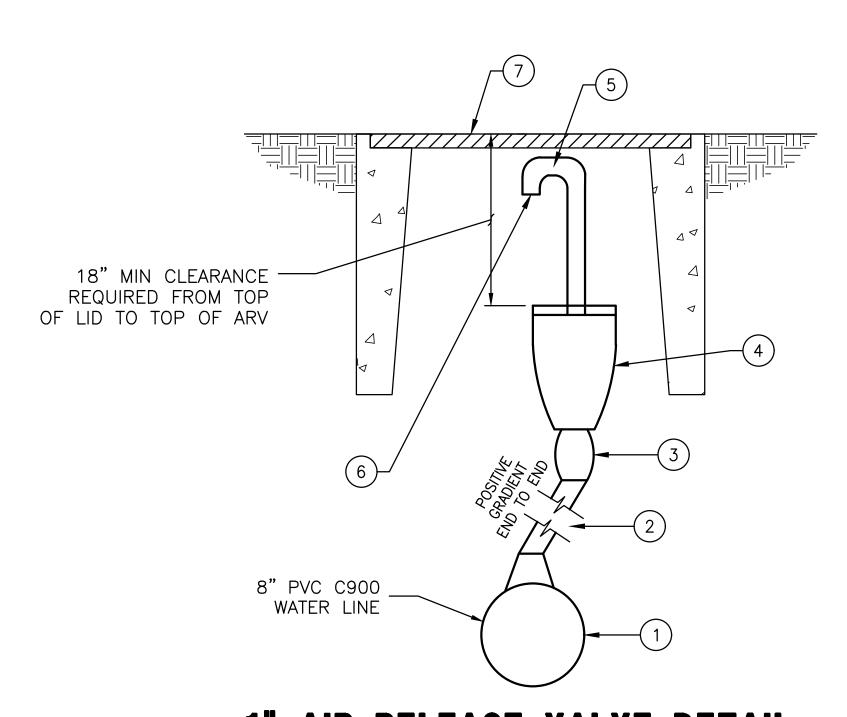
DAYBREAK DRIVE /ATER LINE PROJEC



DRAWING NO.

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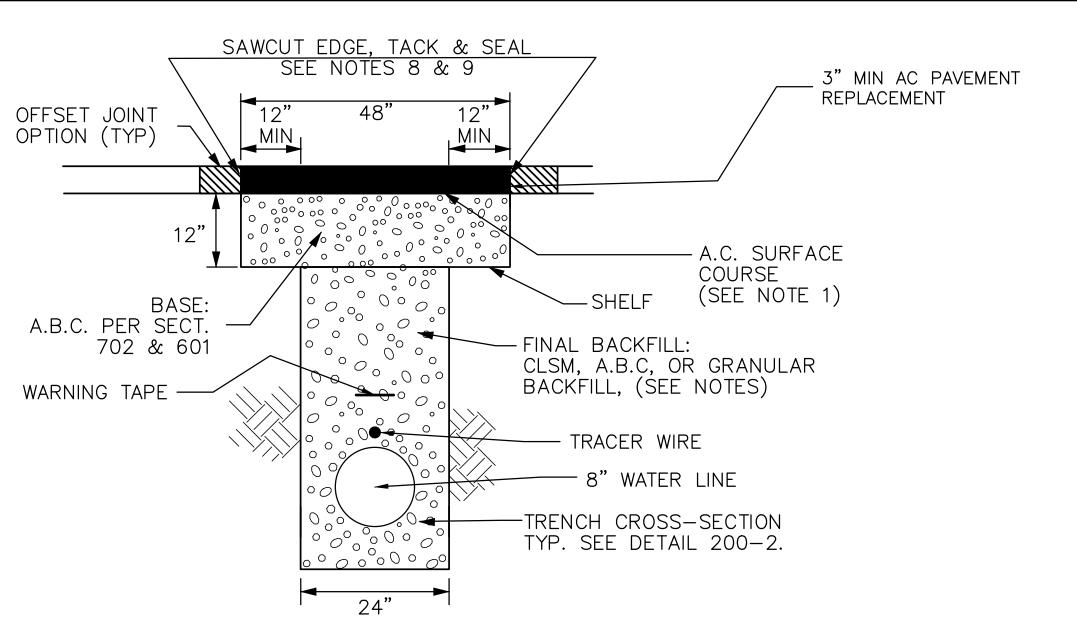
SHEET NO. 2 OF 10



# 1" AIR RELEASE VALVE DETAIL

## NOTES:

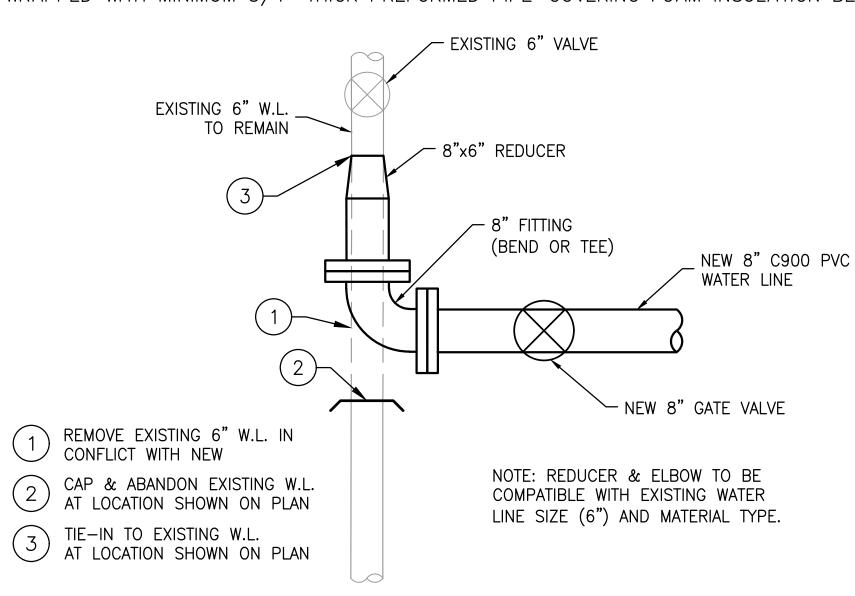
- 1. DOUBLE STRAP TAPPING SADDLE
- 2. TYPE K COPPER PIPE, 1" DIA.
- 3. CORPORATION STOP
- 4. A.R.I. S=050 AIR-RELEASE VALVE, OR APPROVED EQUAL.
- 5. 1" VENT PIPE
- 5.1. MALE PIPE ADAPTER
- 5.2. BRASS NIPPLES
- 5.3. BRASS UNION
- 5.4. BRASS STREET 90° ELL
- 5.5. RISER (BRASS OR COPPER) PIPE 6. (2) 90° ELL WITH FINE MESH SCREEN OVER OPENING.
- 7. PROVIDE METER BOX WITH LID PER MAG S.D. 319 #1730.
- PLACE IN APPROVED LOCATION
- 8. SET METER BOX ON STREET SIDE AT THE RIGHT-OF-WAY LINE



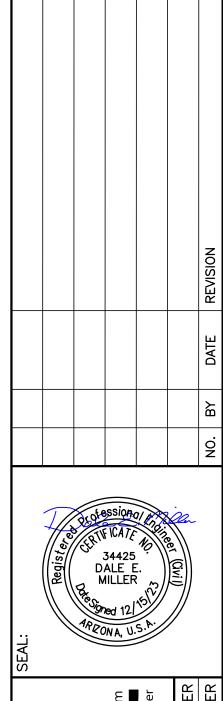
# T-TOP TRENCH REPAIR DETAIL (MODIFIED MAG DTL 200-1)

### NOTES:

- 1. PAVEMENT MATCHING, BASE COURSES AND SURFACE REPLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 336 UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS.
- 2. TRENCH EXCAVATION, BACKFILLING AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 601. NATIVE BACKFILL SHALL ONLY BE USED WITH AGENCY APPROVAL
- 3. CLSM SHALL BE 1/2-SACK PER SECTIONS 604 AND 728.
- 4. MATERIAL FOR FINAL BACKFILL AND BASE (IF APPLICABLE) SHALL BE AS NOTED HEREIN UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS.
- 5. FINAL BACKFILL SHALL BE CLSM FOR TRENCH DEPTHS GREATER THAN 4 FEET UNLESS A SAFE (OHSA COMPLIANT) WORKING SPACE AT LEAST 30" WIDE IS PROVIDED TO CONDUCT COMPACTION TESTING.
- 6. PROVIDE MINIMUM 12" WIDE SHELF AS SHOWN IN "T-TOP" TRENCH REPAIR AT ENDS OF TYPE "A" TRENCH REPAIR EXCEPT WHERE EDGE ABUTS EXISTING CONCRETE.
- 7. USE "T-TOP" PAVEMENT REPLACEMENT WHERE A TRENCH IS NOT PARALLEL TO A STREET OR GOES THROUGH AN INTERSECTION.
- 8. THE JOINT LOCATION OR JOINT CONFIGURATION MAY VARY FROM THAT SHOWN TO ELIMINATE REMNANTS, TO ELIMINATE FULL DEPTH SAWCUT JOINTS FROM BEING LOCATED WITHIN A WHEEL PATH AS REQUIRED BY SECTION 336, OR WHEN AN OFFSET JOINT IS CONSTRUCTED. SEE DETAIL 200-2 FOR REMNANT PAVEMENT REMOVAL REQUIREMENTS.
- 9. SAWCUT EDGE AND APPLY TACK COAT. FOR PERMANENT PAVEMENT, APPLY 2-1/2" WIDE SECTION 337.2.1 COMPLIANT JOINT SEALANT AS REQUIRED BY AGENCY - SEE DETAIL ON 200-2.
- 10. EXPOSED COPPER OR POLYETHYLENE WATER PIPE UP TO 2" IN DIAMETER IN TRENCHES TO BE BACKFILLED WITH CLSM SHALL BE WRAPPED WITH MINIMUM 3/4" THICK PREFORMED PIPE-COVERING FOAM INSULATION BEFORE PLACING CLSM.



**EXISTING WATER LINE CONNECTION DETAIL** STA 10+00



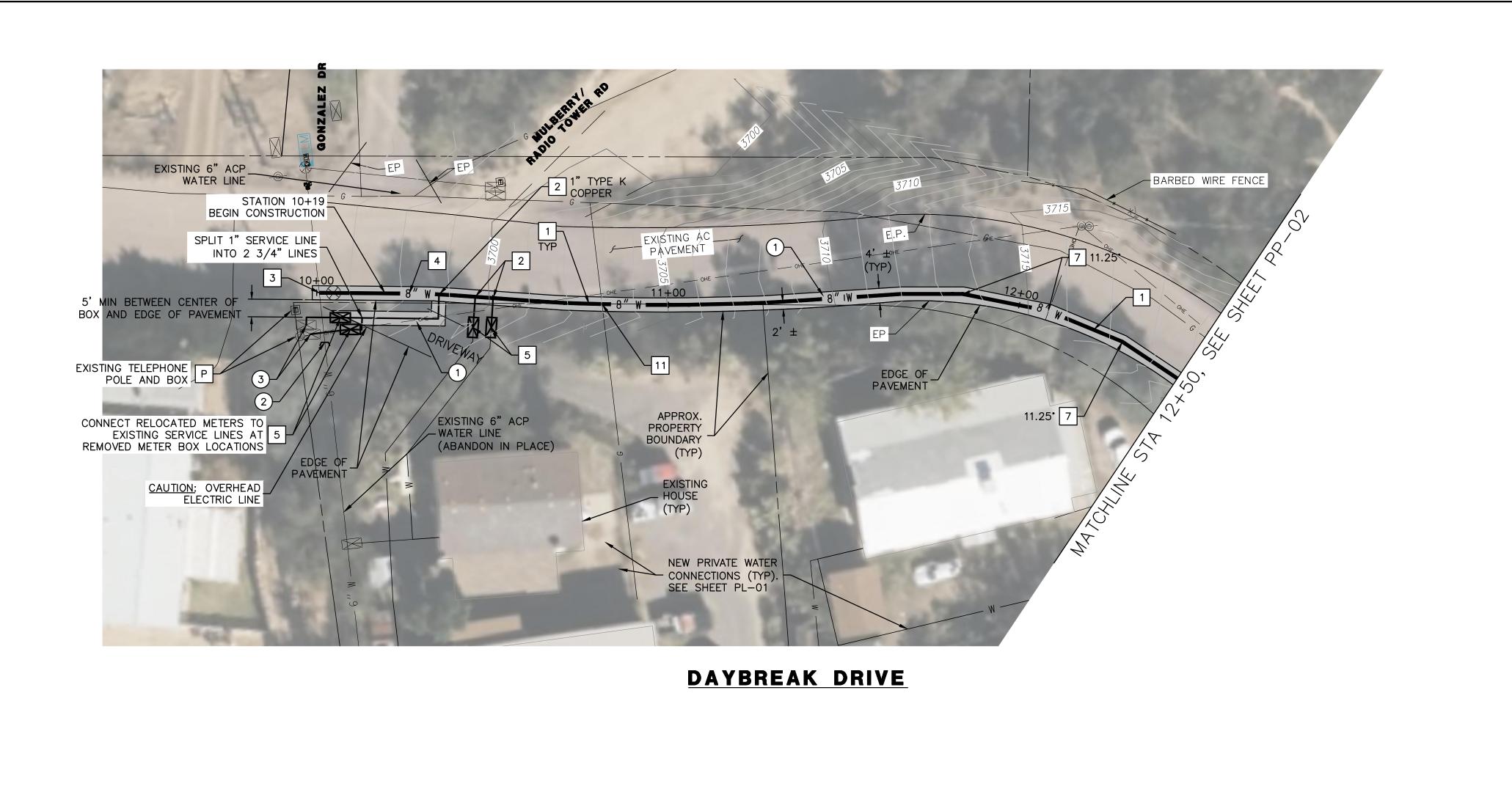
2401 W. PEORIA AVENUE # PHOENIX, AZ 85029 602.957.3350

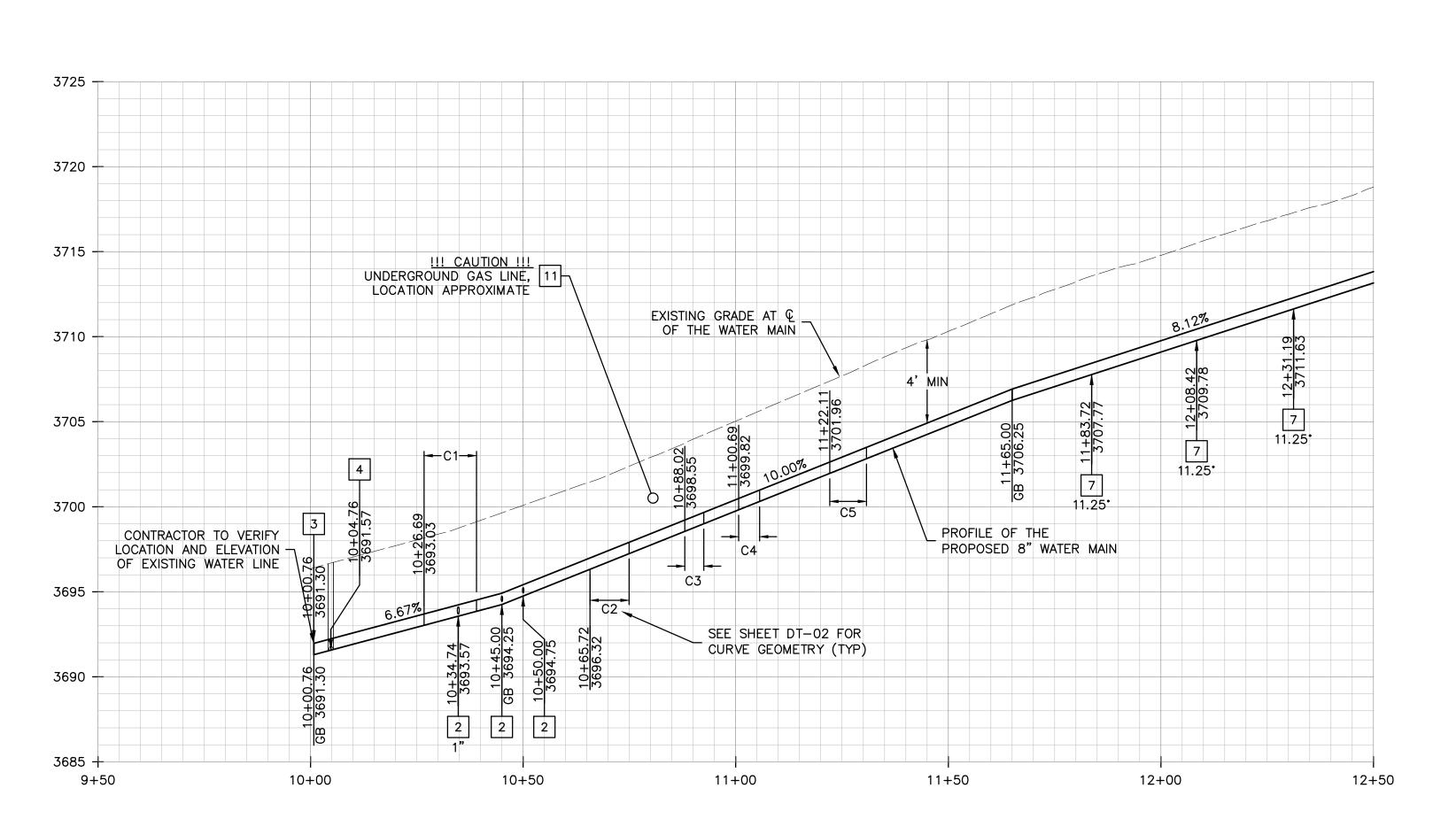
DRIVE DAYBREAK I WATER LINE F

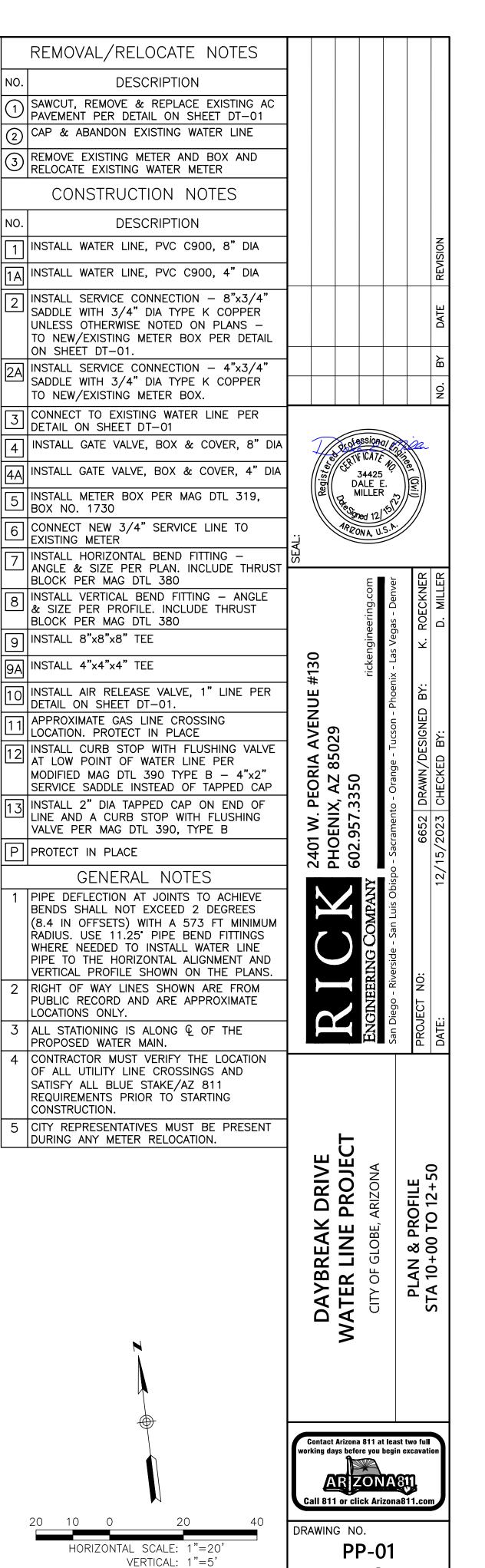


DRAWING NO. **DT-01** SHEET NO. 3 OF 10

BEGIN PROJECT STA 10+00.00\_ N 866400.68 E 519117.13 NOTE: ALL STATIONING IS AT THE CENTERLINE OF THE PROPOSED WATER MAIN DAYBREAK WATER LINE HORIZONTAL CONTROL NUMBER | START STA | END STA | LENGTH | RADIUS | DELTA (A) | LINE/CHORD DIRECTION EXISTING HOUSES (TYP) 10+26.69 | 26.69' 10+00.00 S82° 34' 29.36"E 10+39.03 | 12.34' | 200.00' | 3°32'09" S80° 48' 24.71"E 10+26.69 10+65.72 | 26.69 10+39.03 S79° 02' 20.07"E 10+74.91 | 9.19' | 200.00' | 2°37'54" S80° 21' 16.95"E 10+65.72 10+88.02 S81° 40′ 13.84″E 10+74.91 13.11 CONTROL POINT 10+88.02 10+92.49 4.47' | 200.00' | 1°16'52" S82° 18' 40.05"E N 866926.424 E 517306.346 10+92.49 11+00.69 S82° 57' 06.26"E 11+00.69 11+05.61 4.93' | 200.00' | 1°24'42" S83° 39' 27.23"E 11 + 22.11| 2401 W. PEORIA AVENUE # | PHOENIX, AZ 85029 | 602.957.3350 11+05.61 S84° 21' 48.20"E 16.49' 11+30.76 11+22.11 8.65' 200.00' 2'28'44" N 866158.84 E 519390.90 390182 3735.619 S85° 36' 10.41"E 11+66.22 35.46 11+30.76 S86° 50′ 32.63″E FND 1/2" REBAR X NO CAP 11+66.22 11+81.04 | 14.82' S83° 04' 06.68"E N 866134.949 E 519110.454 11+83.72 | 2.68' 11+81.04 S83° 04' 06.68"E 12+08.42 | 24.70' S71° 49' 06.68"E 11+83.72 ALUM CAP FLUSH X JSE 16191 12+08.42 12+31.19 | 22.77' S60° 34' 06.68"E 12+57.65 | 26.47 12+31.19 S49° 19' 06.68"E 12+57.65 | 12+84.97 | 27.32' S38° 04' 06.68"E 13+18.92 | 33.95' 12+84.97 S26° 49' 06.68"E S15° 34' 06.68"E 13+31.87 13+18.92 12.95 13+86.25 | 54.38' | 200.00' | 15°34'44" 13+31.87 S7° 46' 44.64"E S0° 00' 37.40"W 13+86.25 14+34.29 48.04 14+67.80 33.51 N 866016.00 E 519382.83 390118 3744.154 14+34.29 S0°08'15.09"W 15+32.99 | 65.19' 14+67.80 S1°05'30.70"W FND 1/2" REBAR X NO CAP 15+32.99 15+71.85 | 38.86' S1° 03' 18.14"W SURVEY LAYOUT AND CONTROL DAYBREAK DRIVE
WATER LINE PROJECT
CITY OF GLOBE, ARIZONA 15+71.85 16+28.23 56.38 S1° 31' 49.11"W N 865980.52\_ E 519384.96 16+28.23 16+86.32 58.08 S0° 00' 03.66"W 390130 17+78.08 91.77 16+86.32 S89° 59' 59.96"W 3744.515 FND 1/2" REBAR X NO CAP 18+78.88 | 100.80' S89° 36' 52.21"W 17+78.08 19+68.77 89.89 18+78.88 S89° 36' 52.21"W END PROJECT STA 19+68.77\_ N 865923.19 E 519119.60 <sup>3</sup>75<sup>2</sup>+00 18+00 STA 16+86.32 N 865924.08 E 519402.07 Call 811 or click Arizona811.cd DRAWING NO. DT-02 GRAPHIC SCALE: 1"=30' SHEET NO. 4 OF 10







SHEET NO. 5 OF 10

