

PERMIT APPLICATION REVIEW FORM FOR CABLE, CONDUIT, AND POLE LINE ACTIVITY IN FORT BEND COUNTY

Fort Bend County Engineering Department 301 Jackson Suite 401

301 Jackson Suite 401 Richmond, Texas 77469 281.633.7500 Permits@fortbendcountytx.gov

	Right of Way Permit
Х	Commercial Driveway Permit

Permit No:	2017-16004	_	
The following "Notice of Proposed Cable, Conduattachments have been reviewed and the notice of Fort Bend County, Texas.			-
(1) COMPLETE APPLICATION FORM:			
X a. Name of road, street, and/or	drainage ditch affecte	d.	
X b. Vicinity map showing course of	of directions		
X c. Plans and specifications			
(2) BOND:			
County Attorney, approval when applicable.			
Perpetual bond currently posted.	Bond No:	Amount:	
X Performance bond submitted.	Bond No:	Amount: \$50,000.00	
Cashier's Check	Check No:	Amount:	
(3) DRAINAGE DISTRICT APPROVAL (WHEI	N APPLICABLE):	Date	
We have reviewed this project and agree it m	eets minimum requir	ements.	
Permit Administrator		10/13/2017 Date	



Drainage District Engineer/Manager

REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT

Fort Bend County Engineering Department 301 Jackson Suite 401

301 Jackson Suite 401 Richmond, Texas 77469 281.633.7500

281.633.7500
Permits@fortbendcountytx.gov

Right of Way I X Commercial D Permit No: 2017-16	riveway Permit
Applicant: Sovereign Builders, Inc. dba Constructio Job Location Site: 17034 University Boulevard, Suga	n LTD/LJA Engineering
Bond No Date of Bond:9/19/2	
The above applicant came to make use of certain Fort Ber Laying, Construction, Maintenance, and Repair of Buried Roads, Streets, Highways, and Drainage Ditches in Fort Ber Commissioners Court of Fort Bend County, Texas," as pas Texas, of the Minutes of the Commissioners Court of Fort inconsistant with Chapter 181, Vernon's Texas Statutes and	Cables, Conduits, and Pole Lines, In, Under, Across or Along end County, Texas, Under the Jurisdiction of the sed by the Commissioners Court of Fort Bend County, Elend County, Texas, to the extent that such order is not
grounds for job shutdown. 2. Written notices are required: a. 48 hours in advance of construction s	ready for final inspection, submit notification to Permit nline.org portal.
	d carried, it is ORDERED, ADJUDGED AND DECREED that said the Commissioners Court of Fort Bend County, Texas, and
Signature	Presented to Commissioners Court and approved.
By: Church O. Aff County Engineer	Date Recorded Comm. Court No
N/A	Clerk of Commissioners Court
Rv.	BV.

Deputy

PERFORMANCE BOND COVERING ALL CABLE, CONDUIT AND/OR POLE LINE ACTIVITY IN, UNDER, ACROSS OR ALONG FORT BEND COUNTY ROAD, COMMERCIAL DRIVEWAY AND MEDIAN OPENINGS OR MODIFICATIONS (AUTHORIZED)

THE STATE OF TEXAS

§

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF FORT BEND

8

THAT WE, Sovereign Builders, Inc. dba Construction LTD whose (address, phone) is 1825 Upland Drive, Houston, TX 77043, (832) 203-6819 Texas, hereinafter called the Principal, and Berkley Insurance Company, a Corporation existing under and by virtue of the laws of the state of Delaware and authorized to do an indemnifying business in the state of Texas, and whose principal office is located at (name/address/phone) 475 Steamboat Road, Greenwich, CT, 06830, (203) 629-3000 whose officer residing in the State of Texas, authorized to accept service in all suits and actions brought whining said state is Timothy Miller and whose address is 12400 Coit Road, Suite 625, Dallas, TX 75251, hereinafter called the Surety, and held and firmly bound unto , Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, in the full sum of Fifty Thousand and No/100 Dollars (\$50,000.00) current, lawful money of the United States of America, to be paid to said Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, to which payment well and truly to be made and done, we, the undersigned, bind ourselves and each of us, our heirs, executors, administrators, successors, assigns, and legal representatives, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the above bounden principal contemplates laying, constructing, maintaining and/or repairing one or more cables, conduits, and/or pole lines in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend, and the State of Texas, under the jurisdiction of the Commissioners' Court of Fort Bend County, Texas, pursuant to the Commissioners' Court order adopted on the 1st day of December, A.D. 1980, recorded in Volume 13, of the Commissioners' Court Minutes of Fort Bend County, Texas, regulating same, which Commissioners' Court order is hereby referred to and made a part hereof for all purposes as though fully set out herein;

AND WHEREAS, the principal desires to provide Fort Bend County with a performance bond covering all such cable, conduit and/or pole line activity, commercial driveway and median openings or modifications;

NOW, THEREFORE, if the above bounden principal shall faithfully perform all its cable, conduit and/or pole line activity (including, but not limited to the laying, construction, maintenance and/or repair of cables, conduits and/or pole lines) in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend and State of Texas, under the jurisdiction of the Commissioners Court of Fort Bend County, Texas, pursuant to and in accordance with minimum requirements and conditions of the above mentioned Commissioners' Court order set forth and specified to be by said principal done and performed, at the time and in the manner therein specified, and shall pay over and make good and reimburse Fort Bend County, all loss and damages which Fort Bend County may sustain by reason of any failure or default on the part of said principal, then this obligation shall be null and void, otherwise to remain in full force and effect.

This bond is payable at the County Courthouse in the County of Fort Bend and State of Texas.

It is understood that at any time Fort Bend County deems itself insecure under this bond, it may require further and/or additional bonds of the principal.

EXECUTED this 19th day of September, 2017.

Sovereign Builders, Inc. dba Construction LTD

PRINCIPAL

BY

Berkley Insurance Company

SURETY

BY Gloria M. Villa, Attorney-in-Fact

POWER OF ATTORNEY BERKLEY INSURANCE COMPANY WILMINGTON, DELAWARE

NOTICE: The warning found elsewhere in this Power of Attorney affects the validity thereof. Please review carefully.

KNOW ALL MEN BY THESE PRESENTS, that BERKLEY INSURANCE COMPANY (the "Company"), a corporation duly organized and existing under the laws of the State of Delaware, having its principal office in Greenwich, CT, has made, constituted and appointed, and does by these presents make, constitute and appoint: Roxanne G. Brune; David R. Groppell; Beverly A. Ireland; Sharen R. Groppell; Francine M. Hay; Kurt A. Risk; Sharon J. Cavanaugh; or Gloria M. Villa of Marsh & McLennan Agency LLC – Southwest of Houston, TX its true and lawful Attorney-in-Fact, to sign its name as surety only as delineated below and to execute, seal, acknowledge and deliver any and all bonds and undertakings, with the exception of Financial Guaranty Insurance, providing that no single obligation shall exceed Fifty Million and 00/100 U.S. Dollars (U.S.\$50,000,000.00), to the same extent as if such bonds had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office in their own proper persons.

This Power of Attorney shall be construed and enforced in accordance with, and governed by, the laws of the State of Delaware, without giving effect to the principles of conflicts of laws thereof. This Power of Attorney is granted pursuant to the following resolutions which were duly and validly adopted at a meeting of the Board of Directors of the Company held on January 25, 2010:

RESOLVED, that, with respect to the Surety business written by Berkley Surety, the Chairman of the Board, Chief Executive Officer, President or any Vice President of the Company, in conjunction with the Secretary or any Assistant Secretary are hereby authorized to execute powers of attorney authorizing and qualifying the attorney-in-fact named therein to execute bonds, undertakings, recognizances, or other suretyship obligations on behalf of the Company, and to affix the corporate seal of the Company to powers of attorney executed pursuant hereto; and said officers may remove any such attorney-in-fact and revoke any power of attorney previously granted; and further

RESOLVED, that such power of attorney limits the acts of those named therein to the bonds, undertakings, recognizances, or other suretyship obligations specifically named therein, and they have no authority to bind the Company except in the manner and to the extent therein stated; and further

RESOLVED, that such power of attorney revokes all previous powers issued on behalf of the attorney-in-fact named; and further

RESOLVED, that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligation of the Company; and such signature and seal when so used shall have the same force and effect as though manually affixed. The Company may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Company, notwithstanding the fact that they may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, the Company has caused these presents to be signed and attested by its appropriate officers and its

(Seal)

By

Ira & Lederman

Executive Vice President & Secretary

Attest:

Berkley Insurance Company

By

Jeffrey M. Hafter

Senlor Vice President

WARNING: THIS POWER INVALID IF NOT PRINTED ON BLUE "BERKLEY" SECURITY PAPER.

STATE OF CONNECTICUT)
) ss:
COUNTY OF FAIRFIELD)

espectively, of Berkley Insurance CompanyARIA C. RUNDBAKEN
NOTARY PUBLIC

MY COMMISSION EXPIRES
APRIL 30, 2019

2019
CERTIFICATE
ANCE COMPANY, DO HEREBY CERTIFY that the foregoing is a true,

Notary Public, State of Connecticut

I, the undersigned, Assistant Secretary of BERKLEY INSURANCE COMPANY, DO HEREBY CERTIFY that the foregoing is a true, correct and complete copy of the original Power of Attorney; that said Power of Attorney has not been revoked or rescinded and that the authority of the Attorney-in-Fact set forth therein, who executed the bond or undertaking to which this Power of Attorney is attached, is in full force and effect as of this date.

Given under my hand and seal of the Company, this 1944 day of

Vincent P. Forte

(Seal)

FORT BEND COUNTY MUNICIPAL UTILITY DISTRICT NO. 128

CONSTRUCTION PLANS FOR LEFT TURN LANE AND MEDIAN OPENING

TO SERVE

SHOPS IN RIVERSTONE

UNIVERSITY BLVD & W. AVALON DR. SUGARLAND, TX 77498

NOTES

- THESE PLANS WERE PREPARED TO MEET OR EXCEED FORT BEND COUNTY AND CITY OF SUGAR LAND
- FORT BEND COUNTY DRAINAGE DISTRICT (DWAYNE GRIGAR) FORT BEND COUNTY ENGINEER

SI-ENVIRONMENTAL (BRIAN BARE) EL PASO FIELD SERVICES (FORMERLY COASTAL PIPELINE) (STEVE SWAFFORD) PHILLIPS PIPELINE COMPANY (CHARLES FRETWELL)

FORT BEND M.U.D. NO. 128 (MR. CHAD HABLINSKI, P.E.)

LJA ENGINEERING, INC. (DION FELAN)

(832)490-1570 (713) 854-3903 (713) 456-1413 (713) 783-7788 (281) 384-2012

CONSTRUCTION@FORTBENDCOUNTYTX.GOV

4. ONLY AUTHORIZED INDIVIDUALS FROM EITHER THE TESTING COMPANY OR A REPRESENTATIVE OF LJA Engineering, Inc. HAVE THE AUTHORITY TO ADD WATER TO A CONCRETE TRUCK.

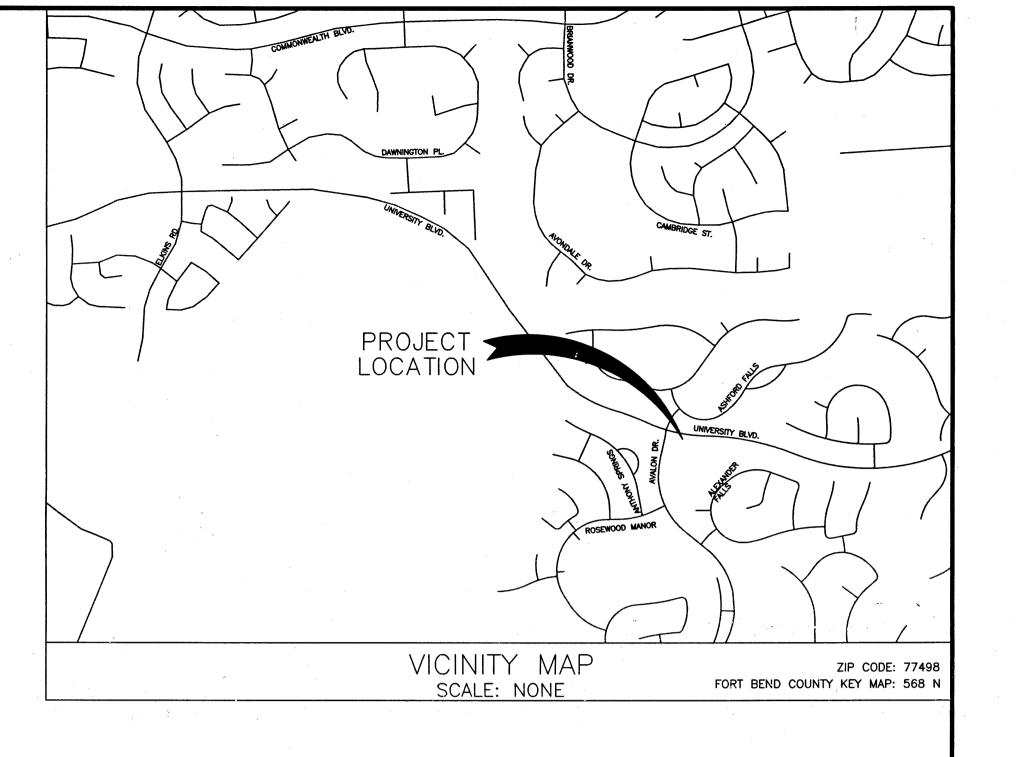
5. CONTRACTOR SHALL CONTACT THE FOLLOWING UTILITY COMPANIES TO VERIFY THE LOCATION OF THEIR UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF **EXCAVATION OR CONSTRUCTION IN THE VICINITY OF THEIR FACILITIES.** CENTERPOINT ENERGY SOUTH OF RAILROAD (ADRIAN MORENO) CENTERPOINT ENERGY NORTH OF RAILROAD (MARSHA SOMMERFELD) (281) 561-3240 SI-ENERGY GAS (RYAN HERWECK) G.T.E. TELEPHONE COMPANY (JESSE FLOWER)

EN-TOUCH (WESLEY PENNIX) (281) 225-9350 **TEXAS ONE CALL** 6. CONTRACTOR SHALL CONTACT ANY PERTINENT PIPELINE COMPANIES AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF EXCAVATION OR CONSTRUCTION IN THE

VICINITY OF THEIR EASEMENTS AND/OR RIGHT-OF-WAYS. DOW PIPELINE COMPANY (MIKE MURDERS) DOW PIPELINE COMPANY (ROBBY CARR) (713) 654-3627, (979) 292-9027 DOW PIPELINE COMPANY (CHRIS SCRUGGS) (713) 654-3623, (979) 215-8212

NOTES CONT.

- THE OPENING AND CLOSING OF ALL VALVES ON EXISTING WATER LINES MUST BE CONTRACTOR/APPLICANT SHALL CONTACT SI ENVIRONMENTAL AT (832) 490-1610 FOR ALL REQUIRED TAPPING AND INSPECTION SERVICES
- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC FLOW DETOURING INCLUDING LANE CLOSURES, TRAFFIC BARRELS, SIGNAGE, AND ALL OTHER APPURTENANCES (INCIDENTAL TO BID). ONE LANE OF CONTINUAL TRAFFIC FLOW IN EACH DIRECTION SHALL REMAIN OPEN AT ALL TIMES.
- 10. IN THE CASE OF A CONFLICT BETWEEN THE CITY OF SUGARLAND, FORT BEND COUNTY, PLANS OR SPECIFICATIONS. THE MORE STRINGENT SHALL APPLY.
- 11. CONTRACTOR SHALL NOTIFY FORT BEND COUNTY ENGINEERING 48 HOURS PRIOR TO COMMENCING CONSTRUCTION AND 24 HOURS PRIOR TO ANY PAVING OPERATION AT EMAIL: CONSTRUCTION@FORTBENDCOUNTYTX.GOV



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I HEREBY CERTIFY THAT THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE CONSTRUCTED CONDITION. THE PLANS WERE PREPARED AND THE CONSTRUCTION WAS PERFORMED IN SUBSTANTIAL ACCORDANCE WITH THE CITY OF MISSOURI CITY DESIGN STANDARDS

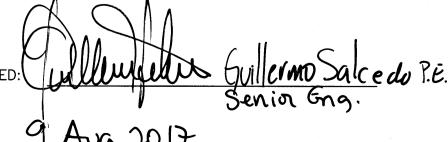
CAROLYN E. COMER, P.E. 121806

RECORD DRAWING

REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE AND THAT THE CONSTRUCTION WAS IN SUBSTANTIAL COMPLIANCE WITH THE CONTRACT DOCUMENTS.



CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT



FORT BEND COUNTY ENGINEERING DEPARTMENT ENGINEER: Ril J Stayle, PE, PTOE FOR RICHARD W. STOLLEIS, P.E. DATE: 8/25/17 THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN (1) YEAR FROM DATE OF



2929 Briarpark Drive Suite 600 Houston, Texas 77042-3703 Phone 713.953.5200 Fax 713.953.5026 FRN-F-1386

SHEET No: 1 OF 15

DEVELOPER: HUNINGTON PROPERTIES

APPROVED FOR CONSTRUCTION

LJA JOB. NO. 2423-1601P

DATE: AUGUST 2017

I HEREBY CERTIFY THAT THIS DRAWING

GENERAL NOTES: CONTACT THE ENGINEERING INSPECTORS WITH THE CITY'S ENGINEERING DEPARTMENT AT (281) 275-2780 PRIOR TO STARTING WORK TO SCHEDULE A PRE-CONSTRUCTION MEETING. 2. CONTRACTOR IS RESPONSIBLE FOR HAVING ALL BURIED UTILITIES IDENTIFIED, PROTECTED, REPLACED AND/OR PROPERLY REPAIRED IF DAMAGED. REPAIRS/REPLACEMENT SHALL BE AT CONTRACTOR'S 3. CONTRACTOR SHALL OBTAIN AND MAINTAIN ON SITE ALL APPLICABLE PERMITS AND AN APPROVED COPY OF THE PLANS AND SPECIFICATIONS. NOTIFY THE CITY'S ENGINEERING DEPARTMENT 48 HOURS PRIOR TO COMMENCEMENT OF WORK. 4. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE CITY'S ENGINEERING DEPARTMENT 24 HOURS PRIOR TO WEEKDAY WORK REQUIRING INSPECTION INCLUDING, BUT NOT LIMITED TO, LIMING, PAVING OPERATIONS, CONCRETE PLACEMENT, FORMING AND SET-UP, DENSITIES, PIPE INSTALLATION, AND ANY TESTING BY LABORATORIES. THE ENGINEERING DEPARTMENT MAY BE REACHED AT 281-275-2780 OR BY CONTACTING THE ASSIGNED INSPECTOR. 5. ALL SATURDAY WORK SHALL BE REQUESTED, IN WRITING, WITH THE CITY'S ENGINEERING DEPARTMENT LEAST 48-HOURS IN ADVANCE. SUNDAY AND HOLIDAY WORK REQUIRES 72 HR. WRITTEN REQUESTS AND MUST BE APPROVED BY THE CITY ENGINEER. FAXES MAY BE SENT TO (281) REQUIRED INSPECTIONS MAY BE SUBJECT TO INSPECTION FEES. NON-NOTIFICATIONS MAY RESULT IN NON-COMPLIANCE, WORK ORDERED STOPPAGE AND DOUBLE INSPECTION FEES. 6 FULL—TIME RESIDENT INSPECTION BY THE PROJECT ENGINEER'S REPRESENTATIVE SHALL BE PROVIDED AT ALL CRITICAL POINTS OF CONSTRUCTION OR AS DEEMED NECESSARY BY THE CITY OF SUGAR LAND. 7. FOLLOW-UP INSPECTIONS OF ALL PUBLIC INFRASTRUCTURE SHALL BE SCHEDULED WITHIN 60 DAYS OF THE INITIAL INSPECTION. a COMPLETE RE-INSPECTION AND A NEW PUNCH LIST MAY BE 8. DESIGN AND CONSTRUCTION SHALL CONFORM TO THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS, THE CITY OF SUGAR LAND DESIGN MANUAL (ISSUED 2007), AND THE CITY OF SUGAR LAND STANDARD DETAIL SHEETS. THE CITY OF SUGAR LAND DESIGN STANDARDS SHALL BE ACQUIRED (AND USED) FROM THE ENGINEERING DEPARTMENT, THE LATEST REVISIONS AND/OR AMENDMENTS SHALL BE OBSERVED. WHERE CONFLICT MAY ARISE RETWEEN INFORMATION ON APPROVED CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS AND CITY OF SUGAR LAND STANDARDS, THEN THE CITY DESIGN STANDARDS SHALL GOVERN 9. ALL STATIONS ARE CENTERLINE OF STREET RIGHT-OF-WAY UNLESS OTHERWISE NOTED ON PLANS EXCEPT IN SIDE OR BACK LOT EASEMENTS WHERE CENTERLINE IS CENTER OF PIPE. EASEMENTS WHERE SANITARY AND STORM SEWER ARE PRESENT PARALLEL, STATIONS SHALL BE ASED ON CENTERLINE OF STORM SEWER PIPING. 10. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. ANY DRAINAGE AREA OR STRUCTURE DISTURBED, DURING CONSTRUCTION, SHALL BE RESTORED TO THE SATISFACTION OF THE CITY OF SUGAR LAND. ALL CONSTRUCTION STORM RUNOFF SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF SUGAR LAND DESIGN STANDARDS. IF NON-COMPLIANCE OCCURS, CONTRACTOR SHALL REMEDY IMMEDIATELY AT HIS OWN EXPENSE 11. ANY POLLUTION CONTROL DEVICE, SOD, OR SEEDED AREA DAMAGED, DISTURBED, OR REMOVED SHALL BE REPLACED OR REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR WATERING ANY SEED OR SOD WHICH HE HAS INSTALLED UNTIL ADEQUATE GROWTH IS ACHIEVED TO PREVENT EROSION. 12. STORM WATER POLLUTION PROTECTION SHALL BE DESIGNED, CONSTRUCTED, MAINTAINED AND SHALL BE IN TOTAL COMPLIANCE WITH THE STORM WATER QUALITY MANUAL OF THE CITY OF SUGAR LAND. 13. ANY MATERIALS OR WORKMANSHIP NOT MEETING OR EXCEEDING CITY OF SUGAR LAND STANDARDS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE 14. THE CONTRACTOR SHALL KEEP THE STREETS, RIGHT-OF-WAY, AND WORK AREA CLEAN OF DIRT, MUD, AND DEBRIS AS NEEDED OR AS REQUIRED BY CITY STAFF. 15. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL REQUIRED TRAFFIC SAFETY CONTROL DEVICES JP TO AND INCLUDING FLAGMEN OR POLICE OFFICERS, IF DEFMED NECESSARY BY THE CITY OF 16. THE CONTRACTOR SHALL CONTACT THE CITY OR LOCAL MUD AS APPROPRIATE TO OPERATE EXISTING UTILITIES AND PRIOR TO MAKING TIE-INS. 17. ALL BACKFILL WITHIN PUBLIC RIGHTS-OF-WAY OR EASEMENTS SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY (IN 8 INCH LIFTS) AND TESTED FOR ±2% OPTIMUM MOISTURE BY AN APPROVED LAB. 18. IT IS PERMISSIBLE TO USE A BACKHOE FOR TRENCH EXCAVATION IN LIEU OF A TRENCHING 19. THE CONTRACTOR SHALL NEVER UNLOAD ANY TRACK-TYPE VEHICLE OR EQUIPMENT ON ANY EXISTING PAVEMENT OR CROSS OVER ANY EXISTING PAVEMENT OR CURB. 20. ALL FINISH GRADES ARE TO CONFORM TO A MINIMUM SLOPE OF 6" PER 100 FT. POSITIVE 21. CONTRACTOR SHALL UNCOVER EXISTING UTILITIES AT ALL "POINTS OF CROSSING" TO DETERMINE IF CONFLICTS EXIST BEFORE COMMENCING ANY CONSTRUCTION. NOTIFY THE ENGINEER AT ONCE OF 22. ALL FINISHED GRADES SHALL VARY UNIFORMLY BETWEEN FINISHED ELEVATIONS. 23. ALL TESTING PROCEDURES SHALL CONFORM TO THE CITY OF SUGAR LAND STANDARDS. THE INITIAL TESTING EXPENSE SHALL BE BORNE BY THE OWNER. IF ANY OF THE TESTS DO NOT MEET TH TESTING STANDARDS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE OR REPLACE SUCH MATERIAL SO THE TESTING STANDARDS CAN BE MET. ADDITIONAL TESTING TO MEET COMPLIANCE SHALL BE AT THE CONTRACTOR'S EXPENSE. 24. CONTRACTOR SHALL PROVIDE SHEETING, SHORING. AND BRACING AS NECESSARY TO PROTECT WORKMEN AND EXISTING UTILITIES DURING ALL PHASES OF CONSTRUCTION AS PER O.S.H.A. REQUIREMENTS 25. ALL MATERIALS AND WORKMANSHIP NOT GOVERNED BY CITY STANDARDS SHALL CONFORM TO THE LATEST VERSION OF THE TXDOT STANDARD SPECIFICATIONS AND THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND ANY REVISIONS THERETO. 26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFEGUARDING AND PROTECTING ALL MATERIALS AND EQUIPMENT STORED ON THE JOBSITE IN A SAFE AND WORKMAN-LIKE MANNER (DURING AND AFTER WORKING HOURS), UNTIL JOB COMPLETION. 27. THE LOADING AND UNLOADING OF ALL PIPE, VALVES, HYDRANTS, MANHOLES, AND OTHER ACCESSORIES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PRACTICES AND SHALL BE PERFORMED WITH CARE TO AVOID ANY DAMAGE TO THE MATERIAL. THE CONTRACTOR SHALL LOCATE AND PROVIDE THE NECESSARY STORAGE AREAS FOR MATERIAL AND 28. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR FOR EXCAVATION. INSTALLATION, AND COMPLETION OF THE PROJECT AS SHOWN ON THE PLANS AND SPECIAL PROVISIONS TO COMPLY WITH CITY OF SUGAR LAND STANDARDS. 29. NO PRIVATE UTILITIES (I.E., PHONE, CABLE T.V., ELECTRICITY, ETC.) SHALL BE INSTALLED WITHIN 4 FEET BACK OF CURB. 30. PLANS DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK, THE SEAL OF THE REGISTERED PROFESSIONAL ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED IN THE PLANS. THE CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING CURRENT OSHA STANDARDS FOR TRENCH SAFETY SYSTEMS, SEALED BY A LICENSED PROFESSIONAL ENGINEER. APPROPRIATE TRENCH SAFETY PLANS SHALL BE SUBMITTED BY THE CONTRACTOR PRIOR

O EXECUTION OF A CONTRACT FOR HIS WORK.

10 WORKING DAYS FOR COMMISSIONS.

31. FOR TRAFFIC SIGNAL CONSTRUCTION, CONTACT THE CITY OF SUGAR LAND INFORMATION TECHNOLOGY

DEPARTMENT TO OBTAIN IP ADDRESSES FOR SIGNAL CABINET EQUIPMENT. ALLOW 5 WORKING DAYS

FOR THE ADDRESS. ONCE EQUIPMENT HAS BEEN INSTALLED AND COMMUNICATIONS ESTABLISHED

WITH THE TRAFFIC MANAGEMENT CENTER, IT WILL COMMISSION THE COMMUNICATION LINK. ALLOW

CONCRETE/PAVING NOTES:

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND AUTHORIZATION REQUIRED BY CITY OF SUGAR LAND.
 CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED PRIOR TO CONSTRUCTION AND WILL REPAIR OR REPLACE ANY DAMAGE AT CONTRACTOR'S EXPENSE.
 PAVING CONTRACTOR SHALL PROTECT WATER, SEWER, AND DRAINAGE FACILITIES AND WILL REPLACE ANY DAMAGED FACILITIES AT HIS OWN EXPENSE. ALL MANHOLES AND VALVES WITHIN THE PAVEMENT AREA SHALL BE ADJUSTED TO FINISH GRADE BY THE PAVING CONTRACTOR WITH THE USE OF
- APPROVED BLOCKOUTS.

 4. WHEN THE TOP OF CURB OR BOTTOM OF SIDEWALK SLAB ELEVATION VARIES FROM THE NATURAL GROUND, THE PAVING CONTRACTOR SHALL BACKFILL IN LAYERS NOT EXCEEDING 8—INCHES IN DEPTH. EACH LAYER WILL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY. THE DISTURBED AREA SHALL BE SEEDED, SODDED, FERTILIZED, AND/OR SILT BARRIER FENCED WITHIN 10 WORKING DAYS. THE TYPE OF POLLUTION CONTROL WILL BE DETERMINED BY THE APPROVED PLANS AND/OR THE CITY OF SUGAR LAND CITY ENGINEER.

 5. ALL PAVING SHALL BE IN ACCORDANCE WITH THE CITY OF SUGAR LAND DESIGN STANDARDS, APPROVED PLANS AND SPECIFICATIONS WITH THE LATEST REVISIONS OR AMENDMENTS. IN THE
- EVENT OF A CONFLICT, THE CITY OF SUGAR LAND DESIGN STANDARDS GOVERNS.

 6. PAVING CONTRACTOR SHALL PROVIDE AND MAINTAIN SILT PROTECTION FENCES ON ALL STAGE I CURB INLETS. THE PAVING CONTRACTOR SHALL MAINTAIN ANY OTHER POLLUTION CONTROLS ESTABLISHED, I.E., ADDITIONAL SILT BARRIERS, SAND BAGS, ETC., FOR THE DURATION OF THE PROJECT. ANY DAMAGED OR MISSING DEVICES SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

 7. EXISTING PAVEMENTS, CURBS, SIDEWALKS, DRIVEWAYS, ETC., DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO THE CITY OF SUGAR LAND STANDARDS AT THE
- CONTRACTOR'S EXPENSE.

 8. CONDITION OF THE WORK AREA (INCLUDING ROADS, RIGHT-OF-WAYS, ETC.) UPON COMPLETION OF THE JOB SHALL BE AS GOOD OR BETTER THAN THE CONDITION PRIOR TO STARTING THE WORK.

 9. ALL DRIVEWAYS WILL BE LOCATED TO AVOID EXISTING CURB INLET STRUCTURES.

 10. REDWOOD AND KEYWAYS SHALL NOT INTERSECT WITHIN 2 FEET OF AN INLET.
- 11. AT INITIAL AND FINAL INSPECTIONS THE PAVEMENT WILL BE FLOODED TO CHECK FOR BIRDBATHS AND CRACKS. FLOODING OF STREETS SHALL OCCUR 1 HOUR PRIOR TO INSPECTION.

 12. ALL CONCRETE PLACED SHALL BE UNIFORMLY SPRAYED WITH A MEMBRANE CURING COMPOUND AS DESCRIBED IN ITEM 526 IN THE TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION. IMPROPER APPLICATION WILL RESULT IN THE REJECTION OF THE CONCRETE.

 13. SIX (6) INCH, 5.5 SK, 3500 PSI © 28 DAYS, REINFORCED WITH #4 REBAR, 24" C.C. EACH WAY IS THE MINIMUM ACCEPTABLE CONSTRUCTION FOR LOCAL STREETS
- SEVEN (7) INCH, 5.5 SK, 3500 PSI © 28 DAYS, REINFORCED WITH #4 REBAR, 18" C.C. EACH WAY IS THE MINIMUM ACCEPTABLE PAVEMENT CONSTRUCTION FOR COLLECTOR STREETS.
 EIGHT (8) INCH, 5.5 SK, 3500 PSI © 28 DAYS, REINFORCED WITH #4 18" C.C. EACH WAY IS THE MINIMUM ACCEPTABLE FOR ARTERIAL STREETS.
 WHEN CONCRETE PAVEMENT INTERSECTS THICKER PAVEMENT, THE THICKER PAVEMENT SHALL BE CONSTRUCTED TO THE ENDS OF ALL CURB RETURNS.
 ALL RETURNS SHALL HAVE A MIN. 25 FT. RADIUS AT THE FACE OF CURB UNLESS OTHERWISE NOTED.

18. ALL INTERSECTIONS SHALL BE CONSTRUCTED WITH WHEELCHAIR RAMPS IN ACCORDANCE WITH THE

- TEXAS ACCESSIBILITY STANDARD, THE AMERICAN DISABILITIES ACT, AND THE CITY OF SUGAR LAND STANDARDS (LATEST REVISIONS). (NO BLOCKOUTS)

 19. CONCRETE SIDEWALKS SHALL BE CONSTRUCTED WITHIN EACH STREET RIGHT-OF-WAY IN ACCORDANCE WITH CITY OF SUGAR LAND, THE A.D.A., AND THE T.A.S. STANDARDS (LATEST REVISIONS).

 20. CRACKS LARGER THAN 1/16-INCH ARE NOT ACCEPTABLE IN NEW PAVEMENT. CRACKS 1/16-INCH OR LESS SHALL BE ADDRESSED ON AN INDIVIDUAL BASIS BY DRILL AND EPOXY INJECTION, SUBJECT TO APPROVAL OR REJECTION.

 21. PROPER TESTING AND LAB DOCUMENTATION IS REQUIRED. FAILURE TO MEET THE MINIMUM PAVEMENT
- REPLACEMENT OF SUBSTANDARD PAVEMENT SECTIONS WILL BE NECESSARY TO SATISFY THESE REQUIREMENTS.

 22. 4—CONCRETE CYLINDERS, SLUMP, AND AIR ENTRAINMENT TESTS ARE REQUIRED FOR EACH 100 CUBIC YARDS OF CONCRETE PAVING WITH A MINIMUM OF ONE SET OF 4 PER PLACEMENT. THE CITY OF SUGAR LAND RESERVES THE RIGHT TO REQUEST ANY ADDITIONAL TESTS AT THE CONTRACTOR'S EXPENSE, IF ANY MATERIAL APPEARS BELOW STANDARDS.

REQUIREMENTS WILL RESULT IN THE REJECTION OF SAID PAVEMENT. IMMEDIATE REMOVAL AND

- NO. 3 REBAR, 18-INCH C.C. E.W. IS THE MINIMUM ACCEPTABLE FOR SIDEWALKS. NUMBER 4-REBAR, 24-INCH C-C. EACH WAY IS THE MINIMUM ACCEPTABLE FOR COMMERCIAL APPROACHES, HANDICAP RAMPS, RESIDENTAL APPROACHES AND DRIVEWAYS.
 COLD WEATHER PRECAUTIONS. CONCRETE PAVEMENT SHALL NOT BE PLACED WHEN THE AMBIENT TEMPERATURE IS 40°F AND FALLING. CONCRETE MAY BE PLACED IF THE AMBIENT TEMPERATURE IS 35° AND RISING. CONTRACTOR SHALL PROVIDE AN APPROVED COVERING MATERIAL (COTTON MATS, POLYETHYLENE SHEETING, ETC.) IN THE EVENT TEMPERATURE SHOULD FALL BELOW 32°F. NO SALT OR OTHER CHEMICALS SHALL BE ADDED TO CONCRETE TO PREVENT ERFEZING.
- 25. HOT WEATHER. NO CONCRETE PAVEMENT MIXTURE SHALL BE PLACED IF THE MIXTURE TEMPERATURE IS ABOVE 95°F. AIR AND WATER REDUCER ARE REQUIRED IF MIXTURE TEMPERATURE REACHES 85°F OR ABOVE.
 26. IF NO AIR AND WATER REDUCER HAS BEEN ADDED, NO CONCRETE SHALL BE PLACED IF MORE THAN 60 MINUTES PAST BATCH TIME. IF AIR AND WATER REDUCER HAS BEEN ADDED, NO CONCRETE SHALL BE PLACED IF MORE THAN 90 MINUTES PAST BATCH TIME.
 27. STRUCTURE TEMPERATURES AND TIMING FOR CONCRETE PLACEMENT MAY VARY. REFER TO TXDOT STANDARDS ITEM 420 FOR DETAILS.

TANGENCY AND ALL INTERSECTION CURB RETURN POINTS. MAXIMUM SPACING SHALL BE 200' AND

BE SEALED WITH SEALANT CONFORMING TO TXDOT ITEM 360 (& ITEM 438) AND TXDOT DMS-6310, CLASS-2.

29. CONTROL JOINTS SHALL BE PLACED AT 20' C-C.

30. EXPANSION JOINT LAYOUT FOR INTERSECTIONS SHALL BE PROVIDED BY ENGINEER FOR CITY

28. TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT ALL POINTS OF CURVATURE, POINTS OF

- 31. NO WIRE MESH IS ALLOWED IN ANY CONCRETE WITHIN THE CITY LIMITS OR ETJ.

 32. ALL REBAR SHALL BE 100% TIED. OVERLAPS SHALL BE DOUBLE TIED MINIMUM. REINFORCED STEEL BE A MINIMUM 60% COVERAGE.

 33. ALL NEW CURB REQUIRES 3,000 P.S.I. © 28-DAYS. 4 CONCRETE CYLINDERS, SLUMP, AND AIR ENTRAINMENT TESTS ARE REQUIRED FOR EACH 50 CUBIC YARDS OF CONCRETE CURB WITH A MINIMUM OF ONE SET OF 4 PER PLACEMENT.
- MINIMUM OF ONE SET OF 4 PER PLACEMENT.

 34. A CITY INSPECTOR MUST BE PRESENT ON ALL PROOF ROLLS, LIME DEPTH CHECKS AND DENSITY TESTS AND MUST BE CONTACTED AT LEAST 24 HOURS PRIOR TO THE TEST.

 35. CONCRETE MIX DESIGN MUST BE SENT TO THE CITY FOR APPROVAL A MINIMUM 72 HOURS BEFORE THE FIRST CONCRETE POUR

 36. FOR A REGULAR MIX, SLUMP SHALL BE A MAXIMUM OF 5". FOR A MIX WITH A WATER REDUCER, SLUMP SHALL BE A MAXIMUM OF 6".
- 37. VEHICLES OF ALL TYPES ARE PROHIBITED FROM DRIVING ON NEW PAVEMENTS SEVEN (7) DAYS AFTER THE CONCRETE POUR AND UNTIL THE CONCRETE HAS REACHED A MINIMUM OF 3,000 PSI.
 PAVEMENT PROTECTION SUCH AS A DIRT LAYER OF AT LEAST 12" IS REQUIRED FOR TRACK EQUIPMENT AT PAVEMENT CROSSINGS.

 38. IN LIEU OF MECHANICALLY CONTROLLED VIBRATORS CONTROLLED BY A SLIP—FORM PAVING MACHINE, HAND MANIPULATED MECHANICAL VIBRATORS SHALL BE USED FOR PROPER CONSOLIDATION OF
- CONCRETE IN ALL PAVEMENT AREAS (ALONG FORMS, AT JOINTS, ETC.)

 39. ALL CONCRETE STREETS AND BRIDGE SURFACES SHALL HAVE A "BAKER BROOM" FINISH, WHILE ALL OTHER CONCRETE PLACEMENT SHALL HAVE A MEDIUM BROOM FINISH.

 40. ALL PAVEMENT MARKINGS TO BE DONE IN CONFORMANCE WITH THE LATEST VERSION OF TMUTCD AND TXDOT STANDARD SPECIFICATIONS AND ANY REVISIONS THERETO.

 41. REFER TO GENERAL NOTES.

CEMENT STABILIZED SAND:

- ALL STABILIZED SAND SHALL BE A MINIMUM OF 1.5 SK PER CUBIC YARD.
 CEMENT STABILIZED SAND (C.S.S.) SHALL ACHIEVE A MINIMUM OF 100 PSI WITHIN 48 HOURS.
 A MINIMUM OF 2 RANDOM SAMPLES SHALL BE TAKEN EACH WEEK. (FOR SMALLER PROJECTS, ONE SAMPLE MAY SUFFICE WITH CITY OF SUGAR LAND APPROVAL.) THE CITY OF SUGAR LAND RESERVES THE RIGHT TO REQUIRE ADDITIONAL TESTS, AT THE CONTRACTORS EXPENSE IF IT IS DEEMED NECESSARY.
 ANY C.S.S. NOT MEETING CITY OF SUGAR LAND STANDARDS SHALL BE REMOVED AND REPLACED
- AT THE CONTRACTOR'S EXPENSE.

 5. BOTH CEMENT CONTENT AND COMPRESSIVE TESTS SHALL BE CONDUCTED ON C.S.S. SAMPLES.

 6. ALL C.S.S. SHALL BE COMPACTED IN MAXIMUM OF 8-INCH LIFTS AND REQUIRED TO REACH A MINIMUM DENSITY OF 95%. 7. REFER TO GENERAL NOTES.

BANK SAND:

BANK SAND IS DEFINED AS A WELL—GRADED SAND, FREE OF SILT, CLAY, FRIABLE OR SOLUBLE MATERIALS AND ORGANIC MATER, MEETING THE UNIFIED SOILS CLASSIFICATIONS SYSTEM GROUP SYMBOL SW CRITERIA WITH A PLASTICITY INDEX OF LESS THAN 10. NO MORE THAN 12% OF MATERIAL CAN PASS THE No. 200 SIEVE.

ASPHALT - OILS AND EMULSIONS:

- CONTRACTOR SHALL VERIFY LINES AND GRADES AND THAT COMPACTED BASE IS READY TO SUPPORT LOADS.
 BASE MATERIAL SHALL BE DRY AND THOROUGHLY CLEAN OF LOOSE MATERIAL PRIOR TO APPLICATION.
 OILS & EMULSION SHALL BE DISTRIBUTED EVENLY AND SMOOTHLY UNDER PRESSURE NECESSARY
- MAINTAIN REQUIRED SURFACE CONDITIONS UNTIL ACCEPTED BY THE CITY OF SUGAR LAND.
 PRIME COAT SHALL BE M.C.-30, M.C.-70 OR E.P.R.1 PRIME AND SHALL COMPLY WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES (1993) AND ITS LATEST REVISIONS.
 TACK COAT SHALL BE SS-1 AND SHALL COMPLY TO TXDOT, S.S.C.H.S. & B. (1993) AND ITS LATEST REVISIONS.
 M.C.-30 AND M.C.-70 AND EPR-1 PRIME SHALL BE DISTRIBUTED AT A RATE OF .25 TO .35 GALLONS PER SQUARE YARD. AND MAY NOT BE APPLIED WHEN AMBIENT TEMPERATURE IS 50'F
- AND FALLING. (NOTICE: CUTBACK ASPHALTS MAY NOT BE USED DURING THE PERIOD OF APRIL 16 THROUGH SEPT. 15 AS PER ASTM D-244).

 8. EPR-1 MAXIMUM WATER DILUTION IS 3 PARTS WATER TO ONE PART EPR-1.

 9. SS-1 TACK COAT SHALL BE APPLIED AT A RATE NOT TO EXCEED 0.06 GAL. PER SQUARE YARD OF SURFACE AREA. CONTACT JOINTS, CURBS, ETC. SHALL BE PAINTED WITH AN EVEN THIN COAT APPLIED BY BRUSH OR BROOM. COATING MATERIAL SHALL BE HEATED TO 125'F TO 180'F WHEN APPLIED TACK COAT MAY BE APPLIED WHEN AMBIENT TEMPERATURES ARE 40'F AND

RISING. TACK COAT MAY NOT BE APPLIED IF AMBIENT AIR IS 50°F AND FALLING.

LIMING SUBGRADE

FOR PROPER DISTRIBUTION

- LIME SHALL BE A "SLURRY" AS PER TXDOT 260 UNLESS SPECIFICALLY RECOMMENDED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY ENGINEER.
 ALL LIME SLURRIES SHALL BE FURNISHED AT OR ABOVE THE MINIMUM "DRY SOLIDS" CONTENTS AS APPROVED BY THE ENGINEER.
 SUBGRADES SHALL BE STABILIZED WITH A MINIMUM SIX PERCENT (6%) LIME BY WEIGHT, EIGHT INCHES (8") THICK THE INITIAL MIX TO REDUCE PLASTICITY INDEX (PI) TO 20 OR LESS AS DETERMINED BY THE LIME SERIES. THE FINAL MIX SHALL BE AT SIX INCHES (6") THICK.
 LIME DRY SOLID CONTENT TESTS SHALL BE CONDUCTED ON SITE, ONCE PER ONE—HUNDRED
- (100) TONS OF MATERIAL DISTRIBUTED, UNLESS OTHERWISE NOTED.
 5. THE SUBGRADE SHALL BE SHAPED AND GRADED TO CONFORM TO THE TYPICAL SECTIONS, AS SHOWN ON THE PLANS, PRIOR TO TREATING THE EXISTING MATERIAL.
 6. UNLESS APPROVED BY THE CITY ENGINEER, LIME OPERATIONS SHALL NOT BE STARTED WHEN THE AMBIENT AIR TEMPERATURE IS BELOW 40°F. AND FALLING. LIMING MAY, WITH APPROVAL, BE STARTED WHEN THE AMBIENT AIR TEMPERATURE IS 35°F AND RISING. LIME SHALL NOT BE PLACED WHEN WEATHER CONDITIONS, IN THE ENGINEER'S OPINION, ARE UNSUITABLE.
 7. THE SUBGRADE MATERIAL AND SLURRY SHALL BE THOROUGHLY MIXED, BROUGHT TO THE PROPER MOISTURE CONTENT (±2) AND LEFT TO CURE USUALLY 3 DAYS (72 HRS.) MINIMUM AS
- APPROVED BY THE CITY ENGINEER.

 8. AFTER CURING, THE SUBGRADE SHALL BE REMIXED UNTIL PULVERIZATION REQUIREMENTS ARE MET, AS PER TXDOT.

 TEX-101-E, PART III.

 PERCENT MINIMUM PASSING 1-3/4" SIEVE.......100
- PERCENT MINIMUM PASSING 3/4" SIEVE.......85
 PERCENT MINIMUM PASSING No.4 SIEVE......60
 9. SIEVE TESTS SHALL BE CONDUCTED EVERY 150 LF ON ALTERNATING LANES OF TRAFFIC OR EVERY 300 LF ON SINGLE LANES AS REQUIRED. AT LEAST ONE TEST SHALL BE CONDUCTED ON
- EACH ROADWAY OR CUL-DE-SAC.

 10. THE MATERIAL SHALL BE AERATED OR MOISTENED TO + OR -2% OPTIMUM PRIOR TO COMPACTION. COMPACTION TO A MINIMUM 95% DENSITY SHALL BEGIN IMMEDIATELY AFTER ALL PULVERIZATION AND MOISTURE REQUIREMENTS ARE MET. THROUGHOUT THIS ENTIRE OPERATION, THE SURFACE SHALL BE SMOOTH AND IN CONFORMITY WITH THE LINES AND GRADES ON THE PLANS.

 11. WHEN THE SUBGRADE FAILS TO MEET DENSITY REQUIREMENTS OR SHOULD IT LOSE THE REQUIRED STABILITY, DENSITY OR FINISH, IT SHALL BE REWORKED IN ACCORDANCE WITH TXDOT SUBARTICLE 260.4(7) "REWORKING A SECTION", WHICH MAY REQUIRE AN ADDITIONAL 25% OF THE
- SPECIFIED LIME AMOUNT.

 12. THE TREATED SUBGRADE SHALL BE KEPT MOIST AND PREVENTED FROM DRYING. IN THE EVENT OF A ONE—HALF (1/2) INCH RAINFALL AND/OR IF THE MATERIAL BECOMES DRY AND IS NOT IN COMPLIANCE WITH THE ±2% OPTIMUM MOISTURE, DENSITY AND MOISTURE TESTS SHALL BE RETAKEN.

 13. LIME DEPTH DETERMINATIONS WILL BE CONDUCTED AT EACH LOCATION OF DENSITY TESTING, LIME—STABILIZED SUBGRADE SHALL BE A MINIMUM OF 6% AT 8" UNLESS OTHERWISE DIRECTED BY CITY

ENGINEER. DENSITY TESTING SHALL BE DONE IMMEDIATELY PRIOR TO PLACEMENT OF REINFORCING

SINGLE LANE. AT LEAST ONE TEST SHALL BE CONDUCTED ON EACH ROADWAY AND/OR CUL—DE—SAC.

14. NO SUBGRADE SHALL BE COVERED WITH ANOTHER MATERIAL UNLESS APPROVED BY THE CITY OF SUGAR LAND AND LIME DEPTH TESTS HAVE BEEN COMPLETED.

STEEL, AND SHALL BE COMPACTED TO A MINIMUM OF 95%. LIME DEPTH TESTS SHALL BE

CONDUCTED AT EVERY 150 LF OF ROADWAY ON ALTERNATING LANES OR EVERY 300 LF OF

HOT MIX ASPHALTIC BASE COURSE:

325'F WHEN PLACED

- 1. NO HOT MIX ASPHALTIC BASE MAY BE INSTALLED UNTIL THE SUBGRADE HAS BEEN PROPERLY PREPARED AND TESTED AS PER THE PLANS AND SPECIFICATIONS. THE SUBGRADE SHALL BE INSPECTED AND APPROVED BY THE CITY OF SUGAR LAND
- BEFORE ANY BASE MATERIALS ARE INSTALLED.

 2. HOT MIX ASPHALTIC BASE MATERIALS, HANDLING, AND INSTALLATION SHALL COMPLY WITH TXDOT STANDARDS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES
- 1995 (SECTION 02711) AND ITS LATEST REVISIONS.

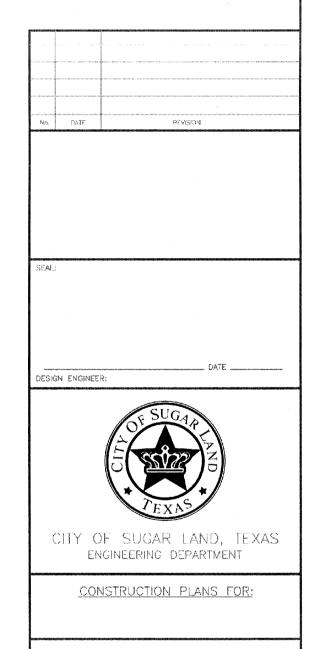
 3. HOT MIX ASPHALTIC MATERIALS SHALL BE AT TEMPERATURES BETWEEN 250°F AND
- 4. MATERIALS MAY NOT BE PLACED IN WET CONDITIONS OR IF THE AMBIENT TEMPERATURE IS BELOW 50°F AND FALLING. MATERIALS MAY BE INSTALLED IF THE
- AMBIENT TEMPERATURE IS TAKEN IN THE SHADE AND IS 40°F AND RISING.

 5. PLACE BASE COURSES 4 INCHES OR GREATER IN THICKNESS IN TWO OR MORE LAYERS. EACH HAVING A COMPACTED THICKNESS OF NOT GREATER THAN 4
- 6. BASE MATERIAL MAY ONLY BE PLACED AGAINST CLEAN, STRAIGHT EDGES. SAW CUTTING, FULL DEPTH, IS REQUIRED IF EXISTING EDGES ARE ROUGH OR UNEVEN.
 7. COMPACTION SHALL BEGIN WHILE MATERIAL IS STILL HOT AND AS SOON AS IT WILL
- BEAR THE ROLLER OR COMPACTOR WEIGHT WITHOUT UNDUE DISPLACEMENT OR HAIR CRACKING.

 8. COMPACT SURFACE UNIFORMLY WITH ROLLERS OR TAMPERS IN LOCATIONS NOT
- READILY ACCESSIBLE (I.E., ALONG CURBS, WALLS, ETC.).
 9. UNLESS OTHERWISE SPECIFIED, COMPACT DENSITY TO NOT LESS THAN 95% OF
- MAXIMUM POSSIBLE DENSITY.

 10. A CERTIFIED LAB SHALL BE ON SITE AT ALL TIMES TO TEST AND PROPERLY DOCUMENT THE CONSTRUCTION METHODS AND QUALITY OF MATERIALS.
- 11. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY TO A.S.T.M. ASPHALT INSTITUTE
 AND CITY OF SUGAR LAND REQUIREMENTS. FAILURE TO COMPLY WILL RESULT IN
 REJECTION OF SAID MATERIALS AND SUCH SHALL BE REPLACED AT THE
- CONTRACTOR'S EXPENSE.

 12. DO NOT OPEN BASE TO TRAFFIC UNTIL IT CAN BE MAINTAINED IN GOOD CONDITION AND IS CAPABLE OF SUPPORTING VEHICLE WEIGHT WITHOUT DAMAGE OR
- 13 DENSITIES SHALL BE TAKEN AT A MINIMUM OF AT LEAST ONCE PER 300 LF OF DRIVE LANE OR ONCE PER 250 SQ. YD., WHICHEVER MAY APPLY AND SHALL BE STAGGERED RELATIVE TO TESTING SITES IN ABUTTING TRAFFIC LANES. FAILURE TO MEET MINIMUM REQUIREMENTS SHALL RESULT IN THE REPLACEMENT OF SAID MATERIAL AT CONTRACTOR'S EXPENSE.



GENERAL CONSTRUCTION NOTES I

SIGNED BY:

SL-01

IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION,
AND GRADE; AND THAT THE CONSTRUCTION WAS IN
SUBSTANTIAL COMPLIANCE WITH THE CONTRACT
DOCUMENTS.

CONTRACTOR:

TITLE:

FORT BEND COUNTY ENGINEERING DEPARTMENT

RECORD DRAWING

I HEREBY CERTIFY THAT THIS DRAWING REFLECTS THE

PPROVED: DEVELOPMENT COORDINATOR

DATE: 8/16/17

BENCHMARK PUBLISHED ELEVATION - 70.14

CITY OF SUGAR LAND REFERENCE MARK NUMBER

SGR-1, BEING A BRASS DISK STAMPED "RM 001

LOCATED ON A MEDIAN ON ELKINS RD APPROX.

<u> TEMPORARY BENCHMARK "A" ELEVATION — 66.75</u>

BOX CUT ON A STORM INLET LOCATED ON THE

EAST SIDE OF WEST AVALON DRIVE APPROX. 260

<u> TEMPORARY BENCHMARK "B" ELEVATION — 67.12</u>

BOX CUT ON A STORM INLET LOCATED ON THE

SOUTH SIDE OF UNIVERSITY BLVD. APPROX. 180

FEET EAST OF WEST AVALON DRIVE. (AS SHOWN

FEET SOUTH OF UNIVERSITY BLVD. (AS SHOWN

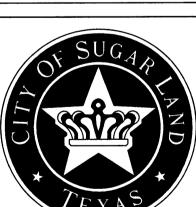
2.15 MILES SOUTH OF WILLIAMS TRACE BLVD.

ELEV. 70.14', NAVD88, 2001 ADJUSTMENT.

HEREON)

HEREON)

DATE REVISION



CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

SHOPS IN RIVERSTONE

GENERAL NOTES

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TEPHEN R. HOBBS

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A Enginee	ring, Inc.				RIVERSTONE
9 Briarpark Drive e 600 iston, Texas 770		Phone 713.953.5200 Fax 713.953.5026 FRN - F-1386			
PROJECT NO	.: 2423-1601F)			
GNED BY: JRP	DRAWN BY: JRP/MMB	DATE	E: AUG 2	017	N Sc
SCALE: Z: NTS T:	SHEET NO.	2	OF	15	SHO

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07 Aug 2017 — 4:15pm ojdsk1\2423\1601P\ACAD\Production Drawings\02 & 03 GENERAL NOTE:

ASPHALTIC CONCRETE PAVEMENT:

- ASPHALTIC MATERIAL AND WORKMANSHIP SHALL COMPLY WITH ASTM C 33, ASTM C 131, ASTM C 136, AND TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES (1993) AND ITS LATEST REVISIONS. ASPHALT SHALL BE TYPE D-100 UNLESS SPECIFICALLY NOTED AND APPROVED BY CITY OF SUGAR LAND ENGINEER. CONTRACTOR SHALL VERIFY ELEVATIONS AND GRADES AND THAT BASE COURSE IS READY TO SUPPORT IMPOSED LOADS.
- APPLY A PRIME COAT AS PER CITY OF SUGAR LAND AND TXDOT STANDARDS. DO NOT APPLY TACK COAT UNTIL PRIMED BASE COURSE HAS CURED AND IS APPROVED BY THE CONSTRUCTION INSPECTOR. TACK COAT SHALL COMPLY TO CITY OF SUGAR LAND AND TXDOT STANDARDS.
- DO NOT USE CUTBACK ASPHALT APRIL 16 THROUGH SEPTEMBER 15.
- DO NOT PLACE ASPHALT WHEN AMBIENT TEMPERATURE IS BELOW 50°F AND FALLING. MIXTURE MAY BE PLACED WHEN AMBIENT TEMPERATURE IS 40°F AND RISING.
- ON PUBLIC ROADS, STREETS, AND RIGHT-OF-WAY, ASPHALT SHALL BE PLACED IN MAXIMUM 2-INCH LIFTS. IN THE EVENT MORE THAN ONE LIFT IS REQUIRED, EACH LIFT SHALL BE COMPACTED, TESTED, AND GIVEN ADEQUATE TIME FOR THE PREVIOUS LIFT TO CURE AND DRY BEFORE THE NEXT LIFT IS PLACED. IF COMPLETELY CURED AND DRIED, A TACK COAT WILL BE REQUIRED BETWEEN LIFTS.
- A CERTIFIED LAB SHALL BE ON SITE AT ALL TIMES TO TEST AND PROPERLY DOCUMENT THE CONSTRUCTION METHODS AND QUALITY OF MATERIALS.
- ROLLING PATTERNS SHALL BE ESTABLISHED BY THE CONTRACTOR, AS RECOMMENDED BY THE LAB, TO ACHIEVE THE MAXIMUM COMPACTION. THE SELECTED ROLL PATTERN SHALL BE FOLLOWED UNLESS. CHANGES IN THE PLACEMENT OR MIXTURE OCCUR, WHICH AFFECT COMPACTION. COMPACTION OF 95% SHALL BE ACHIEVED. 10. ASPHALT SHALL NOT BE PLACED ON WET BASE.
- NO "BIRDBATHS" ARE ALLOWED. 12. IF THE SURFACE RAVELS (SEPARATES), FLUSHES, RUTS, OR DETERIORATES IN ANY MANNER PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR WILL CORRECT THIS CONDITION AT HIS EXPENSE TO THE SATISFACTION OF THE CITY OF SUGAR LAND
- 13. THE CONTRACTOR SHALL PROTECT THE PAVEMENT UNTIL DIRECTED BY THE CITY ENGINEER TO OPEN SAID PAVEMENT TO
- 14. RIDE QUALITY SHALL COMPLY WITH TXDOT ITEM 585, "RIDE QUALITY FOR PAVEMENT SURFACES". SPECIAL NOTE: CONTRACTOR, WHILE MAXIMIZING COMPACTION, SHALL USE CAUTION NOT TO "OVER-ROLL" ASPHALT.
- PAVEMENT STRETCHED OR OVER-ROLLED, WHERE COMPACTION IS BROKEN, SHALL NOT BE ACCEPTED AND SHALL BE REPAIRED OR REPLACED TO THE CITY ENGINEER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE. 16. CORE SAMPLES SHALL BE TAKEN RANDOMLY AT A MINIMUM OF EVERY 300 LF PER LANE OF ROADWAY OR ONE PER EVERY 250 SQ. YD., WHICHEVER IS APPLICABLE AND SHALL BE STAGGERED RELATIVE TO TESTING SITES IN ABUTTING
- 17. ALL ASPHALTIC CONCRETE PAVEMENT REPAIRS SHALL BE SAW OUT TO FULL ASPHALT DEPTH. REFER TO ASPHALT, STABILIZED BASE, FLEXIBLE BASE, ASPHALT BASE, AND OIL AND EMULSION NOTES. ALL DAMAGED BASE AND SUBGRADES SHALL BE REMOVED AND REPLACED TO THE CITY ENGINEER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AREA DAMAGED DURING CONSTRUCTION, INCLUDING AREAS OUTSIDE THE

STABILIZED CRUSHED CONCRETE:

DESIGNATED REPAIR.

- TEST AND ANALYSIS OF AGGREGATE AND BINDER MATERIALS WILL BE PERFORMED IN ACCORDANCE WITH ASTMD 1557 AND
- ASTMD 4318. CEMENT SHALL BE ASTMC 150 TYPE I. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF
- HIGHWAYS, STREETS AND BRIDGES (1993) AND ITS LATEST REVISIONS AND CITY OF SUGAR LAND STANDARDS. PRIME COAT SHALL BE M.C. 30 OR EPR-1 PRIME DESIGN MIX FOR MINIMUM AVERAGE COMPRESSIVE STRENGTH OF 200 PSI IN 48 HRS. PROVIDE MINIMUM CEMENT
- CONTENT OF 2 SK PER TON OF MIX. CEMENT CONTENT MAY BE RAISED AT THE CONTRACTOR'S EXPENSE IF TESTS ON FIELD SAMPLES FALL BELOW 200 PSI. THREE SAMPLES SHALL BE MOLDED EACH DAY FOR EACH 300 TONS OF PRODUCTION. COMPRESSIVE STRENGTH SHALL
- BE THE AVERAGE OF THREE TESTS FOR EACH PRODUCTION LOT. CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE, ANY MATERIAL BELOW MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY LINES, GRADES, AND COMPACTED SUBGRADING AS READY TO RECEIVE MATERIALS PRIOR TO ITS
- CEMENT STABILIZED BASE MAY NOT BE PLACED IF AMBIENT TEMPERATURE IS 40°F AND FALLING. BASE MATERIAL MAY BE PLACED IF AMBIENT TEMPERATURE IS 35°F AND RISING.
- MATERIAL MAY NOT BE PLACED IN LIFTS EXCEEDING 6 INCHES IN DEPTH. EACH LIFT SHALL HAVE DENSITIES TAKEN. CEMENT STABILIZED BASE MAY NOT BE STORED FOR LONG PERIODS. DELIVERY OF MATERIAL AND UTILIZATION SHOULD BE TIMED ACCORDINGLY. MAXIMUM TIME ALLOWED 3 HRS. FROM BATCH TIME TO HAVING BEEN INSTALLED.
- 10. CEMENT STABILIZED BASE SHALL NOT BE INSTALLED IN WET OR SOFT AREAS. COMPACT TO MINIMUM DENSITY OF 95% OF MAXIMUM DRY DENSITY. UNLESS OTHERWISE INDICATED ON DRAWINGS.
- MOISTURE SHALL BE BETWEEN + OR -2% OPTIMUM AS DETERMINED BY ASTMD 698 AFTER COMPACTING FINAL COURSE, BLADE SURFACE TO FINAL GRADE. ANY IRREGULARITIES, WEAK SPOTS, AREAS OF EXCESSIVE WETNESS, OR SURFACE HAIR LINE CRACKING SHALL BE REPAIRED AND/OR REPLACED AT CONTRACTOR'S
- EXPENSE. A CERTIFIED LAB SHALL BE ON SITE AT ALL TIMES TO TEST AND PROPERLY DOCUMENT THE CONSTRUCTION METHODS AND
- QUALITY OF MATERIALS. COMPACTION TESTING WILL BE PERFORMED IN ACCORDANCE WITH ASTM D 1556 OR ASTM D 2922 AND ASTM D 3017 AT
- RANDOMLY SELECTED LOCATIONS AS DIRECTED BY CITY OF SUGAR LAND CONSTRUCTION INSPECTOR. 15. A MINIMUM OF ONE CORE SHALL BE TAKEN AT RANDOM LOCATIONS PER 300 LF PER LANE. OF ROADWAY OR ONE PER
- 250 SQ. YD., WHICHEVER MAY APPLY AND SHALL BE STAGGERED RELATIVE TO TESTING SITES IN ABUTTING TRAFFIC LANES. CURE FOR A MINIMUM OF 7 DAYS BEFORE ADDING ASPHALT PAVEMENT COURSES.
- COVER SURFACE WITH CURING MEMBRANES AT THE FOLLOWING RATES: MC-30:.01 GAL. PER SQ. YD., OR EPR-1 PRIME:0.15 GAL. PER SQ. YD. DO NOT USE CUTBACK ASPHALT APRIL 16 TO SEPTEMBER 15. PROTECT THE MEMBRANE BY ALLOWING MEMBRANE TO FULLY CURE PRIOR TO PERMITTING TRAFFIC TO DRIVE ON IT.
- UNSTABILIZED CRUSHED CONCRETE MAY NOT BE USED ON PUBLIC STREETS, ROADS, OR RIGHTS-OF-WAY, STABILIZED LIMESTONE BASE MAY BE SUBSTITUTED FOR STABILIZED CRUSHED CONCRETE IF SUBMITTED AND APPROVED BY THE CITY ENGINEER.

STORM SEWER NOTES:

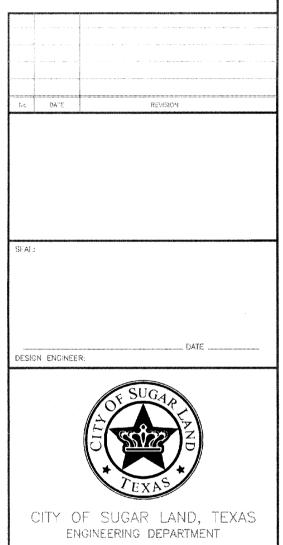
- 1. STORM SEWERS SHALL BE DESIGNED AND CONSTRUCTED WITH CITY OF SUGAR LAND'S STANDARD CONSTRUCTION SPECIFICATIONS AND IN ACCORDANCE WITH CITY OF SUGAR LAND STANDARD DETAILS SHEET AND LATEST
- 2. ALL PIPE STORM SEWERS SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH CITY OF
- SUGAR LAND STANDARD DETAIL DRAWINGS. 3. ALL CEMENT STABILIZED SAND (C.S.S.) SHALL BE 1-1/2 SK PER CUBIC YD. AND MEET MINIMUM C.S.S. STANDARDS COMPACTED TO 95%.
- 4. ALL STORM SEWERS UNDER AND WITHIN TWO (2) FOOT OF PROPOSED OR FUTURE PAVEMENTS SHALL BE BACKFILLED AND COMPACTED WITH 1-1/2 SK C.S.S. TO BOTTOM OF SUBGRADE. 5. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES OR INLETS ARE TO BE PLUGGED WITH 8" BRICK WALLS
- WITH FULL MORTAR HEAD AND BED JOINTS AND GROUTED WITH A MINIMUM OF 1/2-INCH NON-SHRINK GROUT INSIDE AND OUTSIDE, UNLESS OTHERWISE NOTED. 6. AVOID TO MAXIMUM EXTENT, MANHOLES IN HANDICAP RAMPS.
- 7. ALL STORM SEWER MANHOLES SHALL BE OF SUGAR LAND TYPE "C" UNLESS OTHERWISE NOTED AND SHALL BE LOCATED A MINIMUM OF THREE (3) FEET BACK OF CURB. IF CONFLICT EXISTS, RACK OVER MANHOLE TO MISS
- 8. RIM ELEVATIONS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. UTILITY CONTRACTOR SHALL ADJUST RIM ELEVATIONS TO 0.4 FEET ABOVE THE FINISH GRADE AT EACH LOCATION AFTER CONTRACTOR HAS COMPLETED FINAL GRADING. SLOPED FILL SHALL BE ADDED FOR STORM WATER DRAINAGE AWAY FROM RIM. 9. RIM ELEVATIONS SHALL BE PROPERLY ADJUSTED TO GRADE IN PAVEMENT AND SIDEWALKS. APPROVED
- BLOCKOUTS SHALL BE USED IN PAVEMENT. 10. ALL STORM SEWER MANHOLE COVERS MUST INCLUDE "STORM SEWER" AND "DUMP NO WASTE", "DRAINS TO WATERWAYS" WITH CITY OF SUGAR LAND EMBLEM AS DEPICTED IN THE DETAIL SHEETS.
- 11. MINIMUM STORM SEWER SIZE SHALL BE 24-INCH DIAMETER. ALL STORM SEWER PIPES 24" AND LARGER ARE TO BE REINFORCED CONCRETE PIPE ASTM C-76 CLASS III, INCLUDING INLET LEADS CROSSING UNDER EXISTING OR PROPOSED PAVEMENTS. ALL INLET LEADS SHALL BE 24" R.C.P. OR LARGER. ALL STORM SEWER PIPE SHALL BE RUBBER GASKETED. ALL CMP PIPE SHALL BE IN ACCORDANCE WITH C.O.S.L. APPROVED PRODUCT LIST AND STANDARD DETAILS.
- 12. CONTRACTOR SHALL VERIFY NATURAL GROUND SHOTS PRIOR TO MANHOLE CONSTRUCTION. 10. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION. DURING THE COURSE OF ANY AND ALL CLEARING, GRUBBING, FILL, GRADING, EXCAVATION OR OTHER CONSTRUCTION, CONTRACTOR SHALL ENSURE THAT STORM DRAINAGE PATHWAYS ARE MAINTAINED AND REMAIN OPEN TO ENSURE POSITIVE DRAINAGE AND THAT SUCH CONVEYANCES ARE NOT IMPEDED OR BLOCKED IN ANY WAY. STORM SEWER INLETS SHALL BE PROTECTED FROM ENTRY OF SILT, TRASH, DEBRIS AND ANY SUBSTANCES DELETERIOUS TO THE STORM SEWER SYSTEM AND/OR WATERWAYS RECEIVING STORM WATER RUNOFF. CONTRACTOR SHALL AT COMPLETION OF WORK, FILL LOW SPOTS AND GRADE ALL RIGHTS-OF-WAY AND UTILITY EASEMENTS AND REGRADE/RESTORE DITCHES AS NECESSARY TO MAINTAIN AND/OR ESTABLISH
- 11. CONTRACTOR TO PROVIDE A MINIMUM OF 6-INCHES CLEARANCE AT UTILITY CROSSINGS AND A MINIMUM OF TWELVE (12) INCHES AT SANITARY SEWER CROSSING. 12. THE CONTRÁCTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACKSLOPE
- DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK. 13. ALL DITCHES SHALL BE RESTORED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE COMPACTED AND ALL DISTURBED AREAS SHALL BE RESEEDED OR RESODDED WITHIN 10 WORKING DAYS OF EACH OCCURRENCE (NO SEPARATE PAY).
- 14. THE UTILITY CONTRACTOR SHALL ROUGH CUT ALL ROADSIDE SWALES IN PROPER ALIGNMENT AND SLOPE TO WITHIN 0.2 FT. OF FINISH GRADE. THE PAVING CONTRACTOR, UPON COMPLETION OF PAVING, SHALL COMPLETE FINAL GRADING ALIGNMENT OF SWALES AND RESTORE ALL AREAS WITHIN RIGHT-OF-WAY FOR SEEDING OR SODDING AND FERTILIZATION
- 15. ALL STORM SEWERS MUST BE CLEAN/FREE OF DIRT AND DEBRIS AT THE TIME AND INITIAL AND FINAL
- 16. REFER TO GENERAL NOTES AND C.S.S. NOTES.

SANITARY SEWER NOTES:

- 1. SANITARY SEWERS, FORCE MAINS, MANHOLES, LIFT STATIONS AND WASTEWATER TREATMENT PLANTS SHALL BE DESIGNED AND CONSTRUCTED AS PER THE REQUIREMENTS OF THE CITY OF SUGAR LAND DESIGN STANDARDS AND CORRESPONDING STANDARD CONSTRUCTION DETAILS SHEETS AND AS PER THE REQUIREMENTS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY "DESIGN CRITERIA FOR SEWERAGE SYSTEMS". SHOULD A CONFLICT ARISE BETWEEN INFORMATION DEPICTED ON APPROVED CONSTRUCTION DRAWINGS AND/OR
- INFORMATION INCLUDED IN PROJECT SPECIFICATIONS, CITY OF SUGAR LAND DESIGN STANDARDS SHALL GOVERN. 2. ALL MATERIALS AND PRODUCTS USED IN THE CONSTRUCTION OF SANITARY SEWERS, FORCE MAINS, MANHOLES, LIFT STATIONS AND WASTEWATER TREATMENT PLANTS SHALL COMPLY WITH THE CITY OF SUGAR LAND DESIGN
- STANDARDS AND THE CURRENT APPROVED PRODUCTS LIST. 3. STACKS SHALL BE BUILT IN ACCORDANCE WITH THE CITY OF SUGAR LAND STANDARD DETAIL DRAWING REQUIREMENTS. EXACT LOCATION OF THE STACK SHALL BE SUPPLIED TO THE CITY ENGINEER OF SUGAR LAND BY THE PROJECT ENGINEER ON SEALED AS-BUILT DRAWINGS AT COMPLETION OF CONSTRUCTION. ALL STACKS SHALL BE INSTALLED WITHIN 3% OF PLUMB RELATIVE TO VERTICAL PLANE AND WILL BE CAPPED AND TERMINATED AT A DEPTH OF 4 FEET. BELOW FINISHED GRADE, UNLESS OTHERWISE DIRECTED BY THE CITY.
- 4. FACH SANITARY SEWER SERVICE LEAD STUB PLUGGED WYE BRANCH OUTLET AND STACK SHALL. RE MARKED IN ACCORDANCE WITH THE DETAILS AT THE TIME OF CONSTRUCTION, BEGINNING AT THE INVERT ELEVATION OF THE STUB OR WYE AND AT AN ELEVATION TWO FEET BELOW THE CAPPED TERMINATION POINT OF THE STACK AND
- EXTENDING TWO FEET ABOVE FINISHED GRADE. SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED AS PER DRAWINGS INCORPORATED IN CITY OF SUGAR LAND STANDARD CONSTRUCTION DETAILS SHEETS. SUCH MANHOLES SHALL BE CONSTRUCTED A MINIMUM OF ONE FOOT FROM BACK OF CURB ON CURB AND GUTTER ROADWAYS AND THREE FEET FROM EDGE OF TRAVELLED ROADWAY ON THOSE THOROUGHFARES HAVING NO CURBING, MEASURED FROM OUTSIDE DIAMETER OF MANHOLE, ALL SANITARY SEWER MANHOLES SHALL INCORPORATE INFLOW PROTECTORS, SANITARY SEWER MANHOLES SHALL NOT BE INSTALLED BENEATH STREET PAVING EXCEPT WHERE SPECIFICALLY AUTHORIZED BY CITY ENGINEER AND SO DESIGNATED ON APPROVED CONSTRUCTION DRAWINGS. BRICK MANHOLES AND
- FIBERGLASS MANHOLES ARE PROHIBITED. MANHOLES DEEPER THAN EIGHT FEET SHALL HAVE ECCENTRIC CONES. 6. SANITARY SEWER MANHOLE COVERS SHALL BE MINIMUM OF 32 INCHES IN DIAMETER. ALL SUCH MANHOLE COVERS SHALL HAVE THE CITY OF SUGAR LAND EMBLEM AND THE WORDS "SUGAR LAND" AND "SANITARY SEWER" CAST IN RAISED RELIEF AS DEPICTED IN CITY OF SUGAR LAND STANDARD CONSTRUCTION DETAILS
- 7. MANHOLE RIM ELEVATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY. UTILITY CONTRACTORS SHALL ADJUST RIM ELEVATIONS TO 0.4 FEET ABOVE FINISHED GRADE, AND 0.5 FEET ABOVE NATURAL GROUND WITHIN RIGHTS-OF-WAY AND EASEMENTS AT EACH MANHOLE LOCATION AFTER PAVEMENT CONTRACTOR HAS COMPLETED FINAL GRADING. THE AREA ADJACENT TO SANITARY SEWER MANHOLE LOCATIONS SHALL BE GRADED AWAY FROM SUCH MANHOLES SO AS PREVENT ENTRY OF STORM WATER RUNOFF TO THE SANITARY SEWER SYSTEM.
- 3. MINIMUM SEPARATION DISTANCES AS REQUIRED BY TCEQ SECTION 317.13, APPENDIX E MUST BE MAINTAINED BETWEEN POTABLE WATER LINES AND SANITARY SEWERS, FORCE MAINS, MANHOLES, LIFT STATIONS AND WASTEWATER TREATMENT PLANTS. INSTALLATION OF FIRE HYDRANTS WITHIN NINE FEET OF A SANITARY SEWER SYSTEM IS PROHIBITED. REFER TO THE CITY OF SUGAR LAND INFRASTRUCTURE STANDARDS AND CORRESPONDING STANDARD CONSTRUCTION DETAILS SHEETS FOR CONSTRUCTION REQUIREMENTS OF OTHER INSTALLATIONS WHERE SEPARATION DISTANCES OF GREATER THAN NINE FEET CANNOT BE MAINTAINED. 9. TESTING OF SANITARY SEWERS, FORCE MAINS, MANHOLES, LIFT STATIONS AND WASTEWATER TREATMENT PLANTS
- SHALL BE CONDUCTED AS NOTED IN SANITARY SEWER CHAPTER OF THE CITY OF SUGAR LAND DESIGN STANDARDS AND AS PER THE REQUIREMENTS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY "DESIGN CRITERIA FOR SEWERAGE SYSTEMS".
- 10. ALL SANITARY SEWER PIPING AND BEDDING SHALL BE INSPECTED BY CITY CONSTRUCTION INSPECTOR FOR CONFORMANCE WITH CITY DESIGN STANDARDS PRIOR TO BACKFILLING OF PIPING IN TRENCH. CONTRACTOR SHALL NOT COVER PIPING UNTIL SUCH TIME AS INSPECTOR HAS NOTIFIED CONTRACTOR THAT RESULTS OF PIPING INSPECTION ARE SATISFACTORY AND THAT BACKFILLING MAY BE ACCOMPLISHED. ANY PIPING INSTALLED AND/OR BACKFILLED WITHOUT INSPECTOR'S SPECIFIC APPROVAL SHALL BE UNCOVERED AT INSPECTOR'S DIRECTION AND INSPECTED ACCORDINGLY, CONTRACTOR SHALL NOTIFY INSPECTOR 24-HOURS PRIOR TO
- 11. ALL COMMERCIAL DEVELOPMENTS WITH A FAR SIDE SANITARY SERVICE LEAD ACROSS THE STREET SHALL PROVIDE A SIX (6) INCH RISER AND CLEARNOUT ON THE PROPERTY SIDE. PUBLIC MAINTENANCE OF THE FAR SIDE LEAD

WATER DISTRIBUTION NOTES:

- WATER MAINS, WATER SERVICE LINES AND ASSOCIATED APPURTENANCES SHALL BE DESIGNED AND CONSTRUCTED AS PER REQUIREMENTS OF THE CITY OF SUGAR LAND DESIGN STANDARDS AND CORRESPONDING STANDARD CONSTRUCTION DETAILS SHEETS AND AS PER THE REQUIREMENTS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, SHOULD A CONFLICT ARISE BETWEEN INFORMATION DEPICTED ON APPROVED CONSTRUCTION DRAWINGS AND/OR INFORMATION INCLUDED IN PROJECT
- SPECIFICATIONS, CITY OF SUGAR LAND DESIGN STANDARDS SHALL GOVERN. ALL MATERIALS AND PRODUCTS USED IN THE CONSTRUCTION OF WATER MAINS, WATER SERVICE LINES AND ASSOCIATED APPURTENANCES SHALL COMPLY WITH THE CITY OF SUGAR LAND DESIGN STANDARDS AND THE CURRENT APPROVED PRODUCTS LIST AS MAINTAINED BY THE CITY'S ENGINEERING DEPARTMENT.
- ALL GATE VALVES INSTALLED BELOW GRADE SHALL BE OF NON-RISING STEM DESIGN. ALL FIRE HYDRANTS SHALL BE PAINTED AND/OR REPAINTED WITH GEO-GLEN 301 BRIGHT SILVER POLYURETHANE ENAMEL MANUFACTURED BY GEO-GLEN ENTERPRISES, INC. SURFACE PREPARATION SHALL INCLUDE REMOVAL OF OIL, GREASE AND MOISTURE, FOLLOWED BY MEDIA BLASTING TO SSPC-SP15-10-63 SPECIFICATIONS (NEAR WHITE METAL) AS PER MANUFACTURER'S RECOMMENDATIONS. PRIME BARE METAL WITH TP-251 EPOXY PRIMER EPOXY PRIMER OR WITH TP-221, TP-231 OR TP-241 UNIVERSAL PRIMER. 80°F AND 50% RELATIVE HUMIDITY ARE OPTIMAL CONDITIONS FOR APPLICATION OF PRIMER AND OF PAINT. DO NOT APPLY PRIMER AND/OR PAINT WHEN SURFACE TO BE PAINTED IS LESS THAN 5' ABOVE THE DEW POINT IN ORDER TO PREVENT MOISTURE FROM CONDENSING ON THE SURFACE TO BE PRIMED AND/OR PAINTED. A BLUE TRAFFIC
- BUTTON SHALL BE INSTALLED ON THE STREET 12" OFF THE CENTER LINE FOR EACH HYDRANT MINIMUM SEPARATION DISTANCES AS REQUIRED BY TCEQ SECTION 317.13, 290. APPENDIX E MUST BE MAINTAINED BETWEEN POTABLE WATER LINES AND SANITARY SEWERS, FORCE MAINS, LIFT STATIONS AND WASTEWATER TREATMENT PLANTS. INSTALLATION OF FIRE HYDRANTS WITHIN 9' (FT) OF A SANITARY SEWER SYSTEM IS PROHIBITED. REFER TO C.O.S.L. STANDARDS FOR CONSTRUCTION REQUIREMENTS OF OTHER INSTALLATIONS WHERE DISTANCES ARE GREATHER THAN 9' (NINE) FT. CANNOT BE MAINTAINED.
- EACH WATER SERVICE LEAD STUB SHALL BE MARKED WITH A PRESSURE TREATED 4 X 4 TIMBER OR PVC PIPE AT THE TIME OF CONSTRUCTION, BEGINNING AT THE INVERT ÉLEVATION OF THE STUB AND EXTENDING TWO FEET ABOVE FINISHED GRADE, EACH TIMBER MARKER SHALL BE PAINTED BLUE AND LABELED "POTABLE WATER" WITH PIPE SIZE NOTED.
- TESTING OF WATER MAINS, WATER SERVICE LINES AND ASSOCIATED APPURTENANCES SHALL BE CONDUCTED AS FER REQUIREMENTS OF AWWA C605-94.
- DISINFECTION OF WATER MAINS, WATER SERVICE LINES AND ASSOCIATED APPURTENANCES SHALL BE CONDUCTED AS PER REQUIREMENTS OF AWWA C65, AND TCEQ, NO CONNECTIONS SHALL BE MADE. TO EXISTING WATER LINES UNTIL NEWLY CONSTRUCTED WATER LINES HAVE BEEN THOROUGHLY DISINFECTED, TESTED, FLUSHED, AND SAMPLED AND CONNECTION HAS BEEN AUTHORIZED BY THE CITY ENGINEER.
- ALL WATER PIPING AND BEDDING SHALL BE INSPECTED BY THE CITY INSPECTOR FOR CONFORMANCE TO DESIGN STANDARDS PRIOR TO BACKFILLING OF PIPING IN TRENCH. CONTRACTOR SHALL NOT COVER PIPING UNTIL SUCH TIME AS INSPECTOR HAS NOTIFIED CONTRACTOR. THAT RESULTS OF PIPING INSPECTION ARE SATISFACTORY AND THAT BACKFILLING MAY BE ACCOMPLISHED. ANY PIPING INSTALLED AND/OR BACKFILLED WITHOUT INSPECTOR'S SPECIFIC APPROVAL SHALL BE UNCOVERED AT
- INSPECTOR'S DIRECTION AND INSPECTED ACCORDINGLY, 24-HOUR NOTICE REQUIRED. ALL MECHANICALLY RESTRAINED FITTINGS MUST BE MEGALUG RESTRAINED JOINTS OR APPROVED
- THE CITY OF SUGAR LAND MUST HAVE A COPY OF THE BACTERIALOGICAL TEST RESULTS AT LEAST 24 HOURS PRIOR TO THE INITIAL INSPECTION. IF NOT, THEN THE INSPECTION WILL BE RESCHEDULED.



CONSTRUCTION PLANS FOR:

GENERAL CONSTRUCTION NOTES SL-02

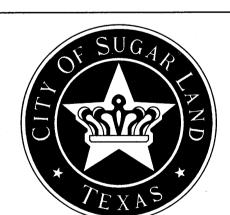
BENCHMARK PUBLISHED ELEVATION - 70.14 CITY OF SUGAR LAND REFERENCE MARK NUMBER SGR-1, BEING A BRASS DISK STAMPED "RM 001 LOCATED ON A MEDIAN ON ELKINS RD APPROX. 2.15 MILES SOUTH OF WILLIAMS TRACE BLVD. ELEV. 70.14', NAVD88, 2001 ADJUSTMENT.

TEMPORARY BENCHMARK "A" ELEVATION - 66.75 BOX CUT ON A STORM INLET LOCATED ON THE EAST SIDE OF WEST AVALON DRIVE APPROX. 260 FEET SOUTH OF UNIVERSITY BLVD. (AS SHOWN HEREON)

TEMPORARY BENCHMARK "B" ELEVATION - 67.12 BOX CUT ON A STORM INLET LOCATED ON THE SOUTH SIDE OF UNIVERSITY BLVD. APPROX. 180 FEET EAST OF WEST AVALON DRIVE. (AS SHOWN HEREON)

RECORD DRAWING HEREBY CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE; AND THAT THE CONSTRUCTION WAS IN SUBSTANTIAL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

FORT BEND COUNTY ENGINEERING DEPARTMENT

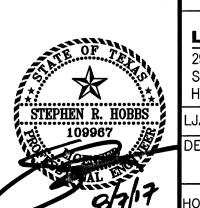


CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

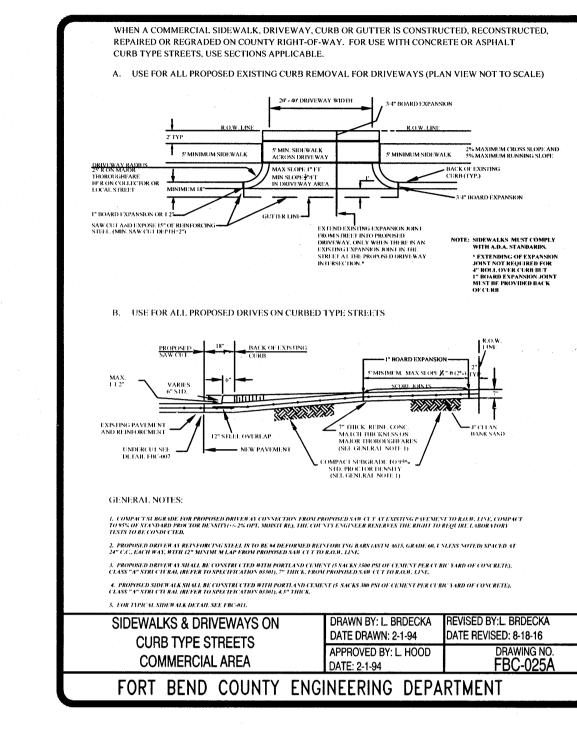
SHOPS IN RIVERSTONE

GENERAL NOTES 2 OF 2



LJA Engineering, Inc. Phone 713.953.5200 2929 Briarpark Drive Fax 713.953.5026 Suite 600 FRN - F-1386 Houston, Texas 77042 JA PROJECT NO.: 2423-1601P AUG 2017

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1. SAW CUT EXISTING CURB AT EACH END AND KNOCK OUT OUT CURB FROM BEGINNING TO END 1. FORT BEND COUNTY MUST BE INVITED TO THE PRE-CONSTRUCTION MEETING. OF PROPOSED DRIVEWAY. 2. SAW CUT EXISTING PAVEMENT A MINIMUM OF 18" INCHES AWAY FROM BACK OF CURB

(GUTTER LINE) AND BREAK OUT TO EXPOSE EXISTING REINFORCEMENT STEEL.

GENERAL NOTES FOR SIDEWALKS AND DRIVEWAYS

3. COMPACT SUBGRADE FOR PROPOSED DRIVEWAY CONNECTION FROM PROPOSED SAW CUT AT EXISTING PAVEMENT TO RIGHT-OF-WAY LINE, COMPACT TO 95% OF STANDARD PROCTER DENSITY (+/- 2% OPT. MOISTURE). THE COUNTY ENGINEER RESERVES THE RIGHT TO REQUIRE LABORATORY TESTS TO BE CONDUCTED.

4. PLACE AND COMPACT 4" CLEAN BANK SAND.

5. MAINTAIN GUTTER LINE WITH FACE OF EXISTING CURB.

6. PROPOSED DRIVEWAY REINFORCING STEEL IS TO BE TIED TO EXISTING ROADWAY REINFORCING STEEL WITH A MINIMUM LAP OF 12 INCHES.

7. Proposed Driveway reinforcing steel is to be #4 deformed reinforcing bars (ASTM A615 GRADE 60, UNLESS NOTED) SPACED AT 24 INCHES C.C., EACH WAY, WITH 12 INCHES MINIMUM LAP (6" x 6" W6 x W6 AS ALTERNATE) FROM PROPOSED SAW CUT TO

8. PROPOSED DRIVEWAY, CURB, GUTTER LINE, AND GRADE SHALL MATCH EXISTING STREET. . Profosed driveway shall be constructed with portland cement concrete, class "A STRUCTURAL (REFER TO SPECIFICATION 03301), 7 INCHES THICK, FROM PROPOSED SAW CUT TO

D. PROPOSED SIDEWALK SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE, CLASS "A" STRUCTURAL (REFER TO SPECIFICATION 03301), 4 \$ INCHES THICK AND 5 FEET MINIMUM WIDTH. SEE DRAWING NO. FBC 24A FOR ADDITIONAL INFORMATION AND DETAILS.

11. SIDEWALKS SHALL BE BUILT OR CAUSED TO BE BUILT NOT LESS THAN 5 FEET IN WICTH ON BOTH SIDES OF ALL DEDICATED RIGHTS—OF—WAY WITHIN SAID PLAT AND ON THE CONTIGUOUS RIGHT—OF—WAY OF ALL PERIMETER ROADS SURROUNDING SAID PLAT, IN ACCORDANCE WITH A.D.A.

GENERAL NOTES FOR SIDEWALKS AND DRIVEWAYS . PROPOSED DRIVEWAY, SIDEWALK, CURB, GUTTER LINE AND GRADE SHALL MATCH EXISTING

2. PROPOSED SIDEWALK SHALL BE CONSTRUCTED WITH PORTLAND CEMENT, CLASS A STRUCTURAL (REFER TO SPECIFICATION 03301), 4 INCHES THICK AND 4 FEET MINIMUM WIDTH. 3. PROPOSED DRIVEWAY AND CURB SHALL BE BUILT WITH PORTLAND CEMENT CONCRETE, CLASS A STRUCTURAL (REFER TO SPECIFICATION 03301), 6 INCHES THICK, FROM PROPOSED SAW CUT AT EXISTING PAVEMENT TO RIGHT-OF-WAY LINE AND TO BE REINFORCED WITH #4 DEFORMED REINFORCING BARS (MINIMUM, ASTM A615 GRADE 60, UNLESS NOTED) SPACED AT 24 INCHES

4. PROPOSED DRIVEWAY REINFORCING STEEL IS TO BE TIED TO EXISTING ROADWAY REINFORCING STEEL WITH A MINIMUM 12 INCHES LAP.

5. PROPOSED GUTTER LINE IS TO BE MAINTAINED AT FACE OF EXISTING CURB. 6. SAW CUT EXISTING CURB AT EACH END OF PROPOSED DRIVEWAY AND KNOCK OUT EXISTING CURB.

7. SAW CUT EXISTING PAVEMENT MINIMUM 2 INCHES AND BREAK OUT TO EXPOSE EXISTING REINFORCEMENT STEEL AT LEAST 12 INCHES AT PROPOSED DRIVEWAY INTERSECTION. FULL DEPTH CUT IS ACCEPTABLE PROVIDING 18" LONG DRILL IN DOWELS ARE INSTALLED AT A SPACING TO

8. COMPACT SUBGRADE FOR PROPOSED DRIVEWAY CONNECTION FROM PROPOSED SAW CUT AT EXISTING PAVEMENT TO RIGHT-OF-WAY LINE, COMPACT TO 95% OF STANDARD PROCTER DENSITY (+/- 2% OPT. MOISTURE). THE COUNTY ENGINEER RESERVES THE RIGHT TO REQUIRE

9. PLACE AND COMPACT 4 INCH CLEAN BANK SAND.

C.C., EACH WAY, WITH 10 INCHES MINIMUM LAP.

10. PROPOSED AREA FROM BACK OF CURB TO SIDEWALK AND FROM SIDEWALK TO RIGHT-OF-WAY LINE MAY BE CONCRETE OR DIRT (ROADWAYS WITH CURBS AND SIDEWALKS). 11. IF MORE THAN ONE PROPOSED DRIVEWAY IS BUILT ON THE SAME PROPERTY, SAID DRIVE WAYS SHALL BE SEPARATED BY A MINIMUM DIST.:NCE OF AT LEAST 20 FEET (ROADWAYS WITH

12. SIDEWALKS SHALL HAVE 3/4 INCH REDWOOD BOARD EXPANSION JOINTS EVERY 20 FEET ON

13. PLACE ONE-INCH BOARD EXPANSION JOINT AT RIGHT-OF-WAY LINE.

8" INTERNAL DROP STRUCTURE

14. EXPANSION JOINT FILLER SHALL BE PRE FORMED CONFORMING TO AASHTO M-33 OR M-213 BETWEEN SIDEWALK AND CURB, AROUND FIRE HYDRANTS AND UTILITY POLES.

FORT BEND COUNTY GENERAL NOTES

2. CONTRACTOR SHALL NOTIFY FORT BEND COUNTY ENGINEERING DEPARTMENT 48 HOURS PRIOR TO COMMENCING CONSTRUCTION AND 48 HOUR NOTICE TO ANY CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF THE PAVING AT CONSTRUCTION OFFORTBENDCOUNTYTX.GOV.

3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FROM FORT BEND COUNTY PRIOR TO COMMENCING CONSTRUCTION OF ANY IMPROVEMENTS WITHIN COUNTY ROAD

4. ALL PAYING IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FORT BEND COUNTY "RULES, REGULATIONS AND REQUIREMENTS RELATING TO THE APPROVAL AND ACCEPTANCE OF

6. A CONTINUOUS LONGITUDINAL REINFORCING BAR SHALL BE USED IN THE CURBS.

5. ALL ROAD WIDTHS, CURB RADII AND CURB ALIGNMENT SHOWN INDICATES BACK OF CURB

7. ALL CONCRETE PAVEMENT SHALL BE 5-1/2 SACK CEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT EACH CURB RETURN AND AT A MAXIMUM SPACING OF 60 FEET. 8. ALL WEATHER ACCESS TO ALL EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL

9. 4"X 12" REINFORCED CONCRETE CURB SHALL BE PLACED IN FRONT OF SINGLE FAMILY LOTS ONLY. ALL OTHER AREAS SHALL BE 6" REINFORCED CONCRETE CURB.

10. AT ALL INTERSECTION LOCATIONS, TYPE 7 RAMPS SHALL BE PLACE IN ACCORDANCE WITH TXDOT PED-12A STANDARD DETAIL SHEET. A.D.A. – HANDICAP RAMPS SHALL BE INSTALLED WITH STREET PAVING AT ALL INTERSECTIONS AND COMPLY WITH CURRENT A.D.A. REGULATIONS.

11. CURB HEADERS ARE REQUIRED AT CURB CONNECTIONS TO HAND!CAP RAMPS, WITH NO CONSTRUCTION JOINT WITHIN 5' OF RAMPS.

12. ALL INTERSECTIONS UTILIZING TRAFFIC CONTROL MEASURES SHALL HAVE A.D.A. WHEEL CHAIR RAMPS INSTALLED.

13. GUIDELINES ARE SET FORTH IN THE TEXAS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", AS CURRENTLY AMENDED, SHALL BE OBSERVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION — BOTH DAY AND NIGHT.

14. ALL R1-1 STOP SIGNS SHALL BE 30"X30" WITH DIAMOND GRADE SHEETING PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

15. STREET NAME SIGNAGE SHALL BE ON A 9" HIGH SIGN FLAT BLADE W/REFLECTIVE GREEN BACKGROUND. STREET NAMES SHALL BE UPPER AND LOWERCASE LETTERING WITH UPPERCASE LETTERS OF 6" MINIMUM AND LOWERCASE LETTERS OF 4.5" MINIMUM. THE LETTERS SHALL BE REFLECTIVE WHITE. STREET NAME SIGNS SHALL BE MOUNTED ON STOP SIGN POST.

16. A BLUE DOUBLE REFLECTORIZED BUTTON SHALL BE PLACED AT ALL FIRE HYDRANT LOCATIONS. THE BUTTON SHALL BE PLACED 12 INCHES OFF OF THE CENTERLINE OF THE STREET ON THE SAME SIDE AS THE HYDRANT.

17. THE PROJECT AND ALL PARTS THEREOF SHALL BE SUBJECT TO INSPECTION FROM TIME TO TIME BY INSPECTORS DESIGNATED BY FORT BEND COUNTY. NO SUCH INSPECTIONS SHALL RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER. NEITHER FAILURE TO INSPECT NOR FAILURE TO DISCOVER OR REJECT ANY OF THE WORK AS NOT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, REQUIREMENTS AND SPECIFICATIONS OF FORT BEND COUNTY OR ANY PROVISION OF THIS PROJECT SHALL BE CONSTRUCTED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR TO RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER.

RECORD DRAWING HEREBY CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE: AND THAT THE CONSTRUCTION WAS IN SUBSTANTIAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. DATE: CONTRACTOR

BENCHMARK:

BENCHMARK

HEREON)

PUBLISHED ELEVATION - 70.14

CITY OF SUGAR LAND REFERENCE MARK NUMBER

SGR-1. BEING A BRASS DISK STAMPED "RM 001"

TEMPORARY BENCHMARK "A" ELEVATION — 66.75' BOX CUT ON A STORM INLET LOCATED ON THE

EAST SIDE OF WEST AVALON DRIVE APPROX. 260

TEMPORARY BENCHMARK "B" ELEVATION - 67.12

BOX CUT ON A STORM INLET LOCATED ON THE

FEET EAST OF WEST AVALON DRIVE. (AS SHOWN

SOUTH SIDE OF UNIVERSITY BLVD. APPROX. 180

FEET SOUTH OF UNIVERSITY BLVD. (AS SHOWN

LOCATED ON A MEDIAN ON ELKINS RD APPROX.

2.15 MILES SOUTH OF WILLIAMS TRACE BLVD.

ELEV. 70.14', NAVD88, 2001 ADJUSTMENT.

FORT BEND COUNTY ENGINEERING DEPARTMENT
APPROVED:
DEVELOPMENT, COORDINATOR

DATE



CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

SHOPS IN RIVERSTONE

MISCELLANEOUS DETAILS & F.B.C.E. GENERAL CONSTRUCTION NOTES

LJA Engineering, Inc. 2929 Briarpark Drive Phone 713.953.5200 Fax 713.953.5026 Suite 600 FRN - F-1386 Houston, Texas 77042 JA PROJECT NO.: 2423-1601P DRAWN BY: JRP/MMB AUG 2017

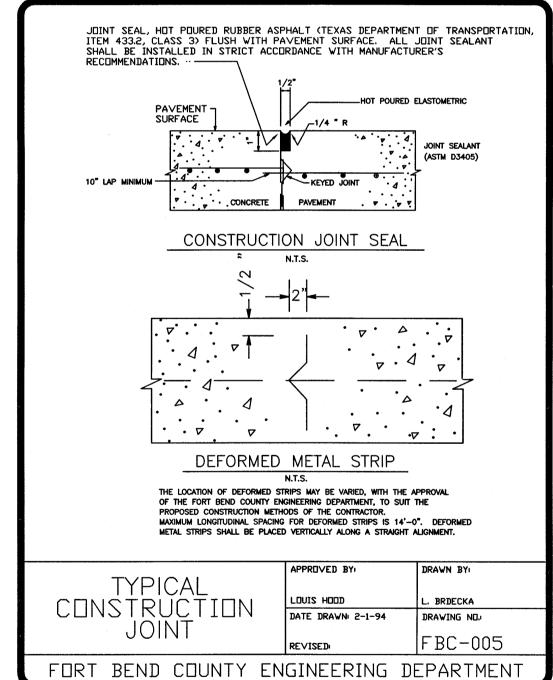
RAPID CURING ASPHALT CONCRETE (RCAC)
REFER TO SPECIFICATION 02811 __ 1/8" TO 1/4" HOT POURED RUBBER REFER TO SPECIFICATION 02815 PROPOSED: PAVEMENT -HOT POURED RUBBER JOINT SEAL, HOT POURED RUBBER ASPHALT (TEXAS DEPARTMENT OF TRANSPORTATION, ITEM 433.2, CLASS 3) FLUSH WITH PAVEMENT SURFACE. ALL JOINT SEALANT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S APPROVED BY: CLEANING & SEALING LOUIS E. HOOD, P.E. BRDECKA PAVEMENT JOINTS DATE DRAWN: 2-1-94 DRAWING NO. EXISTING CONCRETE FBC-005A FORT BEND COUNTY ENGINEERING DEPARTMENT

1" TO 1 - 1/2" JOINT

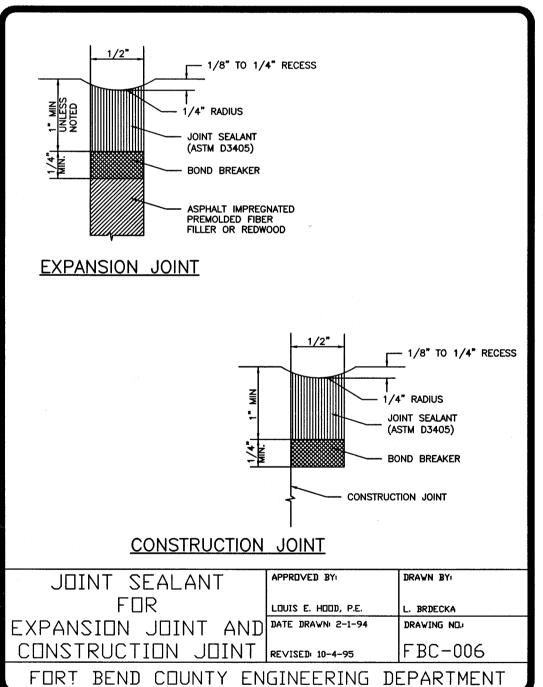
1/4" TO 1" JOINT

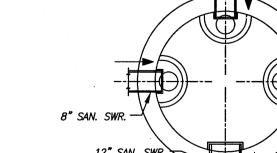
EXISTING

RECOMMENDATIONS.



IN THE EVENT THAT THERE IS A CONFLICT BETWEEN AGENCY CRITERIA, THE MORE STRINGENT SHALL APPLY.

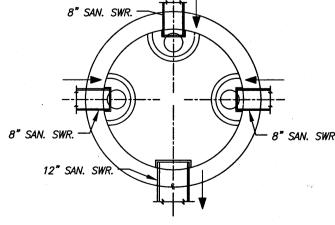


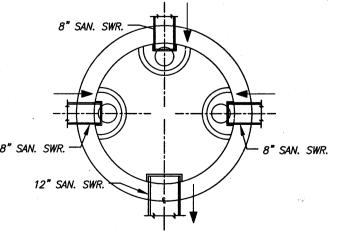


1. SANITARY MANHOLES ON MAINS 8"-12" IN DIAMETER AND LESS THAN 12' (FEET) IN DEPTH SHALL BE 4' (FOOT) IN DIAMETER. SANITARY MANHOLES DEEPER THAN 12' (FEET) DEEP SHALL BE 5' (FOOT) IN DIAMETER.

2. SANITARY MANHOLES ON MAINS 15"-27" IN DIAMETER SHALL BE 5' (FOOT) IN DIAMETER. 3. SANITARY MANHOLES WITH AN INTERNAL DROP STRUCTURES

SHALL BE A MINIMUM OF 5' (FOOT) IN DIAMETER.





PLAN

-FINISHED GRADE

-MANHOLE SHALL BE MINIMUM 5 FT DIAMETER

STANDARD DROP DETAIL

(SEE C.S.S. NOTES)

FORT BEND COUNTY ENGINEERING DEPARTMENT

DEVELOPMENT COORDINATOR

- 1. HYPER-CHLORINATED WATER SHALL NOT BE DISCHARGED TO THE STORM SEWER OR DRAINAGE SYSTEM UNLESS THE CHLORINE CONCENTRATION IS REDUCED TO 4 PPM OR LESS BY CHEMICALLY TREATING THE DECHLORINATE OR BY ONSITE RETENTION UNTIL NATURAL ATTENUATION OCCURS.
- 2. DISCHARGE OF HIGH FLOW RATE AND VELOCITIES SHALL BE DIRECTED TO VELOCITY DISSIPATION DEVICES. 3. CHLORINE CAN BURN VEGETATION, SO IT SHOULD NOT BE USED TO WATER
- VEGETATION THAT IS BEING USED FOR STABILIZATION, VEGETATED FILTERS OR BUFFERS, OR OTHER VEGETATION TO BE PRESERVED. 4. HYPER-CHLORINATED WATER MAY BE DISCHARGED TO AN ONSITE RETENTION AREA UNTIL NATURAL ATTENUATION OCCURS. THE AREA MAY BE A DRY STORMWATER RETENTION BASIN, OR A PORTION OF THE SITE MAY BE GRADED
- TO FORM A TEMPORARY PIT OR BERMED AREA. 5. NATURAL ATTENUATION OF THE CHLORINE MAY BE AIDED BY AERATION, AIR CAN BE ADDED TO THE WATER BY DIRECTING THE DISCHARGE OVER A ROUGH SURFACE BEFORE IT ENTERS THE TEMPORARY RETENTION AREA OR AN AFRATION DEVICE CAN BE PLACED IN THE RETENTION AREA
- 6. ONSITE DISCHARGE MAY REQUIRE SEVERAL HOURS TO A FEW DAYS BEFORE THE WATER IS SAFE TO DISCHARGE. THE RATE AT WHICH CHLORINE WILL ATTENUATE IS AFFECTED BY SOIL CONDITIONS AND WEATHER CONDITIONS. ATTENUATION WILL OCCUR QUICKEST DURING WARM, SUNNY, AND DRY

SPILL AND LEAK RESPONSE NOTES

WITH THE FEDRAL AND STATE REGULATIONS.

AND SUBCONTRACTORS

TRAINED PROFESSIONALS.

ÀND LEAK RESPONSE PROCEDURES.

1. RECORDS OF RELEASES THAT EXCEED THE REPORTABLE QUANTITY (RQ) FOR

OIL AND HAZARDOUS SUBSTANCES SHOULD BE MAINTAINED IN ACCORDANCE

BE POSTED IN A READILY AVAILABLE REA FOR ACCESS BY ALL EMPLOYEES

2. EMERGENCY CONTACT INFORMATION AND SPILL RESPONSE PROCEDURES SHALL

3. SPILL CONTAINMENT KITS SHOULD BE MAINTAINED FOR PETROLEUM PRODUCTS

AND OTHER CHEMICALS THAT ARE REGULARLY ONSITE, MATERIALS IN KITS

4. SPILL KITS ARE INTENDED FOR RESPONSE TO SMALL SPILLS, TYPICALLY LESS

5. SIGNIFICANT SPILLS OR OTHER RELEASES WARRANT IMMEDIATE RESPONSE BY

6. SUSPECTED JOB-SITE CONTAMINATION SHOULD BE IMMEDIATELY REPORTED TO

SUPERINTENDENT, FOREMAN, SAFETY OFFICER, OR OTHER SENIOR PERSON WHO IS ONSITE DAILY TO BE THE SPILL AND LEAK RESPONSE COORDINATOR

(SLRC) AND MUST HAVE KNOWLEDGE OF AND BE TRAINED IN CORRECT SPILL

REGULATORY AUTHORITIES AND PROTECTIVE ACTIONS TAKEN.

7 THE CONTRACTOR SHOULD BE REQUIRED TO DESIGNATE A SITE

SHOULD BE BASED ON CONTAINMENT GUIDELINES IN THE MATERIALS SAFETY

AND DATA SHEETS (MSDSS) FOR THE SUBSTANCE MOST FREQUENTLY ONSITE.

THAN 5 GALLONS, OF SUBSTANCES THAT ARE NOT EXTREMELY HAZARDOUS.

SANITARY WASTE NOTES

- 1. THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE NUMBER OF PORTABLE TOILETS BASED ON THE NUMBER OF EMPLOYEES USING THE TOILETS AND THE HOURS THEY WILL WORK.
- 2. SANITARY FACILITIES SHALL BE PLACED ON A MINIMUM OF 50 FEET AWAY FROM STORM DRAIN INLETS, CONVEYANCE, CHANNELS OR SURFACE WATERS. IF UNABLE TO MEET THE 50 FOOT REQUIREMENT DUE TO SITE CONFIGURATION, PORTABLE TOILETS SHALL BE A MINIMUM OF 20 FEET AWAY FROM STORM DRAIN INLETS, CONVEYANCE CHANNELS OR SURFACE WATER AND SECONDARY CONTAINMENT SHALL BE PROVIDE IN CASE OF SPILLS.
- 3. THE LOCATION OF THE PORTABLE TOILETS SHALL BE ACCESSIBLE TO MAINTENANCE TRUCKS WITHOUT DAMAGING EROSION AND SEDIMENT CONTROLS OR CAUSING EROSION OR TRACKING PROBLEMS.
- 4. SANITARY FACILITIES SHALL BE FULLY ENCLOSED AND DESIGNED IN A MANNER THAT MINIMIZES THE EXPOSURE OF SANITARY WASTE TO PRECIPITATION AND STORMWATER RUNOFF.
- 5. WHEN HIGH WINDS ARE EXPECTED, PORTABLE TOILETS SHALL BE ANCHORED OR OTHERWISE SECURED TO PREVENT THEM FROM BEING BLOWN OVER. 6. THE COMPANY THAT SUPPLIES AND MAINTAINS THE PORTABLE TOILETS SHALL BE NOTIFIED IMMEDIATELY IF A TOILET IS TIPPED OVER OR DAMAGED IN A WAY THAT THE RESULTS IN A DISCHARGE, DISCHARGED SOLID MATTER SHALL BE VACUUMED INTO A SEPTIC TRUCK BY THE COMPANY THAT MAINTAINS THE
- 7. THE OPERATOR OF THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) SHALL BE NOTIFIED IF A DISCHARGE FROM THE PORTABLE TOILETS ENTERS THE MS4 OR A NATURAL CHANNEL.
- 8. SANITARY FACILITIES SHALL NOT BE PERMITTED ON PUBLIC SIDEWALKS, STREETS OR INLETS.

DEBRIS AND TRASH NOTES

- 1. ALL WASTE SOURCES AND STORAGE AREAS SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS AND OTHER WATERS, IF THE SITE CONFIGURATION PROVIDES SUFFICIENT SPACE TO DO SO. IN NO CASE SHALL MATERIAL AND WASTE SOURCES BE CLOSER THAN 20 FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS, AND OTHER WATERS.
- 2. CONSTRUCTION WASTE AND TRASH SHALL BE STORED IN A MANNER THAT MINIMIZES ITS EXPOSURE TO PRECIPITATION AND STORMWATER RUNOFF. 3. WHENEVER POSSIBLE, MINIMIZE PRODUCTION OF DEBRIS AND TRASH.
- 4. INSTRUCT CONSTRUCTION WORKERS IN PROPER DEBRIS AND TRASH STORAGE AND HANDLING PROCEDURES.
- 5. SEGREGATE POTENTIAL HAZARDOUS WASTE FROM NON-HAZARDOUS CONSTRUCTION SITE DEBRIS.
- 6. PROHIBIT LITTERING BY WORKERS AND VISITORS. POLICE SITE DAILY FOR LITTER AND DEBRIS.
- 8. ENFORCE SOLID WASTE HANDLING AND STORAGE PROCEDURES. 9. IF FEASIBLE, RECYCLE CONSTRUCTION AND DEMOLITION DEBRIS SUCH AS
- WOOD, METAL, AND CONCRETE. 10. TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AT REGULAR INTERVALS THAT ARE SCHEDULED TO EMPTY CONTAINERS WHEN THEY ARE 90
- PERCENT FULL OR MORE FREQUENTLY 11. GENERAL CONSTRUCTION DEBRIS MAY BE HAULED TO A LICENSED CONSTRUCTION DEBRIS LANDFILL.
- 12. USE WASTE AND RECYCLING HAULERS/FACILITIES APPROVED BY THE LOCAL 13. CHIPPING OF TREES AND BRUSH FOR USE SUCH AS MULCH IS PREFERRED
- ALTERNATIVE TO OFFSITE DISPOSAL. 14. NO WASTE, TRASH, OR DEBRIS SHALL BE BURIED, BURNED OR OTHER WISE DISPOSED OF ONSITE.
- 15. CLEARLY MARK ON ALL DEBRIS AND TRASH CONTAINERS WHICH MATERIALS ARE ACCEPTABLE. FOREMAN AND/OR CONSTRUCTION SUPERVISOR SHALL MONITOR ONSITE SOLID WASTE STORAGE AND DISPOSAL PROCEDURES DAILY.

CONCRETE SAWCUTTING WASTE NOTES

- 1. DURING SAWCUTTING OPERATIONS, THE SLURRY AND CUTTINGS SHALL BE CONTINUOUSLY VACUUMED OR OTHERWISE RECOVERED AND NOT BE ALLOWED O DISCHARGE FROM THE SITE 2. IF THE PAVEMENT TO BE CUT IS NEAR A STORM DRAIN INLET, THE INLET
- SHALL BE BLOCKED BY SANDBAGS OR EQUIVALENT TEMPORARY MEASURES TO PREVENT THE SLURRY FROM ENTERING THE INLET. REMOVE THE SANDBAGS IMMEDIATELY AFTER COMPLETING SAWCUTTING OPERATIONS, SO THEY DO NOT CAUSE DRAINAGE PROBLEMS DURING STORM EVENTS.
- 3. SLURRY AND CUTTINGS SHALL NOT BE ALLOWED TO REMAIN ON THE PAVEMENT TO DRY OUT
- 4. DEVELOP PRE-DETERMINED, SAFE SLURRY DISPOSAL AREAS. 5. COLLECTED SLURRY AND CUTTINGS SHOULD BE IMMEDIATELY HAULED FROM THE SITE FOR DISPOSAL AT A WASTE FACILITY. IF THIS IS NOT POSSIBLE, THE SLURRY AND CUTTINGS SHALL BE DISCHARGED INTO ONSITE
- CONTAINMENT. 6. THE ONSITE CONTAINMENT MAY BE EXCAVATED OR BERMED PIT LINED WITH PLASTIC MINIMUM OF 10 MILIMETERS THICK. IF THE PROJECT INCLUDES PLACEMENT OF NEW CONCRETE, SLURRY FROM SAWCUTTING MAY BE DISPOSED OF IN FACILITIES DESIGNATED FOR THE WASHOUT OF CONCRETE
- TRUCKS INSTEAD CONSTRUCTING A SEPARATE CONTAINMENT. THE CONTAINMENT SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS, AND OTHER WATERS, IF THE SITE CONFIGURATION PROVIDES SUFFICIENT SPACE TO DO SO. IN NO CASE SHALL THE COLLECTION AREA BE CLOSER THAN 20 FEET FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS AND OTHER WATERS.
- 8. SEVERAL, PORTABLE, PRE-FABRICATED, CONCRETE WASHOUT, COLLECTION BASINS ARE COMMERCIALLY AVAILABLE AND ARE AN ACCEPTABLE ALTERNATIVE TO AN ONSITE CONTAINMENT PIT. 9. REMOVE WASTER CONCRETE WHEN THE CONTAINMENT IS HALF FULL. ALWAYS
- MAINTAIN A MINIMUM OF ONE FOOT FREEBOARD. 10. ONSITE EVAPORATION OF SLURRY WATER AND RECYCLING OF THE CONCRETE WASTE IS THE PREFERRED DISPOSAL METHOD. WHEN THIS IS NOT FEASIBLE, DISCHARGE FROM THE COLLECTION AREA SHALL ONLY BE ALLOWED IF A PASSIVE TREATMENT SYSTEM IS USED TO REMOVE THE FINES. MECHANICAL MIXING IS REQUIRED IN THE COLLECTION AREA. THE pH MUST BE TESTED. AND DISCHARGED IS ALLOWED IN IF THE pH DOES NOT EXCEED 8.0. THE pH
- MAY BE LOWERED BY ADDING SULFURIC ACID TO THE SLURRY WATER. 11. CARE SHALL BE EXERCISED WHEN TREATING THE SLURRY WATER FOR DISCHARGE, MONITORING MUST BE IMPLEMENTED TO VERIFY THAT DISCHARGES FROM THE COLLECTION AREA DO NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS.
- 12. GEOTEXTILE FABRICS SUCH AS THOSE USED FOR SILT FENCE SHOULD NOT BE USED TO CONTROL SAWCUTTING WASTE, SINCE THE GRAIN SIZE IS SIGNIFICANTLY SMALLER THAN THE APPARENT OPENING SIZE OF THE FABRIC.

SANDBLASTING WASTE NOTES

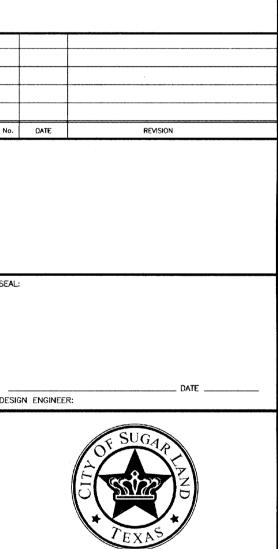
- SUBGRADE STABILIZATION NOTES MANAGEMENT PROHIBIT THE DISCHARGE OF SANDBLASTING WASTE. 1. MINIMIZE THE DISCHARGE OF THE CHEMICAL STABILIZERS BY THE CONTRACTOR LIMITING THE AMOUNT OF STABILIZING AGENT ONSITE TO THAT
- STABILIZERS SHALL BE APPLIED AT RATES THAT RESULT IN NO RUN OFF.
- . STABILIZATION SHALL NOT OCCUR IMMEDIATELY BEFORE AND DURING RAINFALL 4. NO TRAFFIC OTHER THAN WATER TRUCKS AND MIXING EQUIPMENT SHALL BE

WHICH CAN BE THOROUGHLY MIXED AND COMPACTED BY THE END OF EACH

- ALLOWED TO PASS OVER THE AREA BEING STABILIZED UNTIL AFTER COMPLETION OF MIXING THE CHEMICAL.
- 5. AREA ADJACENT AND DOWNSTREAM OF STABILIZED AREAS SHALL BE ROUGHENED TO INTERCEPT CHEMICAL RUNOFF AND REDUCE RUNOFF
- 6. GEOTEXTILE FABRICS SUCH AS THOSE USED FOR SILT FENCE SHOULD NOT BE USED TO TREAT CHEMICAL RUNOFF, BECAUSE THE CHEMICALS ARE DISSOLVED IN THE WATER AND WON'T BE AFFECTED BY A BARRIER AND THE SUSPENDED SOLIDS ARE SIGNIFICANTLY SMALLER THAN THE APPARENT OPENING SIZE OF THE FABRIC. 7. IF SOIL STABILIZERS ARE STORED ONSITE, THEY SHALL BE CONSIDERED
- HAZARDOUS MATERIAL AND SHALL BE MANAGED ACCORDING TO THE CRITERIA OF CHEMICAL MANAGEMENT TO CAPTURE ANY ACCIDENTAL LIME OR CHEMICAL
- 8. THE CONTRACRTOR SHALL INSTALL BMP'S TO ALL INLETS AND OPENINGS CONNECTED TO THE STORM SEWER SYSTEMS TO PREVENT LIME FROM ENTERING THE MS4 SYSTEM.

- 1. THE CONTRACTOR SHOULD BE REQUIRED TO DESIGNATE THE SITE SUPERINTENDENT, FOREMAN, OR OTHER PERSON WHO IS RESPONSIBLE FOR SANDBLASTING TO ALSO BE RESPONSIBLE FOR SANDBLASTING WASTE
- USE ONLY INERT, NON-DEGRADABLE SANDBLAST MEDIA. USE APPROPRIATE EQUIPMENT FOR THE JOB; DO NOT OVER-BLAST. WHENEVER POSSIBLE, BLAST IN A DOWNWARD DIRECTION.
- CEASE BLASTING ACTIVITIES IN HIGH WINDS OR IF WIND DIRECTION COULD TRANSPORT GRIT TO DRAINAGE FACILITIES. INSTALL DUST SHIELDING AROUND SANDBLASTING AREAS.
- . COLLECT AND DISPOSE OF ALL SPENT SANDBLAST GRIT, USE DUST CONTAINMENT FABRICS AND DUST COLLECTION HOPPERS AND BARRELS. 9. NON-HAZARDOUS SANDBLAST GRIT MAY BE DISPOSED IN PERMITTED
- CONSTRUCTION DEBRIS LANDFILLS OR PERMITTED SANITARY LANDFILLS. 10. IF SANDBLAST MEDIA CANNOT BE FULLY CONTAINED, CONSTRUCT SEDIMENT FRAPS DOWNSTREAM FROM BLASTING AREA WHERE APPROPRIATE. 11. USE SAND FENCING WHERE APPRORIATE IN AREAS WHERE BLAST MEDIA
- CANNOT BE FULLY CONTAINED. 12. IF NECESSARY, INSTALL MISTING EQUIPMENT TO REMOVE SANDBLAST GRIT FROM THE AIR PREVENT RUNOFF FROM MISTING OPERATIONS FROM ENTERING DRAINAGE SYSTEMS. 13. USE VACUUM GRIT COLLECTION SYSTEMS WHERE POSSIBLE.
- 14. KEEP RECORDS OF SANDBLASTING MATERIALS, PROCEDURES, AND WEATHER CONDITIONS ON A DAILY BASIS. 15. TAKE ALL REASONABLE PRECAUTIONS TO ENSURE THAT SANDBLASTING GRIT IS CONTAINED AND KEPT AWAY FROM DRAINAGE STRUCTURES.
- 16. SAND BLASTING MEDIA SHOULD ALWAYS BE STORED UNDER COVER AWAY FROM DRAINAGE STRUCTURES. 17. ENSURE THAT STORED MEDIA OR GRIT IS NOT SUBJECTED TO TRANSPORT BY
- 18. ENSURE THAT ALL SANDBLASTING EQUIPMENT AND STORAGE CONTAINERS
- 19. CAPTURE AND TREAT RUNOFF, WHICH COMES INTO CONTACT WITH SANDBLASTING MATERIALS OR WASTE.

COMPLY WITH CURRENT LOCAL, STATE, AND FEDERAL REGULATIONS.



CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

GENERAL EROSION CONTROL NOTES

DATE: DESIGNED BY: SL-33DRAWN BY: CHECKED BY:

BENCHMARK PUBLISHED ELEVATION - 70.14' CITY OF SUGAR LAND REFERENCE MARK NUMBER SGR-1. BEING A BRASS DISK STAMPED "RM 001" LOCATED ON A MEDIAN ON ELKINS RD APPROX. 2.15 MILES SOUTH OF WILLIAMS TRACE BLVD. ELEV. 70.14', NAVD88, 2001 ADJUSTMENT.

BENCHMARK:

TEMPORARY BENCHMARK "A" ELEVATION — 66.75' BOX CUT ON A STORM INLET LOCATED ON THE EAST SIDE OF WEST AVALON DRIVE APPROX. 260 FEET SOUTH OF UNIVERSITY BLVD. (AS SHOWN HEREON)

TEMPORARY BENCHMARK "B" ELEVATION - 67.12 BOX CUT ON A STORM INLET LOCATED ON THE SOUTH SIDE OF UNIVERSITY BLVD. APPROX. 180 FEET EAST OF WEST AVALON DRIVE. (AS SHOWN HEREON)

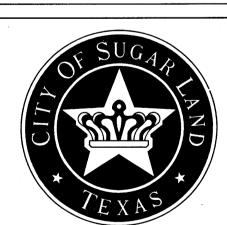
RECORD DRAWING HFREBY CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE; AND THAT THE CONSTRUCTION WAS IN SUBSTANTIAL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

CONTRACTOR:	 DATE:

FORT	BEND	COUNTY	ENGINEERING	DEPARTME
ADDDO	/FD.		8/4	

DEVELOPMENT COORDINATOR

DATE REVISION

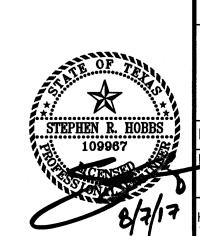


CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

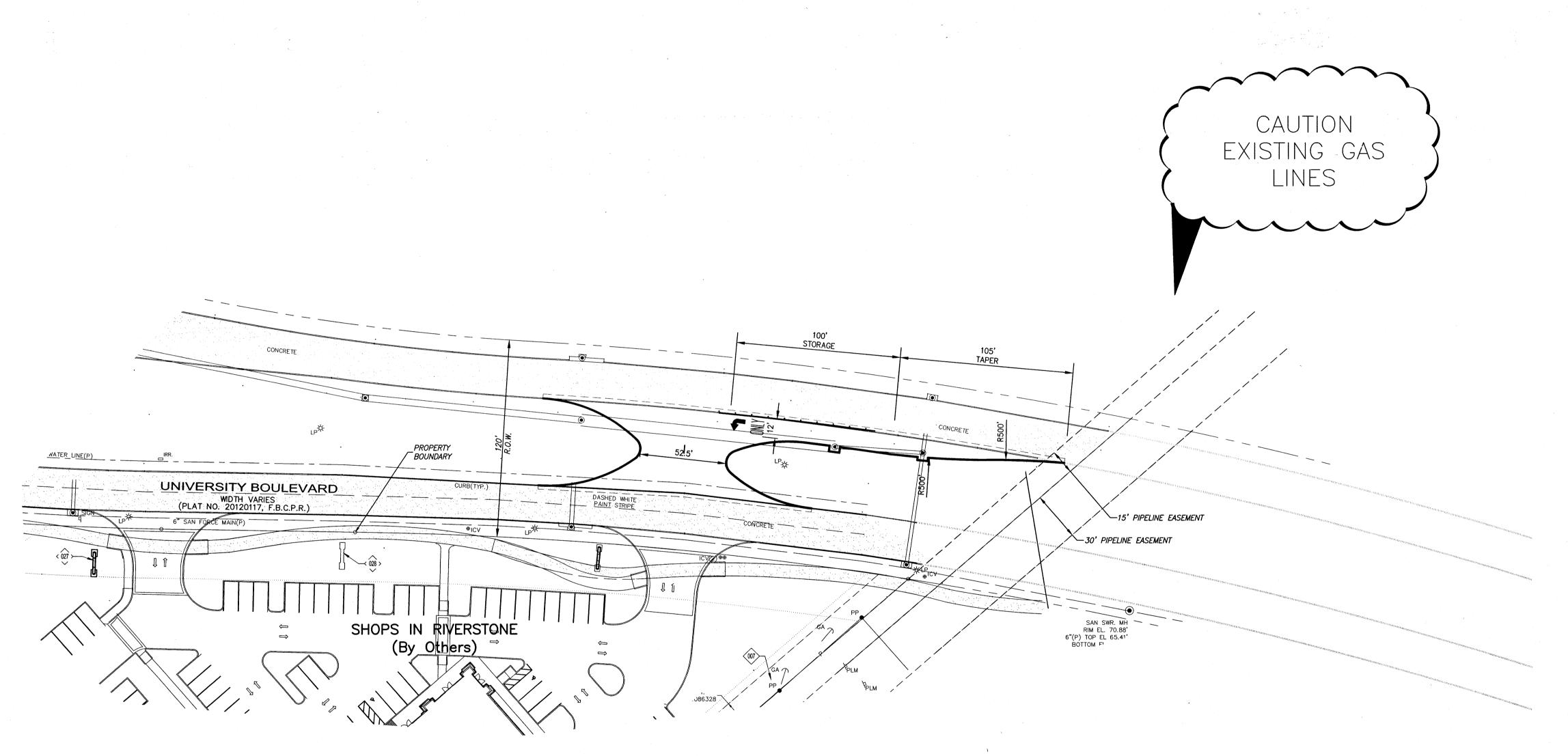
SHOPS IN RIVERSTONE

EROSION CONTROL



Suite 600

NOTES LJA Engineering, Inc. Phone 713.953.5200 2929 Briarpark Drive Fax 713.953.5026 FRN - F-1386 Houston, Texas 77042 JA PROJECT NO.: 2423-1601P DATE: DRAWN BY: AUG 2017 JRP/MMB SHEET NO.

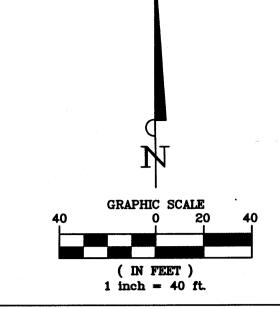


- 1. PERMIT REQUIRED PER ORD. NO. 1070 SUBJECT TO A \$500 PER DAY, PER OFFENSE, FINE. SEC 21–16. CONSENT REQUIRED
 "IT IS UNLAWFUL FOR ANY PERSON TO DIG UP, BREAK UP, CUT,
 EXCAVATE, DRILL OR TUNNEL IN OR UPON ANY PUBLIC RIGHT OF WAY...WITHOUT FIRST OBTAINING A RIGHT OF WAY WORK/USE
- 2. A CITY OF SUGAR LAND RIGHT-OF-WAY USE/WORK PERMIT MUST BE OBTAINED PRIOR TO TAPPING PUBLIC UTILITIES, PLANTING LANDSCAPING OR ANY OTHER WORK PERFORMED IN THE ROAD RIGHT OF WAY. CONTACT CITY OF SUGAR LAND PUBLIC WORKS AT 281-275-2450 FOR PERMIT APPLICATION..
- 3. TAPPING SLEEVE USED FOR CONNECTION TO THE CITY MAIN SHALL BE STAINLESS STEEL FULL CIRCUMFERENCE GASKET, OR MECHANICAL JOINT. EPOXY COATED TAPPING SADDLE WITH "O" RING GASKET WILL NOT BE ALLOWED.
- 4. DOMESTIC AND IRRIGATION WATER SERVICE TAPS AND METERS 2" AND SMALLER TO BE INSTALLED BY THE CITY OF SUGAR LAND AFTER PAYMENT OF APPLICABLE FEES. CONTACT CITY OF SUGAR LAND TREASURY DEPARTMENT AT 281-275-2750 FOR FEE SCHEDULE.
- 5. INSTALLATION OF FIRE LINE SERVICE TAP AND BACKFLOW PREVENTION VAULT IS TO BE INSTALLED BY THE DEVELOPER/CONTRACTOR.
- 6. ALL FIRE HYDRANTS AND VALVES WITHIN THE PROJECT SITE SHALL BE ADJUSTED TO FINISHED GRADE PER CITY OF SUGAR LAND DESIGN STANDARDS.

7. ALL MANHOLE TOPS WITHIN THE PROJECT SITE SHALL BE

- ADJUSTED TO FINISHED GRADE PER CITY OF SUGAR LAND DESIGN 8. ALL SANITARY SEWER SERVICE CONNECTION TO A MANHOLE MUST
- BE CORED AND SEALED WITH NON-SHRINK GROUT.
- 9. CONTACT THE CITY OF SUGAR LAND ENGINEERING DEPARTMENT (MIKE KRUSZYNZKI 281-275-2780) A MINIMUM OF 48-HOURS PRIOR TO CONSTRUCTION, INSTALLATIONS, OR MODIFICATIONS OF ANY PUBLIC INFRASTRUCTURE (WATER, SANITARY SEWER, STORM SEWER OR PAVEMENT).
- 10. THE REVIEW OF THE IRRIGATION PLAN AS A SUBMITTAL OF THE SITE PLAN DOES NOT CONSTITUTE THE APPROVAL OF A PERMIT FOR THE IRRIGATION PLAN. YOU MUST REQUEST FOR AN IRRIGATION PERMIT BY SUBMITTING A COMPLETE IRRIGATION PLAN LAYOUT TO THE CITY BUILDING DEPARTMENT FOR APPROVAL.

LEGEND	0
PROPOSED WATER LINE, G.V.&B. WITH FLUSHING VALVE	-
EXISTING WATER LINE, G.V.&B. WITH FLUSHING VALVE	
PROPOSED SANITARY SEWER LINE & MANHOLE & CLEANOUT	- - - - - -
EXISTING SANITARY SEWER LINE & MANHOLE	
PROPOSED STORM SEWER LINE, TYPE C MH & INLETS	
PROPOSED TYPE C INLET	- =0
EXISTING STORM SEWER LINE AND MANHOLE & INLETS	
EXISTING EVEVATIONS	- ×***
EXISTING ELECTRICAL UNDERGROUND CONDUIT	UGE
EXISTING GAS LINE	GAS GAS
EXISTING UNDERGROUND TELEPHONE CABLE	UGT
PROPOSED CATCH BASIN	- 🗆
PROPOSED JUNCTION BOX	- 🖾
CUMULATIVE FIXTURE UNITS	- (864)
BUILDING FIXTURE UNITS	- 142
ONE JT. C900 PVC. CENTERED EACH WAY	
PROPOSED WATER METER	- 💌
PROPOSED BORE	
CLEAN OUT	- c.o.
SHEET NUMBER REFERENCE	-6



BENCHMARK:

BENCHMARK PUBLISHED ELEVATION - 70.14 CITY OF SUGAR LAND REFERENCE MARK NUMBER SGR-1, BEING A BRASS DISK STAMPED "RM 001 LOCATED ON A MEDIAN ON ELKINS RD APPROX. 2.15 MILES SOUTH OF WILLIAMS TRACE BLVD. ELEV. 70.14', NAVD88, 2001 ADJUSTMENT.

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RECORD DRAWING

I HEREBY CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE: AND THAT THE CONSTRUCTION WAS IN SUBSTANTIAL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

FORT BEND COUNTY ENGINEERING DEPARTMENT



CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

SHOPS IN RIVERSTONE

OVERALL SITE PLAN

SHEET NO.

LJA Engineering, Inc. Houston, Texas 77042 LJA PROJECT NO.: 2423-1601P

HORZ: 1"=40'

Fax 713.953.5026 FRN - F-1386 AUG 2017

Phone 713.953.5200

NOTE:

FOR ON-SITE CONSTRUCTION SEE PLANS TITLED "WATER, SANITARY SEWER AND DRAINAGE FACILITIES & PAVING AND APPURTENANCES" PREPARED BY LJA ENGINEERING

& SURVEYING INC.

ALL PROPOSED ELEVATIONS NOTED ARE TO FINISHED PAVEMENT GRADE. FOR TOP OF CURB GRADE, WHERE APPLICABLE, ADD 6"

GENERAL NOTES:

- CONTRACTOR SHALL MAINTAIN SITE DRAINAGE AT ALL TIMES.
- 2. ALL MATERIALS FROM DEMOLITION/REMOVALS AS WELL AS EXCESS MATERIALS FROM THE EXCAVATIONS SHALL BECOME THE PROPERTY OF THE CONTRACTOR WHO SHALL DISPOSE OFF—SITE IN A LAWFUL MANNER.
- 3. GRADE PAVING UNIFORMLY BETWEEN INDICATED ELEVATIONS. ADJUST ELEVATIONS AS DIRECTED BY THE ENGINEER AND AS REQUIRED TO ACHIEVE POSITIVE DRAINAGE AND PLEASING APPEARANCE THROUGHOUT.
- 4. ADJUST STRUCTURES (JUNCTION BOXES, VALVE BOXES, PULL BOXES, ETC.) AS REQUIRED TO CONFORM TO NEW FINISHED GRADES.

DRIVEWAY

CONSTRUCTION TO BE

PERMITTED WITH

PRIVATE PLANS.

5. PROPOSED PAVEMENT THICKNESS TO MATCH EXISTING PAVEMENT.

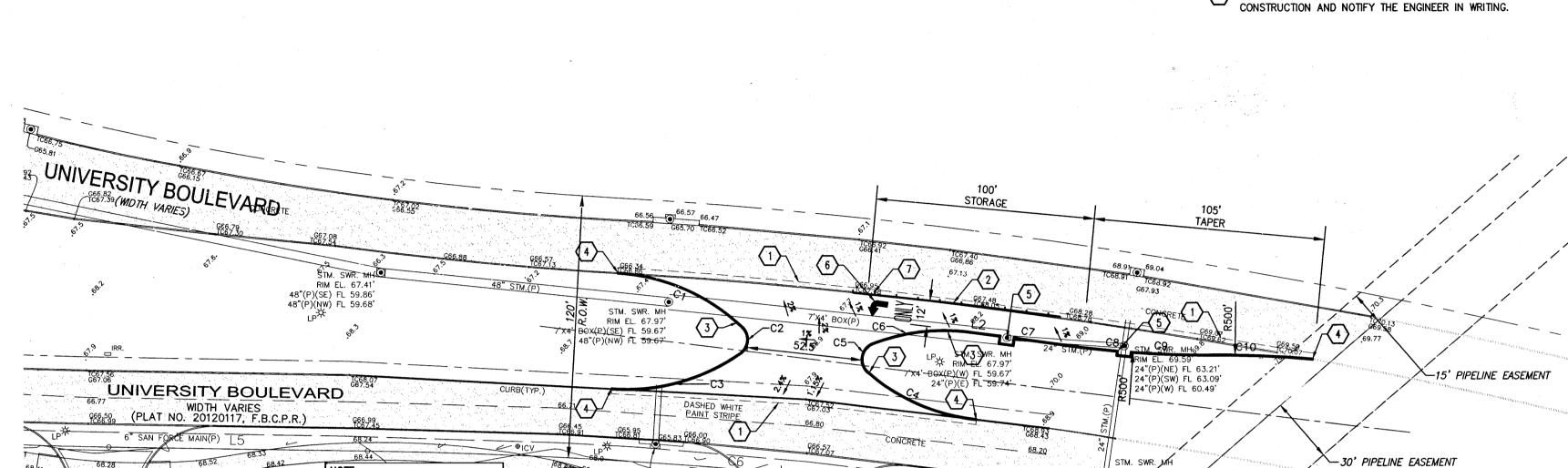
GRADING NOTES:

- CONTRACTOR TO SAWCUT FULL DEPTH AND REMOVE EXISTING CURB, PAVEMENT, AND LANDSCAPE. (CONTRACTOR TO KNOCK OFF EXISTING CURB WITHIN BRIDGE APPROACH INSTEAD OF SAWCUTTING.)
- 8" WIDE SOLID WHITE STRIPE PER CITY OF SUGAR LAND STANDARDS DETAIL SL-28, SHEET 14.
- CONTRACTOR TO INSTALL 6" CURB PER CITY OF SUGAR LAND STANDARDS DETAIL SL-23, SHEET 10.
- (4) CONTRACTOR TO MATCH ELEVATION AT EXISTING PAVEMENT.
- 5 ADJUST EXISTING STORM MANHOLE TO MATCH PROPOSED PAVEMENT.
- 6 TURNING ARROW SEE DETAIL SL-28, SHEET 14.
- 4" SQ. 1-WAY REFLECTORIZED WHITE RAISED PAVEMENT MARKERS, TYPE I-C, SEE DETAIL SL-28, SHEET 14.
- (8) TXDOT R3-5L SIGN LEFT TURN LANE.
- CONTRACTOR TO VERIFY DEPTH OF CNP CONDUIT PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER IN WRITING.

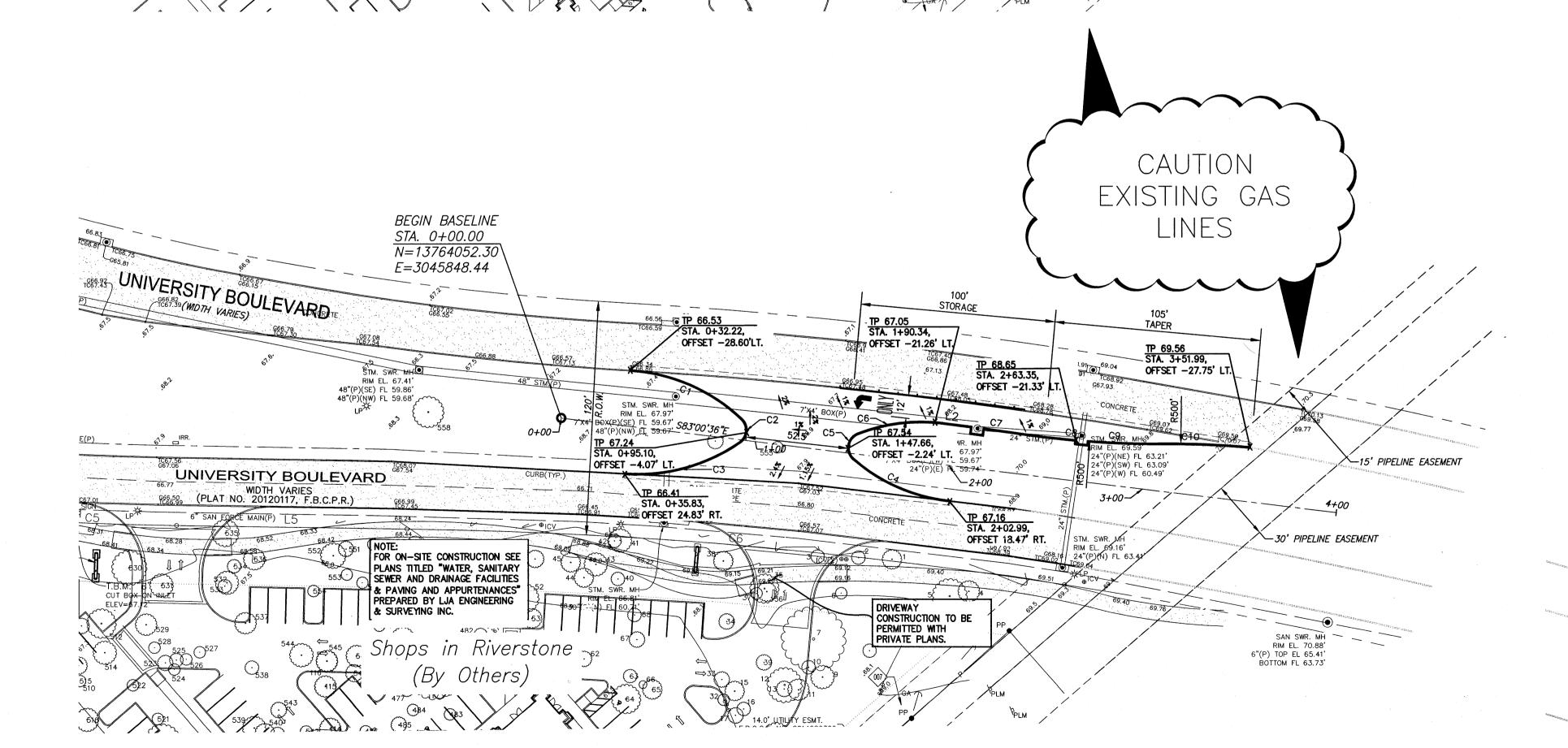
SAN SWR. MH

RIM FL: 70.88'

6"(P) TOP EL 65.41' BOTTOM FL 63.73'

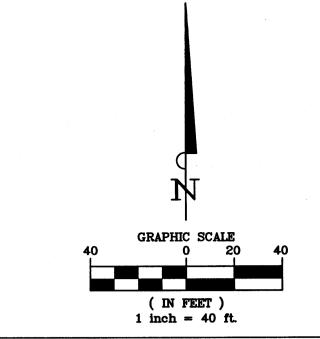


ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG!!!
(713) 223-4567 (IN HOUSTON)
(NEW STATEWIDE NUMBER OUTSIDE HOUSTON)
1-800-545-6005



Curve Table						
Curve	Curve # l		ength	Radius		Delta
C1		63	3.515	90.097	0	40.3912
C2		13	3.675	8.000	0	97.9435
C3		62	2.889	90.097	0	39.9936
C4		54	1.880	90.000	0	34.9377
C5		16	6.557	8.000	1	18.5758
C6 .		44	4.282	90.000	O	28.1909
C7		7	31.572	2607.809		000.6937
		16	5.523	500.000	0	01.8934
C9		3	473	500.000	0	03.6065
C	C10 51.762		500,000		05.9314	
Line Table			Q/E	**********	72211227111227	
Line #	# Length Direction					

15.154 S82° 45' 46.96"E



BENCHMARK:

BENCHMARK PUBLISHED ELEVATION - 70.14'
CITY OF SUGAR LAND REFERENCE MARK NUMBER
SGR-1, BEING A BRASS DISK STAMPED "RM 001
LOCATED ON A MEDIAN ON ELKINS RD APPROX.
2.15 MILES SOUTH OF WILLIAMS TRACE BLVD.
ELEV. 70.14', NAVD88, 2001 ADJUSTMENT.

TEMPORARY BENCHMARK "A" ELEVATION — 66.75' BOX CUT ON A STORM INLET LOCATED ON THE EAST SIDE OF WEST AVALON DRIVE APPROX. 260 FEET SOUTH OF UNIVERSITY BLVD. (AS SHOWN HEREON)

TEMPORARY BENCHMARK "B" ELEVATION — 67.12'
BOX CUT ON A STORM INLET LOCATED ON THE
SOUTH SIDE OF UNIVERSITY BLVD. APPROX. 180
FEET EAST OF WEST AVALON DRIVE. (AS SHOWN
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RECORD DRAWING

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CONTRACTOR:_____DATE:____

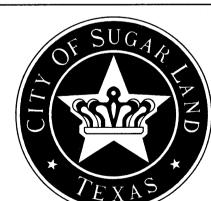
111LE: ___

APPROVED:

DEVELOPMENT COORDINATOR

DATE: 8/16/17

DATE REVISION



CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

SHOPS IN RIVERSTONE

LEFT TURN LANE &

LJA Engine
2929 Briarpark Di
Suite 600
Houston, Texas
LJA PROJECT
DESIGNED BY:
JRP
SCALE:
HORZ: 1"=40'

MEDIAN OPENING

LJA Engineering, Inc.
2929 Briarpark Drive
Suite 600
Houston, Texas 77042

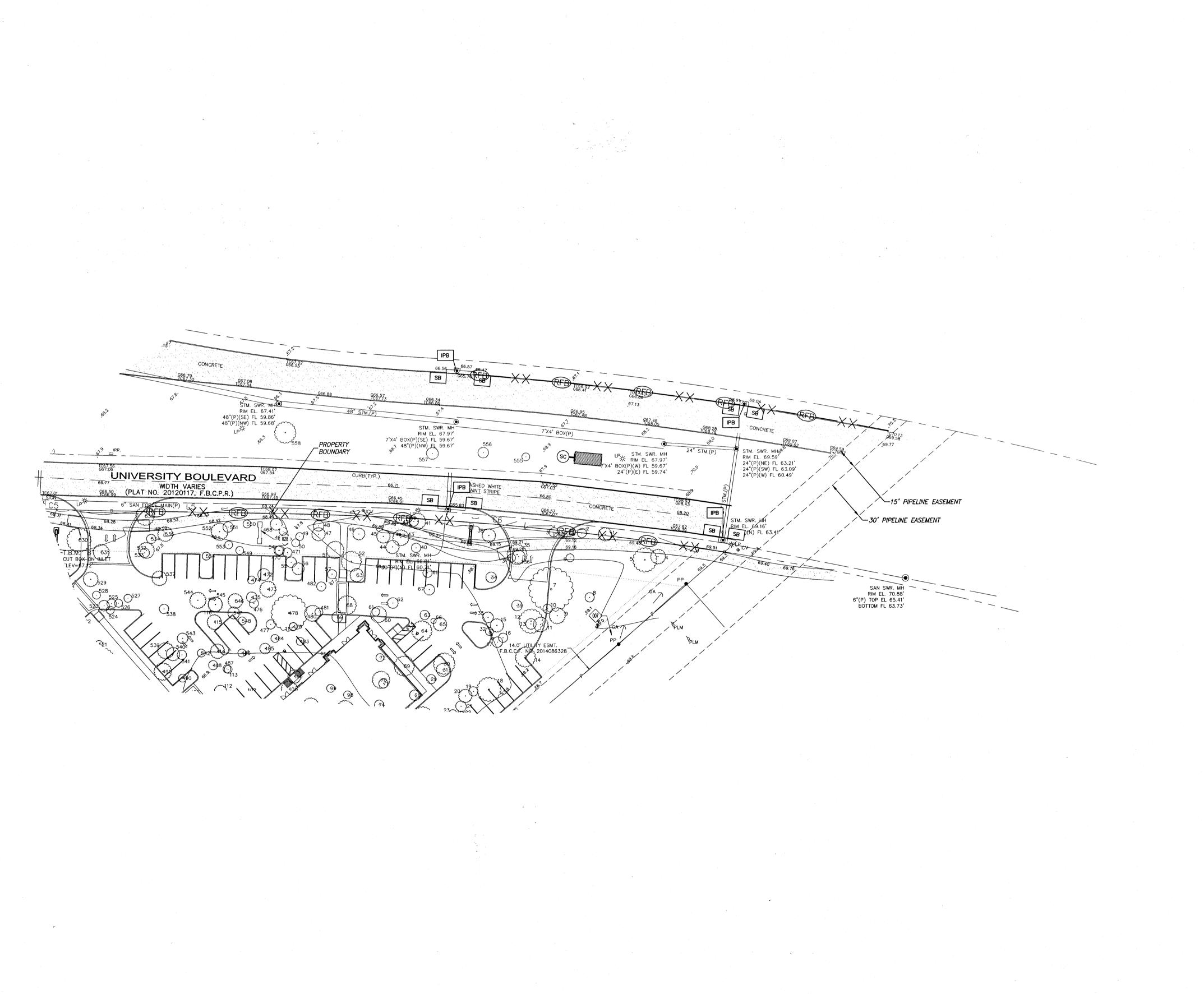
LJA PROJECT NO.: 2423-1601P

DESIGNED BY:
DRAWN BY:
JRP/MMB

DATE:
AUG 2017

SHEET NO.

of 15





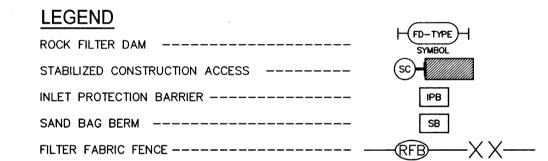
- 1. FOR STORMWATER POLLUTION PREVENTION PLAN DETAILS, REF: SHEET C12.
- 2. FILTER FABRIC FENCE SHALL BE INSTALLED ON SITE AS INDICATED ON PLAN PRIOR TO CONSTRUCTION.

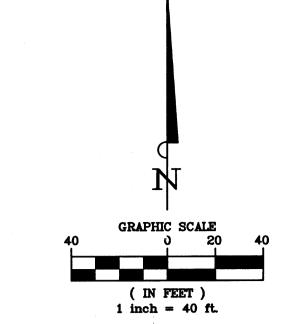
EROSION AND SEDIMENT CONTROLS

- 1. SEDIMENT WILL BE RETAINED ON SITE TO THE MAXIMUM EXTENT PRACTICABLE
- 2. CONTROL MEASURE WILL BE PROPERLY SELECTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICE. IF DAMAGED OR RENDERED INEFFECTIVE, THE EROSION AND SEDIMENT CONTROLS WILL BE REPAIRED OR REPLACED IMMEDIATELY.
- 3. WHEN PUMPING (DEWATERING) STANDING STORM WATER FROM THE SITE, THE OPERATOR SHALL USE APPROPRIATE BEST MANAGEMENT PRACTICES (BMPs) FROM THE STORM WATER MANAGEMENT HANDBOOK FOR CONSTRUCTION ACTIVITIES THAT ADDRESS DEWATERING ACTIVITIES. UNTREATED/DIRECT DISCHARGE INTO A STORM SEWER WILL NOT BE ALLOWED.
- 4. IF THE INTERIM PERIOD BETWEEN CONSTRUCTION OF UTILITIES AND STREET CONSTRUCTION WILL BE MORE THAN 21 DAYS, THE STREET RIGHTS-OF-WAY WILL BE MULCHED OR OTHERWISE STABILIZED WITHIN 14 DAYS.
- 5. AFTER PAVING COMPLETION, NEWLY GRADED AREAS AND ALL EXPOSED SOILS WILL BE COMPLETELY STABILIZED.

MAINTENANCE

- EROSION AND SEDIMENT CONTROL MEASURES THAT HAVE BEEN IMPROPERLY INSTALLED OR HAVE BEEN DISABLED, RUN-OVER, REMOVED OR OTHERWISE RENDERED INEFFECTIVE MUST BE REPLACED OR CORRECTED IMMEDIATELY.
- MAINTENANCE AND REPAIRS WILL BE CONDUCTED WITHIN 24 HOURS OF INSPECTION REPORT.





BENCHMARK:

PUBLISHED ELEVATION - 70.14' BENCHMARK CITY OF SUGAR LAND REFERENCE MARK NUMBER SGR-1, BEING A BRASS DISK STAMPED "RM 001" LOCATED ON A MEDIAN ON ELKINS RD APPROX. 2.15 MILES SOUTH OF WILLIAMS TRACE BLVD. ELEV. 70.14', NAVD88, 2001 ADJUSTMENT.

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CONTRACTOR:	DATE:
TITLE:	

FORT BEND COUNTY ENGINEERING DEPARTMENT

DATE



CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

SHOPS IN RIVERSTONE

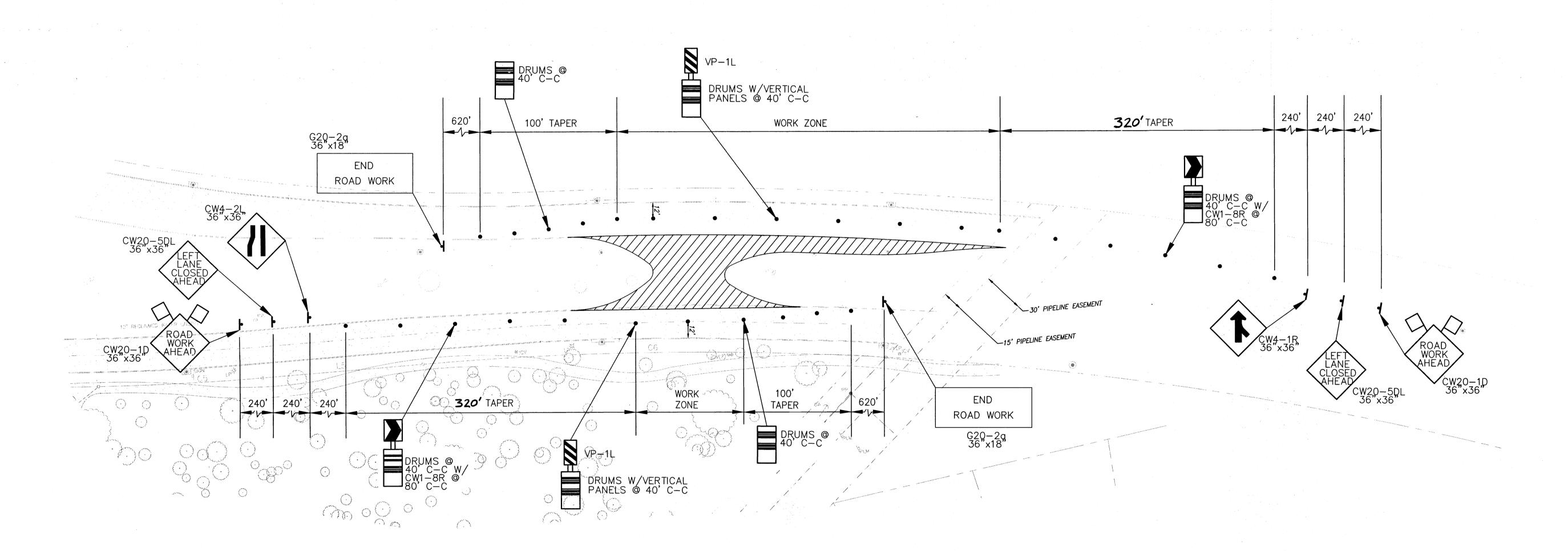
EROSION CONTROL PLAN

IPB

SB

LJA Engineering,
2929 Briarpark Drive
Suite 600
Houston, Texas 77042
DDG IEGE NG 046

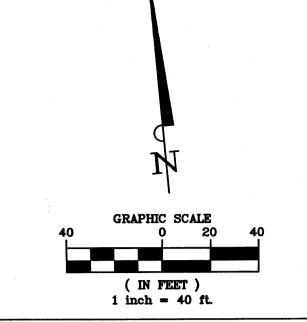
Phone 713.953.5200 FRN - F-1386



UNIVERSITY BLVD. (R.O.W. VARIES)

NOTE: LANE CLOSURES SHALL BE LIMITED TO 9AM - 4PM, MON-FRI

UNIVERSITY BLVD. EXISTING SPEED LIMIT 40 MPH



BENCHMARK:

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CITY OF SUGAR LAND REFERENCE MARK NUMBER
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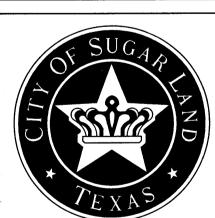
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APPROVED: DEVELOPMENT COORDINATOR

DATE: **8/16/17**DATE REVISIO



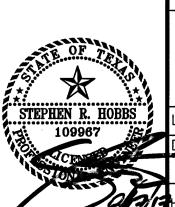
CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

SHOPS IN RIVERSTONE

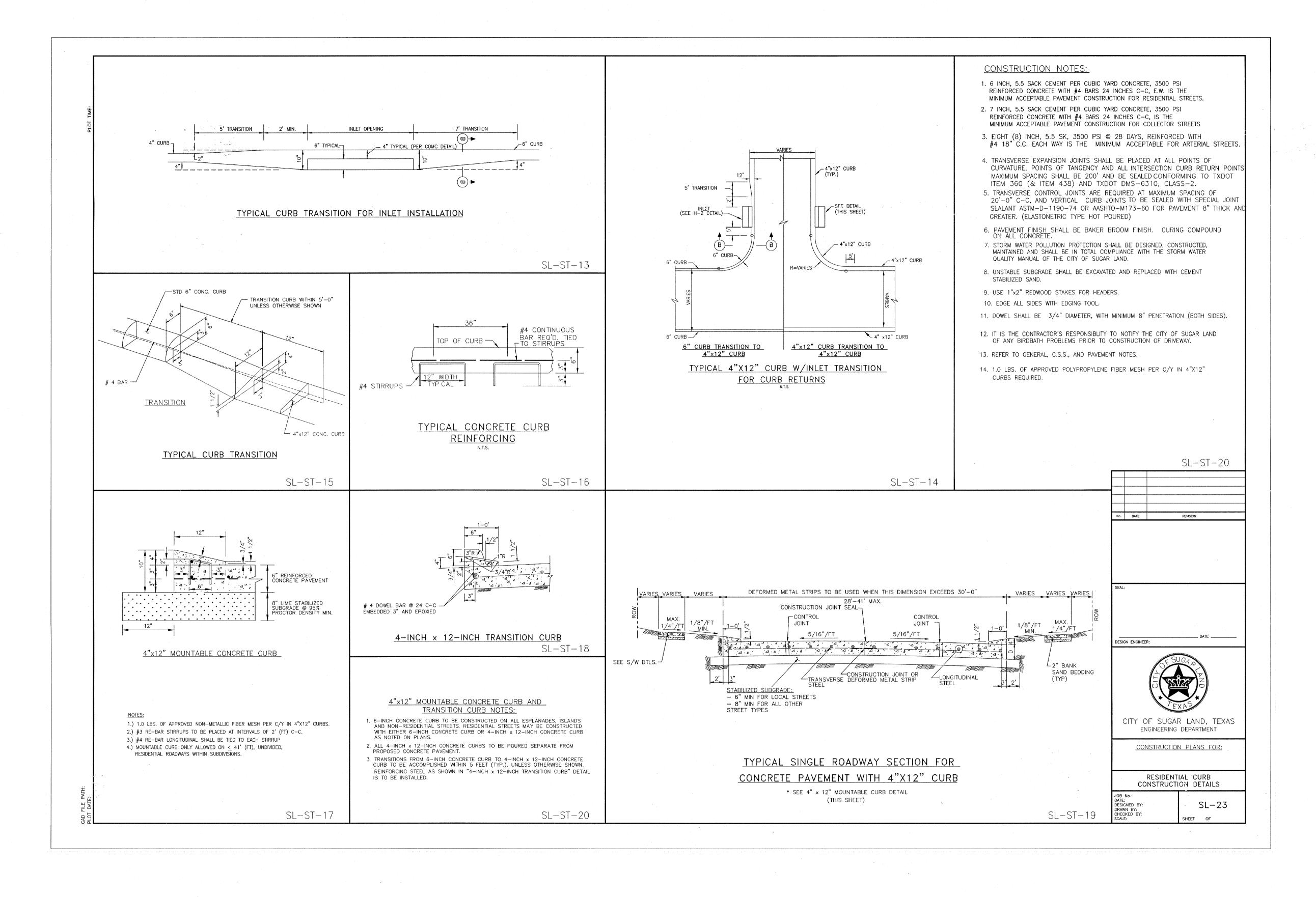
SHOPS IN RIVERSTO

TRAFFIC CONTROL PLAN



LJA Enginee	ring, Inc.	
2929 Briarpark Drive Suite 600 Houston, Texas 77042		Phone 713.953.5200 Fax 713.953.5026 FRN - F-1386
LJA PROJECT NO	.: 2423-1601P	
DESIGNED BY: JRP	DRAWN BY: JRP/MMB	DATE: AUG 2017
SCALE: HORZ: 1"=40' VERT:	SHEET NO.	9 of 15
	2929 Briarpark Drive Suite 600 Houston, Texas 770 LJA PROJECT NC DESIGNED BY: JRP SCALE:	Suite 600 Houston, Texas 77042 LJA PROJECT NO.: 2423—1601P DESIGNED BY: DRAWN BY: JRP JRP/MMB SCALE:

Non,



BENCHMARK PUBLISHED ELEVATION - 70.14' CITY OF SUGAR LAND REFERENCE MARK NUMBER SGR-1, BEING A BRASS DISK STAMPED "RM 001" LOCATED ON A MEDIAN ON ELKINS RD APPROX. 2.15 MILES SOUTH OF WILLIAMS TRACE BLVD. ELEV. 70.14', NAVD88, 2001 ADJUSTMENT.

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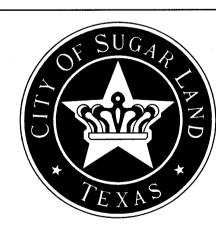
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CONTRACTOR:

FORT BEND COUNTY ENGINEERING DEPARTMENT

REVISION

DATE



CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

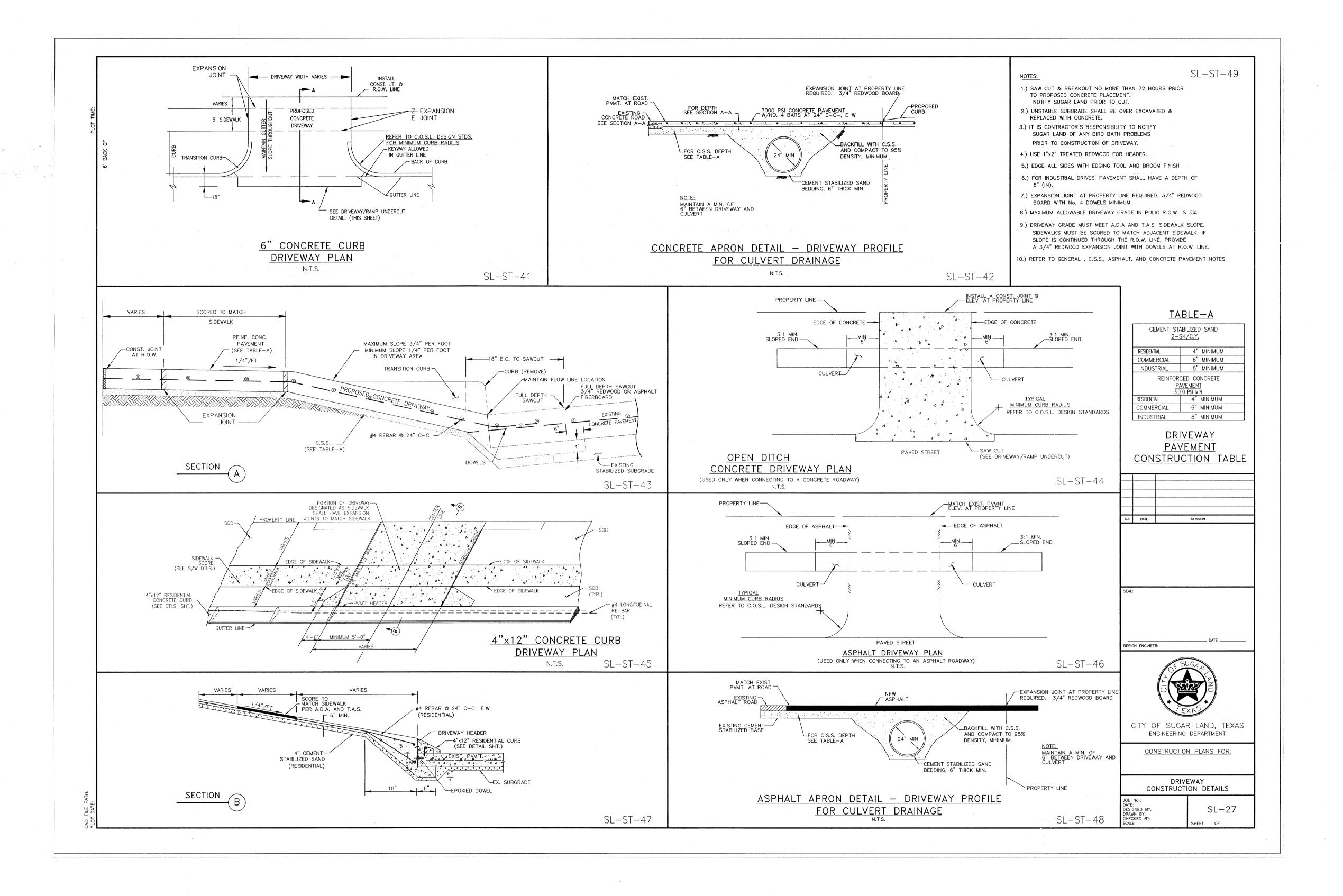
FORT BEND, TEXAS

SHOPS IN RIVERSTONE

PAVEMENT DETAILS 1 OF 2

2929 Briarpark Drive Suite 600

LJA Engineering, Inc. Phone 713.953.5200 Fax 713.953.5026 Houston, Texas 77042 FRN - F-1386 LJA PROJECT NO.: 2423-1601P JRP/MMB AUG 2017



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FORT BEND COUNTY ENGINEERING DEPARTMENT

CON	MACI	OK.

TITLE: _

PROVED:

DEVELO

DATE: **8/14/17**

ATE REVISION



CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

SHOPS IN RIVERSTONE

PAVEMENT DETAILS 2 OF 2

STEPHEN R. HOBBS
LJA
HOR

LJA Engineering, Inc.

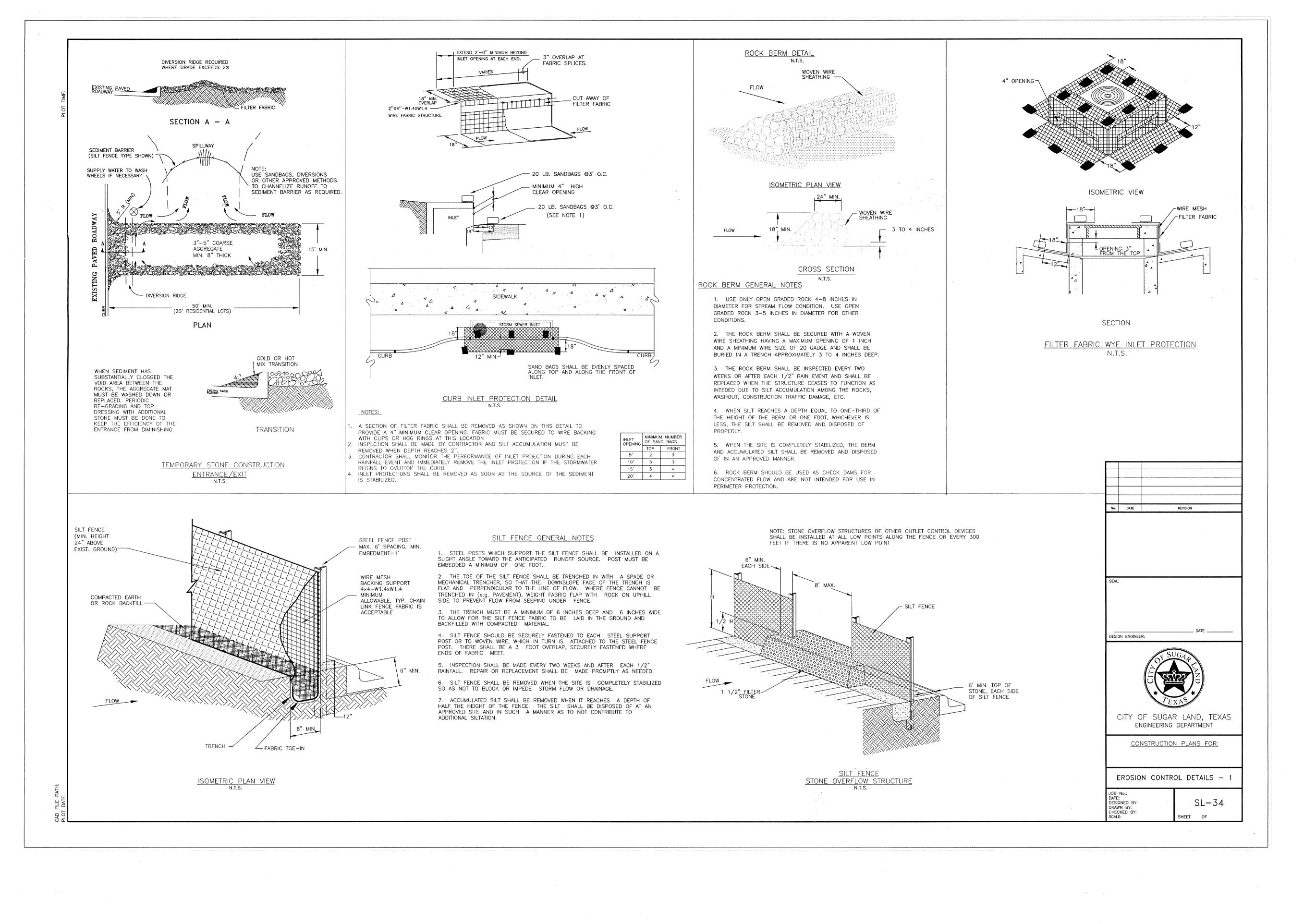
2929 Briarpark Drive
Suite 600
Houston, Texas 77042

LJA PROJECT NO.: 2423—1601P

DESIGNED BY:
JRP
DRAWN BY:
JRP
DATE:
JRP/MMB
AUG 2017

SCALE:
HORZ:
VERT:
SHEET NO.

1 1 0F 15



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FORT BEND COUNTY ENGINEERING DEPARTMENT

REVISION

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SUG_A



CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT PEND, TEXAS

SHOPS IN RIVERSTONE

EROSION CONTROL

DETAILS 1 OF 2

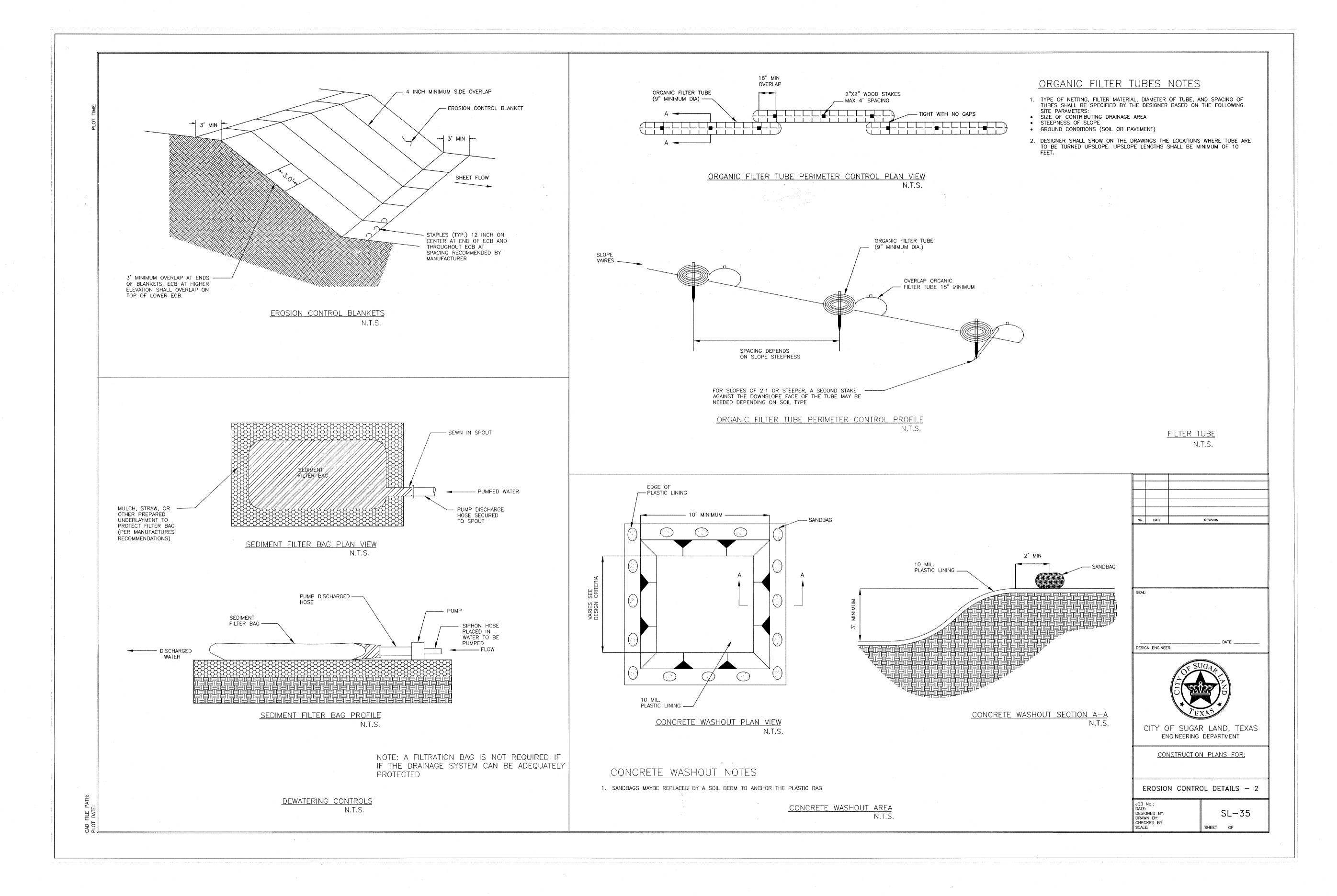
LJA Engineering, Inc.

2929 Briarpark Drive
Suite 600
Fax 713.953.5200
Fax 713.953.5026
Houston, Texas 77042
FRN - F-1386

LJA PROJECT NO.: 2423-1601P

DESIGNED BY: DRAWN BY: JRP/MMB AUG 2017

SCALE:
HORZ: NTS SHEET NO. 12 OF 15



BENCHMARK PUBLISHED ELEVATION - 70.14' CITY OF SUGAR LAND REFERENCE MARK NUMBER SGR-1, BEING A BRASS DISK STAMPED "RM 001" LOCATED ON A MEDIAN ON ELKINS RD APPROX. 2.15 MILES SOUTH OF WILLIAMS TRACE BLVD. ELEV. 70.14', NAVD88, 2001 ADJUSTMENT.

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DATE REVISION



CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

SHOPS IN RIVERSTONE

EROSION CONTROL

DETAILS 2 OF 2

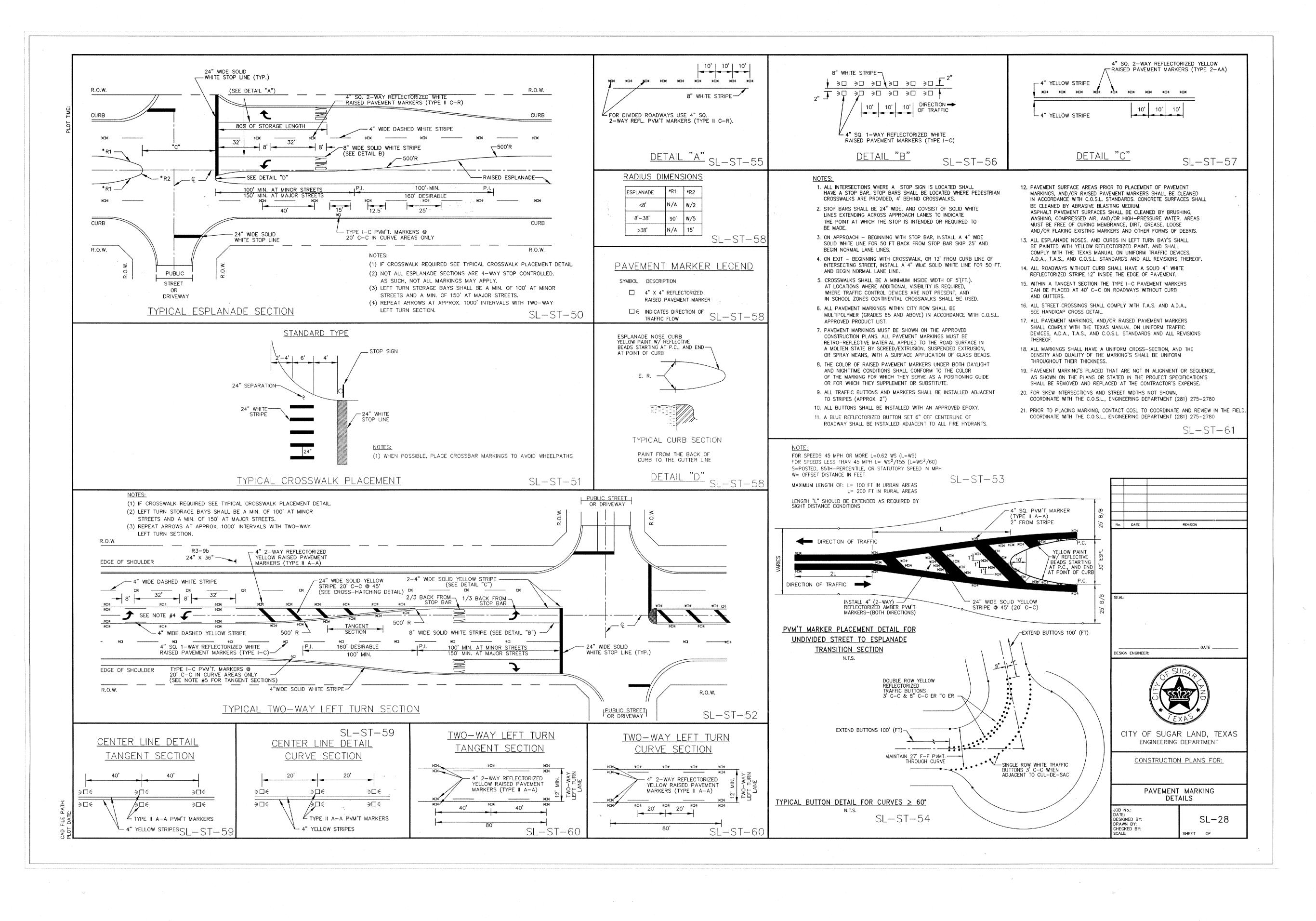
JRP/MMB

Phone 713.953.5200 Fax 713.953.5026

FRN - F-1386

AUG 2017

LJA Engineering, Inc. 2929 Briarpark Drive Houston, Texas 77042 LJA PROJECT NO.: 2423-1601P DRAWN BY: SHEET NO. 13 OF 15



BENCHMARK PUBLISHED ELEVATION — 70.14'
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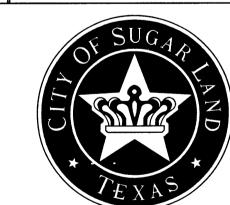
DATE:

TITLE:

APPROVED: DEVELOPMENT COORDINATOR

DATE: 8/16/17

DATE REVIS



CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

SHOPS IN RIVERSTONE

STRIPING DETAILS 1 OF 2

LJA Engineering, Inc.

2929 Briarpark Drive
Suite 600
Fax 713.953.5200
Fax 713.953.5026
FRN - F-1386

DA PROJECT NO.: 2423—1601P

DESIGNED BY:
JRP
DRAWN BY:
JRP/MMB
AUG 2017

SCALE:
HORZ:
VERT:
NTS
SHEET NO. 1 4 OF 1 5

STEPHEN R. HOBBS

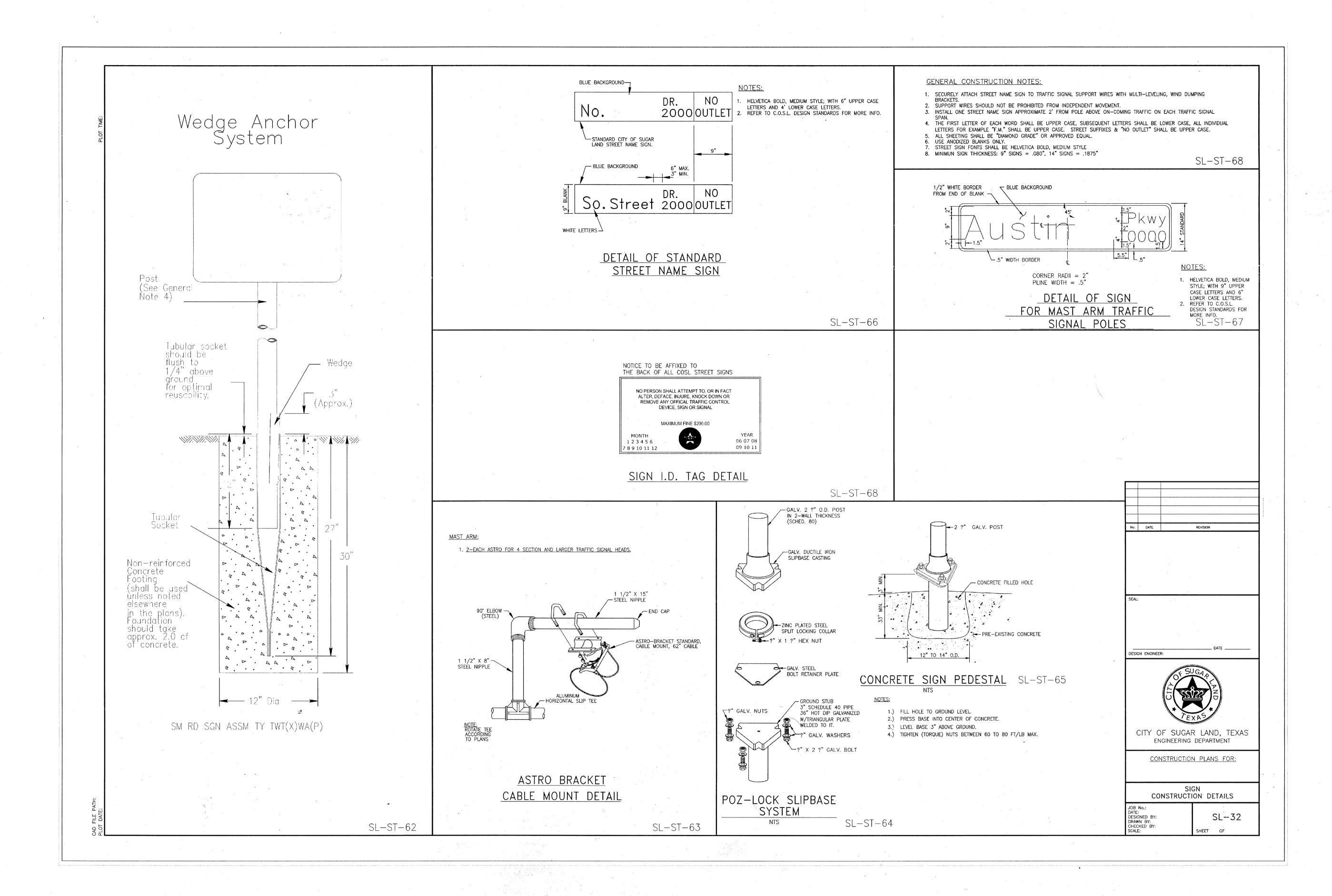
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BENCHMARK PUBLISHED ELEVATION — 70.14' CITY OF SUGAR LAND REFERENCE MARK NUMBER SGR—1, BEING A BRASS DISK STAMPED "RM 001 LOCATED ON A MEDIAN ON ELKINS RD APPROX. 2.15 MILES SOUTH OF WILLIAMS TRACE BLVD. ELEV. 70.14', NAVD88, 2001 ADJUSTMENT.

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CITY OF SUGARLAND, TEXAS ENGINEERING DEPARTMENT

FORT BEND, TEXAS

SHOPS IN RIVERSTONE

STRIPING DETAILS 2 OF 2

 LJA Engineering, Inc.

 2929 Briarpark Drive
 Phone 713.953.5200

 Suite 600
 Fax 713.953.5026

 Houston, Texas 77042
 FRN - F-1386

 LJA PROJECT NO.: 2423-1601P

 DESIGNED BY:
 DRAWN BY:

 JRP
 JRP/MMB

 AUG 2017

 SCALE:

 HORZ:
 NTS

 SHEET NO.
 15 of 15

STEPHEN R. HOBBS
109967

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B/4/7