



EDINBURG CISD

411 N. 8th Ave., Edinburg, TX 78541
(956) 289-2300

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DOMINGA "MINGA" VELA, Member
Dr. Mario H. Salinas, Superintendent

**ADDENDUM 1
CSP 23-96
NEW ADMINISTRATION PARKING LOT & IMPROVEMENTS
June 6, 2023**

I. INSTRUCTIONS:

- A. The following changes, omissions or alterations to the specification and drawings shall be made insofar as the specifications and drawings are inconsistent with following, this addendum shall govern.
- B. Acknowledge receipt of this addendum by inserting its number and date of issue in the place provided for same in the proposal. This addendum forms a part of the Contract Documents.
- C. It is imperative that this addendum be inserted INTO set of specifications.

II. SEE ADDENDUM BELOW:

PLEASE SEE ATTACHED

Respectfully Submitted,

Amaro Tijerina
Director of Purchasing

(Signature of authorized officer)

Date

Company Name

Nondiscrimination Statement

It is the policy of Edinburg CISD not to discriminate on the basis of gender, age, handicap, religion, race, color, or national origin in its educational programs.
Es poliza del Distrito Escolar de Edinburg el no discriminar por razones con base en genero, edad, religion, raza, color origen nacional, ni discapacidad dentro de sus programas educacionales.

EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT
PROJECT 23-96 NEW ADMINISTRATION PARKING LOT & IMPROVEMENTS

BID OPENING: Wednesday, June 7, 2023 @ 3:00 p.m.
Edinburg CISD
Office of the Purchasing Coordinator
411 N. 8th Ave., 2nd Floor
Edinburg, TX 78541

ADDENDUM NUMBER ONE (1)

Changes to the bid package are as follows:

Plans –

1. Plan sheets 16 thru 18 are replaced with revised plan sheets 16 thru 19. The details on plan sheet 16 were modified and an additional plan sheet, new plan sheet 17, was added to the “Miscellaneous Details” and previous plan sheet numbers 17 and 18 became 18 and 19. Please replace same in your bid documents.
2. Plan sheets ES-1.0 and E-2.6 have been revised to accommodate the addition of 1 additional traffic barrier gate to the northeast entrance to the parking lot. Please replace same in your bid documents.
3. Plan sheets L1 thru L12 are added to the bid package for the construction of landscape and irrigation improvements to the project. Please replace same in your bid documents.
4. Plans Cover Sheet has been revised to add the Landscaping plan sheets to the index of sheets. Please replace same in your bid documents.

Specifications –

5. Landscape & Irrigation specifications have been added to the project to go along with the landscape and irrigation improvements plans.

Miscellaneous

6. Bidders/Contractors are alerted to the fact that badging Identification may be required on the property. If it becomes necessary to follow the District's badging and background checks that are typically required for campus

environments where/when children are present, vendor will be responsible for following all District instructions in completing this process.

7. Bidders/Contractors shall include a \$125,000.00 betterment allowance to be included as a part of the base bid price. This betterment allowance includes an estimated cost for plant materials and labor associated with such work.

All other conditions and requirements in the plans and specifications remain unchanged.



Ramiro Gutierrez, P.E.

Date: 06/06/2023

KEY NOTES:

- APPROXIMATE LOCATION OF EXISTING PARKING LOT LIGHT POLE. LIGHT POLE WILL BE DEMOLISHED. RETURN TO OWNER OR DISCARD AT THE OWNER'S REQUEST.
- EXISTING LIGHT POLE TO REMAIN. LIGHT POLE IS SHOWN FOR REFERENCE PURPOSES ONLY.
- BRANCH CIRCUIT WILL CONSIST OF 2 SETS OF 2#6, 1#10 EGC, 1" CONDUIT.
- FURNISH AND INSTALL NEW LIGHT POLE. BRANCH CIRCUIT WILL CONSIST OF 1 SET OF 2#6, 1#10 EGC, 1" CONDUIT. CONNECT LIGHT POLE TO EXISTING LIGHT CIRCUIT.
- OPEN CUT EXISTING ASPHALT; CONTRACTOR BACKFILL WITH EXISTING SOIL UP TO 14" BELOW SURFACE. REPAIR WITH 12-INCHES OF CALICHE AND 2-INCHES OF HOTMIX.
- FURNISH AND INSTALL THE FOLLOWING:
 6.1. 4 SETS OF 2 #6, 1 #10 EGC, 1" CONDUIT TO FEED THE 2KVA TRANSFORMERS.
 6.2. QTY. (4) SEPARATE 2" CONDUITS FOR TELECOMMUNICATION WITH PULL STRINGS TO EACH TRAFFIC BARRIER.
- FURNISH AND INSTALL A 3KVA, BUCK-BOOST AUTOTRANSFORMER, ENCAPSULATED, 208-VOLT SINGLE PHASE TO 230 VOLT SINGLE PHASE TRANSFORMER, MANUFACTURER - JEFFERSON ELECTRIC, ENCAPSULATED, FOR TRAFFIC BARRIER.
- FURNISH AND INSTALL TRAFFIC BARRIER EQUAL TO LIFTMASTER MODEL #MAT; REFER TO DETAIL FOR EQUIPMENT DIMENSIONS. INSTALL ON A 4.5'W X 6' L X 6" ABOVE GRADE WITH 1-FOOT EXTERIOR GRADE BEAM CONCRETE PAD. FURNISH 3000 PSI CONCRETE WITH #4 REBAR CENTERED AT 18" ABOVE GRADE AND 2#6 REBAR, CENTERED ALONG THE PERIMETER GRADE BEAM.

ADDENDUM:

- 1.1. ADD THE SOUTH TRAFFIC BARRIER TO THE PLAN. REFLECT THE LOCATION OF THE TRAFFIC BARRIER.
- 1.2. ADD ANOTHER BRANCH CIRCUIT. ONE SET TO REPRESENT THE RUN TO THE TRAFFIC BARRIER.

Professional Engineer & Land Surveyor
 License No. 174,305 - Electrical
 License No. 174,305 - Land Surveying
 J. Gutierrez

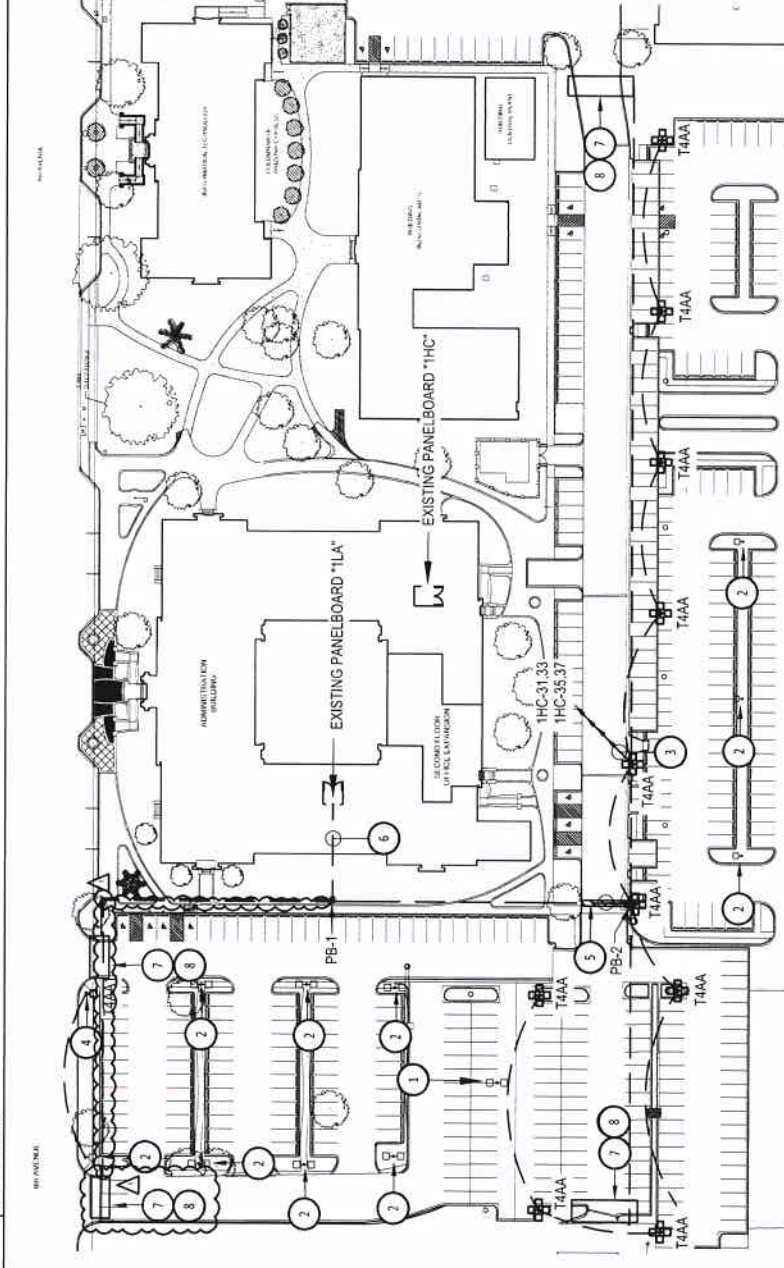


Signature: *José Antonio Nicanor*
 Date: 05-23-2023
SIGMA INI

TYPE Form No. E-507
 1/2" = 1'-0" (Scales)
 Modulus, Polypropylene

TYPE	MANUFACTURE	MODEL NUMBER	LUMENS (LM)	WATTS (W)	TEMPERATURE (K)	VOLTAGE (V)	MOUNTING	ADDITIONAL COMMENTS & REQUIREMENTS
T4AA	ASHTON	ASHTON P-150K-85 HOVOT RPA	28000	179	4000	480	POLE MOUNTED	
T4AA	ASHTON	ASHTON P-150K-85 HOVOT RPA	28000	154	4000	480	POLE MOUNTED	

2 LIGHT FIXTURE SCHEDULE
 SCALE: N.T.S.

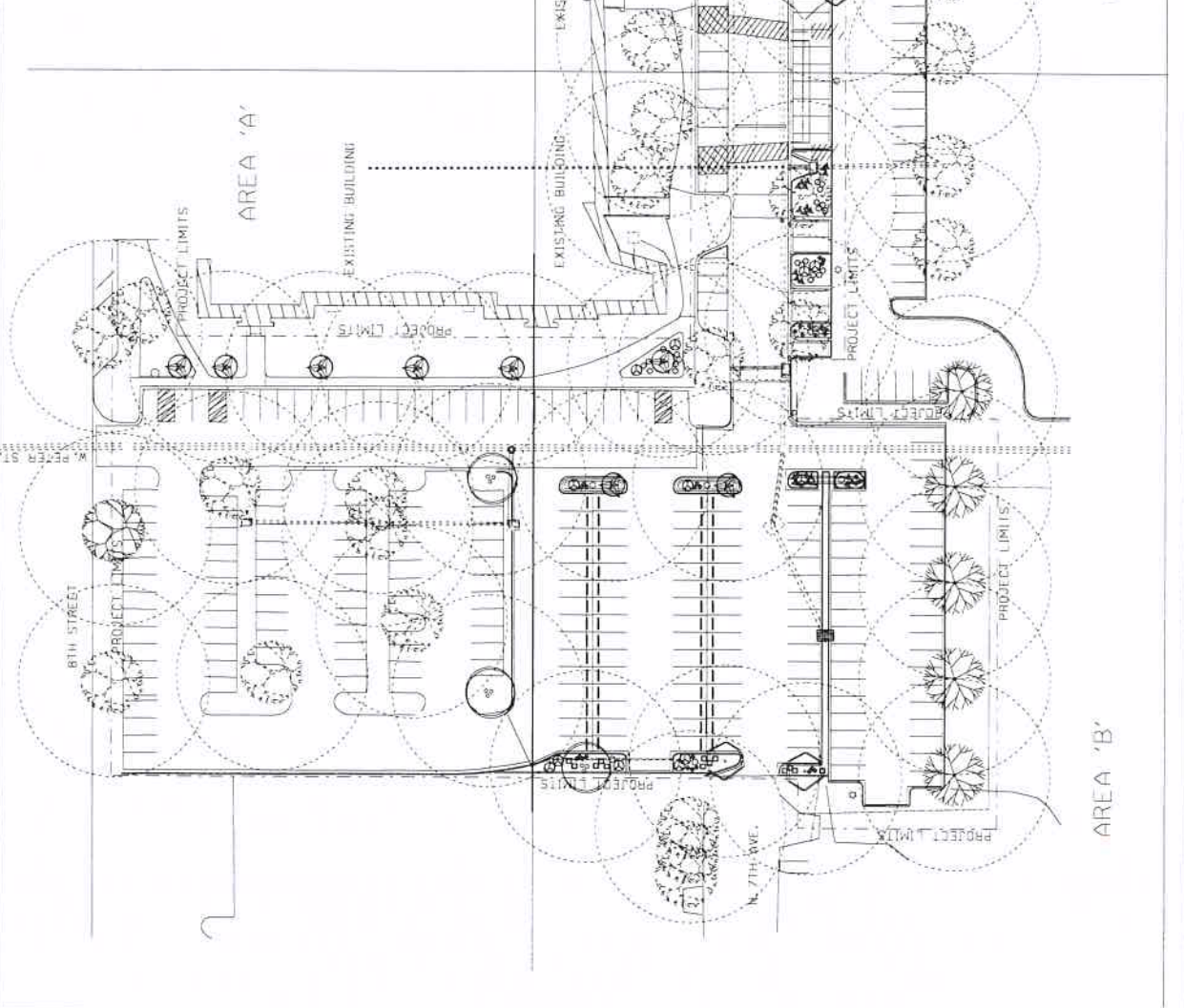


1 SITE LIGHTING PLAN
 SCALE: 1" = 80'-0"

http://dss2/cityofedinduburg.com/government/codes_of_business/city_charter/index.php
 ARTICLE 10 LANDSCAPING AND TREE PROTECTION
 CITY OF EDINBURG LANDSCAPE DRD INDEANCE REQUIREMENTS

TOTAL SQ/FT OF DEVELOPMENT	148,615 SQ/FT
TOTAL LANDSCAPE AREA PROVIDED	3.41 ACRES
TOTAL LANDSCAPE AREA PROVIDED (GRASS AND PLANT BEDS)	12,429 SQ/FT
TREE REQUIREMENT (28 EXISTING, 21 PROPOSED)	49 TOTAL TREES
37.5 PARKING SPACES / 8 = 47 TREES MIN.	
TOTAL IRRIGATED AREAS*	.285 ACRE

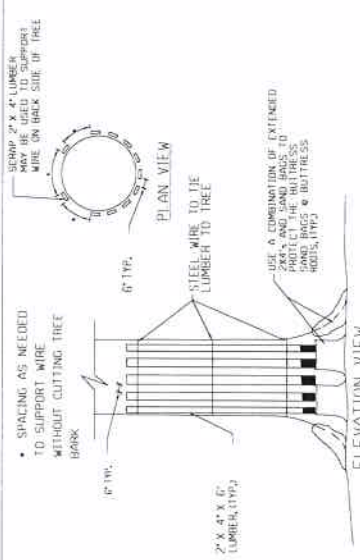
Design Criteria	NO	CITY OF EDINBURG LANDSCAPE CITY CODE ARTICLE 10.6.14
Climate		
Zone		
Water availability		
Soil type		
Shade		
Wind		
Soil pH		
Microclimate		
Low Area Percentage		
Undeveloped property		
Irrigation system		



EDINBURG CISD
NEW ADMINISTRATION
NEW PARKING LOT AND IMPROVEMENTS

SCALE: 1" = 60'
 DATE: 08/20/2023
 SHEET: L1

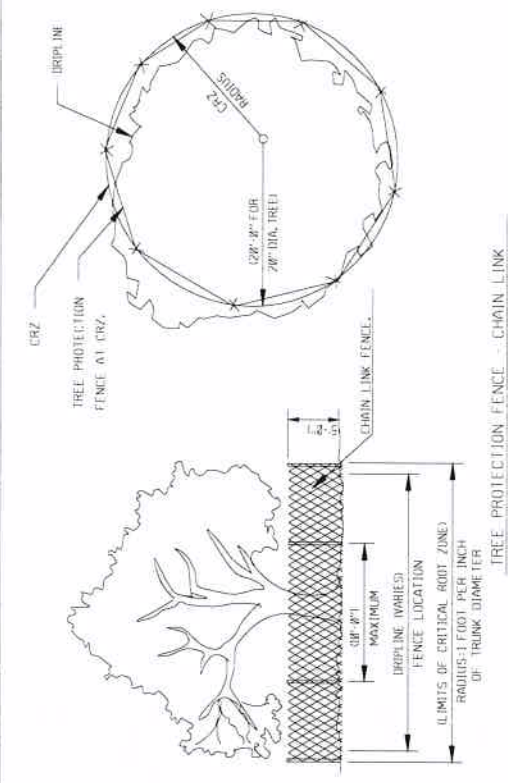
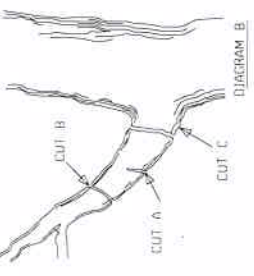
Professional Engineers & Land Surveyors
 102 PARK AVENUE - PARKERS TEXAS 77057
 TEL: 281-485-1234 FAX: 281-485-1235
 P.O. BOX 403



- NOTE 5:
- THIS TREE BUMPER DETAIL SHALL BE USED WHEN AN EXISTING TREE TO BE PROTECTED.
 - ALL TREES SHALL BE SAVED UNLESS NOTED OTHERWISE ON THE PLANS OR DIRECTED BY THE OWNER.
 - LUMBER, WIRE, AND SANDBAGS MAY BE REUSED AT OTHER TREES.
 - THE INTENT OF THIS DETAIL IS TO PROTECT EXISTING TREES FROM DAMAGING CONSTRUCTION ESPECIALLY FROM BACKSIDE ARM SWING, AN ALTERNATE APPROACH MAY BE USED IF APPROVED IN WRITING BY THE OWNER AFTER CONSULTATION WITH THE CITY ARBORIST OR HIS DULY AUTHORIZED REPRESENTATIVE.

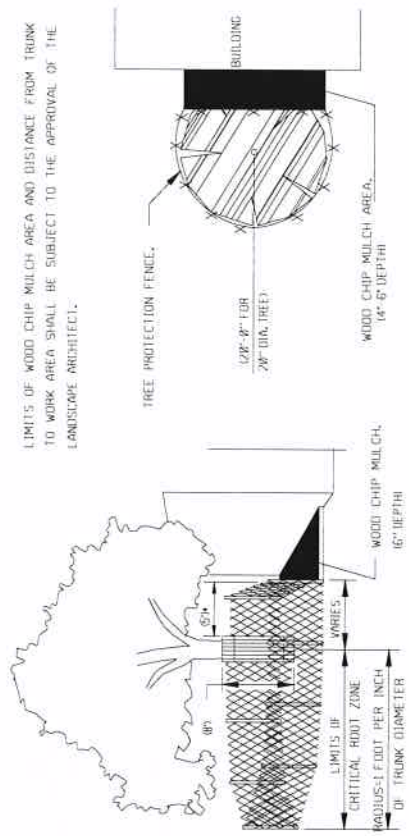
TEMPORARY TREE PROTECTION DETAIL

EXISTING TREES, SHRUBS OR OTHER LANDSCAPE FEATURES INDICATED BY THE OWNER FOR PRESERVATION AND PROTECTION AS INDICATED IN THE PLANS AND/OR AS DIRECTED BY THE OWNER SHALL BE PROTECTED AND MAINTAINED. THIS PROTECTION WORK SHALL BE CONSIDERED SUBORDINARY TO THIS CITY'S ACCEPTABLE FENCING MATERIAL FOR TREE PROTECTION SHALL BE 1 1/2" PLUGS 40" H & 1 1/2" X 1 1/2" X 1 1/2" NEW ORANGE COLOR AS MANUFACTURED BY WEATHERSHIELD, 3800 W. CHANCE AVE., APOPKA, FLORIDA, 32708, (407) 881-3592, OR APPROVED EQUAL. ALL TREES TO BE PRESERVED ARE NOT NECESSARILY SHOWN ON THE PLANS.



TREE PROTECTION FENCE - CHAIN LINK

LIMITS OF WOOD CHIP MULCH AREA AND DISTANCE FROM TRUNK TO WORK AREA SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.



*AS NEEDED TO PROVIDE NECESSARY WORK SPACE, IF LESS THAN 5', THEN ADD BOARDS STRAPPED TO TRUNK.

TREE PROTECTION FENCE (MODIFIED) - CHAIN LINK

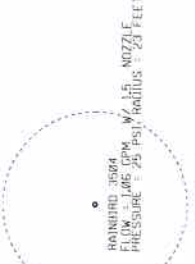
LEGEND

- ☒ 1" WATER METER
- ☒ 1" BP BACKFLOW PREVENTION DEVICE WITH GUARDSHACK ENCLASURE (SEE GENERAL NOTES)
- ☒ BACKFLOW TO BE INSULATED BY A BACKFLOW COVER RATED AT 600 MIN.
- ☒ 1" MAIN SHUT-OFF VALVE
- ☒ HAINBIRD PEB 1" - 2" ELECTRIC REMOTE CONTROL VALVE
- ☒ 100-PGA, 150-PGA & 200 PGA
- ☒ WEATHERMATIC OVR/RL QUICK COUPLING VALVE
- ☒ HAINBIRD ESP-LX IRRIGATION CONTROLLER TWO WIRE SYSTEM W/48 STATIONS EXPANDABLE WITH WALL MOUNT METAL CABINET, RAIN-CLICK RAIN SENSOR AND VALVE DECODERS LOCATION TO BE AT THE MECHANICAL ROOM (BUILDING NUMBER) & FINAL LOCATION WITH OWNER
- ☒ MATCH LINE A-A

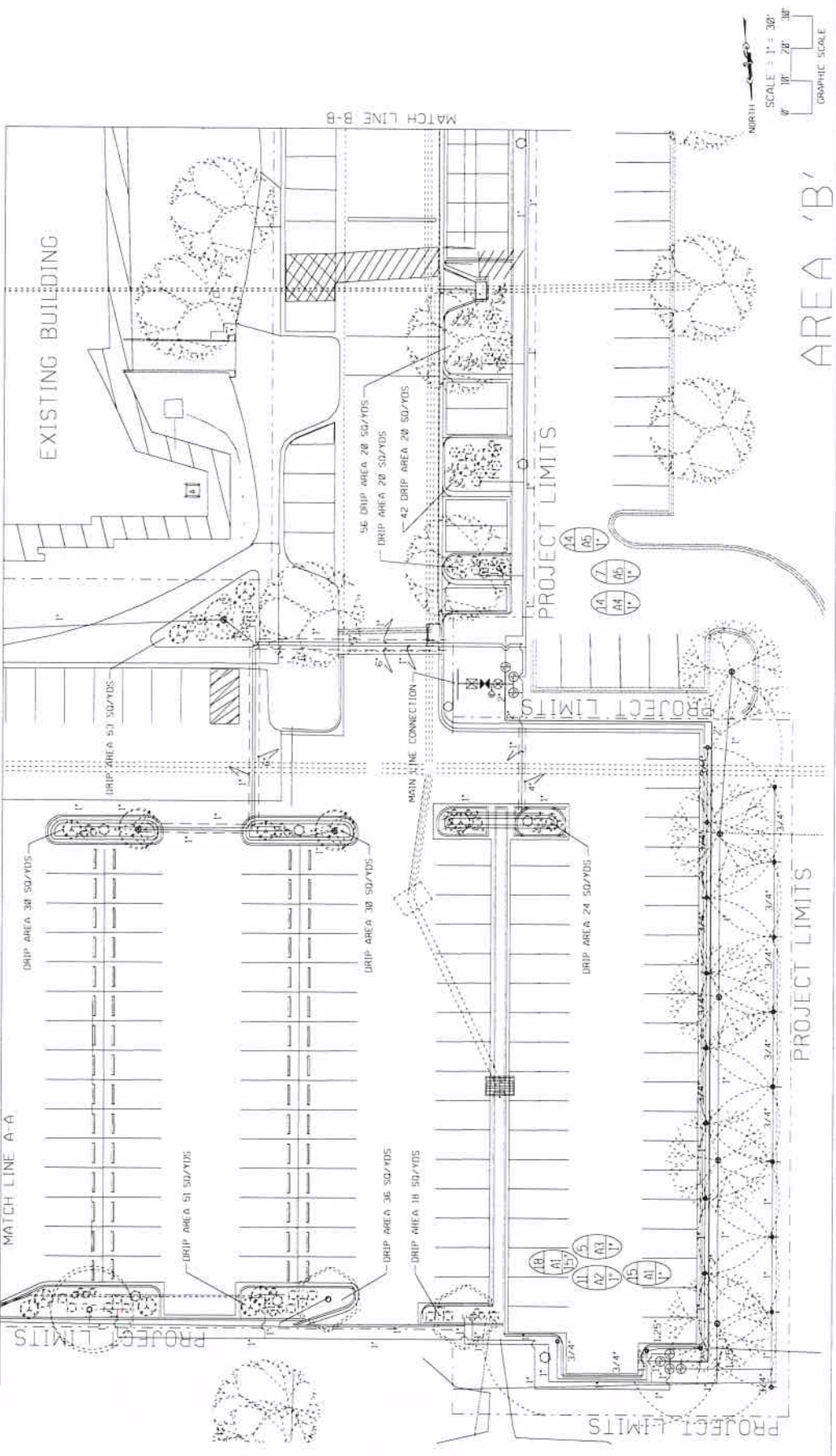
- CITY MAIN
- MAINLINE PIPE: CLASS 2000 PVC (2" INCH SIZE)
- LATERAL PIPE: CLASS 2000 PVC (SIZED AS SHOWN)
- (ZB) INDICATES LATERAL DISCHARGE IN GPM
- (AI) INDICATES CONTROLLER AND CONTROLLER STATION NUMBER
- (V) INDICATES REMOTE CONTROL VALVE SIZE

○ RUBBER GPM AT EACH TREE WELL (GPM EQUAL)

NAME	GPM
LIVE OAK	30
BUR OAK	30
HORN Y. ACACIA	30
DESERT WILLOW	30
CRAPPE MYRTLE	30



PROPOSED OR EXISTING TREE



EDINBURG CISD
NEW ADMINISTRATION
NEW PARKING LOT AND IMPROVEMENTS

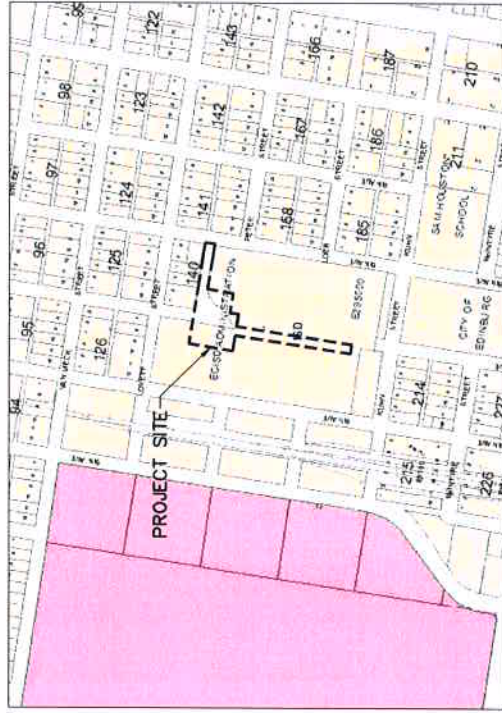
Professional Engineers & Land Surveyors
REG. NO. 15210, P.A.S. 15210
REG. NO. 15210, P.A.S. 15210

REVISION	DATE	BY

CHECKED BY: S.M.
PREPARED BY: S.M.
DRAWN BY: S.M.
SCALE: 1" = 30'
DATE: JUNE 2023

SHEET L10

EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT NEW ADMINISTRATION PARKING LOT AND IMPROVEMENTS



CIVIL	SHEET TITLE
C-1	TITLE SHEET
C-2	GENERAL NOTES
C-3	EXISTING CONDITIONS
C-4	DEMOLITION PLAN
C-5	DIMENSION PLAN
C-6-8	PROPOSED GRADING
C-9	PAVEMENT MARKING & SIGNAGE PLAN
C-10	EROSION & SEDIMENT CONTROL PLAN
C-11	PAVEMENT IMPROVEMENT
C-12	PROFILE A
C-13	PROFILE B & C
C-14	PROFILE D
C-15	PAVEMENT DETAIL
C-16-17	MISCELLANEOUS DETAILS
C-18	ADA DETAIL
C-19	EROSION CONTROL DETAIL

ELECTRICAL	SHEET TITLE
E-0.0	ELECTRICAL GENERAL NOTES
E-0.1	ELECTRICAL SPECIFICATIONS
ES-1.0	ELECTRICAL SITE PLAN
E-2.0	ELECTRICAL DETAILS
E-2.1	ELECTRICAL DETAILS
E-2.2	ELECTRICAL DETAILS
E-2.3	ELECTRICAL DETAILS
E-2.4	ELECTRICAL DETAILS
E-2.5	ELECTRICAL DETAILS
E-2.6	ELECTRICAL SCHEDULE & GENERAL LEGEND

LANDSCAPING	SHEET TITLE
L1 - L12	LANDSCAPE & IRRIGATION PLANS


R. Gutierrez
Professional Engineers & Land Surveyors
 Engineering Corporation
 130 E. PARK AVENUE • PHARR, TEXAS 78577
 (TEL) 956 782-2557 • (FAX) 956 782-2558
 FIRM No. 486



200 S.W. AVENUE, SUITE 100
 PHARR, TEXAS 78577
 R. GUTIERREZ, P.E. (0488)
 LICENSED PROFESSIONAL ENGINEER
 STATE OF TEXAS
 AUTHORITY TO SEAL
 EXPIRES 12/31/2018
 THE TEXAS BOARD OF PROFESSIONAL ENGINEERS
 HAS REVIEWED THIS DOCUMENT AND DETERMINED
 THAT IT COMPLIES WITH THE REQUIREMENTS OF THE
 PROFESSIONAL ENGINEERING ACT.

32 80 00 - UNDERGROUND IRRIGATION SYSTEM**32 81 00 - Irrigation Components****32 84 00 - Planting Irrigation****32 84 13 - Drip Irrigation****32 84 23 - Underground Sprinklers**

This project includes an irrigation system with electric controllers and valves. It shall be the Contractor's responsibility to program and maintain the system so that the minimum watering requirements are met. In the event the irrigation system fails, the Contractor shall meet the watering requirements by a method approved by the owner. The cost of water used by the automated irrigation system for this Item shall be paid for by the owner.

The drawings are generally diagrammatic and indicative of the work to be installed. Due to the scale of the drawings, it is not possible to indicate all offsets, fittings, and sleeves, which may be required. The Contractor shall carefully investigate the site conditions affecting all work and shall plan his work accordingly, furnishing such offsets, fittings, and sleeves as may be required to meet site conditions.

The Contractor shall not willfully install the irrigation system as shown on the drawings when it is obvious in the field that obstructions, grade differences or discrepancies in area dimensions exist that might not have been known the owner. Such obstructions or differences should be brought to the attention the owner who will recommend necessary changes. This work shall be considered incidental to the project. In the event this notification is not performed, the Contractor shall assume full responsibility for any revisions necessary.

The Contractor shall field verify dimensions and minimum 55 PSI static water pressure at each meter before trenching, if discrepancies exist, notify the owner before proceeding. If the Contractor fails to verify pressures, he assumes full responsibility and costs for any system alterations.

A copy of the complete project and all additional project information shall be with the irrigation Contractor at all times. The Contractor must coordinate his installation activities and the site needs with the general Contractor.

All necessary boring for electrical work and water sleeves shall be subsidiary to this item.

Sleeving material to be installed by the Contractor.

Use of sleeves for all roadway crossings shall be required.

Materials:

All irrigation system utility meters, for billing purposes only, shall be applied for by the Contractor in the name of the owner. The Contractor shall be responsible for paying the cost of all meters, taps, installation, and any fees or other costs associated with the utility meters. The owner will be responsible only for the cost of the water and electricity used on this project to operate the irrigation system.

Any water hauled to the site during the installation of a ninety (90)-day maintenance period shall be paid by the Contractor.

Above ground pipe. All aboveground pipe and buried risers and swing-joint components shall be schedule 40 PVC pipe rated for direct sunlight exposure.

1. Underground pipe. All underground pipe shall be domestic extruded pipe manufactured from PVC 1120, Type I, grade I, PVC compound. The pipe shall be SDR 13.5, 315, for all 1/2", pipe and SDR 21, Class 200 for all other sizes, pressure rated with twin gasket couplings and fittings or slip type solvent welded joints. All fittings incorporated into the system shall be of the same type and class material as the pipe. All fittings shall be regularly manufactured parts (reducers, bushings, and other appurtenances), intended for use with the aforementioned materials. All pipe and fittings shall conform to ASTM D-1784 and shall be marked in accordance with ASTM D-2241.
2. Remote control valves. All remote-control valves shall be as indicated in the plans or approved equal in the sizes indicated on the plans. The Contractor shall furnish valve data to the owner for approval prior to beginning the work.
3. Water meter. Water meter shall as specified in the plans.
4. Valve boxes. All gate valves, remote control valves, and quick coupling valves shall be mounted below grade in Ametek or approved equal valve boxes. Minimum size of any box shall be ten (10) inches and shall be installed with the top flush with finished grade. No more than one (1) valve is to occupy the same box to allow easy access for maintenance operations as determined by the owner.
5. Rotary and pop-up heads and spray heads: irrigation heads on this system shall as shown in the plans, or approved equal. The Contractor shall furnish head data to the owner for approval prior to beginning the work.
6. Miscellaneous Fittings. The Contractor shall furnish all other fittings and appurtenances necessary to complete the system.
7. Irrigation Controller. The contractor shall as specified in the plans.
8. Control wire. All low voltage control wire shall be 14 ga. Color coded and specifically manufactured for direct burial. All wire connections and splices shall be made with waterproof compression clamps covered with scotch fill and coated with Scotch Kote, or an approved equal.

SECTION 02810 Underground Irrigation System

13. Backflow prevention devices. Backflow shall as specified in the plans.

Example: FEBCO PVB (2") or an approved equal

11. Solvent cement. Solvent cement shall be the type recommended by the pipe manufacturer.

Installation method

1. Excavation and backfilling. The Contractor shall do all necessary excavating and backfilling required for the proper installation of the pipe and other irrigation equipment. Excavation depth and pipe location shall be in strict accordance with the dimensions and notes on the plans. Deviations in the piping as shown on the plans shall not be permitted without approval, in writing, from owner. Minor adjustments to the layout that may be necessary to avoid unforeseen underground obstructions may be made by the Contractor so long as they are recorded on the field drawings and incorporated into the "as-built drawings" described hereinafter.

- (a) Trench excavation. Trench excavation shall follow, as much as possible, the layout indicated on the drawings. Dig trenches straight and support pipe continuously on bottom of trench. Lay pipe to an even grade. Trench shall be clean and smooth with all organic debris and sharp objects removed. Trench depths shall be as shown on the plans.

Pipe shall be snaked in the trench, with scheduling facing up for clear inspection by the owner and in order to allow for expansion and contraction. Solvent weld pipe shall not be installed when air temperature is below forty (40) degrees Fahrenheit. Plastic pipe shall be cut with a handsaw, hacksaw, or other cutter, in a manner that will insure a square cut. Burrs at cut ends shall be removed prior to installation so that a smooth unobstructed flow will be obtained. Plastic to plastic joints shall be made following manufacturer's recommendations.

All main and lateral lines are to be pressure tested and inspected by the owner prior to any backfilling.

- (b) Depth of Cover. Irrigation mains shall have a minimum of eighteen (18) inches of cover, and lateral lines shall have a minimum cover of twelve (12) inches of soil.
- (c) Backfill. All backfill material shall be free of sharp rock, large stones, or other materials that could damage the pipe during the backfilling operation.

Backfilling shall not be done in freezing weather except with written approval of the owner. The site of the work shall be continuously cleared of excess and/or waste materials as the backfilling progresses, and shall be left in a workmanlike condition to the

satisfaction of the owner. In order to prevent accidental injury, any open trenches shall be covered or clearly flagged to the owner's satisfaction.

- (d) **Compaction of Backfill.** All trenches shall be backfilled in lifts of no more than twelve (12) inches and then compacted by an approved method. Compaction of the pipe trenches must be sufficient to limit short term settling of the backfill to no more than one-tenth (0.10) of a vertical foot. The Contractor shall be responsible for correcting any settling greater than this without additional compensation.
2. **Installation of Spray Heads.** All spray heads shall be installed in accordance with the details in the drawings. All heads shall only be installed on the risers after the system has been thoroughly flushed to remove all soil and trash that may have accumulated in the lines during the installation.
3. **Installation of Valves.** All valves, remote, electric, or manual, shall be installed in accordance with the details in the drawings and in an approved valve box which shall reach to at least two (2) inches below the bottom of the valve. A minimum of eighteen (18) inches of extra control wire shall be coiled below the valve in the valve box.
4. **Installation of Control Wire.** All low voltage control wire shall be laid in the pipe trenches below the pipe. Any wire that cannot be installed directly in a pipe trench shall be placed in a minimum two (2) inch conduit over its entire run. All wire runs shall be continuous lengths. No splices shall be made in the trench. Any wire splices that are required shall be made at the valves using waterproof materials specified herein.
5. **Installation of controllers.** Controllers shall be installed in accordance with the drawings and details. The location of the controllers shall be as shown on the plans. Adjustment of the location may be necessary to meet unforeseen site conditions. Should relocation be necessary the Contractor shall contact the owner immediately and the owner will work with the Contractor to establish the final location. Such a relocation shall be considered an incidental change, and there will be no additional compensation.
6. **Installation of water meters and backflow preventers.** If required, Water meters and backflow preventers shall be installed in accordance with the drawings and details. The location of water meters and backflow preventers shall be as shown on the plans. Adjustment of the location may be necessary to meet unforeseen site conditions. Should relocation be necessary the Contractor shall contact the owner immediately and the owner will work with the Contractor to establish the final location. Such a relocation shall be considered an incidental change and there will be no additional compensation.
10. **Project supervision.** The Contractor shall continuously maintain a competent superintendent, licensed by the State of Texas as an irrigator and satisfactory to the owner, on the site during all construction operations. The superintendent shall be able to make decisions and direct the work

SECTION 02810 Underground Irrigation System

as the representative of the Contractor. It shall be the responsibility of the superintendent to notify the owner of work accomplished at least forty-eight (48) hours in advance of required onsite inspections and to maintain a set of plans on the site at all times on which all field adjustments or deviations from the drawings are to be recorded for the preparation of the as-built drawings. The field plans shall at all times be available for the inspection of the owner.

Guarantee and acceptance

1. Maintenance Period. The irrigation system shall be inspected concurrently with, and subject to the same 180-day maintenance period required by the owner. During the 180-day maintenance period, the Contractor shall perform the following maintenance activities as a minimum and to the satisfaction of the owner:
 - (a) Install and maintain the controller program to insure the proper distribution of water.
 - (b) Inspect, repair, and/or replace any equipment that is found to be defective or that may be damaged by other maintenance activities.
 - (c) Make any adjustments that may become necessary to insure the proper delivery of water to the plant material.
2. As-built Drawings. Upon completion of the 90-day maintenance period, the owner will make an inspection of the project at this time. The Contractor shall furnish the owner a set of as built drawings on reproducible film base sheets prepared by a qualified draftsman. The owner will check these base sheets to be sure they are a true reflection of the project conditions and will direct the Contractor to correct any errors that are found. The drawings shall show all valve locations by triangulation from a fixed object and any change to sprinkler head location and rerouting of main and lateral lines. Any changes of this nature shall be approved by the owner prior to installation.
3. Operating and maintenance data. The Contractor shall provide instructions covering full operation, care and maintenance of the equipment, including a schedule showing length of time each valve is to be open to provide determined amount of water and instruct the owner's designated personnel in proper operation of the system.
4. Test. Testing of the system for leakage shall be in accordance with the local plumbing codes. The Contractor shall also test and assure the proper electrical working order of the system to the satisfaction of the owner. The Contractor shall set the valve sequence as directed by the owner to ensure grass establishment.

END OF SECTION

SECTION 02810 Underground Irrigation System

- 32 90 00 – Planting**
- 32 93 00 - Plants**
- 32 93 13 - Ground Covers**
- 32 93 23 - Plants and Bulbs**
- 32 93 33 - Shrubs**
- 32 93 43 - Trees**

The Contractor shall make an examination of the project site and completely familiarize himself with the nature and extent of the work to be accomplished. No extra compensation will be allowed for any work made necessary by unusual conditions or obstacles encountered during the progress of the work, which are readily apparent upon a visit to the site. If there are any questions in this regard, or discrepancies between the plans and actual site conditions, the Contractor shall notify the owner prior to the submission of bids.

All material and work required for repair and replacement shall meet with the approval of the owner, and will not be paid for directly, but will be subsidiary to this bid item.

The Contractor shall be responsible for contacting, locating, and protecting all underground utilities and structures. The owner may assist the Contractor in locating underground utilities and structures. However, any damage to existing utilities or structures shall be repaired at the Contractor's expense. If in the course of the work, underground utilities or structures are encountered and are in conflict with the work, the Contractor shall contact the owner who will recommend necessary adjustments. Changes of this nature are considered incidental to the work and shall not entitle the Contractor to additional compensation.

If the Contractor needs additional area for employee parking, servicing, storage, and securing of equipment and materials used in the performance of the specified work, the owner will, upon request from the Contractor, designate an area for this purpose. Upon completion of the work, the Contractor shall promptly remove all equipment, structures, and excess materials from the site and restore the area to its original condition, including the reestablishment of surface vegetation. This work shall be accomplished to the satisfaction of the owner and shall be subsidiary to the bid Item.

The Contractor shall be responsible for protection of his materials and equipment from theft, vandalism, animals, fire, etc., while said materials and equipment are on the project site, whether stored or installed in place, until the project has been accepted by the owner. In like manner, the Contractor shall protect all earthwork.

Upon completion of the project, the site(s) as defined herein, shall be cleaned of all debris and left in a neat and presentable condition. This shall include but not be limited to, the removal of all noxious weeds and debris from planted areas as specified herein or as specified by the owner. This work shall not be paid for directly, but shall be subsidiary to the bid Item.

The Contractor shall be responsible for providing material samples as well as any manufacturer's literature of materials used on this project as required by the owner. Any costs associated with any sampling and testing shall be the responsibility of the Contractor. These costs shall be considered as incidental and the Contractor will not be entitled to any additional compensation.

Any water hauled to the site during the plant installation period, a 90-day maintenance period shall be paid for by the Contractor.

The Contractor shall be required to verify and adhere to the requirements and codes of the controlling utility authorities in the event any materials or installation of any utilities shown on the plans are not adequate to meet the requirements or codes of the controlling utility authorities. Any changes that may be necessary shall be considered incidental and the Contractor shall not be entitled to any additional compensation.

Pre-construction conference

Prior to beginning work on the project and soon after the award of the contract, a conference will be held between the representatives of the owner, the Contractor, and any sub-Contractors that will be involved in the work. At this time the Contractor shall submit charts or briefs, outlining the manner of execution of the work that is intended in order to complete the specified work within the allotted time. This conference will more completely establish the sequence of work to be followed and establish the estimated progress schedule for completion of the various tasks.

In addition, at this conference, the Contractor shall be responsible for furnishing the owner with all of the following, as specified herein or as directed by the owner:

1. Samples of all materials, except plants, to be used on the project with identification as to product name, name, location, phone number (including area code), and mailing address of product source and manufacturer, if different from source, content of product, amount of each ingredient in the product, and manufacturer's directions as to use and application of the product, if applicable.
2. Manufacturer's literature of all materials and equipment installed on the project.
3. Any and all State and Federal certifications stating that the plant materials are free from disease and insect infestation.
4. All nursery locations, names, phone numbers (including area codes), and mailing addresses where the Contractor intends to procure plant material for the project so that critical plants may

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be inspected at the source, if necessary. Also, indicate which materials shall be used from each nursery.

5. A plan for transporting plant materials.
6. The source of water and the means of distribution on the project (this may be irrigation system or by other means as required by the project).

All of the requirements listed under the "pre-construction conference" will be subject to review, testing, and approval by the owner. If Items fail to meet approval, the Contractor shall correct the deficiencies

and resubmit for approval as directed by the owner prior to beginning work on the project. If these Items fail a second approval, the owner will determine the course of action for the Contractor to follow. Any approval given, as stated above, shall not relieve the Contractor from providing quality materials, products, and equipment during construction. The owner has the option to review, test, approve, or disapprove any phase of the construction or maintenance as the work progresses. It is understood that some materials for the project will require mixing. Therefore, these materials after mixing may be reviewed, tested, and approved as Stated within these general notes.

Mulch materials

1. Mulch material for soil amendment required in the backfill mix shall be 100% organic composted material, factory blended to contain non-defoliated (arsenic acid free) weed free, and containing an approximate non-leachable N-P-K analysis of 2.0-2.0-2.0 with trace elements.

Example: Sweet soil, soil amendment
Manufactured by:

Organic Compost Inc.
Box 1637
Edinburg, Texas 78504
(956) 383-1121
(or approved equal)

2. All mulch for surface application shall be shredded pine bark. The texture shall correspond to the Type I, Class B classification of the Federal Specification Q-P-166E, with particles ranging between the size from 3/8 inch to about 1 inch, with a minimum (not over 25% by volume) of finer particles and dust. Mulch of this type and class shall be free of sticks, stones, clay, or other foreign matter.

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3. One cubic foot (1 CF) samples of each type of ingredient along with a label from the manufacturer's packages shall be submitted to the owner for approval. If bulk materials are used, typical samples of each type of material shall be provided to the Architect for approval prior to the preparation of the planting mix. These samples, if approved by the owner, shall be used as the standard by which other materials shall be judged. Any material that, in the judgment of the owner, is below the quality of these samples may be tested in accordance with the specifications set forth herein. Any rejected material shall be immediately removed from the site at the Contractor's expense. Payment for any testing required under this section shall be the responsibility of the Contractor.

Planting soil mix

Backfilling of all plant pits shall be done with a planting soil mix as specified herein. Native soil removed from the planting pits and beds shall be used to form the watering basins. Excess soil shall be removed from the site or distributed and leveled on the site by the Contractor as directed by the owner. Watering basin shall be formed using the soil mix and raked smooth.

Planting soil mix used for backfilling planting pits shall be prepared in the following proportions by volume:

60% sandy loam topsoil (pH 7.0-7.8). Soil shall be typical of the area with no noxious weeds, grasses, sticks, roots, or stones present and shall be consistent in texture. (maximum lump size is 1").

40% mulch as listed above.

The owner may require the Contractor to mix all ingredients of the planting soil mix in the presence of the owner.

All ingredients shall be thoroughly blended to provide a homogeneous mixture. Mixing shall be in one cubic yard or greater batches using mechanical mixing one in a designated on-site area or it may be accomplished off-site if approved by the owner and the finished material transported to the site.

Samples of at least one cubic foot (1 CF) for each ten cubic yards (10 CY) of planting soil mix used on the site shall be submitted to the owner for approval. In the event deficiencies are found in the planting mix they shall be corrected immediately. If the material is rejected on the project site by the owner for any reason, all of the rejected material shall be immediately removed from the site and disposed of by the Contractor at his expense. If any of the rejected material has been used in the planting operations, the owner, at his discretion, may require the Contractor to remove and replace the soil mix with an

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approved mixture. Any testing required by the owner shall be the responsibility of the Contractor and shall be considered subsidiary to the work and no additional compensation shall be awarded.

Fertilizer application at planting

All plants shall be fertilized with an approved slow release tablet applied at the rate shown on the plans, or at a comparable rate for an approved substitute. The Contractor shall submit complete Manufacturer's literature and analysis data for approval of the owner prior to beginning work on the project.

Application shall be as follows:

- (1) gallon material - one (1) tablets
- (5) gallon material - two (2) tablets
- (10)gallon material - two (2) tablets
- (15)gallon material - three (3) tablets
- Palms - eight (8) tablets each
- Trees - one (1) tablet per ½ inch caliper

Placement of tablets are as designated on the plans.

Staking and guying shall be considered subsidiary to landscape plantings and the Contractor shall not be entitled any additional compensation.

Staking of plant material locations

All trees and palms shall be staked in the field by the Contractor and approved by the owner prior to any excavation of plant pits. Stakes shall be color coded to denote tree locations at the time when tree locations have been staked, the owner shall have the right to make adjustments to the plant locations to meet field conditions. These changes shall be considered incidental and the Contractor shall not be entitled to any additional compensation.

Staking and guying

The Contractor shall install and maintain the guying material as detailed on the plans or as directed by the owner.

Water and watering

Water for all planting and a 90 day maintenance operations shall be the responsibility of the Contractor. Water shall be clean, clear, and free of industrial wastes or other substances harmful to plants. The Contractor shall provide all required facilities, to make connections and convey the water to the places

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where it will be used and to increase the water pressure if required. At the Pre-construction Conference, the Contractor should be prepared to identify the source of water and the means for delivery and distribution of water on the site.

During the planting operations, the Contractor shall provide a quantity and frequency of water application to keep the ground and backfill material moist to a depth of at least twelve inches (12") below the root ball and for the duration of the 90-day maintenance period as a part of this contract. The Contractor shall be required to meet the minimum watering requirement stated above by a method approved by the owner or, if applicable, in the event the irrigation system fails.

Pruning

Any necessary pruning shall be done at the time of planting as directed by the owner and in accordance with approved horticultural methods. All pruning shall be accomplished with clean sharp tools specifically designed for these purposes. Pruning and selective thinning equal to Class I, "Fine Pruning" shall be accomplished as needed during the contract period. The removal of sucker growth shall be required to keep the plant material free of sucker growth.

Plant basin maintenance

During the installation and 90 day maintenance period all plant basins and planting beds shall be maintained weed free. Nylon string trimmers shall not be used within the plant basins or planting beds. A two inch (2") layer of pine bark mulch or shredded cypress mulch, fine grade and free of debris, shall be established and maintained at all times within the basins and beds. Existing mulch shall be worked as to eliminate mulch compaction.

Watering basins shall be maintained as per details. Back fill material listed above, free of weed seed or other undesirable debris, shall be used to build basins and shall be compacted to adequately reduce erosion during watering or excessive rainfall.

Tree bracing and wrapping

Tree bracing will be required under this contract, as detailed on the plans.

Tree wrapping will not be required for this contract.

Plant wrapping

Plant wrapping will not be required under this contract.

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Plant material

As directed by the Architect, the Contractor shall be required to furnish and install the following plants within the project limits as needed. The quantity of each plant type listed within the estimate summary sheet and within the project proposal may be increased or decreased as necessary. The Contractor shall be paid for the actual number of plants installed based on the unit price bid for each type. Replacement plant material shall meet or exceed the following specifications:

Plant installation shall include all back fill, mulch, fertilizer, staking and guying, water, labor etc. to install and establish plant material, complete and in place.

Plants shall be subject to inspection and approval by the owner at the place of growth and upon delivery to the project site for conformity to the specifications. Such approval shall not impair the right of inspection and rejection during progress of the work. The owner reserves the right to refuse inspection at any time if in his judgment a sufficient quantity of plants is not available for inspection.

All plants inspected at the place of growth by the owner shall be tagged with serialized self-locking tags. Plants delivered to the site without these tags or with broken tags may be sufficient reason for rejection. Tags shall be furnished by the Contractor and approved by the owner.

The Contractor shall submit for approval a plan to the owner for transplanting plant material from the place of growth to the site. Such a plan shall include: date of pick-up, place of growth, nursery or place of storage, type of vehicle used for shipping, method of protecting plants during transit, date of delivery to site, projected date of installation, a means of storage and care. Watering and shading used between delivery and planting which shall be subject to review by the owner. Do not store plant materials on hard surfaces and immediately untie material upon delivery.

The following considerations for product handling by the Contractor shall be evaluated during hot weather and when practical:

- 1) The Contractor may be required to transport plant materials between sunset and sunrise if transported in an open trailer or un-refrigerated van.
- 2) Dug material shall be maintained and watered as required at the nursery to guarantee their vitality and health until installation.
- 3) Protect trunks, stems, branches, and root balls from all damage during digging, handling, tying, wrapping, loading, unloading, and untying operations.

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- 4) Load containers onto transport vehicle and secure in a manner that protects the structural integrity of the root balls and branches.
- 5) The Contractor shall be solely responsible for the safe transportation of plants to the site and their condition upon arrival.
- 6) Plants damaged, dehydrated or abused during transit and storage will be rejected.
- 7) Plant materials shall not be stored on concrete or left exposed to the sun.
- 8) Protect the root balls and water regularly until planting.
- 9) If plants are left in storage over the weekend or holiday a means of periodically watering and inspecting root ball moisture shall be provided.

The owner may inspect any phase of product handling and may reject any plant material improperly handled during any point of this operation.

Where specified to be nursery-grown, either in containers or in the field, such plants shall be nursery-grown in accordance with horticultural practices under climatic conditions similar to those of the project for at least twelve (12) months, unless specifically otherwise authorized by the owner in writing. Unless specifically noted otherwise, all plants shall be heavy, symmetrical, tightly knit, so

trained or favored in development and appearance as to be superior in form, number of branches, compactness and symmetry.

Plants shall be sound, healthy and vigorous, well branched and densely foliated, when in leaf. They shall be free of disease, insect infestation, eggs, or larvae, and shall have healthy, well-developed root systems. They shall be free from physical damage or adverse conditions that would prevent thriving growth.

Plants that meet the measurements specified but do not possess a normal balance between height and spread shall be rejected.

All plants specified in containers shall be provided in structurally sound, nursery plant containers with the minimum size as specified. Container dimensions shall be as recommended by the "American Standard for Nursery Stock", (current edition). If a container is not listed in the "American Standard for Nursery Stock", then the owner will have final approval of container dimensions.

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Samples must prove no root bound conditions exist. No container plants that have cracked or broken balls of earth when taken from container shall be planted. Container stock shall not be pruned before delivery. Field grown plants recently transplanted into containers will not be accepted.

The Contractor shall neither work subsoil for planting operations when moisture content is so great that excessive compaction will not occur nor when it is so dry that the clods will not break readily. Water shall be applied, if necessary.

Canned stock shall be removed carefully after cans have been cut on two or three sides with an approved tool. Do not use spade to cut cans. Do not lift or handle container plant by tops, stems, or trunks at any time.

Do not bind or handle any plant with wire or rope at any time so as to damage bark or break branches. Lift and handle plants only from bottom of ball.

The Contractor shall follow these steps for the installation of pit planted materials:

- 1) Scarify the walls and bottom of all plant pits immediately prior to the placement of plant and backfill mix to insure the removal of all glazing caused by an auger or mechanical hole digger.
- 2) Fill plant pits with backfill mix to compact depth to receive root ball, so that the top of the root ball is two inches (2") above finished grade.
- 3) For boxed material, break vertical bands and remove top and bottom of container. Carefully lower plant into pit with backhoe or approved method and adjust elevation, cut horizontal bands and remove sides.
- 4) Prune away girdled roots and tease root hair masses. Carefully fill pit with backfill mix and compact by watering in to support root ball.
- 5) Smooth planted areas to conform to specified grades after full settlement has occurred. Create watering basins as shown on the plans. Water all plants immediately after planting.
- 6) Spread mulch in required areas to the compacted depth of three inches (3") or as specified in the details or by the owner.
- 7) Trees should be staked for support during the same day as planting. Plants shall stand plumb after staking. The Contractor shall be responsible for material remaining plumb and straight for

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all given conditions throughout the contract period. Free support shall be done as outlined in the details.

Replacement of Material

If at any time during the contract period and a 180-maintenance period, a plant is found to be dead, it shall be replaced to the satisfaction of the owner, and within the period specified in the formal written notification from the owner. Failure to accomplish replacement of plant materials during the specified time period will be considered non-performance of the guarantee and maintenance requirements included in this contract and the owner may withhold payment until the required replacement has been accomplished.

Planting Requirement for Plant Replacement

The Contractor shall utilize the same process for replacement of planting or materials as used in the original installation process.

END OF SECTION

32 90 00 - Planting
32 91 00 - Planting Preparation
32 91 13 - Soil Preparation

All shrub beds shall be prepared for installation of plant material in the following manner:

1. Apply round-up @ herbicide 20 days and again 10 days before plant bed preparation in accordance with manufactures label.
2. Apply three inches (3") of mulch material for soil amendments as described in general notes to backfill material.
3. Till beds to a depth of 18 inches.
4. Level and re-grade to bring level with the sidewalks and raked smooth prior to planting.
5. The Owner shall inspect the beds prior to and after back filling.

END OF SECTION

32 90 00 - Planting

32 91 00 - Planting Preparation

32 91 19.13 - Topsoil Placement and Grading

Topsoil required for this item to be from a pre-approved contractor obtained source. Topsoil shall be easily cultivated, fertile loam (pH 6.8-7.6), typical of the area, with no noxious weeds, grasses, sticks, or stones present and shall be consistent maximum lump size of 1". The contractor shall provide soil test prior to placement for approval by the engineer by a certified soil-testing laboratory.

Texas Plant & Soil Lab, Inc. (or equivalent)
5115 West Monte Cristo Road
Edinburg, Texas
(956)-383-0730

Soil test shall provide a standard soil analysis, micro-nutrient soil determination and interpretation with recommendations.

Topsoil shall have a soil texture rating of '3' (loam) or less (sandy loam) in accordance with standard soils testing. Soil source shall also test for sodium levels of 180 or less.

Before soil placement the contractor shall prepare all areas by applying an approved postemergent herbicide in accordance with the product label and as required by the Texas Commission on Environmental Quality.

Fusilade II turf and ornamental herbicide (or equivalent)
Syngenta Crop Protection, Inc.
P.O. Box 18300, Greensboro, NC 27419

Upon approval of the topsoil source the contractor shall apply an activated charcoal (humane) at a rate of 250 lbs. per acre on the site(s) specified. Topsoil then to be placed and tilled till into the existing soil to a depth of 6 inches by approved mechanical methods. The contractor shall then bring topsoil mix to grade as provided in the plans and specifications then raked to a smooth even finish. Contractor to finish work by watering and rolling with a light roller or other suitable equipment.

Earthwise Organics (or equivalent)
Composted Products
P.O. Box 533816
Harlingen, Texas 78553

In the event that irrigation systems exist at the project site(s) the contractor shall locate and protect all irrigation valves, irrigation heads and controllers. The contractor shall contact and determine wiring and piping depth for verification of possible conflicts in the work. A licensed irrigator shall provide repair to

any damage to existing irrigation systems. Irrigation protection or repairs shall be considered subsidiary to the various bid items and shall not be paid for separately.

END OF SECTION

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32 90 00 Planting
32 92 00 Turf and Grasses
32 92 13 Hydro-Mulching

Cellulose fiber mulch seeding shall be applied in areas designated on the plans or as directed by the Engineer. This work shall not be performed until all construction and planting activities have been completed. Prior to seeding, the areas designated shall be finished to a smooth surface for a uniform application of seed.

Seeding shall be accomplished by the Hydromulch Method in two applications as shown below:

- 1st application -
 - Grass seed and Fertilizer
- 2nd application -
 - Cellulose fiber mulch Minimum pure live seed required 85%.

Fertilizer shall be applied at the rate of 100 pounds of nitrogen per acre. Fertilizer shall be homogenized.

Cellulose Fiber Mulch shall be applied a rate of 2000 lbs. per acre.

Re-seeding

Areas requiring re-seeding due to the non-establishment of sufficient vegetative cover, shall be re-seeded with in a 90-day time frame. The cost for re-seeding shall be paid for by the owner provided that the Contractor has followed the seeding and watering requirements as specified.

Seed mixture

Seed mixture shall be as specified

Bermudagrass 'cynodon dactylon' a rate of 65 lbs. Pure live seed per acre.

Fertilizer:

Fertilizer rate is based on a rate of 100 lbs. of Nitrogen per acre. The Nitrogen-Phosphorous-Potassium (NPK) ratio shall include a minimum of 19 percent Nitrogen-19 percent Phosphorous and 19 percent Potassium.

Areas to receive fertilizer are same as shown for Item, "Cellulose Fiber Mulch Seeding".

Note: All areas to be irrigated shall be seeded as noted in this contract.

See plan sheets for areas to be seeded.

END OF SECTION