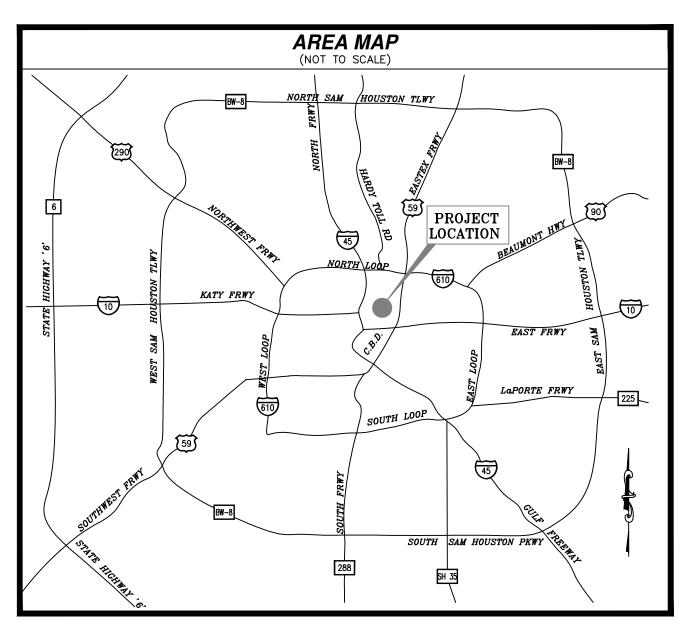
CONSTRUCTION PLANS

PROPOSED 8" PVC SANITARY SEWER

1510 RYON STREET 1510 RYON STREET HOUSTON, TX 77009



VICINITY MAP KEY MAP: 493D (NOT TO SCALE) Hollywood Cemetery KEY MAP: 493D

ZIP CODE: 77009 GIMS MAP: 5458A

INDEX OF DRAWINGS

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48 HOURS NOTICE PRIOR TO START OF CONSTRUCTION.

CONTRACTOR SHALL NOTIFY THE CITY OF HOUSTON, HOUSTON OF PUBLIC WORKS, OCE 48 HOURS BEFORE STARTING WORK ON THIS PROJECT. TEL NO: 832-394-9098

FIRM:

FLOOD ZONE: X (UNSHADED) FLOOD INSURANCE RATE MAP PANEL (48201C) MAP# 0690 N MAP RESERVED JANUARY 06, 2017

I <u>Habib Othman</u>, <u>P.E.</u> Hereby acknowledge that I have REVIEWED THE NEW FLOOD HAZARD RECOVERY DATA AND USED THE MOST RESTRICTIVE INFORMATION FOR THE DESIGN OF THIS PROJECT.

DATE: 01-28-2

OCE ILMS#: 25008333 STORM INFORMATION FORM LOG#: 24018185

ONE CALL NOTIFICATION CALL BEFORE YOU DIG!!! CALL AT LEAST 2 WORKING DAYS (48 HOURS) BEFORE YOU DIG: 811 (IN HOUSTON)

(NEW STATEWIDE NUMBER OUTSIDE HOUSTON 1-800-344-8377)

NOTE:

NO WATER OR STORM IS BEING PROPOSED ON THIS PLAN SET.

NOTE:

SIDEWALKS ARE BASED ON PLANNING DEPARTMENT REQUIREMENTS.

NOTE:

DRIVEWAYS AND SIDEWALKS ARE PART OF THE BCE PLANS.

BCE ILMS#: 24027008 WCR ILMS#: 24018185 EASEMENTS. DRAWING MUST BE APPROVED AND PERMITTED PRIOR TO BEGINNING CONSTRUCTION CONTACT REQUIRED SECTIONS BELOW AND INDICATED 1002 Washington (2nd Floor) □STORM □ALLEY □STREET CUT / EXCAVATION 832-394-9101 1002 Washington (3rd Floor) 832-394-8971 832-394-9578 ⊠SANITARY □WATER

NO.	DATE		REVISION	APP.
3				
<u>^</u>				
Firn OFF	BULLSEYE ENG INSPECTION IN number # F: 832-69 Engineers, planners Richmond,	INEERING 1, LLC 20186 9-0977 8 & permits	HABIB OTHMAN 129906 //CENSER	DATE: 01-28-2025
l Not	TE: CITY S	IGNATURES	VALID FOR ONE	YEAR

ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON HOUSTON PUBLIC WORKS

WATER STORM WATER QUALITY WASTE WATER **FACILITIES** STORM WATER TRAFFIC & TRANSPORTATION/ STREET & BRIDGE TRAFFIC SIGNAL CITY ENGINEER DIRECTOR OF HOUSTON PUBLIC WORKS SHEET NO 01 OF 06 SHEETS FOR CITY OF HOUSTON USE ONLY

GENERAL CONSTRUCTION NOTES

1. UNLESS OTHERWISE NOTED AND APPROVED ON DRAWINGS, CONSTRUCT CIVIL INFRASTRUCTURE IN ACCORDANCE WITH THE EFFECTIVE EDITION OF THE HOUSTON PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS. STANDARD CONSTRUCTION DETAILS, AND SUPPLEMENTS, ADDENDA AND AMENDMENTS THERETO. THE LATEST EDITION OF THE ABOVE PUBLICATIONS CAN BE FOUND AT:

HTTP://WWW.HOUSTONPERMITTINGCENTER.ORG/OFFICE-CITY-ENGINEER/DESIGN-AND-CONSTRUCTION-

2. THE DESIGN MUST BE CONSISTENT WITH THE EFFECTIVE EDITION OF HOUSTON PUBLIC WORKS INFRASTRUCTURE DESIGN MANUAL AND TCEQ (TEXAS COMMISSION ON ENVIRONMENTAL QUALITY) REQUIREMENTS.

3. THE GEOTECHNICAL INVESTIGATION FOR THIS PROJECT WAS CONDUCTED IN ACCORDANCE WITH CHAPTER 11 OF THE LATEST EDITION OF THE PUBLICATION INFRASTRUCTURE DESIGN MANUAL, PUBLISHED BY HOUSTON PUBLIC WORKS. SOILS REPORT WAS PREPARED BY [GEOTECHNICAL ENGINEERING FIRM] REPORT NO. [NO. OF REPORT], DATED [DATE OF

4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 713-223-4567/811 OR 800-344-8377 AND LONE STAR NOTIFICATION CENTER AT 800-669-8344 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION. UTILITIES MARKED WITHIN THE PUBLIC RIGHT OF WAY OR IN EASEMENTS SHALL COMPLY WITH TAC TITLE 16, PART 1, CHAPTER 18, RULE §18.6 AND THE AMERICAN PUBLIC WORKS ADMINISTRATION (APWA) UNIFORM COLOR CODE.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES AND TRAFFIC CONTROL DEVICES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE EFFECTIVE EDITION OF HOUSTON PUBLIC WORKS, STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAINAGE, STREET PAVING, AND TRAFFIC AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, STREET PAVING, AND TRAFFIC, REFERENCED ABOVE AND SUPPLEMENTS, ADDENDA AND AMENDMENTS THERETO, AT NO ADDITIONAL COST TO THE CITY OF

6. CONTRACTOR SHALL NOTIFY THE OFFICE OF THE CITY ENGINEER. HOUSTON PUBLIC WORKS @ 832-394-9098 OR VIA FAX AT 832-395-4424 FOR INSPECTION AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.

7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER AND TO THE SATISFACTION OF THE OWNING AUTHORITY.

8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.

9. CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.

10. CONTRACTOR SHALL MAINTAIN A SET OF REDLINE DRAWINGS AND RECORD AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE AS-BUILT DRAWINGS WILL BE SUBMITTED TO THE DESIGN CONSULTANT WHO WILL MAKE THE CHANGES ON THE ORIGINAL TRACINGS, LABEL EACH SHEET IN THE SET AS "RECORD DRAWINGS", AND RETURN IT TO THE OFFICE OF THE CITY ENGINEER.

STREET & BRIDGE CONSTRUCTION NOTES

I. FILL AREAS ON PLANS SHALL BE FILLED IN LAYERS NOT EXCEEDING 8" IN DEPTH AND EACH COMPACTED TO NOT LESS THAN 95% STANDARD PROCTOR DENSITY PRIOR TO INSTALLATION OF WATER LINE AND FILL AREA SHALL BE SEEDED AND FERTILIZED WITHIN 10 WORKING DAYS.

2. UTILITY CONTRACTOR SHALL PROVIDE TEMPORARY SILT BARRIER FENCE ON ALL NON-CURBED INLETS WHICH WILL REMAIN IN PLACE AFTER UNDERGROUND CONTRACT IS COMPLETE.

3. CONTRACTOR SHALL PROVIDE SILT BARRIER FENCE ON ALL STAGE 1 CURB INLETS.

4. EXISTING PAVEMENTS, CURBS, DRIVEWAYS, AND SIDEWALKS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO CITY OF HOUSTON STANDARDS, WITH LATEST ADDENDA AND AMENDMENTS THERETO.

5. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY UPON COMPLETION OF JOB SHALL BE AS GOOD AS OR BETTER THAN PRIOR TO STARTING WORK.

6. EXPOSED 15" OF REINFORCING STEEL AT PROPOSED SAWED JOINT IF NO REINFORCING STEEL EXISTS, USE HORIZONTAL DOWELS. HORIZONTAL DOWELS SHALL BE #6 BARS 24" LONG 24" C-C DRILLED AND EMBEDDED 8" INTO THE CENTER OF THE EXISTING SLAB WITH "PO ROC" OR EQUAL.

7. WHEELCHAIR RAMPS SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF HOUSTON STANDARDS AT ALL INTERSECTIONS WHERE SIDEWALKS EXIST AND THE EXISTING CURB OR SIDEWALK IS DAMAGED OR REMOVED DURING

8. PRIOR TO STREET CONSTRUCTION, THE CONTRACTOR SHALL CONTACT HOUSTON PUBLIC WORKS AT (PHONE) 832-394-9578 AND COMPLY WITH ALL REQUIREMENTS FOR THE ISSUANCE OF NECESSARY PERMITS/WORK ORDERS FOR

9. DOUBLE REFLECTORIZED BLUE TRAFFIC MARKERS SHALL BE PLACED 6-INCHES OFFSET OF THE CENTERLINE OF ALL FIRE HYDRANT LOCATIONS BY THE PAVING CONTRACTOR. HYDRANTS LOCATED AT INTERSECTIONS SHALL HAVE A BUTTON PLACED ON EACH STREET.

TRAFFIC NOTES

CONTRACTOR OR OWNER SHALL SUBMIT TRAFFIC CONTROL PLANS WITH THE MOBILITY PERMIT APPLICATION. THE PLANS SHALL BE DRAWN TO SCALE AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.

THE GENERAL NOTES THAT SHALL BE INCLUDED ON THE TRAFFIC CONTROL PLAN CAN BE FOUND IN CHAPTER 15 (15.12 TRAFFIC CONTROL PLAN) OF THE CITY OF HOUSTON'S (CITY) INFRASTRUCTURE DESIGN MANUAL (IDM). BELOW ARE SEVERAL KEY NOTES FROM THE IDM TO BE AWARE OF:

I. THE CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) LATEST EDITION WITH REVISIONS DURING THE ENTIRE CONSTRUCTION PERIOD.

2. NO WORK SHALL BE PERFORMED IN RESIDENTIAL AREAS FROM 7:00PM TO 7:00AM.

3. CONTRACTOR SHALL MAINTAIN APPROVED NUMBER OF LANES OF TRAFFIC IN EACH DIRECTION DURING CONSTRUCTION WORKING HOURS, TRAFFIC CONTROL PLANS SHALL INCLUDE ONE-WAY AND/OR DETOUR PLANS. CONTRACTOR SHALL MAINTAIN ADA COMPLAINT PEDESTRIAN ACCESS TO BUS STOPS AND ADEQUATE BUS ACCESS TO

4. CONTRACTOR SHALL COVER OPEN PAVEMENT EXCAVATIONS FOR MINOR UTILITY WORK WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS. OPEN LANES FOR NORMAL TRAFFIC FLOW WHEN FEASIBLE.

5. CONTRACTOR SHALL SECURE ROADWAY/SIDEWALK/STREET/BICYCLE FACILITY PERMITS AS DESCRIBED IN CITY OF HOUSTON ORDINANCE, CHAPTER 40 - STREETS & SIDEWALKS, SECTION 40-361 FROM HOUSTON PERMITTING CENTER (MORILITY PERMIT SECTION AT HTTPS://GEOHLIB HOLISTONTX GOV) REFORE IMPLEMENTING THE TRAFFIC CONTROL. PLAN. THE APPLICATION MUST BE SUBMITTED AT LEAST TEN BUSINESS DAYS PRIOR TO THE IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN AND/OR BEGINNING CONSTRUCTION WORK, THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS, CONSTRUCTION SEQUENCING, AND CONSTRUCTION SCHEDULE WITH THE APPLICATION.

6. CONTRACTOR SHALL HAVE APPROVED TRAFFIC CONTROL PLAN AND PERMIT AT THE JOB SITE FOR INSPECTION AT

7. ACCESS TO DRIVEWAYS ADJACENT TO THE CONSTRUCTION WORK ZONE SHALL BE MAINTAINED AT ALL TIMES AS MUCH AS POSSIBLE, ADDITIONAL CONES AND/OR DELINEATORS MAY BE REQUIRED TO DELINEATE THE DRIVEWAY ACCESS ROUTE THROUGH THE CONSTRUCTION WORK ZONE. A MINIMUM OF ONE TRAVEL LANE SHALL BE MAINTAINED ACROSS THE DRIVEWAY, UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE CITY OF HOUSTON

8. ADDITIONAL OFF DUTY POLICE OFFICERS/FLAGGERS MAY BE REQUESTED TO DIRECT TRAFFIC WHEN LANES ARE BLOCKED AT THE DIRECTION OF THE CITY EVEN IF THEY ARE NOT SPECIFICALLY IDENTIFIED ON THE PROJECT PLANS.

WARNING: UNDERGROUND ELECTRICAL UTILITIES

THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

• ALL INFORMATION CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTORS ARE RESPONSIBLE MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND PIPELINES, CONDUITS, AND STRUCTURES BY CONTACTING OWNERS OF UNDERGROUND UTILITIES OR BY EXCAVATING IN ADVANCE OF CONSTRUCTION. • THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES WHEN AND WHERE

THEY FALL IN THE PATH OF CONSTRUCTION. • THE CONTRACTOR IS ALSO RESPONSIBLE FOR CONTACTING THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 AND TEXAS ONE CALL AT 1-800-245-4545, FORTY-EIGHT (48) HOURS PRIOR TO ANY CONSTRUCTION. • THE LOCATION OF ANY CENTERPOINT ENERGY UTILITIES ARE SHOWN IN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. THEY AGREE TO BE FULLY

RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.

• ALL PROPOSED FACILITIES SHALL MAINTAIN 12" CLEAR FROM ALL EXISTING UTILITIES.

TRAFFIC SIGNAL GENERAL NOTES:

1. ALL EQUIPMENT / MATERIALS AND CONSTRUCTION SHALL MEET OR EXCEED THE REQUIREMENTS CONTAINED IN THE CURRENT CITY OF HOUSTON STANDARD SPECIFICATIONS AND STANDARD DRAWINGS, THE PROJECT SPECIFIC SPECIFICATIONS AND THE PLANS.

2. ALL ELECTRICAL WORK SHALL BE IN CONFORMANCE WITH THE PROVISIONS AND REQUIREMENTS OF THE CITY

3. ALL SIGNS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL

4. THE CONTRACTOR SHALL ARRANGE THE INSTALLATION OF SIGNALS, POLES AND CONDUIT SO AS TO PERMIT THE CONTINUOUS MOVEMENT OF TRAFFIC IN ALL DIRECTIONS AT ALL TIMES. THE CONTRACTOR SHALL NOT CLOSE MORE THAN ONE LANE OF A ROADWAY AT ONE TIME WITHOUT PRIOR APPROVAL OF THE CITY

5. THE CONTRACTOR SHALL CLEAN UP AND REMOVE FROM THE WORK AREA ALL LOOSE MATERIAL RESULTING FROM CONTRACT OPERATIONS EACH DAY PRIOR TO WORK BEING SUSPENDED FOR THAT DAY.

6. THE CONTRACTOR SHALL CONTACT THE ENGINEER AND/OR THE APPROVED CITY OF HOUSTON REPRESENTATIVE TO

ARRANGE FOR METER AND ELECTRICAL SERVICE CONNECTION FROM THE POWER COMPANY.

7. ALL PEDESTRIAN PUSH BUTTON ASSEMBLIES SHALL MEET ADA REQUIREMENTS. THE SIGNS THAT SHALL BE USED ARE IDENTIFIED IN THE TMUTCD AS R10-3E. CITY OF HOUSTON STANDARDS FOR PEDESTRIAN FACILITIES SHALL BE MET IN ADDITION TO ANY TEXAS ACCESSIBILITY STANDARDS BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION

8. PEDESTRIANS PUSH BUTTONS SHALL BE SEPARATED BY A MINIMUM OF 10 FEET. EXCEPTIONS ONLY AS SPECIFIED BY THE ENGINEER WITH AUTHORIZATION FROM THE APPROVED CITY OF HOUSTON REPRESENTATIVE.

9. OVERHEAD STREET NAME SIGNS SHALL BE INSTALLED SUCH THAT THE BOTTOM OF THE SIGN IS NO LESS THAN 17 FEET ABOVE THE ROADWAY PAVEMENT OR NO LESS THAN 16 FEET ABOVE THE FINISHED GRADE BEYOND THE

10. THE LOCATION OF EACH NEW POLE FOUNDATION, PULL BOX, CONTROLLER CABINET FOUNDATION, UPS CABINET FOUNDATION AND ELECTRIC SERVICE PEDESTAL FOUNDATION SHALL BE MARKED IN THE FIELD AS SHOWN ON THE PLANS. THE EXACT LOCATION SHALL BE APPROVED BY THE ENGINEER AND/OR THE APPROVED CITY OF HOUSTON REPRESENTATIVE PRIOR TO BEGINNING INSTALLATION OF THE FOUNDATION.

11. NO POLES SHALL BE LOCATED IN WHEELCHAIR RAMPS OR SUCH THAT THEY ARE AN OBSTRUCTION TO PEDESTRIANS

12. THE TOP OF THE POLE FOUNDATION SHALL BE LEVELED WITH THE FINISHED GRADE. IF THE SLOPE OR SHOULDER DROPS OFF FROM FINISHED GRADE, THE CONTRACTOR SHALL GRADE AROUND POLE FOUNDATION. THE TOP OF THE FOUNDATION SHALL EXTEND NO MORE THAN 4 INCHES ABOVE SURROUNDING GRADE. GROUTING SHALL BE USED TO FILL ANY GAP BETWEEN THE POLE BASE AND FOUNDATION.

13. POLES SHALL BE LOCATED SUCH THAT ALL PORTIONS OF THE POLES AND ATTACHED EQUIPMENT HAVE CLEARANCES FROM OVERHEAD UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL UTILITY AND THE NATIONAL ELECTRICAL SAFETY CODE (NESC).

14. ALL CONCRETE USED FOR TRAFFIC SIGNAL POLE AND CABINET FOUNDATIONS SHALL BE CLASS "A" (REFER TO THE CITY OF HOUSTON SPECIFICATION FOR CONCRETE)

15. MAST ARM AND STRAIN POLES SHALL NOT BE INSTALLED ON THE FOUNDATIONS LESS THAN SEVEN DAYS AFTER THE PLACEMENT OF THE CONCRETE FOR THE FOUNDATION.

16. ANCHOR BOLTS FOR SIGNAL POLES SHALL BE SET SO THAT TWO ARE IN COMPRESSION AND TWO ARE IN TENSION. PRIOR TO THE INSTALLATION OF THE NUT, THE THREADS OF THE ANCHOR BOLT SHALL BE COATED WITH PIPE JOINT

17. ALL UNDERGROUND CONSTRUCTION (CONDUIT, FOUNDATIONS AND PULL BOXES) FOR THE INTERSECTION SHALL BE COMPLETED PRIOR TO THE INSTALLATION OF POLES, SIGNALS AND CABINETS. THE CONTRACTOR SHALL NOT PROCEED TO ABOVE GROUND WORK UNTIL THE ENGINEER AND/OR APPROVED CITY OF HOUSTON REPRESENTATIVE HAD CONFIRMED THAT THE MATERIALS FOR A COMPLETE INSTALLATION ARE AVAILABLE.

18. UNDERGROUND CONDUIT FOR SIGNAL CABLE SHALL BE EITHER RIGID STEEL, HOT-DIPPED GALVANIZED CONDUIT OR SCHEDULE 80 ELECTRICAL PVC CONDUIT OF THE DIAMETER SHOWN ON THE PLANS, UNLESS OTHERWISE NOTED. ALL COUPLINGS AND CONNECTIONS SHALL BE TIGHT AND WATERPROOF.

19. ALL ABOVE GROUND CONDUIT FOR SIGNAL CABLE AND INTERCONNECT MEDIA SHALL BE HOT DIPPED GALVANIZED STEEL RIGID METAL CONDUIT OF THE DIAMETERS SHOWN ON THE PLANS, UNLESS OTHERWISE NOTED. ALL COUPLINGS AND CONNECTIONS SHALL BE TIGHT AND WATERPROOF

20. ONLY NEW CONDUIT AND CABLE SHALL BE INSTALLED.

21. CONDUIT INSTALLED UNDER EXISTING PAVED DRIVEWAYS, ROADWAYS OR SIDEWALKS, WHICH ARE NOT SCHEDULED TO BE RECONSTRUCTED AS PART OF THIS PROJECT, SHALL BE INSTALLED BY MEANS OF BORING. THE CONTRACTOR SHALL NOT CUT OPEN ANY STREET OR DRIVEWAY FOR CONDUIT INSTALLATION WITHOUT THE PRIOR APPROVAL OF THE ENGINEER AND/OR THE APPROVED CITY OF HOUSTON REPRESENTATIVE.

22. CONDUIT NOT PLACED UNDER PAVED DRIVEWAYS, ROADWAY PAVEMENT OR SIDEWALK MAY BE PLACED BY CUTTING A TRENCH, INSTALLING THE CONDUIT AND BACKFILLING. ANY TRENCHING FOR CONDUIT WIDER THAN THREE (3) INCHES SHALL BE RESODDED

23. PULL BOXES SHALL NOT BE INSTALLED WITHIN CONCRETE CURB ACCESS RAMPS. IN ADDITION, ANY PULL BOXES INSTALLED BEHIND CURBS SHALL BE INSTALLED BETWEEN THE CURB AND THE PROPOSED / FUTURE SIDEWALK OR BEYOND THE PROPOSED / FUTURE SIDEWALK. AN EXCEPTION TO THIS NOTE WOULD BE PULL BOXES INSTALLED IN A IEDIAN. ANY PULL BOXES INSTALLED ALONG AN UNCURBED ROADWAY SHALL BE INSTALLED ADJACENT TO, BUT NOT WITHIN, THE SHOULDER. DRAINAGE AREAS SHOULD BE AVOIDED WHEN PLACING JUNCTION BOXES.

24. A 5/8 IN, X 10 FT. GROUND ROD SHALL BE INSTALLED IN ALL PULL BOXES, A GROUND ROD CLAMP SHALL BE FURNISHED FOR GROUNDING THE GROUND WIRE.

25. ALL CONDUITS SHALL BE CLEANED BY COMPRESSED AIR AND A PROPERLY SIZED CONDUIT PISTON OR MANDREL SHALL BE PULLED THROUGH THE CONDUIT PRIOR TO CABLE INSTALLATION.

26. WHEN PULLING TRAFFIC SIGNAL SYSTEM CABLES THROUGH CONDUIT, THE CABLES SHALL BE LUBRICATED WITH A LUBRICANT NORMALLY USED FOR THIS PURPOSE. ANY ABRASION TO ANY CONDUCTOR INSULATION WHICH OCCURS WHILE PULLING CABLE FOR THE TRAFFIC SIGNAL SYSTEM WILL BE CAUSE FOR THE IMMEDIATE REJECTION OF THE CABLE, IF THIS OCCURS, THE CONTRACTOR SHALL REMOVE AND REPLACE THE ENTIRE CABLE RUN AT THEIR EXPENSE.

27. A MINIMUM OF THREE (3) FEET OF EACH WIRE AND CABLE MEASURED FROM THE TOP OF THE PULL BOX SHALL BE

28. ALL CABLES SHALL BE STRIPPED, FORMED AND TERMINATED IN A NEAT AND UNIFORM MANNER WHETHER IN THE SIGNAL HEAD OR CONTROLLER CABINET, ALL CABLE SHALL BE BROUGHT INTO THE TERMINAL HOUSING OF SIGNALS AND/OR CONTROLLER CABINETS AND A SUFFICIENT LENGTH OF CABLE SHALL BE LEFT SO THAT ALL TERMINAL CONNECTIONS MAY BE MADE WITHOUT THE NECESSITY OF SPLICING THE CABLE

29. THE HIGH VOLTAGE CABLES SHOULD BE SEPARATED FROM THE LOW VOLTAGE CABLES EXCEPT IN ENCLOSURES.

30. NO LOOP DETECTOR SHALL BE CUT IN A PARALLEL EXPANSION JOINT. LOOPS CUT ACROSS EXPANSION JOINTS SHALL HAVE A SLACK IN THE CABLE FOR EXPANSION

31. ALL VEHICLE ROADWAY DETECTION LOOP CABLES SHALL BE #14 AWG IMSA 51-5-1985 CABLE. LEAD-IN CABLES SHALL BE #16 AWG IMSA 50-2-1984 CABLE. NO SPLICES SHALL BE ALLOWED IN THE ROADWAY DETECTION LOOP CABLE EXCEPT AT THE PULL BOX ADJACENT TO LOOP. THE DETECTOR LEAD-IN CABLE SHALL NOT BE SPLICED.

32. DETECTION LOOP SAW CUTS SHALL BE FLUSHED WITH WATER UNDER PRESSURE AND THEN DRIED WITH AIR UNDER

33. THERE SHALL BE NO SPLICING IN CONDUCTORS EXCEPT FOR THE NECESSARY SPLICE BETWEEN ROADWAY LOOP WIRE AND DETECTOR LEAD-IN CABLE IN THE PULL BOX ADJACENT TO THE DETECTOR. THESE SPLICES SHALL BE WATERPROOF AND SHALL BE IN COMPLIANCE WITH THE CITY OF HOUSTON STANDARD DRAWINGS FOR TRAFFIC SIGNAL CONSTRUCTION. THESE SPLICES SHALL BE MADE BY THE CONTRACTOR. DO NOT GROUND THE CABLE SHIELD AT THE PULL BOX.

34. TWO #10 AWG-XHHW CONDUCTORS SHALL BE INSTALLED FROM EACH LUMINAIRE TO THE SERVICE PEDESTAL, LEAVING THREE FEET OF SLACK FOR EACH CONDUCTOR (MEASURED FROM THE TOP OF THE PULL BOX) IN EACH PULL BOX. ROUTE FOUR CONDUCTORS TO THE LUMINAIRE WITH THE PHOTOELECTRIC CELL. AN IN-LINE FUSE SHALL BE INSTALLED FOR EACH LUMINAIRE IN THE ASSOCIATED PULL BOX.

35. THE EMERGENCY VEHICLE PRE-EMPTION SENSOR CABLE SHALL BE OPTICOM DETECTOR CABLE MODEL NO. 138. THE

36. ALL VEHICLE AND PEDESTRIAN INDICATIONS SHALL BE LED.

37. THE CONTRACTOR SHALL BAG ALL NEWLY INSTALLED VEHICULAR AND/OR PEDESTRIAN TRAFFIC SIGNAL HEADS WITH BURLAP OR OTHER APPROVED MATERIAL UNTIL THE FINAL INSPECTION AND ACCEPTANCE BY THE CITY TRAFFIC ENGINEER AND/OR APPROVED CITY OF HOUSTON REPRESENTATIVE. THE BURLAP OR OTHER APPROVED MATERIAL/DEVICE SHALL COMPLETELY COVER THE TRAFFIC SIGNAL HEAD AND SHALL OBSCURE THE VIEW OF THE TRAFFIC SIGNAL INDICATIONS SO THAT THEY CANNOT BE SEEN UNTIL THE TRAFFIC SIGNAL IS PLACED IN OPERATION. DURING CONSTRUCTION, THE TRAFFIC SIGNAL WILL BE DE-ENERGIZED WHILE NOT IN USE FOR TESTING.

38. THE TRAFFIC SIGNAL OPERATION AT EXISTING SIGNALIZED INTERSECTIONS SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT.

39. ALL STRIPING AND PAVEMENT MARKINGS ARE TO BE DONE UNDER THIS CONTRACT AND SHALL BE IN PLACE PRIOR TO THE ACTIVATION OF THE TRAFFIC SIGNAL. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL STOP LINES PRIOR TO THE INSTALLATION OF LOOP DETECTORS.

40. ALL CROSSWALK MARKINGS SHALL BE 10-FT. WIDE, FROM INSIDE OF MARKINGS, FOLLOWING CITY OF HOUSTON STANDARD DETAILS.

41. ALL CONSTRUCTION SIGNING AND CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

PRIVATE UTILITY NOTES CAUTION: SBC CABLES

. THE LOCATION OF SBC FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE

2. THE CONTRACTOR SHALL CALL 311 (PUBLIC UNDERGROUND UTILITY) OR 811 (PRIVATE UNDERGROUND UTILITY) A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND UTILITY LINES FIELD LOCATED.

B. WHEN EXCAVATING WITHIN EIGHTEEN (18) INCHES OF THE INDICATED LOCATION OF SBC FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE THE SBC FACILITIES.

4. WHEN SBC FACILITIES ARE EXPOSED. THE CONTRACTOR SHALL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES, THE CONTRACTOR SHALL BRACE THE POLE

CAUTION: UNDERGROUND GAS FACILITIES

THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

. WHEN CENTERPOINT ENERGY PIPELINE MARKINGS ARE NOT VISIBLE, CALL (713) 207-5463 OR (713) 945-8037 (7:00 AM TO 4:30 PM) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS

2. WHEN EXCAVATING WITHIN EIGHTEEN (18) INCHES OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.

. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES

THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

WARNING: OVERHEAD ELECTRICAL FACILITIES

OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:

. ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX(6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES;

2. OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.

PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222.

ACTIVITIES ON/OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY

4. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-2111 OR (713) 207-4200.

NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6348 OR (713)

. THE CONTRACTOR SHALL SUPPLY AND INSTALL THE FOLLOWING EQUIPMENT AND MATERIALS AS SPECIFIED IN THE PLANS: STEEL POLE ANCHOR BOLTS (WITH NUTS AND WASHERS), CONCRETE POLE FOUNDATIONS WITH REINFORCEMENT (WHERE SPECIFIED), TRAFFIC SIGNAL CONTROLLER CABINET(S) WITH CONTROLLER(S) AND ALL AUXILIARY EQUIPMENT, CONTROLLER CABINET CONCRETE FOUNDATION(S), CONCRETE PULL BOXES, ELECTRICAL CONDUIT, GROUND RODS AND CONNECTORS, BARE BOND WIRE AND ALL OTHER CONDUCTORS, POLES, MAST ARMS TRAFFIC SIGNALS AND MOUNTING ASSEMBLIES. PEDESTRIAN SIGNALS AND MOUNTING ASSEMBLIES. PEDESTRIAN PUSH BUTTON STATIONS WITH SIGNS, LUMINARIES, PHOTOCELLS, ELECTRIC SERVICE PEDESTAL(S) AND CONCRETE FOUNDATION(S), VIDEO DETECTION SYSTEM EQUIPMENT, VEHICLE DETECTION LOOPS, AND ALL OTHER APPURTENANCES NECESSARY FOR THE OPERATION OF THE TRAFFIC SIGNAL INSTALLATION(S), EXCEPT AS MODIFIED IN THE PLANS. (MODIFY THE LIST OF MATERIALS AS APPROPRIATE)

2. THE CITY OF HOUSTON WILL SUPPLY AND THE CONTRACTOR SHALL INSTALL THE FOLLOWING EQUIPMENT AND MATERIALS AS SPECIFIED IN THE PLANS: STEEL POLE ANCHOR BOLTS (WITH NUTS AND WASHERS), CONCRETE POLE FOLINDATIONS WITH REINFORCEMENT (WHERE SPECIFIED). TRAFFIC SIGNAL CONTROLLER CARINET(S) WITH CONTROLLER(S) AND ALL AUXILIARY EQUIPMENT, CONTROLLER CABINET CONCRETE FOUNDATION(S), CONCRETE PULL BOXES, ELECTRICAL CONDUIT, GROUND RODS AND CONNECTORS, BARE BOND WIRE AND ALL OTHER CONDUCTORS, POLES, MAST ARMS, TRAFFIC SIGNALS AND MOUNTING ASSEMBLIES, PEDESTRIAN SIGNALS AND MOUNTING ASSEMBLIES, PEDESTRIAN PUSH BUTTON STATIONS WITH SIGNS, LUMINARIES, PHOTOCELLS, ELECTRIC SERVICE PEDESTAL(S) AND CONCRETE FOUNDATION(S). VIDEO DETECTION SYSTEM EQUIPMENT, VEHICLE DETECTION LOOPS, AND ALL OTHER APPURTENANCES NECESSARY FOR THE OPERATION OF THE TRAFFIC SIGNAL INSTALLATION(S), EXCEPT AS MODIFIED IN THE PLANS. (MODIFY THE LIST OF MATERIALS AS APPROPRIATE)

3. THE CONTRACTOR SHALL DELIVER THE CONTROLLER CABINET(S) WITH THE CONTROLLER(S) AND AUXILIARY EQUIPMENT SPECIFIED IN THE PLANS TO THE CITY OF HOUSTON TRAFFIC OPERATIONS CENTER, 2200 PATTERSON STREET FOR TESTING, A MINIMUM OF THREE WEEKS PRIOR TO THE INSTALLATION(S) AT THE INTERSECTION(S). CONTACT THE TRAFFIC MAINTENANCE BRANCH AT LEAST 2 WORKING DAYS PRIOR TO THE DELIVERY OF THE CONTROLLER CABINET(S) TO THE CITY OF HOUSTON. THE CONTRACTOR SHALL PICK UP AND TRANSPORT THE CONTROLLER CABINET(S) FROM THE CITY OF HOUSTON TRAFFIC OPERATIONS CENTER TO THE INTERSECTION(S) AFTER CITY OF HOUSTON STAFF HAS TESTED THE EOUIPMENT AND APPROVED IT FOR INSTALLATION.

4. THE CONTRACTOR SHALL INSTALL EACH TRAFFIC CONTROLLER CABINET ON ITS FOUNDATION AND ROUTE ALL OF THE CONDUCTORS INTO THE CONTROLLER CABINET, CONDUCTORS SHALL BE TERMINATED IN THE CABINET BY THE CONTRACTOR UNDER THE OBSERVATION OF AN APPROVED CITY OF HOUSTON REPRESENTATIVE.

5. THE CONTRACTOR SHALL CAREFULLY DISASSEMBLE AND SALVAGE ALL EXISTING TRAFFIC SIGNAL AND STREET LIGHTING FOUIPMENT THAT IS NOT TO REMAIN OR BE RELOCATED. ALL OF THE FOUIPMENT TO BE INSPECTED BY TRAFFIC OPERATIONS INSPECTOR TO IDENTIFY SALVAGE ITEMS. ITEMS TO BE SALVAGED SHALL BE RETURNED TO THE CITY OF HOUSTON TRAFFIC OPERATIONS CENTER, 2200 PATTERSON STREET, OR UPPER BRAES, 18211 WEST HOUSTONCENTER BLVD., AND UNLOADED BY THE CONTRACTOR. CONTACT THE TRAFFIC MAINTENANCE BRANCH AT LEAST 2 WORKING DAYS PRIOR TO RETURNING THE EQUIPMENT. ALL NON-SALVAGE ITEMS TO BE DELIVERED BY THE CONTRACTOR TO AN APPROVED CITY OF HOUSTON RECYCLE FACILITY.

6. THE CONTRACTOR SHALL SALVAGE AND REPLANT ANY LANDSCAPING VEGETATION THAT MAY BE DAMAGED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM AN APPROVED CITY OF HOUSTON REPRESENTATIVE BEFORE ANY PLANTS ARE MOVED.

7. THE CONTRACTOR SHALL REPAIR/RESTORE ANY LANDSCAPE IRRIGATION COMPONENTS DAMAGED BY CONSTRUCTION ACTIVITY TO THEIR ORIGINAL CONDITION.

8. THE LOCATION OF PUBLIC AND PRIVATE UTILITIES IS SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES TO UTILITIES THAT ARE THE RESULT OF HIS FAILURE TO EXACTLY LOCATE AND PRESERVE UNDERGROUND FACILITIES.

10. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER TO DRAIN AWAY FROM

11. IN WET STABLE TRENCH AREAS USE BEDDING PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBER

12. DEFLECTION TEST: DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID SEWER PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5% IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID MANDREL. IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED AS PER 30 TAC 217.5' LATEST AMENDMENT AND WITHOUT MECHANICAL PULLING DEVICES. NO BALL-TYPE MANDREL IS ALLOWED.

13. INFILTRATION, EXFILTRATION OR LOW-PRESSURE AIR TEST: EITHER OF THE FOLLOWING TESTS SHALL BE PERFORMED AS PER TAC, TITLE 30 217.57 WITHIN THE SPECIFIED TOLERANCES ON ALL GRAVITY SEWERS. A. INFILTRATION OR EXFILTRATION TEST: TOTAL LEAKAGE AS DETERMINED BY A HYDROSTATIC HEAD TEST SHALL NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO (2)

B. LOW-PRESSURE AIR TEST: PERFORM TEST ACCORDING TO UNI-B-6-90 OR OTHER APPROPRIATE PROCEDURES. FOR SECTIONS OF PIPE LESS THAN 36" (INCH) AVERAGE INSIDE DIAMETER, THE MINIMUM ALLOWABLE TIME FOR PRESSURE

DROP FROM 3.5 P.S.I.G. TO 2.5 P.S.I.G. SHALL BE AS FOLLOWS: 6" 340 SECONDS OR 0.855(L) FOR TEST LENGTHS GREATER THAN 398 8" 454 SECONDS OR 1.520(L) FOR TEST LENGTHS GREATER THAN 298 10" 567 SECONDS OR 2.374(L) FOR TEST LENGTHS GREATER THAN 239 12" 680 SECONDS OR 3.419(L) FOR TEST LENGTHS GREATER THAN 199' 15" 850 SECONDS OR 5.342(L) FOR TEST LENGTHS GREATER THAN 159 18" 1020 SECONDS OR 7.693(L) FOR TEST LENGTHS GREATER THAN 133" WHERE L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET.

14. "SAN. S. E." INDICATES "SANITARY SEWER EASEMENT"

15. FOR SANITARY MANHOLE (MH) RIMS SET INSIDE OF OR @ CURB & GUTTER PAVEMENT AND/OR BELOW T.C., MH RIMS WILL BE SET FLUSHED WITH AN ABUTTING PAVED SURFACE. THE (VALCUN, NEENAH OR EQUAL) HEAVY DUTY BOLTED SOLID MH COVER SHALL BE PROPERLY (AND SECURELY) ATTACHED AND SEALED TO ITS COMPATIBLE GASKETED FRAME BY USING BOTH A NEOPRENE GASKET AND (AT LEAST) 4 COUNTER-SUNK HEX-HEAD COARSE THREADED 1/2"-1" UNC STAINLESS STEEL BOLTS. THE HEAVY DUTY FRAME MH COVER SHALL BE SOLID (NO AIR HOLES). SAID FRAME SHALL BE BOTH EMBEDDED INTO THE MH'S TOP ALSO SECURELY ANCHORED TO THE UNDERLYING MH STRUCTURE WITH EITHER SECURELY ATTACHED EMBEDDED ANCHOR BOLTS OR THE CONCRETE MH'S EXPOSED REBARS WELDED TO THE FRAME OR OTHER EQUALLY SECURED METHODS TO PREVENT MH COVER/FRAME BLOW-OFFS/EJECTIONS.

WATER CONSTRUCTION NOTES

I) ALL 4" THROUGH 12" WATER LINE TO BE AWWA C-900 PVC DR-18 BLUE PRESSURE RATED WATER MAIN WITH 2" AND SMALLER WATER SERVICE LINE TO BE CONTINUOUS TYPE K COPPER TUBING PER COH STANDARD SPECIFICATION SECTION 02503. ALL 4" THRU 54" DI PIPE WATER LINES SHALL BE AWWA C151 WITH INSIDE LINING WITH AWWA C104 AND DOUBLE WRAPPED WITH 8-MIL POLYETHYLENE SHEETS.

2) CONCRETE THRUST BLOCKS SHALL BE PROVIDED AS NECESSARY TO PREVENT PIPE MOVEMENT. USE RESTRAINED JOINTS WHERE PREVENTING PIPE MOVEMENT IS NECESSARY DUE TO THRUST.

3) ALL WATER LINES UNDER PROPOSED OR FUTURE PAVING AND TO A POINT OFONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE ENCASED IN BANK SAND TO 12" OVER PIPE AND BACKFILLED WITH CEMENT STABILIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE.

4) ALL WATER LINE AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED PER CITY OF HOUSTON AND TCEQ

5) ALL WATER VALVES SHALL BE SUPPLIED AND INS TALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C-500 AND SHALL BE OF THE RESILIENT SEAT TYPE.

6) ALL WATER LINES TO BE DISINFECTED IN CONFORMANCE WITH AWWA C-651 AND THE TEXAS STATE DEPARTMENT OF HEALTH. AT LEAST ONE BACTERIOLOGICAL SAMPLE SHALL BE COLLECTED FOR EVERY 1,000 LINEAR FEET OF WATER LINE AND SHALL BE REPEATED IF CONTMINATION PERSISTS.

7) ALL BELOW GRADE VALVES SHALL BE GASKETED, HUB-END GATE VALVES WITH A CAST IRON BOX, EXCEPT WHERE FLANGES ARE CALLED OUT ON THE PLANS.

A21.53, OR PUSH ON FITTINGS PER ANSI A21.10 PRESSURE RATED AT 250 PSIG 9) HYDROSTATIC TESTING: ALL WATER PIPE SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LATEST CITY OF HOUSTON STANDARD CONSTRUCTION SPECIFICATIONS. TESTS ARE TO BE PERFORMED ON THE ENTIRE FOOTAGE OF

8) 4" THRU 12" FITTINGS SHALL BE CEMENT MORTAR LINED COMPACT DUCTILE IRON PRESSURE FITTINGS PER ANSI

10) ALL WATER LINES TO HAVE 4' MINIMUM COVER TO FINISHED GRADE AND MINIMUM 12" CLEARANCE TO OTHER UTILITIES AT CROSSING UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINE INSTALLED OVER 8' DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS.

11) CONTRACTOR SHALL KEEP WATER PIPE CLEAN AND CAPPED (OR OTHERWISE EFFECTIVELY COVERED) OPEN PIPE ENDS TO EXCLUDE INSECTS, ANIMALS OR OTHER SOURCES OF CONTAMINATION FROM UNFINISHED LINES AT TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS.

WATER PIPE INCLUDED IN THE PROJECT.

I) GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES

ANY DISCREPANCY AND/OR CONFLICT IS FOUND. 3) CONTRACTOR SHALL ENSURE THERE IS POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS AND NO PONDING IN PAVED AREAS, AND SHALL NOTIFY ENGINEER IF ANY GRADING DISCREPANCIES ARE FOUND IN THE EXISTING AND

PROPOSED GRADES PRIOR TO PLACEMENT OF PAVEMENT OR UTILITIES

2) BEFORE STARTING CONSTRUCTION, CONTRACTOR SHALL VERIFY BENCHMARK ELEVATION AND NOTIFY ENGINEER IF

4) CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES. GUY WIRES, AND TELEPHONE BOXES THAT ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION. 5) ALL EXISTING CONCRETE PAVING, SIDEWALK, AND CURB DEMOLITION SHALL BE REMOVED AND DISPOSED OF BY

CONTRACTOR, DISPOSAL SHALL BE AT AN APPROVED OFF-SITE, LAWFUL LOCATION, UNLESS DIRECTED OTHERWISE BY

STORM CONSTRUCTION NOTES

1. STORM SEWER SHALL BE REINFORCED CONCRETE PIPE (C-76, CLASS III), AND SHALL BE INSTALLED, BEDDED, AND BACK FILLED IN ACCORDANCE WITH THE CITY OF HOUSTON DRAWING NOS. 2317-02, 02317-3, 02317-05, 02317-06, AND 02317-07 (JULY 2019) AS APPLICABLE UNLESS OTHERWISW SHOWN ON THE DRAWINGS.

3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABLIZED SAND TO WITHIN ONE (1) FOOT OF

IN ACCORDANCE WITH THE CITY OF HOUSTON DRAWING NOS 02317-02 02317-03 02317-05 02317-06 AND 02317-07 AS

2. ALL STORM SEWER CONSTRUCTED IN SIDELOT EASMENT SHALL BE R.C.P (C-76, CLASSIII) AND SHALL BE EMBEDDED

4. ALL TRENCH BACKFILL SHALL BE IN 8" LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS IN EACH LIFT, AND MECHNICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMACTION TEST (ASTM D-698/AASHTO T99).

5. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINT CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.

SUBGRADE. THE REMAINING DEPTH OF TRENCH SHALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.

6. ALL STORM SEWER PIPES AND INLET LEADS SHALL BE 24" AND LARGER R.C.P. (C-76, CLASSIII).

7. ALL PRPOSED PIPE STUB-OUTS FROM MANHOLES AND INLET LEADS ARE TO BE PLUGGED WITH 8" BRICK WALLS

8. MINIMUM HORIZONTAL CLEARANCE BETWEEN ANY STORM PIPE AND BOX SHALL BE AT LEAST 48-INCHES FROM EXTERIOR OF THE STORM PIPE OR BOX TO THE EXTERIOR OF THE EXISTING OR PROPOSED PUBLIC OR PRIVATE UTILITY AND OTHER APPURTENANCES. MINIMUM VERTICAL CLEARANCE BETWEEN ANY STORM PIPE AND BOX SHALL BE AT LEAST 24-INCHES FROM EXTERIOR OF THE STORM PIPE OR BOX TO THE EXTERIOR OF THE EXISTING OR PROPOSED PUBLIC OR PRIVATE UTILITY AND OTHER APPURTENANCES.

9. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF SECTION 02086-ADJUSTING MANHOLES, INLETS, AND VALAVE BOXES TO GRADE.

11. ALL DITCHES SHALL BE GRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACK SLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF THIS WORK.

BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED. 12. ALL DRIVEWAYS WILL BE LOCATED TO AVOID EXISTING CURB INLET STRUCTURES.

SWPPP CONSTRUCTION NOTES

I. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPP) PLANS TO KEEP SILT AND OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES

2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATION MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA

3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK TRACKED FORM THE EXCAVATED AREA

4. CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT. ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.

5. CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.

 DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED. AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.

 STRUCTURAL CONTROL MEASURES. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

SANITARY SEWERS CONSTRUCTION NOTES

WHERE CITY REQUIREMENTS ARE MORE STRINGENT.

LATEST VERSION AS APPLICABLE.

PIPES FOR SEWER CONSTRUCTION.

6. CONTRACTOR TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION ON BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING OR SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK

1. ALL SEWERS SHALL BE SUBJECT TO A STANDARD EXFILTRATION TEST. TESTS ARE TO BE

REQUIREMENTS OF TEXAS ADMINISTRATIVE CODE, TITLE 30 CHAPTER 217, "DESIGN CRITERIA

2. ALL MANHOLES ARE TO BE PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBERS

02082-01, 02082-02, 02082N-02, 02082-03, AND 02082N-03 UNLESS OTHERWISE NOTED. USE THE

3. SANITARY SEWER MANHOLES WILL HAVE BEDDING AND BACKFILL PER CITY OF HOUSTON

4. THE SANITARY SEWER PVC PIPE SHALL BE ASTM D 3034 TYPE PSM SDR 26 GRAVITY SEWER PIPE

ASTM D2241 SDR 26 PRESSURE RATED SEWER PIPE OR AWWA C-900 DR-18 GREEN PVC PRESSURE

RATED SEWER PIPE BASED ON CONSTRUCTION CONDITION REQUIREMENT AND CONFORMING TO

CONDITION 1 OF COH IDM TABLE 7.3, THE SAME TYPE OF D2241 SDR 26 PVC PIPE OR C-900 GREEN

DR-18 PVC GREEN PRESSURED TO BE UTILIZING IN-BETWEEN TWO SS MH'S. OR TO UTILIZE A DI

TRANSITION ADAPTER FOR THE CONNECTING OF ASTM D-3034 PVC GRAVITY PIPE TO DI-OD

AWWA C-900 PVC PIPE CENTERED AT WL WHEN CONNECTING TWO DIFFERENT TYPES OF PVC

6. AWWA C-900 DR-18 PVC PIPE USES EITHER AWWA C900 DR-18 PVC FITTINGS OR DIP FITTINGS.

(1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL HAVE BEDDING PER CITY OF

HOUSTON STANDARD DETAILS DRAWING NUMBERS 02317-01, 02317-02, OR 02317-03 AS

7. ALL SANITARY SEWER LINES UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE

APPLICABLE, WITH 1 ½ SACK CEMENT/CY STABILIZED SAND BACKFILL UP TO THE BOTTOM OF

C900 PVC PIPE MEETING ASTM SPECIFICATION D2241 CENTERED ON WATER LINE. WHEN WATER

ASTM D1784 AND CITY OF HOUSTON STANDARD SPECIFICATION SECTION 02506 POLYVINYL

5. WHEN SS PRESSURE RATED PVC PIPE IS USED ON WATERLINE (WL) CROSSING UNDER

FOR DOMESTIC WASTEWATER SYSTEMS" SHALL GOVERN WHERE CONFLICTS EXIST EXCEPT

PERFORMED ON THE TOTAL FOOTAGE OF SEWER LINE INCLUDED IN THE PROJECT.

STANDARD DETAILS DRAWING NO. 02317-08 UNLESS OTHERWISE NOTED.

FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR

VERIFICATION OF PRIVATE UTILITY LINES

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification. Signature valid for six months.

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities — not to be used for conflict verification)

THE PAVEMENT SUBGRADE. 100 PSI PERFORMANCE RESULTS ARE STILL REQUIRED. 8. ALL NEW SANITARY SEWERS CROSSING WATER LINES WITH A CLEARANCE BETWEEN 12 INCHES AND 9 FEET SHALL HAVE A MINIMUM OF ONE 18' JOINT OF DUCTILE IRON OR (GREEN

LINE IS BELOW SANITARY SEWER, PROVIDE MINIMUM 2 FOOT SEPARATION. 9. CONTRACTOR SHALL PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 9' FEET BETWEEN

AT&T TEXAS/SWBT FACILITIES:

WATER LINES AND SANITARY SEWER MANHOLES AND LINES.

CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.

POLES THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.

1. THE LOCATIONS OF AT&T TEXAS/SWBT FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.

3 WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SWBT FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE THE AT&T

2. THE CONTRACTOR SHALL CALL 1-800-344-8377 (TEXAS 811) A MINIMUM OF 48 HOURS PRIOR TO

TEXAS/SWBT FACILITIES. 4 WHEN AT&T TEXAS/SWRT FACILITIES ARE EXPOSED. THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE

5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SWBT UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWNON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURIED CABLES OR OTHER CABLES IN CONDUIT IN THE AREA.

FOR OUR AT&T TEXAS/SWBT FACILITIES.

THE PLAN AND PROFILE SHEETS.

DIRECT BURIED CABLE LOCATES: TO DETERMINE THE LOCATION OF AT&T DIRECT BURIED CABLE PLANT DURING THE DESIGN

PHASE OF YOUR PROJECT, FOLLOW THE PROCEDURE OUTLINED BELOW:

6.PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER KEVIN RAY AT (713)

614-1983 OR E-MAIL HIM ATKR7896@ATT.COM IF CABLE LOCATE REQUESTS ARE NOT COMPLETED

1.CALL 1-800-344-8377 (TEXAS 811) AND ADVISE YOU NEED THE EXISTING AT&T TEXAS/SWBT FACILITIES LOCATED FOR THEDESIGN PHASE OF YOUR PROJECT, PLEASE ALLOW AT LEAST 72 HOURS FOR THE CABLES TO GET MARKED BEFORE SENDING YOUR FIELD CREW FOR BASE LINE SURVEY FOR LOCATES OF. BE SPECIFIC ON THE PROJECT LOCATION. THE UTILITY LOCATOR WILL

2.YOUR FIELD PARTY CAN SURVEY THE BURIED CABLE LOCATION USING THE ORANGE MARKS ON THE GROUND. IF THE CABLES ARENOT MARKED, PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER KEVIN RAY (713) 614-1983 OR E-MAILAT KR7896@ATT.COM.

FIELDLOCATE THE EXISTING AT&T TEXAS/SWBT FACILITIES WITH ORANGE PAINT AND/OR FLAGS.

3.DEPICT THE EXACT LOCATION OF THE AT&T TEXAS/SWBT DIRECT BURIED CABLE FACILITIES ON

AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES OBLIGATION TO CALL 811

Date

Signature valid for six months.

Approved for AT&T underground conduit facilities only. Signature valid for one year.

BULLSEYE ENGINEERING INSPECTION, LLC

Firm number #: 20186

OFF: 832-699-0977

Engineers, planners & permits

Richmond, Texas

Date

PROPOSED 8" PVC SANITARY SEWER

CONSTRUCTION NOTES & DETAILS

NOTE: CITY SIGNATURES VALID FOR ONE

YEAR ONLY AFTER DATE OF SIGNATURES CITY OF HOUSTON

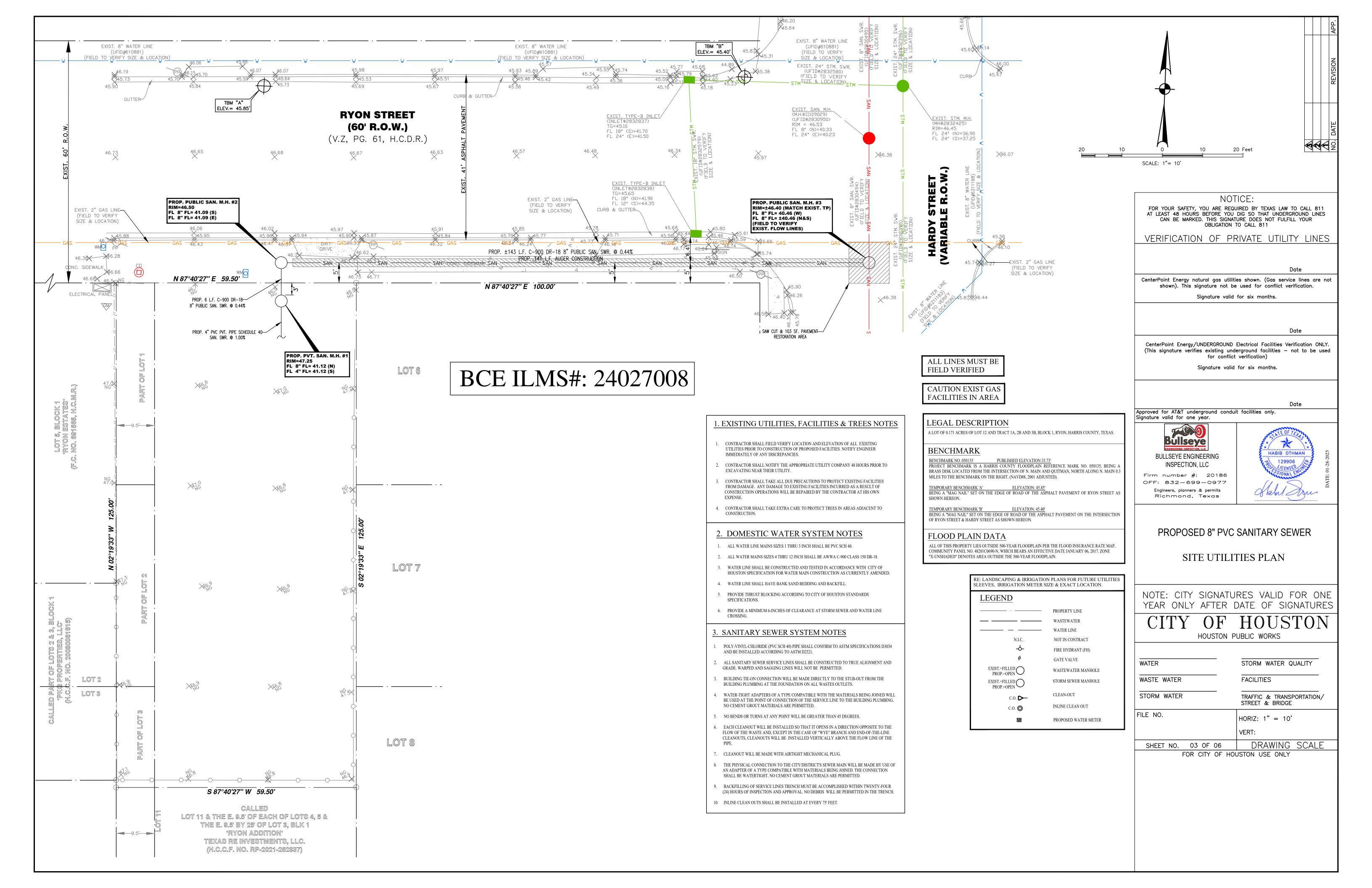
HOUSTON PUBLIC WORKS

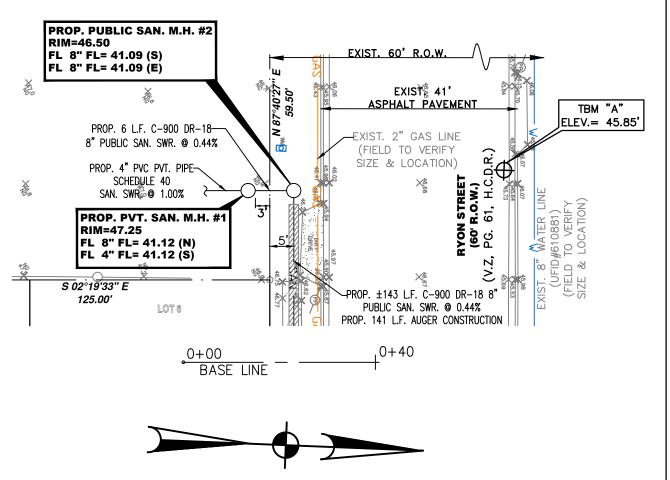
WATER WASTE WATER FACILITIES STORM WATER TRAFFIC & TRANSPORTATION/ STREET & BRIDGE FILE NO.

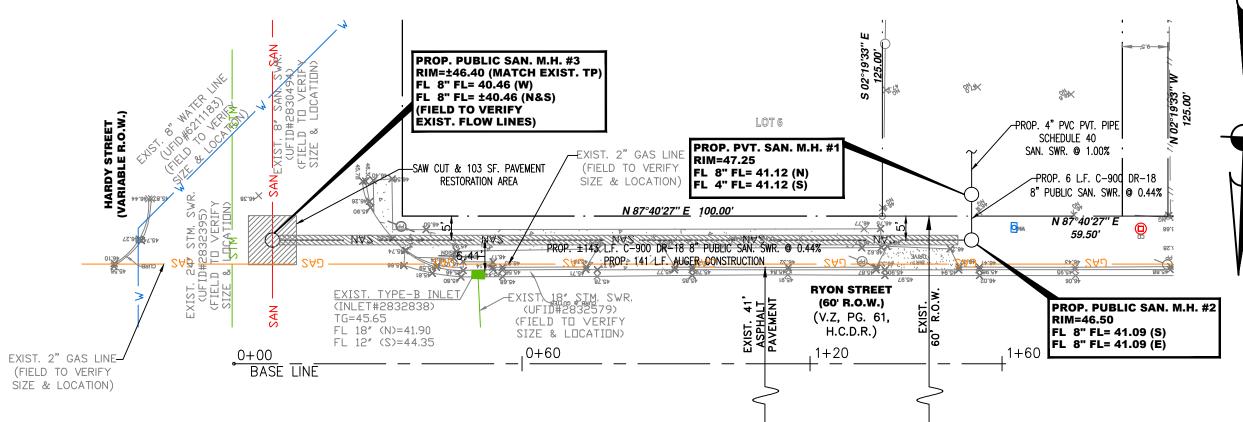
SHEET NO. 02 OF 06 FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE

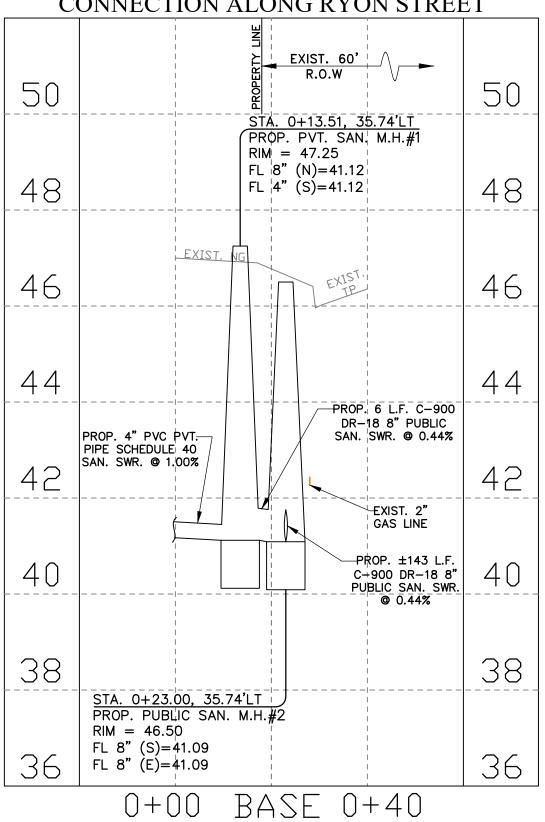
STORM WATER QUALITY



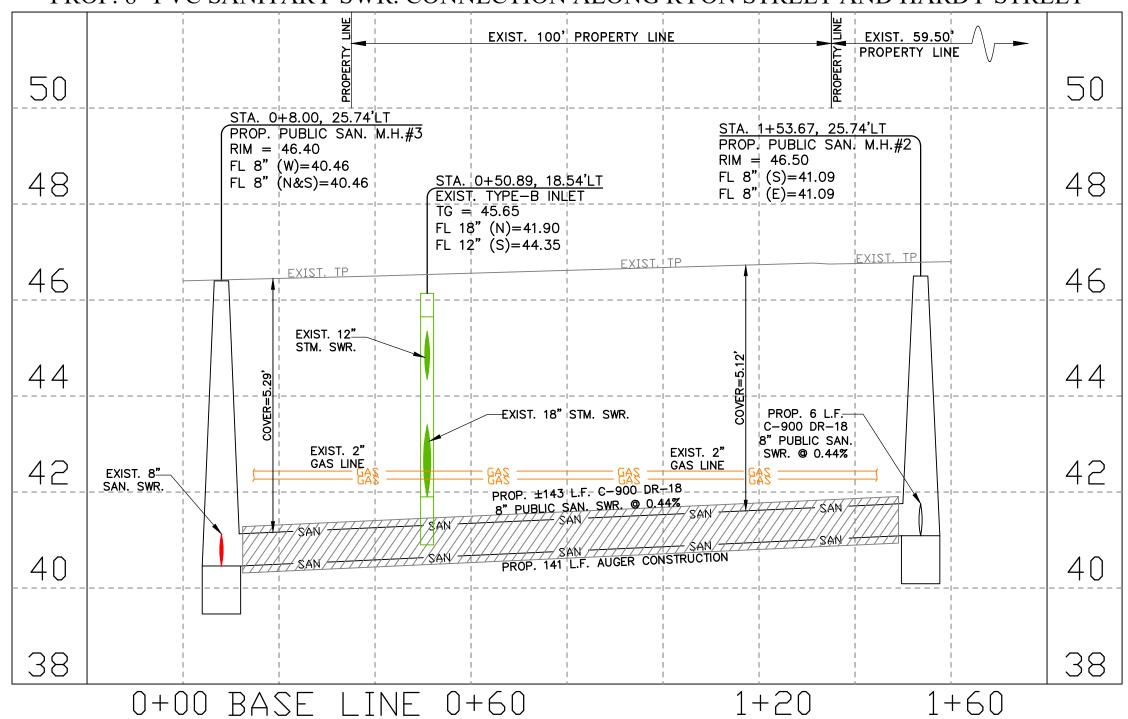




PROP. 8" PVC SANITARY SWR. CONNECTION ALONG RYON STREET







WARNING

OVERHEAD AND UNDERGROUND UTILITIES MAY EXIST IN THE VICINITY OF THIS PROJECT. LOCATIONS SHOWN FOR EXISTING UTILITIES ARE APPROXIMATE AND OTHER UTILITIES MAY EXIST IN THE VICINITY OF THE PROJECT WHICH ARE NOT SHOWN ON THE PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE EXACT ALL EXISTING UTILITIES IN THE VICINITY OF THE PROJECT, PRIOR TO BEGINNING CONSTRUCTION. IF ANY DISCREPANCY EXISTS, NOTIFY ENGINEER.

ONE CALL NOTIFICATION

CALL BEFORE YOU DIG!!! CALL AT LEAST 2 WORKING DAYS (48 HOURS) BEFORE YOU DIG: 811 (IN HOUSTON)

(NEW STATEWIDE NUMBER OUTSIDE HOUSTON 1-800-344-8377)

CAUTION: EX. UTILITIES Contractor to call for locates 48 hrs. prior to beginning construction. Contractor shall be responsible for repairing utilities damaged during construction.

> Atmos Gas 1-800-242-9113 ATT Telephone 1-800-464-7928 Oncor Electric 1-800-460-3030 Texas One Call: 1-800-245-4545

CAUTION EXIST GAS FACILITIES IN AREA

ALL LINES MUST BE FIELD VERIFIED

NOTE:

EXCESS SOIL MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR & IS TO BE DISPOSED OFFSITE RESPONSIBLY AT NO SEPARATE PAY.

IF TRAFFIC CONTROL IS REQUIRED THAN A TRAFFIC CONTROL PLAN WILL BE SUBMITTED PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING DIMENSIONS & CONDITIONS & SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES THAT MAY AFFECT THE WORK DESCRIBED HEREIN

ANY ENCROACHMENT ONTO PAVEMENT WOULD REQUIRE A TRAFFIC CONTROL PLAN

NO ENCROACHMENT WILL BE DONE ONTO THE PAVING DURING CONSTRUCTION.

HYDROMULCH NOTE:

CONTRACTOR SHALL HYDROMULCH ALL NEWLY GRADED AREAS AND EXPOSED SOILS UPON PAVING COMPLETION.

CONSTRUCTION NOTE:

CONTRACTOR SHALL CONFIRM NO CONFLICTS BETWEEN EXISTING AND PROPOSED DRY/WET UTILITIES IN PUBLIC R.O.W., BEFORE STARTING SITE WORK CONSTRUCTION.

LEGAL DESCRIPTION

A LOT OF 0.171 ACRES OF LOT 12 AND TRACT 1A, 2B AND 3B, BLOCK 1, RYON, HARRIS COUNTY, TEXAS.

BENCHMARK

BENCHMARK NO. 050135 PUBLISHED ELEVATION:33.73'
PROJECT BENCHMARK IS A HARRIS COUNTY FLOODPLAIN REFERENCE MARK NO. 050135, BEING A BRASS DISK LOCATED FROM THE INTERSECTION OF N. MAIN AND QUITMAN, NORTH ALONG N. MAIN 0.3 MILES TO THE BENCHMARK ON THE RIGHT. (NAVD88, 2001 ADJUSTED).

TEMPORARY BENCHMARK 'A' BEING A "MAG NAIL" SET ON THE EDGE OF ROAD OF THE ASPHALT PAVEMENT OF RYON STREET AS SHOWN HEREON.

TEMPORARY BENCHMARK 'B' ELEVATION: 45.40'
BEING A "MAG NAIL" SET ON THE EDGE OF ROAD OF THE ASPHALT PAVEMENT ON THE INTERSECTION OF RYON STREET & HARDY STREET AS SHOWN HEREON.

FLOOD PLAIN DATA

ALL OF THIS PROPERTY LIES OUTSIDE 500-YEAR FLOODPLAIN PER THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 48201C0690-N, WHICH BEARS AN EFFECTIVE DATE JANUARY 06, 2017. ZONE "X-UNSHADED" DENOTES AREA OUTSIDE THE 500-YEAR FLOODPLAIN.

UNDERGROUND GAS FACILITIESTHE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 AMINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD

LOCATED. • WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 207-5463 OR (713-945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE

EXCAVATIONBEGINS. • WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINTENERGY FACILITIES, ALL

EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATIONPROCEDURES. • WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED. SUFFICIENT SUPPORT MUST BE PROVIDED TO THEFACILITIES TO

PREVENT EXCESSIVE STRESS ON THE PIPING. ☐ FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-2111 OR (713) 207-4200.THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE ANDPRESERVE THESE UNDERGROUND FACILITIES.

NOTICE:

FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities — not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T underground conduit facilities only. Signature valid for one year

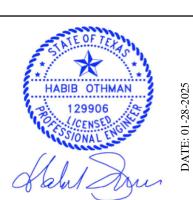


Firm number #: 20186 OFF: 832-699-0977

Engineers, planners & permits

Richmond, Texas

WATER



PROPOSED 8" PVC SANITARY SEWER

PLAN & PROFILE: 0+00 TO END

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

HOUSTON PUBLIC WORKS

STORM WATER QUALITY

WASTE WATER **FACILITIES** STORM WATER TRAFFIC & TRANSPORTATION/

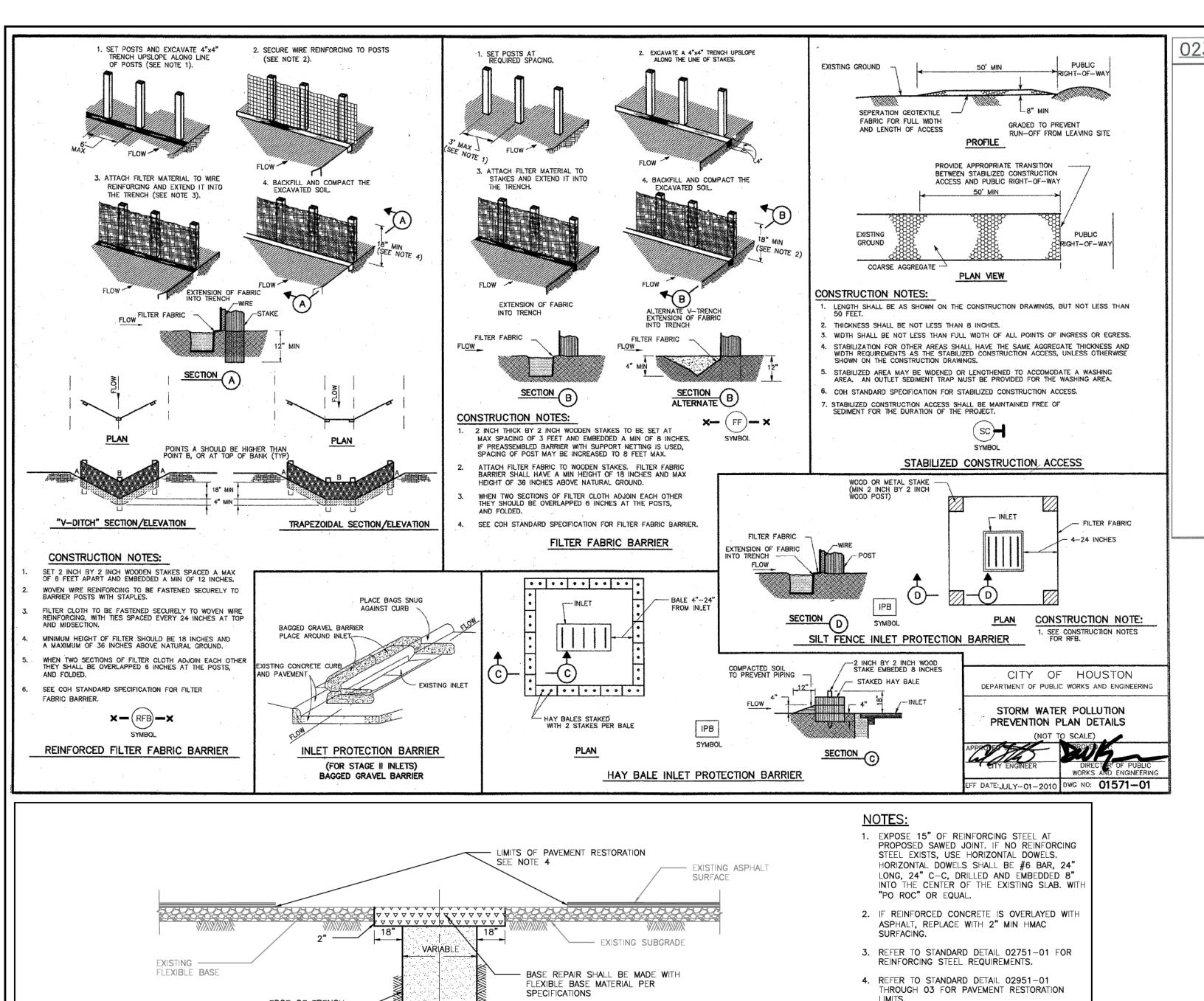
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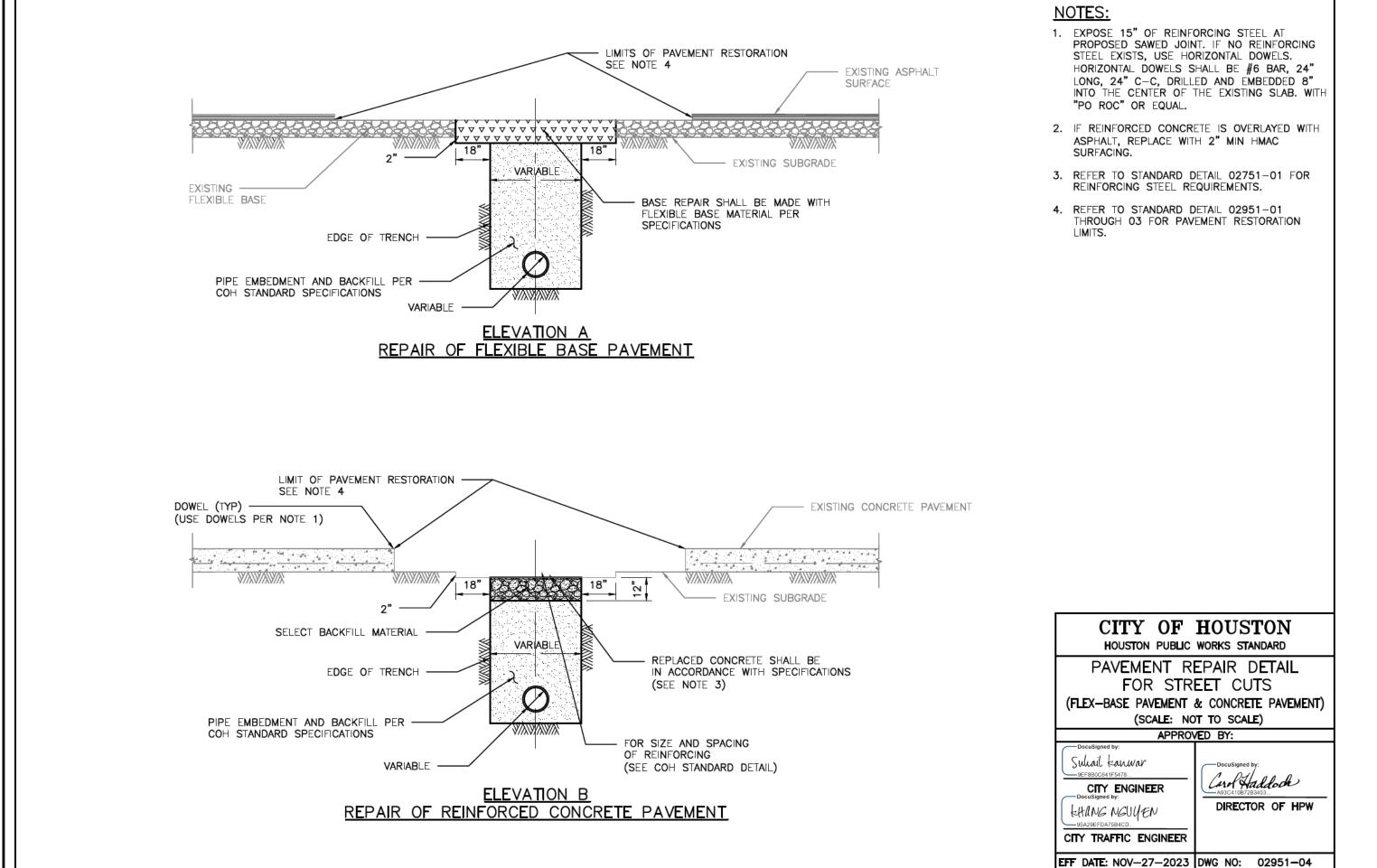
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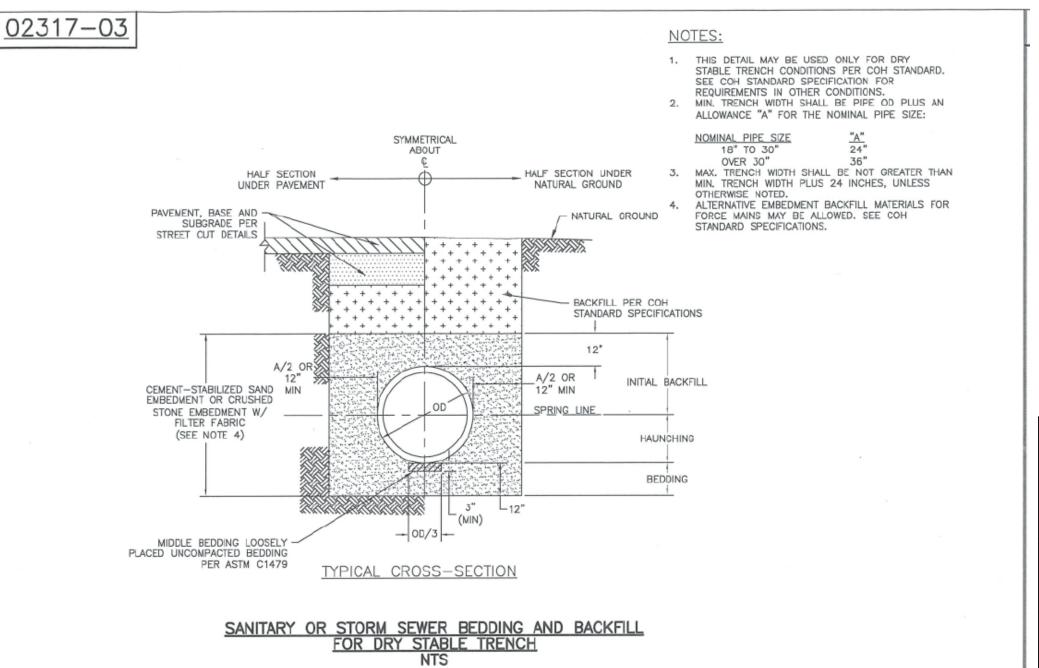
STREET & BRIDGE

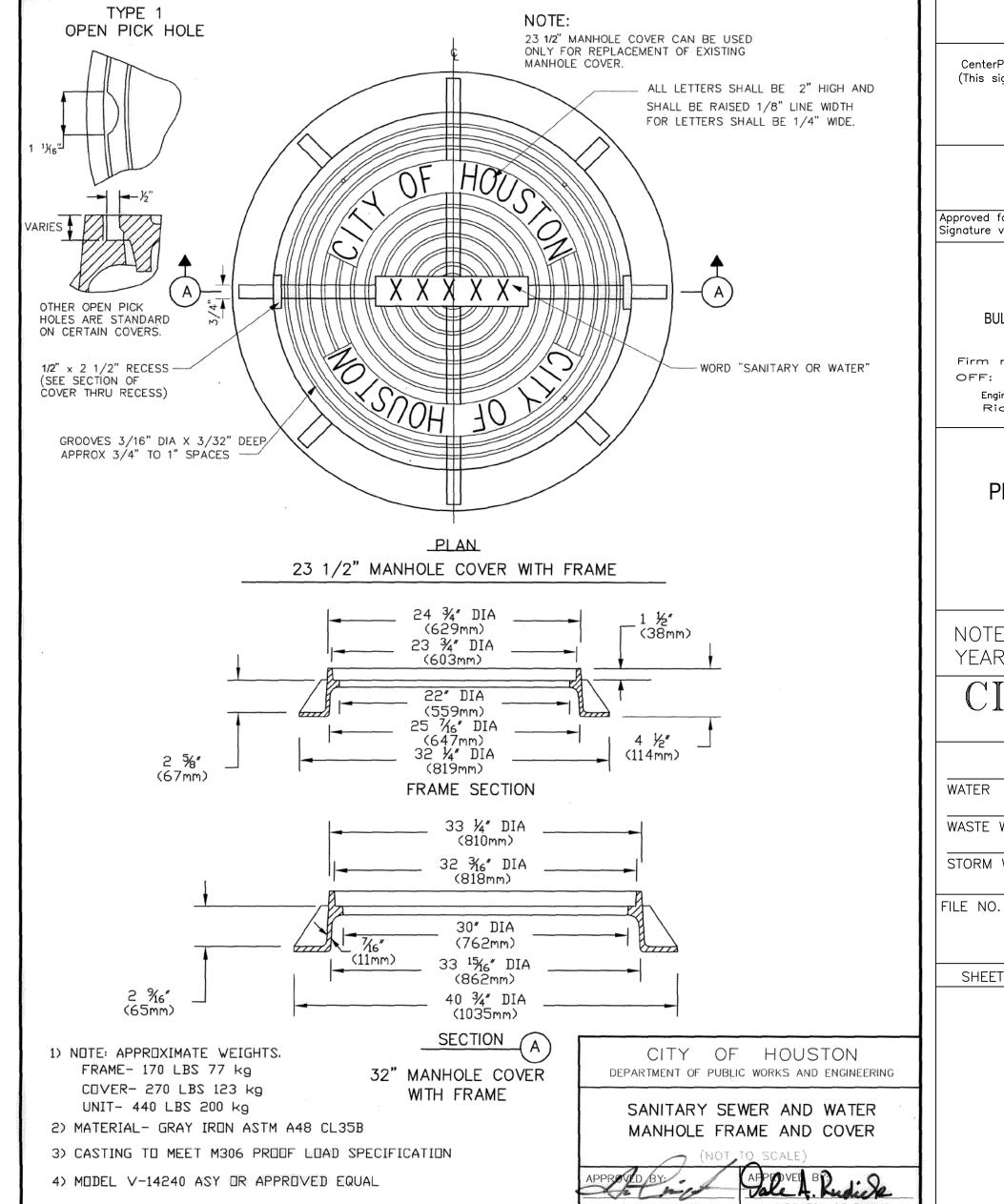
DRAWING SCALE SHEET NO. 04 OF 06

FOR CITY OF HOUSTON USE ONLY









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BULLSEYE ENGINEERING
INSPECTION, LLC

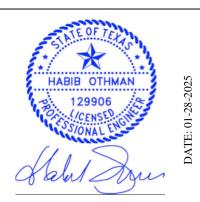
INSPECTION, LLC

Firm number #: 20186

OFF: 832-699-0977

Engineers, planners & permits

Richmond, Texas



PROPOSED 8" PVC SANITARY SEWER

CONSTRUCTION DETAILS

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTO

HOUSTON PUBLIC WORKS

WATER STORM WATER QUALITY

WASTE WATER FACILITIES

STORM WATER TRAFFIC & TRANSPORTATION/

STREET & BRIDGE

HORIZ:

DIRECTOR OF PUBLIC

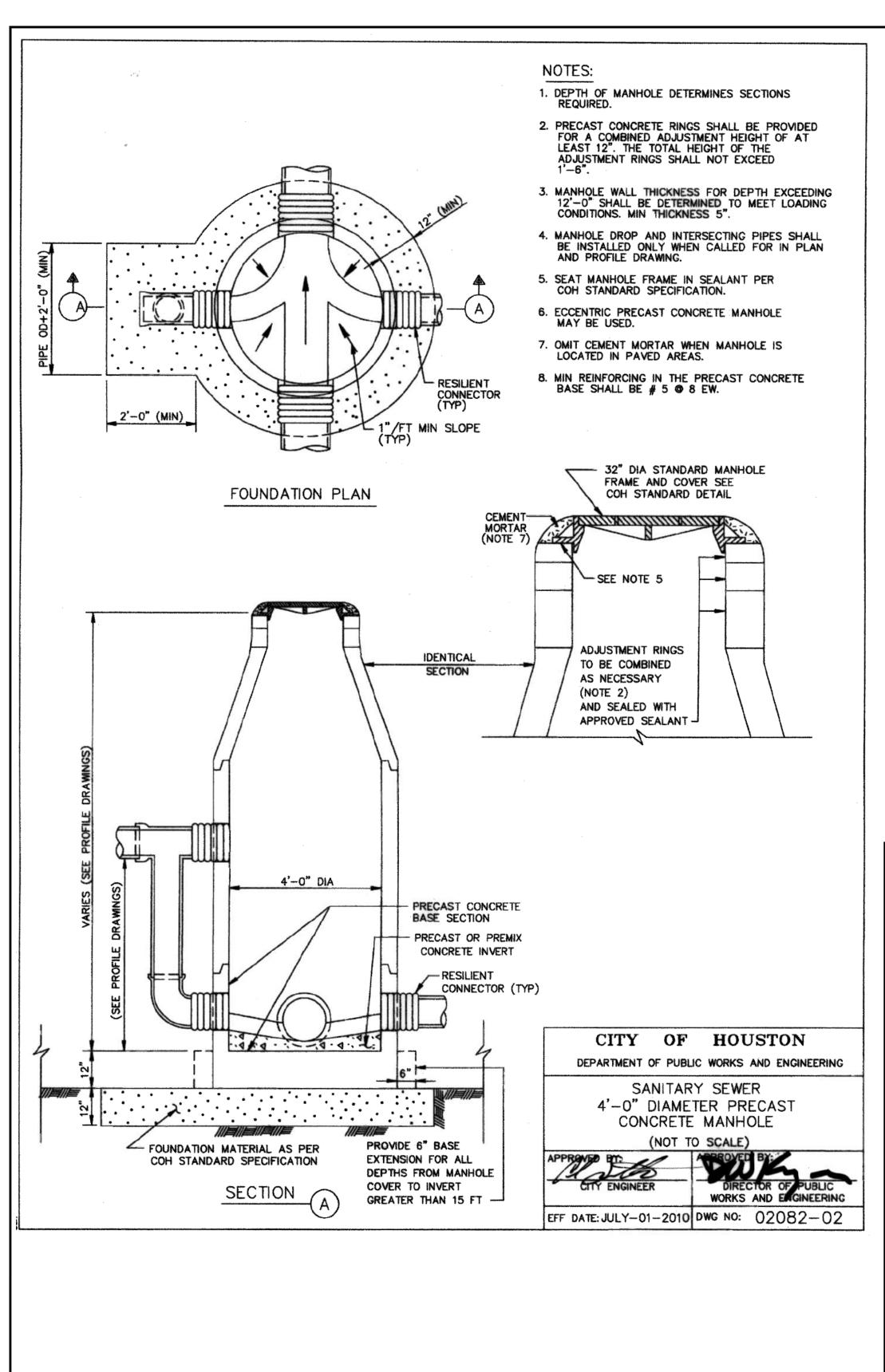
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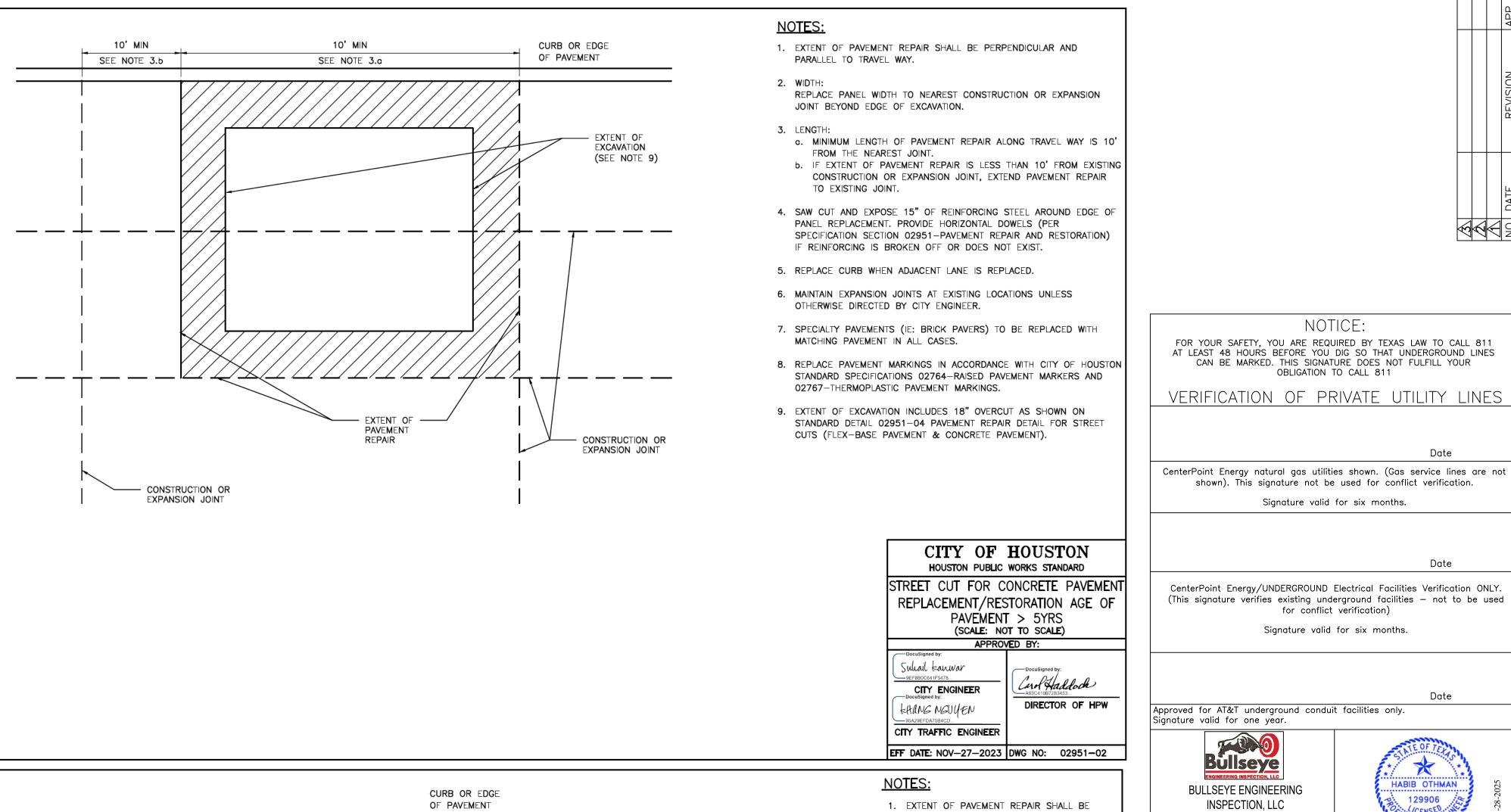
CITY ENGINEER

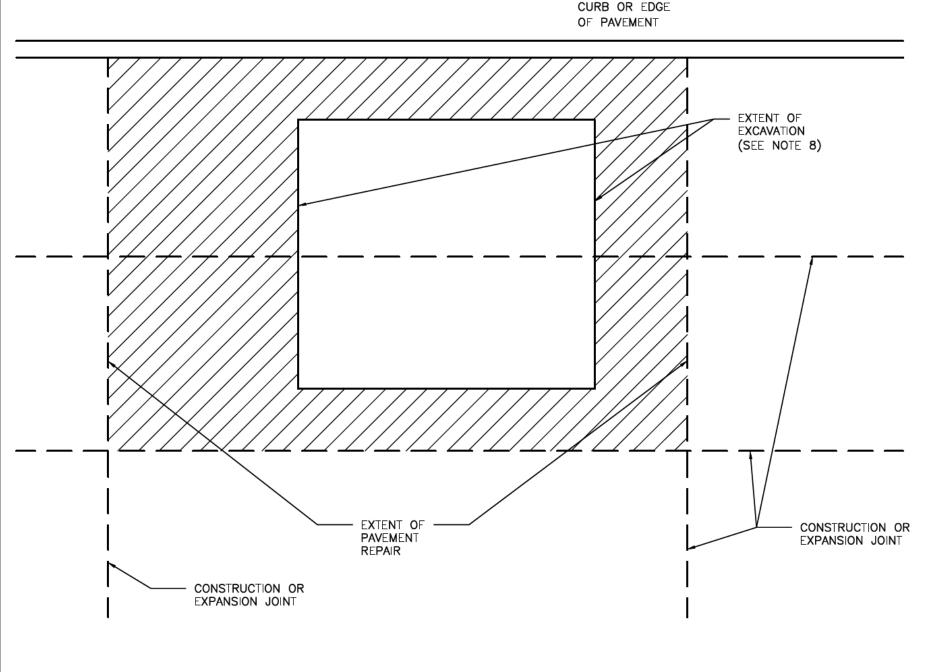
SHEET NO. 05 OF 06 DRAWING SCALE

FOR CITY OF HOUSTON USE ONLY

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- PERPENDICULAR AND PARALLEL TO TRAVEL
- 2. REPLACE ENTIRE PANEL WIDTH AND LENGTH TO NEAREST CONSTRUCTION OR EXPANSION JOINT BEYOND EDGE OF EXCAVATION.
- SAW CUT AND EXPOSE 15" OF REINFORCING STEEL WITHIN EXISTING PAVEMENT. PROVIDE HORIZONTAL DOWELS (PER SPECIFICATION SECTION 02951-PAVEMENT REPAIR AND RESTORATION) IF EXISTING REINFORCING IS BROKEN OFF.
- 4. REPLACE CURB WHEN ADJACENT LANE IS REPLACED.
- 5. MAINTAIN EXPANSION JOINTS AT EXISTING LOCATIONS UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
- 6. SPECIALTY PAVEMENTS (IE: BRICK PAVERS) TO BE REPLACED WITH MATCHING PAVEMENT IN ALL CASES.
- 7. REPLACE PAVEMENT MARKINGS IN ACCORDANCE WITH CITY OF HOUSTON STANDARD SPECIFICATIONS 02764-RAISED PAVEMENT MARKERS AND 02767-THERMOPLASTIC PAVEMENT MARKINGS.
- 8. EXTENT OF EXCAVATION INCLUDES 18" OVERCUT AS SHOWN ON STANDARD DETAIL 02951-04 PAVEMENT REPAIR DETAIL FOR STREET CUTS (FLEX-BASE PAVEMENT & CONCRETE PAVEMENT).

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD STREET CUT FOR CONCRETE PAVEMENT REPLACEMENT/RESTORATION AGE OF PAVEMENT < 5YRS (SCALE: NOT TO SCALE)

APPROVED BY: Suliail Kanwar CITY ENGINEER KHANG NGUYEN

Carol Haddock DIRECTOR OF HPW

CITY TRAFFIC ENGINEER EFF DATE: NOV-27-2023 DWG NO: 02951-01

of salul Dru Richmond, Texas

Bullseye

BULLSEYE ENGINEERING

INSPECTION, LLC

Firm number #: 20186

OFF: 832-699-0977

Engineers, planners & permits

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Date

HABIB OTHMAN

129906

CONSTRUCTION DETAILS

PROPOSED 8" PVC SANITARY SEWER

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

HOUSTON PUBLIC WORKS

WATER STORM WATER QUALITY

WASTE WATER FACILITIES

> TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

FILE NO. HORIZ:

VERT:

STORM WATER

DRAWING SCALE SHEET NO. 06 OF 06

FOR CITY OF HOUSTON USE ONLY