APPENDIX 3-A

EXISTING AND PRELIMINARY SUBSTATION DESIGN AND GRADING

PORTIONS OF THIS APPENDIX HAVE BEEN OMITTED – THEY HAVE BEEN SUBMITTED UNDER CONFIDENTIAL COVER

(Privileged and Confidential pursuant to P.U. Code 583, 454.5(g), GO 66-C and D.06-06-066)

EXISTING ARTESIAN SUBSTATION DESIGN DRAWINGS

DESIGN DRAWINGS HAVE BEEN OMITTED – THEY HAVE BEEN SUBMITTED UNDER CONFIDENTIAL COVER

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PROPOSED ARTESIAN SUBSTATION EXPANSION DESIGN DRAWINGS

DESIGN DRAWINGS HAVE BEEN OMITTED – THEY HAVE BEEN SUBMITTED UNDER CONFIDENTIAL COVER

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PROPOSED ARTESIAN SUBSTATION – PRELIMINARY GRADING PLAN

GRADING PLAN HAS BEEN OMITTED – IT HAS BEEN SUBMITTED UNDER CONFIDENTIAL COVER

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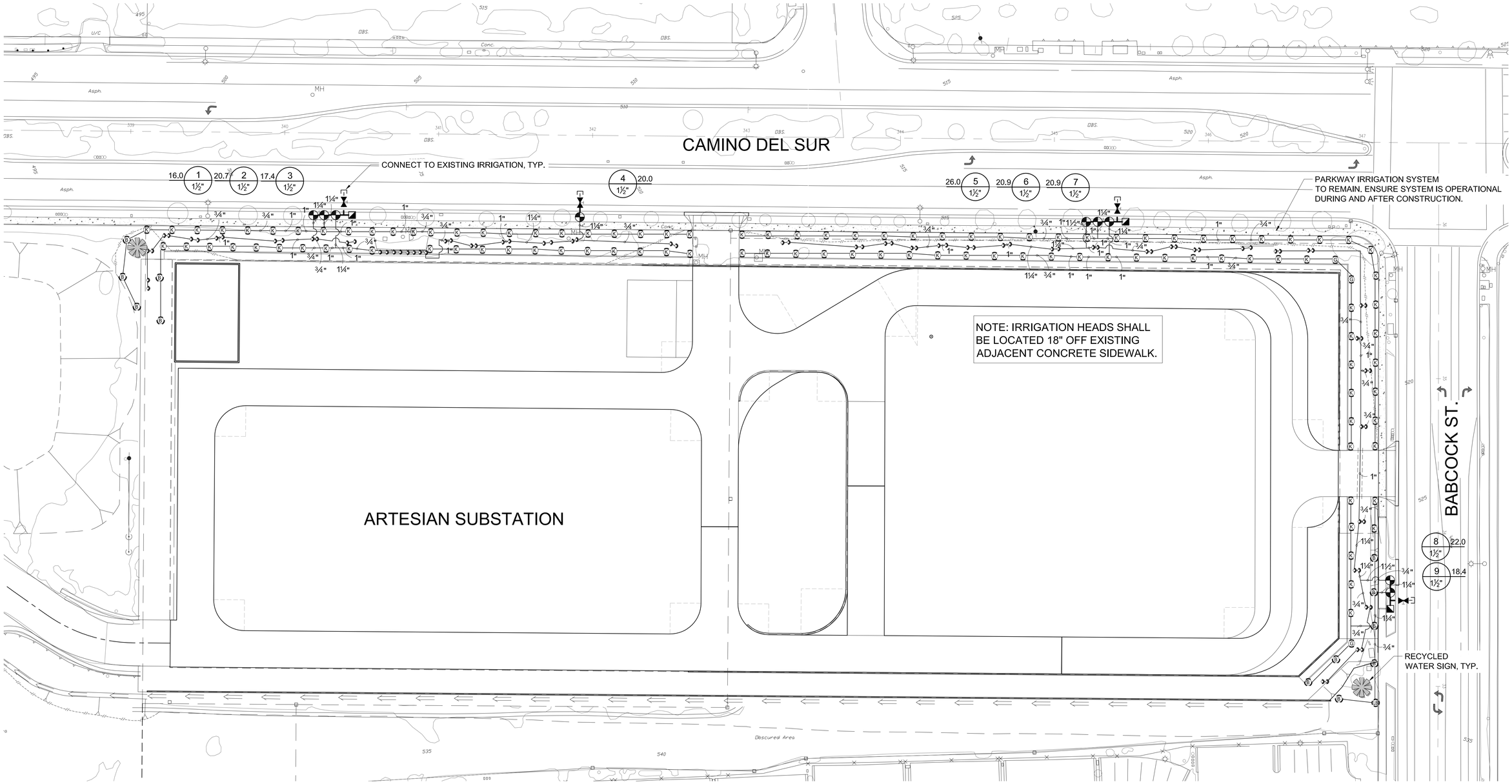
PROPOSED ARTESIAN SUBSTATION LANDSCAPE PLANS



NORTH

30 15 0 30 60 90

GRAPHIC SCALE 1"= 30'-0"

LICENSED LANDSCAPE ARCHITECT
WARREN W. CAMPBELL III
SIGNATURE
8/31/16
RENEWAL DATE
11/30/15
DATE
STATE OF CALIFORNIA

NV5
NOLTE VERTICALFIVE
NOLTE ASSOCIATES, INC.

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REVISIONS

NO.	WORK DONE	DATE:	BY:	APP'D:

SAN DIEGO GAS & ELECTRIC COMPANY
SAN DIEGO, CALIFORNIA

ARTESIAN SUBSTATION SITE PLAN
IRRIGATION PLAN

DRAWN BY: SRD	DATE:	SCALE:	W.O.: REV.:
CHECKED BY: JRH	DATE:		
APPROVED BY: RWM	DATE:	SHEET OF	
CAD NO.:	PLOT SCALE: 1"=30'-0"		L1.0

3/8/2016

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	ARC	PSI	RADIUS
G	HUNTER MP2000 PROS-12-PRS40-CV-R, PURPLE CAP.	210-270	40	19'
K	HUNTER MP2000 PROS-12-PRS40-CV-R, PURPLE CAP.	90-210	40	19'
B	HUNTER MP3000 PROS-12-PRS40-CV-R	90-210	40	30'
LB	HUNTER MP3500 PROS-12-PRS40-CV-R	90-210	40	35'
	RAIN BIRD 1806-SAM-PRS-5H-B SERIES STREAM	180	30	5'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	HUNTER ICV-G-FS-R 1", 1-1/2", 2", AND 3" PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE. WITH DC LATCHING SOLENOID FACTORY INSTALLED OPTION. RECLAIMED WATER ID, PURPLE HANDLE.
	HUNTER HQ-33DLRC-R QUICK COUPLER VALVE, PURPLE LOCKING RUBBER COVER FOR RECLAIMED WATER USE, RED BRASS AND STAINLESS STEEL, WITH 3/4" NPT INLET, 2-PIECE BODY.
	NIBCO T-FP-600A BRASS BALL VALVE, SIZE PER PLAN, WITH PURPLE TAG.
X X	CONNECTION TO EXISTING IRRIGATION MAINLINE SERVICE
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 PVC SCHEDULE 40 IRRIGATION PIPE.
	IRRIGATION MAINLINE: PVC SCHEDULE 40 AND CLASS 315 PVC SCHEDULE 40 TO 1-1/2", PVC CLASS 315 SDR 13.5 FOR PIPES 2" AND LARGER.
	PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.
# # #"	Valve Callout Valve Number Valve Flow Valve Size
	RECYCLED WATER SIGN

IRRIGATION WATER DEMAND

PROJECT: (04-009.000)
BY: WYAC DATE: 03/08/2016

MAXIMUM APPLIED WATER ALLOWANCE

MAWA = (ETo) x (0.62) x (0.45) x LA

INFORMATION REQUIRED TO CALCULATE FORMULAS:

MAWA	MAXIMUM APPLIED WATER ALLOWANCE (GALLONS PER YEAR)
ETo	REFERENCE EVAPOTRANSPIRATION PER YEAR. BMR, CIMIS = 47
0.45	ET ADJUSTMENT FACTOR FOR PLANT FACTOR & IRRIGATION EFFICIENCY (ETAF)
LA	LANDSCAPE AREA (SQUARE FEET)
0.62	CONVERSION FACTOR (GALLONS PER SQUARE FOOT)

MAXIMUM APPLIED WATER ALLOWANCE

MAWA = (ETo) (0.62) (0.45) (LA)
MAWA = (47) (0.62) (0.45) (22,292)
MAWA = 292,315

292,315 GALLONS / YEAR

ESTIMATED TOTAL WATER USE

ETWU = (ETo) x (0.62) x (PF x HA / IE)

INFORMATION REQUIRED TO CALCULATE FORMULAS:

ETWU	ESTIMATED TOTAL WATER USE (GALLONS PER YEAR)
ETo	REFERENCE EVAPOTRANSPIRATION PER YEAR. BMR, CIMIS = 47 CONVERSION FACTOR (GALLONS PER SQUARE FOOT)
PF	PLANT FACTOR FROM WUCOLS 1.0 - LAWN 0.8 - HIGH WATER USE PLANTS 0.5 - AVERAGE WATER USE PLANTS 0.3 - LOW WATER USE PLANTS
HA	HYDROZONE AREAS
IE	IRRIGATION EFFICIENCY 0.81 - DRIP 0.75 - MP ROTATOR / BUBBLERS 0.75 - CONVENTIONAL SPRAY

ESTIMATED TOTAL WATER USE

ETWU = (ETo) (0.62) (PF x LA / IE)
ETWU = (47) (0.62) (.3 x 22,292 / 1)
ETWU = 194,877

194,877 GALLONS / YEAR

IRRIGATION NOTES:

1. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM STATIC PRESSURE OF 75 PSI, AND THE MAXIMUM FLOW DEMAND OF 60 GPM AT THE WATER POINT OF CONNECTION (P.O.C.). THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION AND SHALL REPORT ANY DIFFERENCES BETWEEN THE DESIGN WATER PRESSURE AND THE ACTUAL WORKING PRESSURE READING AT THE IRRIGATION P.O.C. TO OWNER'S REPRESENTATIVE.
2. THIS DESIGN IS DIAGRAMMATIC. THESE DRAWINGS ARE INTENDED TO BE A SCHEMATIC REPRESENTATION OF THE FINISHED IRRIGATION SYSTEM. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING, AND ARCHITECTURAL FEATURES. CONTRACTOR SHALL MAKE ALL NECESSARY FIELD ADJUSTMENTS TO ACCOMMODATE ACTUAL SITE CONDITIONS.
3. CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON THESE PLANS AT THE SITE PRIOR TO COMMENCEMENT OF WORK.
4. CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THESE DRAWINGS WHEN IT IS OBVIOUS THAT FIELD OBSTRUCTIONS AND/OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MAY NOT HAVE BEEN CONSIDERED IN THE SYSTEM ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER'S REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT GIVEN, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
5. CONTRACTOR TO COORDINATE SLEEVING UNDER ALL PAVING WITH OTHER TRADES AS NECESSARY. NO TEES OR ELLS SHALL BE INSTALLED UNDER PAVING. ALL SLEEVES SHALL EXTEND A MINIMUM OF EIGHTEEN INCHES (18") BEYOND EDGE OF PAVING. ALL SLEEVING LOCATED UNDER PAVING SHALL BE TWO (2) TIMES THE OUTSIDE DIAMETER OF THE PIPE TO BE SLEEVED, MINIMUM TWO-INCH (2") DIAMETER. CONTRACTOR TO INSTALL METALLIC BACKED TAPE ALONG THE ENTIRE LENGTH OF THE SLEEVE, TWELVE INCHES (12") DIRECTLY ABOVE THE SLEEVE. TAPE SHALL BE MARKED "IRRIGATION" IN TWO INCH (2") CAPITAL LETTERS EVERY THREE FEET ALONG THE TAPE.
6. REMOTE CONTROL VALVES SHALL BE INSTALLED ADJACENT TO WALKWAYS UNLESS OTHERWISE NOTED.
7. CONCRETE THRUST BLOCKS SHALL BE USED ON ALL IRRIGATION MAINLINES WHERE CHANGES OF DIRECTION OF FORTY-FIVE (45) DEGREES OR MORE SHOULD OCCUR.
8. WHERE TREES, LIGHT STANDARDS, ETC., ARE AN OBSTRUCTION TO IRRIGATION COVERAGE, THEN PIPING AND SPRINKLER HEADS SHALL BE ADJUSTED AND/OR RELOCATED AS NECESSARY TO OBTAIN FULL COVERAGE AND MINIMUM OVERSPRAY. DO NOT EXCEED SPACING AS PER MANUFACTURER'S RECOMMENDATIONS.
9. CONTRACTOR SHALL FLUSH ALL MAIN LINES PRIOR TO INSTALLATION OF THE VALVES, AND SHALL FLUSH ALL LATERAL LINES PRIOR TO INSTALLATION OF THE SPRINKLER HEADS.
10. 10. CONTRACTOR SHALL FINE-TUNE AND ADJUST ALL SPRINKLER SYSTEMS TO ACHIEVE OPTIMUM PERFORMANCE AND COMPLETE COVERAGE, WITH MINIMUM OVERSPRAY ONTO HARDSCAPE AREAS. THIS INCLUDES ADJUSTMENT OF THE FLOW CONTROL STEM AT EACH REMOTE CONTROL VALVE TO OBTAIN THE OPTIMUM OPERATING FLOW / PRESSURE FOR THAT SYSTEM, AND ADJUSTMENT OF ALL SPRINKLER NOZZLES.
11. COORDINATE IRRIGATION WORK WITH PLANTING PLANS TO AVOID CONFLICTING LOCATIONS BETWEEN PIPING AND PLANT PITS. SPECIMEN TREE LOCATIONS TAKE PRECEDENCE OVER IRRIGATION PIPING. LOCATE SPECIMEN TREES PRIOR TO TRENCHING FOR IRRIGATION PIPING.
12. ALL LATERAL END RUNS ARE AS PER CONTRACT DOCUMENTS.
13. TRENCH MARKER: ALL DIRECT BURIAL WIRES SHALL BE MARKED WITH A CONTINUOUS RED COLORED TRENCH MARKER TAPE PLACED NINE INCHES (9") BELOW FINISH GRADE DIRECTLY ABOVE THE BURIED WIRES. MARKER TAPE SHALL BE EQUAL TO "ALAMA TAPE" AS MANUFACTURED BY PAUL POTTER WARNING TAPE INC. TAPE SHALL BE FOUR INCHES (4") WIDE.
14. IRRIGATION SYSTEMS ARE TO BE INSTALLED AS DESIGNED AND IN ACCORDANCE WITH THE CRITERIA AND APPLICABLE STANDARDS AS OF THE APPROVED DATE OF THESE PLANS. ALL IRRIGATION SYSTEM COMPONENTS SHALL BE INSTALLED PER LOCAL CODE. CONTRACTORS SHALL SECURE ALL NECESSARY PERMITS.
15. FOR REMOTE CONTROL VALVE MANIFOLDS, BALL VALVE SIZE SHALL EQUAL THE SIZE OF THE LARGEST REMOTE CONTROL VALVE IN THE MANIFOLD.
16. PROVIDE PULL BOXES FOR CONTROL WIRING AT ALL CHANGES IN DIRECTION GREATER THAN FORTY-FIVE (45) DEGREES AND WHERE WIRE RUNS EXCEED THREE HUNDRED FEET (300') IN LENGTH. IN-LINE WIRE SPLICES SHALL BE MADE ONLY IN PULL BOXES, WITH WATERPROOF CONNECTORS.
17. CONTRACTOR SHALL INSTALL TWO (2) EXTRA CONTROL WIRES ON EACH LEG OF MAINLINE PIPE FOR TRADITIONAL IRRIGATION INSTALLATION.
18. TWO WIRE SYSTEMS SHALL UTILIZE A TWISTED PAIR OF #14 AWG DECODER CABLES FOR DIRECT BURIAL WITHIN A RED HDPE OUTER JACKET. THE COMMUNICATION CABLE SHALL BE MANUFACTURED BY PAIGE ELECTRIC MODEL #P7350D, OR EQUAL. DECODERS SHALL HAVE 'INTEGRATED SURGE PROTECTION' (CDEC-ISP-1). DECODERS SEND DC SIGNALS TO DC-LATCHING SOLENOIDS THROUGH #14 WIRE DTS CABLES (MODEL #P7351D). ALL SPLICES SHALL BE MADE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE® ARTICLES 300.5 (UNDERGROUND INSTALLATIONS) AND 110.14 (ELECTRICAL CONNECTIONS) USING 3M DBY-6 OR DBR-6 CONNECTORS, WHICH ARE UL LISTED UNDER "UL 486D-DIRECT BURIAL", FOR WET OR DAMP LOCATIONS, 600 VOLTS. THE DECODERS SHALL HAVE 'INTEGRATED SURGE PROTECTION' RATED TO 20 KV (20,000 VOLTS) SECONDARY SURGE.
19. BACKFILL MATERIAL SHALL BE CLEAN AND FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), AND OBJECTS WITH SHARP EDGES.
20. CONTRACTOR SHALL INSTALL IN-LINE ANTI-DRAIN VALVES AS WARRANTED BY SITE CONDITIONS TO ALLEVIATE LOW-HEAD DRAINAGE.
21. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO THE FINISH GRADE OF THE AREA TO BE IRRIGATED, UNLESS OTHERWISE DESIGNATED ON THE PLANS. ADJUST THE ANGLE OF RISERS FOR SPRINKLER HEADS ON SLOPES TO ACHIEVE OPTIMUM COVERAGE AND MINIMUM OVERSPRAY.
22. INSTALL VARIABLE ARC NOZZLES ON POP-UP SPRAY HEADS AT LOCATIONS WHERE ARCS OTHER THAN 90, 180, AND 360 DEGREES ARE REQUIRED, IN ORDER TO ACHIEVE COMPLETE COVERAGE WITH MINIMUM OVERSPRAY OF WATER ONTO HARDSCAPE AREAS.

LICENSED LANDSCAPE ARCHITECT
SIGNATURE
8/31/16
RENEWAL DATE
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STATE OF CALIFORNIA

NV5
NOLTE VERTICALFIVE
NOLTE ASSOCIATES, INC.

Wimmer Yamada and Caughey
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NO.	WORK DONE	DATE:	BY:	APP'D:	NO.	WORK DONE	DATE:	BY:	APP'D:	NO.	WORK DONE	DATE:	BY:	APP'D:	NO.	WORK DONE	DATE:	BY:	APP'D:

SAN DIEGO GAS & ELECTRIC COMPANY
SAN DIEGO, CALIFORNIA

ARTESIAN SUBSTATION SITE PLAN
IRRIGATION LEGEND & NOTES

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APPROVED BY: RWM	DATE:	SHEET OF		
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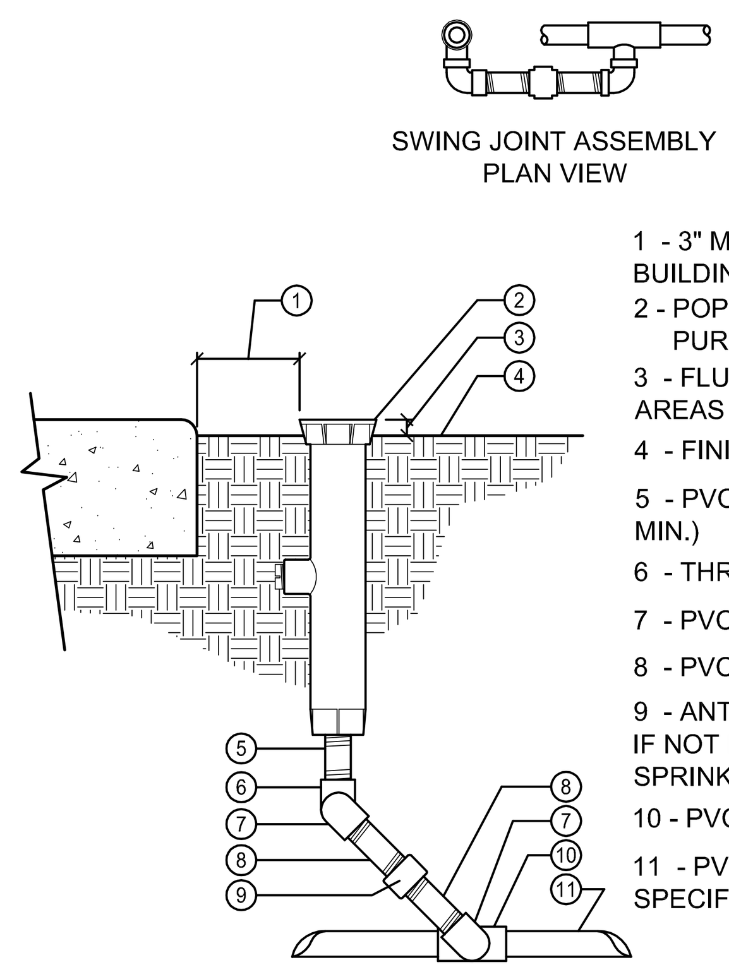
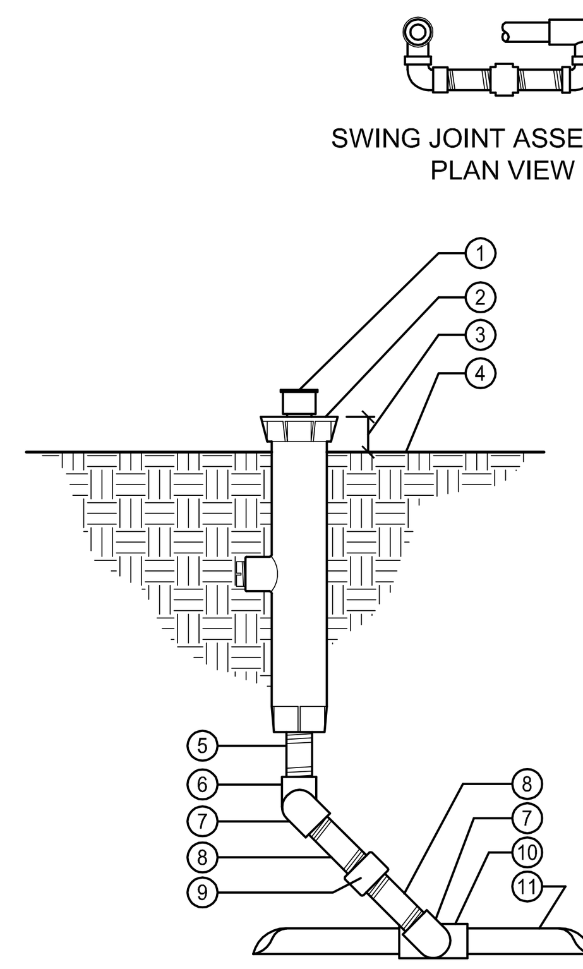


1 - 3" MINIMUM, 6" MAXIMUM, 18" AT BUILDING WALLS
2 - POP-UP SPRAY HEAD WITH PURPLE CAP
3 - FLUSH IN TURF AREAS, 2" IN SHRUB AREAS
4 - FINISH GRADE
5 - PVC SCHEDULE 80 NIPPLE (3" MIN.)
6 - THREADED ELL (FIPT X FIPT)
7 - PVC SCHEDULE 40 STREET ELL
8 - PVC SCHEDULE 80 NIPPLE
9 - ANTI-DRAIN VALVE (HUNTER "HCV" IF NOT FACTORY INSTALLED IN SPRINKLER)
10 - PVC SCHEDULE 40 ELL OR TEE
11 - PVC LATERAL LINE (PURPLE - SEE SPECIFICATIONS FOR PIPE DEPTH)

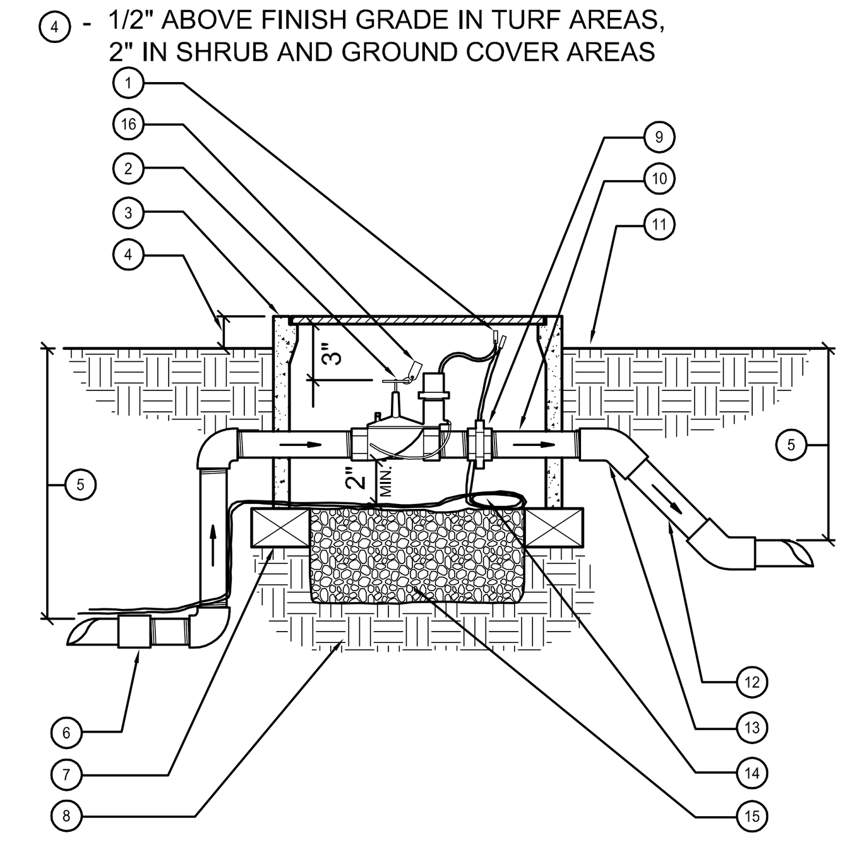
A POP-UP SPRAY HEAD
N.T.S.
RECYCLED WATER — SECTION



1 - POP-UP BUBBLER HEAD
2 - PURPLE IDENTIFICATION CAP
3 - 2" IN SHRUB AREAS
4 - FINISH GRADE
5 - PVC SCHEDULE 80 NIPPLE (3" MIN.)
6 - THREADED ELL (FIPT X FIPT)
7 - PVC SCHEDULE 40 STREET ELL
8 - PVC SCHEDULE 80 NIPPLE
9 - ANTI-DRAIN VALVE (HUNTER "HCV" IF NOT FACTORY INSTALLED IN SPRINKLER)
10 - PVC SCHEDULE 40 THREADED ELL OR THREADED TEE (SLIP X FIPT)
11 - PVC LATERAL LINE (PURPLE - SEE SPECIFICATIONS FOR PIPE DEPTH)

B POP-UP BUBBLER HEAD
N.T.S.
RECYCLED WATER — SECTION

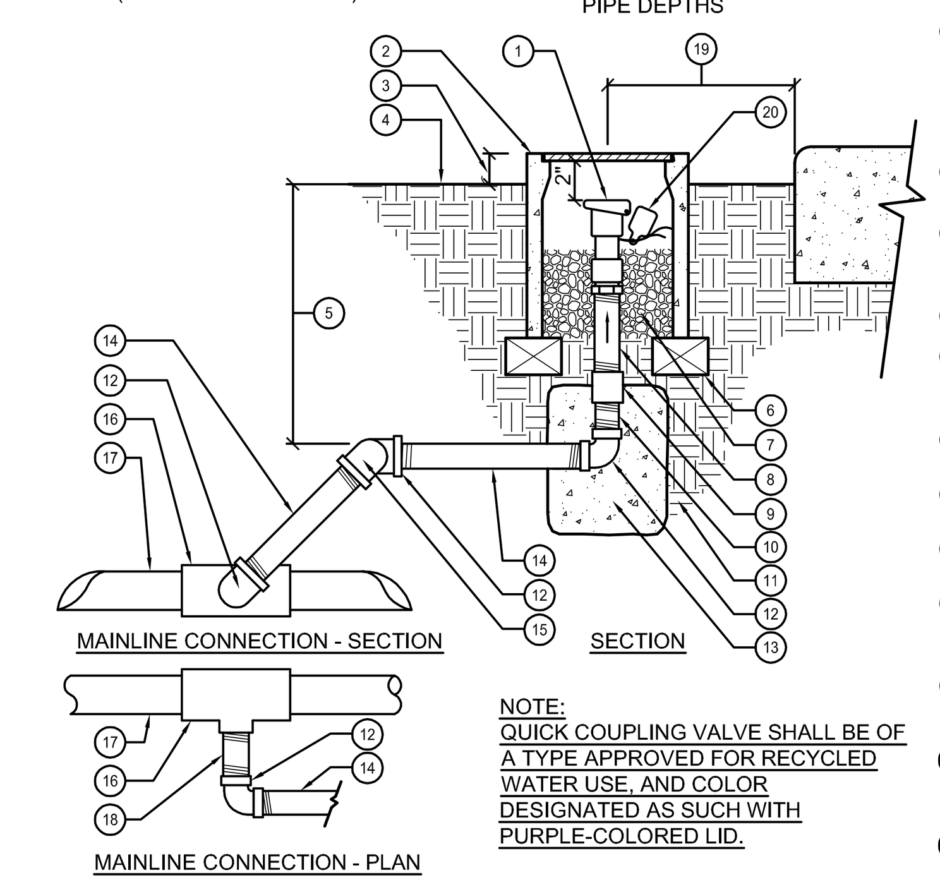
1 - WATERPROOF WIRE CONNECTORS
2 - ELECTRIC REMOTE CONTROL VALVE
3 - VALVE BOX WITH PURPLE COVER
4 - 1/2" ABOVE FINISH GRADE IN TURF AREAS, 2" IN SHRUB AND GROUND COVER AREAS



5 - SEE SPECS FOR PIPE DEPTHS
6 - PVC SCHEDULE 80 S X T ADAPTER
7 - UNMORTARED BRICK SUPPORTS (ALL AROUND)
8 - UNDISTURBED OR 90% COMPACTED SUBGRADE
9 - PVC SCHEDULE 80 UNION
10 - PVC SCHEDULE 80 NIPPLE (TYP.)
11 - FINISH GRADE
12 - PVC LATERAL LINE (PURPLE)
13 - PVC SCHEDULE 80 FITTING (TYP.)
14 - 2' LONG WIRE EXPANSION LOOPS
15 - 6" DEEP PEA GRAVEL SUMP
16 - RECYCLED WATER TAG

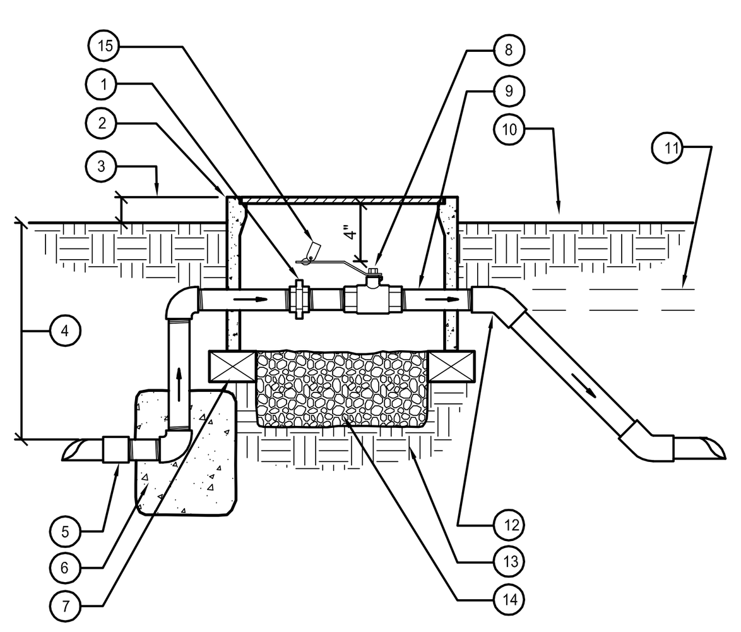
C REMOTE CONTROL VALVE
N.T.S.
RECYCLED WATER — SECTION

1 - 1" QUICK COUPLING VALVE WITH PURPLE-COLORED LID (SEE LEGEND AND SPECIFICATIONS)
2 - VALVE BOX WITH PURPLE COVER (SEE SPECIFICATIONS)
3 - FLUSH IN TURF AREAS, 2" IN SHRUB AND GROUND COVER AREAS
4 - FINISH GRADE
5 - SEE SPECIFICATIONS FOR PIPE DEPTHS
6 - UNMORTARED BRICK SUPPORTS (2 MIN.)
7 - PEA GRAVEL SUMP, 6" DEPTH
8 - RED BRASS NIPPLE, 6" LENGTH MIN.
9 - RED BRASS COUPLING, EXTEND 1/2" ABOVE TOP OF CONCRETE THRUST BLOCK
10 - RED BRASS NIPPLE, LENGTH AS REQUIRED
11 - UNDISTURBED OR 90% COMPACTED SUBGRADE
12 - RED BRASS ELL
13 - ONE CUBIC FOOT CONCRETE THRUST BLOCK
14 - RED BRASS NIPPLE, 8" LENGTH MIN.
15 - RED BRASS STREET ELL
16 - PVC ELL OR TEE ON MAINLINE PIPE
17 - PVC IRRIGATION MAINLINE PIPE, PURPLE COLOR
18 - SCHEDULE 80 PVC NIPPLE, 4" LENGTH MIN.
19 - 6" MIN. TO 18" MAX. FROM EDGE OF CURBS, WALKS, ETC.
20 - RECYCLED WATER TAG



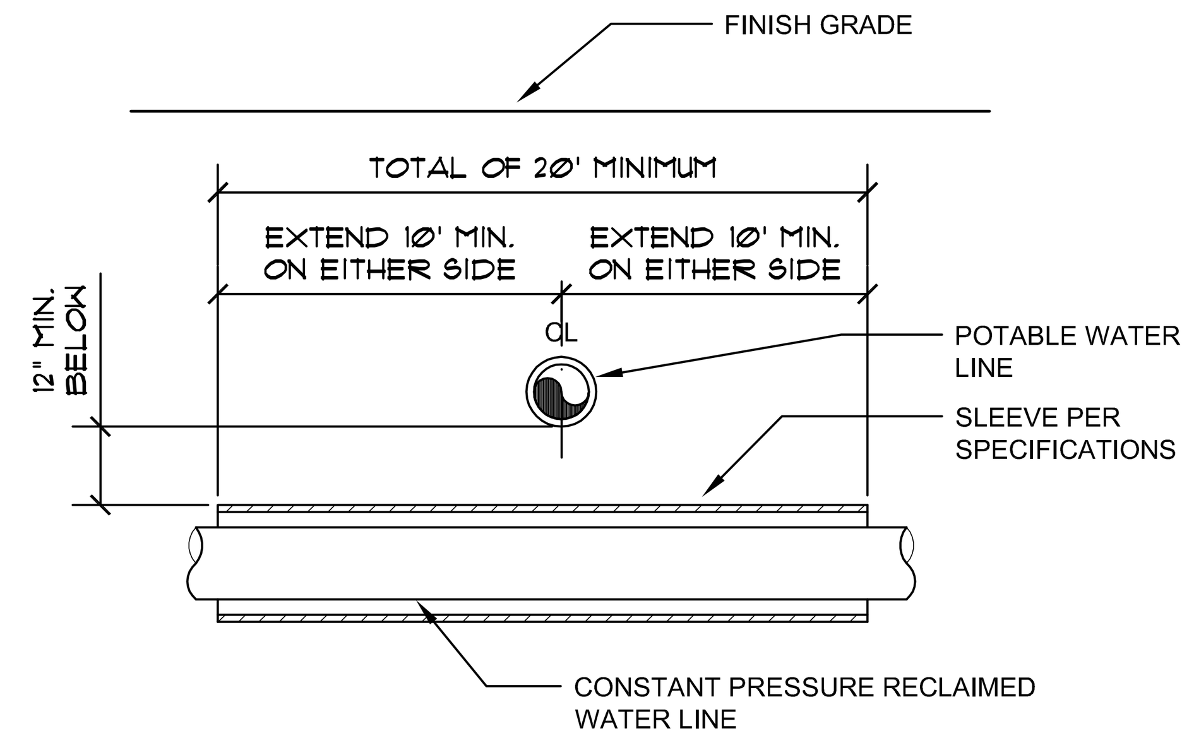
NOTE:
QUICK COUPLING VALVE SHALL BE OF A TYPE APPROVED FOR RECYCLED WATER USE, AND COLOR DESIGNATED AS SUCH WITH PURPLE-COLORED LID.

D QUICK COUPLING VALVE
N.T.S.
RECYCLED WATER — SECTION AND PARTIAL PLAN

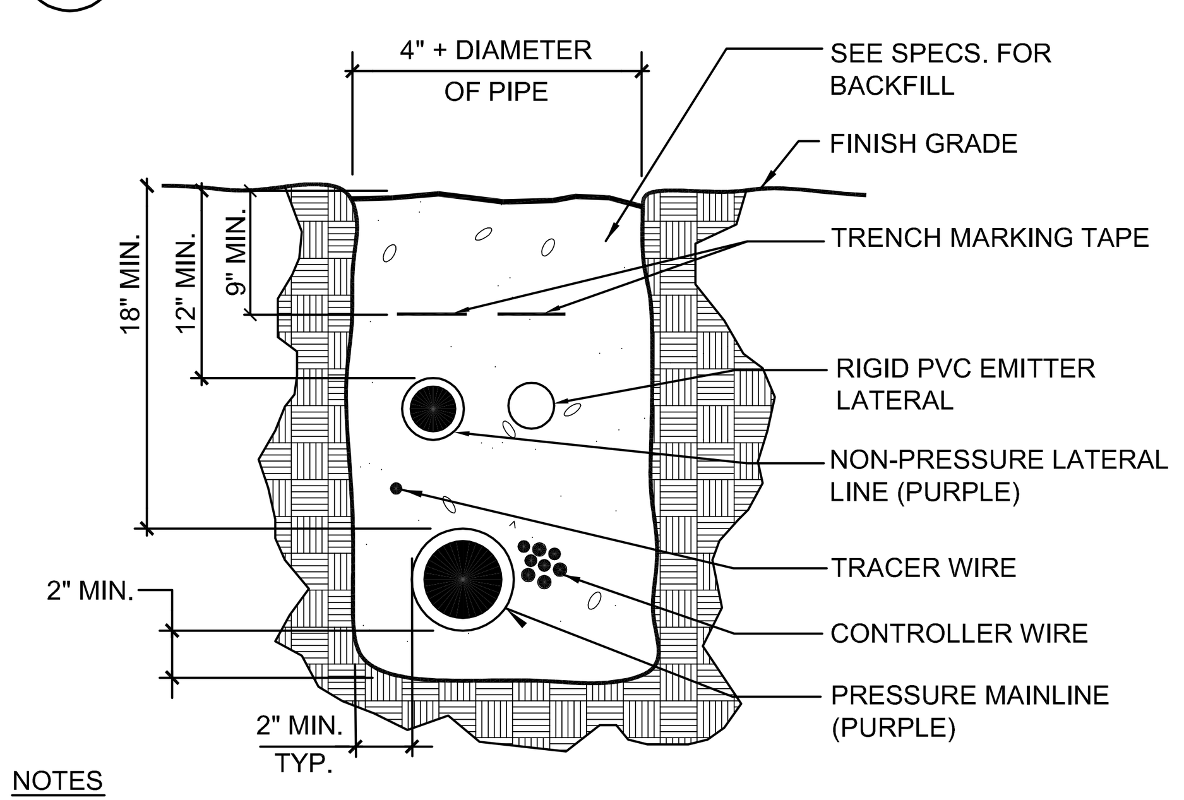


1 - PVC SCHEDULE 80 UNION
2 - VALVE BOX WITH LOCKING PURPLE COVER, PER SPECIFICATIONS
3 - 1/2" ABOVE FINISH GRADE IN TURF AREAS, 2" IN SHRUB AND GROUND COVER AREAS
4 - SEE SPECIFICATIONS FOR PIPE DEPTHS
5 - PVC SCHEDULE 80 S X T ADAPTER
6 - ONE CUBIC FOOT CONCRETE FOOTING
7 - UNMORTARED BRICK SUPPORTS (4 MIN)
8 - BALL VALVE
9 - PVC SCHEDULE 80 NIPPLE (TYP.)
10 - FINISH GRADE
11 - CONTINUE STRAIGHT AT VALVE MANIFOLDS
12 - PVC SCHEDULE 80 FITTING (TYP.)
13 - UNDISTURBED OR 90% COMPACTED SUBGRADE
14 - 6" DEEP PEA GRAVEL SUMP
15 - RECYCLED WATER TAG

E BALL VALVE
N.T.S.
RECYCLED WATER — SECTION

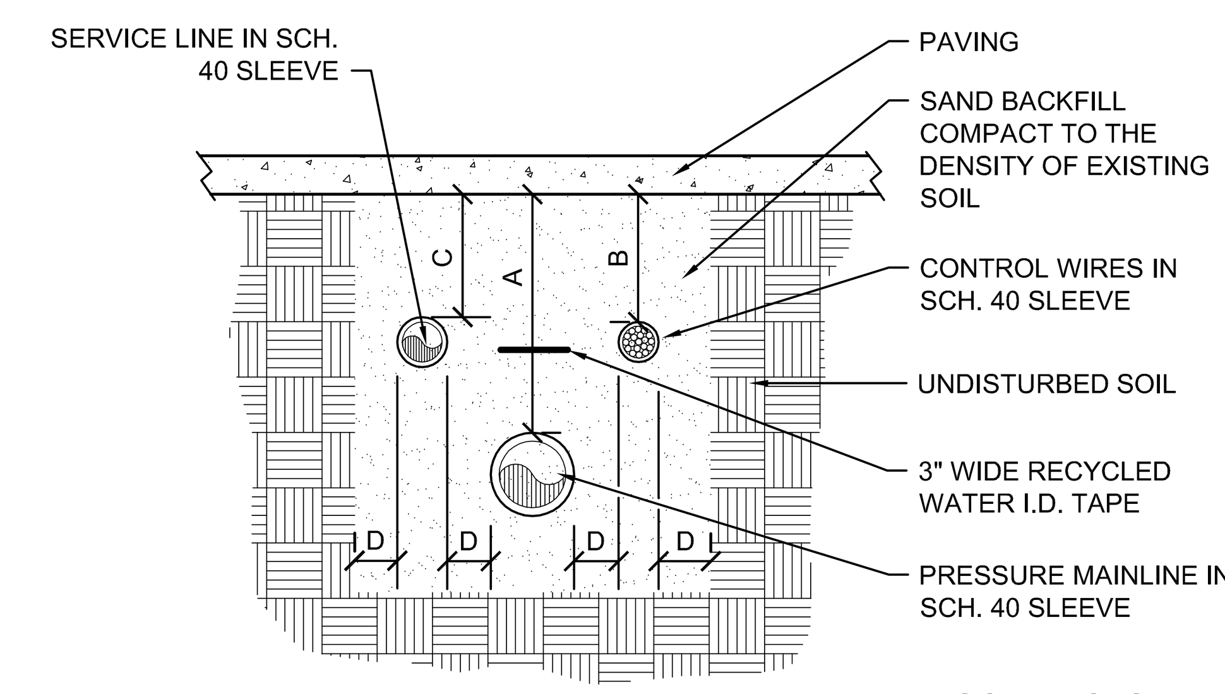


F WATER LINE CROSSING
N.T.S.
PRESSURIZED RECYCLED AND POTABLE WATER — SECTION



NOTES
1. PRESSURE MAINLINE(PURPLE): 18" BELOW FINISH GRADE TO TOP OF PIPE, AND 24" BELOW PAVED AREAS TO TOP OF PIPE IN SCHEDULE 40 PVC SLEEVES.
2. LATERAL LINES (PURPLE): 12" BELOW FINISH GRADE TO TOP OF PIPE AND 18" BELOW PAVED AREAS TO TOP OF PIPE IN SCHEDULE 40 PVC SLEEVES.
3. CONTROL WIRING: TO THE SIDE OF PRESSURE MAINLINE AND 24" BELOW PAVED AREAS IN SCHEDULE 40 PVC SLEEVES.
4. MAINTAIN 2" CLEARANCE BETWEEN PRESSURE AND/OR LATERAL LINES WITHIN SAME TRENCH.

G PIPE TRENCHING
N.T.S.
RECYCLED WATER — SECTION

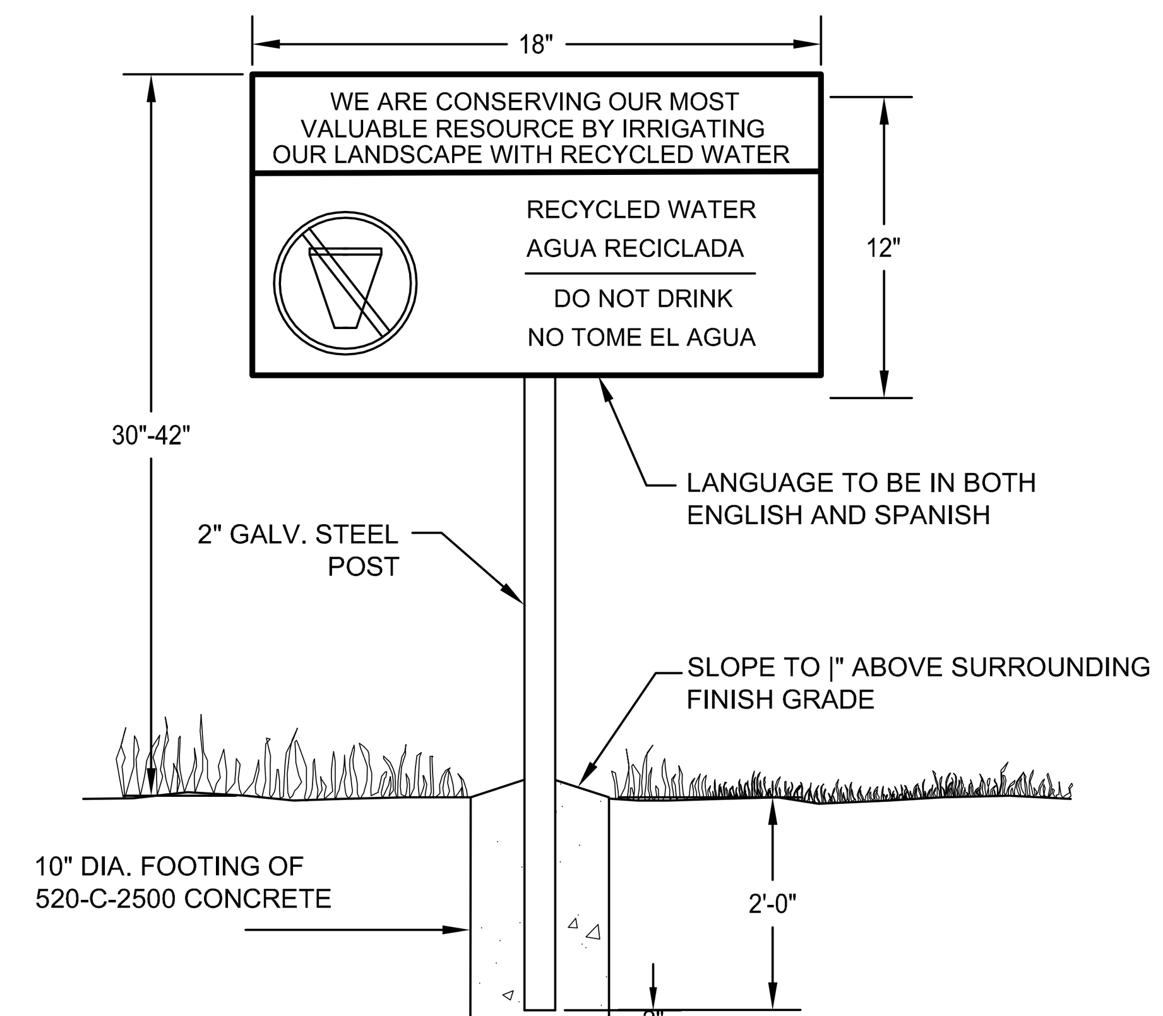


PIPE SIZE	A	B	C	D
\"TO 4" IN SIZE	30"	24"	24"	4"

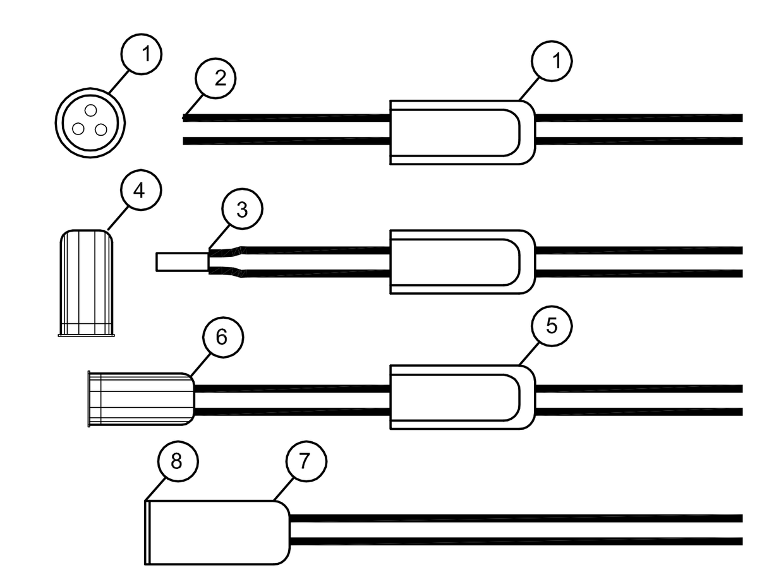
PVC SLEEVES TO BE TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE CARRIED.

DETAIL ALSO FOR PIPE INSTALLED IN ROCK SOIL

H PIPE SLEEVING
N.T.S.
RECYCLED WATER — SECTION



I RECYCLED WATER SIGN
N.T.S.
SECTION



LEGEND:
1. SLIP BASE SOCKET OVER END OF WIRES.
2. CLEANLY STRIP WIRES APPROXIMATELY 5/8" FROM END.
3. PUT CRIMP SLEEVE OVER WIRE ENDS - CRIMP SLEEVES AND CUT OFF EXCESS.
4. APPLY SEALER TO INSIDE OF SEALING PLUG - FILL CAVITY WITH SEALER.
5. PULL BASE SOCKET BACK OVER END OF WIRES AS FAR AS POSSIBLE.
6. PUSH SEALING PLUG INTO BASE SOCKET.
7. PUSH WIRES TO END OF BASE SOCKET TO ASSURE COMPLETE SEALING OF CONNECTION.
8. USE DRI-SPLICE MFG. BY SPEARS, OR APPROVED EQUAL.

J WIRE CONNECTOR
N.T.S.

LICENSED LANDSCAPE ARCHITECT
PATRICK W. CAUGHEY
SIGNATURE 8/31/16
RENEWAL DATE 11/30/15
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REVISIONS

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SAN DIEGO GAS & ELECTRIC COMPANY
SAN DIEGO, CALIFORNIA

ARTESIAN SUBSTATION SITE PLAN
IRRIGATION DETAILS

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CAD NO.:	PLOT SCALE: 1"=30'-0"		

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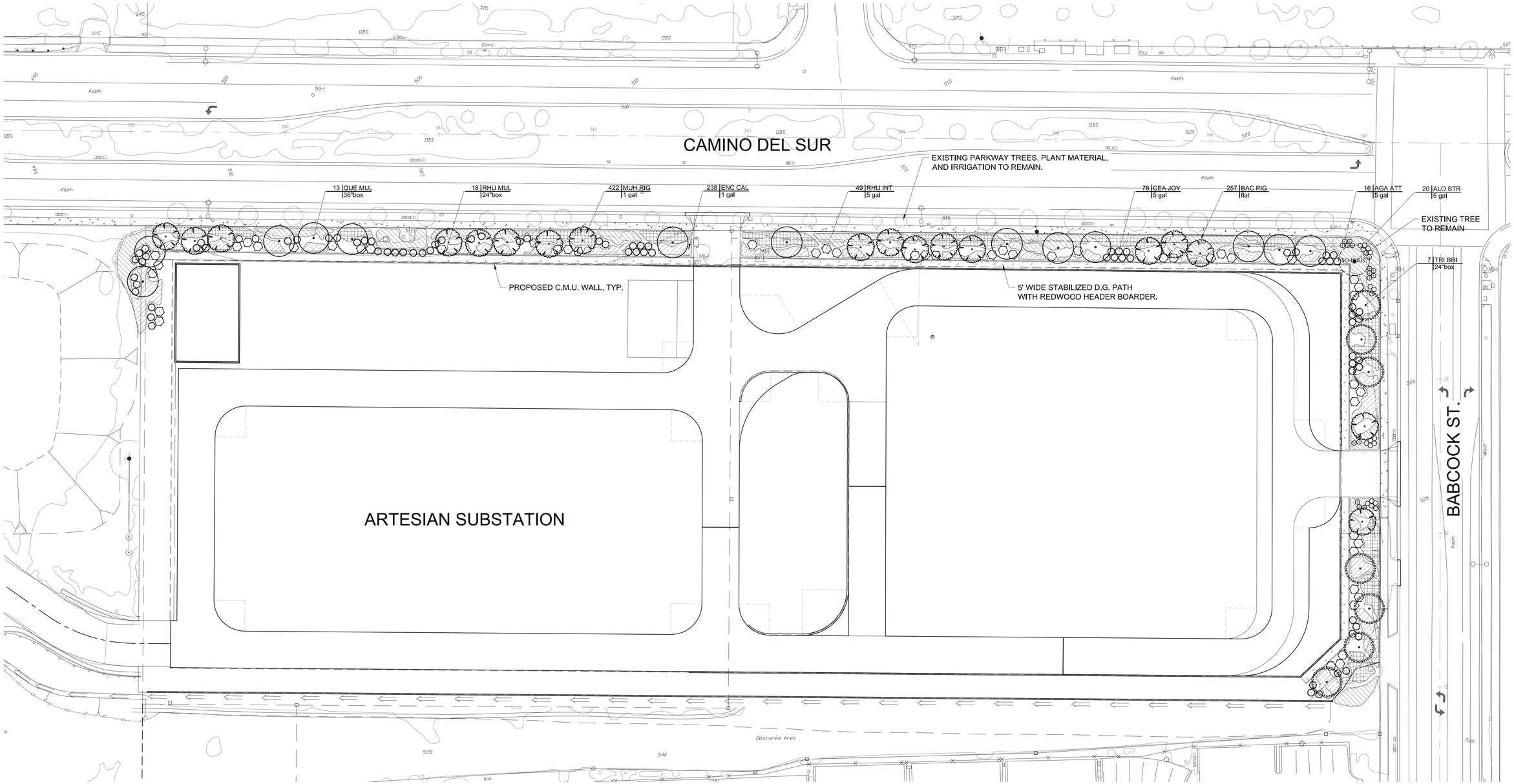

NORTH

30 15 0 30 60 90

GRAPHIC SCALE 1"= 30'-0"

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Wimmer Yamada and Caughey
Landscape Architecture | Environmental Planning
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LICENSED LANDSCAPE ARCHITECT
WARREN W. CAUGHEY 2825
SIGNATURE
8/31/16
RENEWAL DATE
11/30/15
DATE
STATE OF CALIFORNIA

REVISIONS

NO.	WORK DONE	DATE:	BY:	APP'D:

SAN DIEGO GAS & ELECTRIC COMPANY
SAN DIEGO, CALIFORNIA

ARTESIAN SUBSTATION SITE PLAN
PLANTING PLAN

DRAWN BY: SRD	DATE:	SCALE:	W.O.: REV.:
CHECKED BY: JRH	DATE:		
APPROVED BY: RWM	DATE:	SHEET OF	L2.0
CAD NO.:	PLOT SCALE: 1"=30'-0"		

PLANT SCHEDULE

TREES	BOTANICAL NAME	CONT	SPACING
	QUERCUS AGRIFOLIA Coast Live Oak Multi-Trunk	36"BOX	
	RHUS LANCEA African Sumac Multi-Trunk	24"BOX	
	TRISTANIA CONFERTA Brisbane Box	24"BOX	
EXISTING	**BOTANICAL NAME**	**CONT**	
	SCHINUS MOLLE California Pepper Tree Multi-Trunk	EXISTING	
SHRUBS	**BOTANICAL NAME**	**CONT**	
	AGAVE ATTENUATA Agave	5 GAL	
	ALOE STRIATA Coral Aloe	5 GAL	
	CEANOTHUS X `JOYCE COULTER` Ceanothus Joyce Coulter	5 GAL	
	RHUS INTEGRIFOLIA Lemonade Berry	5 GAL	
SHRUB AREAS	**BOTANICAL NAME**	**CONT**	**SPACING**
	ENCELIA CALIFORNICA California Encelia	1 GAL	48" o.c.
	MUHLENBERGIA RIGENS Deer Grass	1 GAL	36" o.c.
GROUND COVERS	**BOTANICAL NAME**	**CONT**	**SPACING**
	BACCHARIS PILULARIS `PIGEON POINT` Coyote Brush	FLAT	48" o.c.
DECOMPOSED GRANITE	**BOTANICAL NAME**	**CONT**	**SPACING**
	DECOMPOSED GRANITE D.G.	STABILIZED	

PLANTING NOTES:

1. ALL PLANTING AND FINISH GRADING OPERATIONS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE PROJECT DRAWINGS, DETAILS, AND PROJECT SPECIFICATIONS. REFER TO PROJECT SPECIFICATIONS FOR ALL PLANTING REQUIREMENTS.

2. CONTRACTOR SHALL INFORM THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT IMMEDIATELY OF ANY CHANGED CONDITIONS WHICH OCCUR ON PROJECT SITE WHICH ARE NOT REFLECTED ON PLANS.

3. REMOVE ALL WEEDS, DEBRIS, AND ROCKS LARGER THAN ONE-HALF-INCH (1/2") FROM ALL PLANTING AREAS, AND DISPOSE OF APPROPRIATELY OFF-SITE.

4. FINISH GRADE OF SOIL SHALL BE TWO-INCHES (2") BELOW ADJACENT FINISH PAVING SURFACE OR CURB WITHIN SHRUB AND GROUNDCOVER AREAS, AND ONE-INCH (1") BELOW ADJACENT FINISH PAVING SURFACE OR CURB WITHIN TURF AREAS.

5. CONTRACTOR SHALL PROVIDE ELECTRONIC PHOTOGRAPHS OF ALL PROPOSED TREES TO BE INSTALLED, TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. PHOTOGRAPHS SHALL DEMONSTRATE THE AVERAGE CHARACTER AND CURRENT CONDITION OF SUCH TREES.

6. ALL TREES SHALL BE SINGLE-TRUNK STANDARDS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

7. ALL PLANTS SHALL BE PROTECTED FROM SUN, WIND, HEAT, AND FROST DURING TRANSPORTATION TO THE SITE AND DURING STORAGE AT THE SITE. DO NOT STORE PLANTS IN TOTAL DARKNESS FOR MORE THAN ONE DAY.

8. DO NOT DAMAGE PLANT ROOT BALL DURING TRANSPORTATION OR PLANTING PROCESS.

9. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AT THE TIME OF DELIVERY OF ANY PLANT MATERIAL WHICH HAS BEEN DAMAGED OR IS IN POOR CONDITION. THE OWNER'S REPRESENTATIVE SHALL DETERMINE ACCEPTABILITY OF SUBJECT PLANT MATERIAL.

10. PLANT MATERIAL SHALL BE INSPECTED BY THE OWNER'S REPRESENTATIVE BEFORE PLANTING. PLANT MATERIAL MAY BE REJECTED AT ANY TIME BY THE OWNER'S REPRESENTATIVE DUE TO POOR CONDITION, FORM, OR DAMAGE PRIOR TO, DURING, OR AFTER THE PLANTING PROCESS.

11. ALL ON-SITE PLANT MATERIALS (BALL AND BURLAP, CONTAINERS, TEMPORARILY STAGED IN BARK MULCH, AND/OR PLANTED IN THE GROUND) SHALL BE PROPERLY WATERED AND MAINTAINED TO ENSURE HEALTHY GROWTH.

12. AT LEAST ONE PLANT OF EACH SPECIES DELIVERED TO THE SITE SHALL HAVE AN IDENTIFICATION TAG FROM THE SUPPLYING NURSERY SHOWING BOTH COMMON AND SCIENTIFIC NAMES.

13. THE PLANTING PLANS ARE DIAGRAMMATIC. PLANT MATERIALS SHALL BE SPOTTED APPROXIMATELY AS SHOWN ON THE DRAWINGS. TREE LOCATIONS ARE TO BE APPROVED BY THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT PRIOR TO EXCAVATION FOR PLANTING PITS AND REMOVAL FROM CONTAINERS. FINAL LAYOUT OF ALL OTHER PLANT MATERIALS SHALL BE APPROVED IN THE FIELD BY THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT PRIOR TO PLANTING.

14. CONTRACTOR IS RESPONSIBLE FOR PROVIDING PLANT MATERIALS SUFFICIENT TO COVER AREAS SHOWN ON THE DRAWINGS AT THE SPECIFIED SPACINGS.

15. CONTRACTOR SHALL SUBMIT AN AGRICULTURAL SUITABILITY AND FERTILITY ANALYSIS REPORT (SOILS ANALYSIS REPORT FROM REPRESENTATIVE ON-SITE SOIL SAMPLES - SEE SPECIFICATIONS) TO THE LANDSCAPE ARCHITECT AND THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO ANY PLANTING WORK OR SOIL AMENDMENT INCORPORATION. THE RECOMMENDATIONS OF THE SOILS ANALYSIS REPORT FOR TOPSOIL AMENDMENT AND BACKFILL MIX AMENDMENT SHALL SUPERSEDE THE RECOMMENDATIONS LISTED IN THE SPECIFICATIONS.

16. CONTRACTOR SHALL COORDINATE PLANTING WORK WITH THE WORK OF OTHER TRADES AND PROFESSIONS. CONTRACTOR SHALL MAINTAIN PROPER DRAINAGE DURING THE COURSE OF CONSTRUCTION.

17. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF EXISTING PROPOSED UTILITIES WITHIN THE PROJECT LIMITS WHICH MAY BE AFFECTED BY INSTALLATION. IMMEDIATELY CONTACT THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT IF A CONFLICT IS EVIDENT.

18. REMOVE ALL TYING MATERIALS, MARKING TAPES, AND NURSERY STAKES AT THE TIME OF PLANTING.

19. CONTRACTOR SHALL INSTALL A THREE-INCH (3") LAYER OF BARK MULCH IN ALL SHRUB AND GROUNDCOVER AREAS WITH SLOPES SHALLOWER THAN THREE-TO-ONE (3:1) GRADIENT.

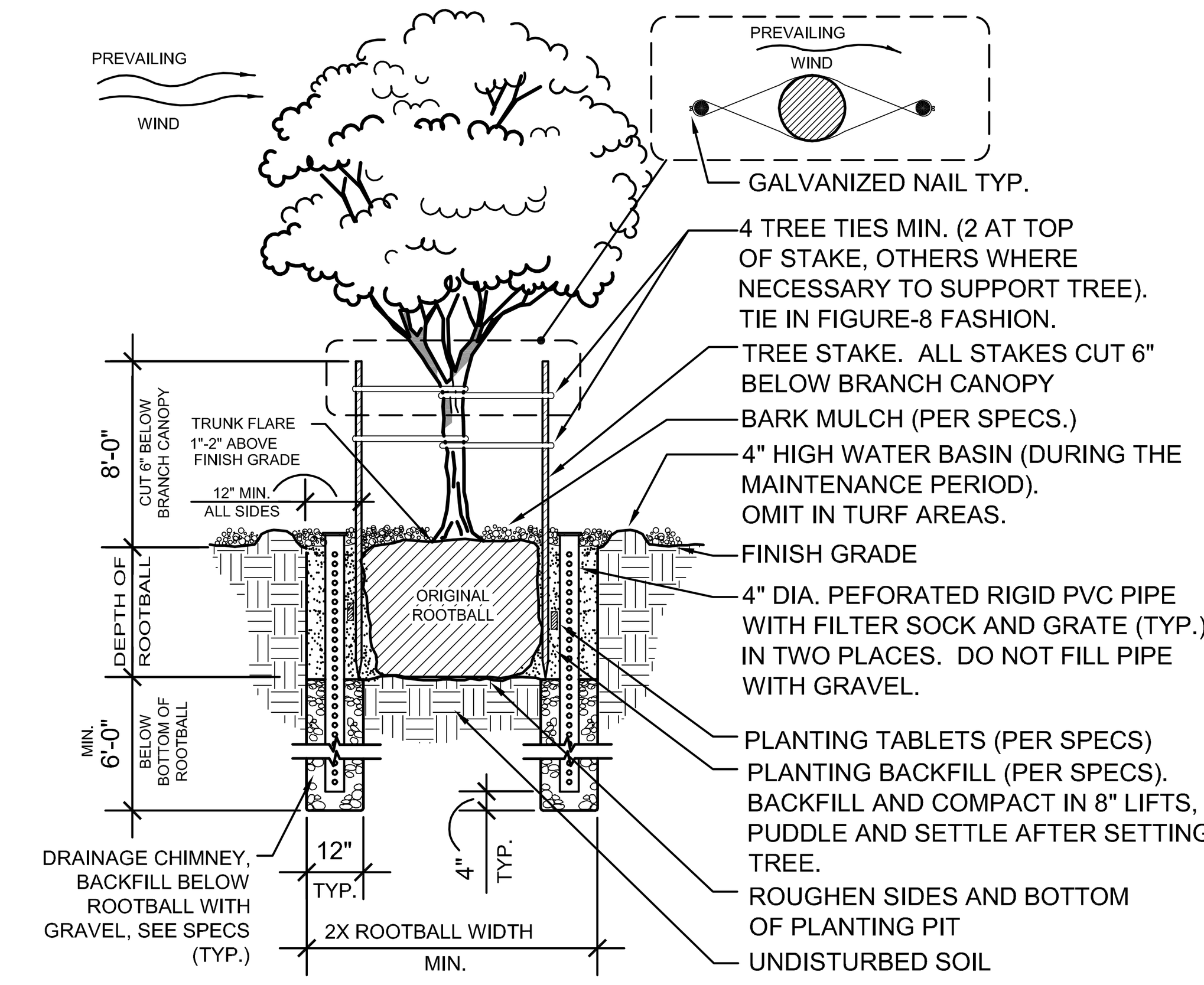
20. CONTRACTOR SHALL INSTALL EROSION CONTROL MATTING ON ALL SLOPES GREATER THAN TWO-TO-ONE (2:1) GRADIENT.

21. CONTRACTOR SHALL PROTECT EXISTING VEGETATION TO REMAIN AND OTHER IMPROVEMENTS WITHIN AND OUTSIDE THE LIMITS OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY DAMAGES INCURRED.

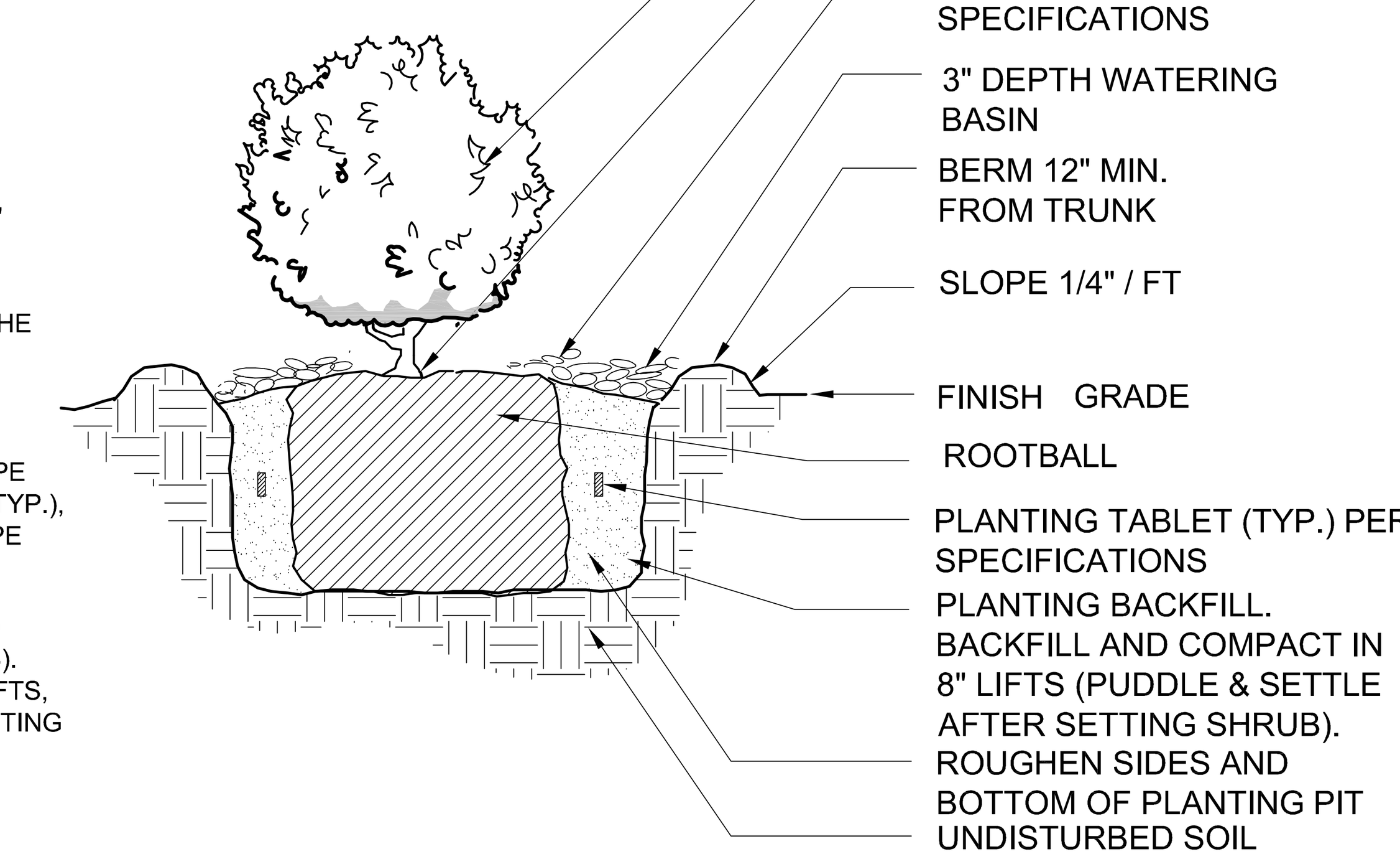
22. THE MAINTENANCE PERIOD SHALL BEGIN ONLY UPON WRITTEN ACCEPTANCE OF THE COMPLETED PLANTED AREAS BY THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.

MINIMUM PLANTING PIT SIZING

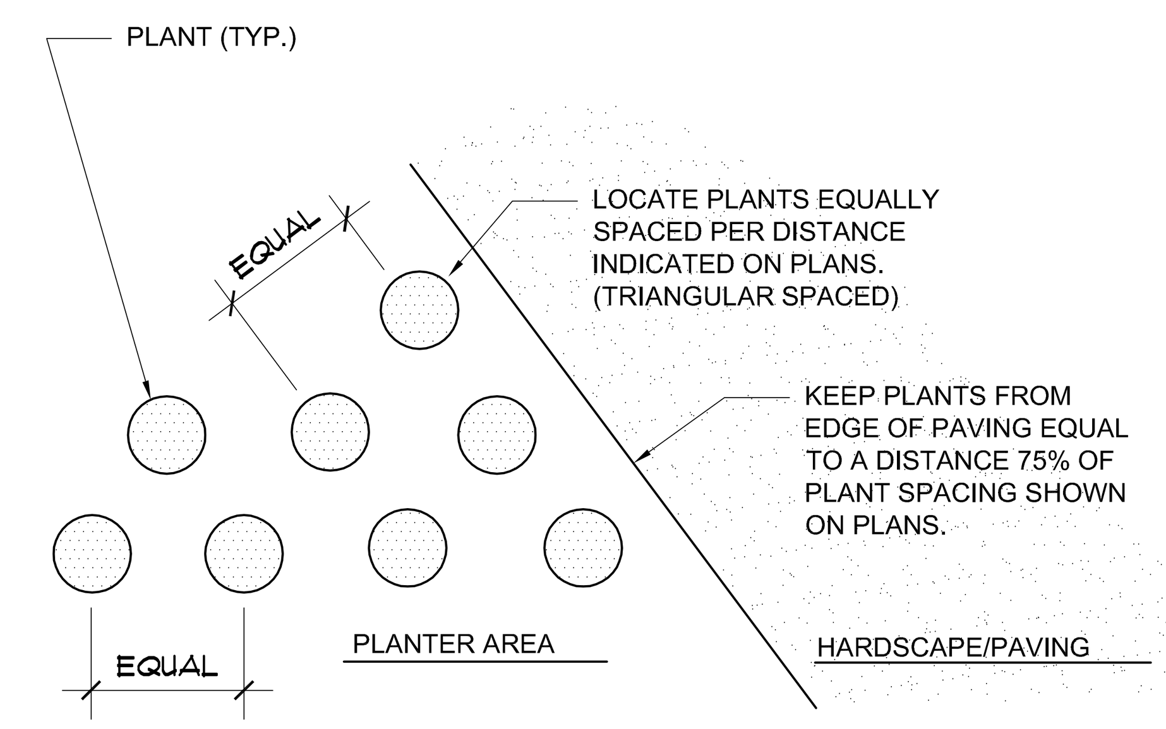
1 GAL. CONTAINER	18" DIAMETER
5 GAL. CONTAINER	24" DIAMETER
15 GAL. CONTAINER	30" DIAMETER



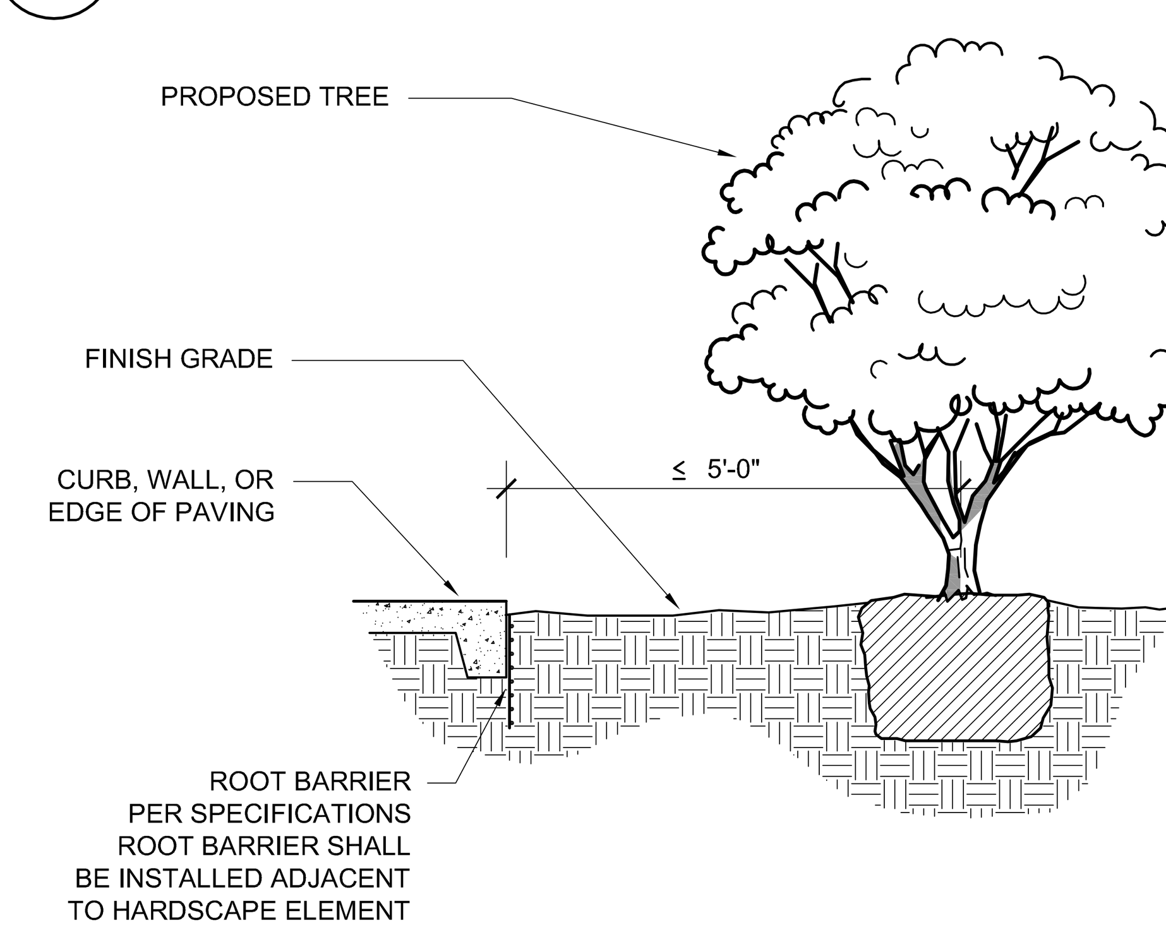
A TREE PLANTING AND STAKING — N.T.S. SECTION



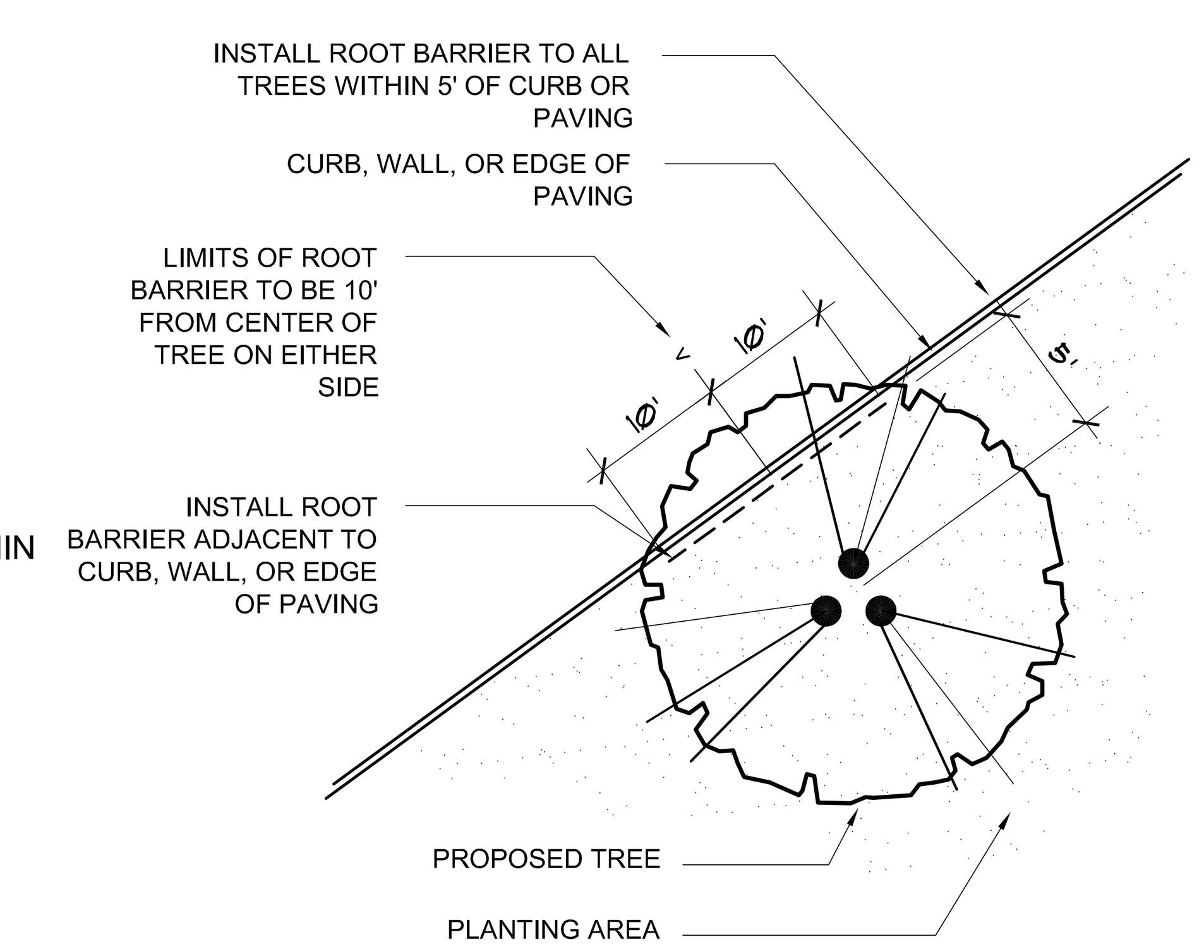
B SHRUB PLANTING — N.T.S. SECTION



C PLANT MATERIAL SPACING — N.T.S. PLAN

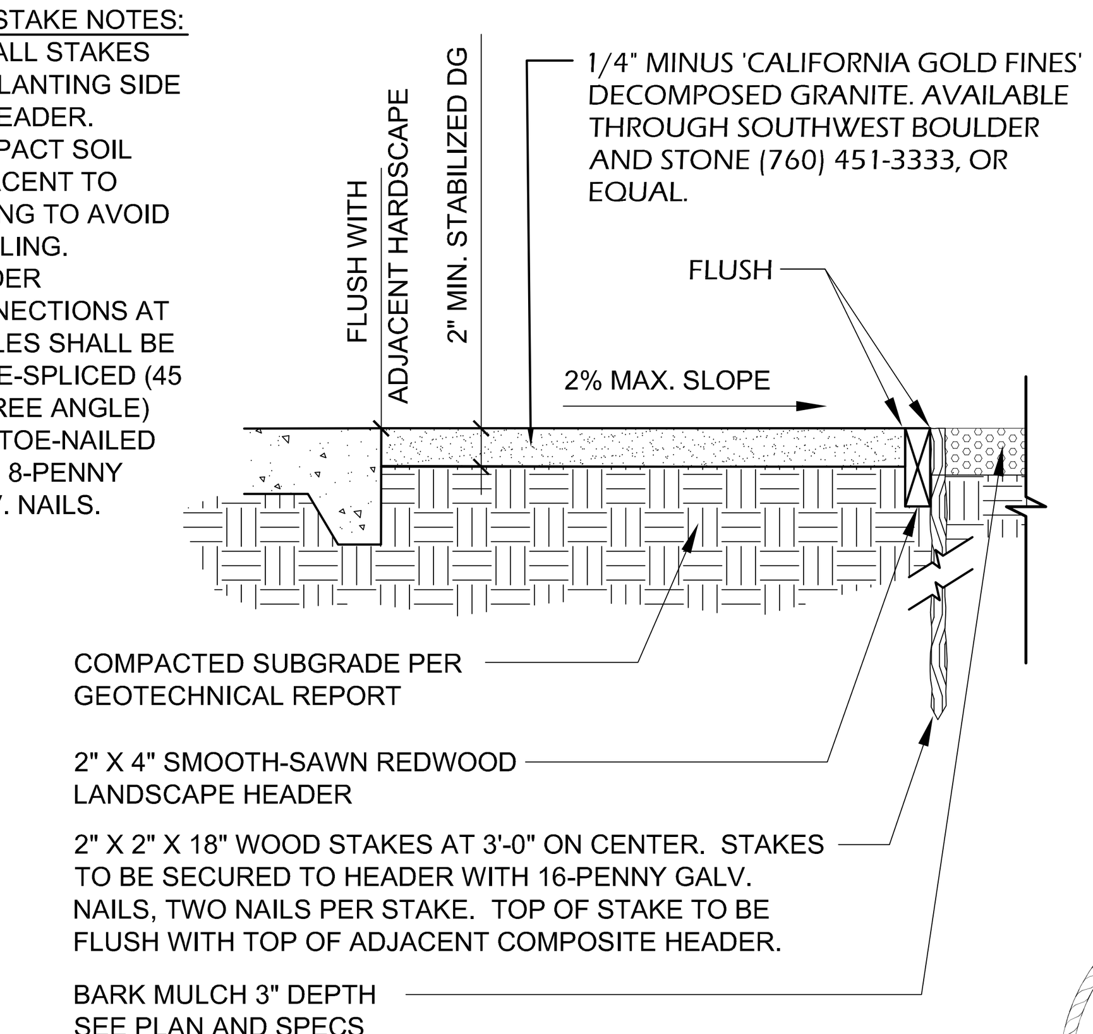


D ROOT BARRIER — N.T.S. SECTION

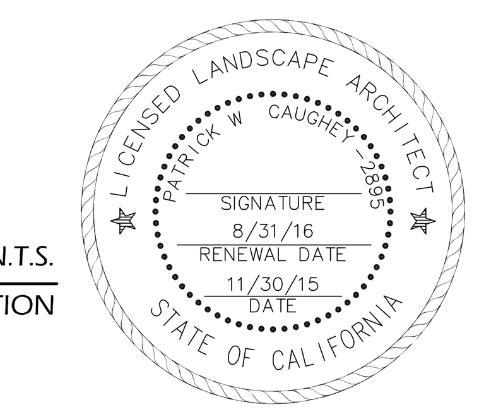


E ROOT BARRIER — N.T.S. PLAN

HEADER STAKE NOTES:
1. INSTALL STAKES ON PLANTING SIDE OF HEADER.
2. COMPACT SOIL ADJACENT TO EDGING TO AVOID SETTLING.
3. HEADER CONNECTIONS AT ANGLES SHALL BE MITRE-SPLICED (45 DEGREE ANGLE) AND TOE-NAILED WITH 8-PENNY GALV. NAILS.



F STABILZED DG — WITH REDWOOD HEADER — SCALE:N.T.S. SECTION



NOLTE VERTICALFIVE
NOLTE ASSOCIATES, INC.

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