

EXISTING TREES NOTED TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION FROM DAMAGE AND COMPACTION OF SOIL UNDER AND AROUND DRIP LINE OF TREE.

UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR PRUNE ANY PORTION OF THE DAMAGED TREE WITHOUT THE PRIOR APPROVAL BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

PROHIBITED ACTIVITIES IN CRITICAL ROOT ZONE:
THE FOLLOWING ACTIVITIES ARE PROHIBITED IN THE AREAS NOTED AS THE CRITICAL ROOT ZONE.

MATERIAL STORAGE: NO MATERIALS INTENDED FOR USE IN CONSTRUCTION, OR WASTE MATERIALS ACCUMULATED DUE TO EXCAVATION OR DEMOLITION, SHALL BE PLACED WITHIN THE LIMITS OF THE CRITICAL ROOT ZONE OF ANY PROTECTED TREE.

EQUIPMENT CLEANING/LIQUID DISPOSAL: NO EQUIPMENT SHALL BE CLEANED, OR OTHER LIQUIDS DEPOSITED OR ALLOWED WITHIN THE LIMITS OF THE CRITICAL ROOT ZONE OF A PROTECTED TREE. THIS INCLUDES, WITHOUT LIMITATION: PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, MORTAR OR SIMILAR

TREE ATTACHMENTS: NO SIGNS, WIRES, OR OTHER ATTACHMENTS, OTHER THAN THOSE OF A PROTECTIVE NATURE, SHALL BE ATTACHED TO ANY PROTECTED TREE.

VEHICULAR TRAFFIC: NO VEHICULAR AND/OR CONSTRUCTION, EQUIPMENT, TRAFFIC, OR PARKING SHALL TAKE PLACE WITHIN THE LIMITS OF THE CRITICAL ROOT ZONE OF ANY PROTECTED TREE OTHER THAN ON EXISTING STREET

GRADE CHANGES: A MINIMUM OF 75% OF THE DRIP LINE AND ROOT ZONE SHALL BE PRESERVED AT NATURAL GRADE. ANY FINE GRADING DONE WITHIN THE CRITICAL ROOT ZONES OF THE PROTECTED TREES MUST BE DONE WITH LIGHT MACHINERY SUCH AS A BOBCAT OR LIGHT TRACTOR. NO EARTH MOVING EQUIPMENT WITH TRACKS IS ALLOWED WITHIN THE CRITICAL ROOT ZONE OF

PROCEDURES REQUIRED PRIOR TO CONSTRUCTION:
PROTECTIVE FENCING: PRIOR TO CONSTRUCTION, THE CONTRACTOR OR SUBCONTRACTOR SHALL CONSTRUCT AND MAINTAIN, FOR EACH PROTECTED TREE ON A CONSTRUCTION SITE, A PROTECTIVE FENCING WHICH ENCIRCLES THE OUTER LIMITS OF THE CRITICAL ROOT ZONE OF THE TREE TO PROTECT IT FROM CONSTRUCTION ACTIVITY. ALL PROTECTIVE FENCING SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF ANY SITE WORK, AND REMAIN IN PLACE UNTIL ALL EXTERIOR WORK HAS BEEN COMPLETED.

BARK PROTECTION: IN SITUATIONS WHERE A PROTECTED TREE REMAINS IN THE IMMEDIATE AREA OF INTENDED CONSTRUCTION, AND THE LANDSCAPE ARCHITECT OR OWNERS'S REPRESENTATIVE DETERMINES THE TREE BARK TO BE IN DANGER OF DAMAGE BY CONSTRUCTION EQUIPMENT OR OTHER ACTIVITY, THE CONTRACTOR OR SUBCONTRACTOR SHALL PROTECT THE TREE BY ENCLOSING THE ENTIRE CIRCUMFERENCE OF THE TREE WITH 2"X4" LUMBER ENCIRCLED WITH WIRE OR OTHER MEANS THAT DO NOT DAMAGE THE TREE. THE INTENT IS TO PROTECT THE BARK OF THE TREE AGAINST INCIDENTAL CONTACT BY LARGE CONSTRUCTION EQUIPMENT.

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TREE PRESERVATION NOTES				
CONSTRUCTION METHODS:				
BORING: BORING OF UTILITIES UNDER PROTECTED TREES MAY BE REQUIRED. WHEN REQUIRED, THE MINIMUM LENGTH OF THE BORE SHALL BE THE WIDTH OF THE CRITICAL ROOT ZONE AND SHALL BE A MINIMUM DEPTH OF FORTY (48) INCHES.				
TRENCHING: ALL TRENCHING SHALL BE DESIGNED TO AVOID TRENCHING ACROSS CRITICAL ROOT ZONES OF ANY PROTECTED TREE. THE PLACEMENT OF UNDERGROUND UTILITY LINES SUCH AS ELECTRIC, PHONE, GAS, ETC., IS ENCOURAGED TO BE LOCATED OUTSIDE THE CRITICAL ROOT ZONE. TRENCHING FOR IRRIGATION SYSTEMS SHALL BE PLACED OUTSIDE THE CRITICAL ROOT ZONE EXCEPT THE MINIMUM REQUIRED SINGLE HEAD SUPPLY LINE. THIS LINE IS ALLOWED TO EXTEND INTO THE CRITICAL ROOT ZONE PERPENDICULAR TO THE TREE TRUNK WITH THE LEAST POSSIBLE DISTURBANCE.	REVISIONS			
TREES TO BE REMOVED: ALL TREES TO BE REMOVED FROM THE SITE SHALL BE FLAGGED BY THE CONTRACTOR WITH BRIGHT RED VINYL TAPE WRAPPED AROUND THE MAIN TRUNK AT A HEIGHT OF FOUR (4') FEET ABOVE GRADE.				
TREES TO REMAIN: ALL TREES TO REMAIN, AS NOTED ON DRAWINGS, SHALL HAVE PROTECTIVE FENCING LOCATED AT THE TREE'S DRIP LINE. THE PROTECTIVE FENCING SHALL BE LOCATED AS INDICATED ON THE TREE PROTECTION DETAIL.				

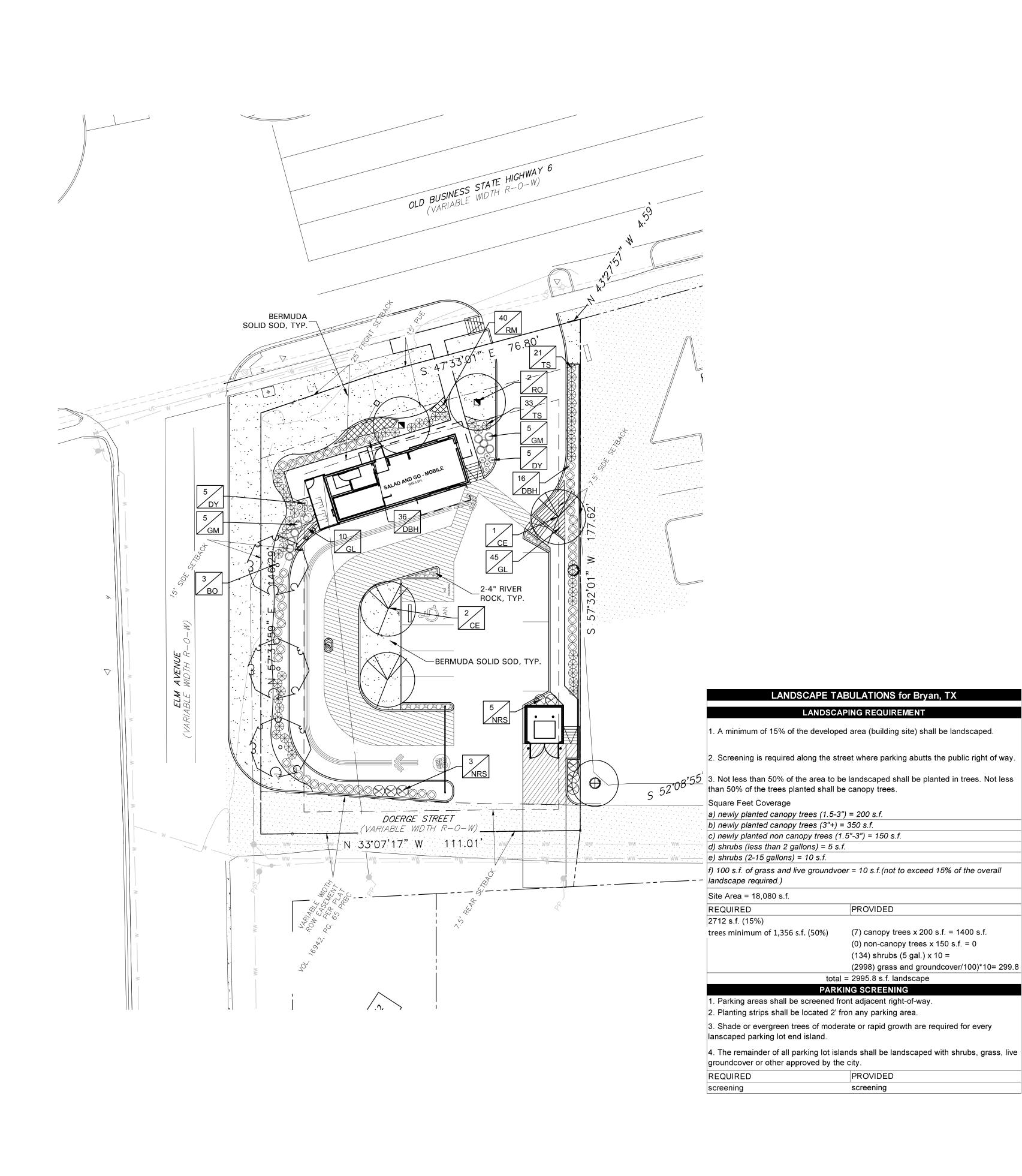


TREE

AND GO - BRYAN - TEXAS AND 3200 TEXAS AVE, BRYAN, TX, 77802

SHEET NO.

L1.01



GENERAL LAWN NOTES

- 1. CONTRACTOR SHALL COORDINATE OPERATIONS AND AVAILABILITY OF EXISTING TOPSOIL WITH ON-SITE CONSTRUCTION MANAGER 2. LAWN AREAS SHALL BE LEFT 1" BELOW FINAL FINISHED GRADE PRIOR TO TOPSOIL INSTALLATION.
- 3. CONTRACTOR TO FIND GRADE AREAS TO ACHIEVE FINAL CONTOURS AS SHOWN ON CIVIL DRAWINGS. POSITIVE DRAINAGE SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. ROUNDING AT TOP AND BOTTOM OF SLOPES SHALL BE PROVIDED AND IN OTHER BREAKS IN GRADE. CORRECT AREAS WHERE STANDING WATER MAY OCCUR. 4. ALL LAWN AREAS SHALL BE FINE GRADED, IRRIGATION TRENCHES
- 5. CONTRACTOR SHALL REMOVE ALL ROCKS 3/4" IN DIAMETER AND LARGER. REMOVE ALL DIRT CLODS, STICKS, CONCRETE SPOILS, TRASH ETC PRIOR TO PLACING TOPSOIL AND GRASS INSTALLATION. 6. CONTRACTOR SHALL MAINTAIN ALL LAWN AREAS UNTIL FINAL

COMPLETELY SETTLED AND FINISH GRADE APPROVED BY THE OWNER'S CONSTRUCTION MANAGER OR LANDSCAPE ARCHITECT PRIOR TO LAWN

ACCEPTANCE. 7. CONTRACTOR SHALL GUARANTEE ESTABLISHMENT OF ACCEPTABLE TURF AREA AND SHALL PROVIDE REPLACEMENT IF NECESSARY.

- SOLID SOD:

 1. SOLID SOD SHALL BE PLACED ALONG ALL IMPERVIOUS EDGES, AT A MINIMUM. THIS SHALL INCLUDE CURBS, WALKS, INLETS, MANHOLES AND PLANTING BED AREAS. SOD SHALL COVER OTHER AREAS
- COMPLETELY AS INDICATED BY PLAN. 2. SOD SHALL BE STRONGLY ROOTED DROUGHT RESISTANT SOD, NOT LESS THAN 2 YEARS OLD, FREE OF WEEDS AND UNDESIRABLE NATIVE GRASS AND MACHINE CUT TO PAD THICKNESS OF 3/4" (+1/4"),
- 3. LAY SOD BY HAND TO COVER INDICATED AREAS COMPLETELY, ENSURING EDGES ARE TOUCHING WITH TIGHTLY FITTING JOINTS, NO
- OVERLAPS WITH STAGGERED STRIPS TO OFFSET JOINTS. 4. TOP DRESS JOINTS IN SOD BY HAND WITH TOPSOIL TO FILL VOIDS IF
- 5. SOD SHALL BE ROLLED TO CREATE A SMOOTH EVEN SURFACE. SOD SHOULD BE WATERED THOROUGHLY DURING INSTALLATION PROCESS. 6. SHOULD INSTALLATION OCCUR BETWEEN OCTOBER 1ST AND MARCH 1ST, OVERSEED BERMUDAGRASS SOD WITH WINTER RYEGRASS AT A

RATE OF 4 POUNDS PER 1000 S.F. HYDROMULCH:

EXCLUDING TOP GROWTH AND THATCH.

- 1. SCARIFY AND LOOSEN ALL AREAS TO BE HYDROMULCHED TO A MINIMUM DEPTH OF 4" PRIOR TO TOPSOIL AND HYDROMULCH
- INSTALLATION. 2. BERMUDA GRASS SEED SHALL BE EXTRA HULLED, TREATED LAWN TYPE. SEED SHALL BE DELIVERED TO THE SITE IN ITS ORIGINAL UNOPENED CONTAINER AND SHALL MEET ALL STATE/LOCAL LAW
- REQUIREMENTS. 3. FIBER SHALL BE 100% WOOD CELLULOSE FIVER, DELIVERED TO THE SITE IN ITS ORIGINAL UNOPENED CONTAINER AS MANUFACTURED BY
- "CONWEB' OR EQUAL. 4. FIBER TACK SHALL BE DELIVERED TO THE SITE IN ITS UNOPENED CONTAINER AND SHALL BE 'TERRO-TACK ONE', AS MANUFACTURED
- BY GROWERS, INC OR APPROVED EQUAL. 5. HYDROMULCH WITH BERMUDA GRASS SEET AT A RATE OF 2 POUNDS
- 6. USE A BATTER BOARD AGAINST ALL BED AREAS TO PREVENT OVER
- 7. IF INADEQUATE MOISTURE IS PRESENT IN SOIL, APPLY WATER AS NECESSARY FOR OPTIMUM MOISTURE FOR SEED APPLICATION. 8. IF INSTALLATION OCCURS BETWEEN SEPTEMBER 1ST AND MAY 1ST, ALL HYDORMULCH AREAS SHALL BE OVER-SEEDED WITH WINTER RYE GRASS AT A RATE OF FOUR POUNDS PER ONE THOUSAND SQUARE FEET. CONTRACTOR SHALL BE REQUIRED TO
- RE-HYDROMULCH WITH BERMUDA GRASS THE FOLLOWING GROWING SEASON AS PART OF THIS CONTRACT. 9. AFTER APPLICATION, NO EQUIPMENT SHALL OPERATE OVER APPLIED AREAS. WATER SEEDED AREAS IMMEDIATELY AFTER
- INSTALLATION TO SATURATION 10. ALL LAWN AREAS TO BE HYDROMULCHED SHALL ACHIEVE 100%

COVERAGE PRIOR TO FINAL ACCEPTANCE.

PROVIDED

total = 2995.8 s.f. landscape

PROVIDED screening

PARKING SCREENING

(7) canopy trees x 200 s.f. = 1400 s.f. (0) non-canopy trees x 150 s.f. = 0

(2998) grass and groundcover/100)*10= 299.8

(134) shrubs (5 gal.) x 10 =

LANDSCAPE NOTES

- 1. CONTRACTOR TO VERIFY AND LOCATE ALL PROPOSED AND EXISTING ELEMENTS. NOTIFY LANDSCAPE ARCHITECT OR DESIGNATED REPRESENTATIVE FOR ANY LAYOUT DISCREPANCIES OR ANY CONDITION THAT WOULD PROHIBIT THE INSTALLATION AS SHOWN. SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS
- 2. CONTRACTOR SHALL CALL 811 TO VERIFY AND LOCATE ANY AND ALL UTILITIES ON SITE PRIOR TO COMMENCING WORK. LANDSCAPE ARCHITECT SHOULD BE NOTIFIED OF ANY CONFLICTS. CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING NEAR UNDERGROUND UTILITIES.
- 3. A MINIMUM OF 2% SLOPE SHALL BE PROVIDED AWAY FROM ALL
- STRUCTURES. 4. CONTRACTOR SHALL FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS AS INDICATED. LEAVE AREAS TO RECEIVE TOPSOIL 3" BELOW FINAL FINISHED GRADE IN PLANTING AREAS AND 1" BELOW FINAL FINISHED GRADE IN LAWN AREAS.
- 5. LANDSCAPE ISLANDS SHALL BE CROWNED, AND UNIFORM THROUGHOUT 6. PLANTING AREAS AND SOD TO BE SEPARATED BY STEEL EDGING. NO
- STEEL EDGING SHALL BE INSTALLED ADJACENT TO BUILDINGS, WALKS OR CURBS. EDGING NOT TO BE MORE THAN 1/2" ABOVE FINISHED GRADE.
- 7. EDGING SHALL BE CUT AT 45 DEGREE ANGLE WHERE IT INTERSECTS WALKS AND/OR CURBS. 8. MULCH SHALL BE INSTALLED AT 1/2" BELOW THE TOPS OF SIDEWALKS
- 9. QUANTITIES ON THESE PLANS ARE FOR REFERENCE ONLY. THE SPACING OF PLANTS SHOULD BE AS INDICATED ON PLANS OR OTHERWISE NOTED.
- ALL TREES AND SHRUBS SHALL BE PLANTED PER DETAILS. 10. CONTAINER GROWN PLANT MATERIAL IS PREFERRED HOWEVER BALL AND BURLAP PLANT MATERIAL CAN BE SUBSTITUTED IF NEED BE AND IS APPROPRIATE TO THE SIZE AND QUALITY INDICATED ON THE PLANT
- MATERIAL LIST. 11. TREES SHALL BE PLANTED AT A MINIMUM OF 5' FROM ANY UTILITY LINE, SIDEWALK OR CURB. TREES SHALL ALSO BE 10' CLEAR FROM FIRE
- 12. 4" OF SHREDDED HARDWOOD MULCH (2" SETTLED THICKNESS) SHALL BE PLACED OVER WEED BARRIER FABRIC. MULCH SHALL BE SHREDDED HARDWOOD MULCH OR APPROVED EQUAL, PINE STRAW MULCH IS
- 13. WEED BARRIER FABRIC SHALL BE USED IN PLANT BEDS AND AROUND ALL TREES AND SHALL BE MIRAFI 1405 WEED BARRIER OR APPROVED EQUAL.
- 14. CONTRACTOR TO PROVIDE UNIT PRICING OF LANDSCAPE MATERIALS AND BE RESPONSIBLE FOR OBTAINING ALL LANDSCAPE AND IRRIGATION PERMITS.

IRRIGATION:

1. ALL REQUIRED LANDSCAPE AREAS SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM WITH A FREEZE/RAIN SENSOR. SYSTEM SHALL ALSO HAVE AN ET WEATHER BASED CONTROLLER AND BE DESIGNED AND INSTALLED BY A LICENSED IRRIGATOR.

- VEGETATION SHOULD BE INSPECTED REGULARLY TO ENSURE THAT PLANT MATERIAL IS ESTABLISHING PROPERLY AND REMAINS IN A HEALTHY GROWING CONDITION APPROPRIATE FOR THE SEASON. IF DAMAGED OR REMOVED, PLANTS MUST BE REPLACED BY A SIMILAR
- 2. MOWING, TRIMMING, EDGING AND SUPERVISION OF WATER APPLICATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE OWNER OR OWNER'S REPRESENTATIVE ACCEPTS AND
- ASSUMES REGULAR MAINTENANCE. 3. ALL LANDSCAPE AREAS SHOULD BE CLEANED AND KEPT FREE OF TRASH, DEBRIS, WEEDS AND OTHER MATERIAL.

- 1. STEEL EDGING SHALL BE 3/16" X 4 X 16' DARK GREEN DURAEDGE STEEL LANDSCAPE EDGING UNLESS NOTED OTHERWISE ON
- PLANS/DETAILS. 2. RIVER ROCK SHALL BE ARIZONA RIVER ROCK, 2" - 4" DIAMETER. RIVER ROCK SHALL BE COMPACTED TO A MINIMUM OF 3" DEPTH OVER FILTER FABRIC.

QTY	LABEL	COMMON NAME	SCIENTIFIC NAME	SIZE	NOTES
		SHADE TREES			
3	ВО	Bur Oak	Quercus macrocarpa	3" cal.	12' ht., 4' spread, matching
3	CE	Cedar Elm	Ulmus crassifolia	3" cal.	12' ht., 4' spread, matching
2	RO	Texas Red Oak	Quercus buckleyi	3" cal.	12' ht., 5' spread
		SHRUBS			
52	DBH	Dwarf Burford Holly	llex cornuta ' Burford Nana'	5 gal.	full, 20" spread, 36" o.c.
10	DY	Dwarf Yaupon Holly	llex vomitoria 'Condeaux'	5 gal.	full, 24" sprd, 24" o.c.
10	GM	Gulf Muhly	Muhlenbergia capillaris	5 gal.	full, 30" o.c.
8	NRS	Nellie R Stevens Holly	Illex x 'Nellie R. Stevens'	7 gal.	full, 40" o.c.
54	TS	Texas Sage 'Green Cloud'	Leucophyllum frutescens 'Green Cloud'	5 gal.	full, 24" sprd, 36" o.c.
		GROUNDCOVER/VINES/G	GRASS		
55	GL	Giant Lirope	Liriope gigantea	1 gal.	full, 18" o.c.
40	RM	Creeping Rosemary	Rosmarinus officinalis 'Prostratus'	1 gal.	full, 18" o.c.
		Bermuda Solid Sod	Cynodon dactylon		
		2-4" River Rock			

Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. Trees shall have a strong central leader and be of matching specimens. All plant material shall meet or exceed remarks as indicated.

GRAPHIC SCALE Scale 1"=20' - 0"



AND CAPE AND GO - BRYAN 3200 TEXAS AVE, BRYAN, ANDS

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1.2 REFERENCE DOCUMENTS

1.1 QUALIFICATIONS OF THE LANDSCAPE CONTRACTOR.

- A. ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING
- A. REFER TO LANDSCAPE PLANS, NOTES, SCHEDULES AND DETAILS FOR ADDITIONAL REQUIREMENTS 1.3 SCOPE OF WORK / DESCRIPTION OF WORK
- A WORK COVERED BY THESE SECTIONS INCLUDES: FURNISH AL SUPERVISIONS, LABOR, MATERIALS, SERVICES, EQUIPMENT AND CONJUNCTION WITH THE LANDSCAPING COVERED IN LANDSCAPE PLANS AND SPECIFICATIONS INCLUDING:
- PLANTING (TREES, SHRUBS, GRASSES)
- BED PREP AND FERTILIZATION NOTIFICATION OF SOURCES
- WATER AND MAINTENANCE UNTIL ACCEPTANCE
- B. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS. CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK. INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS.
- C. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK
- 1.4 REFERENCES
- ASSOCIATION OF NURSERYMEN; 27 OCTOBER 1980, EDITION; BY AMERICAN NATIONAL STANDARDS INSTUTUTE (Z60.1) - PLANT MATERIAL B. AMERICAN JOINT COMMITTEE ON HORTICULTURE NOMENCLATURE; 1942 EDITION OF STANDARDIZED PLANT NAMES. C. TEXAS ASSOCIATION OF NURSERYMEN, GRADES AND STANDARDS

A. AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY AMERICAN

- A. PROVIDE REPRESENTATIVE QUANTITIES OF EACH SOIL, MULCH, BED MIX, GRAVEL AND STONE BEFORE INSTALLATION. SAMPLES TO BE APPROVED BY OWNER'S REPRESENTATIVE BEFORE USE.
- B. SOIL AMENDMENTS AND FERTILIZERS SHOULD BE RESEARCHED AND BASED ON THE SOILS IN THE AREA. C. BEFORE INSTALLATION SUBMIT DOCUMENTATION THAT PLANT MATERIALS
- ARE AVAILABLE AND HAVE BEEN RESERVED. FOR ANY PLANT MATERIAL NOT AVAILABLE, SUBMIT REQUEST FOR SUBSTITUTION.

INSTALLATION OF LAWN/SOLID SOD

ORGANIC MATTER.

1.8 MAINTENANCE AND GUARANTEE

MAINTENANCE.

ACCEPTANCE BY OWNER.

- 1.6 JOB CONDITIONS, DELIVERY, STORAGE AND HANDLING A. GENERAL CONTRACTOR TO COMPLETE WORK BEFORE LANDSCAPE CONTRACTOR TO COMMENCE
- B. ALL PLANTING BED AREAS SHALL BE LEFT THREE INCHES BELOW FINA GRADE OF SIDEWALKS, DRIVES AND CURBS, ALL AREAS TO RECEIVE SOLID SOD SHALL BE LEFT ONE INCH BELOW THE FINAL GRADE OF WALKS, DRIVES AND CURBS. CONSTRUCTION DEBRIS SHALL BE REMOVED PRIOR TO LANDSCAPE CONTRACTOR BEGINNING WORK
- C. STORAGE OF MATERIALS AND EQUIPMENT AT THE JOB SITE WILL BE AT THE RISK OF THE LANDSCAPE CONTRACTOR. THE OWNER CANNOT BE HELD RESPONSIBLE FOR THEFT OR DAMAGE.

A. THE LANDSCAPE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE

B. NO TREES, GRASS, GROUNDCOVER OR GRASS WILL BE ACCEPTED UNLESS

C. MAINTENANCE SHALL INCLUDE WATERING OF TREES AND PLANTS,

D. A WRITTEN NOTICE REQUESTING FINAL INSPECTION AND ACCEPTANCE

MAINTENANCE OF ALL WORK FROM THE TIME OF PLANTING UNTIL FINAL

THEY SHOW HEALTHY GROWTH AND SATISFACTORY FOLIAGE CONDITIONS.

CULTIVATION. WEED SPRAYING. EDGING. PRUNING OF TREES. MOWING OF

GRASS, CLEANING UP AND ALL OTHER WORK NECESSARY FOR

- RE-INSPECTED FOR FULL COMPLIANCE WITH THE CONTRACT REQUIREMENTS. ALL REPLACEMENTS ARE INCLUDED UNDER "WORK" OF THIS SECTION. E. THE OWNER AGREES THAT FOR THE ONE YEAR WARRANTY PERIOD TO BE A. INSTALL TREES, SHRUBS, AND LINER STOCK PLANT MATERIALS PRIOR TO EFFECTIVE, HE WILL WATER PLANTS AT LEAST TWICE A WEEK DURING DRY
- B. WHERE EXISTING TURF AREAS ARE BEING CONVERTED TO PLANTING BEDS F. THE ABOVE GUARANTEE SHALL NOT APPLY WHERE PLANTS DIE AFTER THE TURF SHALL BE CHEMICALLY ERADICATED TO MINIMIZE RE-GROWTH IN ACCEPTANCE BECAUSE OF DAMAGE DUE TO ACTS OF GOD, VANDALISM, THE FUTURE. AREAS SHALL BE PROPERLY PREPARED WITH AMENDED INSECTS, DISEASE, INJURY BY HUMANS, MACHINES, THEFT OR NEGLIGENCE
 - G. ACCEPTANCE FOR ALL LANDSCAPE WORK SHALL BE GIVEN AFTER FINAL INSPECTION BY THE OWNER PROVIDED THE JOB IS IN A COMPLETE. UNDAMAGED CONDITION AND THERE IS A STAND OF GRASS IN ALL LAWN AREAS. AT THAT TIME, THE OWNER WILL ASSUME MAINTENANCE ON THE

SHOULD BE SUBMITTED TO THE OWNER AT LEAST 7 DAYS PRIOR TO

REPRESENTATIVE WILL BE COMPLETED PRIOR TO WRITTEN ACCEPTANCE.

H. ALL LANDSCAPE MUST BE MAINTAINED AND GRASS MOWED/EDGED ON A

I. REMOVE TRASH, DEBRIS, AND LITTER. WATER, PRUNE, RESTAKE TREES,

J. COORDINATE THE OPERATION OF IRRIGATION SYSTEM TO ENSURE THAT

K. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN

M. SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN

HEALTHY STAND OF GRASS AT NO ADDITIONAL COST TO THE OWNER.

PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:

N. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE

FERTILIZE, WEED AND APPLY HERBICIDES AND FUNGICIDES AS REQUIRED.

PLANTS ARE ADEQUATELY WATERED. HAND WATER AREAS NOT RECEIVING

ACCORDANCE TO THE MAINTENANCE SERVICE TO ENSURE THE SYSTEM IS

AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE

RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL,

a. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH

HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.

b. ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL

c. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A

ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.

A. TREES, SHRUBS, GROUNDCVOER SHALL BE GUARANTEED (IN WRITING) FOR

B. PLANTS INCLUDING TREES, WHICH HAVE PARTIALLY DIED SO THAT SHAPE

C. PLANTS USED FOR REPLACEMENT SHALL BE OF THE SAME SIZE AND KIND

D. WHEN PLANT REPLACEMENTS ARE MADE, PLANTS, SOIL MIX, FERTILIZER

A 12 MONTH PERIOD (90 DAYS FOR ANNUAL PLANTING OR AT THE END OF

THE SEASONAL COLOR GROWING SEASON, WHICHEVER COMES SOONER)

AFTER FINAL ACCEPTANCE. THE CONTRACTOR SHALL REPLACE ALL DEAD

MATERIALS AS SOON AS WEATHER PERMITS AND UPON NOTIFICATION OF

SIZE OR SYMMETRY HAVE BEEN DAMAGED SHALL BE CONSIDERED SUBJECT

TO REPLACEMENT. IN SUCH CASES, THE OPINION OF THE OWNER SHALL BE

AS THOSE ORIGINALLY PLANTED OR SPECIFIED. ALL WORK INCLUDING

A 12 MONTH GUARANTEE. ANY DAMAGE INCLUDING RUTS IN LAWN OR BED

AREAS INCURRED AS A RESULT OF MAKING REPLACEMENTS SHALL BE

AND MULCH ARE TO BE UTILIZED AS ORIGINALLY SPECIFIED AND

MATERIALS, LABOR AND EQUIPMENT USED IN REPLACEMENTS SHALL CARRY

HYDROMULCHED AREAS SHALL SHOW ACTIVE, HEALTHY GROWTH.

BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE

RESODDED OR RESEEDED (AS APPROPRIATE) PRIOR TO FINAL

EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT

MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY

IN PROPER WORKING ORDER WITH SCHEDULING ADJUSTMENTS BY SEASON

WEEKLY SCHEDULE UNTIL ACCEPTANCE BY OWNER. REMOVE CLIPPINGS

EXPIRATION OF THE WARRANTY PERIOD.

AND DEBRIS FROM SITE PROMPTLY.

TO MAXIMIZE WATER CONSERVATION.

ACCEPTANCE.

IMMEDIATELY REPAIRED.

L. REAPPLY MULCH TO BARE AND THIN AREAS.

G. REMOVE GUYING AND STAKING MATERIALS AFTER ONE YEAR

ADEQUATE WATER FROM AN IRRIGATION SYSTEM

COMPLETION. AN ON SITE INSPECTION BY THE OWNER'S AUTHORIZED

- A. COMPLY WITH ALL FEDERAL, STATE, COUNTY AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. B. EMPLOY PERSONNEL EXPERIENCED AND FAMILIAR WITH THE REQUIRED
- WORK AND SUPERVISION BY A FOREMAN. C. MAKE CONTACT WITH SUPPLIERS IMMEDIATELY UPON OBTAINING NOTICE OF CONTRACT ACCEPTANCE TO SELECT AND BOOK MATERIALS.

 PULL STRAP UP VERTICALLY UNTIL ROOT ANCHOR RINGS BITE INTO THE TOP OF THE ROOT BALL AND U-BRACKETS ARE SETTING FLUSH ON TOP OF

TIE EXCESS STRAP OFF TO THE U-BRACKET ALLOWING ENOUGH REMAINING

THE ROOT BALL

STRAP TO ADJUST TREE, IF NECESSARY

WHICH WILL ENSURE THE PURCHASED MATERIALS WILL MEET AND/OR EXCEED PROJECT SPECIFICATIONS.

D. DEVELOP A PROGRAM OF MAINTENANCE (PRUNING AND FERTILIZATION)

- E. NOTIFY OWNER OR OWNER'S REPRESENTATIVE SEVEN DAYS PRIOR TO THE E. DO NOT MAKE PLANT MATERIAL SUBSTITUTIONS. IF THE LANDSCAPE MATERIAL SPECIFIED IS NOT READILY AVAILABLE, SUBMIT PROOF TO F. REMOVE DEAD, UNHEALTHY AND UNSIGHTLY PLANTS DURING WARRANTY LANDSCAPE ARCHITECT ALONG WITH THE PROPOSED MATERIAL TO BE
 - USED IN LIEU OF THE SPECIFIED PLANT. F. AT THE TIME BIDS ARE SUBMITTED, THE CONTRACTOR IS ASSUMED TO HAVE LOCATED THE MATERIALS NECESSARY TO COMPLETE THE JOB AS
 - G. OWNER'S REPRESENTATIVE SHALL INSPECT ALL PLANT MATERIAL AND RETAINS THE RIGHT TO INSPECT MATERIALS UPON ARRIVAL TO THE SITE AND DURING INSTALLATION THE OWNER'S REPRESENTATIVE MAY ALSO REJECT ANY MATERIALS HE/SHE FEELS TO BE UNSATISFACTORY OR DEFECTIVE DURING THE WORK PROCESS. ALL PLANTS DAMAGED IN TRANSIT OR AT THE JOB SITE SHALL BE REJECTED.
 - 1.10 PRODUCT DELIVERY, STORAGE AND HANDLING
 - 1. BALLED AND BURLAPPED B&B PLANTS): DIG AND PREPARE SHIPMENT IN A MANNER THAT WILL NOT DAMAGE ROOTS, BRANCHES, SHAPE AND FUTURE
 - 2. CONTAINER GROWN PLANTS: DELIVER PLANTS IN RIGID CONTAINER TO HOLD BALL SHAPE AND PROTECT ROOT MASS. B. DELIVERY
 - 1. DELIVER PACKAGED MATERIALS IN SEALED CONTAINERS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND WHILE STORED ON SITE. 2 DELIVER ONLY PLANT MATERIALS THAT CAN BE PLANTED IN ONE DAY
 - UNLESS ADEQUATE STORAGE AND WATERING FACILITIES ARE AVAILABLE 3. PROTECT ROOT BALLS BY HEELING IN WITH SAWDUST OR OTHER APPROVED MOISTURE RETAINING MATERIAL IF NOT PLANTED WITHIN 24
 - HOURS OF DELIVERY. 4. PROTECT PLANTS DURING DELIVERY TO PREVENT DAMAGE TO ROOT BALL OR DESICCATION OF LEAVES. 5. KEEP PLANTS MOIST AT ALL TIMES. COVER ALL MATERIALS DURING
 - 6. NOTIFY OWNERS REPRESENTATIVE OF DELIVERY 72 HOURS PRIOR TO DELIVERY OF PLANT MATERIAL AT JOB SITE. 7. REMOVE REJECTED PLANT MATERIAL IMMEDIATELY FROM JOB SITE. 8. TO AVOID DAMAGE OR STRESS, DO NOT LIFT, MOVE, ADJUST TO PLUMB, OR OTHERWISE MANIPULATE PLANTS BY TRUNK OR STEMS.

TRANSPORT.

- A. GENERAL: WELL FORMED NO. 1 GRADE OR BETTER NURSERY GROWN STOCK. LISTED PLANT HEIGHTS ARE FROM TOPS OF FOOT BALLS TO NOMINAL TOPS OF PLANTS. PLANT SPREAD REFERS TO NOMINAL OUTER WIDTH OF THE PLANT NOT THE OUTER LEAF TIPS. PLANTS SHALL BE INDIVIDUALLY APPROVED BY THE OWNERS REPRESENTATIVE AND THEIR
- DECISION AS TO THEIR ACCEPTABILITY SHALL BE FINAL B. QUANTITIES: THE DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY. ANYTHING CALLED FOR ON ONE AND NOT THE OTHER IS AS BINDING AS IF SHOWN AND CALLED FOR ON BOTH. THE PLANT SCHEDULE IS AN AID TO BIDDERS ONLY. CONFIRM ALL QUANTITIES ON PLAN
- C. QUANTITIES AND SIZE: PLANT MATERIALS SHALL CONFORM TO THE SIZE GIVEN ON THE PLAN AND SHALL BE HEALTHY, WELL SHAPED, FULL BRANCHED AND WELL ROOTED. SYMMETRY IS ALSO IMPERATIVE. PLANTS SHALL BE FREE FROM INSECTS, INJURY, DISEASE, BROKEN BRANCHES. DISFIGUREMENTS, INSECT EGGS AND ARE TO BE OF SPECIMEN QUALITY. D. APPROVAL: ALL PLANTS WHICH ARE FOUND UNSUITABLE IN GROWTH OR
- ARE UNHEALTHY. BADLY SHAPED OR UNDERSIZED WILL BE REJECTED BY THE OWNERS REPRESENTATIVE FITHER BEFORE OR AFTER PLANTING AND SHALL BE REMOVED AT THE EXPENSE OF THE LANDSCAPE CONTRACTOR AND REPLACED WITH ACCEPTABLE SPECIMENS. E. TREES SHALL BE HEALTHY, FULL BRANCHED, WELL SHAPED AND SHALL
- MEET THE MINIMUM REQUIREMENTS AS SPECIFIED ON THE PLANT SCHEDULE. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE IF POSSIBLE, AND WITH SIMILAR CLIMACTIC
- F. PRUNING: ALL PRUNING OF TREES AND SHRUBS SHALL BE EXECUTED BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER,
- PRIOR TO FINAL ACCEPTANCE. G. PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED. EXCEPT THE PLANTS LARGER THAN THOSE SPECIFIED MAY BE USED. USE OF LARGER PLANTS SHALL NOT INCREASE THE CONTRACT PRICE.

H. WHERE MATERIALS ARE PLANTED IN MASSES, PROVIDE PLANTS OF

UNIFORM SIZE. I. ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED, FIBROUS ROOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCIRCLING AND/OR GIRDLING

- ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED
- J. ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING

K. TREE TRUNKS TO BE STURDY, EXHIBIT HARDENED SYSTEMS AND VIGOROUS

- AND FIBROUS ROOT SYSTEMS, NOT ROOT OR POT BOUND. TREES WITH DAMAGED OR CROOKED LEADERS, BARK ABRASIONS SUNSCALD, DISFIGURING KNOTS, OR\INSECT DAMAGE WILL BE REJECTED. M. CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE
- AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND NCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER
- N. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT MEASURED FROM THE TOP OF THE ROOT BALL. O. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF
- THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED. P. SOD: PROVIDE WELL-ROOTED SOD OF THE VARIETY NOTED ON THE PLANS SOD SHALL BE CUT FROM HEALTHY. MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOD SHALL BE ACCOMPANIED BY A
- CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOD. 2.2 SOIL PREPARATION MATERIALS
- 1. FRIABLE, FERTILE, DARK, LOAMY SOIL, FREE OF CLAY LUMPS, SUBSOIL, STONES AND OTHER EXTRANEOUS MATERIAL AND REASONABLY FREE OF WEEDS AND
- FOREIGN GRASSES. LOAM CONTAINING DALLASGRASS OR NUTGRASS SHALL BE REJECTED. 2. PHYSICAL PROPERTIES AS FOLLOWS:
- a. CLAY BETWEEN 7-27% b. SILT – BETWEEN 15-25%
- c. SAND LESS THAN 52% 3. ORGANIC MATTER SHALL BE 3%-10% OF TOTAL DRY
- 4. IF REQUESTED, LANDSCAPE CONTRACTOR SHALL PROVIDE A CERTIFIED SOIL ANALYSIS CONDUCTED BY AN

APPROVED SOIL TESTING LABORATORY VERIFYING THAT

- SANDY LOAM MEETS THE ABOVE REQUIREMENTS. B. ORGANIC MATERIAL: COMPOST WITH A MIXTURE OF 80% VEGETATIVE MATTER AND 20% ANIMAL WASTE. INGREDIENTS
- SHOULD BE A MIX OF COURSE AND FINE TEXTURED MATERIAL PREMIXED BEDDING SOIL AS SUPPLIED BY VITAL FARTH RESOURCES GLADEWATER, TEXAS: PROFESSIONAL BEDDING SOIL AS SUPPLIED BY LIVING EARTH TECHNOLOGY, DALLAS, TEXAS OR ACID GRO MUNICIPAL MIX AS SUPPLIED BY SOIL BUILDING SYSTEMS, DALLAS, TEXAS OR APPROVED EQUAL.
- D. SHARP SAND: SHARP SAND MUST BE FREE OF SEEDS, SOIL PARTICLES AND WEEDS. E. MULCH: DOUBLE SHREDDED HARDWOOD MULCH, PARTIALLY
- DECOMPOSED, DARK BROWN. F. ORGANIC FERTILIZER: FERTILAID SUSTANE OR GREEN SENSE OR EQUAL AS RECOMMENDED FOR REQUIRED APPLICATIONS. FERTILIZER SHALL BE DELIVERED TO THE SITE IN ORIGINAL UNOPENED
- CONTAINERS, EACH BEARING THE MANUFACTURER'S GUARANTEED STATEMENT OF ANALYSIS G. COMMERCIAL FERTILIZER: 10-20-10 OR SIMILAR ANALYSIS. NITROGEN SOURCE TO BE A MINIMUM 50% SLOW RELEASE ORGANIC NITROGEN (SCU OR UF) WITH A MINIMUM 8% SULFUR AND 4% IRON, PLUS
- H. PEAT: COMMERCIAL SPHAGNUM PEAT MOSS OR PARTIALLY DECOMPOSED SHREDDED PINE BARK OR OTHER APPROVED ORGANIC
- MATERIAL.

2.3 MISCELLANEOUS MATERIALS

- A. STEEL EDGING SHALL BE 3/16" X 4" X 16" DARK GREEN LANDSCAPE EDGING. DURAEDGE STEEL OR APPROVED EQUAL. B. TREE STAKING - TREE STAKING SOLUTIONS OR APPROVED SUBSTITUTE;
- REFER TO DETAILS. C. FILTER FABRIC - MIRAFI 1405 BY MIRAFI INC. OR APPROVED SUBSTITUTE.
- AVAILABLE AT LONE STAR PRODUCTS, INC. (469-523-0444 D. SAND - UNIFORMLY GRADED, WASHED, CLEAN, BANK RUN SAND.
- E. GRAVEL: WASHED NATIVE PEA GRAVEL, GRADED 1" TO 1.5" F DECOMPOSED GRANITE - BASE MATERIAL OF NATURAL MATERIAL MIX OF
- GRANITE AGGREGATE NOT TO EXCEED 1/8" IN DIAMETER COMPOSED OF VARIOUS STAGES OF DECOMPOSED EARTH BASE.
- G. RIVER ROCK LOCALLY AVAILABLE NATIVE RIVER ROCK BETWEEN 2"-4" IN DIAMETER.
- H. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING

PRE-EMERGENT HERRICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES. PART 3 - EXECUTION

A. LANDSCAPE CONTRACTOR TO INSPECT ALL EXISTING CONDITIONS

AND REPORT ANY DEFICIENCIES TO THE OWNER.

- B. ALL PLANTING AREAS SHALL BE CONDITIONED AS FOLLOWS: 1. PREPARE NEW PLANTING BEDS BY SCRAPING AWAY EXISTING GRASS AND WEEDS AS NECESSARY. TILL EXISTING SOIL TO A DEPTH OF SIX (6") INCHES PRIOR TO PLACING COMPOST AND FERTILIZER. APPLY FERTILIZER AS PER MANUFACTURER'S RECOMMENDATIONS. ADD SIX (6") INCHES OF COMPOST AND TILL INTO A DEPTH OF SIX (6") INCHES OF SPECIFIED MULCH (SETTLED
 - 2. BACKFILL FOR TREE PITS SHALL BE AS FOLLOWS: USE EXISTING TOP SOIL ON SITE (USE IMPORTED TOPSOIL AS NEEDED) FREE FROM LARGE CLUMPS, ROCKS, DEBRIS, CALICHE, SUBSOILS, ETC., PLACED IN NINE (9") INCH LAYERS AND WATERED IN THOROUGHLY
- C. GRASS AREAS: 1. BLOCKS OF SOD SHOULD BE LAID JOINT TO JOINT (STAGGERED JOINTS) AFTER FERTILIZING THE GROUND FIRST. ROLL GRASS AREAS TO ACHIEVE A SMOOTH, EVEN SURFACE. THE JOINTS BETWEEN THE BLOCKS OF SOD SHOULD BE FILLED WITH TOPSOIL

WHERE THEY ARE GAPED OPEN, THEN WATERED THOROUGHLY.

CONSTRUCTION HAS BEEN SATISFACTORILY

A. MAINTENANCE OF PLANT MATERIALS SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS DELIVERED TO THE SITE AND SHALL CONTINUE

- ACCOMPLISHED B. PLANT MATERIALS SHALL BE DELIVERED TO THE SITE ONLY AFTER THE BEDS ARE PREPARED AND AREAS ARE READY FOR PLANTING. ALL SHIPMENTS OF NURSERY MATERIALS SHALL BE THOROUGHLY PROTECTED FROM THE WINDS DURING TRANSIT. ALL PLANTS WHICH CANNOT BE PLANTED AT ONCE, AFTER DELIVERY TO THE SITE, SHAL BE WELL PROTECTED AGAINST THE POSSIBILITY OF DRYING BY WIND AND BALLS OF EARTH OF B & B PLANTS SHALL BE KEPT COVERED WITH SOIL OR OTHER ACCEPTABLE MATERIAL. ALL PLANTS REMAIN THE PROPERTY OF THE CONTRACTOR UNTIL FINAL ACCEPTANCE.
- C. POSITION THE TREES AND SHRUBS IN THEIR INTENDED LOCATION AS D. NOTIFY THE OWNER'S AUTHORIZED REPRESENTATIVE FOR INSPECTION AND APPROVAL OF ALL POSITIONING OF PLANT MATERIALS. E. EXCAVATE PITS WITH VERTICAL SIDES AND HORIZONTAL BOTTOM. TREE PITS SHALL BE LARGE ENOUGH TO PERMIT HANDLING AND PLANTING WITHOUT INJURY TO BALLS OF EARTH OR ROOTS AND SHALL BE OF SUCH DEPTH THAT, WHEN PLANTED AND SETTLED, THE CROWN OF THE PLANT SHALL BEAR THE SAME RELATIONSHIP TO THE
- FINISH GRADE AS IT DID TO SOIL SURFACE IN ORIGINAL PLACE OF GROWTH. THE SIDES OF THE HOLE SHOULD BE ROUGH AND JAGGED, NEVER SLICK OR GLAZED. F. SHRUB AND TREE PITS SHALL BE NO LESS THAN TWENTY-FOUR (24") INCHES WIDER THAN THE LATERAL DIMENSION OF THE EARTH BALL AND SIX (6") INCHES DEEPER THAN IT'S VERTICAL DIMENSION
- REMOVE AND HAUL FROM SITE ALL ROCKS AND STONES OVER THREE-QUARTER (¾") INCH IN DIAMETER. PLANTS SHOULD BE THOROUGHLY MOIST BEFORE REMOVING CONTAINERS. G. PERCOLATION TEST: FILL THE HOLE WITH WATER. IF THE WATER LEVEL DOES NOT PERCOLATE WITHIN 24 HOURS, THE TREE NEEDS TO
- MOVE TO ANOTHER LOCATION OR HAVE DRAINAGE ADDED. INSTALL A PVC STAND PIPE PER TREE IF THE PERCOLATION TEST FAILS. H. BACKFILL ONLY WITH 5 PARTS EXISTING SOIL OR SANDY LOAM AND PART BED PREPARATION. WHEN THE HOLE IS DUG IN SOLID ROCK TOPSOIL FROM THE SAME AREA SHOULD NOT BE USED. CAREFULLY SETTLE BY WATERING TO PREVENT AIR POCKETS. REMOVE THE

BURLAP FROM THE TOP $\mbox{\it 1/3}$ OF THE BALL, AS WELL AS ALL NYLON PLASTIC STRING AND WIRE. CONTAINER TREES WILL USUALLY B

- ROOT BOUND, IF SO FOLLOW STANDARD NURSERY PRACTICE OF 'ROOT SCORING' DO NOT WRAP TREES.
- J. DO NOT OVER PRUNE K. REMOVE NURSERY TAGS AND STAKES FROM ALL PLANTS
- L. REMOVE BOTTOM OF PLANT BOXES PRIOR TO PLACING PLANTS. REMOVE SIDES AFTER PLACEMENT AND PARTIAL BACKFILLING. M. REMOVE UPPER THIRD OF BURLAP FROM BALLED AND BURLAPPED TREES
- AFTER PLACEMENT. N. PLACE PLANT UPRIGHT AND PLUMB IN CENTER OF HOLE. ORIENT PLANTS FOR BEST APPEARANCE.
- O. MULCH THE TOP OF THE BALL. DO NOT PLANT GRASS ALL THE WAY TO THE TRUNK OF THE TREE. LEAVE THE AREA ABOVE THE TOP OF

- THE BALL AND MULCH WITH AT LEAST TWO (2") INCHES OF SPECIFIED
- P. ALL PLANT BEDS AND TREES TO BE MULCHED WITH A MINIMUM SETTLED THICKNESS OF TWO (2") INCHES OVER THE ENTIRE BED OR
- Q. OBSTRUCTION BELOW GROUND: IN THE EVENT THAT ROCK, OR UNDERGROUND CONSTRUCTION WORK OR OBSTRUCTIONS ARE ENCOUNTERED IN ANY PLANT PIT EXCAVATION WORK TO BE DONE UNDER THIS SECTION, ALTERNATE LOCATIONS MAY BE SELECTED BY THE OWNER WHERE LOCATIONS CANNOT BE CHANGED THE OBSTRUCTIONS SHALL BE REMOVED TO A DEPTH OF NOT LESS THAN THREE (3') FEET BELOW GRADE AND NO LESS THAN SIX (6") INCHES BELOW THE BOTTOM OF BALL WHEN PLANT IS PROPERLY SET AT THE REQUIRED GRADE. THE WORK OF THIS SECTION SHALL INCLUDE THE REMOVAL FROM THE SITE OF SLICH ROCK OR LINDERGROUND OBSTRUCTIONS ENCOUNTERED AT THE COST OF THE LANDSCAPE
- R. TREES AND LARGE SHRUBS SHALL BE STAKED AS SITE CONDITIONS REQUIRE. POSITION STAKES TO SECURE TREES AGAINST SEASONAL PREVAILING WINDS.
- S. PRUNING AND MULCHING: PRUNING SHALL BE DIRECTED BY THE LANDSCAPE ARCHITECT AND SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE FOLLOWING FINE PRUNING, CLASS I PRUNING STANDARDS PROVIDED BY THE NATIONAL
- ARBORIST ASSOCIATION. 1. DEAD WOOD, SUCKERS, BROKEN AND BADLY BRUISED BRANCHES SHALL BE REMOVED. GENERAL TIPPING OF THE BRANCHES IS NOT PERMITTED. DO NOT CUT TERMINAL BRANCHES.
- PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS. IMMEDIATELY AFTER PLANTING OPERATIONS ARE COMPLETED, ALL TREE PITS SHALL BE COVERED WITH A LAYER OF ORGANIC MATERIAL TWO (2") INCHES IN DEPTH. THIS LIMIT OF THE ORGANIC MATERIAL FOR TREES SHALL BE THE DIAMETER OF THE PLANT PIT.

1. ALL STEEL CURBING SHALL BE FREE OF KINKS AND ABRUPT

- Q. STEEL EDGE INSTALLATION: EDGE SHALL BE ALIGNED AS INDICATED ON PLANS. STAKE OUT LIMITS OF STEEL CURBING AND OBTAIN OWNERS APPROVAL PRIOR TO INSTALLATION.
- 2. TOP OF EDGING SHALL BE $\slash\hspace{-0.6em}Z"$ MAXIMUM HEIGHT ABOVE FINAL FINISHED GRADE. 3. STAKES ARE TO BE INSTALLED ON THE PLANTING BED SIDE OF THE CURBING, AS OPPOSED TO THE GRASS SIDE. 4. DO NOT INSTALL STEEL EDGING ALONG SIDEWALKS OR
- 5. CUT STEEL EDGING AT 45 DEGREE ANGLE WHERE EDGING MEETS SIDEWALKS OR CURBS.

3.3 CLEANUP AND ACCEPTANCE

- A. CLEANUP: DURING THE WORK, THE PREMISES SHALL BE KEPT NEAT AND ORDERLY AT ALL TIMES. STORAGE AREAS FOR ALL MATERIALS SHALL BE SO ORGANIZED SO THAT THEY, TOO, ARE NEAT AND DRDERLY. ALL TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AS WORK PROGRESSES. KEEP PAVED AREAS CLEAN BY SWEEPING OR HOSING THEM AT END OF EACH WORK DAY.
- B. REPAIR RUTS, HOLES AND SCARES IN GROUND SURFACES C. ENSURE THAT WORK IS COMPLETE AND PLANT MATERIALS ARE IN
- VIGOROUS AND HEALTHY GROWING CONDITION D. UPON COMPLETION OF THE WORK. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST
- AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY. E. WHEN/IF THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE

AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION

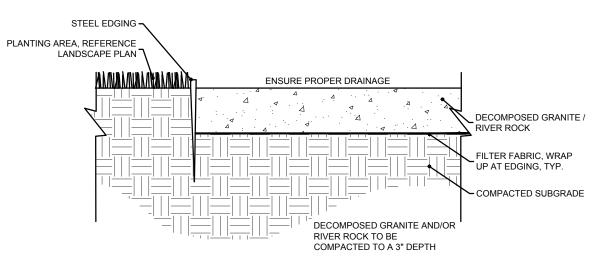
F. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME. A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND

GUARANTEE PERIODS WILL COMMENCE.

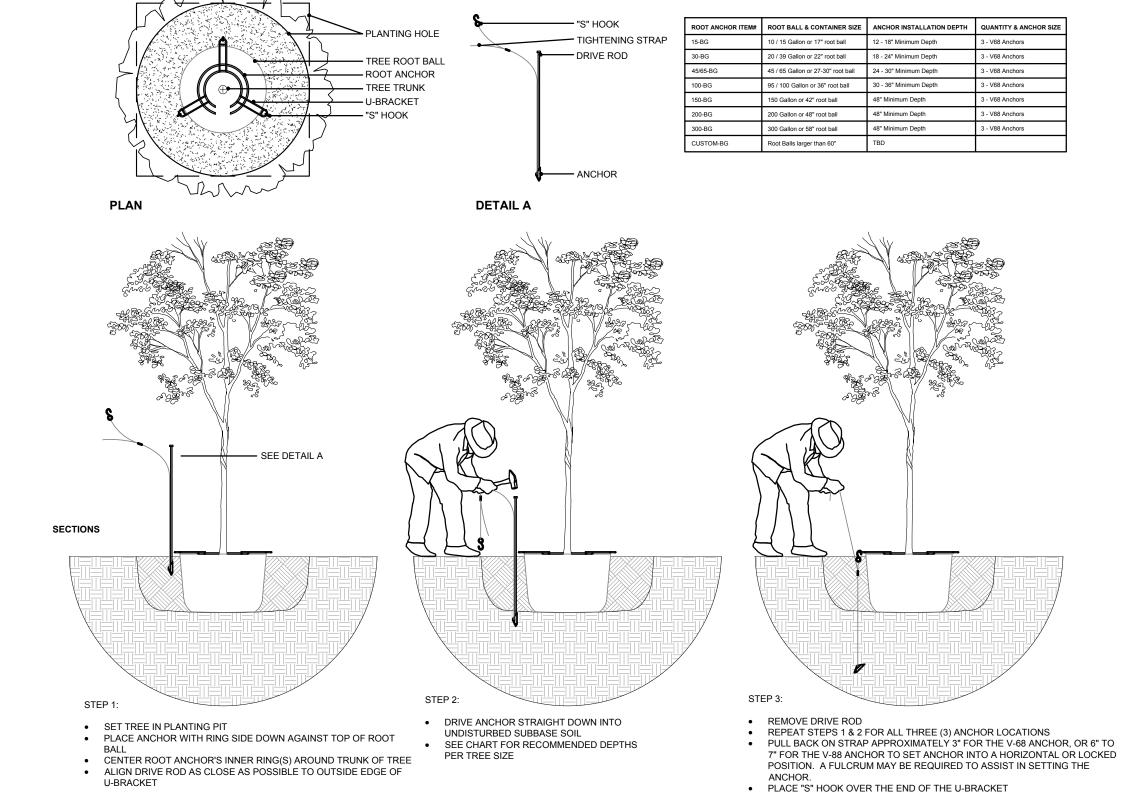
END OF SECTION

FOR SHRUBS & **GROUNDCOVERS** ALONG BACK OF CURB TO ALLOW FOR CAR OVERHANG

SHRUB SPACING AND PLANTING AT B.O.C



\DECOMPOSED GRANITE / RIVER ROCK



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Mobile: 903-676-6143

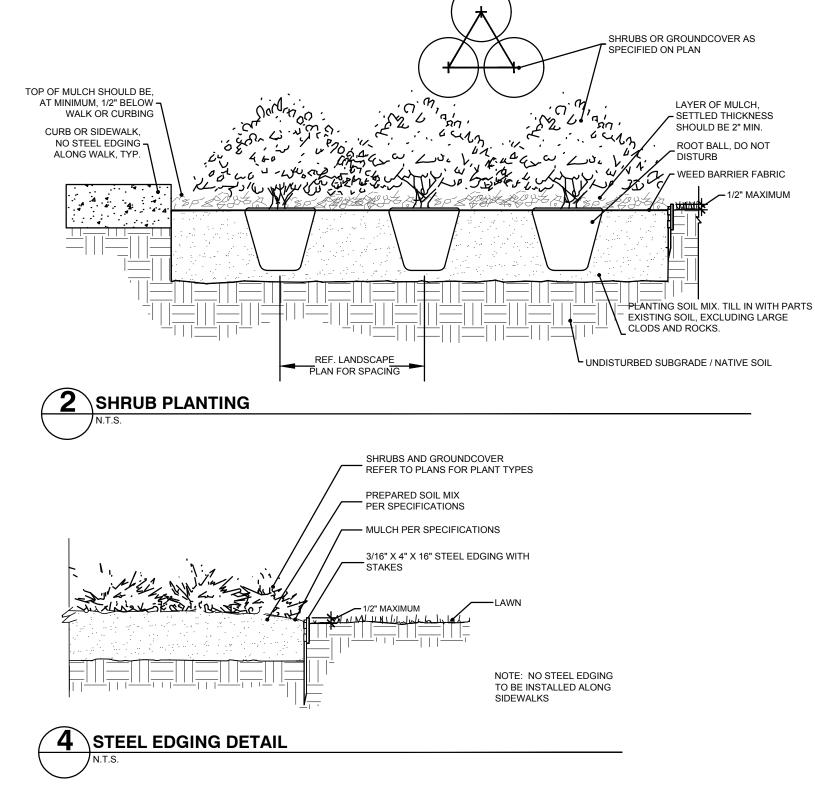
Fax: 281-778-1425

TREE STAKE SOLUTIONS, LLC.

9973 FM 521 Road

TREE PLANTING

Rosharon, Texas 77583

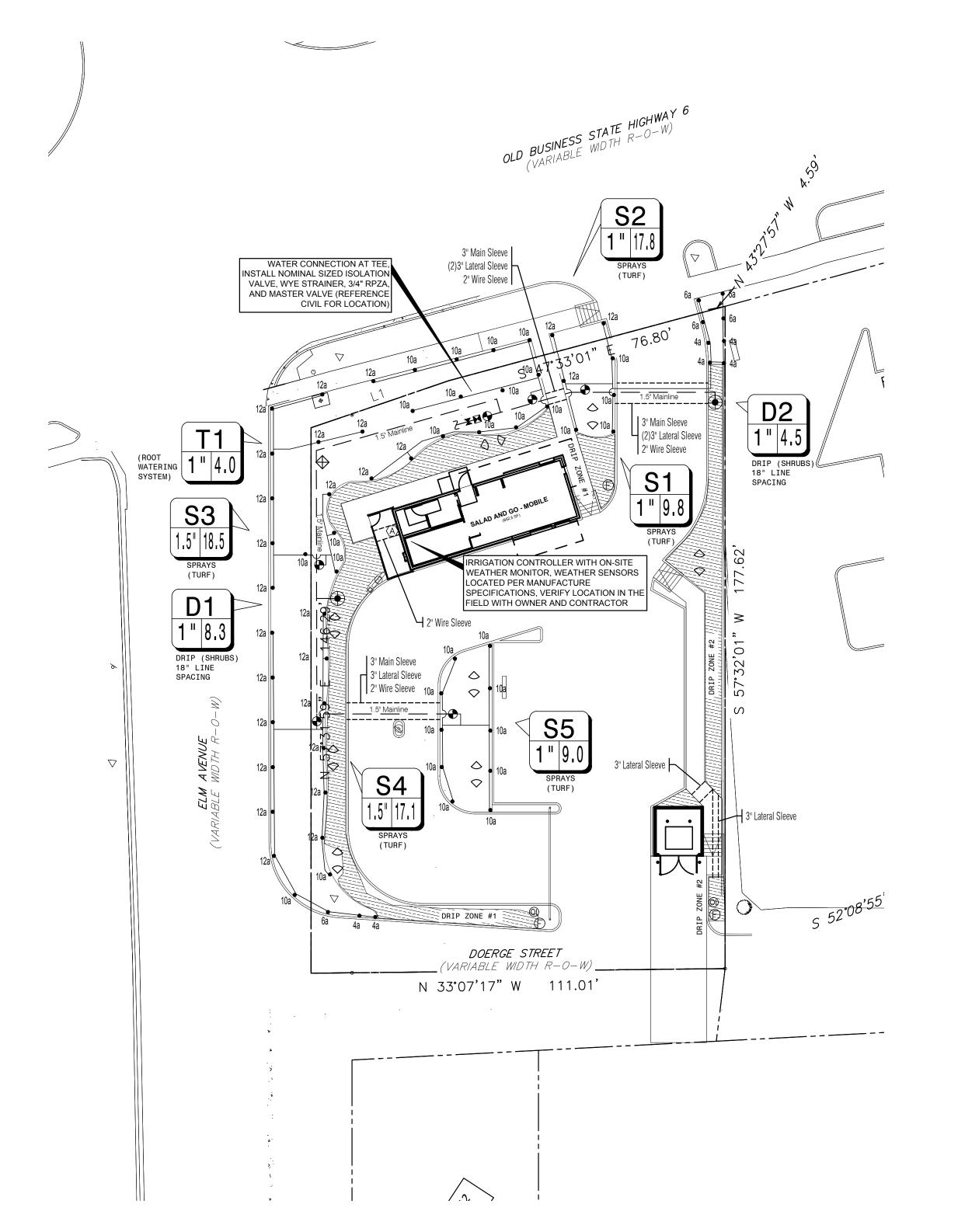




9

SHEET NO.

L1.03



Know what's below.

Call before you dig.

SUG	GESTED LATERAL PIPE	SIZE. CLASS 200 PVC
	FLOW RANGE GPM	PIPE SIZE
	0 - 8 GPM	3/4"
	8 - 12 GPM	1"
	12 - 22 GPM	1-1/4 "
	22 - 28 GPM	1-1/2"
	28 + GPM	2"

SLEEVING NOTES

- 1. PIPING AND CONTROL WIRES SHALL BE INSTALLED IN SEPARATE SLEEVES UNDER PAVING. REFERENCE DRAWINGS FOR SLEEVE SIZE AND LOCATION.
- 2. SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
- 3. INSTALLATION OF SLEEVES SHALL BE TWENTY FOUR (24") BELOW TOP OF PAVEMENT OR FINISHED GRADE.
- 4. SLEEVES SHALL EXTEND ONE (1') FOOT BEYOND EDGE OF ALL PAVEMENT AND STAKED FOR LOCATION.
- 5. ALL SLEEVES SHALL BE SCHEDULE 40 PVC PIPE, CAPPED ON BOTH ENDS AND SIZED
- AT LEAST TWO TIMES LARGER THAN THE DIAMETER OF THE PIPE INSIDE THE SLEEVE.
- 6. SLEEVE LOCATIONS SHALL BE MARKED ONTO THE CURB WITH A SAWCUT OF TWO PARALLEL LINES THAT ARE TWO (2") INCHES LONG AND ONE (1") APART.
- 7. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF SLEEVES AND SHALL ALSO BE RESPONSIBLE FOR LOCATING ANY SLEEVE THAT CANNOT BE FOUND DURING THE INSTALLATION OF THE SYSTEM.
- 8. CONTRACTOR SHALL FURNISH OWNER AND IRRIGATION CONTRACTOR WITH AN 'AS-BUILT' DRAWING SHOWING ALL SLEEVE LOCATIONS.

IRRIGATION GENERAL NOTES

INSTALLATION BEGINS.

- 1. THE IRRIGATION CONTRACTOR SHALL COORDINATE INSTALLATION OF THE IRRIGATION SYSTEM WITH THE LANDSCAPE CONTRACTOR SO THAT ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS AND
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE IRRIGATION DESIGNER OF SITE CONDITIONS OR ASSUME FULL RESPONSIBILITY FOR ANY AND ALL ON SITE
- REVISIONS NECESSARY. 3. CONTRACTOR TO VERIFY DESIGN AND ITS INTENT TO PROVIDE FULL COVERAGE TO
- ALL NEW PLANTING MATERIAL. 4. NOTIFY IRRIGATION DESIGNER OF ANY LAYOUT DISCREPANCIES PRIOR TO BIDDING.
- 5. LOCATE ALL UTILITIES AND SITE LIGHTING CONDUITS BEFORE IRRIGATION
- 6. IRRIGATION CONTRACTOR TO PROCURE ALL PERMITS, LICENSES AND GIVE ALL NECESSARY NOTICES THROUGHOUT THE DURATION OF THE PROJECT.
- 7. THE CONTRACTOR SHALL BE A REGISTERED LICENSED IRRIGATOR IN GOOD STANDING WITH THE STATE OF TEXAS BOARDS AND REGULATORS.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL PLANT MATERIAL UPON ACCEPTANCE AND THROUGH THE WARRANTY PERIOD FOR DAMAGE DUE TO IRRIGATION SYSTEM FAILURE.
- 9. ALL ASPECTS OF THE IRRIGATION INSTALLATION SHALL CONFORM WITH THE PROPER GOVERNING AUTHORITIES. CODES AND ORDINANCES.
- 10. SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR. SLEEVE MATERIAL SHALL BE SCHEDULE 40, SIZE AS INDICATED ON PLAN. REFER TO SLEEVING NOTES.
- 11. ALL MAIN LINE AND LATERAL LINE PIPING IN PLANTING AND LAWN AREAS SHALL HAVE A MINIMUM OF 12 INCHES OF COVER. ALL PIPING UNDER PAVING SHALL HAVE A MINIMUM OF 18 INCHES OF COVER. CONTRACTOR TO VERIFY LOCAL FREEZE DEPTHS AND ADJUST DEPTH OF COVER ACCORDINGLY.
- 12. ZONE VALVES SHALL NOT BE LOCATED WITHIN THREE (3') FEET OF ANY DRIVEWAY, TRAFFIC AISLE, ISLAND ETC. WHERE THEY WILL BE DAMAGED BY VEHICLES DRIVING OVER CURBS.
- 13. ALL NOZZLES IN PARKING LOT ISLANDS AND PLANTING BEDS SHALL BE LOW ANGLE NOZZLES TO MINIMIZE OVER SPRAY ON PAVEMENT SURFACES.
- 14. AUTOMATIC CONTROLLER SHALL BE INSTALLED AT LOCATION SHOWN. POWER (120V) SHALL BE LOCATED IN A JUNCTION BOX WITHIN FIVE (5') FEET OF CONTROLLER, LOCATION BY OTHER TRADES. RAIN AND FREEZE SENSORS SHALL BE
- 15. ELECTRICAL SPLICES SHOULD BE LOCATED AT EACH VALVE AND CONTROLLER
- 16. PROVIDE A 3/4" BLOW DOWN DRAIN TEE TO ALLOW WATER TO BE BLOWN FROM THE
- 17. DISTURBED AREAS IN NEED OF TURF ESTABLISHMENT MAY EXIST BEYOND COVERAGE LIMITS OF THE PERMANENT IRRIGATION SYSTEM. IN THESE AREAS, CONTRACTOR TO DETERMINE A TEMPORARY MEANS TO ESTABLISH NECESSARY IMMEDIATELY UPON FINAL GRADE IN ACCORDANCE WITH AND TO SATISFY SWPPP.
- 18. PROVIDE WITH OWNER A COPY OF ALL INSTALLED EQUIPMENT AND LINES (AS BUILT
- 19. PLACE COPY OF ZONE MAP WITH ALL ZONE VALVE LOCATIONS SHOWN AND APPROVED IRRIGATION PLAN IN PROTECTIVE JACKET IN MAIN CONTROL PANEL.

MODEL NO. PROS-04-PRS30

RZWS-18-25

860 SERIES

HDL-06-12-CV

ICZ-101-LF-40

CLASS 200 PVC

AFV-B

ECO-ID

ICV

20. IRRIGATION IN TEXAS IS REGULATED BY: THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) MC-178 / PO BOX 13087 AUSTIN. TEXAS 78711-3087

INSTALLED WITH EACH CONTROLLER.

IRRIGATION LINES/SYSTEM.

WWW.TECQ.STATE.TX.US.

MANUFACTURER

FEBCO

HUNTER

HUNTER

HUNTER - PRO-C-12 STATION - PC-1200 WITH RAIN AND FREEZE SENSORS

MAINLINE PIPING REFER TO PLAN SCH. 40 PVC, SIZED AS SHOWN

REFER TO PLAN

VALVE STATION # (WHERE D = DRIP TUBING, S = SPRAY, R = ROTOR, T = TREE DRIP)

(INSTALL THRUST BLOCKS AND AIR/VACUUM RELIEF VALVES AS NECESSARY TO PROTECT MAINLINE SYSTEM)

IRRIGATION SLEEVE, SCH. 40 PVC, MIN. TWICE SIZE OF PIPE TO BE INSERTED, ONE SLEEVE PER PIPE

IRRIGATION LEGEND

IRRIGATION LEGEND

SYMBOL

1" 8.8

DESCRIPTION

TREE ROOT BUBBLER SYSTEM

1" REDUCED PRESSURE ZONE

1" TREE CONTROL ZONE KIT

LINE FLUSHING VALVE

DRIP CONTROL VALVE

DESCRIPTION

ISOLATION VALVE

LATERAL PIPING

VALVE SIZE

1" IRRIGATION METER

REMOTE CONTROL VALVE

NOT SHOWN

NOT SHOWN

HDL DRIPLINE

SPRAYS WITH PRO ADJ. NOZZLES HUNTER

PRESSURE OPERATOR INDICATOR HUNTER

CONTROL WIRING SLEEVE, 2" SCH. 40 PVC

SYMBOL

IRRIGATION PROJECT NOTES

DEVICE.

- 1. THE LOCATION OF MAINLINE AND VALVES ON THIS PLAN MAY BE SHOWN IN PAVED AREAS FOR DESIGN CLARITY ONLY, IRRIGATION ELEMENTS HAVE BEEN SHOWN ON THIS PLAN AS ACCURATELY AS POSSIBLE WITHOUT THE FORFEIT OF DESIGN CLARITY AND INTENT. ALL PIPES AND VALVES SHALL BE INSTALLED WITHIN PERVIOUS AREAS. ALL PIPE AND WIRES THAT CROSS UNDER PAVING SHALL BE INSTALLED IN SEPARATE SLEEVES AS SPECIFIED.
- 2. ALL SPRINKLER EQUIPMENT NUMBERS REFERENCE THE HUNTER EQUIPMENT CATALOG UNLESS OTHERWISE INDICATED.
- 3. TEN DAYS PRIOR TO START OF CONSTRUCTION, IRRIGATION CONTRACTOR SHALL VERIFY STATIC WATER PRESSURE. THE IRRIGATION SYSTEM FOR THIS SITE IS DESIGNED TO OPERATE WITH A PRESSURE OF SIXTY FIVE (65 PSI) POUNDS PER SQUARE INCH. SHOULD THE DESIGN PRESSURE FOR THE SYSTEM BE HIGHER THAN THE EXISTING PRESSURE, THE IRRIGATION CONTRACTOR SHALL NOTIFY THE IRRIGATION DESIGNER IMMEDIATELY.
- 4. IRRIGATION CONTRACTOR SHALL COORDINATE THE LOCATION OF THE CONTROLLER AND SENSORS WITH THE GENERAL CONTRACTOR AND OWNER. A 110 VOLT ELECTRICAL SERVICE TO POWER THE IRRIGATION CONTROLLER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR AT THE LOCATION SHOWN ON THIS PLAN.
- 5. WATER SERVICE TAP, METER AND LEAD FOR THE IRRIGATION SYSTEM SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR. SERVICE LINE AND METER SHALL BE SIZED AS NOTED ON THIS PLAN.
- 6. TYPE AND INSTALLATION OF THE WATER METER AND BACK FLOW PREVENTION DEVICE SHALL BE DETERMINED BY THE GOVERNING AUTHORITY. AN ISOLATION VALVE SHALL BE PROVIDED BETWEEN THE WATER METER AND BACK FLOW
- 7. ALL CALCULATIONS FOR THIS IRRIGATION SYSTEM ARE BASED ON PRODUCTS AND EQUIPMENT INFORMATION PROVIDED BY HUNTER. INSTALLATION OF THESE
- REFERENCE HUNTER GUIDELINES AND SPECIFICATIONS PRIOR TO INSTALLATION. CONFIRM REQUIREMENTS FOR CONTROLLER. WATERPROOF CONNECTIONS. GROUNDING, SURGE PROTECTORS, DECODERS, VALUES, AND WIRING PRIOR TO INSTALLATION. HUNTER TECHNICAL SERVICES (760) 591-7383. WWW.HUNTERINDUSTRIES.COM

PRODUCTS SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS.

- 9. SPRAY HEADS LOCATED IN TURF AREAS SHALL BE HUNTER PROS-04-PRS30 SPRAY BODIES WITH PRO ADJUSTABLE NOZZLES, FIXED ARC NOZZLES, AND STRIP PATTERN NOZZLES RATE AND AS INDICATED ON THE PLAN.
- 10. IRRIGATION REMOTE CONTROL VALVES SHALL BE 1" AND/OR 1.5" HUNTER ICV AS INDICATED. PRIOR TO ALL REMOTE CONTROL VALVES, INSTALL A NOMINALLY SIZED
- BALL VALVE WITHIN THE SAME BOX. 11. SIZE OF VALVES ARE AS SHOWN ON PLAN. VALVES SHALL BE INSTALLED IN APPROVED BOXES WITH COVERS LARGE ENOUGH TO PERMIT MANUAL OPERATION. REMOVAL OF SOLENOID AND / OR VALVE COVER WITHOUT ANY EARTH EXCAVATION.

(3) #10HSL SWIVEL HOSE ELLS AS PART OF THIS CONTRACT.

- OWNERS MAY ELECT LOCKING BOXES ON A PROJECT BY PROJECT BASIS. 12. QUICK COUPLING VALVES SHALL BE HUNTER INSTALLED PER DETAIL SHOWN. SWING JOINTS SHALL BE CONSTRUCTED USING 3/4" SCHEDULE 80 ELBOWS. CONTRACTOR SHALL SUPPLY OWNER WITH THREE (3) CH75 COUPLERS AND THREE
- 13. IRRIGATION SYSTEM AUTOMATIC CONTROLLER SHALL BE HUNTER PRO-C-12 STATION - PC-1200 WITH RAIN AND FREEZE SENSORS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. CONFIRM WIRING, GROUNDING AND SURGE PROTECTION REQUIREMENTS BEFORE INSTALLING.
- 14. DRIP IRRIGATION REMOTE CONTROL VALVES SHALL BE HUNTER ICZ-101-LF-40 AS INDICATED. DRIP TUBING SHALL BE HUNTER HDL-06-12-CV.
- 15. INSTALL DRIP TUBING/LINES PER MANUFACTURERS RECOMMENDATIONS. USE PLD-LOC FITTINGS PLD-LOC 075, PLD-LOC 050, PLD-LOC ELB, PLD-LOC CPL, PLD-LOC CAP, PLD-LOC TEE, PLD-LOC OR USE FHS BARB FITTINGS PLD-075, PLD-050, PLD-ELB, PLD-CPL, PLD-CAP, PLD-TEE, PLD-075-TBTEE, PLD-BV. USE ECO-INDICATOR ECO-ID. USE LINE FLUSHING VALVE HUNTER AFV-B.
- 16. DRIP TUBING SHALL BE SPACED 18" APART IN SHRUB AREAS. REFER TO MANUFACTURERS RECOMMENDATIONS.
- 17. ROOT BUBBLERS SHALL BE HUNTER RZWS-18-25.
- 18. ALL VALVE CONTROL WIRE SHALL BE SIZED PER MANUFACTURER GUIDELINES BY THE CONTRACTOR ACCORDING TO THE ACTUAL FIELD DISTANCE, ALL CONNECTIONS SHALL BE WATER-PROOF, KEPT TO A MINIMUM, AND LOCATED IN AN APPROVED BOX.
- 19. USE HUBBELL HOT BOX DROP OVER ENCLOSURE AND POLYMER CONCRETE MOUNTING PAD FOR BACKFLOW DEVICE. PRODUCE LP010026023T.

NOTE:

1. ENTIRE SYSTEM SHALL BE INSTALLED PER TCEQ STANDARDS, MANUFACTURER'S SPECIFICATIONS AND ALL CITY CODES.

THIS DESIGN IS DIAGRAMMATIC, ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY. AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE GROUND IRRIGATION EQUIPMENT WITH THE DWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OF IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS

3. VARIOUS AREAS ON PLAN ARE SHOWING SINGLE HEAD COVERAGE. IF OWNER SHOULD ELECT FOR FULL COVERAGE, CONTRACTOR TO PROCURE THE PROPER PERMITS AND BID ALTERNATE FOR THESE ADDITIONAL SPRAY HEADS, ZONES, AND CONTROLLER EXPANSION FOR THE SYSTEM.

4. IRRIGATION CONTRACTOR IS TO COORDINATE LOCATION AND PLACEMENT OF ALL IRRIGATION ITEMS WITH THE GENERAL CONTRACTOR. CONTRACTOR IS O USE EXTREME CAUTION IN TRENCHING TO AVOID EXISTING AND PROPOSED UTILITIES. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO IRRIGATION INSTALLATION.

IRRIGATION SPRAY NOZZLES TO BE ADJUSTED TO AVOID PAVEMENT, BUILDING, WALLS, FENCES, UTILITIES, EQUIPMENT, SIGNAGE, AND CALL BOX 6. REFERENCE LANDSCAPE PLAN FOR LOCATION OF GRAVEL, STEEL EDGING

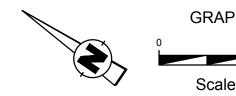
7. IN TURF AREAS (BOTH SOD AND HYDROMULCH AREAS) OUTSIDE OF IRRIGATION PERMANENT COVERAGE, CONTRACTOR TO PROVIDE TEMPORARY IRRIGATION UNTIL ESTABLISHED, TYP

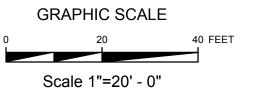
AND ALL PROPOSED PLANT MATERIAL.

8. CONTRACTOR TO TAKE ALL NECESSARY MEASURES TO PREVENT WATER HAMMER AND SYSTEM COLLAPSE BY DISCHARGING AIR DURING STARTUP AND ALLOWING AIR TO ENTER DURING SHUTDOWN. INSTALL THRUST BLOCKS AND AIR/VACUUM RELIEF VALVES AS NECESSARY TO PROTECT MAINLINE SYSTEM. FOR 3 INCH AND LARGER MAINLINE, INSTALL JOINT RESTRAINTS AT TURNS. INSTALL PER MANUFACTURE'S RECOMMENDATIONS.

9. ALL MAINLINE PIPING 3 INCHES AND LARGER SHALL BE BELL AND GASKETED CLASS 200 PVC PIPE, SDR 21. INSTALL PER MANUFACTURERS RECOMMENDATIONS, CONTACT MANUFACTURE OR DISTRIBUTOR FOR PRODUCT DEMONSTRATION.

10. GROUP VALVES IN FIELD AS NECESSARY FOR MAINLINE SIZING. CENTER FEED LATERALS WHEN POSSIBLE.







Aledo, Texas 76008 nanda@awr-designs.com **ATIO**

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SHEET NO.

L2.01

A. PROVIDE UNDERGROUND IRRIGATION SLEEVES AS INDICATED ON THE DRAWINGS.

1.2 RELATED WORK

A. SECTION 32 8424 - IRRIGATION SYSTEM.

1.3 REFERENCE STANDARDS

BEFORE APPLYING SOLVENT.

TWELVE (12) INCHES. CAP PIPE ENDS.

A. AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) - LATEST

PART 2 - MATERIALS 2.1 GENERAL

> A. POLYVINYL CHLORIDE PIPE (PVC) - SCHEDULE 40 SHALL BE USED FOR ALL SLEEVING PURPOSES.

B. PVC PIPES SHALL BE MARKED WITH SDR NUMBER, ASTM STANDARD NUMBER, AND THE NSF SEAL. C. SOLVENT SHALL BE USED AS RECOMMENDED BY MANUFACTURER TO MAKE SOLVENT WELDED JOINTS. PIPE AND FITTINGS SHOULD BE CLEANED

PART 3 - EXECUTION 3.1 INSTALLATION

> A. A MINIMUM OF TWENTY FOUR (24) INCHES COVER SHALL BE PROVIDED OVER THE TOP OF SLEEVE FROM FINISH GRADE.

B. SLEEVES SHALL BE EXTENDED ONE (1) FOOT PAST THE EDGE OF PAVEMENT OF WALLS. INSTALL A NINETY DEGREE ELBOW ON EACH SLEEVE AND ADD ADDITIONAL LENGTH TO EXTEND ABOVE FINISH GRADE BY

3.2 BACKFILL

A. BACKFILL SHALL BE PLACED OVER SLEEVES IN SIX (6) INCH LIFTS. SOIL SHALL BE TAMPED INTO PLACE, TAKING CARE TO NOT DAMAGE SLEEVE. B. REPAIR ANY DAMAGE FROM IMPROPER COMPACTION.

END OF SECTION

PART 1 - GENERAL

SECTION 32 8424 - IRRIGATION SYSTEM

1.1 DESCRIPTION A. PROVIDE A COMPLETE IRRIGATION SYSTEM INSTALLATION AS DETAILED AND SPECIFIED. THIS SHALL INCLUDE FURNISHING ALL LABOR, MATERIAL,

EQUIPMENT AND SERVICES NECESSARY TO PROVIDE COMPLETE

a. TRENCHING

b. BACKFILL c. AUTOMATIC CONTROLLED SYSTEM

INSTALLATION. WORK INCLUDES:

d. AS BUILT DRAWINGS

B. SLEEVING AS SHOWN SHALL BE FURNISHED BY THE GENERAL CONTRACTOR.

C. METER AND POWER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.

1.2 RELATED WORK

C. REFERENCE IRRIGATION PLANS FOR CONTROLLER, HEAD AND ALL VALVE

~ QUICK-COUPLING VALVE:

HUNTER MODEL HQ-3RC

FINISH GRADE/TOP OF MULCH

- PLASTIC VALVE BOX

WITH PURPLE COVER

PVC SCH 80 NIPPI F (LENGTH AS REQUIRED)

PVC MAINLINE PIPE

TOP OF MULCH

PVC FLEX HOSE OR SWING PIPE

LATERAL LINE WITH

PVC TEE OR ELL

- PVC STREET ELL OR

MALE BARBED ELBOW

MODEL: PROS-04-PRS30

NOZZLES (10a) OR STRIP

W/ PRO ADJUSTABLE

PATTERN NOZZI ES AS

INDICATED ON PLAN. *

PVC STREET ELL OR

1. MAY NOT BE USED IN LANDSCAPE AREAS LESS THAN FORTY-EIGHT INCHES

POP-UP SPRAY BODY OR POP-UP ROTOR

MALE BARBED ELBOW

BALL VALVE

PVC SCH 40 ELL

BRICK (1 OF 4)

SCH 80 NIPPLE

PVC SCH 40 TEE OR ELL

- SET HEAD FLUSH WITH FINISH GRADE

AND SCH 40 ELL

D. REFERENCE LANDSCAPE PLANS, NOTES, DETAILS FOR ADDITIONAL REQUIREMENTS.

2" x 2" REDWOOD STAKE W/

STAINLESS STEEL GEAR

CLAMPS OR EQUIVALENT

3-INCH MINIMUM DEPTH OF J

1. FURNISH NOMINALLY SIZED BALL VALVE WITHIN SAME BOX

TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

2. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL

3/4-INCH WASHED GRAVEL

AND PRIOR TO MAINLINE TEE.

QUICK COUPLING VALVE

SUPPORT SYSTEM

FDGF OF PAVING ·

PROS-04-PRS40 SPRAY BODY MIN.

MODEL AND PROS-04-PRS30

OR FACE OF WALL

MP ROTATOR USE

FOR SHORT RADIUS,

MP-800SR = 6' - 12'

MP-1000 = 8' - 15'

MP-2000 = 13' - 21

MP STRIPS

MP CORNERS

MP-3000 = 22' - 30'

LABELED AS: RXX

LABELED AS: XXR

(WHERE XX = DISTANCE OF

MPR-25, -30, OR -35 NOZZELS

(48") IN LENGTH OR WIDTH.

ROTORS USE PGP ULTRA

PGP-04-PRB MODEL W/

ROTATOR NOZZLES ARE

SPECIFIED AS FOLLOWS:

E. SECTION 32 9300 - LANDSCAPE

F. SECTION 32-8423 - UNDERGROUND IRRIGATION SLEEVE AND UTILITY CONDUITS

1.3 REFERENCE STANDARDS

A. AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) - LATEST

1.4 QUALITY ASSURANCE AND REQUIREMENTS

A. PERMITS AND FEES: THE CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS NECESSARY AND ALL OBSERVATIONS AS REQUIRED.

B. MANUFACTURER'S DIRECTIONS: MANUFACTURER'S DIRECTIONS AND DETAILED DRAWINGS SHALL BE FOLLOWED IN ALL CASES WHERE THE MANUFACTURERS OF ARTICLES USED IN THIS CONTRACT FURNISH DIRECTIONS COVERING POINTS NOT SHOWN IN THE DRAWINGS AND SPECIFICATIONS.

C. ORDINANCES, CODES, AND REGULATIONS: ALL LOCAL, MUNICIPAL AND STATE LAWS, AND RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. ANYTHING CONTAINED IN THESE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY OF THE ABOVE RULES AND REGULATIONS AND REQUIREMENTS OF THE SAME

D. HOWEVER, WHEN THESE SPECIFICATIONS AND DRAWINGS CALL FOR OR DESCRIBE MATERIALS. WORKMANSHIP. OR CONSTRUCTION OF A BETTER QUALITY, HIGHER STANDARD OR LARGER SIZE THAN IS REQUIRED BY THE ABOVE RULES AND REGULATIONS, THESE SPECIFICATIONS AND DRAWINGS SHALL TAKE PRECEDENCE.

1.5 SCHEDULE OF MATERIALS

A. MATERIALS LIST:

a. ALL EQUIPMENT MANUFACTURERS AND MODEL NUMBERS SHALL BE AS NOTED ON THE PLANS.

b. THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT MATERIALS, OR PROCESSES SPECIFIED BY NAME IN THE DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTION WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.

c. A COMPLETE MATERIAL LIST OF EQUIPMENT SHALL BE SUBMITTED BEFORE PERFORMING ANY WORK. SUBMITTAL SHOULD INCLUDE ALL MANUFACTURERS' SPECIFICATIONS AND LITERATURE FOR APPROVAL BY

THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. d. EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT MAY BE REJECTED.

e. APPROVAL OF ANY ITEM, ALTERNATE OR SUBSTITUTE INDICATES ONLY THAT THE PRODUCT OR PRODUCTS APPARENTLY MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ON THE BASIS OF THE INFORMATION OR SAMPLES SUBMITTED.

f. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.

1.4 RECORD AND AS BUILT DRAWINGS/SUBMITTALS

A. CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE AND COMPLETE

"AS-BUILT" RECORD SET OF PRINTS. B. CONTRACTOR SHOULD USE ALL SYMBOLS AND NOTATIONS CONSISTENT

PIPE FROM

POINT-OF-CONNECTION

WATERPROOF -

CONNECTORS (2)

18"-24" COILED WIRE

FILTER FABRIC - WRAP TWICE

AROUND BRICK SUPPORTS

3/4" WASHED GRAVEL - 4" MIN. DEPTH-

DRIP CONTROL ZONE KIT W/ ISOLATION VALVE

SCH. 80 CLOSE NIPPLE,

MATCH SIZE TO VALVE

IRRIGATION LATERAL

BRICK SUPPORTS (4)

PVC SLIP X MPT ADAPTOR -

TO CONTROLLER

PRESSURE

BACKFLOW **PREVENTER**

A HANNAMA HANNAN NA BARAN NA MAHAMAN NA BARAN TI HANNAN NA MANAN NA MANAN NA MANAN NA MANAN NA MANANA NA MANAN

2. INSTALL PER MANUFACTURE'S SPECIFICATIONS.

REDUCED PRESSURE ASSEMBLY

PVC MALE ADAPTER

1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH

3. INSTALL HUBBELL HOT BOX DROP OVER ENCLOSURE AND POLYMER CONCRETE

DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.

MOUNTING PAD FOR BACKFLOW DEVICE. PRODUCE LP010026023T.

IRRIGATION

MAINLINE

WITH THE ORIGINAL DRAWINGS. C. IN "AS-BUILT" DRAWINGS, CONTRACTOR SHALL LOCATE:

a. CONNECTION TO EXISTING WATER LINES

b. CONNECTION TO ELECTRICAL POWER

c. GATE VALVES d. ROUTING OF SPRINKLER PRESSURE LINES e. SPRINKLER CONTROL VALVES

f. QUICK COUPLING VALVES

g. OTHER RELATED EQUIPMENT

D. SUBMIT COMPLETED TRACINGS PRIOR TO FINAL ACCEPTANCE. DATE AND SIGN ALL DRAWINGS.

E. EQUIPMENT TO BE FURNISHED: a. SUPPLY AS PART OF THIS CONTRACT THE FOLLOWING TOOLS:

i. QUICK COUPLING KEYS, THREE (3) WITH BOILER DRAINS ATTACHED USING BRASS REDUCER.

ii. THREE (3) KEYS FOR EACH AUTOMATIC CONTROLLER b. THE ABOVE MENTIONED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER AT THE CONCLUSION OF THE PROJECT.

THE IRRIGATION CONTRACTOR SHOULD DEMONSTRATE THAT THE FINAL INSTALLED SYSTEM WILL OPERATE ACCORDING TO THE INTENT OF THE DESIGNED AND SPECIFIED SYSTEM. IRRIGATION CONTRACTOR SHALL GUARANTEE 100% COVERAGE TO ALL AREAS TO BE IRRIGATION.

1.5 MAINTENANCE AND GUARANTEE A. MAINTENANCE AND WORKMANSHIP SHALL BE GUARANTEED FULLY FOR

ONE (1) YEAR AFTER FINAL ACCEPTANCE.

B. PROVIDE MAINTENANCE OF SYSTEM, CLEANING AND ADJUSTMENT OF THE HEADS, FOR ONE (1) YEAR AFTER COMPLETION OF INSTALLATION. C. GUARANTEE IS LIMITED TO REPAIR AND REPLACEMENT OF DEFECTIVE

MATERIALS AND WORKMANSHIP, INCLUDING THE REPAIR OF BACKFILL

SETTLEMENT

1.6 TESTING A. PERFORM TESTING REQUIRED WITH OTHER TRADES INCLUDING EARTHWORK, PAVING, PLUMBING, ETC. TO AVOID CUTTING, PATCHING OR

B. WATER PRESSURE SHOULD BE FOUND PRIOR TO STARTING CONSTRUCTION. DETERMINE/CONFIRM THAT STATIC WATER PRESSURE IS MORE THAN THE WATER PRESSURE NEEDED FOR THE SYSTEM TO FUNCTION PROPERTY. IF STATIC PRESSURE IS LESS THAN THE DESIGN PRESSURE NEEDED, DO NOT START WORK UNTIL THE LANDSCAPE ARCHITECT IS NOTIFIED.

1.7 COORDINATION

A. COORDINATE INSTALLATION OF ALL PRODUCTS, INCLUDING EARTHWORK, PAVING AND PLUMBING

B. COORDINATE TO ENSURE THAT ELECTRICAL POWER SOURCE IS IN PLACE.

C. COORDINATE INSTALLATION WITH WORK SPECIFIED IN OTHER SECTIONS. D. COORDINATE WITH THE LANDSCAPE CONTRACTOR TO ENSURE PLANT MATERIAL IS UNIFORMLY WATERED IN ACCORDANCE WITH INTENT

PART 2 - PRODUCTS

2.1 MATERIALS

B. REFER TO CONSTRUCTION DRAWINGS AND NOTES.

C. SPRINKLER HEADS IN LAWN AREAS AS SPECIFIED ON PLAN

D. PVC PIPE: CLASS 200 SPR 21

SHOWN ON DRAWINGS.

E. COPPER TUBING (FOR CITY CONNECTIONS): TYPE "M"

F. 24V WIRE - SIZE 14, TYPE UF

G. ELECTRIC VALVES TO BE ALL PLASTIC CONSTRUCTION AS INDICATED ON

HUNTER REMOTE CONTROL

VALVE (ICV) WITH FLOW CONTROL

WATERPROOF

CONNECTORS (2)

18"-24" COILED WIRE ¬

SCH. 80 CLOSE NIPPLE, -

PVC SLIP X FPT ADAPTOR IRRIGATION LATERAL

SIZE PER RCV

BRICK SUPPORTS (4) -

FILTER FABRIC - WRAP TWICE _

AROUND BRICK SUPPORTS

3/4" WASHED GRAVEL - 4" MIN. DEPTH-

IN-LINE VALVE (ICV) WITH ISOLATION VALVE

TO CONTROLLER

H. REFER TO DRAWING FOR BACKFLOW PREVENTION LOCATION -COORDINATE EXACT LOCATION WITH THE GENERAL CONTRACTOR.

PART 3 - EXECUTION

COPPER MALE

(1 of 4)

(TYPICAL)

HUNTER REMOTE CONTROL VALVE

LID WITH 'RCV' IN 2" LETTERS

SCH. 80 CLOSE NIPPLE,

MATCH SIZE TO VALVE

RRIGATION VALVE BOX: HEAT STAMP

FINISH GRADE AT ADJACENT

SURFACE (TURF OR MULCH)

ISOLATION VALVE

AINLINE AND FITTINGS

(ICZ) WITH FILTER REGULATOR

ADAPTER (1 of 2)

3.1 INSPECTION:

A. SITE CONDITIONS: a. ALL SCALED DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CHECK AND VERIFY ALL SIZE DIMENSIONS b. EXERCISE EXTREME CARE IN EXCAVATING AND WORKING NEAR UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO UTILITIES WHICH ARE CAUSED BY ANY OF HIS OPERATIONS OR NEGLECT.

c. COORDINATE INSTALLATION OF IRRIGATION MATERIALS, INCLUDING PIPE, SO THERE SHALL BE NO INTERFERENCE WITH UTILITIES OR OTHER CONSTRUCTION DIFFICULTY IN PLANTING TREES, SHRUBS, AND GROUNDCOVERS. COORDINATE WORK WITH OTHER SITE CONTRACTORS.

3.2 PREPARATION

A. PHYSICAL LAYOUT:

a. PIPING AND HEAD LAYOUT AS SHOWN ON PLANS IS SCHEMATIC ONLY. ALL PIPES TO BE INSTALLED DIRECTLY BEHIND CURBS, WALKS AND WALLS WHEREVER POSSIBLE.

b. PRIOR TO INSTALLATION CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LINES, ROUTING AND LOCATION OF SPRINKLER HEADS. c. ALL LAYOUTS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

B. WATER SUPPLY:

a. IRRIGATION SYSTEM SHALL BE CONNECTED TO WATER SUPPLY POINTS OF CONNECTION AS INDICATED ON THE DRAWINGS b. CONNECTIONS SHOULD BE MADE AT APPROXIMATE LOCATIONS AS SHOWN ON DRAWINGS. CONTRACTOR SHALL VERIFY IN FIELD AND BE

RESPONSIBLE FOR MINOR CHANGES CAUSED BY ACTUAL SITE

CONDITIONS. 3.3 INSTALLATION

A. TRENCHING

a. DIG TRENCHES STRAIGHT 6" WIDE WITH NEAR VERTICAL SIDE AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. REMOVE LUMBER, RUBBISH, LARGE ROCKS ETC. FROM TRENCHES. LAY PIPE TO AN EVEN GRADE - WITH A FIRM, UNIFORM BEARING FOR ENTIRE LENGTH OF

b. REMOVE FOREIGN MATTER OR DIRT FROM INSIDE OF PIPE BEFORE WELDING AND KEEP PIPING CLEAN BY ANY MEANS POSSIBLE DURING AND AFTER LAYING OF PIPE.

c. PROVIDE A MINIMUM OF EIGHTEEN (18) INCHES OF COVER FOR ALL PRESSURE SUPPLY LINES.

d. PROVIDE A MINIMUM OF TWELVE (12) INCHES OF COVER FOR ALL NON-PRESSURE LINES.

e. PROVIDE A MINIMUM COVER OF EIGHTEEN (18) INCHES FOR ALL CONTROL WIRING.

f. NO MACHINE TRENCHING, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT, SHALL BE DONE WITHIN DRIP LINE OF EXISTING TREES. TRENCHING SHOULD BE DONE BY HAND, TUNNELING OR BORING OR OTHER METHODS APPROVED BY THE LANDSCAPE ARCHITECT. IT SHOULD BE UNDERSTOOD THAT PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND TREES AND SHRUBS IN SUCH A MANNER TO

AVOID DAMAGE TO PLANTS. B. BACKFILL

a. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL REQUIRED TESTS ARE PERFORMED. TRENCHES SHALL BE CAREFULLY BACKFILLED WITH THE EXCAVATED MATERIALS APPROVED FOR BACKFILLING, CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS, FREE FROM LARGE CLODS, STONES OR STICKS.

b. IF SETTLEMENT OCCURS AND SUBSEQUENT ADJUSTMENTS IN PIPE, VALVES, SPRINKLER HEADS, LAWN OR PLANTING OR OTHER

RRIGATION VALVE BOX: HEAT STAMI

ISOLATION VALVE

FINISH GRADE AT ADJACENT

SURFACE (TURF OR MULCH)

LID WITH 'RCV' IN 2" LETTERS

SIZE PER RCV

MAINLINE AND FITTINGS

- HUNTER DRIPLINE (HDL) PER PLAN

HUNTER DRIPLINE CONNECTION W/DRIPLINE

\ AND ELBOW

PLD OR PLD-LOC FITTING

MULCH PER

LANDSCAPE PLAN

AS REQUIRED

-HDL RISER - LENGTH

PLD OR PLD-LOC FITTING

PVC SUPPLY HEADER

SCH. 80 CLOSE NIPPLE,

CONSTRUCTION ARE NECESSARY, THE CONTRACTOR SHALL MAKE ALL REQUIRED ADJUSTMENTS WITHOUT THE COST TO THE OWNER.

TRENCHING AND BACKFILL UNDER PAVING:

a. ALL IRRIGATION MAIN LINE AND LATERAL LINES OR WIRING LOCATED UNDER AREAS WHERE PAVING, ASPHALTIC PAVING, OR CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES OF ADEQUATE SIZE. SEE SECTION 32 8423.

D. ASSEMBLIES

a. INSTALL ALL ASSEMBLIES SPECIFIED HEREIN IN ACCORDANCE WITH RESPECTIVE DETAILS. IN ABSENCE OF DETAIL DRAWINGS OR SPECIFICATIONS, PERFORM SUCH WORK IN ACCORDANCE WITH BEST STANDARD PRACTICES OR MANUFACTURER'S RECOMMENDATIONS AS APPROVED BY THE LANDSCAPE ARCHITECT.

b. MAKE SOLVENT WELDED JOINTS USING ONLY THE SOLVENT RECOMMENDED BY THE MANUFACTURER. PIPES AND FITTINGS SHOULD BE CLEANED OF ALL DIRT AND DUST AND MOISTENED BEFORE APPLYING

c. ON PVC TO METAL CONNECTIONS, THE CONTRACTOR SHALL WORK METAL CONNECTIONS FIRST. USE NON HARDENING PIPE DOPE OR TEFLON TAPE ON THREADED PVC ADAPTERS INTO WHICH PIPE MAY BE WELDED. LIGHT WRENCH PRESSURE IS ALL THAT IS REQUIRED. USE THREADED PVC ADAPTERS INTO WHICH THE PIPE MAY BE WELDED.

(6) INCHES FROM EACH OTHER AND FROM OTHER TRADES. PARALLEL LINES SHALL NOT BE DIRECTLY INSTALLED ONE OVER THE OTHER. F. WIRING: SUPPLY WIRE FROM THE AUTOMATIC CONTROLLER TO ALL THE VALVES. A SEPARATE WIRE IS REQUIRED TO EACH ELECTRIC VALVE. A COMMON NEUTRAL WIRE IS ALSO REQUIRED FROM EACH CONTROL TO

EACH OF THE VALVES. BUNDLE MULTIPLE WIRES AND TAPE THEM

E. LINE CLEARANCE: ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF SIX

TOGETHER AT TEN FOOT INTERVALS. EXPANSION COILS OF TEN INCHES SHALL BE INSTALLED APPROXIMATELY EVERY 100 FEET. MAKE ALL SPLICES WATERPROOF. G. AUTOMATIC CONTROLLER: INSTALL AS PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS, REMOVE CONTROL VALVES SHALL BE CONNECTED TO CONTROLLER IN NUMERICAL SEQUENCE AS SHOWN ON

STATION OF THE CONTROLLER.

H. REMOTE CONTROL VALVES:

SIZED ACCORDING TO THE DRAWINGS. b. INSTALL IN A LEVEL POSITION IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.

a. INSTALL WHERE SHOWN ON DRAWINGS AND DETAILS. VALVES SHALL BE

THE DRAWINGS. EACH REMOVE CONTROL VALVE SHALL BE WIRED TO ONE

c. WHEN GROUPED TOGETHER, ALLOW AT LEAST TWELVE (12) INCHES BETWEEN VALVES. INSTALL EACH REMOTE CONTROL VALVE IN A SEPARATE VALVE BOX. EACH VALVE NUMBER AND ITS CONTROLLER LETTER SHALL BE STENCILED INSIDE VALVE BOX TOP WITH EXTERIOR

I. FLUSHING OF SYSTEM:

4" MIN. CLEARANCE

PVC CAP (TYPICAL)

- PERMANENT MARKER -

1. ALL PVC IRRIGATION SLEEVES TO BE SCHEDULE 40 PIPE.

SLEEVE TO 24-INCHES MINIMUM ABOVE FINISH GRADE.

3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER

5. SLEEVE LOCATIONS SHALL BE MARKED ONTO THE TOP OF CURB WITH

A SAWCUT OF TWO PARALLEL LINES THAT ARE 2" LONG AND 1" APART.

2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT

IRRIGATION PVC SLEEVES

ECO INDICATOR

FINISHED GRADE

ADJACENT MULCH

PVC LATERAL PIPE

ECO INDICATOR- FLEX TUBING

4. MECHANICALLY TAMP TO 95% PROCTOR.

a. AFTER ALL NEW SPRINKLER PIPE LINES AND RISERS ARE IN PLACE AND CONNECTED, ALL NECESSARY WORK HAS BEEN COMPLETED, AND PRIOR TO INSTALLATION OF SPRINKLER HEADS, THE CONTROL VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM.

b. SPRINKLER HEADS SHALL BE INSTALLED ONLY AFTER FLUSHING OF THE SYSTEM HAS BEEN ACCOMPLISHED.

SPRINKLER HEADS: a. INSTALL HEADS AS DESIGNED ON THE DRAWINGS. MAKE APPROPRIATE ADJUSTMENTS TO HEAD LAYOUT TO ACCOMMODATE FOR ACTUAL FIELD

b. SPACING OF HEADS SHALL NOT EXCEED THE MAXIMUM INDICATED ON THE DRAWINGS. IN NO CASE SHALL THE SPACING EXCEED THE MAXIMUM

18" MAX

PVC CAP

RECOMMENDED BY THE MANUFACTURER.

REPLACE JOINT OR JOINS AND REPEAT TEST.

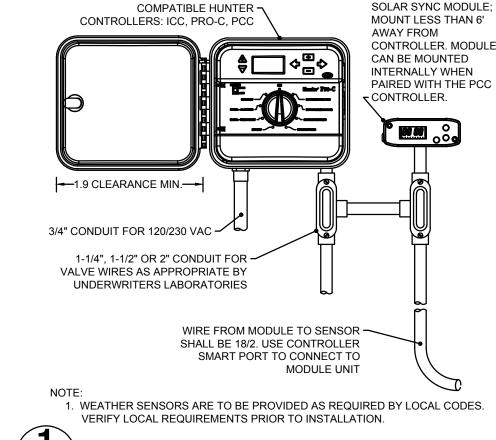
c. ALL SPRINKLERS TO ATTACH TO LATERAL LINES WITH FLEXIBLE CONNECTORS. REFERENCE DETAILS ON DRAWINGS.

A. THE CONTRACTOR SHALL TEST SPRINKLER MAIN FOR TWELVE TO FOURTEEN HOURS UNDER NORMAL PRESSURE. IF LEAKS ARE PRESENT,

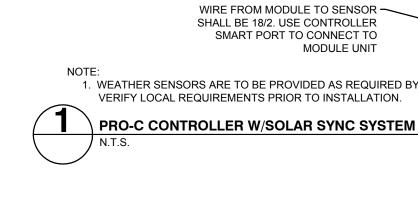
B. A COMPLETE TEST SHALL BE MADE PRIOR TO BACKFILLING. BACKFILLING MATERIALS MAY BE PLACED IN TRENCHES IN LIFTS TO ENSURE STABILITY OF THE LINE UNDER THE PRESSURE OF BACKFILL. IN EACH CASE, LEAVE FITTINGS AND COUPLINGS OPEN TO VISUALLY INSPECT FOR FULL PERIOD

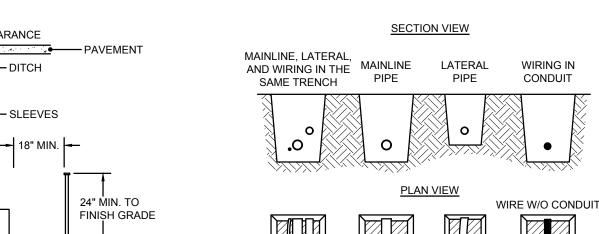
C. WHEN SYSTEM IS COMPLETE, A COVERAGE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. IT SHALL BE DETERMINED IF THE WATER COVERAGE FOR ALL PLANTING AREAS IS COMPLETE AND ADEQUATE. FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE.

D. UPON COMPLETION OF EACH PHASE OF WORK, THE ENTIRE SYSTEM SHOULD BE TESTED AND ADJUSTED TO MEET SITE REQUIREMENTS.



SOLAR SYNC MODULE



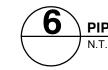


RUN WIRING BENEATH ALL SOLVENT WELD $^{m{J}}$ TIE A 24-INCH LOOP IN ALL WIRING AND BESIDE MAINLINE. PLASTIC PIPING TO AT CHANGES OF DIRECTION OF 30° TAPE AND BUNDLE AT BE SNAKED IN OR GREATER. UNTIE AFTER ALL 10-FOOT INTERVALS. TRENCH AS SHOWN. CONNECTIONS HAVE BEEN MADE

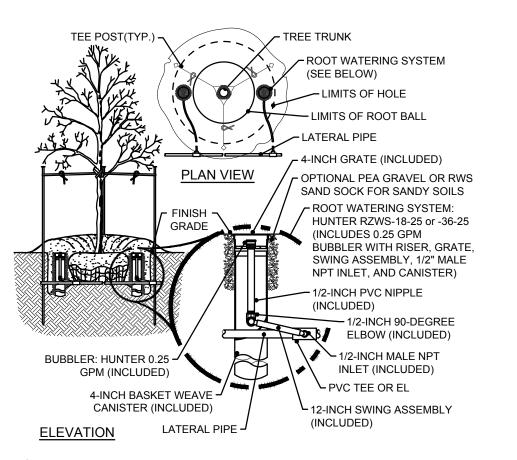
1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCH 40 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.



2. FOR PIPE AND WIRE BURIAL DEPTHS, SEE SPECIFICATIONS. MINIMUM - 12" 3. BACKFILL AND COMPACT TRENCHES TO ORIGINAL GRADE.

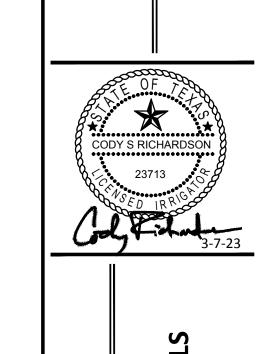


PIPE AND WIRING TRENCHING



TREE ROOT WATERING SYSTEM

P.O. Box 1746 Aledo, Texas 76008 manda@awr-designs.com



BRYAN, AVE, BRYAN, 05

SHEET NO.

L2.02