

HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

LOT 1, BLOCK 1, HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

A PARCEL OF LAND LOCATED IN THE SE 1/4 OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN

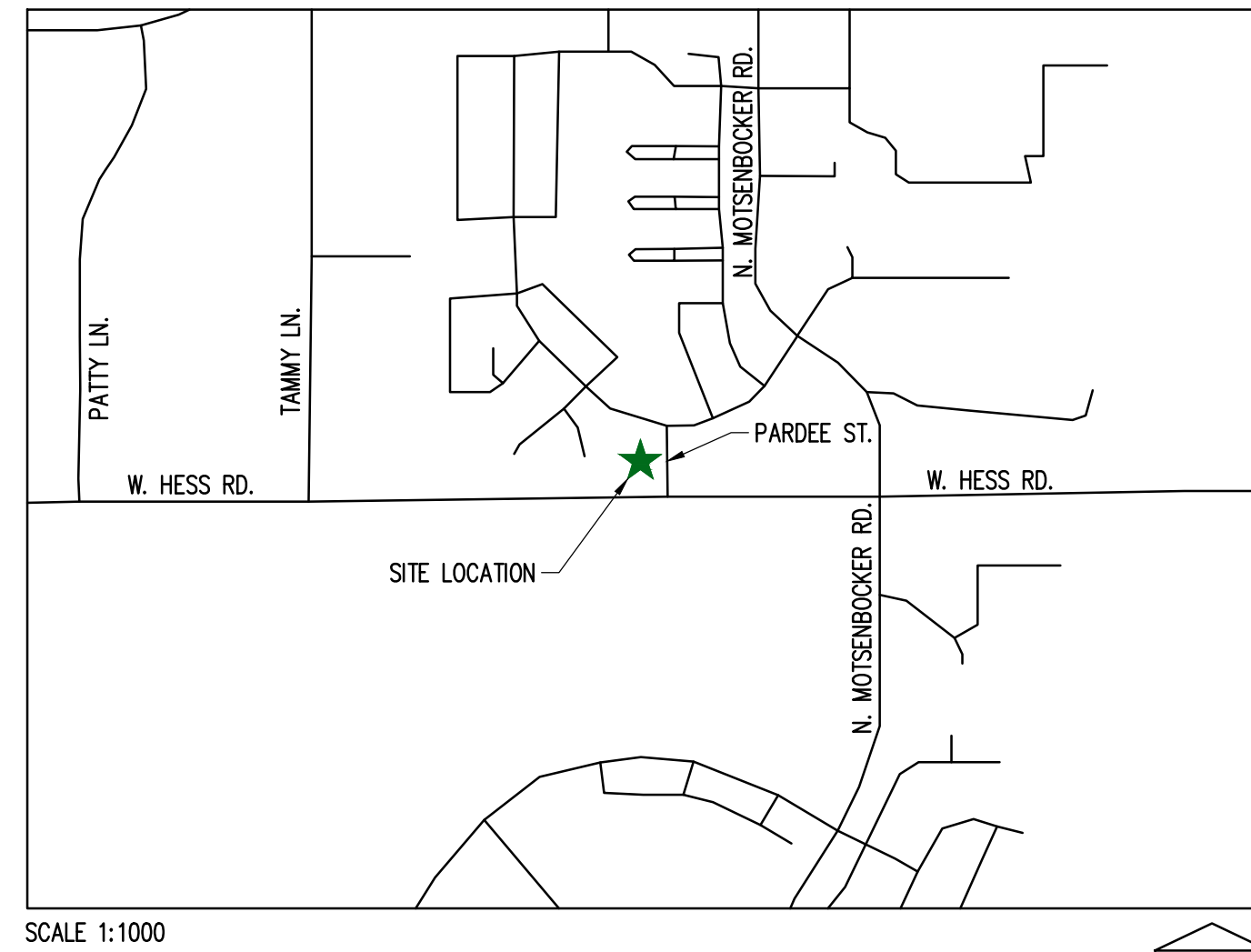
PARKER WATER AND SANITATION DISTRICT

LEGAL DESCRIPTION

LOT 1, BLOCK 1, HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

A PARCEL OF LAND LOCATED IN THE SE 1/4 OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN

CONTAINING 48,372 SF (1.111 AC), MORE OR LESS.



VICINITY MAP

SHEET INDEX

CV-1.0	COVER SHEET
ON-1.0	WATER & SANITARY GENERAL NOTES
C-3.0	OVERALL UTILITY PLAN
C-4.0	WATER AND SANITARY DETAILS
C-4.1	WATER AND SANITARY DETAILS

PROJECT CONTACTS:

PROPERTY OWNER
 BRYTAR COMPANIES
 8117 PRESTON ROAD, #300
 DALLAS, TX 75225
 (214) 632-4860
 CONTACT: SCOTT REMPHREY

PARKER PUBLIC WORKS
 ASSOCIATE PLANNER
 20120 E. MAIN STREET
 PARKER, CO 80138
 (303) 805-3199
 CONTACT: STACEY NERGER

APPLICANT
 BRYTAR COMPANIES
 8117 PRESTON ROAD, #300
 DALLAS, TX 75225
 (214) 632-4860
 CONTACT: SCOTT REMPHREY

GAS
 XCEL ENERGY
 180 LARIMER ST.
 DENVER, CO 80202
 (800) 895-2999

CIVIL ENGINEER
 RIDGETOP ENGINEERING AND CONSULTING, LLC
 541 E. GARDEN DRIVE, UNIT N
 WINDSOR, CO 80550
 (970) 663-4552
 CONTACT: MIKE BEACH, P.E.

SOUTH METRO FIRE RESCUE AUTHORITY
 9195 E. MINERAL AVE.
 CENTENNIAL, CO 80112
 (720) 488-7200
 CONTACT: RANDY CAPRA

ARCHITECT
 ROGUE ARCHITECTURE
 4100 WADSWORTH BLVD, SUITE 300
 WHEAT RIDGE, CO 80033
 (720) 599-3330
 CONTACT: SCOTT BODUCH

INTERNATIONAL RURAL ELECTRIC ASSOC.
 5496 NORTH US HWY 85
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 SEDALIA, CO 80135
 (303) 688-3100
 CONTACT: BROOK KAUFMAN

SURVEYOR
 PLS GROUP
 532 WEST 66TH STREET
 LOVELAND, CO 80538
 (970) 669-2100
 CONTACT: BRYAN SHORT

PARKER WATER AND SANITATION DISTRICT
 18100 E WOODMAN DR
 PARKER, CO 80134
 (303) 841-4627

MATERIALS LIST

DESCRIPTION	QTY.	UNIT
TAPPING SADDLE CONNECTION	1	EACH
1.5" TYPE K COPPER	33	LF
1.5" METER ASSEMBLY	1	EACH
6" DUCTILE IRON PIPE	33	LF
8"x6" TEE CONNECTION	1	EACH
6" GATE VALVE	2	EACH
FIRE HYDRANT	1	EACH
6" PVC (SANITARY)	51	LF
SANITARY CLEANOUT	1	EACH
8" PVC	128	LF

SOUTH METRO FIRE PROTECTION DISTRICT

ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO DISTRICT STANDARDS. THE NUMBER AND LOCATIONS OF THE FIRE HYDRANTS AS SHOWN ON THE OVERALL UTILITY PLAN ARE CORRECT AS SPECIFIED BY THE SOUTH METRO FIRE PROTECTION DISTRICT

 (SIGNATURE OF FIRE CHIEF OR DESIGNATED REPRESENTATIVE)

 DATE SIGNED

PWSD CERTIFICATION

THE DISTRICT INSPECTOR MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION. CALL PARKER WATER AND SANITATION DISTRICT AT 303-841-4627. THE DISTRICT WILL PROVIDE PERIODIC INSPECTIONS OF THE WORK. 24 HOUR NOTICE TO THE INSPECTOR IS REQUIRED FOR SCHEDULING INSPECTIONS. ANY WORK ACCOMPLISHED WITHOUT THE APPROVAL OF THE INSPECTOR WILL BE SUBJECT TO REJECTION. REVIEWED FOR CONFORMANCE TO PARKER WATER AND SANITATION DISTRICT STANDARDS.

BY: _____
 (DISTRICT REPRESENTATIVE)

 DATED SIGNED

APPROVED FOR CONSTRUCTION
 PARKER WATER AND SANITATION DISTRICT

BY: _____
 (DISTRICT ENGINEER)

 DATED SIGNED

LOGO



SEAL

PROJECT TITLE

THE LEARNING EXPERIENCE

LOT 1, BLOCK 1
 HORSESHOE RIDGE
 PARKER, CO 80134

PREPARED FOR

BRYTAR COMPANIES

8117 PRESTON RD. #300
 DALLAS, TX 75225

SUBMITTAL

PWSD

DRAWN BY: BSA

CHECKED BY: MRB

PROJECT NO.: 18-075-001

REVISIONS

2ND SUBMITTAL 10/31/2019

DATE

5/28/2019

SHEET TITLE

COVER SHEET

SHEET INFORMATION

CV-1

HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

LOT 1, BLOCK 1, HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT
A PARCEL OF LAND LOCATED IN THE SE 1/4 OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF
THE 6TH PRINCIPAL MERIDIAN
PARKER WATER AND SANITATION DISTRICT



SEAL

PWSD GENERAL NOTES

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSD ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
- THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES AND THE TOWN OF PARKER, DOUGLAS COUNTY AND OTHER NEIGHBORING CITIES AND TOWNS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY EXISTING UTILITY (INCLUDING DEPTHS) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- ALL ITEMS SHOWN ON THE PLANS AS EXISTING ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE ACTUAL LOCATIONS MAY VARY FROM THE PLANS, ESPECIALLY IN THE CASE OF UNDERGROUND UTILITIES. WHENEVER THE CONTRACTOR DISCOVERS A DISCREPANCY IN LOCATIONS CONTACT THE PWSD IMMEDIATELY.
- PWSD ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS NECESSARY TO PERFORM THE PROPOSED WORK.
- ALL CONCRETE SHALL BE A MINIMUM OF CLASS A, 6 SACK, TYPE II, 3000-POUND COMPRESSION STRENGTH.
- THE DESIGN ENGINEER SHALL SUBMIT ONE (1) SET OF "AS-BUILT" DRAWINGS AND ELECTRONIC FILES TO THE DISTRICT ENGINEER FOR APPROVAL BY DISTRICT. AFTER APPROVAL HAS BEEN GRANTED BY THE DISTRICT ENGINEER, FULL SIZE PRINTS SHALL BE TRANSMITTED TO THE PWSD OFFICE.
- NO WORK SHALL BE BACKFILLED UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE DISTRICT ENGINEER OR REPRESENTATIVE OF THE DISTRICT ENGINEER. ALL BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. COMPACTION TESTS MUST BE SUBMITTED TO DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
- TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR THE INSPECTION AT ANY LOCATION ON THE PROJECT IF SO ORDERED BY THE INSPECTOR.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF LINES (WATER AND SEWER) FOR UP TO TWO (2) YEARS FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.
- SURFACE GRADES ARE TO BE WITHIN PLUS OR MINUS ONE FOOT OF FINISHED GRADE AND VERIFICATION OF COMPACTION RESULTS OBTAINED PRIOR TO THE INSTALLATION OF WATER AND SEWER LINES. RESULTS MUST BE SUBMITTED TO THE DISTRICT ENGINEER.
- ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
"X" FOR SANITARY SERVICE SEWERS
"V" FOR WATER SERVICES
- NO TREES ALLOWED IN EASEMENTS OR WITHIN 8' OF WATER OR SANITARY SEWER MAINS IN RIGHT OF WAY.
- THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSD AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSD SPECIFICATION MANUAL.

PWSD WATER SYSTEM NOTES

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSD ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST REVISION.
- ALL WATER MAINS SHALL BE PER PWSD MATERIALS SPECIFICATIONS. ALL MATERIALS IN CONTACT WITH POTABLE WATER SHALL BE SUITABLE FOR CHLORINATED AND CHLORAMINATED WATER.
- ALL BENDS, PLUGS, REDUCERS, AND FIRE HYDRANTS TO BE RODDED OR MEGA-LUGGED. ALL FITTINGS SHALL BE WRAPPED PER PWSD MATERIALS SPECIFICATIONS.
- THERE SHALL BE A MINIMUM COVER OF 4.5 FEET OVER ALL WATER MAINS.
- FIRE HYDRANTS SHALL CONFORM TO AWWA C-502 "DRY BARREL FIRE HYDRANTS" PIPE HYDRANT ASSEMBLIES PER PWSD SPECIFICATIONS.
- ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFFS, AND PLUGS AT DEAD-END MAINS SHALL BE PROTECTED FROM THRUST WITH CONCRETE THRUST BLOCKS.
- PRECAUTIONS SHALL BE TAKEN TO PROTECT THE INTERIOR OF PIPES, FITTINGS, AND VALVES AGAINST CONTAMINATION. ALL OPENINGS IN THE PIPELINE SHALL BE CLOSED WITH WATERTIGHT PLUGS WHEN PIPE LAYING IS STOPPED AT THE CLOSE OF THE DAYS WORK OR FOR OTHER REASONS, SUCH AS REST BREAKS OR MEAL PERIODS.
- VALVES IN STREETS ARE TO BE LOCATED AT PROPERTY LINE EXTENSIONS EXCEPT FOR TAPPING TEES; WHERE AN ADDITIONAL VALVE SHALL BE PLACED ON THE TAPPING TEE. OTHER LOCATIONS SHOWN ON THE PLANS.
- WHEN NECESSARY TO LOWER OR RAISE WATER LINES AT STORM DRAINS AND OTHER UTILITY CROSSING, A MINIMUM CLEARANCE OF 1.5 FEET SHALL BE MAINTAINED BETWEEN OUTSIDE OF PIPES.
- THE CONTRACTOR SHALL NOTIFY THE PWSD AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION. IF WORK IS SUSPENDED FOR ANY PERIOD OF TIME AFTER INITIAL START-UP, THE CONTRACTOR MUST NOTIFY THE DISTRICT ENGINEER 48 HOURS PRIOR TO RE-START.
- PIPE BEDDING SHALL BE A CLEAN, WELL-GRADED SAND OR SQUEEGEE SAND IN ACCORDANCE WITH PWSD STANDARDS AND SPECIFICATIONS, LATEST REVISION.
- THE CONTRACTOR SHALL NOTIFY THE PUBLIC UTILITY COMPANIES AND DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO PROCEEDING WITH THE EXCAVATION. ALL WORK IN THE AREA OF THE PUBLIC UTILITIES SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THESE AGENCIES.
- COMPACTION OF ALL TRENCHES MUST BE ATTAINED IN ACCORDANCE WITH THE SOILS REPORTS AND COMPACTION TEST RESULTS SUBMITTED TO THE DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
- AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR, DESIGN ENGINEER, AND REPRESENTATIVE OF OTHER APPROVING AGENCIES.
- CHLORINATION AND FLUSHING: ALL WATER MAINS SHALL BE INSTALLED AND CHLORINATED PER PWSD SPECIFICATIONS. CHLORINATION OF FINISHED PIPELINE COMPLETED BEFORE HYDROSTATIC TESTING.
- HYDROSTATIC TESTING: ALL WATER MAINS SHALL BE TESTED PER THE REQUIREMENTS OF THE PWSD SPECIFICATIONS UP TO MINIMUM OF 150 PSI IN THE PRESENCE OF A PWSD INSPECTOR/ENGINEER.

PWSD SANITARY SEWER SYSTEM NOTES

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSD ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
- ALL SEWER MAINS SHALL BE PVC, ASTM D-3034, SDR 35 OR APPROVED EQUAL. ALL SEWER MAIN SIZE IS 8" IN DIAMETER UNLESS OTHERWISE NOTED.
- SEWER LINES SHALL BE INSTALLED 5.0 FEET SOUTH OR WEST OF STREET CENTERLINE, UNLESS OTHERWISE SHOWN ON PLANS. SEWER LINES SHALL BE 10.00 FEET FROM WATER LINES EXCEPT WHEN CROSSING EACH OTHER. SEWER LINES WHICH CROSS LESS THAN 1.50 FEET VERTICALLY FROM THE WATER MAIN SHALL BE ENCASED IN CONCRETE AS PER PWSD SPECIFICATIONS. USE RUBBER GASKETS FOR PVC ENCASEMENT.
- SEWER RIM ELEVATIONS SHOWN ARE APPROPRIATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. RING AND COVER SHALL BE SET IN CENTERED CONCRETE RINGS WITH RAM-NECK FOR ADJUSTMENT TO MATCH FINAL PAVEMENT ELEVATIONS.
- THE CONTRACTOR AND SURVEY CREW SHALL VERIFY ELEVATIONS OF EXISTING SEWER LINES AND MANHOLES TO BE TIED TO PRIOR TO CONSTRUCTION OR STAKING OF SANITARY SEWER.
- NO UNDERDRAIN SYSTEM WILL BE ALLOWED TO BE PLACED IN MAINLINE OR SEWER SERVICE TRENCHES. SEWER SERVICE TEES FOR EACH UNIT SHALL BE STAKED BY A SURVEY CREW AND FURNISHED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER "AS CONSTRUCTED" LOCATION OF TEES. SEWER WYES SHALL BE USED RATHER THAN TEES.
- ALL MANHOLES SHALL BE 48-INCHES IN DIAMETER WITH 24-INCH RING AND COVER, ECCENTRIC CONE UNLESS OTHERWISE SPECIFIED. ALL MANHOLES SHALL HAVE SHAPED INVERTS.
- PIPE BEDDING SHALL BE CLASS "B" AND SHALL CONFORM TO ASTM C-33 OR D-448 GRADATION NO. 6 OR NO. 67.
- AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR AND REPRESENTATIVES OF THE OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER TO SCHEDULE THIS MEETING.
- THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSD AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSD SPECIFICATION MANUAL.
- ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE PWSD STANDARDS AND SPECIFICATIONS PRIOR TO ACCEPTANCE OR ANY CONNECTION TO AN EXISTING SEWER LINE.
- PRIOR TO STARTING WORK WHERE SEWER MAIN IS TO BE CONNECTED TO EXISTING PWSD SEWER SYSTEMS. THE NEAREST MANHOLE TO THE POINT OF TIE-IN SHALL BE PLUGGED WITH A PLUMBER'S PLUG ON THE INLET SIDE BY THE CONTRACTOR. THIS PLUG SHALL REMAIN IN PLACE UNTIL FINAL PROBATIONARY ACCEPTANCE BY PWSD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING AND CLEANING THESE MANHOLES AND REMOVING THE PLUG WHEN INSTRUCTED BY THE DISTRICT.
- PRIOR TO PROBATIONARY ACCEPTANCE WALK-THROUGH, THE CONTRACTOR SHALL JET CLEAN THE ENTIRE SANITARY SEWER SYSTEM AND PUMP OUT AT THE PLUGGED MANHOLE.

PROJECT TITLE

THE LEARNING EXPERIENCE

LOT 1, BLOCK 1
HORSESHOE RIDGE
PARKER, CO 80134

PREPARED FOR

BRYTAR COMPANIES

8117 PRESTON RD. #300
DALLAS, TX 75225

SUBMITTAL

PWSD

DRAWN BY: BSA

CHECKED BY: MRB

PROJECT NO.: 18-075-001

REVISIONS

2ND SUBMITTAL 10/31/2019

DATE

5/28/2019

SHEET TITLE

WATER & SANITARY GENERAL NOTES

SHEET INFORMATION

CN-1.0

2 of 5

CASE NUMBER: Z_____

HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

LOT 1, BLOCK 1, HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

A PARCEL OF LAND LOCATED IN THE SE 1/4 OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN

PARKER WATER AND SANITATION DISTRICT

SEAL

PROJECT TITLE
THE LEARNING EXPERIENCE

PREPARED FOR
 LOT 1, BLOCK 1
 HORSESHOE RIDGE
 PARKER, CO 80134

BRYTAR COMPANIES

8117 PRESTON RD. #300
 DALLAS, TX 75225

INSPECTION POLICY:

- ALL SERVICE INSPECTIONS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
- SERVICE INSPECTIONS WILL OCCUR BETWEEN 1:00 P.M. AND 3:00 P.M. SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
- IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE OR SERVICE FAILS, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE AND A RE-INSPECTION FEE CHARGED.
- SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
- THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
- ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
- LOTS WITHOUT BUILDING ADDRESSES BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
- CONTRACTOR MUST BE PRESENT AT TIME OF INSPECTION. UNLESS COORDINATED WITH DISTRICT INSPECTOR.

INSTALLATION NOTES:

WATER

- ACCEPTABLE PIPE MATERIALS SHALL BE K-COPPER TUBING. (3/4" MIN.)
- APPROVED BEDDING TO BE SQUEEGEE.
- ONLY ONE COUPLING WILL BE ALLOWED BETWEEN THE STUB-IN AND BUILDING. COMPRESSION COUPLINGS WILL NOT BE ALLOWED ON NEW CONSTRUCTION. SILVER SOLDERED JOINTS MUST BE USED ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE INSPECTED BY PWSO PRIOR TO BURIAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.
- A WATER SERVICE WHICH CROSSES A SEWER SERVICE CAN DO SO ONLY AT A 45-90° ANGLE. WATER SERVICES SHALL BE LOCATED A MINIMUM OF 18" ABOVE SEWER SERVICE.
- WATER SERVICE FOUNDATION PENETRATIONS SHALL BE WATERPROOFED USING MASTIC OR OTHER APPROVED METHOD. CRAWL SPACE REQUIRES CONTINUOUS COPPER WITH A 1" BURY.
- CURB STOP MUST BE PLUMB AND CENTERED OVER THE NUT. IT SHOULD BE STRAPPED TO THE METER PIT (RESIDENTIAL INSTALLATIONS) OR CENTERED OVER THE EASEMENT LINE (COMMERCIAL INSTALLATIONS). THE ASSEMBLY MUST BE AT OR SLIGHTLY ABOVE FINISHED GRADE.
- MOVED CURB BOXES MUST BE INSPECTED BY PWSO PRIOR TO BURIAL.
- WATERLINE MUST BE ATTACHED TO A SUPPORT BOARD THAT IS MOUNTED TO THE WALL.
- NO VOIDS ALLOWED UNDER WATERLINES FROM STOP BOX TO FOUNDATION.
- CURBSTOP BOXES AND METER PITS CANNOT BE IN DRIVEWAYS.
- ONLY 3/4" (JUMPER) PIPES (RESIDENCES) ARE ALLOWED. (JUMPER) PIPES WILL BE REMOVED PRIOR TO METER SET DATE.
- ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
 "X" FOR SANITARY SEWER SERVICE
 "W" FOR WATER SERVICES
- NO SPLICES OR FLARED COUPLINGS ALLOWED ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE INSPECTED BY PWSO PRIOR TO BURIAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.

PARKER WATER & SANITATION DISTRICT
 DISTRICT POLICIES & INSTALLATION NOTES FOR WATER SERVICES

SCALE: NONE DATE: 2/96
 APPROVED: 1/04 1/16 10/16
 PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET W1.1

PREFERRED FIRE HYDRANT LOCATION

24" MIN. 7' MIN. 18" MIN. 7' MIN.

PROPERTY LINE PC OR PT

6" FIRE HYDRANT 18" MIN. 21" MAX.

APPROX. GROUND LINE TOP OF GRADE

6" ANCHOR COUPLING OR 6" SWIVEL ADAPTOR
 M.J. TEE (SEE NOTE BELOW)
 CONCRETE KICKBLOCK

6" M.J. GATE VALVE & 6" VALVE BOX, WIDE OVAL BASE
 D.I. PIPE

HYDRANT BASE AND DRAINAGE ROCK TO BE COVERED WITH LIQUID SHEET OF POLYETHYLENE TO EXCLUDE BACK-FILL MATERIAL FROM VOIDS IN ROCK.
 1/3 CY MIN. WELL GRADED GRAVEL, COBBLESTONE, OR BRICK SIZE# 2 GRADED ROCK FOR DRAINAGE.
 CONCRETE KICKBLOCK

6"x6" TEE - 8" 1'-0"
 8"x6" TEE - 9" 1'-3"
 12"x6" TEE - 12"

3/4" RODS AND CLAMPS OR MECHANICAL JOINT RESTRAINT

POLYETHYLENE WRAPPED DO NOT COVER OR PLUG DRAIN LINES WITH CONCRETE

PARKER WATER & SANITATION DISTRICT
 FIRE HYDRANTS LOCATION & INSTALLATION

SCALE: NONE DATE: 2/96
 APPROVED: 4/01 10/16 01/02 12/07 1/16
 PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET W2.5

PIPE LOCATION SYSTEM

LOCATOR STATION TO BE POSITIONED BEHIND EACH FIRE HYDRANT

ATTACH TO TOP OF PIPE @ 18" INTERVALS WITH PIPE TAPE

CONNECT WITH ALUMINUM LUGS

LOCATOR WIRE

PLAN

6" FIRE HYDRANT 1'-0" MAX.

APPROX. GROUND LINE CURB & GUTTER TOP OF LOCATOR STATION TO BE PAINTED YELLOW FINAL GRADE

19 GAUGE COPPER SOLID WIRE

PIPE TAPE

SECTION VIEW @ FIRE HYDRANT

PARKER WATER & SANITATION DISTRICT
 LOCATOR WIRE DETAILS

SCALE: NONE DATE: 2/96
 APPROVED: 4/01 01/02 01/16 10/16
 PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET W2.6

DISTRICT VALVES OPEN CLOCKWISE

DISTRICT VALVES CLOSE COUNTER-CLOCKWISE

OPERATING NUT

PLAN OF VALVE

NOTE: ONLY RIGHT HAND OPENING VALVES ALLOWED.

PARKER WATER & SANITATION DISTRICT
 VALVE OPERATION

SCALE: NONE DATE: 2/96
 APPROVED: 1/16 10/16
 PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET W3.4

11-1/4, 22-1/2, 45° & 90° BENDS

DEAD END

TYPICAL CROSS SECTION

TEE

MINIMUM BEARING SURFACE AREA (IN SQUARE FEET)

SIZE OF PIPE	11-1/4"	22-1/2"	45°	90°	TEE OR DEAD END
4"	1.00	1.00	1.00	1.80	1.50
6"	1.00	1.75	2.25	4.00	3.00
8"	1.00	2.00	3.00	7.50	6.50
12"	2.00	4.25	8.25	15.25	11.00
16"	3.50	6.50	12.50	23.00	16.50
20"	5.00	10.00	19.50	35.50	23.00
24"	6.50	13.50	28.00	47.00	33.00

PARKER WATER & SANITATION DISTRICT
 CONCRETE KICKBLOCKS BEARING SURFACES AND INSTALLATION

SCALE: NONE DATE: 2/96
 APPROVED: 4/01 1/16 10/16
 PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET W3.18

STANDARD TRENCH SECTION

IN OPEN FIELD IN STREET

NEW STREET SURFACE UNIFORM CUT LINE ASPHALT/CONCRETE EXISTING STREET SURFACE

TRENCH TO BE BRACED OR SHIELDED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND THE PROTECTION OF OTHER UTILITIES.

NOTE: MINIMUM COVER TO BE BELOW OFFICIAL STREET GRADE.

WATER MAIN SHALL BE BEDDED FROM 6" BELOW THE BOTTOM OF THE PIPE TO 12" ABOVE THE TOP OF THE PIPE.

PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-4"	2'-4"
6"	1'-8"	2'-8"
8"	1'-8"	2'-8"
12"	2'-4"	3'-4"
16"	2'-4"	3'-4"
20"	3'-0"	4'-0"
24"	3'-0"	4'-0"

BACKFILL NEW BASE COURSE COMPACTED FILL ONLY IN OPEN FIELD. FLOWABLE FILL IN ROADWAY.

WIDTH 4'-6" COVER 6" MIN.

SAND OR SQUEEGEE BEDDING AS SPECIFIED IN SECTION 4.0

PARKER WATER & SANITATION DISTRICT
 TYPICAL TRENCH SECTION PIPE PROTECTION

SCALE: NONE DATE: 2/96
 APPROVED: 1/76 10/16
 PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET W4.1

PLAN

OUTSIDE WALL

1 CURB STOP
 2 90° ELBOW
 3 BALL VALVE
 4 PRESSURE REDUCING VALVE
 5 METER UNIT
 6 REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY (TO HAVE CERTIFICATION WITH DRINK CUP TO FLOOR DRAIN, DAYLIGHT PER USE TECH.)
 7 TYPE K COPPER TUBING
 8 CLAMP GROUND WIRE TO EACH SIDE OF METER UNIT
 9 DRILL A HOLE IN THE WALL FOR TRANSMITTER

FLOW

ELEVATION

OUTSIDE WALL

METER YOKE DISTANCE 1.5" 13.25" WITH ADJUSTABLE FLANGE FOR GASKET 2" 17.25" WITH ADJUSTABLE FLANGE FOR GASKET

NOTES

- PIPE JOINT SHALL BE THREADED OR SOLDERED WITH SILVER SOLDER.
- INSTALLATION MUST ALLOW ACCESS FOR MAINTENANCE AND BE PROTECTED FROM FREEZING.
- SEE WATER SYSTEM SPECIFICATIONS FOR GENERAL METER NOTES.
- COMPANION FLANGES SHALL BE BRASS.
- METER SUPPORT SHALL BE EITHER CONCRETE OR GALV. STEEL PIPE (SEE SHEET W4.10)
- 1.0' MINIMUM CLEARANCE AROUND BACKFLOW DEVICE
- FLOOR DRAIN TO BE 2X PIPE SIZE AND FOR IRRIGATION USES, ADD RAIN SENSOR AND SMART I.T. CONTROLLER

PARKER WATER & SANITATION DISTRICT
 INSIDE SETTING FOR 1/2" & 2" METER

SCALE: NONE DATE: 2/96
 APPROVED: PVR 8/98 01/02 01/16 2/00 08/05 10/16 4/01 07/08
 DIRECTOR OF ENGINEERING

2016 REVISION SHEET W5.14

File: TLE - PWSO - ROP1400.dwg Path: P:\Colorado\Parker\Brytar\PARKER TLE - 18-075-001.2 Drawings\ Plotted by: Brad Date: 31-Oct-19 8:52:13am

SUBMITTAL
PWSO

DRAWN BY: BSA
 CHECKED BY: MRB
 PROJECT NO.: 18-075-001

REVISIONS
 2ND SUBMITTAL 10/31/2019

DATE
5/28/2019

SHEET TITLE
WATER AND SANITARY DETAILS

SHEET INFORMATION
C-4.0

HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

LOT 1, BLOCK 1, HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

A PARCEL OF LAND LOCATED IN THE SE 1/4 OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN

CONSTRUCTION DOCUMENTS

- INSPECTION POLICY:**
1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED WITH THE DISTRICT OFFICE AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
 2. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTE 1 ABOVE AND A RE-INSPECTION FEE CHARGED.
 3. SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
 4. THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
 5. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
 6. LOTS WITHOUT BUILDING ADDRESSES OR LOT AND BLOCK NUMBERS BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
 7. CONTRACTOR MUST BE PRESENT AT TIME OF INSPECTION UNLESS COORDINATED WITH DISTRICT INSPECTOR.

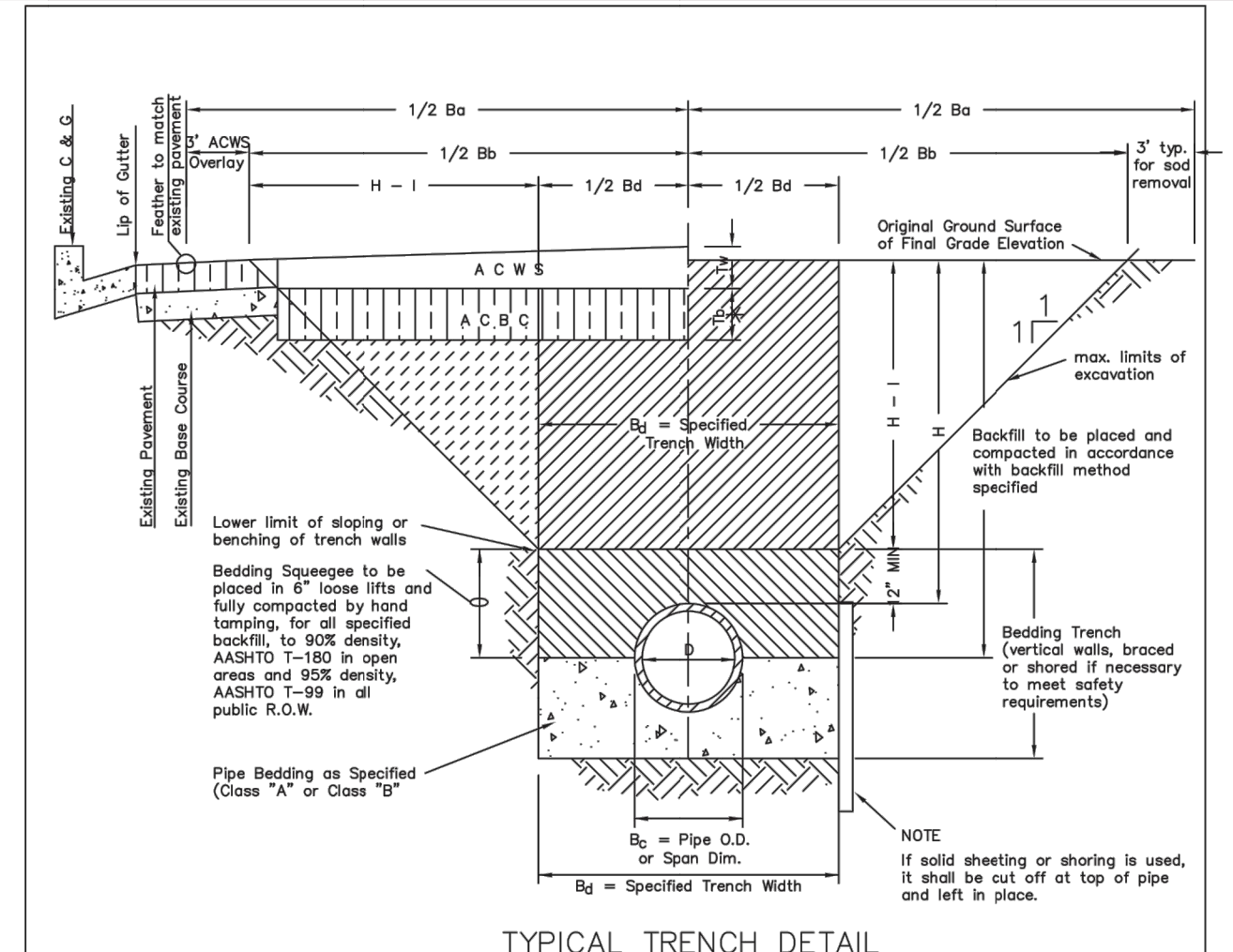
INSTALLATION NOTES:

- SEWER**
1. ACCEPTABLE PIPE MATERIALS ARE TO BE SDR 35 PVC PIPE, ABS PIPE AND PVC SCHD 40 PIPE. APPROVED BEDDING IS TO BE SQUEEGEE.
 2. NO-HUB CLAMPS SHALL BE USED TO JOIN 2 MALE PIPE ENDS WITH A MAXIMUM DEFLECTION OF 3".
 3. MINIMUM GRADE SHALL BE 2%.
 4. INSTALLATION SHALL INCLUDE NO MORE THAN 3 BENDS. 90° BENDS ARE NOT ALLOWED. SOLVENT WELDED PIPE WILL NOT BE ALLOWED.
 5. CLEAN-OUTS SHALL BE INSTALLED AT 100' INTERVALS AND EVERY CHANGE IN DIRECTION. CLEAN-OUTS ARE NOT REQUIRED FOR SERVICES LESS THAN 100' UNLESS THERE ARE CHANGES IN DIRECTION. PROVIDE DUAL CLEAN-OUT WITHIN 5 FEET OF FOUNDATION.
 6. STRESSING OF THE PIPE BETWEEN FITTINGS WILL NOT BE ALLOWED.
 7. SEWER SERVICE LINE SHALL NOT BE LOCATED UNDER CONCRETE SURFACE.
 8. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
 "X" FOR SANITARY SEWER SERVICE
 "V" FOR WATER SERVICES

PARKER WATER & SANITATION DISTRICT	
DISTRICT POLICIES & INSTALLATION NOTES FOR SEWER SERVICES	
SCALE: NONE	DATE: 2/98
APPROVED: PVR	01/02 10/16 1/08 1/16
DIRECTOR OF ENGINEERING	

2016 REVISION

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- NOTES:**
1. Sloping or benching of trench side walls, where permitted shall be in accordance with applicable Federal, State and Local safety regulations.
 2. Trench shall be broomed and shored as necessary to afford safe working conditions or to protect adjacent utilities, structures, etc. Unless otherwise specified on the plans, no pavement will be made for removal, replacement or relocation of curb and gutter, utilities, sidewalk, structures, etc. outside the maximum limits of excavation as shown and the contractor shall be responsible for protection of same.
 3. If dimension "B₂" is < 5', then existing asphalt pavement shall be removed and replaced up to the gutter. Maximum asphalt pay width, B₂ & B₁ shall then be based upon this actual width.

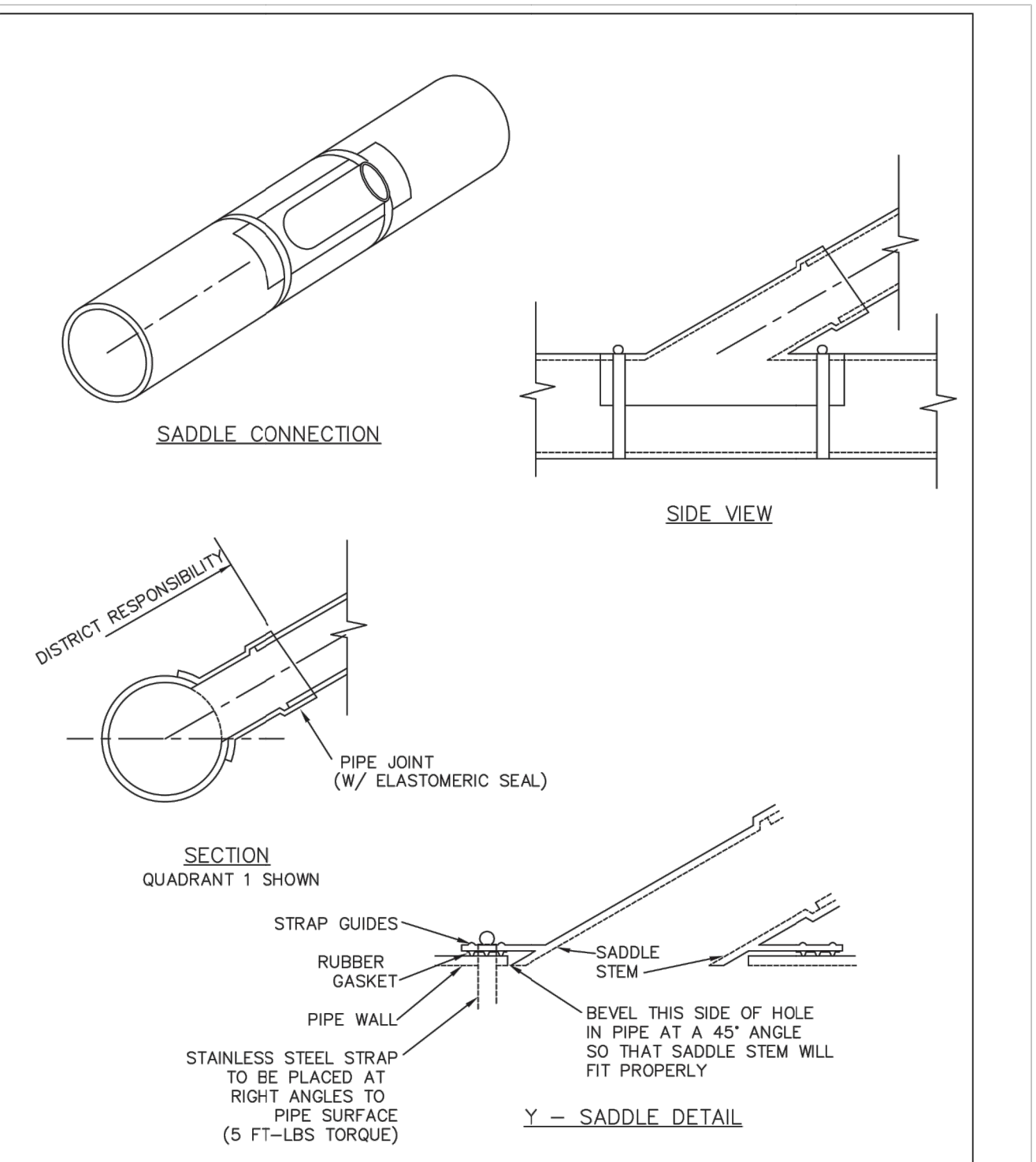
TABLE II ASPHALT AND BASE COURSE REPLACEMENT SCHEDULE			
STREET WIDTH	ASPHALTIC BASE COURSE (t _b)	ASPHALTIC WEARING SURFACE (t _w)	TOTAL THICKNESS (t _b + t _w)
UP TO 36'	4"	2"	6"
36' TO 44'	4"	3"	7"
44' TO 48'	5"	3"	8"
WIDER THAN 48'	6"	3"	9"

**PARKER WATER & SANITATION DISTRICT
SEWER TRENCHING AND BEDDING DETAIL**

SCALE: NONE	DATE: 2/98
APPROVED: PVR	5/98 1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

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- NOTES:**
1. SADDLE FITTINGS TO BE PER ASTM D3034.
 2. CONNECTION SHALL BE Y - SADDLE WITH TWO BONDS

**PARKER WATER & SANITATION DISTRICT
P.V.C. SADDLE CONNECTION DETAIL**

SCALE: NONE	DATE: 2/98
APPROVED: PVR	1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET 54.14

HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

LOT 1, BLOCK 1, HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT
A PARCEL OF LAND LOCATED IN THE SE 1/4 OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN
SITE PLAN REVIEW

PLANT NOTES

- ALL PLANT MATERIAL SHALL MEET SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) FOR NUMBER ONE GRADE. ALL TREES SHALL BE BALLED AND BURLAPPED OR EQUIVALENT.
- ALL LOW PERENNIAL AND GROUND COVER PLANTING AREA SHALL BE MULCHED WITH WESTERN RED CEDAR WOOD MULCH AT A DEPTH OF 2". WEED FABRIC BARRIER IS NOT REQUIRED.
- NO SHRUBS SHALL BE PLANTED WITHIN FIVE (5) FEET OR TREES WITHIN (10) FEET OF POTABLE AND NONPOTABLE WATER METERS, FIRE HYDRANTS, SANITARY SEWER MANHOLES, OR POTABLE WATER, SANITARY SEWER, AND NON POTABLE IRRIGATION MAINS AND SERVICES.
- DEVELOPER SHALL ENSURE THAT THE LANDSCAPE PLAN IS COORDINATED WITH THE PLANS DONE BY OTHER CONSULTANTS SO THAT THE PROPOSED GRADING, STORM DRAINAGE, OR OTHER CONSTRUCTION DOES NOT CONFLICT NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS ON THIS PLAN.
- ALL LANDSCAPE AREAS WITHIN THE SITE SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. AN IRRIGATION PLAN WILL BE PROVIDED AFTER FIRST ROUND OF REVIEW.
- ALL TURF AREAS TO BE SODDED AND IRRIGATED WITH AN AUTOMATIC POP-UP IRRIGATION SYSTEM. ALL SHRUB BEDS AND TREES ARE TO BE IRRIGATED WITH AN AUTOMATIC IRRIGATION (TRICKLE) IRRIGATION SYSTEM, OR ACCEPTABLE ALTERNATIVE. THE IRRIGATION SYSTEM IS TO BE ADJUSTED TO MEET THE WATER REQUIREMENTS OF THE INDIVIDUAL PLANT MATERIAL.
- ALL SHRUB BEDS TO BE MULCHED 3" DEEP WITH 3/4" - 2" RIVER ROCK PLACED ON WEED BARRIER FABRIC.
- EDGING BETWEEN GRASS AND SHRUB BEDS SHALL BE 1/8" X 4" STEEL SET LEVEL WITH TOP OF GRADE.
- TOPSOIL TO THE MAXIMUM EXTENT FEASIBLE, TOPSOIL THAT IS REMOVED DURING CONSTRUCTION ACTIVITY SHALL BE CONSERVED FOR LATER USE.
- SOIL AMENDMENTS. PRIOR TO INSTALLATION OF PLANT MATERIALS, AREAS THAT HAVE BEEN COMPACTED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE THOROUGHLY LOOSENEED. 4 CU.YRDS./1000 SQ.FT. OF ORGANIC AMENDMENTS SUCH AS COMPOST, PEAT, OR AGED MANURE SHALL BE THOROUGHLY INCORPORATED INTO THE SOIL.

MINIMUM STANDARDS

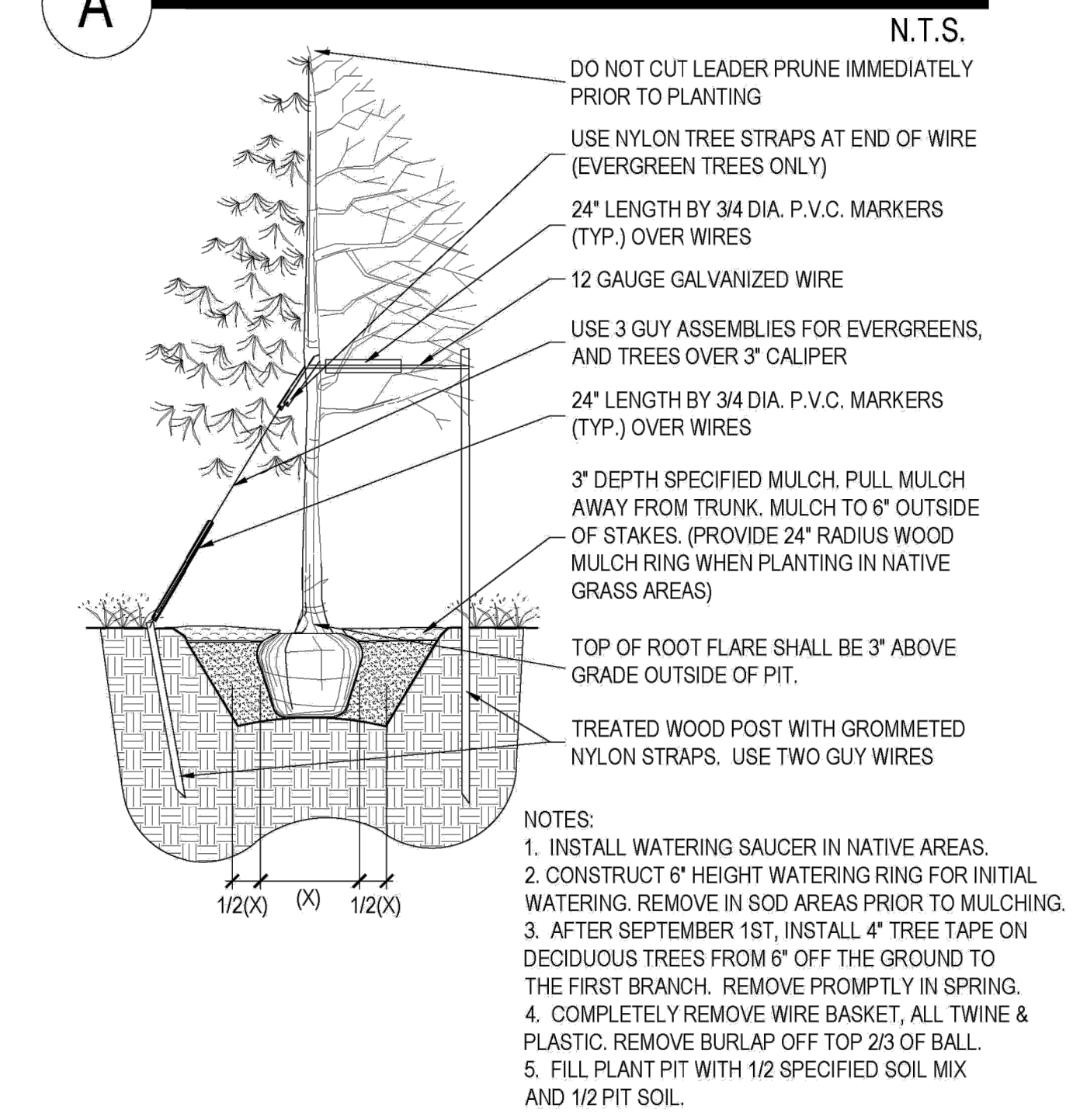
PERIMETER LANDSCAPING CALCULATIONS						
TYPE BASE STANDARD (PLANTS PER # LINEAR FEET)	LINEAR FRONTAGE	TREES REQUIRED	SHRUBS REQUIRED	TREES PROPOSED	SHRUBS PROPOSED	
WEST 1 TREE-5 SHRUBS/25'	245 L.F.	9.8	49	10 TREES	52 shrubs	
EAST 1 TREE /40'	113 LF	2.825	0	3 EXISTING	0	
NORTH 1 TREE/40'	240 L.F.	6	0	5 EXISTING	0	

PLANT REQUIREMENTS

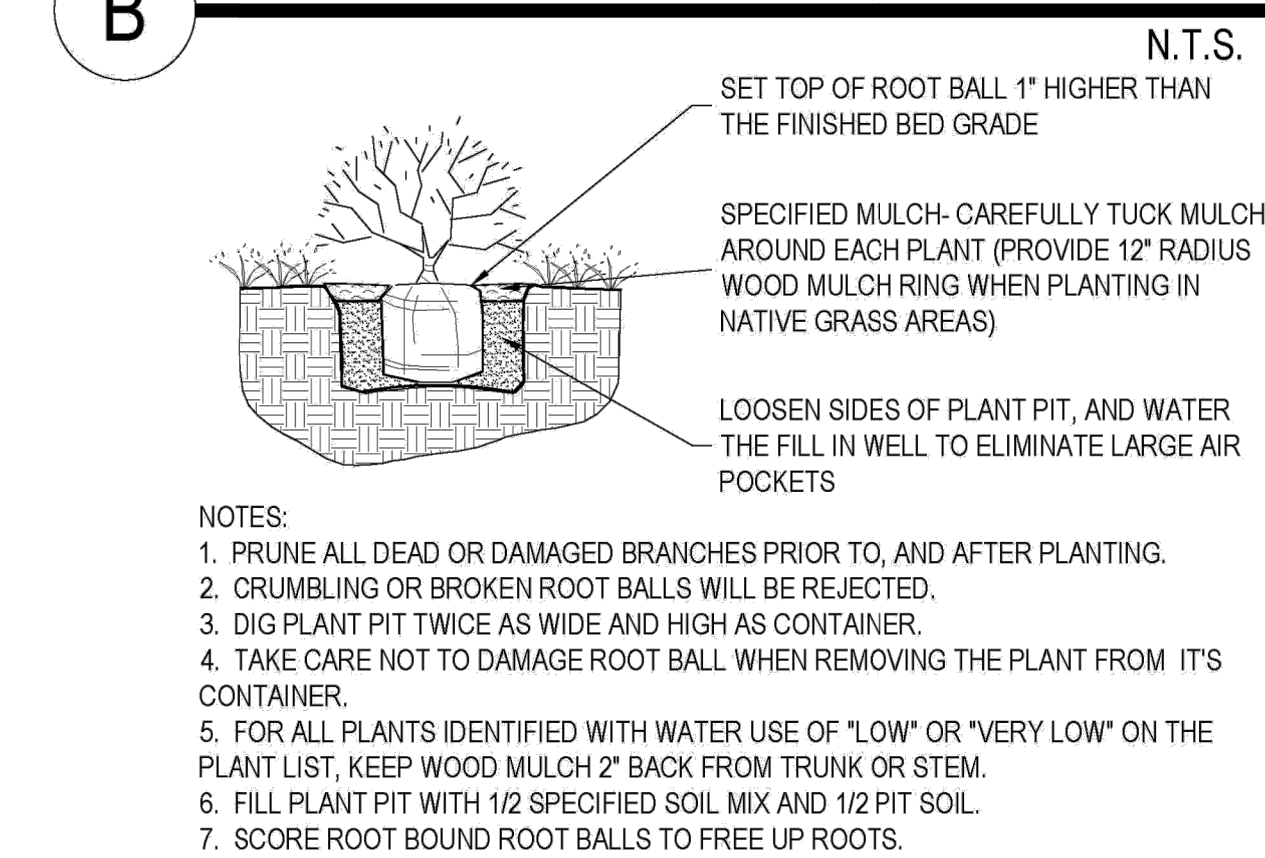
MINIMUM SITE LANDSCAPE CALCULATIONS FOR 48,373 sq ft LOT		
DESCRIPTION	REQUIRED OR ALLOWED	PROVIDED
LANDSCAPE AREA 15% of Lot	7,255 sq ft	11,430 sq ft
TREES 1/1,500 sq ft	4.84	6 SHADE TREES ADDITIONAL 6 SHADE TREES IN PARKING ISLAND
SHRUBS 5/1,500 sq ft	24.19	181 EXCLUDING PARKING ISLANDS ADDITIONAL 48 IN PARKING ISLANDS
MAX. IRRIGATED TURF = 15%	1,088.25 sq ft max.	0 sq ft
EVERGREEN TREES	40% - 60%	8 EVERGREEN / 19 TREES 42%
75% OF LIVE COVER	8,572.5 sq ft	9,443 sq ft

PWSO WATER CALCULATIONS							
LANDSCAPE AREA	HIGH WATER TURF (6,000 SF) = 1 SFE	LOW WATER NAT. GRASS & TREES 10,000 SF = 1 SFE	DRIP IRRIG. AREA (20,000 SF = 1 SFE)	NON-IRRIG. AREAS	SUB-TOTAL OF AREAS	PWSO ONE SFE PER 6000	SFE REQ. (SUB-TOTAL CALC. DIV. BY 6000 = REQ.)
11,430	0 SF x 1 = 0	0 SF x 1 = 0	11,430 SF x .3 = 3,429	0 SF x 0 = 0	3,429	6000	.6 SFE's

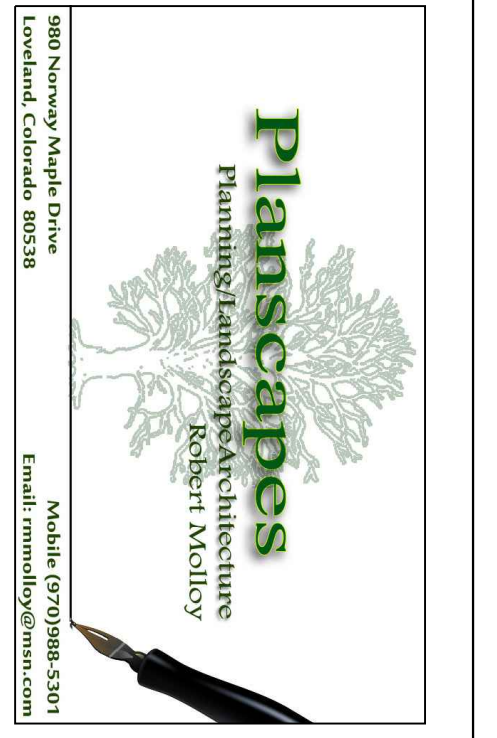
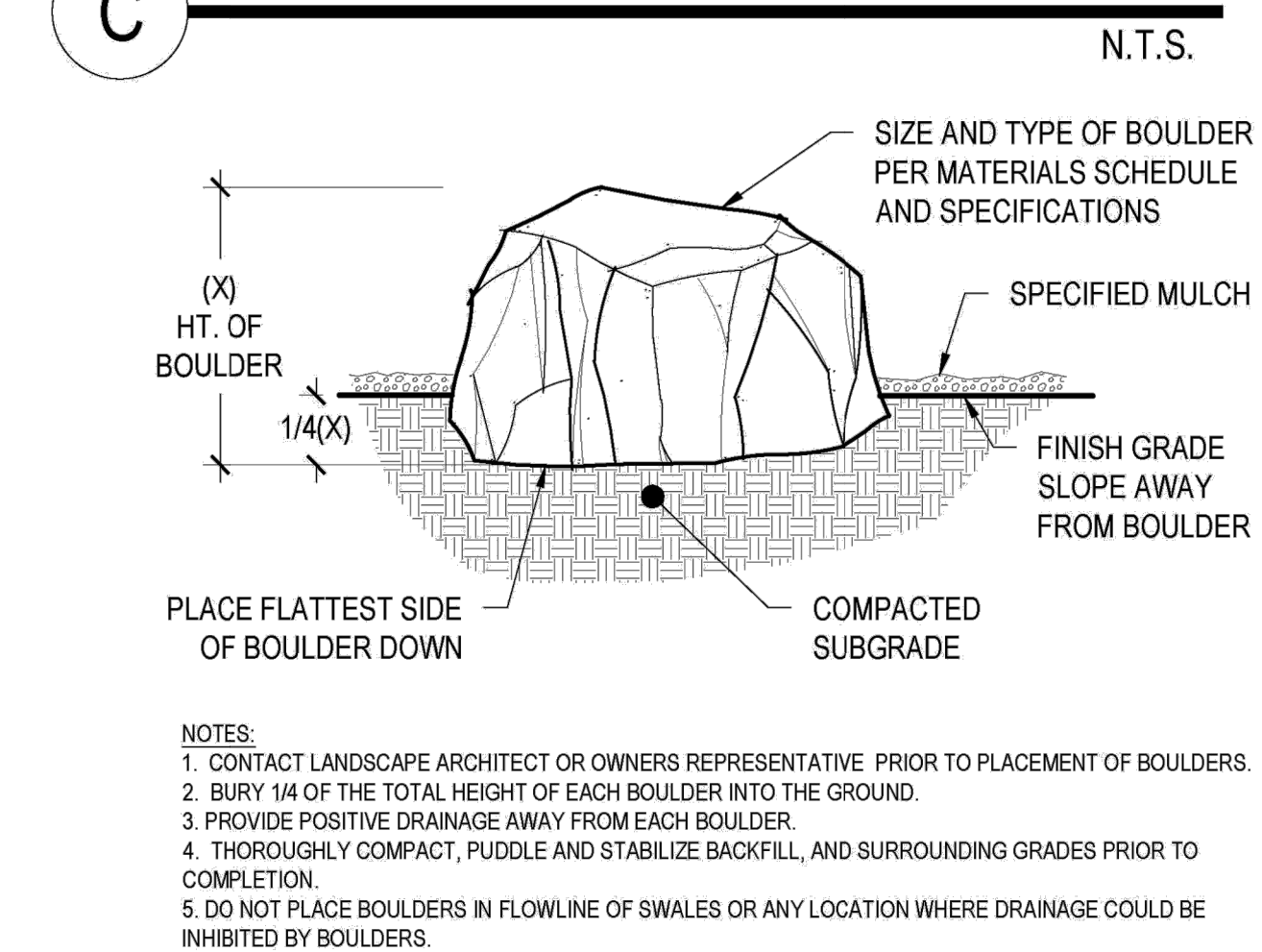
A PLANTING DETAIL FOR ALL TREES & B&B SHRUBS



B PLANTING DETAIL FOR SHRUBS, AND ALL CONTAINER PLANTS LARGER THAN 1 GALLON



C LANDSCAPE BOULDER



REVISIONS



Landscape/Irrigation Worksheet

Project Name: _____

Landscape/Irrigation Tap address (physical location of tap) _____

	High Water TURF (6,000sf = 1 SFE)	Low Water Native Grass and Spray Shrubs & Perennials (10,000sf = 1 SFE)	Drip Irrigated area (20,000sf = 1 SFE)	Non-Irrigated area (calculated)	Sub-Total of PWSD one SFE per 6000 Areas	SFE Requirement (Sub-Total Calculation divided by 6000 = requirement)
Area #1	_____sf x 1 = _____	_____sf x .6 = _____	_____sf x .3 = _____	_____sf x 0 = _____0_____	_____sf 6,000	_____SFE's

Worksheet Completed by: _____
 Company: _____
 Address: _____
 Phone #: _____

Owner/Developer: _____
 Attn: _____
 Billing Address: _____
 Phone #: _____

ET Controller (with Rain Sensor)

Manufacturer	_____
Model number	_____

Tap Size Requirements:
 0 - 1 SFE's requires a 3/4-inch tap
 1.1 - 2.0 SFE's requires a 1-inch tap
 2.1 - 4.0 SFE's requires a 1 1/2-inch tap
 4.1 - 7.0 SFE's requires a 2-inch tap
 7.1 - 16.0 SFE's requires a 3-inch tap