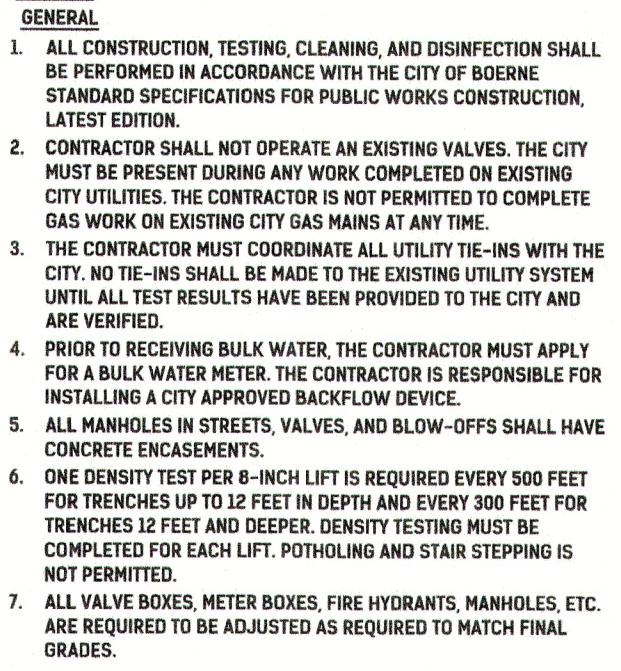


## BOERNE WATER GENERAL NOTES

**NOTE:**  
FOR PAVEMENT DESIGN SECTION SEE  
GEOTECHNICAL ENGINEERING REPORT

EXISTING UTILITIES ARE LOCATED WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTORS SHALL EXERCISE EXTRA CARE IN DIGGING ANY TRENCH FOR PROPOSED UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE, VERIFY THE EXACT LOCATION & IDENTIFY AREA OF CONFLICTS WITH EXISTING UTILITIES AND SHALL NOTIFY THE ENGINEER IF CONFLICT IS FOUND.

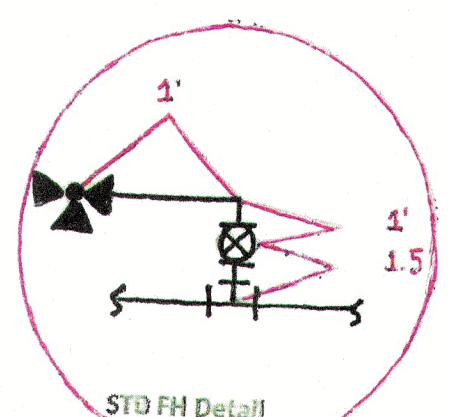


<p>2. MACHINE CHLORINATION BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE UNLESS OTHERWISE INDICATED.</p>	<p>9. FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED AND THE CITY OF BOERNE RELEASES THE MAIN FOR THE IN-USE.</p>
<p>3. ALL 12" &amp; 16" PIPE SHALL BE P.V.C. - 9005, DR14 CLASS 200, ALL OTHER PIPE SHALL BE P.V.C. - 9000, DR14 CLASS 200, UNLESS OTHERWISE NOTED.</p>	<p>10. ALL THRUST BLOCKING MUST BE PLACED OUTSIDE NATURAL GROUND NOT THRU BACKFILL.</p>
<p>4. ALL MAINS SHALL BE HYDROSTATICALLY TESTED BY THE CONTRACTOR, AS PROVIDED FOR IN THE C.D.B. SPECS. FOR P/W CONSTRUCTION.</p>	<p>11. MAINTAIN 2' HORIZONTAL SEPARATION BETWEEN EXIST. POWER POLES AND TRENCH.</p>
<p>5. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL THE FINAL MEASUREMENTS.</p>	<p>12. ALL FIRE HYDRANTS TO BE MUELLER A-423 OR APPROVED EQUAL.</p>
<p>6. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. CALL: 1-800-910-TESS FOR LOCATES.</p>	<p>13. CONTRACT SECONDARY BACKFILL TO 99% MAX DRY DENSITY. CONTRACTOR TO PERFORM DENSITY TESTING AT INTERVALS OF 500' PER 6" LIFT OF SECONDARY BACKFILL FOR UTILITIES IN TOWD ROW (TOWD REQUIREMENT), AND PER 6" LIFT OF SECONDARY BACKFILL FOR UTILITIES IN ALL OTHER AREAS (CITY OF BOERNE REQUIREMENT). REPORTS TO BE PROVIDED TO TOWD FOR WORK WITHIN TOWD ROW.</p>
<p>7. CONTRACTOR SHALL NOTIFY AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION:</p>	<p>14. CONTRACTOR TO CONTACT 1-800-DIE-TESS 48 HOURS PRIOR TO COMMENCING WORK FOR MARKING UNDERGROUND CONDUITS.</p>

A) CITY OF BOERNE PUBLIC WORKS (1-800-240-7511)

CONTRACTOR SHALL INSTALL RETAINER GLANDS AT ALL FITTINGS AND PROVIDE JOINT RESTRAINING HARNESSSES OR FIELD LOCK GASKETS AT ALL JOINTS WITHIN THE LENGTH SHOWN. CONTRACTOR SHALL INSURE THAT ALL TEES, BENDS, VALVES, ETC. HAVE A MINIMUM OF 5 FT OF PIPE WITH NO JOINT ON EACH SIDE OF THE FITTING, JOINT RESTRAINTS AND FIELD LOCK GASKETS

**NOTE:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TEST WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE CITY OF BOERNE INSPECTOR/TEST ADMINISTRATOR, PER EACH 8-INCH LOOSE LIFT PER 500 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY CITY OF BOERNE WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.



N.T.S.

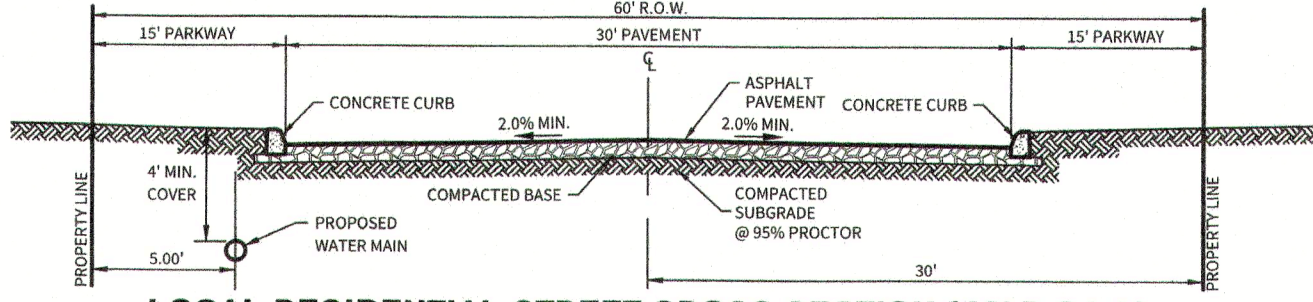
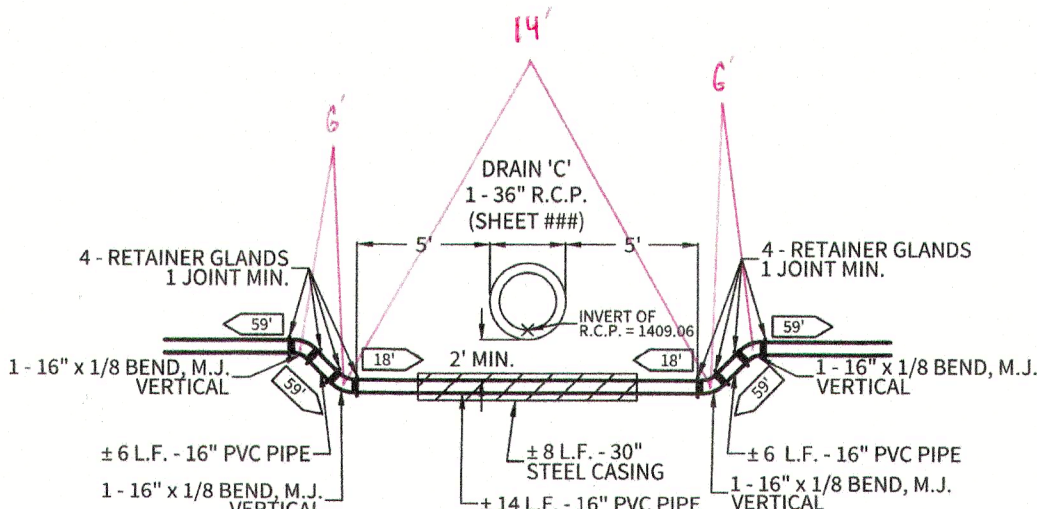


Diagram illustrating a proposed subdivision with various easements and dimensions:

- LOT 1000, BLOCK 1000**
- PRIVATE ROADWAY, DRAINAGE & PUBLIC UTILITY EASEMENT**
- PUBLIC UTILITY, DRAINAGE, LANDSCAPE & EMBANKMENT/BACKSLOPE EASEMENT**
- PUBLIC UTILITY & DRAINAGE EASEMENT**
- Dimensions:**
  - WIDTH VARIES
  - 20'
  - 10'
  - 10'

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVOID ANY GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR ALL TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

**FENCE NOTE:**  
GATES ACROSS EASEMENT: DOUBLE SWING GATES WITH A MINIMUM CLEAR  
OPENING OF 12 FEET WIDE SHALL BE INSTALLED WHEREVER FENCES CROSS  
UTILITY EASEMENTS.



DETAIL A: DRAIN C / WATER CROSSING

Reviewed by City of Boerne Engineering & Mobility: \_\_\_\_\_  
 Approved for Construction: \_\_\_\_\_  
 Approved as Noted: \_\_\_\_\_  
 Disapproved: \_\_\_\_\_  
 Incomplete - Not Reviewed: \_\_\_\_\_  
 Not Reviewed - Accepted FIO: \_\_\_\_\_  
 By: Cheryl J. Rogan Date: 4/22/2024

- 1) Approval of these documents does not relieve the Engineer or Contractor from full compliance with the City of Boerne Standard Specifications or applicable City Ordinances.
- 2) Any changes to documents approved by the City of Boerne are required to be re-submitted for review and approval prior to proceeding with construction.

Water service is proposed to serve sales trailer (undeveloped lot); impact fees for water service must be paid prior to setting meter; water service will serve future lot once platted and address is assigned; it is not the responsibility of the City to ensure impact fees are not paid twice

# GEORGE'S RANCH

## UNIT 1

# WATER DISTRIBUTION PLAN

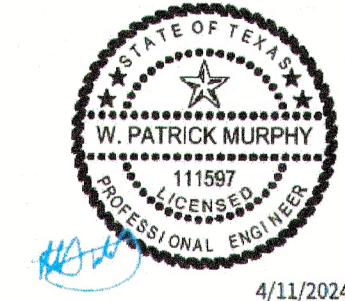
**DATE**  
03/20/2024

**PROJECT NO.**  
03546.001

**DRAWN BY**  
AB/RR

**CHECKED BY**  
WPM

1. 2022-01-05 - ADDED TRACER WIRE LOCATE BOXES, ADDED WATER BEND DETAILS, MOVED HYDRANT
2. 2023-08-16 - REVISED BENDS, ADDED FENCE NOTE, REVISED WATER MAIN SIZE
3. 2022-10-23 - UPDATED STREET WIDTH & REVISED WATER LINE
4. 2023-01-10 - REVISED EASEMENTS, WATER LINE, OPEN SPACE ACREAGE, REVISED DETAIL 'A'
5. 2023-03-21 - REVISED 16" GATE VALVES
6. 2024-4-10 ADDED WATER SERVICE
- 7.
- 8.
- 9.



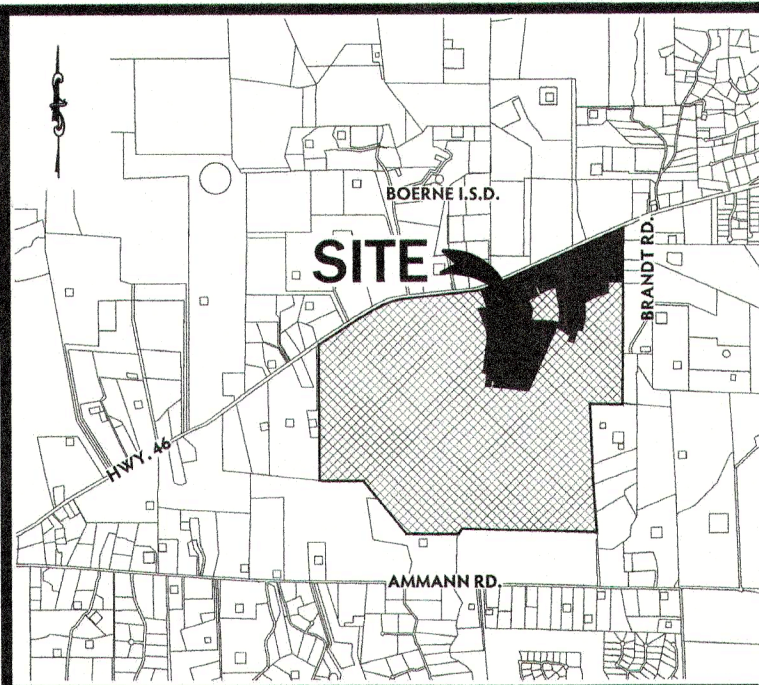
CODE ENGINEERS  
TRBE No. 4EE

PLAT NO.  
N/A

# C56

1 OF 6





## LOCATION MAP

N.T.S.

**OWNER/ DEVELOPER:**

THE LOOKOUT DEVELOPMENT GROUP  
CONTACT: MIKE SIEFERT, P.E. PRESIDENT  
1001 CRYSTAL FALLS PARKWAY  
LEANDER, TEXAS 78641  
TEL: (512) 690-4322

## TRENCH EXCAVATION SAFETY PROTECTION

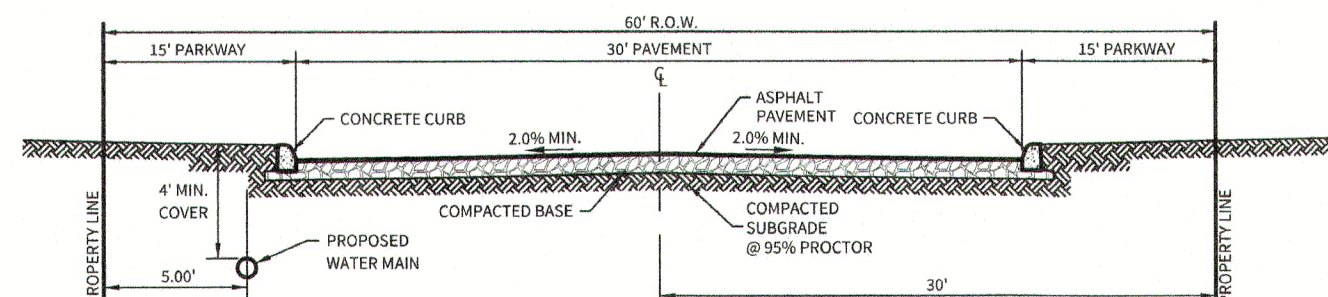
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOLOGICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATION SPECIFICATIONS. THE CONTRACTOR'S SAFETY PROGRAMS AND/OR PROCEDURES EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

JOINT RESTRAINT NOTE:

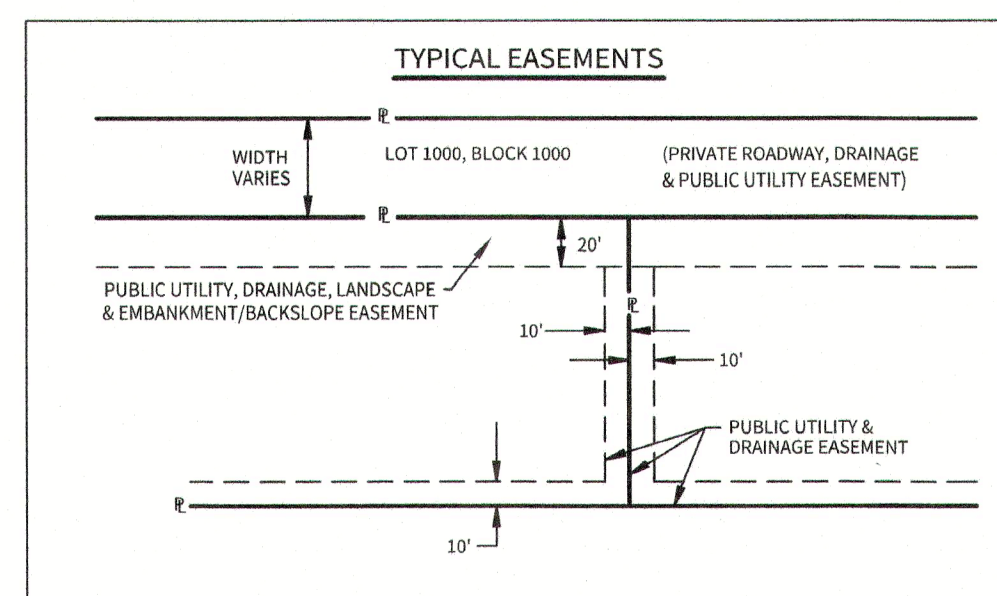
CONTRACTOR SHALL INSTALL RETAINER GLANDS AT ALL FITTINGS AND PROVIDE JOINT RESTRAINING HARNESSSES OR FIELD LOCK GASKETS AT ALL JOINTS WITHIN THE LENGTH SHOW. CONTRACTOR SHALL INSURE THAT ALL TEES, BENDS, VALVES, ETC. HAVE A MINIMUM OF 5 FT OF PIPE WITH NO JOINTS ON EACH SIDE OF THE FITTING, JOINT RESTRAINTS AND FIELD LOCK GASKETS

**NOTE:**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TEST WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE CITY OF BOERNE INSPECTOR/TEST ADMINISTER, PER EACH 8-INCH LOOSE LIFT PER 500 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY CITY OF BOERNE WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.



**LOCAL RESIDENTIAL STREET CROSS SECTION (60' R.O.W.)**  
N.T.S.



**BOERNE GENERAL CONSTRUCTION NOTES**

## UTILITIES

1. **GENERAL CONSTRUCTION, TESTING, CLEANING AND DISINFECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF BOISE'S STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.**
2. **NO EXISTING UTILITY SHALL OPERATE AN EXISTING VALVE. THE CITY MUST BE PRESENT DURING ANY WORK COMPLETED ON EXISTING CITY UTILITIES. THE CONTRACTOR IS NOT PERMITTED TO COMPLETE ANY WORK ON EXISTING UTILITY WITHOUT THE CITY'S PRESENT.**
3. **THE CONTRACTOR MUST COORDINATE ALL UTILITY TIE-INS WITH THE CITY. NO TIE-INS SHALL BE MADE TO THE EXISTING UTILITY SYSTEM WITHOUT THE CITY'S PRESENT. ALL RESULTS HAVE BEEN PROVIDED TO THE CITY AND ARE VERIFIED.**
4. **PRIOR TO RECEIVING BULK WATER, THE CONTRACTOR MUST APPLY FOR A WATER CONNECTION. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING A CITY APPROVED BACKFLOW DEVICE.**
5. **ALL MANHOLES IN STREETS, VALVES, AND BLOW-OFFS SHALL HAVE CONCRETE CEMENTATION.**
6. **ONE INCH DRAIN PIPE PER INCH LINE IS REQUIRED EVERY 500 FEET FOR TRENCHES UP TO 12 FEET IN DEPTH AND EVERY 300 FEET FOR TRENCHES 12 FEET AND DEEPER. DENSITY TESTING SHALL BE CONDUCTED ON EACH LINE, POTHOLING AND STAR STEPPING IS NOT PERMITTED.**

FENCE NOTE:

**GATES ACROSS EASEMENT:** DOUBLE SWING GATES WITH A MINIMUM CLEAR OPENING OF 12 FEET WIDE SHALL BE INSTALLED WHEREVER FENCES CROSS UTILITY EASEMENTS.

## BOERNE WATER GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL CONFORM TO APPLICABLE CITY OF BOERNE CONSTRUCTION SPECIFICATIONS.
2. MACHINE CHLORINATION BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE UNLESS OTHERWISE INDICATED.
3. ALL PIPE SHALL BE P.V.C. C-900, DRIIA CLASS 200, UNLESS OTHERWISE NOTED.
4. ALL MAINS SHALL BE HYDROSTATICALLY TESTED BY THE CONTRACTOR, AS PROVIDED FOR IN THE C.O.B. SPECS. FOR P/W CONSTRUCTION.
5. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL THE FINAL MEASUREMENTS.
6. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. CALL 1-800-600-TESS FOR LOCATES.
7. CONTRACTOR SHALL NOTIFY AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION:
  - A) CITY OF BOERNE PUBLIC WORKS (1-830-249-9511)
  8. ALL GARBAGE OR SOIL MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT HIS EXPENSE.
  9. FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED AND THE CITY OF BOERNE RELEASES THE MAIN FOR TIE-IN AND USE.
  10. ALL THRUST BLOCKING MUST BLOCK AGAINST NATURAL GROUND NOT TRENCH BACKFILL.
  11. MAINTAIN 2' HORIZONTAL SEPARATION BETWEEN EXIST. POWER POLES AND TRENCH.
  12. ALL FIRE HYDRANTS TO BE MUELLER A-423 OR APPROVED EQUAL.
  13. COMPACT SECONDARY BACKFILL TO 90% MAX DRY DENSITY. CONTRACTOR TO PERFORM DENSITY TESTING AT INTERVALS OF 500' PER 6" LIFT OF SECONDARY BACKFILL FOR UTILITIES IN TxDOT ROW (2-FOOT REQUIREMENT), AND PER 1" LIFT OF SECONDARY BACKFILL FOR UTILITIES IN ALL OTHER AREAS (CITY OF BOERNE REQUIREMENT) REPORTS TO BE PROVIDED TO TxDOT FOR WORK WITHIN TxDOT ROW.
  14. CONTRACTOR TO CONTACT 1-800-600-DIG-TESS 48 HOURS PRIOR TO COMMENCING WORK FOR MARKING UNDERGROUND CONDUITS.

15. ALL AREAS WHICH WERE TRAVERSED BY CONSTRUCTION EQUIPMENT WILL BE DISKED PRIOR TO COMMENCING REVEGETATION.
16. CONTRACTOR TO INSTALL UNDERGROUND HAZARD WARNING TAPE TWELVE (12) INCHES BELOW FINISHED GRADE IN UNPAVED AREAS AND SIX (6) INCHES BELOW SUBGRADE IN PAVED AREAS. REFERENCE CITY OF BOZEMAN STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND DETAILS.
17. ALL BURIED STAND PIPE SHALL BE C900 OR APPROVED EQUAL.

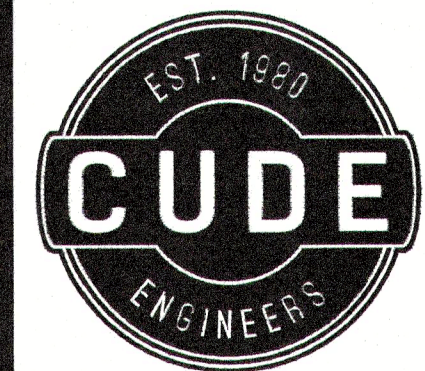
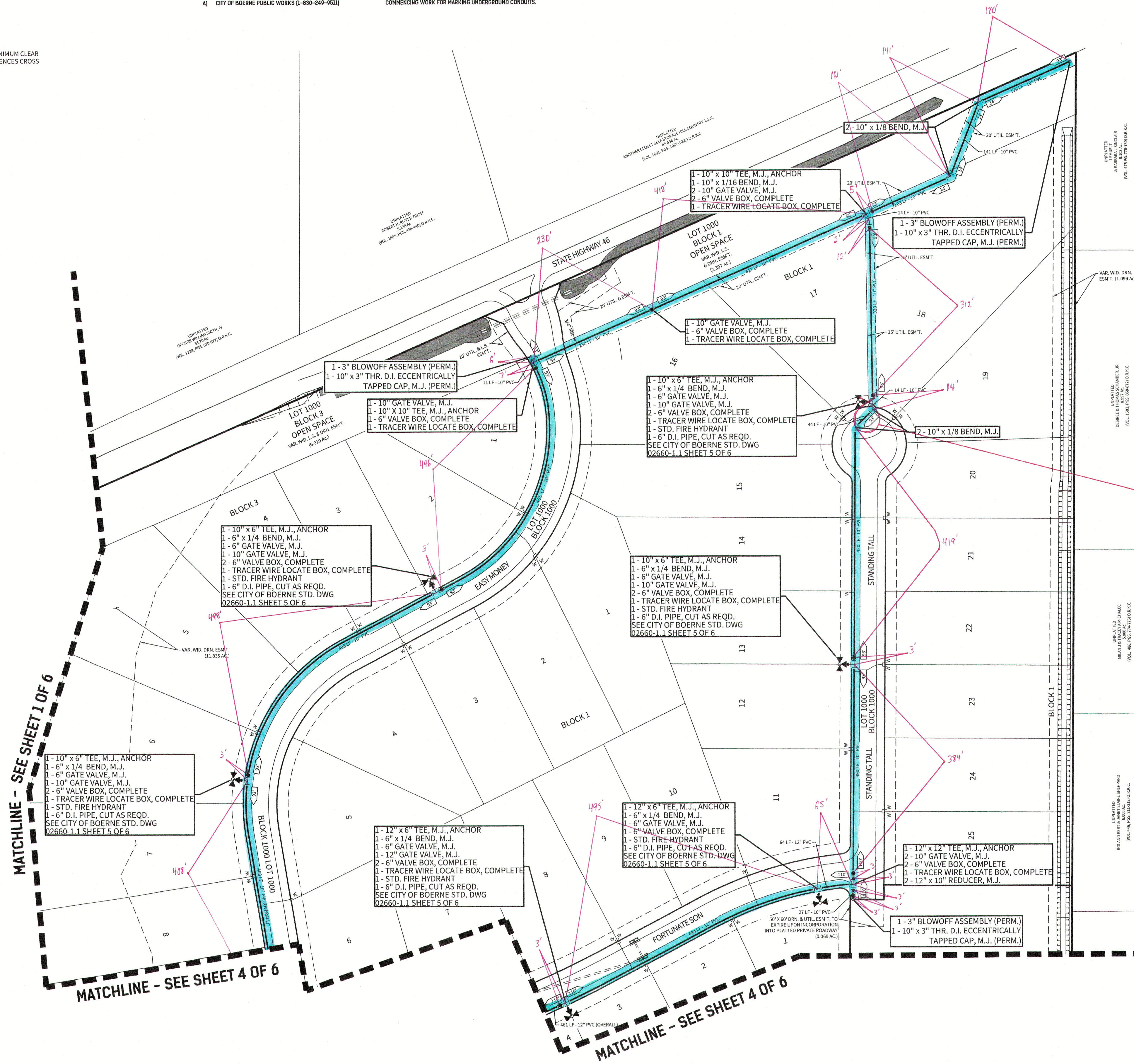
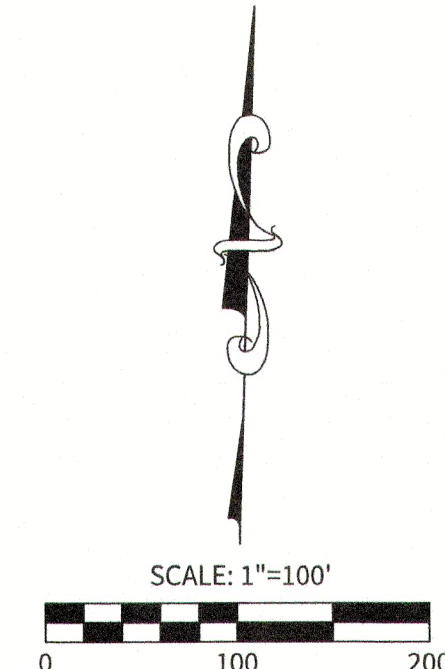
### MISCELLANEOUS NOTES

1. NO METER BOXES TO BE SET IN DRIVEWAYS. ANY METER BOXES SET IN DRIVEWAYS WILL BE RELOCATED AT THE CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ALL DRIVEWAYS, TO EXISTING FENCES, CURBS, STREETS, DRAINAGES, LANDSCAPING, AND STRUCTURES.
3. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING OR PROPOSED UTILITY LOCATIONS. THE CONTRACTOR SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY OF BOERNE PUBLIC WORKS AT 1-830-249-9511 FOR GUIDANCE.
4. NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SPECIFICATION. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.
5. THE DEVELOPER DEDICATES THE WATER MAIN UPON COMPLETION BY THE DEVELOPER AND ACCEPTANCE BY THE CITY OF BOERNE. THE CITY OF BOERNE WILL MAINTAIN SAID WATER MAIN AND SHALL BE LOCATED WITHIN THIS PARTICULAR SUBDIVISION (AS APPLICABLE).
6. THE CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
7. CONTRACTOR SHALL FURNISH A SET OF "AS-BUILT" DRAWINGS TO THE ENGINEER AT THE FINAL INSPECTION. CONTRACTOR SHALL GIVE ENGINEER AT LEAST TWO WORKING DAYS NOTICE OF FINAL INSPECTION.
8.  $\overline{X}$  - DENOTES JOINT RESTRAINT LENGTH AND DIRECTION.
9. DOWNSTREAM AND WATER LINES MUST BE INSPECTED BY THE FIRE MARSHAL'S OFFICE PRIOR TO COVERING. CONTACT THE FIRE MARSHAL'S OFFICE TO SCHEDULE AN INSPECTION.

**NOTE:**  
FOR PAVEMENT DESIGN SECTION SEE  
GEOTECHNICAL ENGINEERING REPORT

**CAUTION!!**

EXISTING UTILITIES ARE LOCATED WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTORS SHALL EXERCISE EXTRA CARE IN DIGGING ANY TRENCH FOR PROPOSED UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE, VERIFY THE EXACT LOCATION & IDENTIFY AREA OF CONFLICTS WITH EXISTING UTILITIES AND SHALL NOTIFY THE ENGINEER IF CONFLICT IS FOUND.



4122 Pond Hill Road, Suite 101  
San Antonio, Texas 78231  
P:(210) 681.2951 F: (210) 523.7112

# GEORGE'S RANCH

## UNIT 1

## WATER DISTRIBUTION PLAN

DATE  
04/22/2022

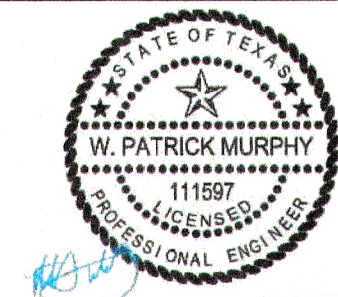
PROJECT NO.  
03546.001

DRAWN BY  
AB/RR

CHECKED BY  
WPM

## REVISIONS

1. 2022-01-05 - ADDED TRACER WIRE LOCATE BOX  
ADDED WATER BEND DETAILS, REVISED WATER  
MAIN
2. 2022-08-16 - ADDED BLOWOFF, REVISED VERTIC  
BENDS, ADDED FENCE NOTE
3. 2022-10-04 - UPDATED STREET WIDTH, REVISED  
WATER LINE
4. 2023-01-11 - REVISED EASEMENTS, LOT  
NUMBERING
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_



2/9/2023

**CUDE ENGINEERS**  
TBPE No. 455

PLAT NO.  
N/A

C57





**UTILITIES**  
**GENERAL**  
1. ALL CO  
BE RES

- STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.**
- 2. ALL CONTRACTS WILL NOT OPERATE AN EXISTING VALVE OR EXISTING CITY UTILITIES. THE CONTRACTOR IS NOT PERMITTED TO COMPLETE ANY EXISTING VALVE OR EXISTING CITY UTILITIES WORKS AS PART OF THE CONTRACT. THE CONTRACTOR MUST BE CORRECTED FOR ANY VIOLATIONS WITHIN THE CITY. NO IN-TENS SHALL BE MADE TO THE EXISTING UTILITY SYSTEM WITH THE CITY. THE RESULTS HAVE BEEN PROVIDED TO THE CITY AND ARE VERIFIED.**
- 3. PRIOR TO RECEIVING BULK WATER, THE CONTRACTOR MUST APPLY FOR A BULK WATER METER. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF THE APPLICATION AND THE METER.**
- 4. ALL MANHOLES IN STREETS, VALVES, AND BLOW-OFFS SHALL HAVE CONCRETE ENCLOSURES.**
- 5. ALL TRENCHES TO BE 12 FEET DEEP. A TRENCH LINE IS REQUIRED EVERY 500 FEET FOR TRENCHES UP TO 12 FEET IN DEPTH AND EVERY 300 FEET FOR TRENCHES 12 FEET AND DEEPER. DENSITY TESTING MUST BE COMPLETED FOR EACH FOOT. POTHOLING AND STEP STAIRING IS NOT PERMITTED.**
- 6. ALL VALVE BOXES, METER BOXES, FIRE HYDRANTS, MANHOLES, ETC. ARE REQUIRED TO BE ADJUSTED AS REQUIRED TO MATCH FINAL GRADES.**

**GATES ACROSS EASEMENT:** DOUBLE SWING GATES WITH A MINIMUM CLEAR OPENING OF 12 FEET WIDE SHALL BE INSTALLED WHEREVER FENCES CROSS UTILITY EASEMENTS.

1. ALL I  
SCOR  
BOEF

2. MACHINE CHLORINATION BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE UNLESS OTHERWISE INDICATED.
  3. ALL 12" & 16" PIPE SHALL BE P.V.C. C-905, DR14 CLASS 200, ALL OTHER PIPE SHALL BE P.V.C. C-900, DR14 CLASS 200, UNLESS OTHERWISE NOTED.
  4. ALL MAINS SHALL BE HYDROSTATICALLY TESTED BY THE CONTRACTOR, AS PROVIDED FOR IN THE C.O.B. SPECS. FOR P/W CONSTRUCTION.
  5. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL THE FINAL MEASUREMENTS.
  6. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. CALL 1-800-DIG-TELL FOR LOCATES.
  7. CONTRACTOR SHALL NOTIFY AT LEAST 48 HOURS PRIOR TO STARTIN CONSTRUCTION.
- A) CITY OF BOERNE PUBLIC WORKS (1-830-249-9511)

1 NO  
BO  
CO

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL, OR BETTER CONDITION FROM DAMAGE DONE BY EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING, AND STRUCTURES.
3. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY OF BOERNE PUBLIC WORKS AT 1-830-249-9511 FOR GUIDANCE.
4. NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SPECIFICATIONS. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.

**NOTE:**  
FOR PAVEMENT DESIGN SECTION SEE  
GEOTECHNICAL ENGINEERING REPORT

EXISTING UTILITIES ARE LOCATED WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTORS SHALL EXERCISE EXTRA CARE IN DIGGING ANY TRENCH FOR PROPOSED UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE, VERIFY THE EXACT LOCATION & IDENTIFY AREA OF CONFLICTS WITH EXISTING UTILITIES AND SHALL NOTIFY THE ENGINEER IF CONFLICT IS FOUND.



## TRENCH EXCAVATION SAFETY PROTECTION

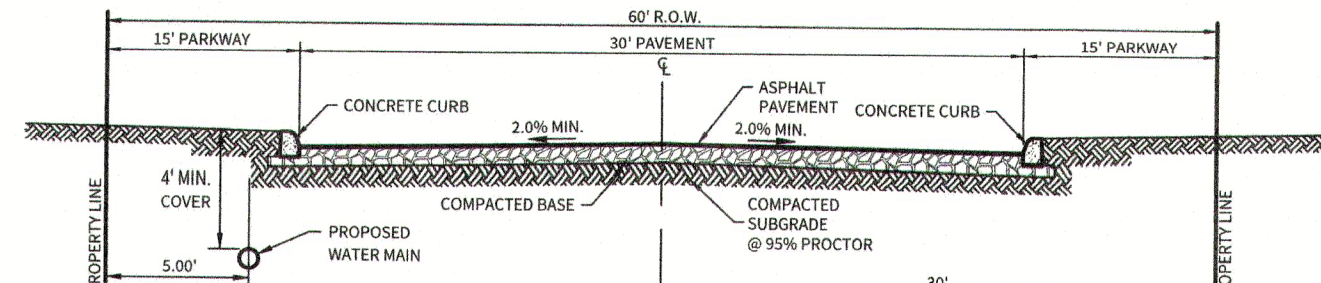
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL BE SUFFICIENT TO ELABORATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, THE FOLLOWING REQUIREMENTS FOR EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

JOINT RESTRAINT NOTE:

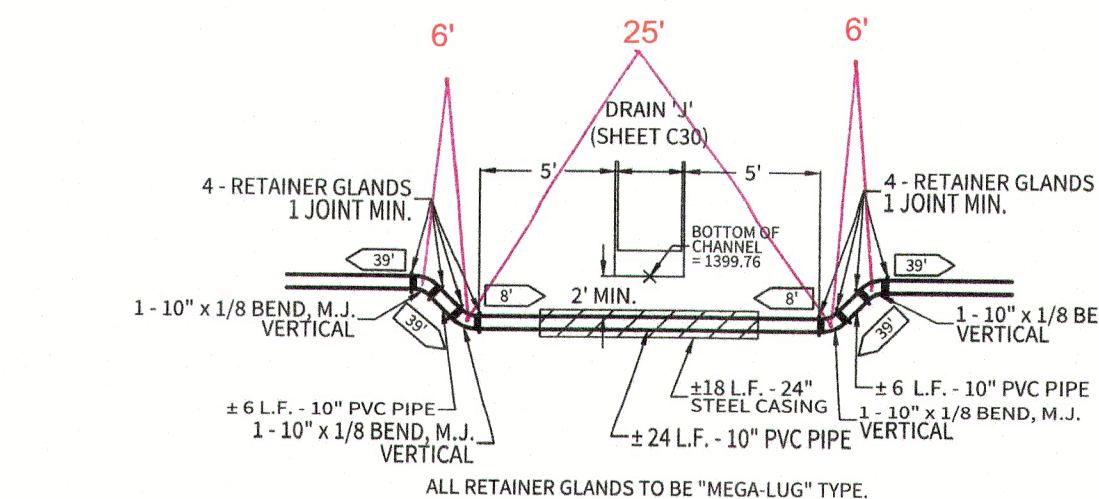
CONTRACTOR SHALL INSTALL RETAINER GLANDS AT ALL FITTINGS AND PROVIDE JOINT RESTRAINING HARNESSSES OR FIELD LOCK GASKETS AT ALL JOINTS WITHIN THE LENGTH SHOW. CONTRACTOR SHALL INSURE THAT ALL TEES, BENDS, VALVES, ETC. HAVE A MINIMUM OF 5 FT OF PIPE WITH NO JOINTS ON EACH SIDE OF THE FITTING, JOINT RESTRAINTS AND FIELD LOCK GASKETS

NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TEST WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE CITY OF BOERNE INSPECTOR/TEST ADMINISTRATOR, PER EACH 8-INCH LOOSE LIFT PER 500 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY CITY OF BOERNE WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.

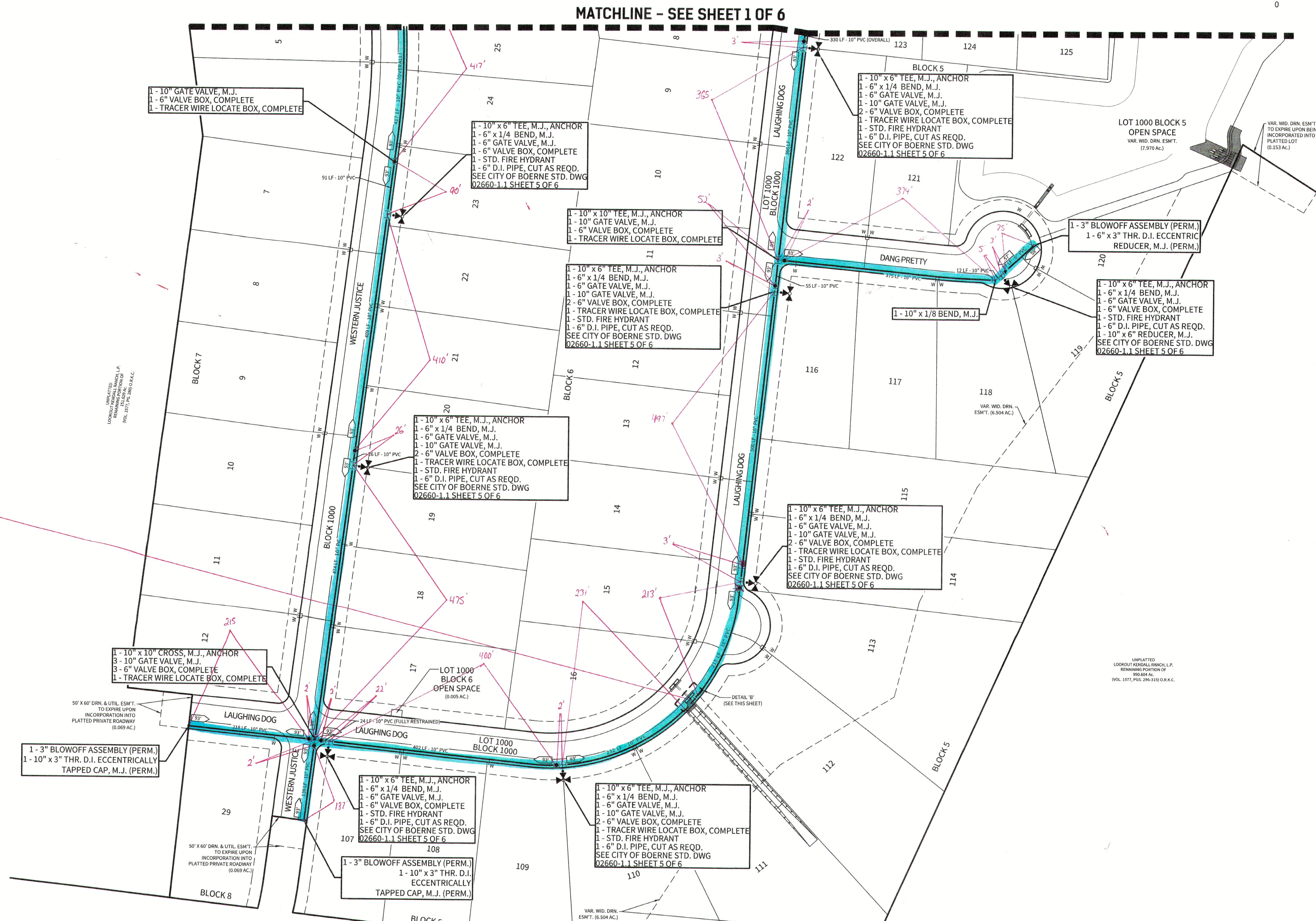
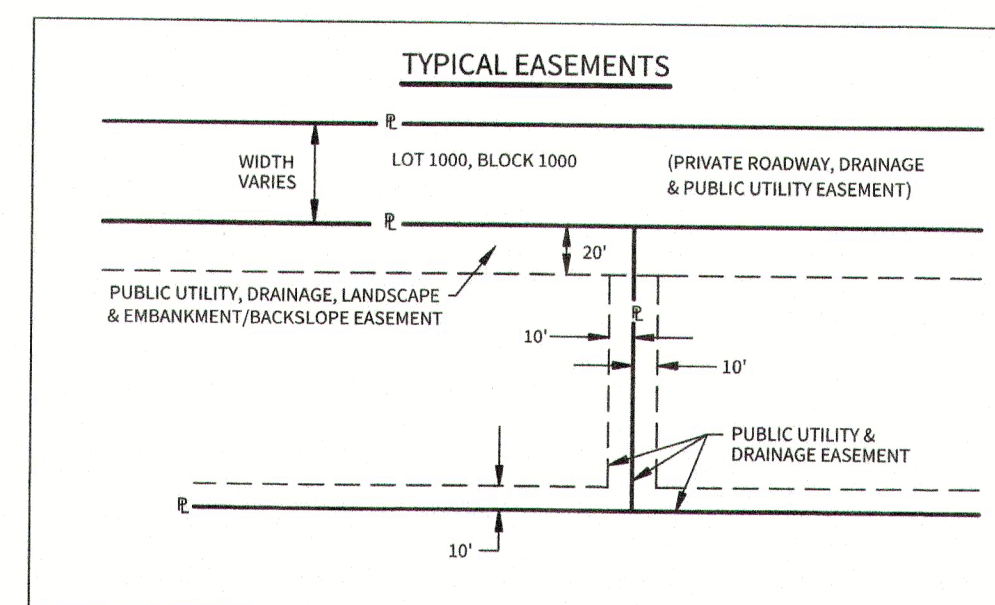


**LOCAL RESIDENTIAL STREET CROSS SECTION (60' R.O.W.)**  
N.T.S.

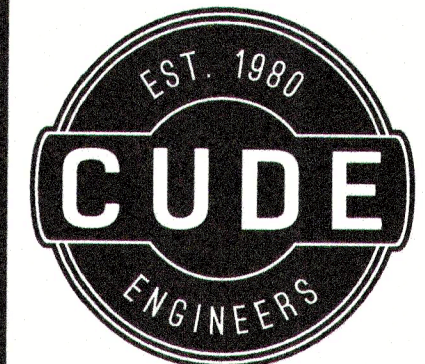


DETAIL 'B': DRAIN 'J' / WATER CROSSING

N.T.S.



REPRODUCTION OF THE ORIGINAL SIGNED AND SEALED PLAN AND/OR ELECTRONIC MEDIA MAY HAVE BEEN INADVERTENTLY ALTERED. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE SCALE OF THE DOCUMENT AND CONTACTING CUDE ENGINEERS TO VERIFY DISCREPANCIES PRIOR TO CONSTRUCTION.



4122 Pond Hill Road, Suite 101  
San Antonio, Texas 78231  
P:(210) 681.2951 F: (210) 523.7112

**GEORGE'S RANCH  
UNIT 1**

# WATER DISTRIBUTION PLAN

DATE  
04/22/2022

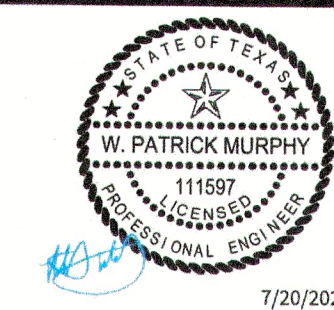
PROJECT NO.  
03546.001

**DRAWN BY**  
AB/RR

CHECKED BY  
WPM

## REVISIONS

1. 2023-01-05 - ADDED TRACER WIRE LOCATE BOXES  
ADDED WATER BEND DETAILS
2. 2023-08-16 - REVISED VERTICAL BEND, ADDED  
FENCE NOTE
3. 2023-10-01 - UPDATED STREET WIDTH & REVISED  
WATER LINE
4. 2023-11-11 - ADDED OPEN SPACE LOT, REVISED  
OPEN SPACE ACREAGE
- 5.
- 6.
- 7.
- 8.
- 9.



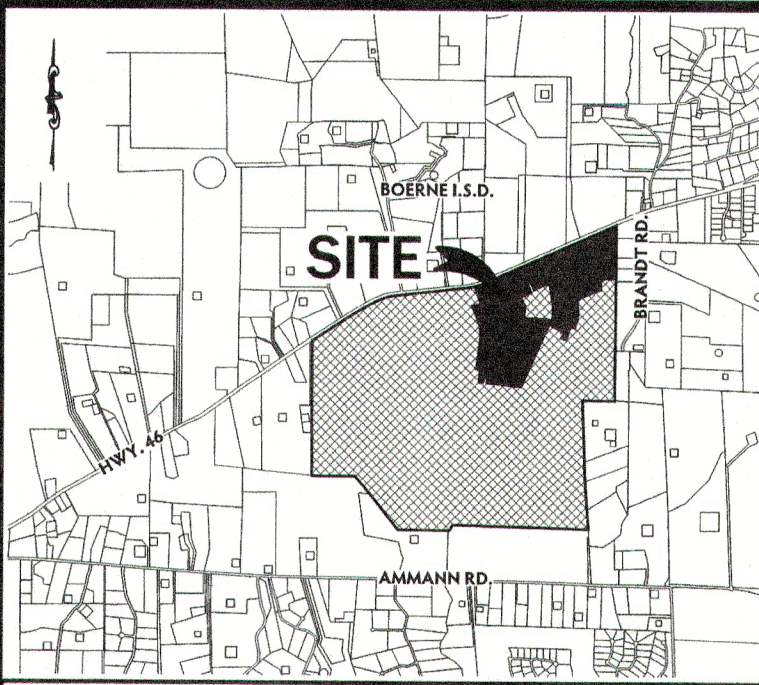
7/20/2023

**CUDE ENGINEERS**  
TBPE No. 455

PLAT NO.  
N/A

# C58





## LOCATION MAP

### OWNER/ DEVELOPER:

THE LOOKOUT DEVELOPMENT GROUP  
CONTACT: MIKE SIEFERT, P.E. PRESIDENT  
1001 CRYSTAL FALLS PARKWAY  
LEANDER, TEXAS 78641  
TEL: (512) 690-4322

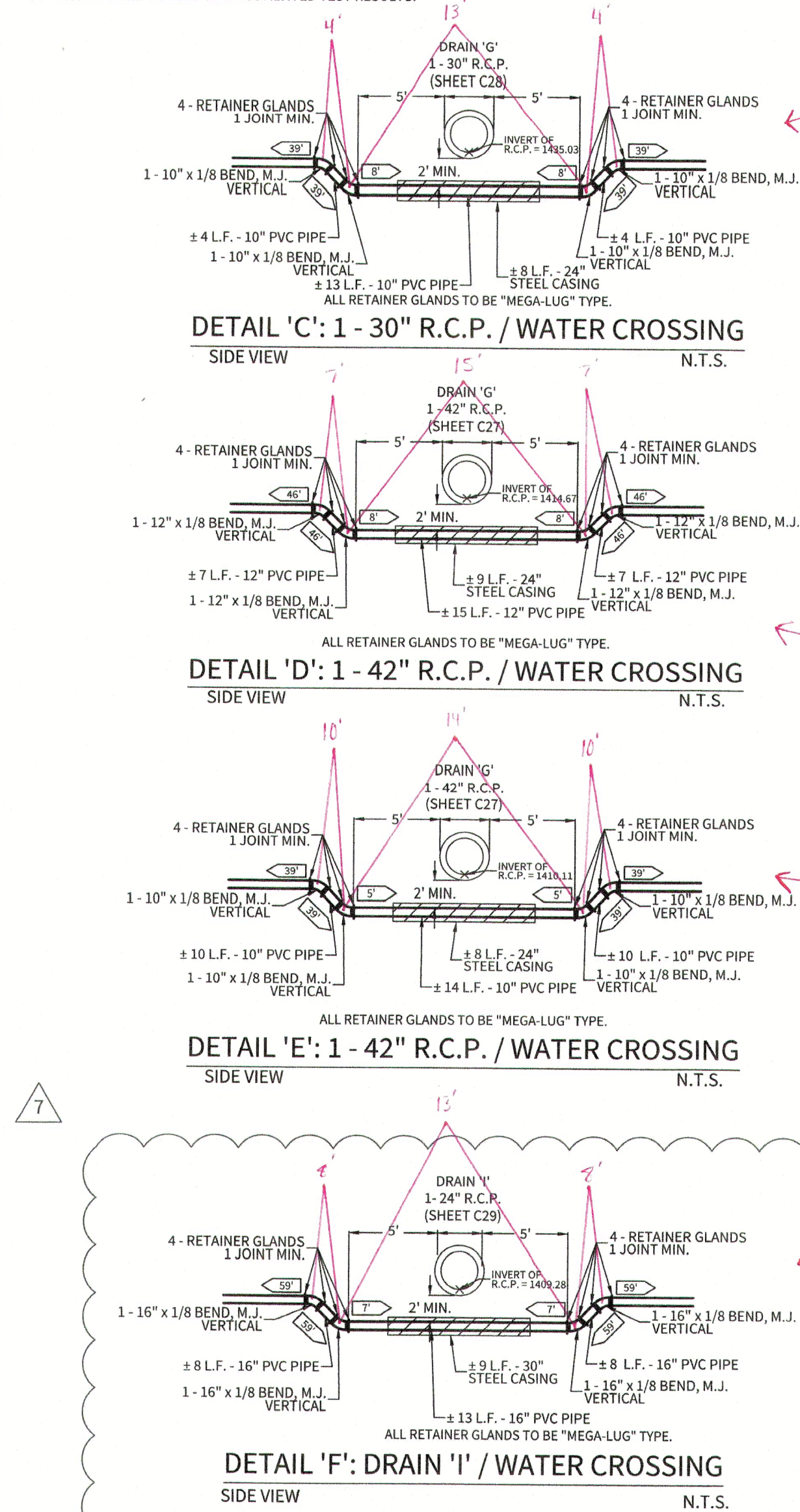
### TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEM PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS, SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

### JOINT RESTRAINT NOTE:

CONTRACTOR SHALL INSTALL RETAINER GLANDS AT ALL FITTINGS AND PROVIDE JOINT RESTRAINING HARNESSES OR FIELD LOCK GASKETS AT ALL JOINTS WITHIN THE LENGTH SHOW. CONTRACTOR SHALL INSURE THAT ALL TEES, BENDS, VALVES, ETC. HAVE A MINIMUM OF 5 FT OF PIPE WITH NO JOINTS ON EACH SIDE OF THE FITTING, JOINT RESTRAINTS AND FIELD LOCK GASKETS

**NOTE:**  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TEST WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE CITY OF BOERNE INSPECTOR/TEST ADMINISTER, PER EACH 8-INCH LOOSE LIFT PER 500 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY CITY OF BOERNE WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.



## BOERNE GENERAL CONSTRUCTION NOTES

### UTILITIES

#### GENERAL

- ALL CONSTRUCTION, TESTING, CLEANING, AND DISINFECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.
- CONTRACTOR SHALL NOT OPERATE AN EXISTING VALVES. THE CITY MUST BE PRESENT DURING ANY WORK COMPLETED ON EXISTING CITY UTILITIES. THE CONTRACTOR IS NOT PERMITTED TO COMPLETE GAS WORK ON EXISTING CITY GAS MAINS AT ANY TIME.
- THE CONTRACTOR MUST COORDINATE ALL UTILITY TIE-INS WITH THE CITY. NO TIE-INS SHALL BE MADE TO THE EXISTING UTILITY SYSTEM UNTIL ALL TEST RESULTS HAVE BEEN PROVIDED TO THE CITY AND ARE VERIFIED.
- PRIOR TO RECEIVING BULK WATER, THE CONTRACTOR MUST APPLY FOR A BULK WATER METER. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING A CITY APPROVED BACKFLOW DEVICE.
- ALL MANHOLES IN STREETS, VALVES, AND BLOW-OFFS SHALL HAVE CONCRETE ENCASUREMENTS.
- ONE DENSITY TEST PER 8-INCH LIFT IS REQUIRED EVERY 500 FEET FOR TRENCHES UP TO 12 FEET IN DEPTH AND EVERY 300 FEET FOR TRENCHES 12 FEET AND DEEPER. DENSITY TESTING MUST BE COMPLETED FOR EACH LIFT. POT-HOLING AND STAIR STEPPING IS NOT PERMITTED.
- ALL VALVE BOXES, METER BOXES, FIRE HYDRANTS, MANHOLES, ETC. ARE REQUIRED TO BE ADJUSTED AS REQUIRED TO MATCH FINAL GRADES.

### FENCE NOTE:

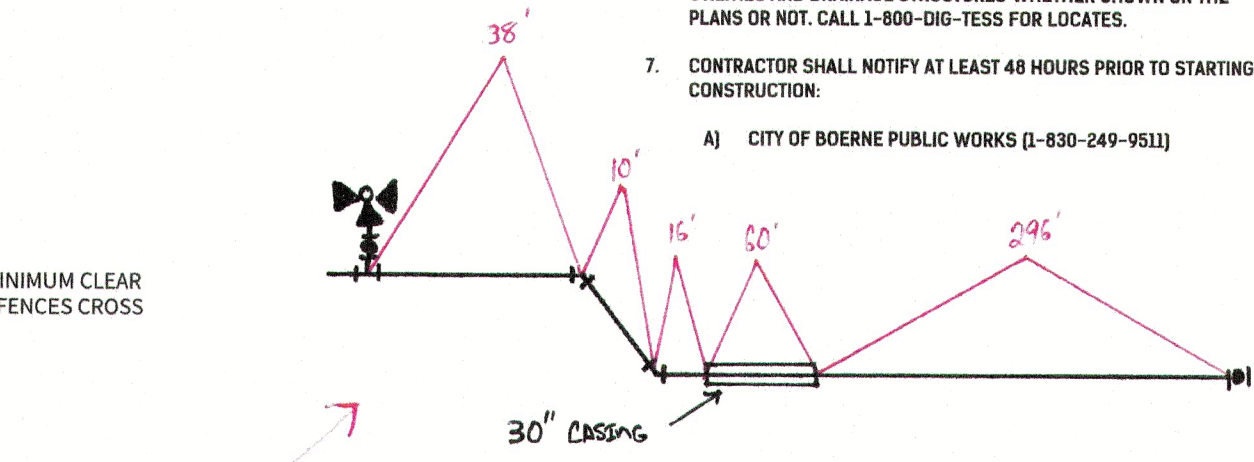
GATES ACROSS EASEMENT: DOUBLE SWING GATES WITH A MINIMUM CLEAR OPENING OF 12 FEET WIDE SHALL BE INSTALLED WHEREVER FENCES CROSS UTILITY EASEMENTS.

- THE CONTRACTOR IS RESPONSIBLE FOR STAKING UTILITIES PRIOR TO THE FINAL INSPECTION TO VERIFY LOCATION, FINISH GRADE, AND DEPTH.
- ALL WATER LINES SHALL BE INSTALLED BETWEEN FOUR AND SIX FEET OR AS SHOWN ON THE APPROVED INFRASTRUCTURE DRAWINGS.
- TRACER WIRE LOCATE BOX SHALL BE INSTALLED PER CITY REQUIREMENTS AT ALL WATER VALVES INCLUDING FIRE HYDRANT VALVES AND BLOWOFFS. FOR GROUPING OF VALVES AT A SINGLE GENERAL LOCATION, ONE LOCATE BOX MAY BE USED.
- NO VALVES, HYDRANTS, BLOWOFFS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, OR DRIVEWAYS.

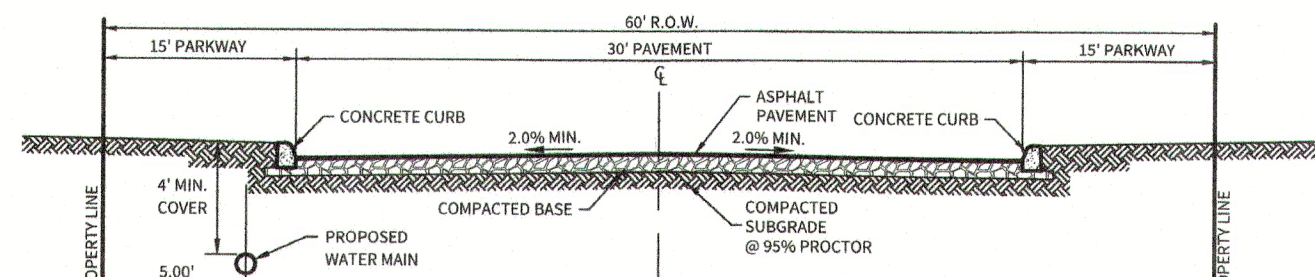
## BOERNE WATER GENERAL NOTES

- ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL CONFORM TO APPLICABLE CITY OF BOERNE CONSTRUCTION SPECIFICATIONS.
- MACHINE CHLORINATION BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE UNLESS OTHERWISE INDICATED.
- ALL 12" 8" PIPE SHALL BE P.V.C. C-905, DR14 CLASS 200, ALL OTHER PIPE SHALL BE P.V.C. C-900, DR14 CLASS 200, UNLESS OTHERWISE NOTED.
- ALL MAINS SHALL BE HYDROSTATICALLY TESTED BY THE CONTRACTOR, AS PROVIDED FOR IN THE C.O.B. SPECS. FOR P/W CONSTRUCTION.
- THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL THE FINAL MEASUREMENTS.
- CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. CALL 1-800-DIG-TESS FOR LOCATES.
- CONTRACTOR SHALL NOTIFY AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION.

A) CITY OF BOERNE PUBLIC WORKS (1-800-249-9511)



- ALL GARBAGE OR SPOIL MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT HIS EXPENSE.
- FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED AND THE CITY OF BOERNE RELEASES THE MAIN FOR TIE-IN AND USE.
- ALL THRUST BLOCKING MUST BLOCK AGAINST NATURAL GROUND NOT TRENCH BACKFILL.
- MAINTAIN 2' HORIZONTAL SEPARATION BETWEEN EXIST. POWER POLES AND TRENCH.
- ALL FIRE HYDRANTS TO BE MUELLER A-423 OR APPROVED EQUAL.
- COMPACT SECONDARY BACKFILL TO 98% MAX DRY DENSITY. CONTRACTOR TO PERFORM DENSITY TESTING AT INTERVALS OF 500' PER 6\"/>
- CONTRACTOR TO CONTACT 1-800-DIG-TESS 48 HOURS PRIOR TO COMMENCING WORK FOR MARKING UNDERGROUND CONDUITS.



### LOCAL RESIDENTIAL STREET CROSS SECTION (60' R.O.W.)

N.T.S.

## MISCELLANEOUS NOTES

- NO METER BOXES TO BE SET IN DRIVEWAYS. ANY METER BOXES SET IN DRIVEWAYS WILL BE RELOCATED AT THE CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION FROM DAMAGE DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING, AND STRUCTURES.
- THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY OF BOERNE PUBLIC WORKS AT 1-800-249-9511 FOR GUIDANCE.
- NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.
- THE DEVELOPER DEDICATES THE WATER MAIN UPON

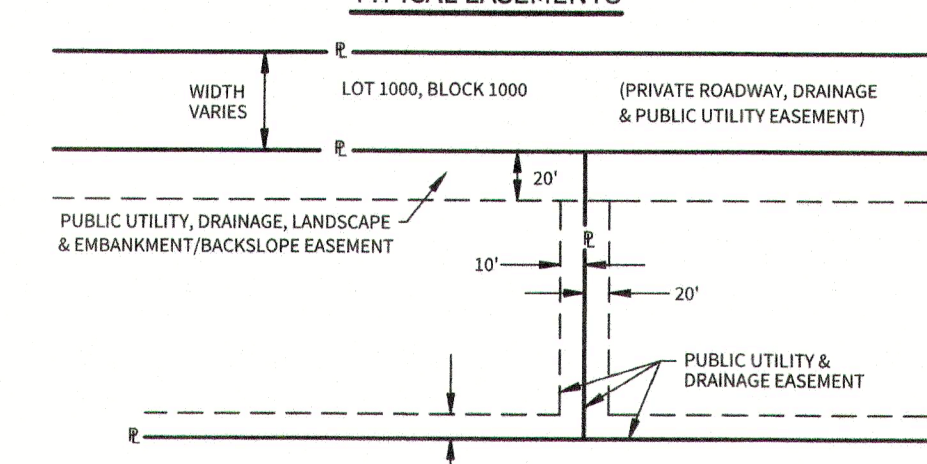
- COMPLETION BY THE DEVELOPER AND ACCEPTANCE BY THE CITY OF BOERNE. THE CITY OF BOERNE WILL OWN AND MAINTAIN SAID WATER MAINS WHICH ARE LOCATED WITHIN THIS PARTICULAR SUBDIVISION (AS APPLICABLE).
- THE CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
- CONTRACTOR SHALL FURNISH A SET OF "AS-BUILT" DRAWINGS TO THE ENGINEER AT THE TIME OF FINAL INSPECTION. CONTRACTOR SHALL GIVE ENGINEER AT LEAST TWO WORKING DAYS NOTICE OF FINAL INSPECTION.
- HYDRANTS AND WATER LINES MUST BE INSPECTED BY THE FIRE MARSHAL'S OFFICE PRIOR TO COVERING. CONTACT THE FIRE MARSHAL'S OFFICE TO SCHEDULE INSPECTION.
- CONTRACTOR TO COORDINATE WITH ENGINEER FOR GUARD SHACK DOMESTIC WATER SERVICE.

**NOTE:**  
FOR PAVEMENT DESIGN SECTION SEE GEOTECHNICAL ENGINEERING REPORT

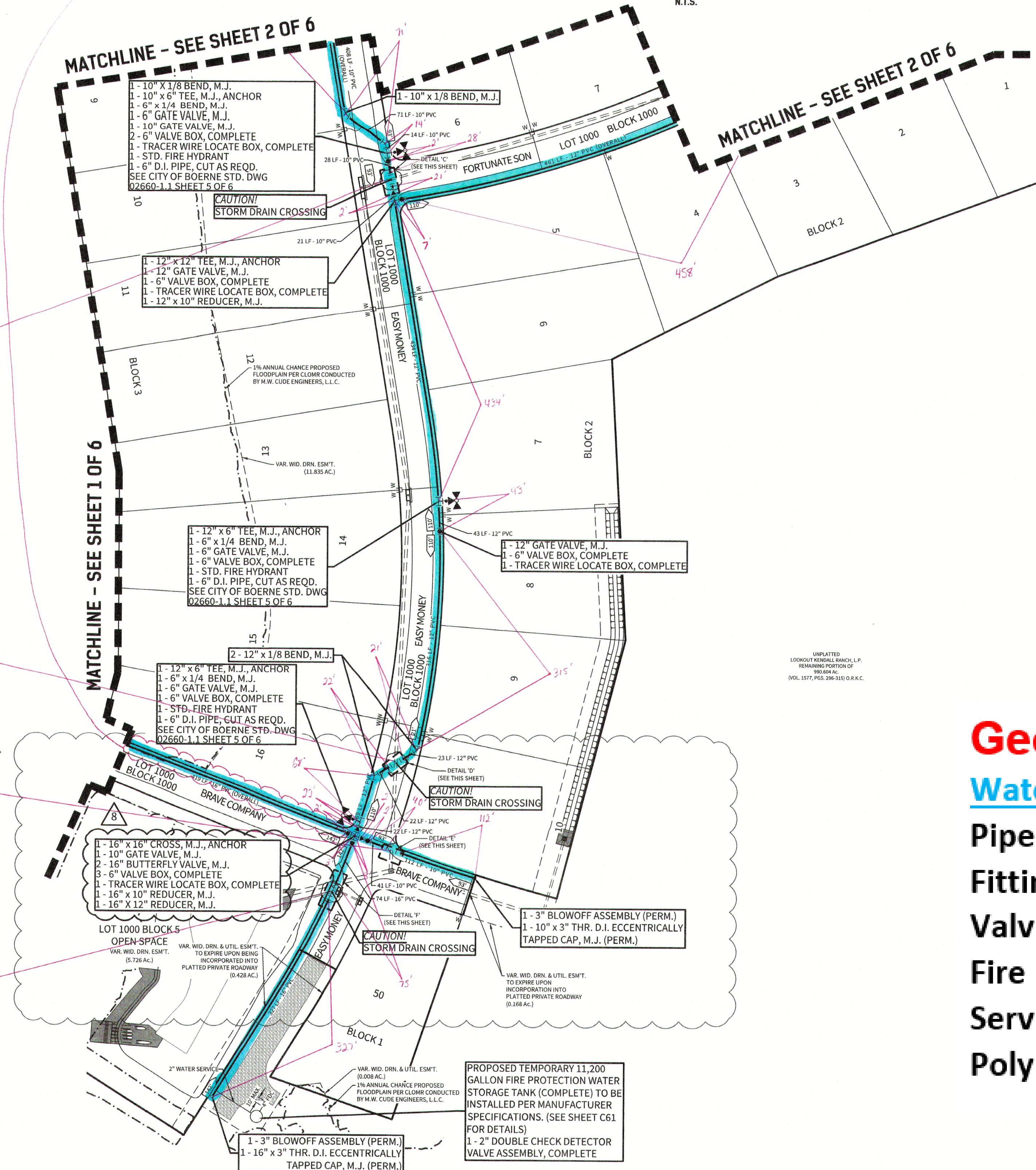
### CAUTION!!

EXISTING UTILITIES ARE LOCATED WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTORS SHALL EXERCISE EXTRA CARE IN DIGGING ANY TRENCH FOR PROPOSED UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE, VERIFY THE EXACT LOCATION & IDENTIFY AREA OF CONFLICTS WITH EXISTING UTILITIES AND SHALL NOTIFY THE ENGINEER IF CONFLICT IS FOUND.

### TYPICAL EASEMENTS



SCALE: 1"=100'



**Georges Ranch**

**Water**

**Pipe: JM Eagle**

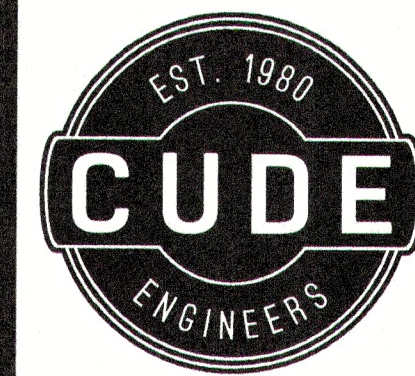
**Fittings: Serampore Industries**

**Valves: Mueller**

**Fire Hydrants: Mueller**

**Service Brass: Mueller**

**Poly tubing: ADS**



4122 Pond Hill Road, Suite 101  
San Antonio, Texas 78231  
P:(210) 681.2951 F:(210) 523.7112

**GEORGES RANCH**  
**UNIT 1**

WATER DISTRIBUTION PLAN

**DATE**  
04/22/2022

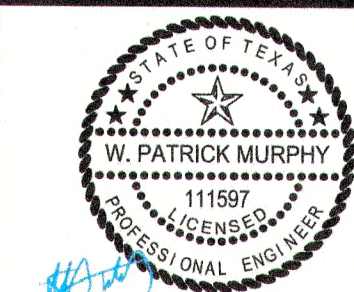
**PROJECT NO.**  
03546.001

**DRAWN BY**  
AB/RR

**CHECKED BY**  
WPM

### REVISIONS

- 2022-01-05 - ADDED TRACER WIRE LOCATE BOXES, ADDED WATER BEND DETAILS, ADDED WATER STORAGE TANK.
- 2022-08-16 - REVISED TANK LOCATION, REVISED VERTICAL BENDS, ADDED FENCE NOTE, REVISED WATER MAIN SIZE.
- 2022-10-01 - UPDATED STREET WIDTH & REVISED WATER LINE.
- 2022-11-15 - EXTENDED WATER MAIN, REVISED WATER TANK LOCATION.
- 2022-12-19 - DIMENSIONED FDC, SHOWING CLOMR LIMITS.
- 2023-01-11 - REVISED CROSSINGS, LOT NUMBERING.
- 02/28/2023 - DRAINAGE REVISION.
- 2023-03-21 - REVISED 16\"/>



3/22/2023

**CUDE ENGINEERS**  
TBPE No. 455

**PLAT NO.**  
N/A

**C59**