PROJECT NUMBER			SHEET NO.
F2022(722)			1
STATE	STATE DIST.	COUNTY	
TEXAS	HOU	HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	72	397	VARIOUS

INDEX OF SHEETS

SEE SHEET 2 FOR INDEX OF SHEETS

Registered Accessibilty Specialiist (RAS) Inspection Required
TDLR Project No. TABS2022016288

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
SOUTH HOUSTON SIDEWALKS

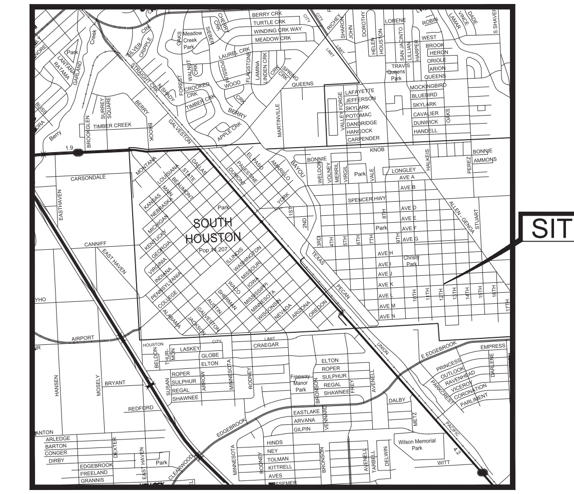
HARRIS COUNTY

TEXAS

PROJECT NO. F2022(722)

CONTROL: 0912-72-397

NET LENGTH OF SIDEWALK = 9,560.42 FT = 1.811 MI



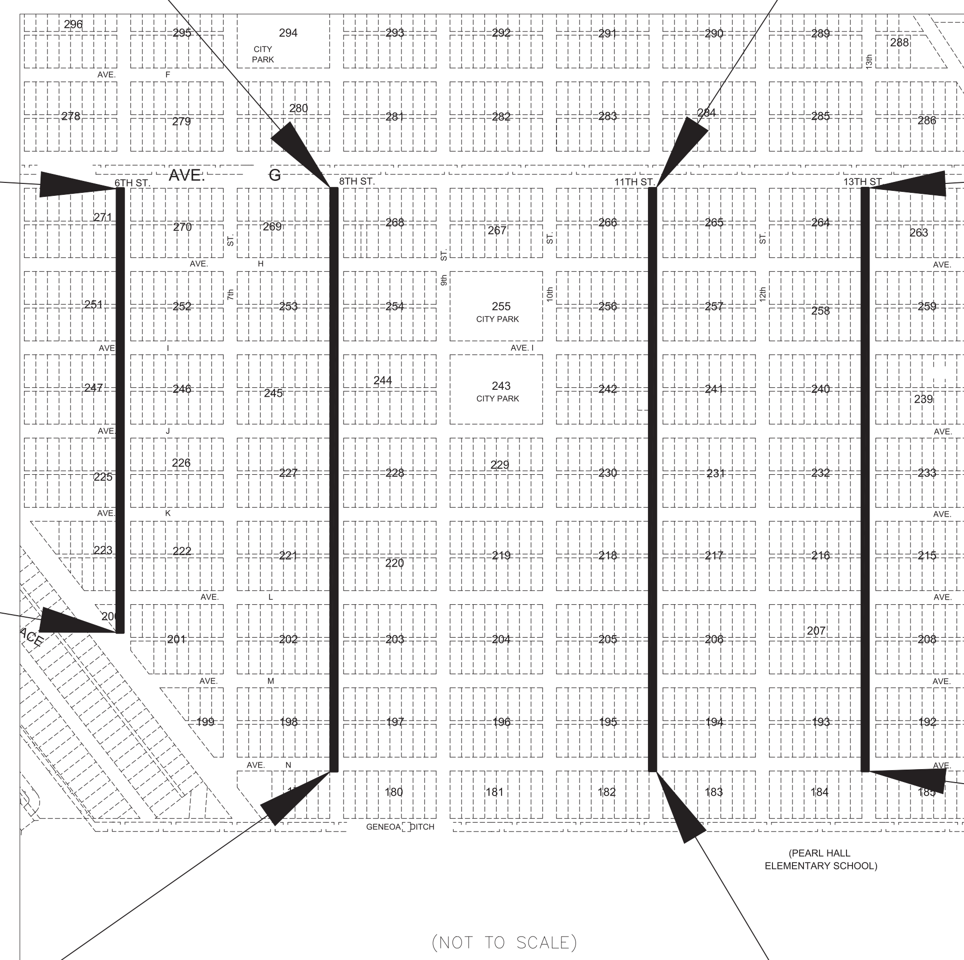
LOCATION MAP
(NOT TO SCALE)

END of 8th st.
CSJ. 0912-72-397
STA. 25+10
X= 3,168,208.70
Y=13,806,992.32

END of 6th st.
CSJ. 0912-72-397
STA. 20+73
X= 3,167,289.23
Y=13,806,945.88

END of 11th st.
CSJ. 0912-72-397
STA. 25+45
X= 3,169,587.35
Y=13,807,061.91

END PROJECT
CSJ. 0912-72-397
STA. 25+46
X= 3,170,505.73
Y=13,807,108.30



BEGIN PROJECT
CSJ. 0912-72-397
STA. 0+77
X= 3,167,391.40
Y=13,804,948.48

BEGIN of 8th st.
CSJ. 0912-72-397
STA. -0+15
X= 3,168,335.21
Y=13,804,475.47

BEGIN of 13th st.
CSJ. 0912-72-397
STA. 0+10
X= 3,170,631.70
Y=13,804,591.45

BEGIN of 11th st.
CSJ. 0912-72-397
STA. 0+13
X= 3,169,713.33
Y=13,804,545.08

(NOT TO SCALE)

NOTE: ALL COORDINATES ARE GRID

STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
PROFESSIONAL ENGINEER

Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

7/6/2022
Date:

CONCURRENCE — DocuSigned by: Mayor Joe Soto 7/7/2022
0A3C5A6FCFF64C6...
CITY OF SOUTH HOUSTON

RECOMMENDED FOR LETTING: 7/6/2022
DocuSigned by: Prasanna Chebbi
A9258BE7C75C4D3...
PROJECT MANAGER

APPROVED FOR LETTING: 7/7/2022
DocuSigned by: Larry W. Blackburn, P.E.
For District Engineer

EXCEPTION: NONE
EQUATION: NONE
RAILROAD CROSSINGS: NONE

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, NOVEMBER 1, 2014 AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT: REQUIRED CONTRACT PROVISIONS FOR ALL FEDERAL-AID CONSTRUCTION CONTRACTS (FORM FHWA 1273, MAY, 2012)

LEVELS DISPLAYED

INDEX OF SHEETS

THE STANDARD SHEETS SPECIFICALY IDENTIFIED WITH A "*" HAVE BEEN ISSUED BY ME AND ARE APPLICABLE TO THIS PROJECT.

NAME _____ DATE _____

STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
LICENSED
PROFESSIONAL ENGINEER

7/6/2022
Date:

Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

Texas Department of Transportation

INDEX OF SHEETS

©TxDOT JANUARY 2020		DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT
REVISIONS DATE	REVISION REASON	CONT	SECT	JOB	HIGHWAY
		0917	72	397	VAR
		DIST	COUNTY		SHEET NO.
		HOU	HARRIS		2

General Notes:

General:

Contractor questions on this project are to be addressed to the following individual(s):

(Area Engineer, Muhammad Elahi P.E., and Jamal.Elahi@txdot.gov*)*
(Asst. Area Engineer, Vanessa M Bosques and Vanessa.Bosques@txdot.gov)

Contractor questions will be accepted through email, phone, and in person by the above individuals. Contractor questions will be reviewed by the Area Engineer or Assistant Area Engineer. Once a response is developed, it will be posted to TxDOT's Public FTP at the following address:

https://ftp.dot.state.tx.us/pub/txdot-info/Pre-Letting%20Responses/

Questions submitted that generate a response will be posted through this site. The site is organized by District, Project Type (Construction or Maintenance), Letting Date, and CCSJ/Project Name.

Unless otherwise shown on the plans, RAP generated by this project will become the property of the Contractor for use in the current construction project or in future projects.

If fixed features require, the governing slopes shown may vary between the limits shown and to the extent determined by the Engineer.

Superelevate the curves to match the existing surface.

Notify the Engineer immediately if discrepancies are discovered in the horizontal control or the benchmark data.

References to manufacturer's trade name or catalog numbers are for the purpose of identification only. Similar materials from other manufacturers are permitted if they are of equal quality, comply with the specifications for this project, and are approved, except for roadway illumination, electrical, and traffic signal items.

The cost for materials, labor, and incidentals to provide for traffic across the roadway and for ingress and egress to private property in accordance with Section 7.2.4 of the standard specifications is subsidiary to the various bid items. Restore access roadways to their original condition upon completing construction.

General: Roadway Illumination and Electrical

For roadway illumination and electrical items, use materials from pre-qualified producers as shown on the Construction Division (CST) of the Department's material producers list. Check

County: Harris **Control:** 0912-72-397

the latest link on the Department's website for this list. The category/item is "Roadway Illumination and Electrical Supplies." No substitutions will be allowed for materials found on this list.

Perform electrical work in conformance with the National Electrical Code (NEC) and the Department's standard sheets.

General: Site Management

Mow the grass and weeds within the project limits a maximum of 3 times a year as directed. This work is subsidiary to the various bid items.

Mark stations every 100 ft. and maintain the markings for the project duration. Remove the station markings at the completion of the project. This work is subsidiary to the various bid items.

Record the beginning and ending stations of any no passing zones in the field before beginning the overlay. Restripe the no passing zones immediately after the overlay in the same locations, unless otherwise shown in the plans, or otherwise directed.

Do not mix or store materials, or store or repair equipment, on top of concrete pavement or bridge decks unless authorized by the Engineer. Permission will be granted to store materials on surfaces if no damage or discoloration will result.

Assume ownership of debris and dispose of at an approved location. Do not dispose of debris on private property unless approved in writing by the District Engineer.

Control the dust caused by construction operations. For sweeping the base material in preparation for laying asphalt and for sweeping the finished concrete pavement, use one of the following types of sweepers or approved equal:

Tricycle Type	Truck Type - 4 Wheel
Wayne Series 900	M-B Cruiser II
Elgin White Wing	Wayne Model 945
Elgin Pelican	Mobile TE-3
	Mobile TE-4
	Murphy 4042

General: Traffic Control and Construction

Schedule construction operations such that preparing individual items of work follows in close sequence to constructing storm drains in order to provide as little inconvenience as practical to the businesses and residents along the project.

Schedule work so that the base placement operations follow the subgrade work as closely as practical to reduce the hazard to the traveling public and to prevent undue delay caused by wet weather.

This project requires extensive grading operations in an environmentally sensitive area.

If relocating mailboxes, place them with the post firmly in the ground at nearby locations. Upon completing the project, the Engineer will locate the final mailbox placement. Perform this work in accordance with the requirements of the Item, "Mailbox Assemblies," except for measurement and payment. This work is subsidiary to the various bid items.

If fences cross construction easements shown on the plans and work is required beyond the fences, remove and replace the fences as directed. This work and the materials are subsidiary to the various bid items.

When design details are not shown on the plans, provide signs and arrows conforming to the latest "Standard Highway Sign Designs for Texas" manual.

General: Utilities

Consider the locations of underground utilities depicted in the plans as approximate and employ responsible care to avoid damaging utility facilities. Depending upon scope and magnitude of planned construction activities, advanced field confirmation by the utility owner or operator may be prudent. Where possible, protect and preserve permanent signs, markers, and designations of underground facilities.

If the Contractor damages or causes damage (breaks, leaks, nicks, dents, gouges, etc.) to the utility, contact the utility facility owner or operator immediately.

At least 72 hours before starting work, make arrangements for locating existing Department-owned above ground and underground fiber optic, communications, power, illumination, and traffic signal cabling and conduit. Do this by calling the Department's Houston District Traffic Signal Operations Office at 713-802-5662, or by e-mailing the Department's Houston District Traffic Signal Operations Office at HOU-LocateRequest@txdot.gov, to schedule marking of underground lines on the ground. Use caution if working in these areas to avoid damaging or interfering with existing facilities.

Notify the Engineer at least 48 hours before constructing junction boxes at storm drain and utility intersections.

Install or remove poles and luminaires located near overhead or underground electrical lines using established industry and utility safety practices. Consult the appropriate utility company before beginning such work.

If overhead or underground power lines need to be de-energized, contact the electrical service provider to perform this work. Costs associated with de-energizing the power lines or other protective measures required are at no expense to the Department.

If working near power lines, comply with the appropriate sections of Texas State Law and Federal Regulations relating to the type of work involved.

Perform electrical work in conformance with the National Electrical Code (NEC) and Department's standard sheets.

Before beginning any underground work, notify the City of Houston's Chief Inspector, Public Works and Engineering, to establish the locations of any existing electrical systems for lighting facilities within the limits of this project.

Item 5: Control of Work

Before contract letting, cross-section data for this project will be available to the prospective bidders in PDF format on the Department's Houston District website located at:
https://ftp.dot.state.tx.us/pub/txdot-info/Pre-Letting%20Responses/Houston%20District/Construction%20Projects/

The cross-section data provided above is for non-construction purposes only and it is the responsibility of the prospective bidder to validate the data with the appropriate plans, specifications, and estimates for the projects.

Submit shop drawings electronically for the fabrication of items as documented in Table 2 below. Information and requirements for electronic submittals can be viewed in the "Guide to Electronic Shop Drawing Submittal" which can be accessed through the following web link, ftp://ftp.dot.state.tx.us/pub/txdot-info/library/pubs/bus/bridge/e_submit_guide.pdf. References to 11 in. x 17 in. sheets in individual specifications for structural items imply electronic CAD sheets.

Table 2
2014 Construction Specification Required Shop/Working Drawing Submittals - Consultant Generated Plans

Spec Item No.'s	Product	Submittal Required	Approval Required (Y/N)	Contractor/ Fabricator P.E. Seal Required	Reviewing Party	Shop or Working Drawing (Note 1)
7.16.1&.2	Construction Load Analyses	Y	Y	Y	D	WD
400	Excavation and Backfill for Structures (cofferdams)	Y	N	Y	D	WD
403	Temporary Special Shoring	Y	N	Y	D	WD
420	Formwork/Falsework	Y	N	Y	D	WD
423	Retaining Walls, (calcs req'd.)	Y	Y	Y	D	SD
425	Optional Design Calculations	Y	Y	Y	D	SD

	(Prstrs Bms)					
425	Prestr Concr Sheet Piling	Y	Y	N	D	SD
425	Prestr Concr Beams	Y	Y	N	D	SD
425	Prestr Concr Bent	Y	Y	N	D	SD
426	Post Tension Details	Y	Y	N	D	SD
434	Elastomeric Bearing Pads (All)	Y	Y	N	D	SD
441	Bridge Protective Assembly	Y	Y	N	D	SD
441	Misc Steel (various steel assemblies)	Y	Y	N	D	SD
441	Steel Pedestals (bridge raising)	Y	Y	N	D	SD
441	Steel Bearings	Y	Y	N	D	SD
441	Steel Bent	Y	Y	N	D	SD
441	Steel Diaphragms	Y	Y	N	D	SD
441	Steel Finger Joint	Y	Y	N	D	SD
441	Steel Plate Girder	Y	Y	N	D	SD
441	Steel Tub-Girders	Y	Y	N	D	SD
441	Erection Plans, including Falsework	Y	N	Y	D	WD
449	Sign Structure Anchor Bolts	Y	Y	N	D	SD
450	Railing	Y	Y	N	D	SD
462	Concrete Box Culvert	Y	Y	N	D	SD
462	Concrete Box Culvert (Alternate Designs Only,calcs reqd.)	Y	Y	Y	D	SD
464	Reinforced Concrete Pipe (Jack and Bore only; ONLY when requested)	Y	Y	Y	D	SD
465	Pre-cast Junction Boxes, Grates, and Inlets	Y	Y	N	D	SD
465	Pre-cast Junction Boxes, Grates, and Inlets (Alternate Designs Only, calcs req'd.)	Y	Y	Y	D	SD
466	Pre-cast Headwalls and Wingwalls	Y	Y	N	D	SD
467	Pre-cast Safety End Treatments	Y	Y	N	D	SD
495	Raising Existing Structure (calcs reqd.)	Y	Y	Y	D	SD
610	Roadway Illumination Supports (Non-Standard only, calcs reqd.)	Y	Y	Y	D	SD
613	High Mast Illumination Poles (Non-standard only, calcs reqd.)	Y	Y	Y	D	SD
627	Treated Timber Poles	Y	Y	N	D	SD
644	Special Non-Standard Supports (Bridge Mounts, Barrier Mounts, Etc.)	Y	Y	Y	D	SD
647	Large Roadside Sign Supports	Y	Y	Y	D	SD
650	Cantilever Sign Structure Supports - Alternate Design Calcs.	Y	Y	Y	D	SD
650	Sign Structures	Y	Y	N	D	SD
680	Installation of Highway Traffic Signals	Y	Y	N	D	SD
682	Vehicle and Pedestrian Signal Heads	Y	Y	N	D	SD
684	Traffic Signal Cables	Y	Y	N	D	SD
685	Roadside Flashing Beacon Assemblies	Y	Y	N	D	SD
686	Traffic Signal Pole Assemblies	Y	Y	Y	D	SD

	(Steel) (Non-Standard only)					
687	Pedestal Pole Assemblies	Y	Y	N	D	SD
688	Detectors	Y	Y	N	D	SD
784	Repairing Steel Bridge Members	Y	Y	Y	D	WD
SS	Prestr Concr Crown Span	Y	Y	N	D	SD
SS	Sound Barrier Walls	Y	Y	Y	D	SD
SS	Camera Poles	Y	Y	Y	TMS	SD
SS	Pedestrian Bridge (Calcs req'd.)	Y	Y	Y	D	SD
SS	Screw-In Type Anchor Foundations	Y	Y	N	D	SD
SS	Fiber Optic/Communication Cable	Y	Y	N	TMS	SD
SS	Spread Spectrum Radios for Signals	Y	Y	N	D	SD
SS	VIVDS System for Signals	Y	Y	N	D	SD
SS	CTMS Equipment	Y	Y	N	TMS	SD

Notes:

1. Document flow for Working Drawings differs from Shop Drawings in that Working Drawings must be submitted to the Engineer rather than the Engineer of Record and they are for the information of the Engineer only; an approval stamp and distribution to all project offices is not required.

Key to Reviewing Party

D – Consultant: Submit to Engineer of Record at debbie@rwpatrick.com; anwar.alsha@rwpatrick.com

TMS – Traffic Management System

Computerized Traffic Management Systems (CTMS)	HOU-CTMSShpDrwgs@txdot.gov

Item 7: Legal Relations and Responsibilities

Do not initiate activities in a Project Specific Location (PSL), associated with a U.S. Army Corps of Engineers (USACE) permit area, that have not been previously evaluated by the USACE as part of the permit review of this project. Such activities include those pertaining to, but are not limited to, haul roads, equipment staging areas, borrow and disposal sites. Associated defined here means materials are delivered to or from the PSL. The permit area includes the waters of the U.S. or associated wetlands affected by activities associated with this project. Special restrictions may be required for such work. Assume responsibility for consultations with the USACE regarding activities, including PSLs that have not been previously evaluated by the USACE. Provide the Department with a copy of consultations or approvals from the USACE before initiating activities.

The Contractor may proceed with activities in PSLs that do not affect a USACE permit area if a self-determination has been made that the PSL is non-jurisdictional or if proper USACE clearances have been obtained in jurisdictional areas or have been previously evaluated by the USACE as part of the permit review of this project. The Contractor is solely responsible for documenting any determinations that their activities do not affect a USACE permit area. Maintain copies of their determinations for review by the Department or any regulatory agency.

Document and coordinate with the USACE, if required, before hauling any excavation from or hauling any embankment to a USACE permit area by either 1 or 2 below:

1. **Restricted Use of Materials for the Previously Evaluated Permit Areas.** Document both the Project Specific Locations (PSL) and their authorization. Maintain copies for review by the Department or any regulatory agency. When an area within the project limits has been evaluated by the USACE as part of the permit process for this project:
   a. Suitable excavation of required material in the areas shown on the plans and cross sections as specified in the Item, "Excavation" is used for permanent or temporary fill (under the Item, "Embankment") within a USACE permit area.
   b. Suitable embankment (under the Item, "Embankment") from within the USACE permit area is used as fill within a USACE evaluated area.
   c. Unsuitable excavation or excess excavation, "Waste" (under the Item, "Excavation"), that is disposed of at a location approved within a USACE evaluated area.

2. **Contractor Materials from Areas Other than Previously Evaluated Areas.** Provide the Department with a copy of USACE coordination or approvals before initiating any activities for an area within the project limits that has not been evaluated by the USACE or for any off right of way locations used for the following, but not limited to, haul roads, equipment staging areas, borrow and disposal sites:
   a. The Item, "Embankment" used for temporary or permanent fill within a USACE permit area.
   b. Unsuitable excavation or excess excavation, "Waste" (under the Item, "Excavation"), that is disposed of outside a USACE evaluated area.

The total area disturbed for this project is 1.975 acres. The disturbed area in this project, the project locations in the Contract, and Contractor project specific locations (PSLs) within 1 mile of the project limits for the Contract, will further establish the authorization requirements for storm water discharges. The Department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. The Contractor is to obtain required authorization from the TCEQ for Contractor PSLs for construction support activities on or off the ROW.

Maintain the roadway slope stability. Maintaining slope stability is subsidiary to the various bid items.

No significant traffic generator events have been identified.

Item 8: Prosecution and Progress

The Department will supply bidders, upon written request, one electronic copy of the time determination schedule. The time determination schedule provided is for informational use only and is not intended for bidding or construction purposes.

The Department will not adjust the number of days for the project and milestones, if any, due to differences in opinion regarding any assumptions made in the preparation of the schedule or for errors, omissions, or discrepancies found in the time determination schedule.

Working days will be computed and charged based on a 5-*day* workweek in accordance with Section 8.3.1.*5.*

Item 100: Preparing Right of Way

Obtain a City of Houston plumbing permit and a demolishing permit or removing permit before demolishing or removing existing houses or commercial buildings.

Clean existing ditches under fill sections of undesirable materials including grass, muck, and trash. Perform this work in accordance with the Construction section of the Item, "Preparing Right of Way." This work is subsidiary to this bid Item.

The Item, "Preparing Right of Way" will be measured for payment only in those designated areas shown on the plans. Preparing right of way necessary to perform construction that is outside designated areas is subsidiary to this bid Item.

Remove abandoned utilities that are in conflict with the new utilities, at no expense to the Department.

Reestablish and maintain right of way stakes after completing the right of way preparation activities and until the new utilities are in place.

Remove and assume ownership of the existing ground mounted signs within the limits of roadway construction unless otherwise noted or directed. This work is subsidiary to the Item, "Preparing Right of Way."

Item 110: Excavation

If manipulating the excavated material requires moving the same material more than once to accomplish the desired results, the excavation is measured and paid for only once regardless of the manipulation required.

Transition the ditch grades and channel bottom widths at structure locations. Use only approved channel excavation in the embankment.

Excavate, strip, and stockpile the top 6 in. of existing topsoil only at locations shown in the plans. The salvaged quantity is shown in the plans. Reuse the topsoil under the Item, "Topsoil" including measurement and payment.

Item 162: Sodding for Erosion Control
Item 166: Fertilizer
Item 168: Vegetative Watering

Refer to the "Fertilizer, Seed, Sod, Straw, Compost, and Water" plan sheet for material specifications, application rates, and for watering requirements.

Item 204: Sprinkling

Perform subsidiary sprinkling as required under various other items in accordance with the Item, "Sprinkling."

Sprinkling for dust control is subsidiary to the various bid items.

Item 210: Rolling

Use a medium pneumatic roller meeting the requirements of Item 210 as directed. This work is subsidiary to the various bid items.

Item 360: Concrete Pavement

Where the pavement curb is left off for a later tie, provide the dowels or the tie bars as indicated on the paving detail sheets. The dowel bars and tie bars are subsidiary to the various bid items.

Repair portions of the concrete pavement surfaces that are damaged while in a plastic state before that area receives permanent pavement markings and opens to traffic. Perform repairs that are structurally equivalent to and cosmetically uniform with the adjacent undamaged areas. Do not repair by grouting onto the surface.

On pavement widening, hand finishing in place of the longitudinal float will be permitted.

Where existing pavement is widened with new pavement, place the new pavement a minimum of 2 ft. wide.

Equip the batching plants to proportion by weight, aggregates and bulk cement, using approved proportioning devices and approved automatic scales.

For mono curb, the curb height transitions will be paid at the contract unit price of the larger curb height in the transition. The 2.5-in. laydown curbs for driveways will be paid at the unit price bid for the Item, "Conc Curb (Mono) (Ty II)."

High-early strength cement may be used for frontage road and city street intersection construction.

Do not use limestone dust of fracture as fine aggregate.

If the concrete design requires greater than 5.5 sacks of cementitious material per cubic yard, obtain written approval. If placing concrete pavement mixes from April 1 to October 31, inclusive, use Mix Design Option 1 as specified in Section 421.4.2.6.1.

Perform saw cutting as shown on the plans in accordance with Section 360.4.10, "Sawing Joints." This saw cutting is subsidiary to this bid Item.

Failure to perform any Fast Track Work Area construction within the above time frames will be cause for the Engineer to require the Contractor to shut down all other construction operations to ensure all resources are directed toward the completion of the Fast Track operation. This shutdown will remain in force until the Fast Track operation is complete. Such a shutdown will not warrant additional time, time suspension, or any additional costs to the Department.

Items 360, 420, and 421: All Concrete Items

For the Department's concrete cylinder split samples, transport the test cylinders to the Houston District Laboratory located at 7600 Washington Avenue in Houston, or to the appropriate Area Laboratory, when applicable. Transporting the test cylinders is subsidiary to the various bid items.

The approach pavement is paid for under the Item, "Concrete Pavement."

Item 400: Excavation and Backfill for Structures

Plugging existing pipe culverts is subsidiary to the various bid items.

If Recycled Cement Treatment (Type D) is included in the plans, the following additional requirements apply:

1. Use only approved sand, crushed concrete, or salvaged base free from deleterious matter, as aggregate for cement-stabilized backfill.

2. Provide crushed concrete or salvaged base backfill material in accordance with the Item, "Cement Treatment (Plant-Mixed)(Type D)" (base or crushed concrete), except the recycled Type D material must not contain Reclaimed Asphalt Pavement (RAP).

3. For backfill material below the spring line of pipes, use cement-stabilized sand rather than Recycled Type D backfill material.

4. For the cement-stabilized sand backfill, use a minimum of 7 percent of hydraulic cement based on the dry weight of backfill material. The cement content for the crushed

concrete and salvaged base is specified in the Item, “Cement Treatment (Plant-Mixed) (Type D).”

5. Place and compact the stabilized backfill material using a gradation that provides a dense mass without segregating and is impervious to passing of water.

Item 420: Concrete Substructures

Unless otherwise noted, use Class C concrete with an ordinary surface finish for signal, lighting, or sign structure foundations.

Mass concrete is a plans quantity item.

Item 427: Surface Finishes for Concrete

Provide a Surface Area I finish for structures. Use concrete paint for the surface finish.

Item 432: Riprap

If stone riprap is shown on the plans, use common stone riprap in accordance with Section 432.2.3.3, placed dry in accordance with Section 432.3.2.3. Do not grout. Crushed concrete may also be used.

Item 464: Reinforced Concrete Pipe

Concrete collars are subsidiary to the various bid items except for those specified on the plans for stage construction, which are paid for under the Item, “Concrete Substructures” as “Cl C Conc (Collar).”

Rubber gaskets are required for concrete pipe joints except for connections of safety end treatments, driveway culverts, and joints between the existing pipes and extensions.

If performing the work under the Item, “Jacking, Boring, or Tunneling Pipe or Box,” use tongue and groove pipe instead of rubber gaskets at these locations.

Open, install, and backfill each section, or a portion of a section, in the same day at locations requiring pipe culverts under existing roadways.

Place the pipe drains across existing roadways half at a time to allow passage of traffic. No trenches may remain open overnight.

Known locations of existing stub-outs are shown on the plans, but these stub-outs may be in a different position or condition. Delays, inconveniences, or additional work required will not be a basis for additional compensation.

Provide leave-outs or holes in the proposed storm drain structures and pipes for drainage during interim construction. This work is subsidiary to the various bid items.

The flowline elevations of side road structures are based on the proposed ditches. Field-verify these elevations and adjust them as necessary to meet the field conditions. Before placing these structures, prepare and submit for approval, the data (revised elevation, alignment, length, etc.) for the adjusted structures.

If groundwater is encountered while installing the storm drain system, install a suitable dewatering system to facilitate construction of the storm drains. The costs for materials and labor required to install and maintain this system are subsidiary to the Item, “Reinforced Concrete Pipe.”

Item 465: Junction Boxes, Manholes, and Inlets

If required on the plans, build manholes and inlets to stage 1 construction, cover with temporary pavement, and complete in a later phase of construction. This temporary covering and pavement are subsidiary to the various bid items.

Construct manholes and inlets in graded areas, first to an elevation at least 4 in. above the top of the highest entering pipe and cover with a wooden cover. Complete the construction of such manholes and inlets to the finished elevation when completing the grading work for such manholes and inlets. Adjust the final elevation, if required, since this elevation is approximate.

Construct manholes and inlets in paved areas to an elevation so their temporary wooden covers are flush with the surface of the base material.

Do not leave excavations or trenches open overnight.

Item 502: Barricades, Signs, and Traffic Handling

Use a traffic control plan for handling traffic through the various phases of construction. Follow the phasing sequence unless otherwise agreed upon by the Area Engineer and the Project Manager. Ensure this plan conforms to the latest “Texas Manual on Uniform Traffic Control Devices” and the latest Barricade and Construction (BC) Standard Sheets.

Submit changes to the traffic control plan to the Area Engineer. Provide a layout showing the construction phasing, signs, striping, and signalizations for changes to the original traffic control plan.

Furnish and maintain the barricades and warning signs, including the necessary temporary and portable traffic control devices, during the various phases of construction. Place and construct these barricades and warning signs in accordance with the latest “Texas Manual on Uniform Traffic Control Devices” for typical construction layouts.

Cover work zone signs when work related to the signs is not in progress, or when any hazard related to the signs no longer exists.

Keep the delineation devices, signs, and pavement markings clean. This work is subsidiary to the Item, "Barricades, Signs, and Traffic Handling."

If a section is not complete before the end of the workday, pull back the base material to the existing pavement edge on a 6H: 1V slope. Edge drop-offs during the hours of darkness are not permitted.

Before detouring traffic onto the main lane shoulders, remove dirt, debris, vegetation, and other deleterious material from the surface of the shoulders. Appropriately sign the detour in an approved manner. This work is subsidiary to the various bid items.

Coordinate and schedule the work with the appropriate Metro representative if requiring access to the High Occupancy Vehicle lanes.

Cover or remove the permanent signs and construction signs that are incorrect or that do not apply to the current situation for a particular phase.

Replace the overhead signs, informational signs, and exit signs to be removed, with temporary signs providing the correct information to the traveling public. Size the replacement signs and include them in the traffic control plan.

Do not mount signs on drums or barricades, except those listed in the latest Barricades and Construction standard sheets.

Use traffic cones for daytime work only. Replace the cones with plastic drums during nighttime hours.

Place positive barriers to protect drop-off conditions greater than 2 ft. within the clear zone that remain overnight.

Law enforcement assistance will be required for this project and is expected to be required for major traffic control changes and lane closures. Coordinate with local law enforcement and arrange for law enforcement as directed or agreed by the Engineer. Before payment will be made, complete the "Daily Report on Law Enforcement Force Account Work" (Form 318), provided by the Department and submit daily invoices that agree with this form for any day during the month in which approved services were provided.

Provide full-time, off-duty, uniformed, certified peace officers, as part of traffic control operations. The peace officers must be able to show proof of certification by the Texas Commission on Law Enforcement Officers Standards. The cost of the officers is paid for on a force account basis.

The Contractor Force Account "Safety Contingency" that has been established for this project is intended to be utilized for work zone enhancements, to improve the effectiveness of the Traffic Control Plan, that could not be foreseen in the project planning and design stage. These enhancements will be mutually agreed upon by the Engineer and the Contractor's Responsible

Person based on weekly or more frequent traffic management reviews on the project. The Engineer may choose to use existing bid items if it does not slow the implementation of enhancement.

Item 506: Temporary Erosion, Sedimentation and Environmental Controls

The use of hay bales is not permitted as Storm Water Pollution Prevention Plan (SWP3) measures.

Due to the nature of the work involved, a Storm Water Pollution Prevention Plan (SWP3) is not required. However, if a SWP3 becomes necessary, it will be paid as extra work.

The Storm Water Pollution Prevention Plan (SWP3) consists of temporary erosion control measures needed and provided for under this Item. The disturbed area is less than two acres and use of erosion control measures is not anticipated. If physical conditions encountered at the job site require necessary controls, BMP installation, maintenance, and removal will be paid as extra work on a force account basis per Articles 4.4 and 9.7. Since the disturbed area is less than 5 acres, a "Notice of Intent" (NOI) is not required.

Use appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. Remove and dispose of materials in compliance with State and Federal laws.

Before starting construction, review with the Engineer the SWP3 used for temporary erosion control as outlined on the plans. Before construction, place the temporary erosion and sedimentation control features as shown on the SWP3.

Schedule the seeding or sodding work as soon as possible. The project schedule provides for a vegetation management plan.

After completing earthwork operations, restore and reseed the disturbed areas in accordance with the Department's specifications for permanent or temporary erosion control.

Implement temporary and permanent erosion control measures to comply with the National Pollution Discharge Elimination System (NPDES) general permit under the Clean Water Act.

Before starting grading operations and during the project duration, place the temporary or permanent erosion control measures to prevent sediment from leaving the right of way.

Item 529: Concrete Curb, Gutter, and Combined Curb and Gutter
Item 530: Intersections, Driveways, and Turnouts
Item 531: Sidewalks

An air-entraining admixture is not required.

For concrete curbs, use Grade 7 aggregate conforming to Section 421.2.6 of the Item, “Hydraulic Cement Concrete.”

For driveways and turnouts, coarse aggregate Grade No. 3 through No. 8 conforming to the gradation requirements specified in the Item, “Hydraulic Cement Concrete” will be permitted.

For reinforcing steel in sidewalks and pedestrian ramps, use No. 4 bars at a maximum 18 in. spacing center-to-center in both directions.

Item 618: Conduit
Item 620: Electrical Conductors
Item 628: Electrical Services

If the specifications for electrical items require UL-listed products, this means UL-listed or CSA-listed.

Item 618: Conduit

When backfilling bore pits, ensure that the conduit is not damaged during installation or due to settling backfill material. Compact select backfill in 3 equal lifts to the bottom of the conduit; or if using sand, place it 2 in. above the conduit. Ensure backfill density is equal to that of the existing soil. Prevent material from entering the conduit.

Construct bore pits a minimum of 5 ft. from the edge of the base or pavement. Close the bore pit holes overnight.

Unless otherwise shown on the plans, install underground conduit a minimum of 24 in. deep. Install the conduit in accordance with the latest National Electrical Code (NEC) and applicable Department standard sheets. Place conduit under driveways or roadways a minimum of 24 in. below the pavement surface.

If using casing to place bored conduit, the casing is subsidiary to the conduit.

If placing the conduit under existing pavement to reach the service poles, bore the conduit in place and extend it a minimum distance of 5 ft. beyond the edge of shoulder or the back of curb.

Where PVC, duct cable, and HDPE conduit 1 in. and larger is allowed and installed per Department standards, provide a PVC elbow in place of the galvanized rigid metal elbow required by the Electrical Details standards. Ensure the PVC elbow is of the same schedule rating as the conduit to which it is connected. Use only a flat, high tensile strength polyester fiber pull tape to pull conductors through the PVC conduit system.

Remove conductor and conduit to be abandoned to 1 ft. below the ground level. This work is subsidiary to the various bid items.

Do not use cast iron junction boxes in concrete traffic barriers and single slope traffic barriers. Use polymer concrete junction boxes as shown on standar sheet ED(4)-14. Mount the junction boxes flush (+ 0 in., - 1/2 in.) with the concrete surface of the concrete barrier.

Item 624: Ground Boxes

The ground box locations are approximate. Alternate ground box locations may be used as directed, to avoid placing in sidewalks or driveways.

Ground metal ground box covers. Bond the ground box cover and ground conductors to a ground rod located in the ground box and to the system ground.

Ground the existing metal ground box covers as shown on the latest standard sheet ED (4)-14.

During construction and until project completion, provide personnel and equipment necessary to remove ground box lids for inspection. Provide this assistance within 24 hours of notification.

Construct concrete aprons in accordance with the latest standard sheet ED (4)-14. Make the depth of the concrete apron the same as the depth of the ground box, except for Type 1 and Type 2 ground boxes. For Type 1 or Type 2 ground boxes, construct the concrete apron in accordance with details shown on the “Ground Box Details Installations” standard.

Item 636: Signs

Include aluminum route markers, exit only panels, routing signs, and other special panels attached to guide signs in the unit bid price for the parent guide sign material.

Furnish and install signs shown on the traffic signal “Summary of Traffic Signal Materials” sheet. Ensure that the legend on these sign panels is in accordance with the latest “Standard Highway Sign Designs for Texas” manual.

For design details not shown on the plans, provide signs and arrows conforming to the latest “Standard Highway Sign Designs for Texas” manual.

Item 644: Small Roadside Sign Assemblies

Sign locations shown on the plans are approximate. Before placing them, obtain approval of and then stake the exact locations for these signs.

Use the Texas Universal Triangular Slip Base with the concrete foundation for small ground mounted signs, unless otherwise shown in the plans.

Remove existing street name signs from existing stop signs and re-install them above the new stop signs. Removing and re-installing existing street name signs is subsidiary to the Item, “Small Roadside Sign Assemblies.”

When design details are not shown on the plans, provide signs and arrows conforming to the latest "Standard Highway Sign Designs for Texas" manual.

Use Type E Super High Specific Intensity (Fluorescent Prismatic) yellow green reflective sheeting background to fabricate school signs (S1-1, S3-1, S4-3, S5-1, W16-2, SW16-9p, and SW16-7pL(R)).

Assume ownership of the removed existing signs.

Locations of the relocated signs are approximate. Before placing them, obtain approval of and then stake the exact locations for these signs.

Replace existing signs that become damaged during relocation at no expense to the Department.

Item 656: Foundations for Traffic Control Devices

Using ready mix concrete for sign foundations is optional.

Mow areas of existing vegetation, collect and dispose of litter, and sweep the roadway within the project limits according to the following chart for the duration of the project or as directed. This work is paid for under their respective bid items.

Item 3076: Dense-Graded Hot Mix Asphalt

Taper the asphalt concrete pavement at the beginning and ending points.

Use a maximum 6H:1V slope for the asphalt concrete pavement edge.

Where the 6H:1V ACP edge taper extends over onto the unsurfaced shoulders, blade off the loose existing shoulder material to provide a solid base for the outside taper edge. After placing the ACP overlay, blade this material back against the edge taper. This work is subsidiary to the various bid items.

The stockpile will be the point of sampling of coarse aggregate for test method TEX-217-F (Part II, decantation).

Place the asphalt concrete pavement in courses as shown on the typical sections.

Do not use petroleum-based solvents in the beds of hot mix asphalt delivery vehicles.

Dilution of tack coat is not allowed.

Do not use Surface Aggregate Classification (SAC) C for this project.

For determining the Asphalt Content, only ignition ovens will be allowed.

The tack coat rate shown on the "Basis of Estimate" is an average rate for calculating tack coat quantities. Vary the rate based on the pavement conditions and other factors such as manufacturer's recommendations and weather.

Item 3081: Thin Overlay Mixtures (TOM)

Place mixtures only when the air temperature is above 70°F.

Item 7017: Sanitary Sewer

Provide a record of the locations of stacks, stubs, etc. to the owner of the sanitary sewer facility.

Maintain a 12-in. minimum vertical clearance at crossings between the sanitary sewers and culverts, unless otherwise noted.

Item 7049: Water Mains

Construct water mains with Class A concrete in accordance with the Item, "Hydraulic Cement Concrete." This work is subsidiary to this bid Item.

Assume ownership of removed fire hydrants, valves, and boxes.

Cutting and plugging tees, if called for on the plans, are subsidiary to the Item, "Remove Existing Fire Hydrant."

Install only new fire hydrants, valves, and boxes conforming to the requirements of this specification. Install fire hydrants, valves, and boxes in accordance with the requirements of Section 3.13 of this specification.

Provide valves that open in a *(counter)*clockwise direction only.

Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0912-72-397 **DISTRICT** Houston **COUNTY** Harris
HIGHWAY Various

			CONTROL SECTION JOB		**0912-72-397**	TOTAL EST.	TOTAL FINAL
			PROJECT ID		**A00122700**		
			COUNTY		**Harris**		
			HIGHWAY		**Various**		
ALT	**BID CODE**	**DESCRIPTION**	**UNIT**	EST.	FINAL		
	100-6001	PREPARING ROW	AC	1.950		1.950	
	100-6017	PREP ROW (TREE)(GREATER THAN 8 IN DIA)	EA	3.000		3.000	
	104-6001	REMOVING CONC (PAV)	SY	684.000		684.000	
	104-6017	REMOVING CONC (DRIVEWAYS)	SY	684.000		684.000	
	104-6067	REMOVING CONC (SAWCUT)	LF	200.000		200.000	
	105-6008	REMOVING STAB BASE AND ASPH PAV (6")	SY	600.000		600.000	
	162-6002	BLOCK SODDING	SY	4,080.000		4,080.000	
	166-6001	FERTILIZER	AC	0.840		0.840	
	168-6001	VEGETATIVE WATERING	MG	3.400		3.400	
	400-6005	CEM STABIL BKFL	CY	193.000		193.000	
	464-6003	RC PIPE (CL III)(18 IN)	LF	1,170.000		1,170.000	
	465-6001	INLET (COMPL)(TY S)	EA	15.000		15.000	
	465-6003	MANH (COMPL)(PRM)(60IN)	EA	2.000		2.000	
	465-6017	INLET (COMPL)(PCO)(4FT)(NONE)	EA	15.000		15.000	
	496-6082	REMOV STR (WATER VALVE BOX)	EA	3.000		3.000	
	500-6001	MOBILIZATION	LS	1.000		1.000	
	502-6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	8.000		8.000	
	530-6004	DRIVEWAYS (CONC)	SY	684.000		684.000	
	531-6002	CONC SIDEWALKS (5")	SY	5,040.000		5,040.000	
	531-6055	CONC SIDEWALKS (8")	SY	315.000		315.000	
	550-6002	CHAIN LINK FENCE (REPAIR) (6')	LF	500.000		500.000	
	550-6003	CHAIN LINK FENCE (REMOVE)	LF	300.000		300.000	
	644-6002	IN SM RD SN SUP&AM TY10BWG(1)SA(P-BM)	EA	7.000		7.000	
	690-6051	REMOVAL OF SIGNAL POLE ASSM	EA	7.000		7.000	
	6027-6010	GROUND BOX W/ APRON (ADJUST)	EA	2.000		2.000	
	7017-6051	MANHOLE (SAN SEWER) (4' DIA)	EA	4.000		4.000	
	7049-6116	REMOVING AND RELOCATING METER AND BOX	EA	9.000		9.000	
	7049-6149	WATER MAIN (ADJ EXIST MANHOLE)	EA	4.000		4.000	
	7049-6161	REMOVE AND RELOCATE FIRE HYDRANT	EA	2.000		2.000	
	18	EROSION CONTROL MAINTENANCE: CONTRACTOR FORCE ACCOUNT WORK (PART)	LS	1.000		1.000	
		LAW ENFORCEMENT: CONTRACTOR FORCE ACCOUNT WORK (PARTICIPATING)	LS	1.000		1.000	
		SAFETY CONTINGENCY: CONTRACTOR FORCE ACCOUNT WORK (PARTICIPATING)	LS	1.000		1.000	

SUMMARY OF QUANTITIES

CONTROL SECTION JOB 0912-72-397

CATEGORY OF WORK	Roadway			Barricades	Drainage				
BID CODE	100-6017	100-6001	530-6004	502-6001	400-6005	464-6003	465-6003	465-6017	465-6001
DESCRIPTION	PREP ROW (TREE)(GREATER THAN 8 IN DIA)	PREPARING ROW	DRIVEWAYS (CONC)	BARRICADES, SIGNS AND TRAFFIC HANDLING	CEM STABIL BKFL	RC PIPE (CL III)(18 IN)	MANH (COMPL)(PRM)(60IN)	INLET (COMPL)(PCO)(4FT)(NO	INLET (COMPL)(TY S)
ALTERNATE BID GROUP									
PLAN SET LOCATION UNIT	EA Each	AC Acre	SY Square Yards	MO Monthly	CY Cubic Yard	LF Linear Feet	EA Each	EA Each	EA Each
	3.000	1.950	684.000	8.000	193.000	1,170.000	2.000	15.000	15.000
PROJECT TOTALS	*3.000*	*1.950*	*684.000*	*8.000*	*193.000*	*1,170.000*	*2.000*	*15.000*	*15.000*

CATEGORY OF WORK	Landscape			Mobilization	Other/Miscellaneous				Pedestrian
BID CODE	162-6002	166-6001	168-6001	500-6001	496-6082	550-6002	7017-6051	7049-6149	531-6055
DESCRIPTION	BLOCK SODDING	FERTILIZER	VEGETATIVE WATERING	MOBILIZATION	REMOV STR (WATER VALVE BOX)	CHAIN LINK FENCE (REPAIR) (6')	MANHOLE (SAN SEWER) (4' DIA)	WATER MAIN (ADJ EXIST MANHOLE)	CONC SIDEWALKS (8")
ALTERNATE BID GROUP									
PLAN SET LOCATION UNIT	SY Square Yards	AC Acre	MG Thousand Gallons	LS Lump Sum	EA Each	LF Linear Feet	EA Each	EA Each	SY Square Yards
	4,080.000	0.840	3.400	1.000	3.000	500.000	4.000	4.000	315.000
PROJECT TOTALS	*4,080.000*	*0.840*	*3.400*	*1.000*	*3.000*	*500.000*	*4.000*	*4.000*	*315.000*

SUMMARY OF QUANTITIES

CONTROLSECTIONJOB 0912-72-397

CATEGORY OF WORK	Pedestrian	Removal							
BID CODE	531-6002	104-6067	104-6017	104-6001	105-6008	550-6003	690-6051	6027-6010	7049-6161
DESCRIPTION	CONC SIDEWALKS (5")	REMOVING CONC (SAWCUT)	REMOVING CONC (DRIVEWAYS)	REMOVING CONC (PAV)	REMOVING STAB BASE AND ASPH PAV (6")	CHAIN LINK FENCE (REMOVE)	REMOVAL OF SIGNAL POLE ASSM	GROUND BOX W/ APRON (ADJUST)	REMOVE AND RELOCATE FIRE HYDRANT
ALTERNATE BID GROUP									
PLAN SET LOCATION UNIT	SY Square Yards	LF Linear Feet	SY Square Yards	SY Square Yards	SY Square Yards	LF Linear Feet	EA Each	EA Each	EA Each
	5,040.000	200.000	684.000	684.000	600.000	300.000	7.000	2.000	2.000
PROJECT TOTALS	*5,040.000*	*200.000*	*684.000*	*684.000*	*600.000*	*300.000*	*7.000*	*2.000*	*2.000*

CATEGORY OF WORK	Removal	Signing
BID CODE	7049-6116	644-6002
DESCRIPTION	REMOVING AND RELOCATING METER AND BOX	IN SM RD SN SUP&AM TY10BWG(1)SA(P-BM)
ALTERNATE BID GROUP		
PLAN SET LOCATION UNIT	EA Each	EA Each
	9.000	7.000
PROJECT TOTALS	*9.000*	*7.000*

FROM	TO	DIRECTION	DISTANCE
CP-1	CP-2	N 2° 55' 21" W	499.99'
CP-2	CP-3	N 2° 55' 57" W	500.00'
CP-3	CP-4	N 2° 55' 53" W	500.01'
CP-4	CP-5	N 2° 55' 35" W	500.00'

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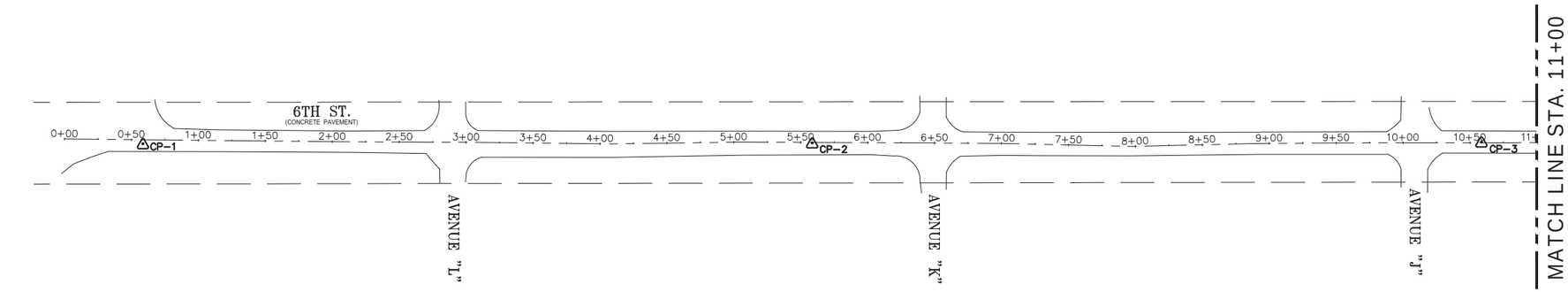
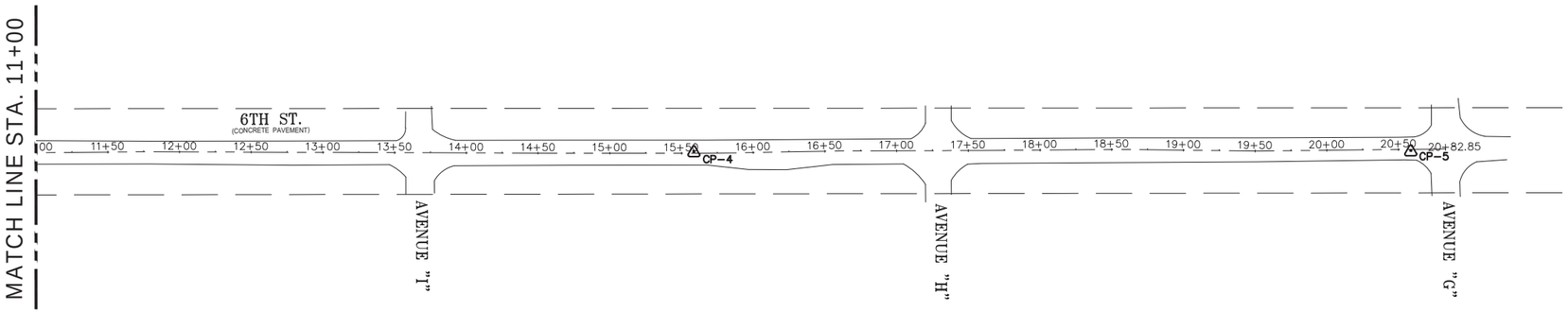
SCALE : 1" = 100'





STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
PROFESSIONAL ENGINEER

Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

4/8/2022
Date:

BENCH MARK

FEMA FLOODPLAIN RM No. 030235
ELEVATION - 29.05' (NAVD 1988)
Floodplain Reference Mark Number 030235 is a BRASS DISC Stamped 030235 on bridge at intersection of Spencer Highway and Berry Bayou located on downstream sidewalk, on northwest corner of W-bound bridge in Key Map 536X in the Sims Bayou Watershed near stream C106-00-00.

LEGEND

CP-# = CONTROL POINT
= BASE LINE
= RIGHT-OF-WAY

NOTES:

1. ALL BEARINGS AND COORDINATES SHOWN ARE BASED ON THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204) NAD 83 (2011) EPOCH 2010.00. ALL COORDINATES SHOWN ARE SURFACE AND MAY BE CONVERTED TO GRID BY DIVIDING BY A TXDOT COMBINED ADJUSTMENT FACTOR OF 1.00013.

R. W. PATRICK & ASSOCIATES, INC.
STATE OF TEXAS
REGISTERED
ALLEN MUNZ
1855
PROFESSIONAL
LAND SURVEYOR
10086400

Allen Munz, R.P.L.S.
Tex. Reg. No: 1855
Firm No. 10086400

THIS SURVEY WAS PERFORMED UNDER MY SUPERVISION AND REPRESENTS A CONTROL SURVEY PERFORMED ON THE GROUND UNDER MY SUPERVISION DATED JUNE 2020.

Texas Department of Transportation

SURVEY CONTROL
6TH STREET

REVISIONS

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		5

DATE:
FILE:

FROM	TO	DIRECTION	DISTANCE
CP–6	CP–7	N 2° 52' 37" W	520.01'
CP–7	CP–8	N 2° 52' 46" W	500.01'
CP–8	CP–9	N 2° 52' 33" W	499.98'
CP–9	CP–10	N 2° 53' 4" W	499.98'
CP–10	CP–11	N 2° 52' 23" W	500.03'

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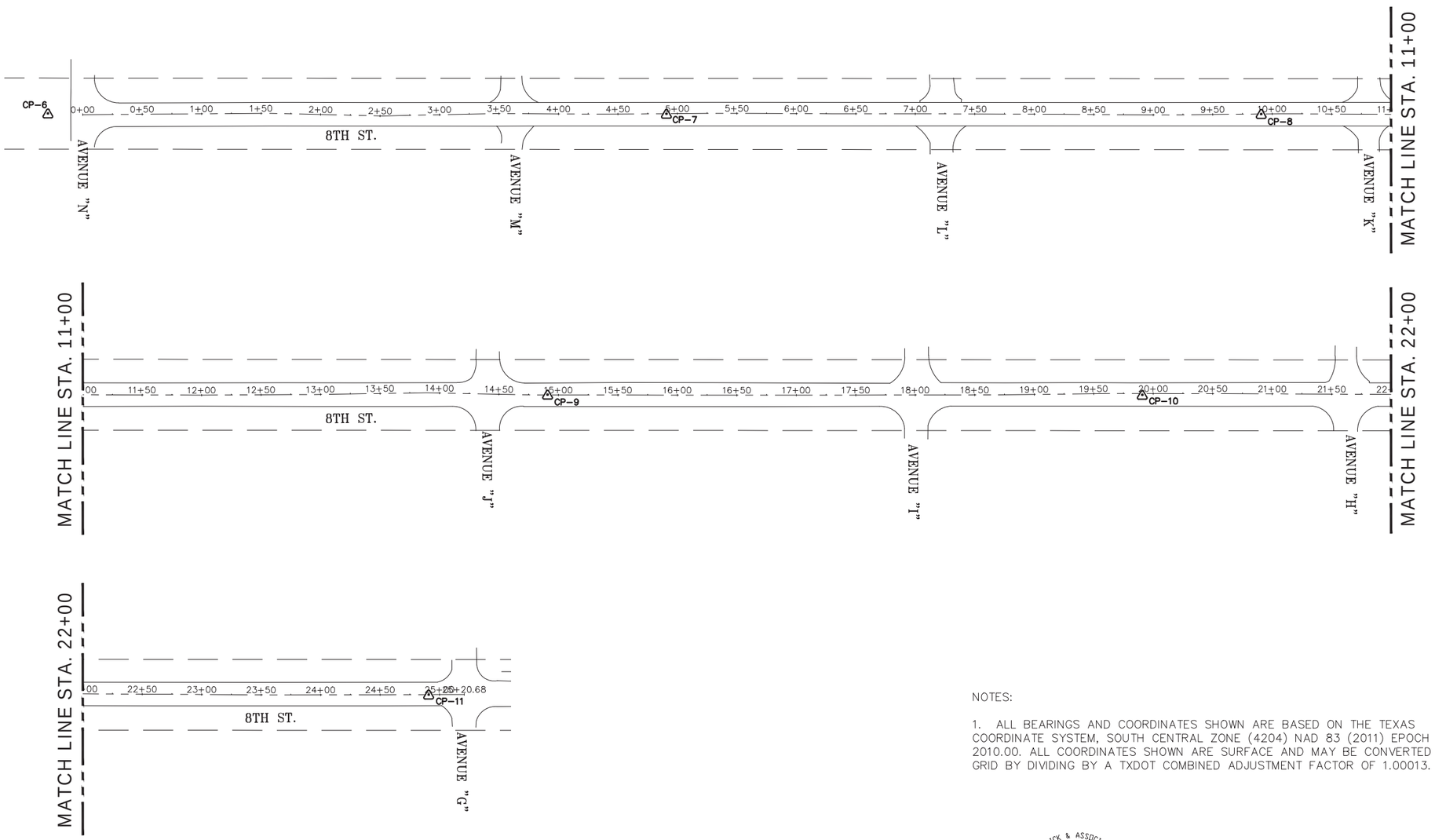
SCALE : 1" = 100'



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Texas Department of Transportation

SURVEY CONTROL
8TH STREET

REVISIONS

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

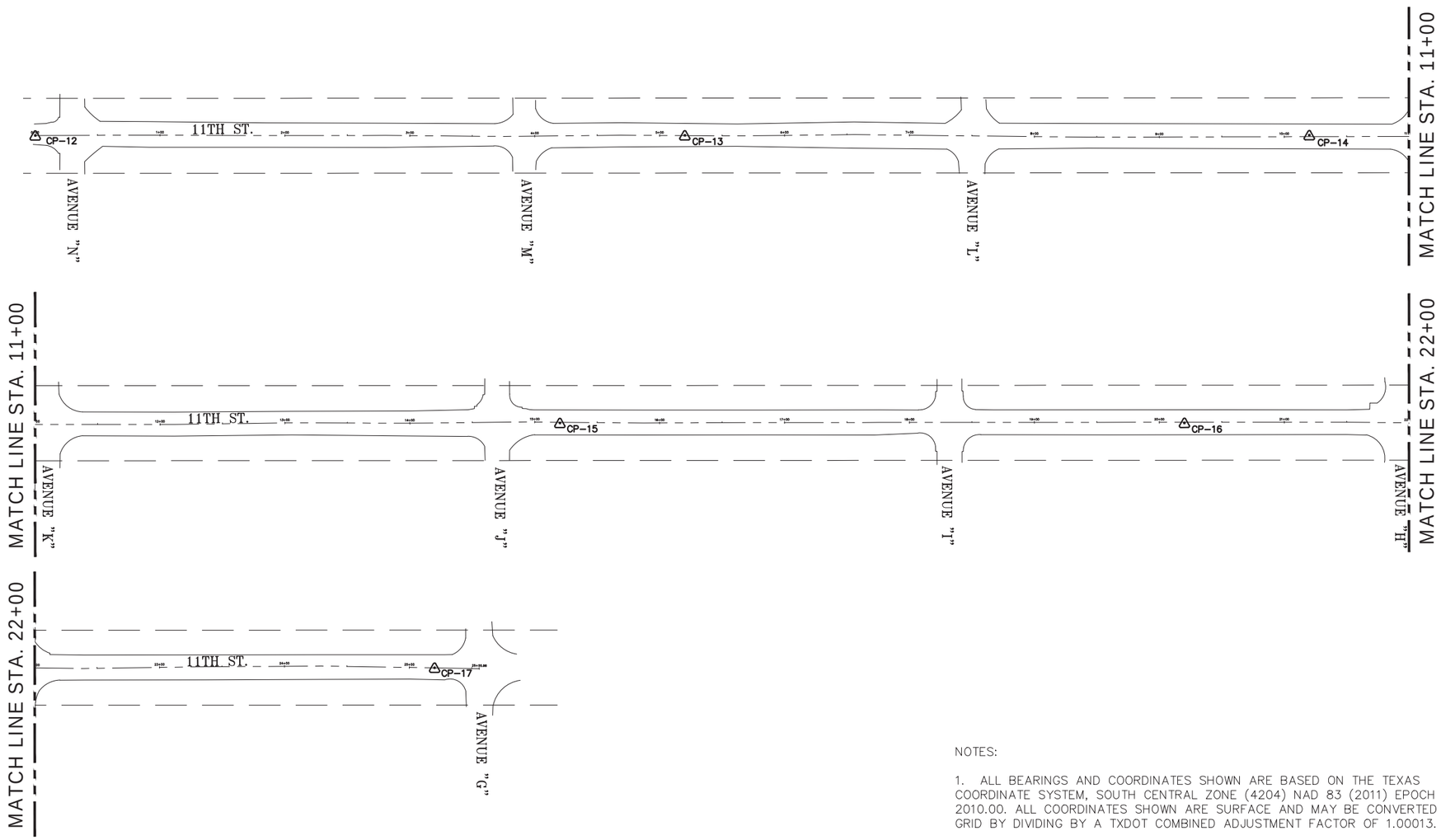
CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		6

DATE:
FILE:

FROM	TO	DIRECTION	DISTANCE
CP–12	CP–13	N 2° 51' 52" W	520.02'
CP–13	CP–14	N 2° 51' 48" W	499.96'
CP–14	CP–15	N 2° 52' 4" W	500.01'
CP–15	CP–16	N 2° 51' 46" W	500.01'
CP–16	CP–17	N 2° 52' 9" W	499.98'

0 100 200 300

SCALE : 1" = 100'



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LEGEND

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R. V. PATRICK & ASSOCIATES, INC.
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10086400

Allen Munz, R.P.L.S.
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Firm No. 10086400

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Texas Department of Transportation

SURVEY CONTROL
11TH STREET

REVISIONS

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

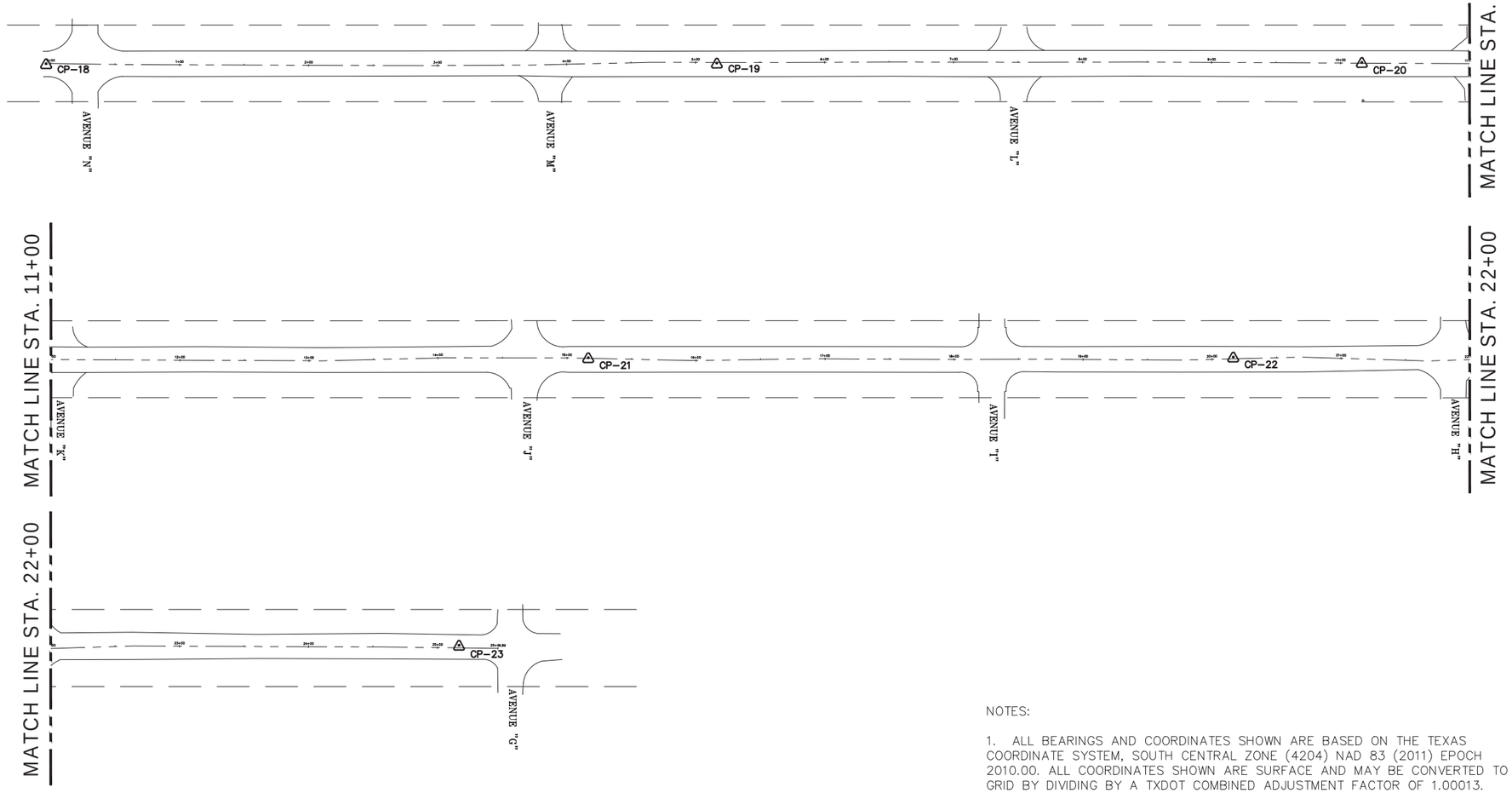
CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		7

DATE:
FILE:

FROM	TO	DIRECTION	DISTANCE
CP-18	CP-19	N 2° 51' 48" W	519.98'
CP-19	CP-20	N 2° 51' 54" W	500.02'
CP-20	CP-21	N 2° 51' 58" W	500.00'
CP-21	CP-22	N 2° 51' 56" W	500.01'
CP-22	CP-23	N 2° 52' 0" W	500.00'

0 100 200 300

SCALE : 1" = 100'



STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
PROFESSIONAL ENGINEER

Anwar Alshahristani
Tex. Reg. No: 135003
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4/8/2022
Date:

BENCH MARK

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LEGEND

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= BASE LINE

= RIGHT-OF-WAY

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Firm No. 10086400

THIS SURVEY WAS PERFORMED UNDER MY SUPERVISION AND REPRESENTS A CONTROL SURVEY PERFORMED ON THE GROUND UNDER MY SUPERVISION DATED JUNE 2020.

Texas Department of Transportation

SURVEY CONTROL
13TH STREET

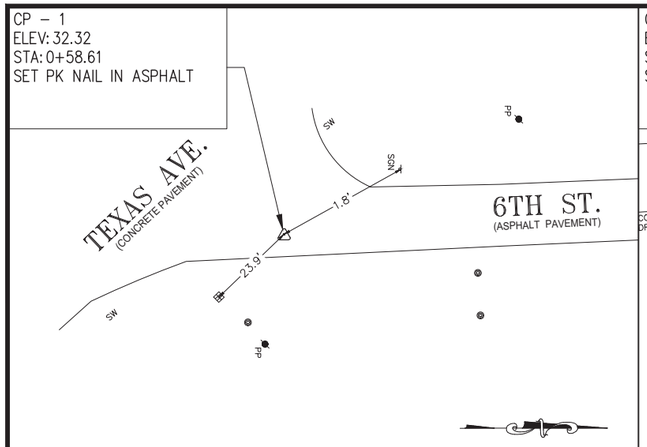
REVISIONS

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		8

DATE:
FILE:

CP – 1
ELEV: 32.32
STA: 0+58.61
SET PK NAIL IN ASPHALT

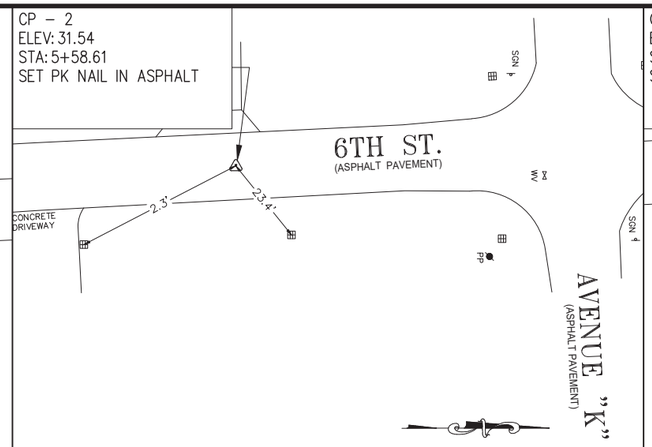


LOCATED ON CENTERLINE OF 6TH STREET AND TEXAS AVENUE RIGHT

GRID COORDINATES
N: 13803154.07 E: 3166979.69

SURFACE COORDINATES
N: 13804948.48 E: 3167391.40

CP – 2
ELEV: 31.54
STA: 5+58.61
SET PK NAIL IN ASPHALT

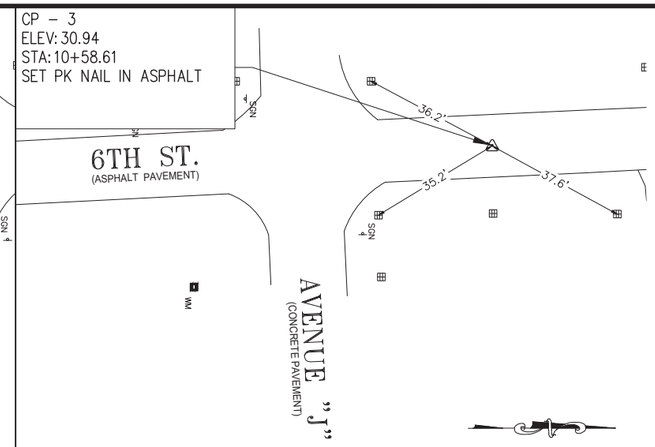


LOCATED ON CENTERLINE OF 6TH STREET, JUST SOUTH OF AVENUE K

GRID COORDINATES
N: 13803653.35 E: 3166954.21

SURFACE COORDINATES
N: 13805447.82 E: 3167365.91

CP – 3
ELEV: 30.94
STA: 10+58.61
SET PK NAIL IN ASPHALT

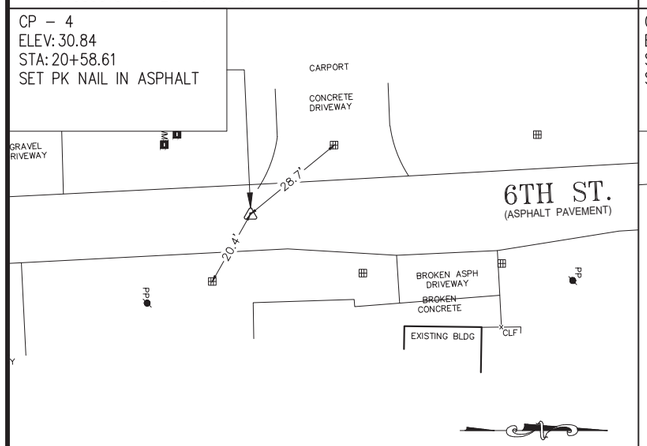


LOCATED ON CENTERLINE OF 6TH STREET JUST NORTH OF AVENUE J

GRID COORDINATES
N: 13804152.63 E: 3166928.63

SURFACE COORDINATES
N: 13805947.17 E: 3167340.33

CP – 4
ELEV: 30.84
STA: 20+58.61
SET PK NAIL IN ASPHALT

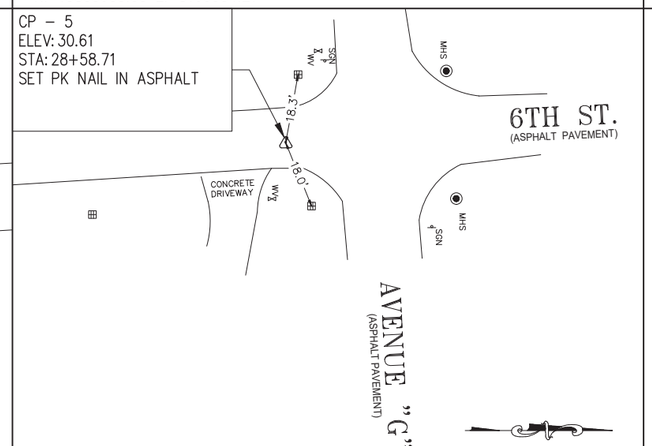


LOCATED ON CENTERLINE OF 6TH STREET NORTH OF AVENUE I AND SOUTH OF AVENUE H

GRID COORDINATES
N: 13804651.92 E: 3166903.06

SURFACE COORDINATES
N: 13806446.52 E: 3167314.76

CP – 5
ELEV: 30.61
STA: 28+58.71
SET PK NAIL IN ASPHALT



LOCATED ON CENTERLINE OF 6TH STREET JUST SOUTH OF AVENUE G

GRID COORDINATES
N: 13805151.21 E: 3166877.54

SURFACE COORDINATES
N: 13806945.88 E: 3167289.23

PROJECT BENCH MARK

FEMA FLOODPLAIN RM No. 030235
ELEVATION - 29.05' (NAVD 1988)
Floodplain Reference Mark Number 030235 is a BRASS DISC Stamped 030235 on bridge at intersection of Spencer Highway and Berry Bayou located on downstream sidewalk, on northwest corner of W-bound bridge in Key Map 536X in the Sims Bayou Watershed near stream C106-00-00.

VERIFIED TxDOT FURNISHED CONTROL POINTS

H-6

PK W/SHINER CALLED 29.44 FOUND 29.17
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,161,659.56 Y:13,810,423.45
FND. X:3,161,659.58 Y:13,810,423.65

H-7

FOUND PK NAIL CALLED 29.94 FOUND 29.68
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,162,619.794 Y:13,809,266.37
FND. X:3,162,619.88 Y:13,809,266.57

H-8

5/8" IRON ROD CALLED 29.56 FOUND 29.30
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,163,914.35 Y:13,807,871.72
FND. X:3,163,914.40 Y:13,807,871.88

GPS-2000198

5/8" IRON ROD CALLED 27.27 FOUND 26.85
NAD 83 (1993ADJ)
GRID COOR. X:3,165,638.16 Y:13,806,931.86
FND. X:3,165,638.33 Y:13,806,932.06

GPS-2000197

5/8" IRON ROD CALLED 29.36 FOUND 28.97
NAD 1983 (2003 ADJUSTMENT)
GRID COOR. X:3,164,370.40 Y:13,808,383.19
FND. X:3,164,370.43 Y:13,808,383.42

LEGEND

- CHAIN LINK FENCE
- CO = CLEAN OUT
- FH = FIRE HYDRANT
- PLMK = GAS PIPELINE MARKER
- GM = GAS METER
- GP = GUARD POST
- GUY = GUY WIRE
- = INLET
- MB = MAILBOX
- MHS = MANHOLE STORM
- MHT = MANHOLE TELEPHONE
- MHU = MANHOLE UNKNOWN
- = MANHOLE WASTE
- = POWER POLE
- = SIGN
- = SERVICE POLE
- SW = SIDEWALK
- TELB = TELEPHONE BOX
- TM = TELEPHONE MARKER
- = WOODEN FENCE
- = WROUGHT IRON FENCE
- WM = WATER METER
- WV = WATER VALVE

NOTES:
ALL GRID COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204) NAD 83 (2011) EPOCH 2010.00 AND HAVE BEEN CONVERTED TO SURFACE COORDINATES BY MULTIPLYING BY 1.00013. EACH CONTROL POINT SET IN THE CENTERLINE OF THE RIGHT–OF–WAY EVERY 500' ARE LABELED CP–1 THROUGH CP–23.

R. V. PATRICK & ASSOCIATES, INC.
STATE OF TEXAS
REGISTERED
ALLEN MUNZ
1855
PROFESSIONAL
LAND SURVEYOR
10086400

Allen Munz, R.P.L.S.
Tex. Reg. No: 1855
Firm No. 10086400

THIS SURVEY WAS PERFORMED UNDER MY SUPERVISION AND REPRESENTS A CONTROL SURVEY PERFORMED ON THE GROUND UNDER MY SUPERVISION DATED JUNE 2020.

Texas Department of Transportation

HORIZONTAL AND VERTICAL CONTROL POINTS ON 6TH STREET

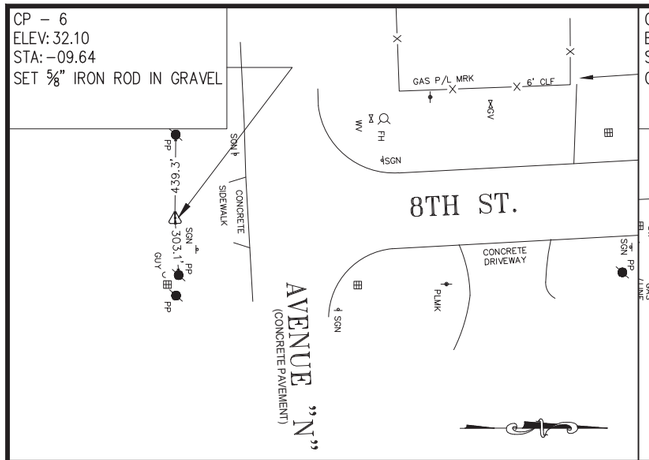
REVISIONS

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		9

DATE:
FILE:

CP – 6
ELEV: 32.10
STA: –09.64
SET 5/8" IRON ROD IN GRAVEL

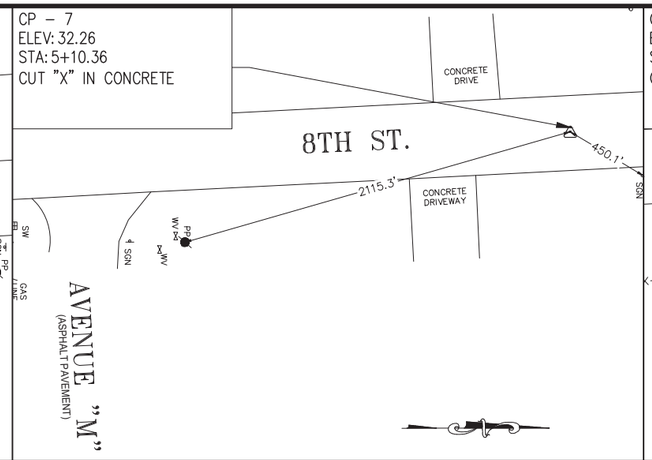


LOCATED ON CENTERLINE OF 8TH STREET SOUTH OF AVENUE N

GRID COORDINATES
N: 13802681.12 E: 3167923.38

SURFACE COORDINATES
N: 13804475.47 E: 3168335.21

CP – 7
ELEV: 32.26
STA: 5+10.36
CUT "X" IN CONCRETE

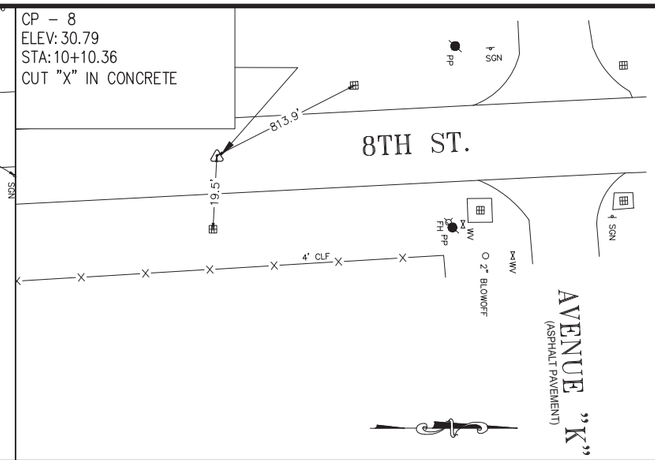


LOCATED ON CENTERLINE OF 8TH STREET NORTH OF AVENUE M

GRID COORDINATES
N: 13803200.39 E: 3167897.30

SURFACE COORDINATES
N: 13804994.81 E: 3168309.13

CP – 8
ELEV: 30.79
STA: 10+10.36
CUT "X" IN CONCRETE

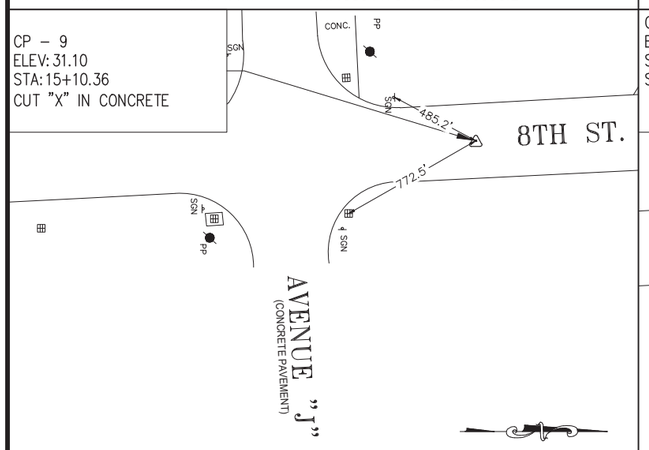


LOCATED ON CENTERLINE OF 8TH STREET SOUTH OF AVENUE K

GRID COORDINATES
N: 13803699.73 E: 3167872.19

SURFACE COORDINATES
N: 13805494.21 E: 3168284.01

CP – 9
ELEV: 31.10
STA: 15+10.36
CUT "X" IN CONCRETE

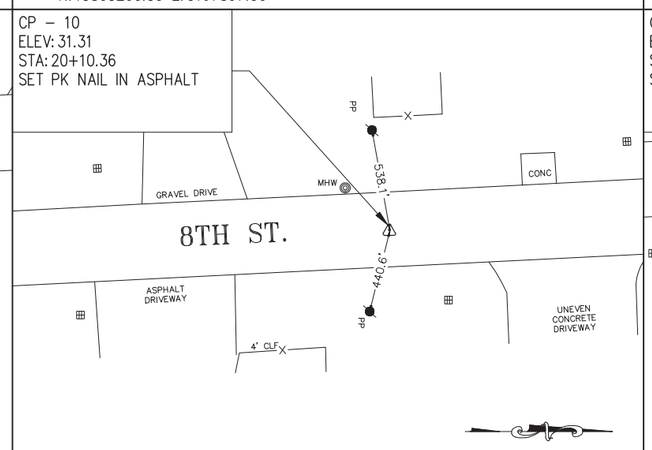


LOCATED ON CENTERLINE OF 8TH STREET NORTH OF AVENUE J

GRID COODINATES
N: 13804199.02 E: 3167847.11

SURFACE COORDINATES
N: 13805993.57 E: 3168258.93

CP – 10
ELEV: 31.31
STA: 20+10.36
SET PK NAIL IN ASPHALT

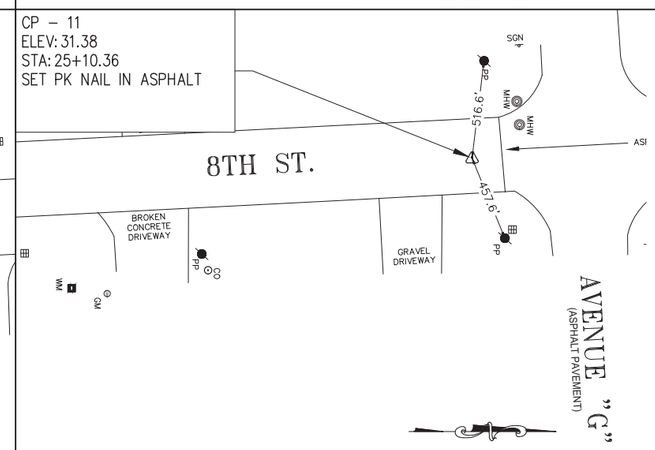


LOCATED ON CENTERLINE OF 8TH STREET NORTH OF AVENUE I AND SOUTH OF AVENUE H

GRID COORDINATES
N: 13804698.30 E: 3167897.30

SURFACE COORDINATES
N: 13806492.91 E: 3168233.77

CP – 11
ELEV: 31.38
STA: 25+10.36
SET PK NAIL IN ASPHALT



LOCATED ON CENTERLINE OF 8TH STREET SOUTH OF AVENUE G

GRID COORDINATES1
N: 13805197.64 E: 3167796.89

SURFACE COORDINATES
N: 13806992.32 E: 3168208.70

NOTES:
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STATE OF TEXAS
REGISTERED
ALLEN MUNZ
1855
PROFESSIONAL
LAND SURVEYOR
10086400

Allen Munz, R.P.L.S.
Tex. Reg. No: 1855
Firm No. 10086400

THIS SURVEY WAS PERFORMED UNDER MY SUPERVISION AND REPRESENTS A CONTROL SURVEY PERFORMED ON THE GROUND UNDER MY SUPERVISION DATED JUNE 2020.

DATE:
FILE:

PROJECT BENCH MARK

FEMA FLOODPLAIN RM No. 030235
ELEVATION - 29.05' (NAVD 1988)
Floodplain Reference Mark Number 030235 is a BRASS DISC Stamped 030235 on bridge at intersection of Spencer Highway and Berry Bayou located on downstream sidewalk, on northwest corner of W-bound bridge in Key Map 536X in the Sims Bayou Watershed near stream C106-00-00.

VERIFIED TxDOT FURNISHED CONTROL POINTS

H-6

PK W/SHINER CALLED 29.44 FOUND 29.17
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,161,659.56 Y:13,810,423.45
FND. X:3,161,659.58 Y:13,810,423.65

H-7

FOUND PK NAIL CALLED 29.94 FOUND 29.68
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,162,619.794 Y:13,809,266.37
FND. X:3,162,619.88 Y:13,809,266.57

H-8

5/8" IRON ROD CALLED 29.56 FOUND 29.30
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,163,914.35 Y:13,807,871.72
FND. X:3,163,914.40 Y:13,807,871.88

GPS-2000198

5/8" IRON ROD CALLED 27.27 FOUND 26.85
NAD 83 (1993ADJ)
GRID COOR. X:3,165,638.16 Y:13,806,931.86
FND. X:3,165,638.33 Y:13,806,932.06

GPS-2000197

5/8" IRON ROD CALLED 29.36 FOUND 28.97
NAD 1983 (2003 ADJUSTMENT)
GRID COOR. X:3,164,370.40 Y:13,808,383.19
FND. X:3,164,370.43 Y:13,808,383.42

LEGEND

—x—	= CHAIN LINK FENCE	MHS	= MANHOLE STORM
CO	= CLEAN OUT	MHT	= MANHOLE TELEPHONE
FH	= FIRE HYDRANT	MHU	= MANHOLE UNKNOWN
PLMK	= GAS PIPELINE MARKER	MW	= MANHOLE WASTE
GM	= GAS METER	PP	= POWER POLE
GP	= GUARD POST	SGN	= SIGN
GUY	= GUY WIRE	SM	= SERVICE POLE
	= INLET	SW	= SIDEWALK
MB	= MAILBOX	TELB	= TELEPHONE BOX
		TM	= TELEPHONE MARKER
		— / —	= WOODEN FENCE
		—o—	= WROUGHT IRON FENCE
		WM	= WATER METER
		WV	= WATER VALVE

Texas Department of Transportation

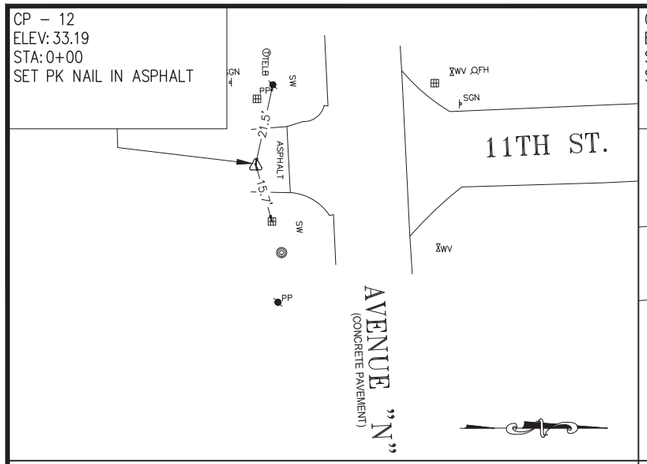
HORIZONTAL AND VERTICAL CONTROL POINTS ON 8TH STREET

REVISIONS

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

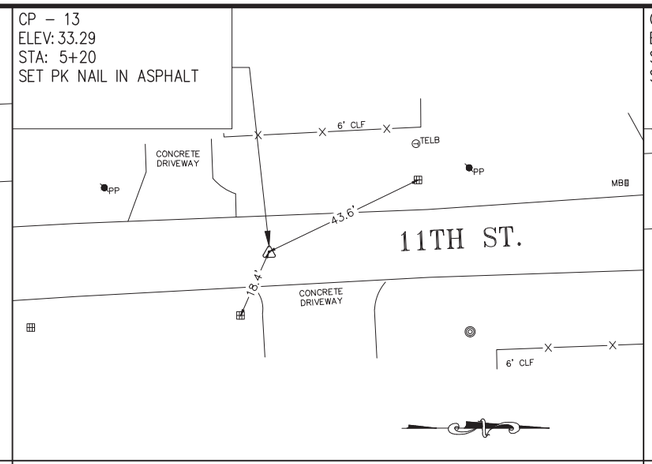
CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		10

CP – 12
ELEV: 33.19
STA: 0+00
SET PK NAIL IN ASPHALT



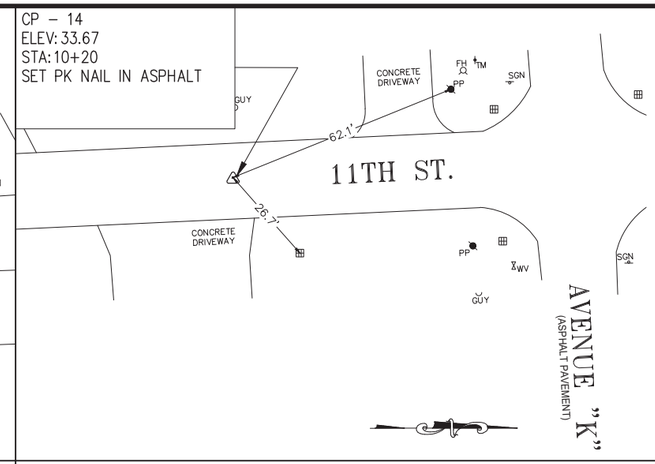
LOCATED ON CENTERLINE OF 11TH STREET SOUTH OF AVENUE N
GRID COORDINATES
N: 13802750.72 E: 3169301.32
SURFACE COORDINATES
N: 13804545.08 E: 3169713.33

CP – 13
ELEV: 33.29
STA: 5+20
SET PK NAIL IN ASPHALT



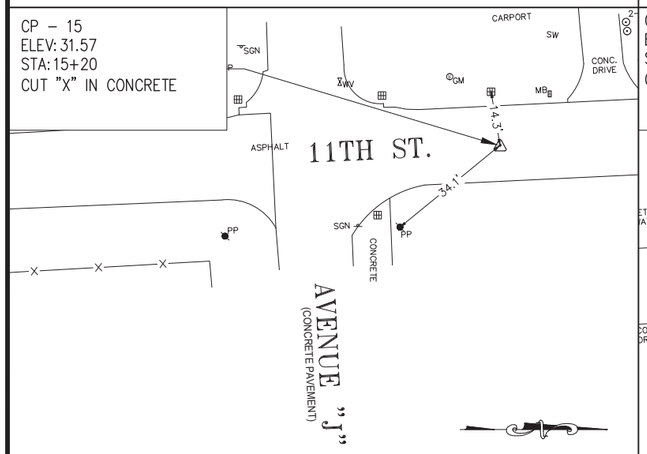
LOCATED ON CENTERLINE OF 11TH STREET NORTH OF AVENUE M
GRID COORDINATES
N: 13803270.02 E: 3169275.33
SURFACE COORDINATES
N: 13805064.45 E: 3169687.34

CP – 14
ELEV: 33.67
STA: 10+20
SET PK NAIL IN ASPHALT



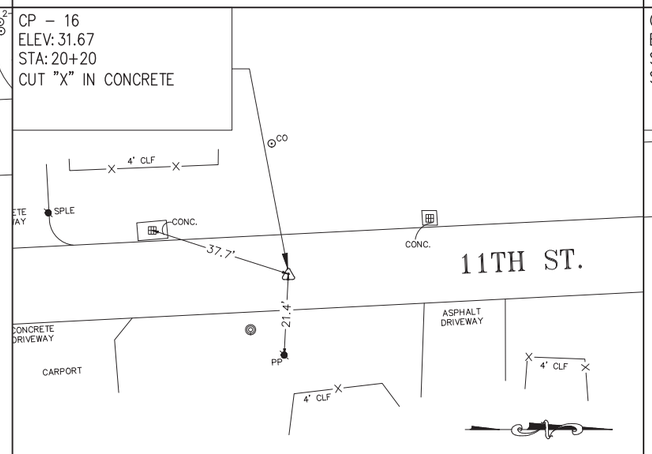
LOCATED ON CENTERLINE OF 11TH STREET SOUTH OF AVENUE K
GRID COORDINATES
N: 13803769.29 E: 3169250.37
SURFACE COORDINATES
N: 13805563.78 E: 3169662.37

CP – 15
ELEV: 31.57
STA: 15+20
CUT "X" IN CONCRETE



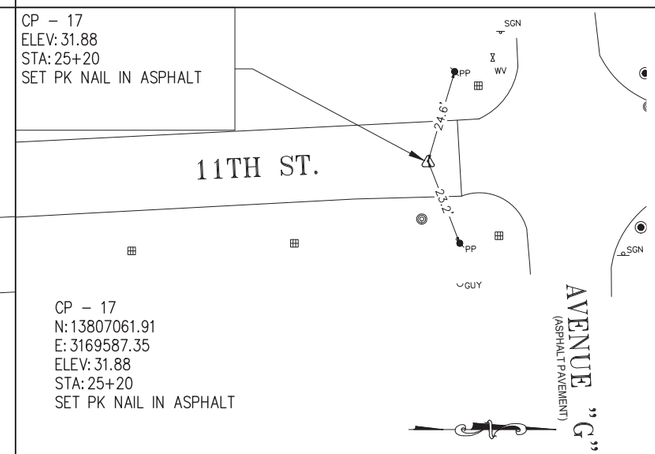
LOCATED ON CENTERLINE OF 11TH STREET NORTH OF AVENUE J
GRID COORDINATES
N: 13804268.62 E: 3169225.35
SURFACE COORDINATES
N: 13806063.17 E: 3169637.35

CP – 16
ELEV: 31.67
STA: 20+20
CUT "X" IN CONCRETE



LOCATED ON CENTERLINE OF 11TH STREET NORTH OF AVENUE I AND SOUTH OF AVENUE H
GRID COORDINATES
N: 13804767.94 E: 3169200.38
SURFACE COORDINATES
N: 13806562.56 E: 3169612.38

CP – 17
ELEV: 31.88
STA: 25+20
SET PK NAIL IN ASPHALT



CP – 17
N: 13807061.91
E: 3169587.35
ELEV: 31.88
STA: 25+20
SET PK NAIL IN ASPHALT

LOCATED ON CENTERLINE OF 11TH STREET SOUTH OF AVENUE G
GRID COORDINATES
N: 13805267.23 E: 3169175.36
SURFACE COORDINATES
N: 13807061.91 E: 3169587.35

NOTES:
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ALLEN MUNZ
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Allen Munz, R.P.L.S.
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Firm No. 10086400

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PROJECT BENCH MARK

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ELEVATION - 29.05' (NAVD 1988)
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VERIFIED TxDOT FURNISHED CONTROL POINTS

H-6

PK W/SHINER CALLED 29.44 FOUND 29.17
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,161,659.56 Y:13,810,423.45
FND. X:3,161,659.58 Y:13,810,423.65

H-7

FOUND PK NAIL CALLED 29.94 FOUND 29.68
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,162,619.794 Y:13,809,266.37
FND. X:3,162,619.88 Y:13,809,266.57

H-8

5/8" IRON ROD CALLED 29.56 FOUND 29.30
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,163,914.35 Y:13,807,871.72
FND. X:3,163,914.40 Y:13,807,871.88

GPS-2000198

5/8" IRON ROD CALLED 27.27 FOUND 26.85
NAD 83 (1993ADJ)
GRID COOR. X:3,165,638.16 Y:13,806,931.86
FND. X:3,165,638.33 Y:13,806,932.06

GPS-2000197

5/8" IRON ROD CALLED 29.36 FOUND 28.97
NAD 1983 (2003 ADJUSTMENT)
GRID COOR. X:3,164,370.40 Y:13,808,383.19
FND. X:3,164,370.43 Y:13,808,383.42

LEGEND

—x—	= CHAIN LINK FENCE		= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
PLMK	= GAS PIPELINE MARKER		= SERVICE POLE
GM	= GAS METER	SW	= SIDEWALK
GP	= GUARD POST	TELB	= TELEPHONE BOX
GUY	= GUY WIRE	TM	= TELEPHONE MARKER
	= INLET	— / —	= WOODEN FENCE
MB	= MAILBOX	—o—	= WROUGHT IRON FENCE
MHS	= MANHOLE STORM	WM	= WATER METER
MHT	= MANHOLE TELEPHONE	WV	= WATER VALVE
MHU	= MANHOLE UNKNOWN		

Texas Department of Transportation

HORIZONTAL AND VERTICAL CONTROL POINTS ON 11TH STREET

REVISIONS

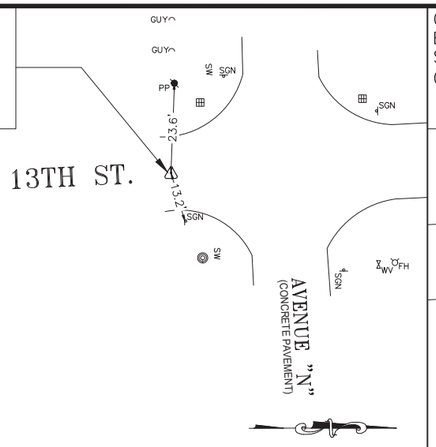
DATE:
FILE:

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR

DIST	COUNTY	SHEET NO.
HOU	HARRIS	11

CP – 18
ELEV: 33.55
STA: –03.60
SET PK NAIL IN ASPHALT

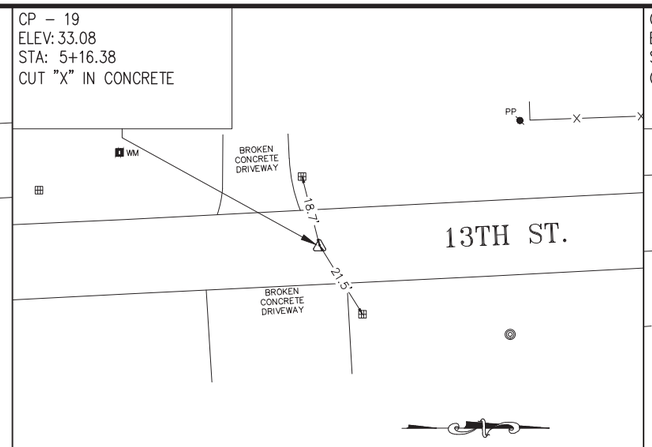


LOCATED ON CENTERLINE OF 13TH STREET SOUTH OF AVENUE N

GRID COORDINATES
N: 13802797.09 E: 3170219.57

SURFACE COORDINATES
N: 13804591.45 E: 3170631.70

CP – 19
ELEV: 33.08
STA: 5+16.38
CUT "X" IN CONCRETE

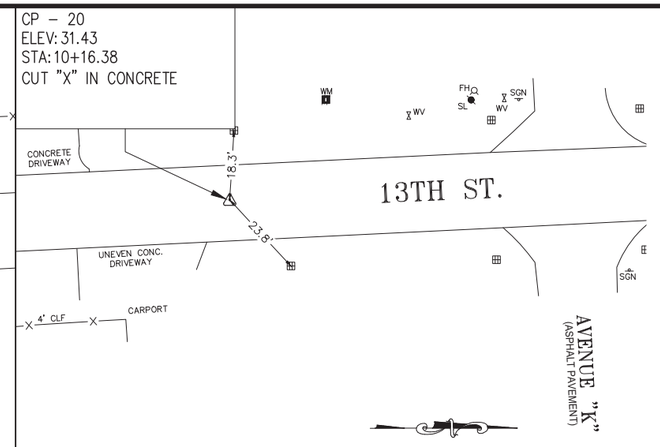


LOCATED ON CENTERLINE OF 13TH STREET NORTH OF AVENUE M

GRID COORDINATES
N: 13803316.35 E: 3170193.60

SURFACE COORDINATES
N: 13805110.78 E: 3170605.72

CP – 20
ELEV: 31.43
STA: 10+16.38
CUT "X" IN CONCRETE

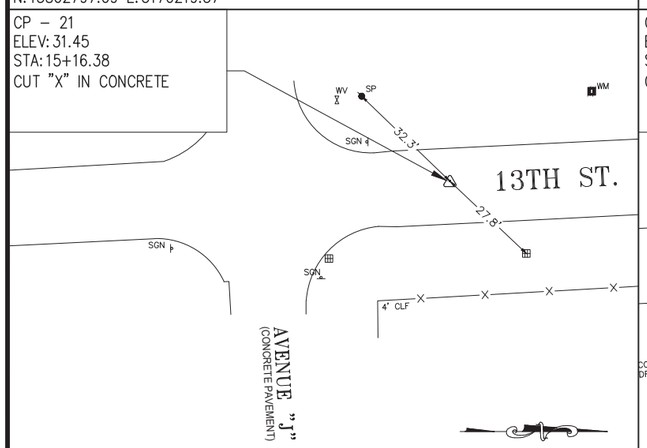


LOCATED ON CENTERLINE OF 13TH STREET SOUTH OF AVENUE K

GRID COORDINATES
N: 13803815.67 E: 3170168.61

SURFACE COORDINATES
N: 13805610.17 E: 3170580.73

CP – 21
ELEV: 31.45
STA: 15+16.38
CUT "X" IN CONCRETE

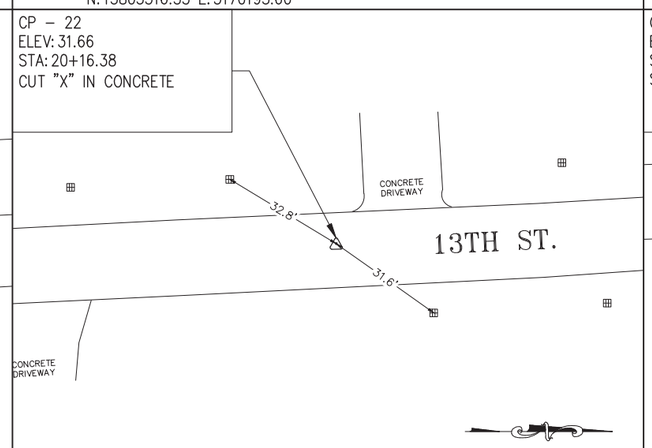


LOCATED ON CENTERLINE OF 13TH STREET NORTH OF AVENUE J

GRID COORDINATES
N: 13804314.98 E: 3170143.61

SURFACE COORDINATES
N: 13806109.54 E: 3170555.73

CP – 22
ELEV: 31.66
STA: 20+16.38
CUT "X" IN CONCRETE

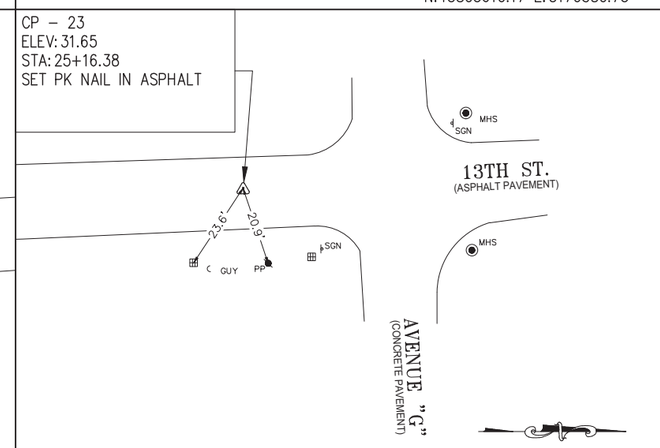


LOCATED ON CENTERLINE OF 13TH STREET NORTH OF AVENUE I AND SOUTH OF AVENUE H

GRID COORDINATES
N: 13804814.29 E: 3170118.62

SURFACE COORDINATES
N: 13806608.92 E: 3170530.73

CP – 23
ELEV: 31.65
STA: 25+16.38
SET PK NAIL IN ASPHALT



LOCATED ON CENTERLINE OF 13TH STREET SOUTH OF AVENUE G

GRID COORDINATES
N: 13805313.61 E: 3170093.62

SURFACE COORDINAATES
N: 13807108.30 E: 3170505.73

NOTES:
ALL GRID COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204) NAD 83 (2011) EPOCH 2010.00 AND HAVE BEEN CONVERTED TO SURFACE COORDINATES BY MULTIPLYING BY 1.00013. EACH CONTROL POINT SET IN THE CENTERLINE OF THE RIGHT–OF–WAY EVERY 500' ARE LABELED CP–1 THROUGH CP–23.

R. W. PATRICK & ASSOCIATES, INC
STATE OF TEXAS
REGISTERED
ALLEN MUNZ
1855
PROFESSIONAL
LAND SURVEYOR
100864000

Allen Munz, R.P.L.S.
Tex. Reg. No: 1855
Firm No. 10086400

THIS SURVEY WAS PERFORMED UNDER MY SUPERVISION AND REPRESENTS A CONTROL SURVEY PERFORMED ON THE GROUND UNDER MY SUPERVISION DATED JUNE 2020.

DATE:
FILE:

PROJECT BENCH MARK

FEMA FLOODPLAIN RM No. 030235
ELEVATION - 29.05' (NAVD 1988)
Floodplain Reference Mark Number 030235 is a BRASS DISC Stamped 030235 on bridge at intersection of Spencer Highway and Berry Bayou located on downstream sidewalk, on northwest corner of W-bound bridge in Key Map 536X in the Sims Bayou Watershed near stream C106-00-00.

VERIFIED TxDOT FURNISHED CONTROL POINTS

H-6

PK W/SHINER CALLED 29.44 FOUND 29.17
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,161,659.56 Y:13,810,423.45
FND. X:3,161,659.58 Y:13,810,423.65

H-7

FOUND PK NAIL CALLED 29.94 FOUND 29.68
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,162,619.794 Y:13,809,266.37
FND. X:3,162,619.88 Y:13,809,266.57

H-8

5/8" IRON ROD CALLED 29.56 FOUND 29.30
(2001 ADJ.)(NAVD 1988)
GRID COOR. X:3,163,914.35 Y:13,807,871.72
FND. X:3,163,914.40 Y:13,807,871.88

GPS-2000198

5/8" IRON ROD CALLED 27.27 FOUND 26.85
NAD 83 (1993ADJ)
GRID COOR. X:3,165,638.16 Y:13,806,931.86
FND. X:3,165,638.33 Y:13,806,932.06

GPS-2000197

5/8" IRON ROD CALLED 29.36 FOUND 28.97
NAD 1983 (2003 ADJUSTMENT)
GRID COOR. X:3,164,370.40 Y:13,808,383.19
FND. X:3,164,370.43 Y:13,808,383.42

LEGEND

—x—	= CHAIN LINK FENCE		= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
PLMK	= GAS PIPELINE MARKER		= SERVICE POLE
GM	= GAS METER	SW	= SIDEWALK
GP	= GUARD POST	TELB	= TELEPHONE BOX
GUY	= GUY WIRE	TM	= TELEPHONE MARKER
	= INLET	—/—	= WOODEN FENCE
MB	= MAILBOX	—o—	= WROUGHT IRON FENCE
MHS	= MANHOLE STORM	WM	= WATER METER
MHT	= MANHOLE TELEPHONE	WV	= WATER VALVE
MHU	= MANHOLE UNKNOWN		

Texas Department of Transportation

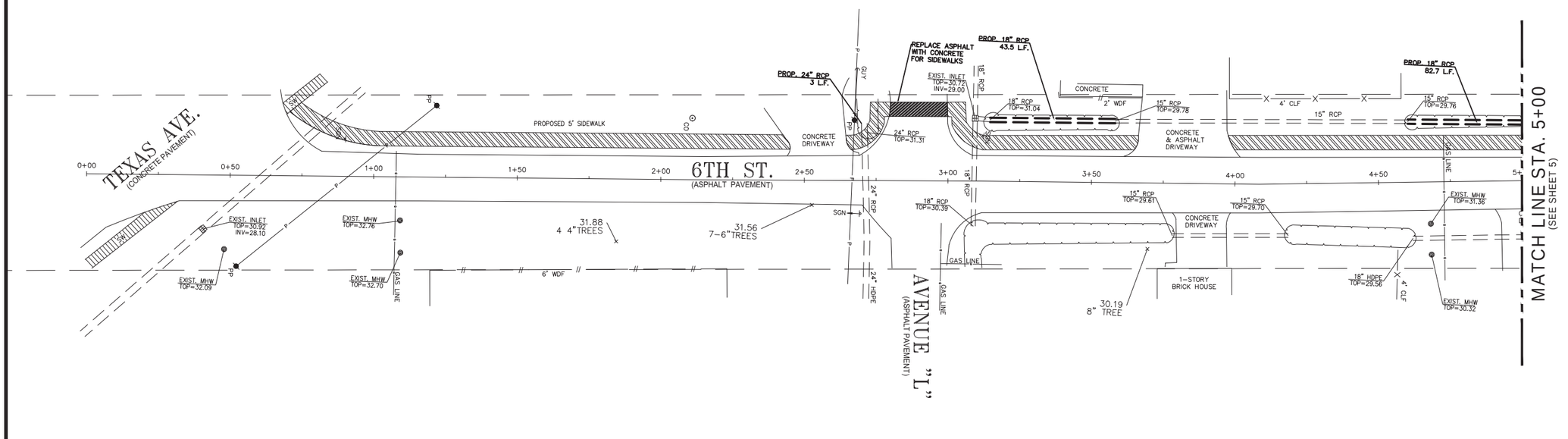
HORIZONTAL AND VERTICAL CONTROL POINTS ON 13TH STREET

REVISIONS

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR

DIST	COUNTY	SHEET NO.
HOU	HARRIS	12



0' 40' 80' 120'

SCALE : 1" = 40'

STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
PROFESSIONAL ENGINEER

Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

4/8/2022
Date:

BENCH MARK

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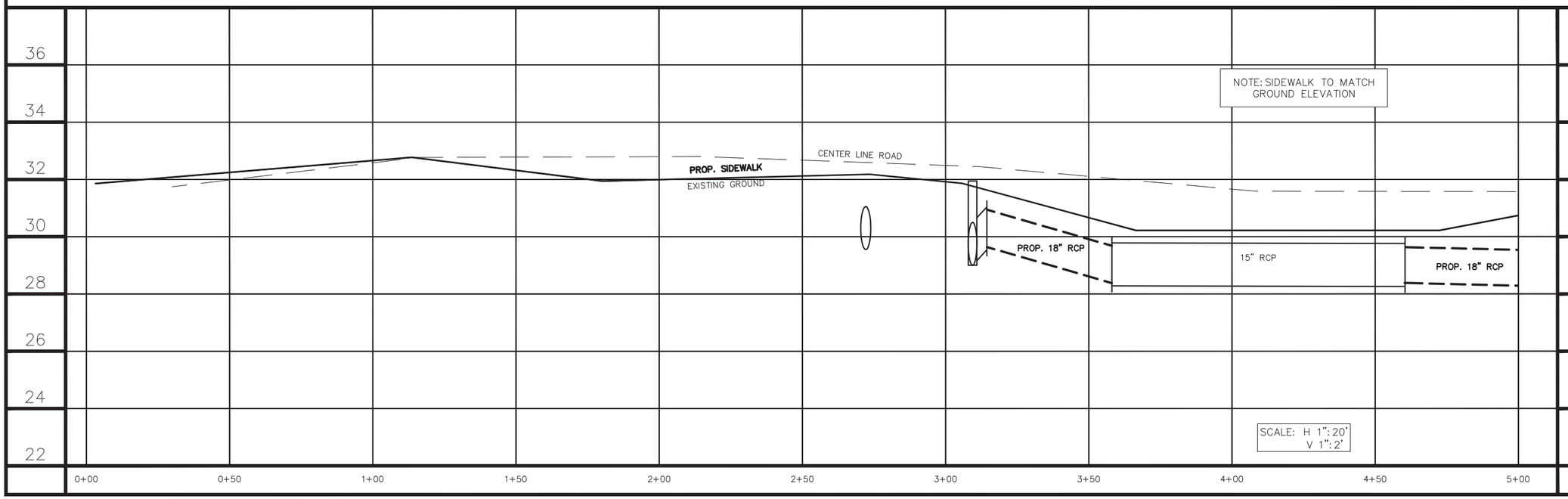

LEGEND

—x—	= CHAIN LINK FENCE		= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
PLMK	= GAS PIPELINE MARKER		= SERVICE POLE
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GUY	= GUY WIRE	TM	= TELEPHONE MARKER
	= INLET	— // —	= WOODEN FENCE
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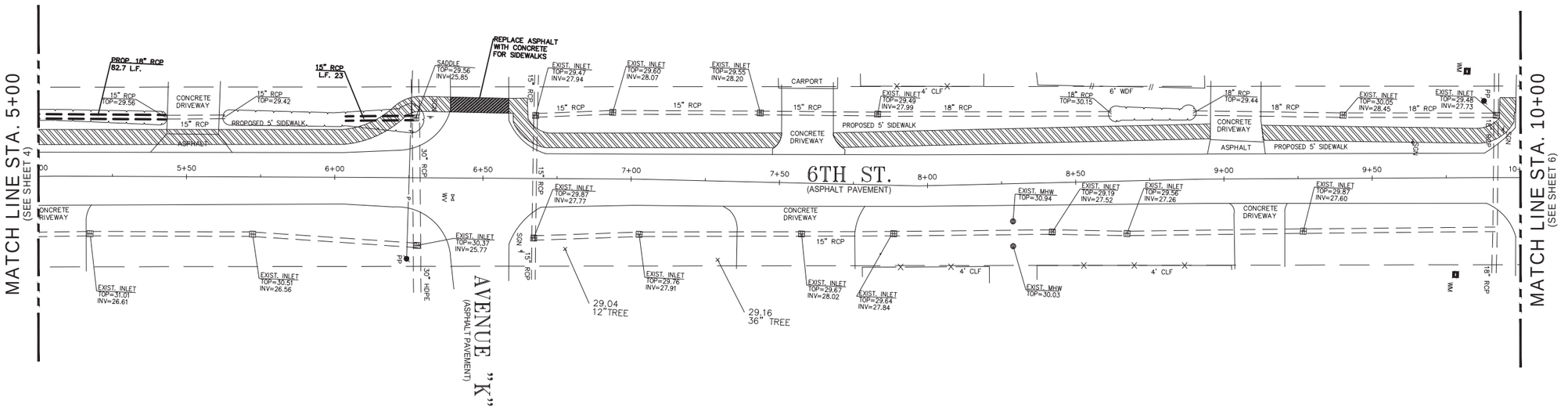
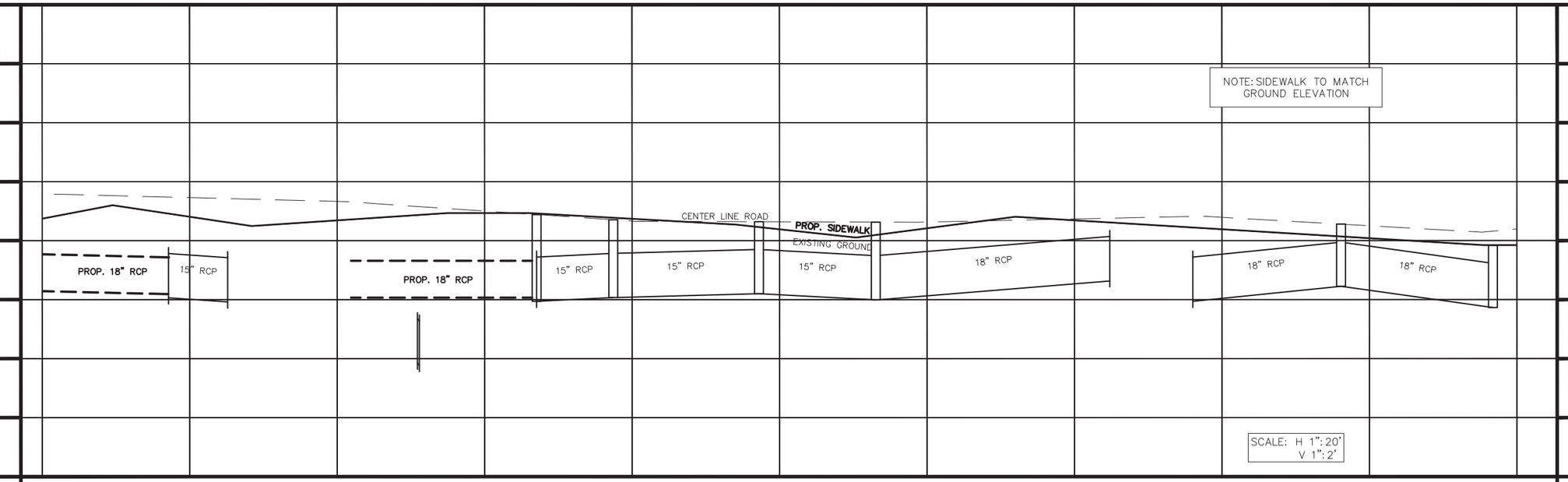
Texas Department of Transportation

SOUTH HOUSTON SIDEWALK PROJECT
6th STREET PLAN AND PROFILE

E-11-17

©TxDOT JULY 2019	DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT
REVISIONS	CONT	SECT	JOB	HIGHWAY
	0917	72	397	VAR
	DIST	COUNTY		SHEET NO.
	HOU	HARRIS		13





0' 40' 80' 120'

SCALE : 1" = 40'

STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
PROFESSIONAL ENGINEER

Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

4/8/2022
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LEGEND

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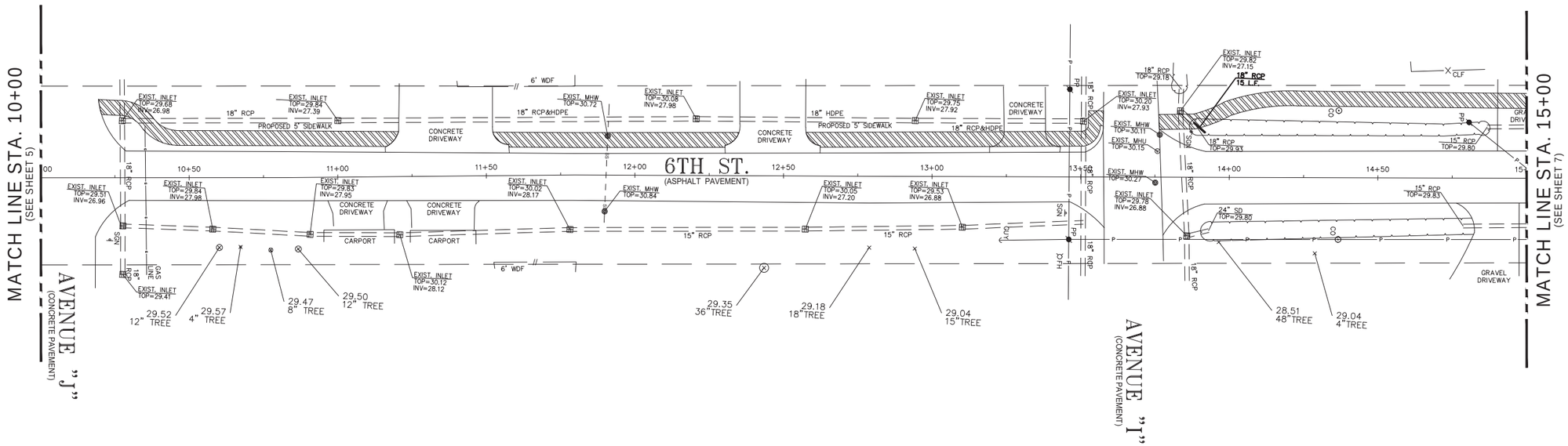
Texas Department of Transportation

SOUTH HOUSTON SIDEWALK PROJECT
6th STREET PLAN AND PROFILE
E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		14



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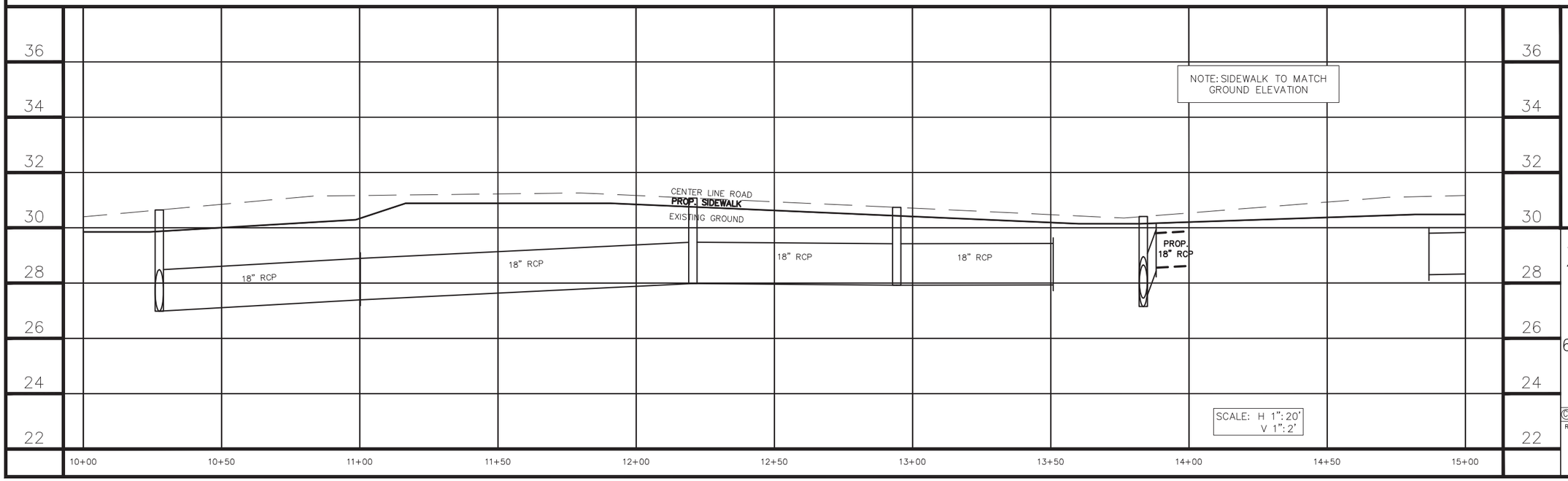

LEGEND

—x—	= CHAIN LINK FENCE		= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
PLMK	= GAS PIPELINE MARKER		= SERVICE POLE
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Texas Department of Transportation

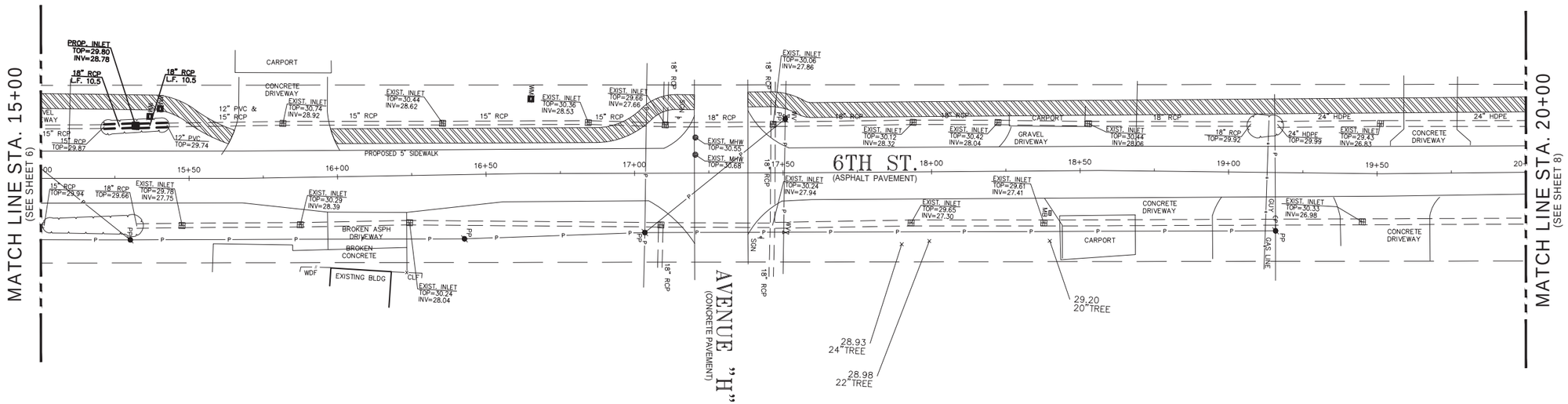
SOUTH HOUSTON SIDEWALK PROJECT
6th STREET PLAN AND PROFILE

E-11-17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		15



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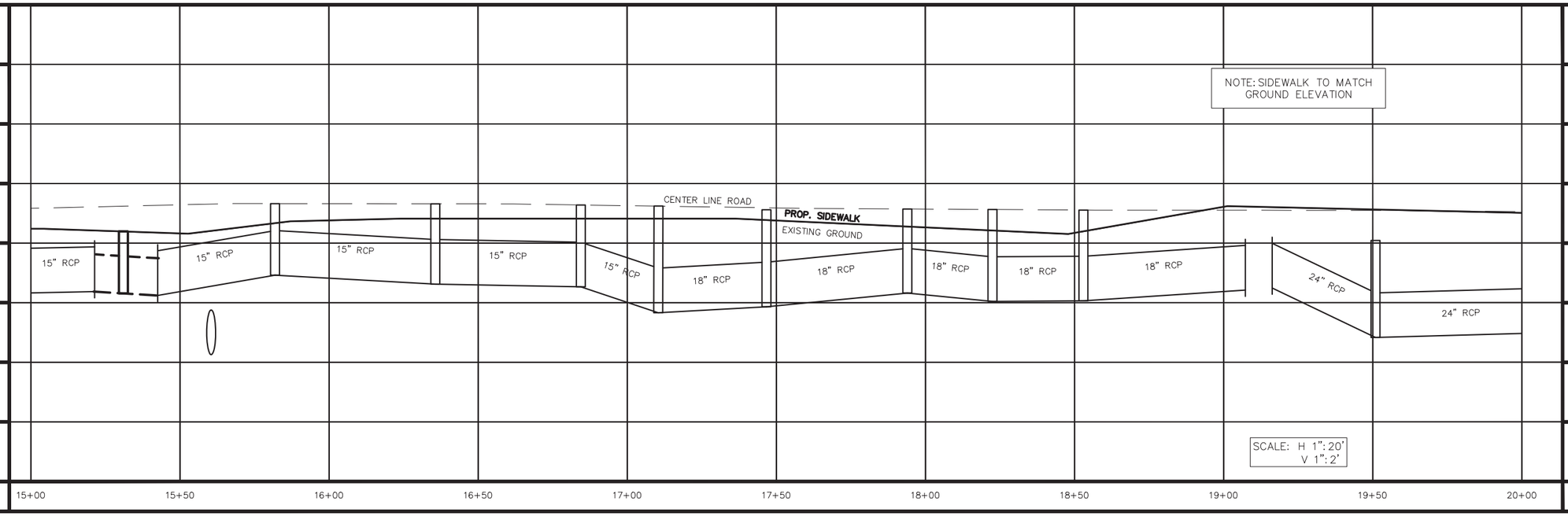

LEGEND

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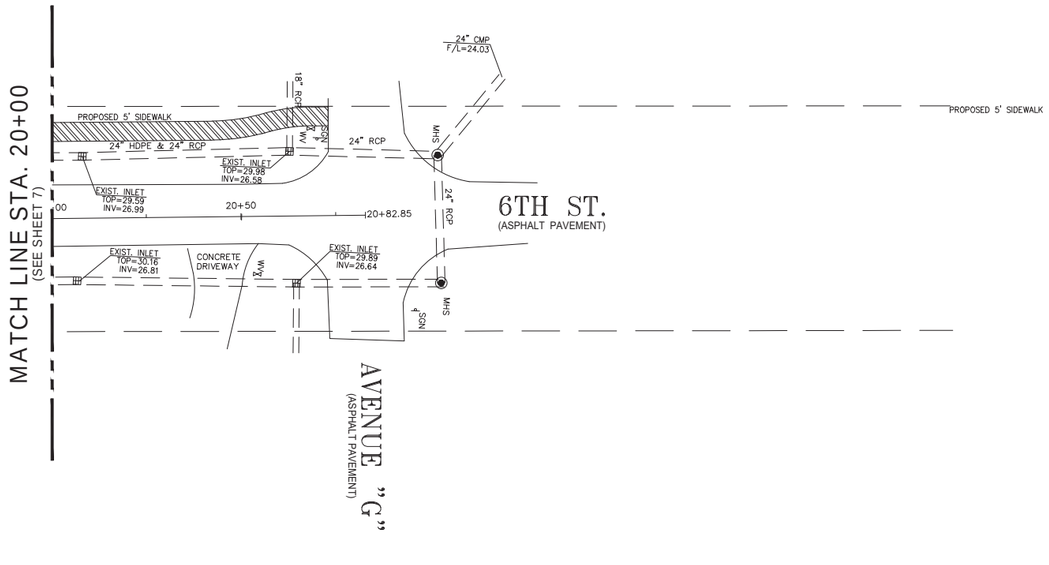
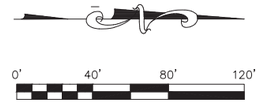
Texas Department of Transportation

SOUTH HOUSTON SIDEWALK PROJECT
6th STREET PLAN AND PROFILE

E–11–17

©TxDOT JULY 2019	DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT	
REVISIONS	CONT	SECT	JOB	HIGHWAY	
	0917	72	397	VAR	
	DIST	COUNTY		SHEET NO.	
	HOU	HARRIS		16	





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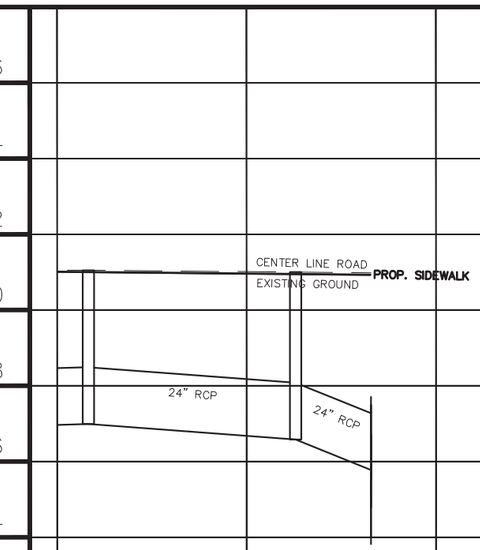

NOTE: SIDEWALK TO MATCH GROUND ELEVATION

SCALE: H 1": 20'
V 1": 2'

LEGEND

—x— = CHAIN LINK FENCE	= MANHOLE WASTE
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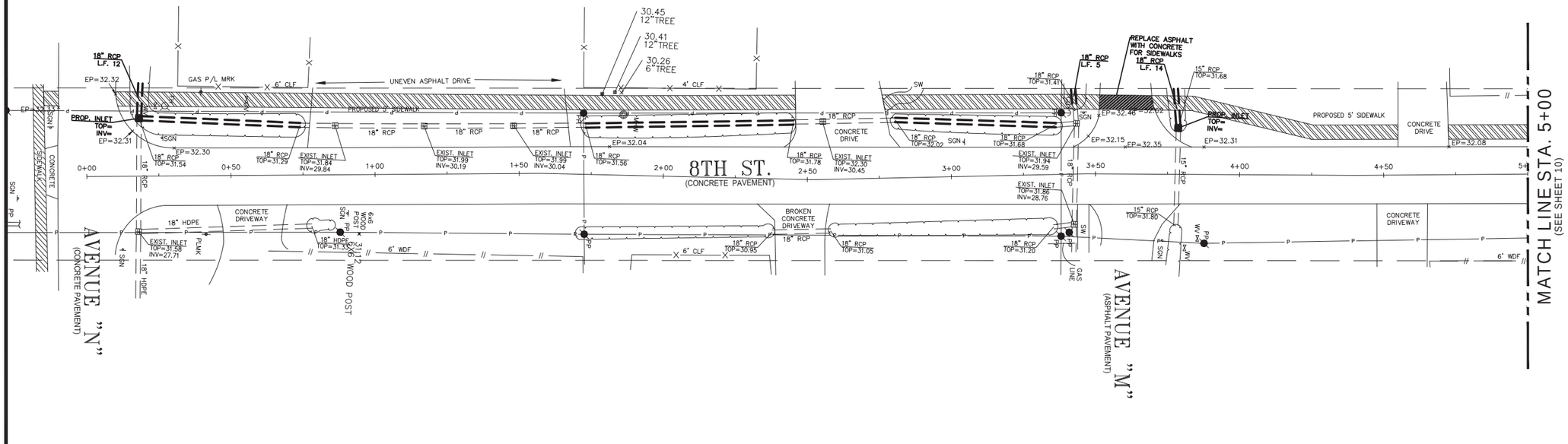
Texas Department of Transportation

SOUTH HOUSTON SIDEWALK PROJECT
6TH STREET PLAN AND PROFILE
E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		17



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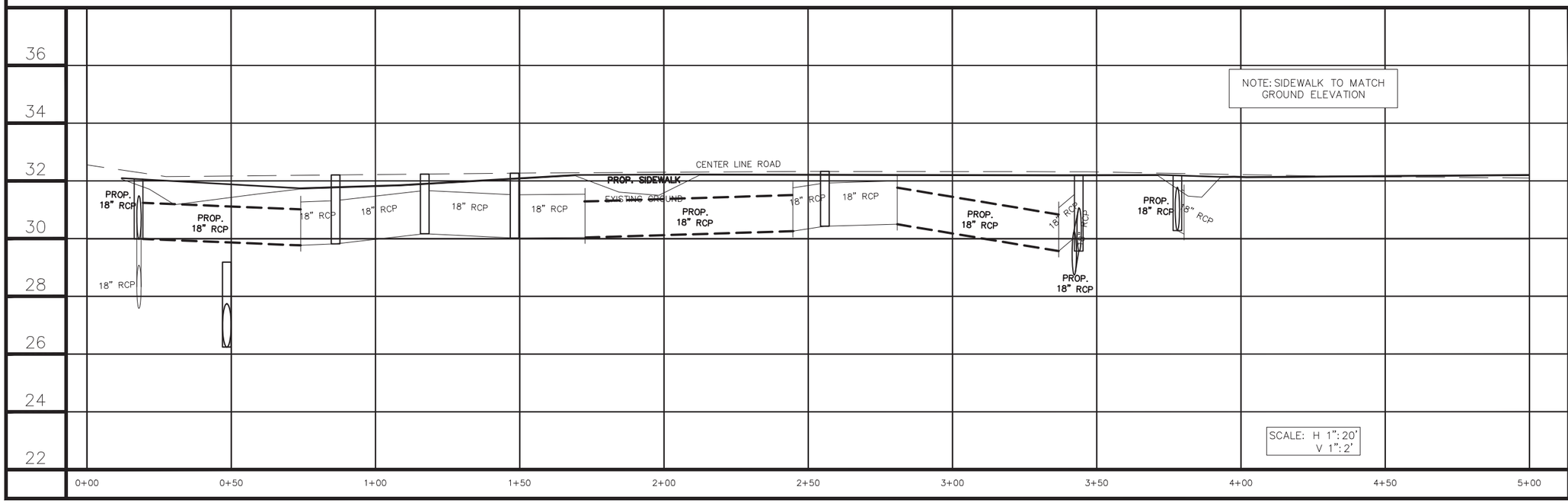

LEGEND

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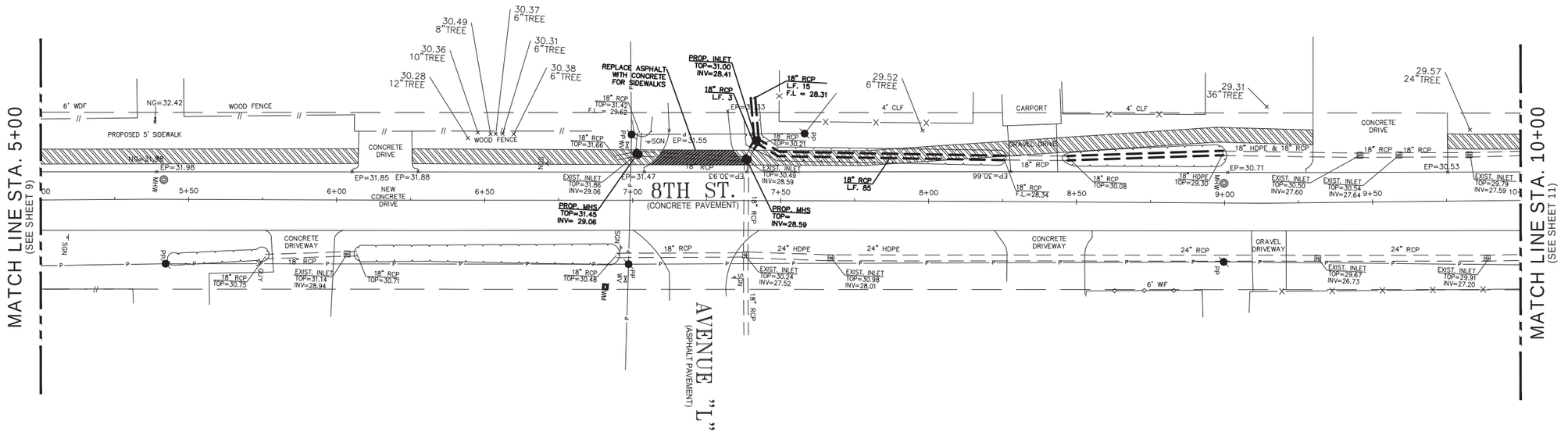
Texas Department of Transportation

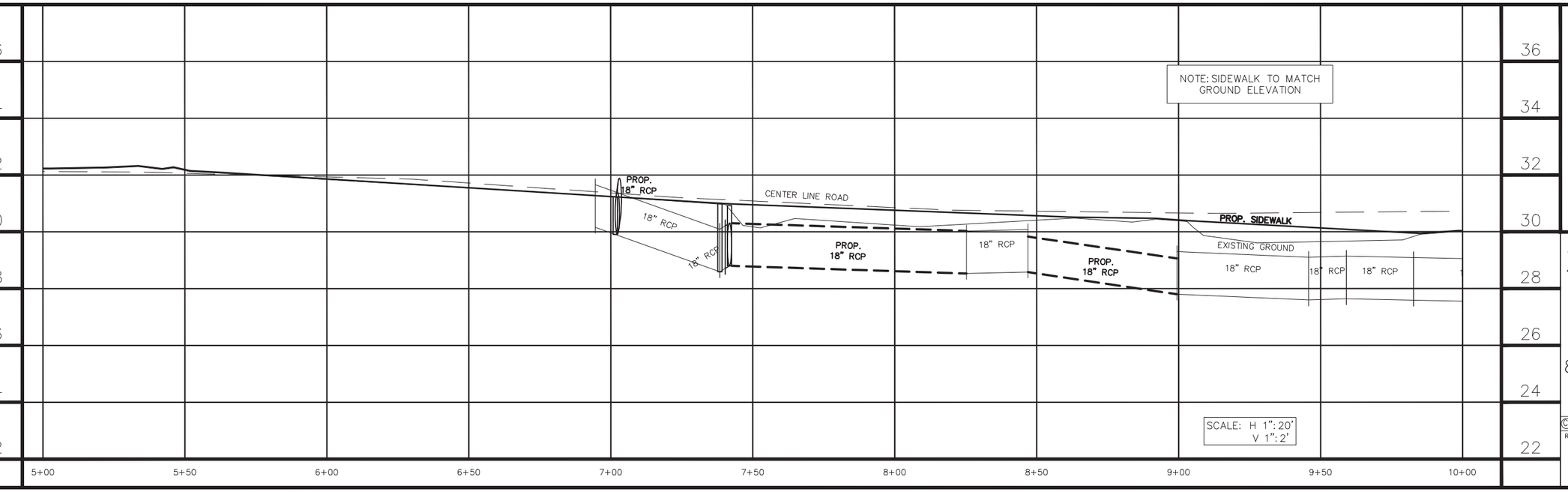
SOUTH HOUSTON SIDEWALK PROJECT
8TH STREET PLAN AND PROFILE
E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		18





0' 40' 80' 120'

SCALE : 1" = 40'

STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
PROFESSIONAL ENGINEER

Anwar Alshahristani
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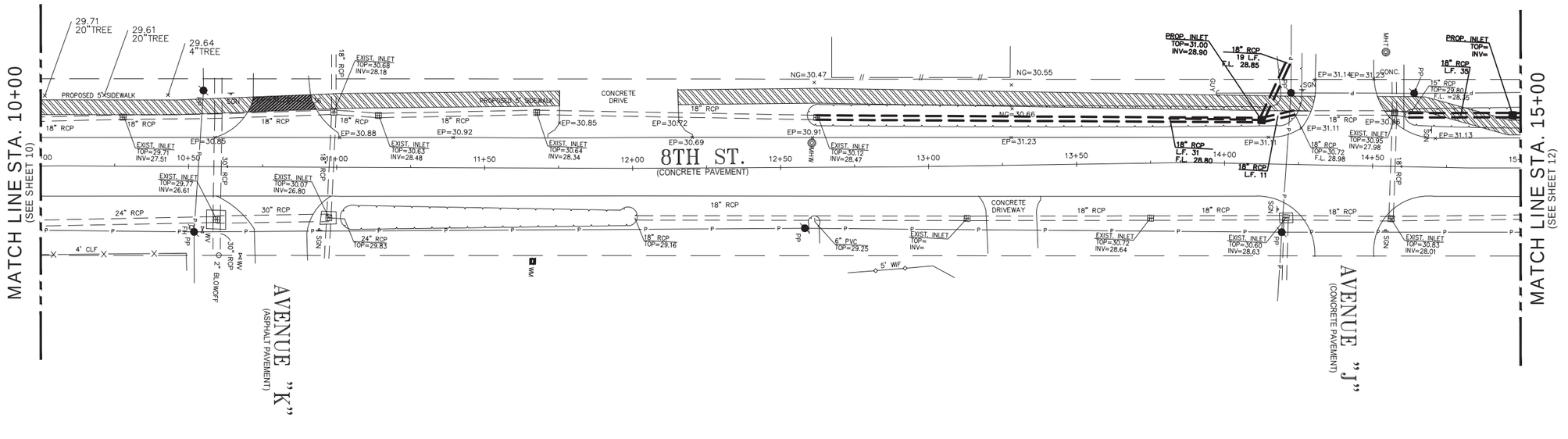
Texas Department of Transportation

SOUTH HOUSTON SIDEWALK PROJECT
8TH STREET PLAN AND PROFILE
E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		19



0' 40' 80' 120'

SCALE : 1" = 40'

STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
PROFESSIONAL ENGINEER

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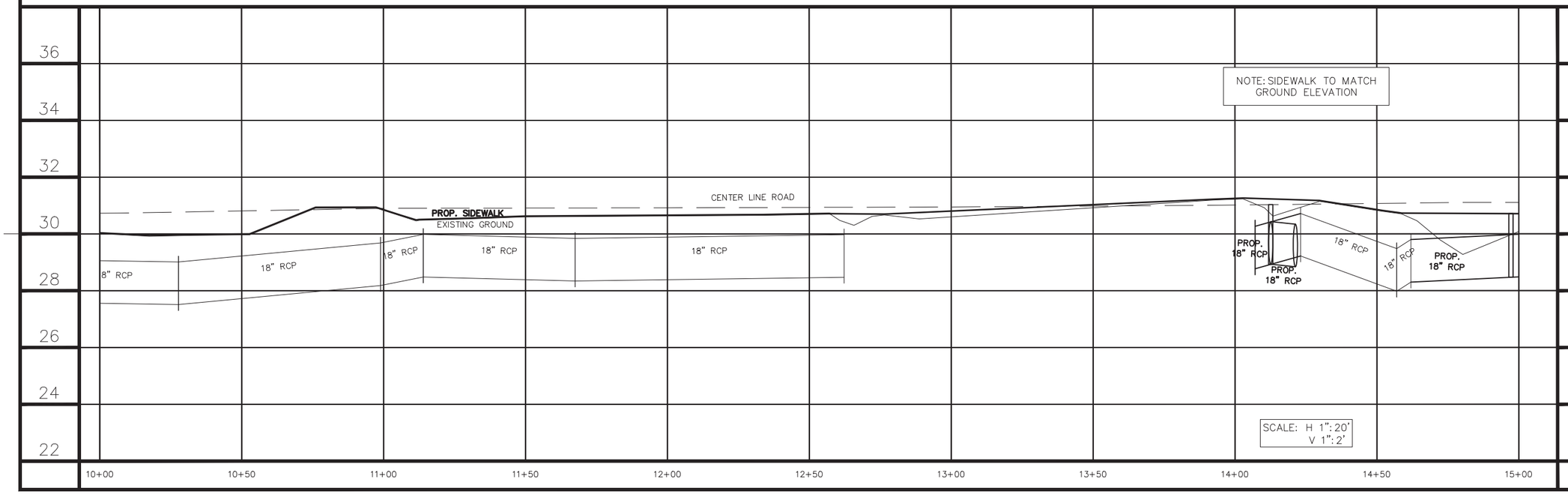

LEGEND

—x—	= CHAIN LINK FENCE		= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
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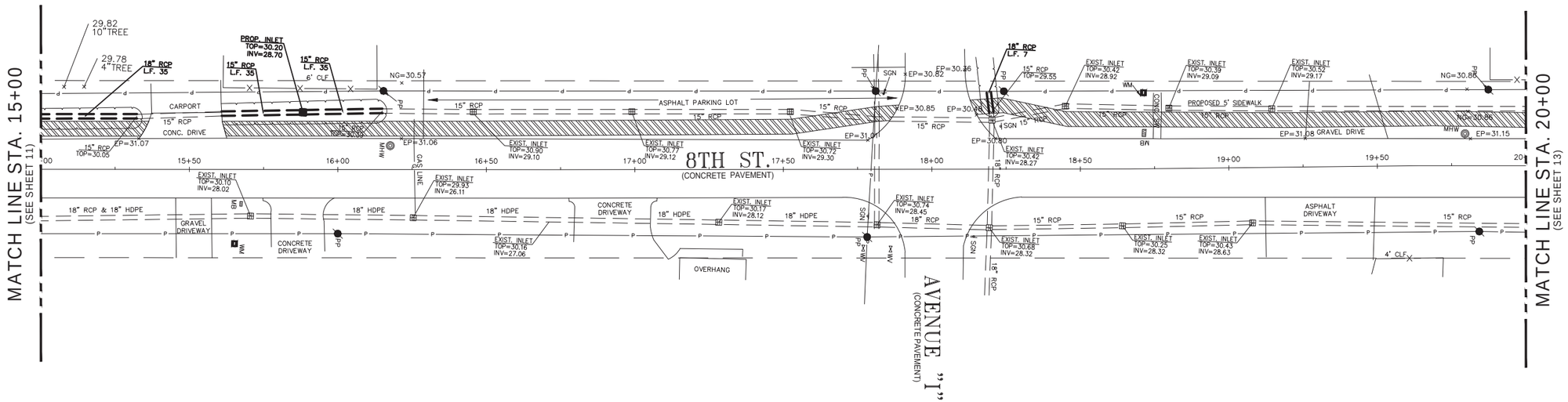
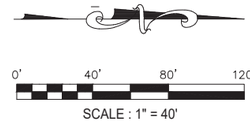
Texas Department of Transportation

SOUTH HOUSTON SIDEWALK PROJECT
8TH STREET PLAN AND PROFILE
E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS	CONT	SECT	JOB	HIGHWAY
	0917	72	397	VAR
	DIST	COUNTY		SHEET NO.
	HOU	HARRIS		20





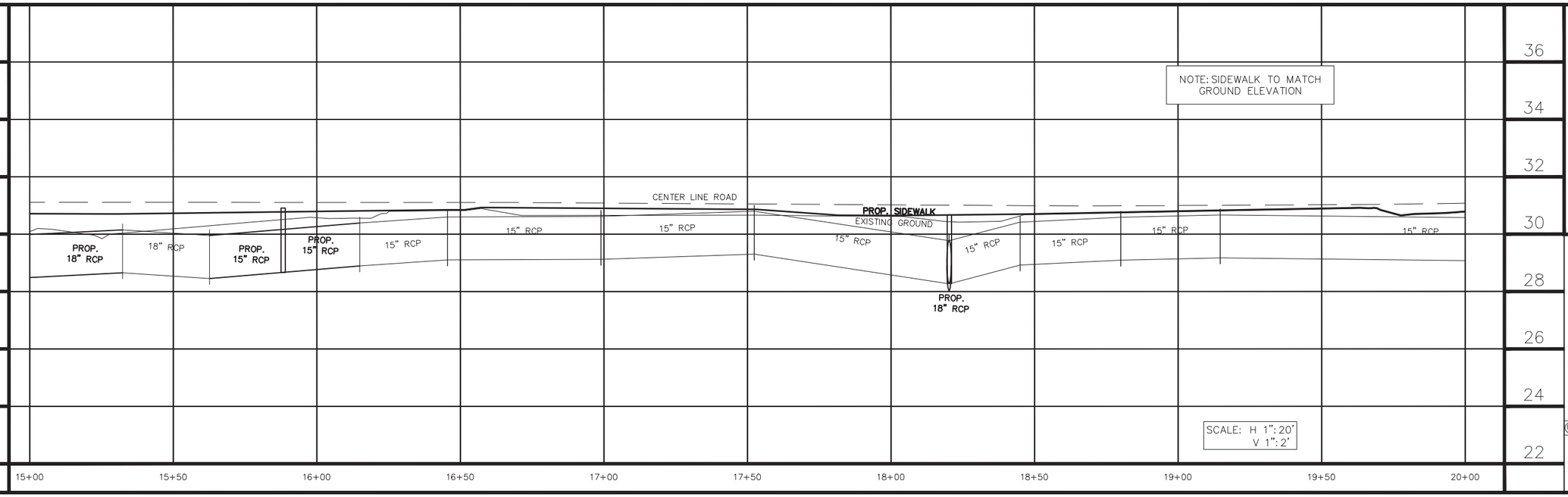
STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
PROFESSIONAL ENGINEER

Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

4/8/2022
Date:

BENCH MARK

FEMA FLOODPLAIN RM No. 030235
ELEVATION - 29.05' (NAVD 1988)
Floodplain Reference Mark Number 030235 is a BRASS DISC Stamped 030235 on bridge at intersection of Spencer Highway and Berry Bayou located on downstream sidewalk, on northwest corner of W-bound bridge in Key Map 536X in the Sims Bayou Watershed near stream C106-00-00.



LEGEND

x	= CHAIN LINK FENCE		= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
PLMK	= GAS PIPELINE MARKER		= SERVICE POLE
GM	= GAS METER	SW	= SIDEWALK
GP	= GUARD POST	TELB	= TELEPHONE BOX
GUY	= GUY WIRE	TM	= TELEPHONE MARKER
	= INLET		= WOODEN FENCE
MB	= MAILBOX		= WROUGHT IRON FENCE
MHS	= MANHOLE STORM	WM	= WATER METER
MHT	= MANHOLE TELEPHONE	WV	= WATER VALVE
MHU	= MANHOLE UNKNOWN		

Texas Department of Transportation

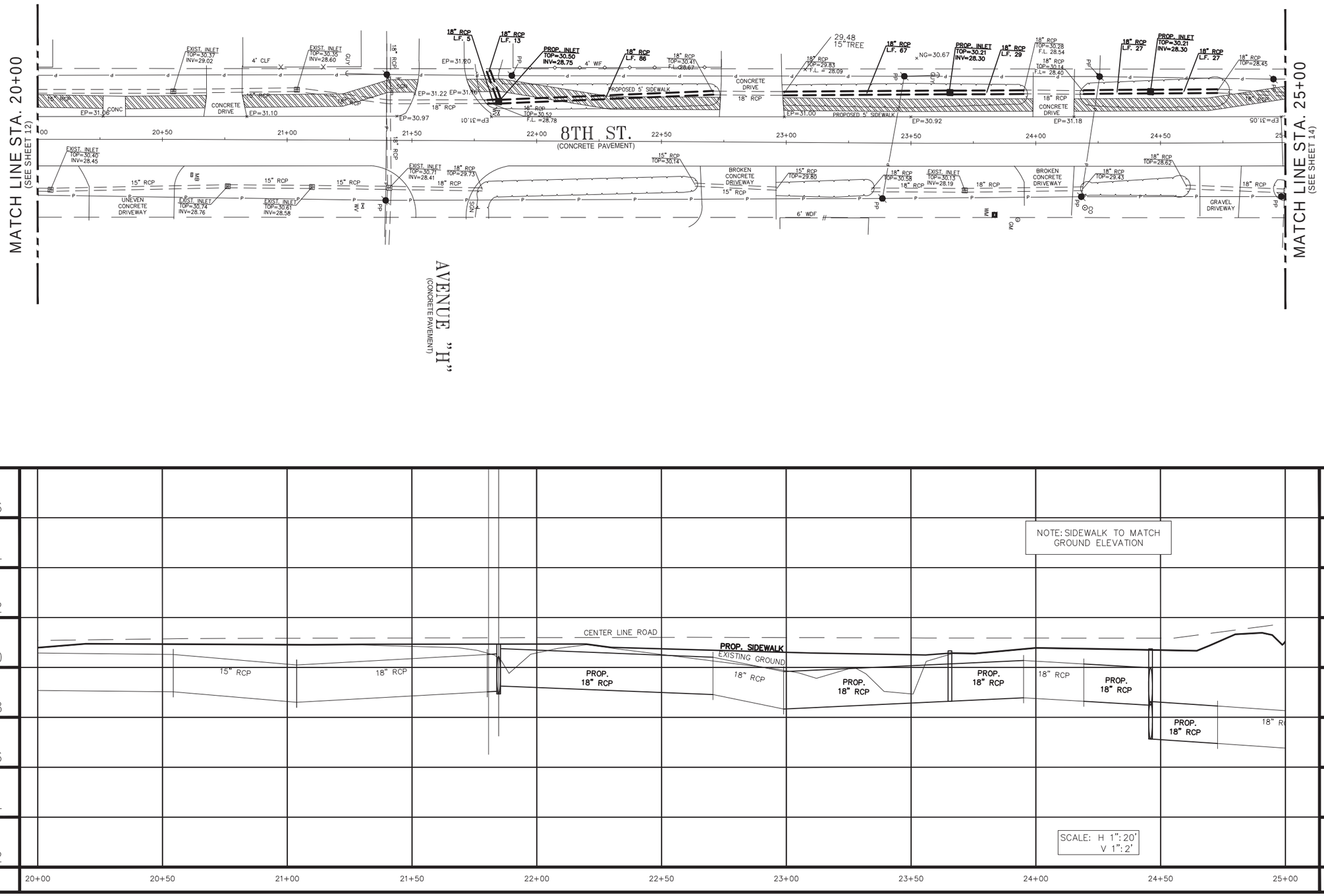
SOUTH HOUSTON SIDEWALK PROJECT
8TH STREET PLAN AND PROFILE

E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		21



0' 40' 80' 120'

SCALE : 1" = 40'

STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
PROFESSIONAL ENGINEER

Anwar Alshahristani
Tex. Reg. No: 135003
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4/8/2022
Date:

BENCH MARK

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LEGEND

—x—	= CHAIN LINK FENCE		= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
PLMK	= GAS PIPELINE MARKER		= SERVICE POLE
GM	= GAS METER	SW	= SIDEWALK
GP	= GUARD POST	TELB	= TELEPHONE BOX
GUY	= GUY WIRE	TM	= TELEPHONE MARKER
	= INLET	— // —	= WOODEN FENCE
MB	= MAILBOX	—◇—	= WROUGHT IRON FENCE
MHS	= MANHOLE STORM	WM	= WATER METER
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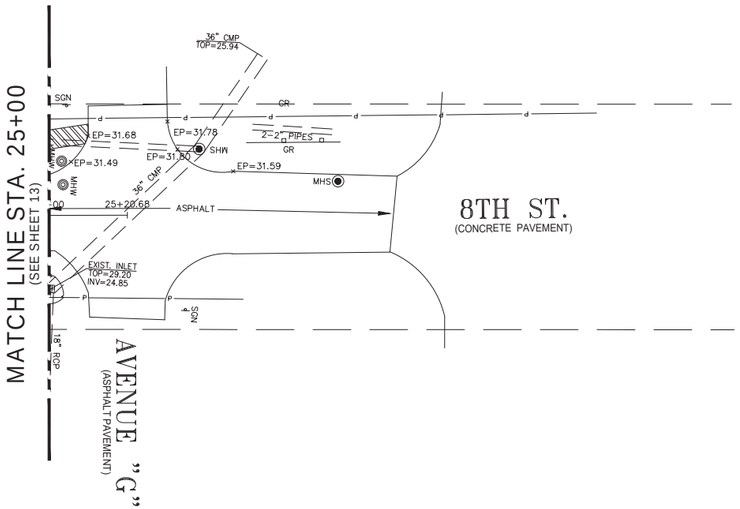
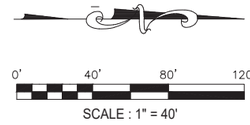
MHU	= MANHOLE UNKNOWN		

Texas Department of Transportation

SOUTH HOUSTON SIDEWALK PROJECT
8TH STREET PLAN AND PROFILE
E–11–17

©TxDOT JULY 2019	DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT	
REVISIONS	CONT	SECT	JOB	HIGHWAY	
	0917	72	397	VAR	
	DIST	COUNTY		SHEET NO.	
	HOU	HARRIS		22	





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BENCH MARK

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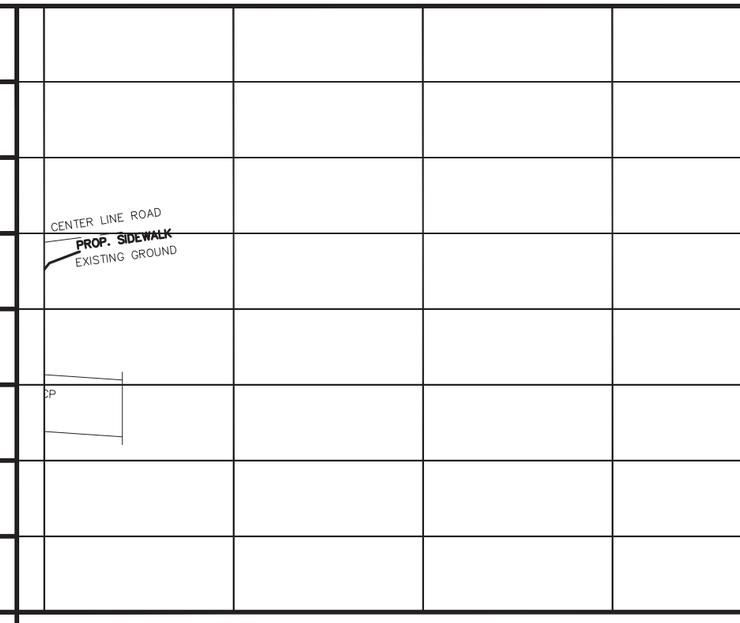


LEGEND

- = CHAIN LINK FENCE
- CO = CLEAN OUT
- FH = FIRE HYDRANT
- PLMK = GAS PIPELINE MARKER
- GM = GAS METER
- GP = GUARD POST
- GUY = GUY WIRE
- = INLET
- MB = MAILBOX
- MHS = MANHOLE STORM
- MHT = MANHOLE TELEPHONE
- MHU = MANHOLE UNKNOWN
- = MANHOLE WASTE
- = POWER POLE
- = SIGN
- = SERVICE POLE
- SW = SIDEWALK
- TELB = TELEPHONE BOX
- TM = TELEPHONE MARKER
- = WOODEN FENCE
- = WROUGHT IRON FENCE
- WM = WATER METER
- WV = WATER VALVE

Texas Department of Transportation

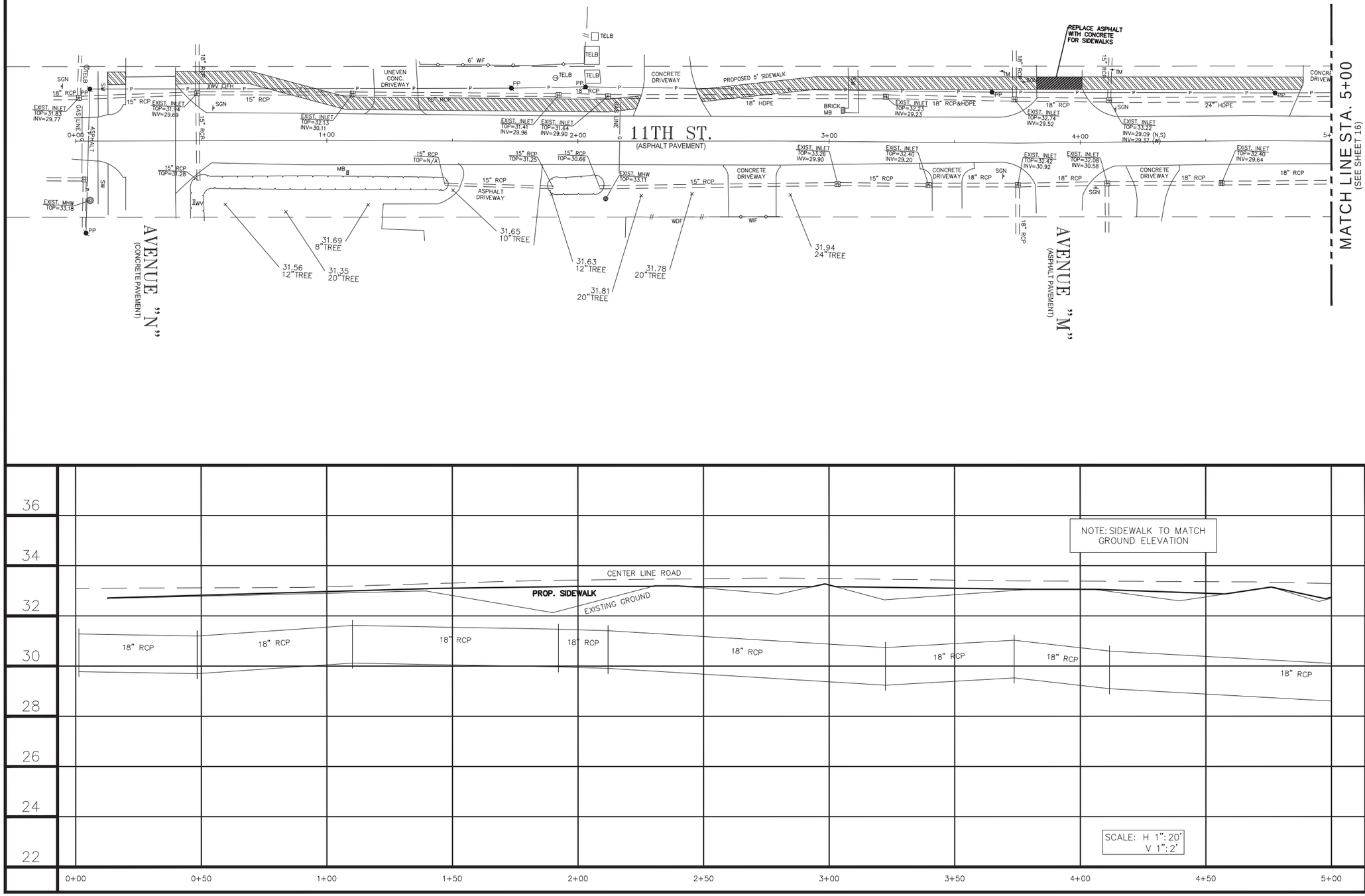
SOUTH HOUSTON SIDEWALK PROJECT
8th STREET PLAN AND PROFILE

E-11-17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		23



STATE OF TEXAS
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LEGEND

- = CHAIN LINE FENCE
- CO = CLEAN OUT
- FH = FIRE HYDRANT
- PLMK = GAS PIPELINE MARKER
- GM = GAS METER
- GP = GUARD POST
- GUY = GUY WIRE
- = INLET
- MB = MAILBOX
- MHS = MANHOLE STORM
- MHT = MANHOLE TELEPHONE
- MHU = MANHOLE UNKNOWN
- = MANHOLE WASTE
- = POWER POLE
- = SIGN
- = SERVICE POLE
- SW = SIDEWALK
- TELB = TELEPHONE BOX
- TM = TELEPHONE MARKER
- = WOODEN FENCE
- = WROUGHT IRON FENCE
- WM = WATER METER
- WV = WATER VALVE

Texas Department of Transportation

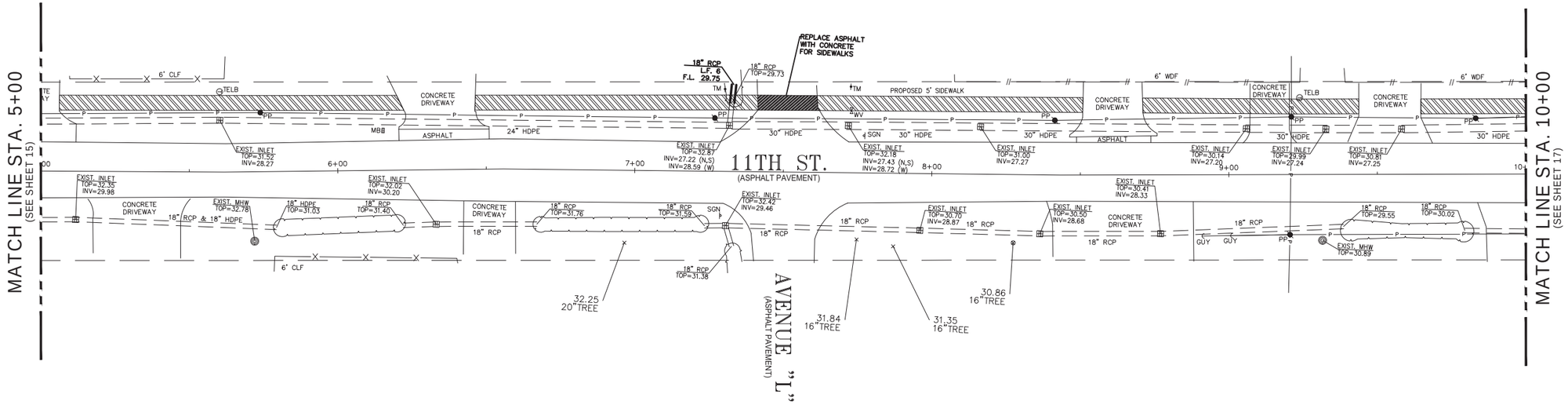
SOUTH HOUSTON SIDEWALK PROJECT
11TH STREET PLAN AND PROFILE

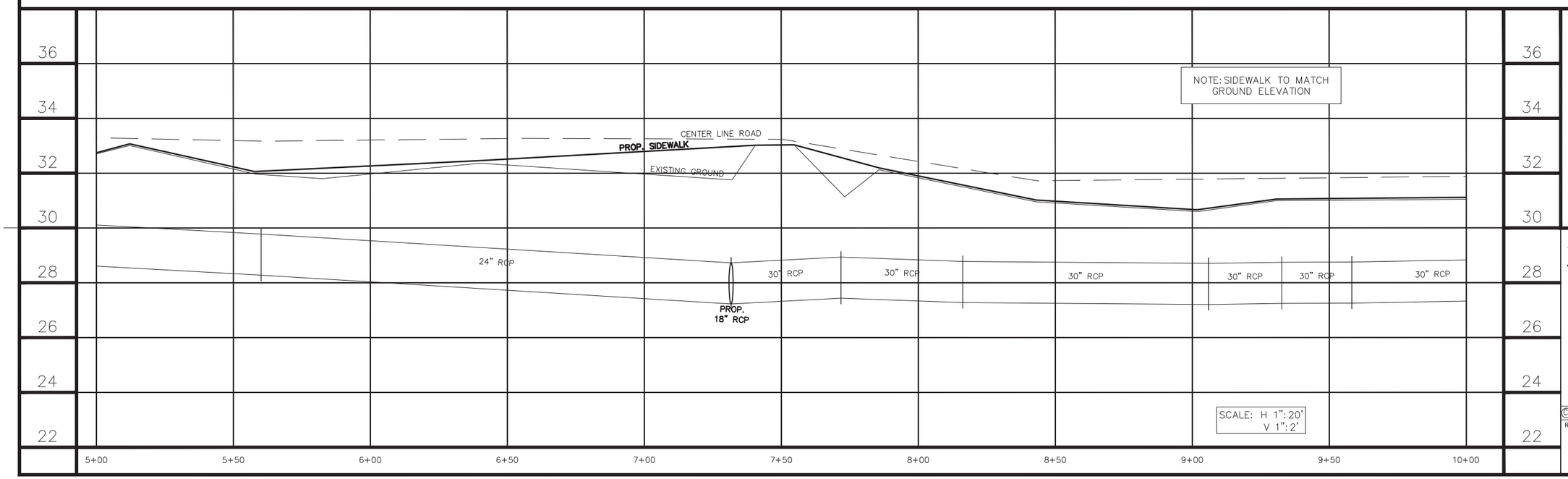
E-11-17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		24





0' 40' 80' 120'

SCALE : 1" = 40'

STATE OF TEXAS
ANWAR ALSHAHRISTANI
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LEGEND

—x—	= CHAIN LINK FENCE	MHW	= MANHOLE WASTE
CO	= CLEAN OUT	PLMK	= POWER POLE
FH	= FIRE HYDRANT	SGN	= SIGN
PLMK	= GAS PIPELINE MARKER	SP	= SERVICE POLE
GM	= GAS METER	SW	= SIDEWALK
GP	= GUARD POST	TELB	= TELEPHONE BOX
GUY	= GUY WIRE	TM	= TELEPHONE MARKER
	= INLET	— // —	= WOODEN FENCE
MB	= MAILBOX	—◇—	= WROUGHT IRON FENCE
MHS	= MANHOLE STORM	WM	= WATER METER
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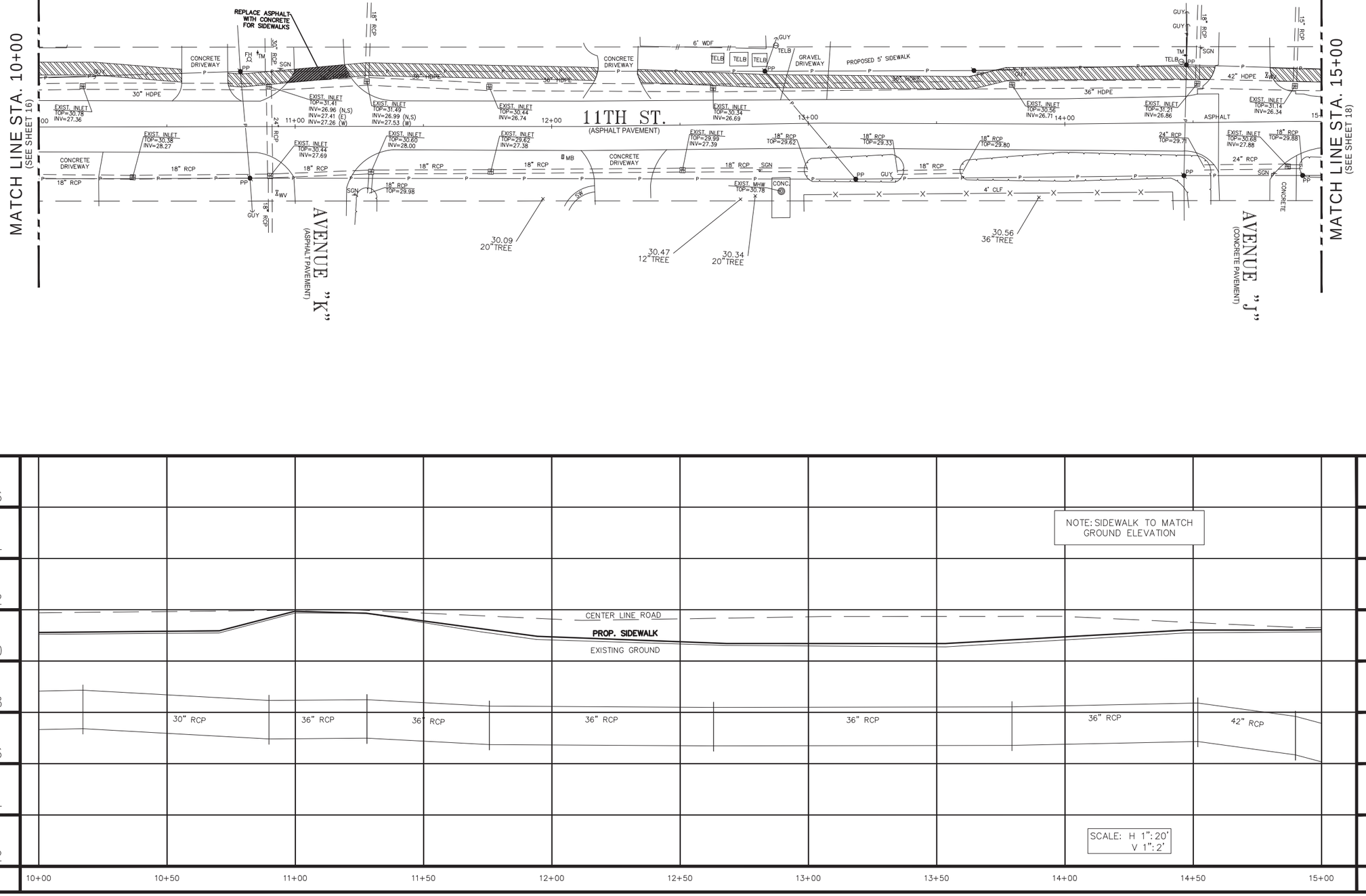
Texas Department of Transportation

SOUTH HOUSTON SIDEWALK PROJECT
11th STREET
PLAN AND PROFILE

E–11–17

©TxDOT JULY 2019	DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT	
REVISIONS	CONT	SECT	JOB	HIGHWAY	
	0917	72	397	VAR	
	DIST	COUNTY		SHEET NO.	
	HOU	HARRIS		25	



0' 40' 80' 120'

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STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
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LEGEND

—x—	= CHAIN LINK FENCE	MHW	= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
PLMK	= GAS PIPELINE MARKER		= SERVICE POLE
GM	= GAS METER	SW	= SIDEWALK
GP	= GUARD POST	TELB	= TELEPHONE BOX
GUY	= GUY WIRE	TM	= TELEPHONE MARKER
	= INLET	— // —	= WOODEN FENCE
MB	= MAILBOX	—◇—	= WROUGHT IRON FENCE
MHS	= MANHOLE STORM	WM	= WATER METER
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Texas Department of Transportation

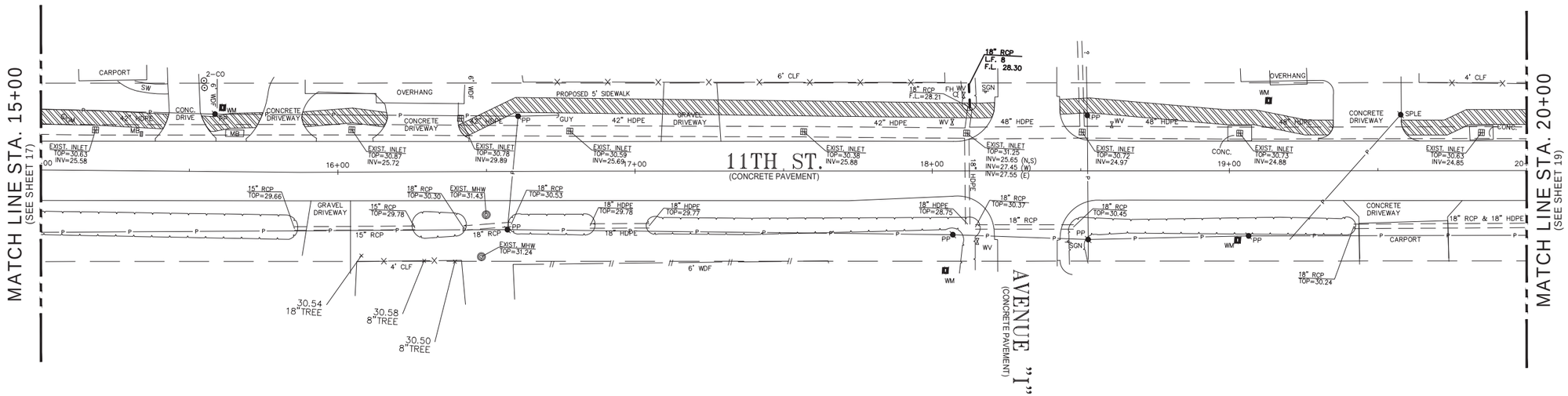
SOUTH HOUSTON SIDEWALK PROJECT
11th STREET
PLAN AND PROFILE

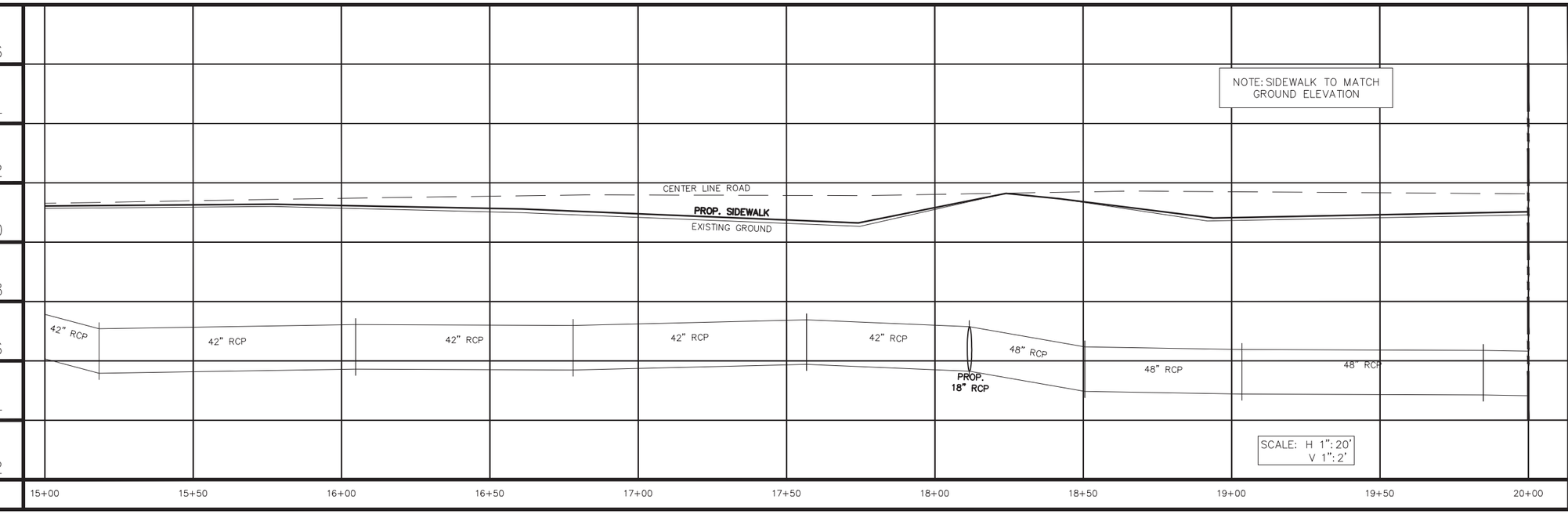
E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		26





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LEGEND

—x—	= CHAIN LINK FENCE		= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
PLMK	= GAS PIPELINE MARKER		= SERVICE POLE
GM	= GAS METER	SW	= SIDEWALK
GP	= GUARD POST	TELB	= TELEPHONE BOX
GUY	= GUY WIRE	TM	= TELEPHONE MARKER
	= INLET	— // —	= WOODEN FENCE
MB	= MAILBOX	—◇—	= WROUGHT IRON FENCE
MHS	= MANHOLE STORM	WM	= WATER METER
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Texas Department of Transportation

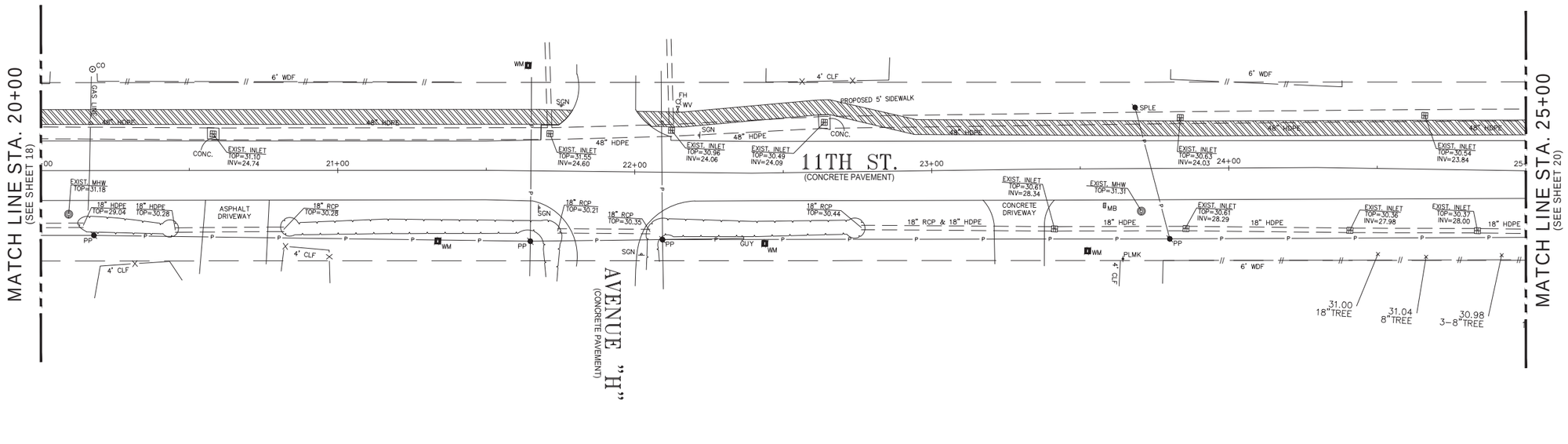
SOUTH HOUSTON SIDEWALK PROJECT
11tH STREET
PLAN AND PROFILE

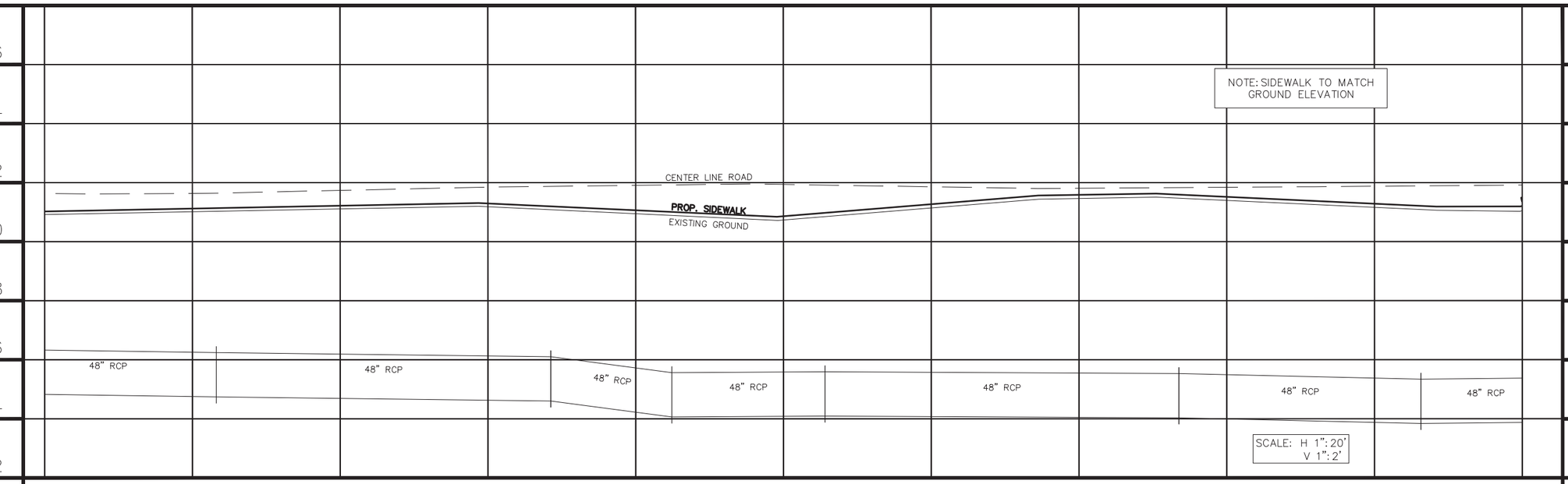
E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		27





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LEGEND

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- CO = CLEAN OUT
- FH = FIRE HYDRANT
- PLMK = GAS PIPELINE MARKER
- GM = GAS METER
- GP = GUARD POST
- GUY = GUY WIRE
- = INLET
- MB = MAILBOX
- MHS = MANHOLE STORM
- MHT = MANHOLE TELEPHONE
- MHU = MANHOLE UNKNOWN
- = MANHOLE WASTE
- = POWER POLE
- = SIGN
- = SERVICE POLE
- SW = SIDEWALK
- TELB = TELEPHONE BOX
- TM = TELEPHONE MARKER
- = WOODEN FENCE
- = WROUGHT IRON FENCE
- WM = WATER METER
- WV = WATER VALVE

Texas Department of Transportation

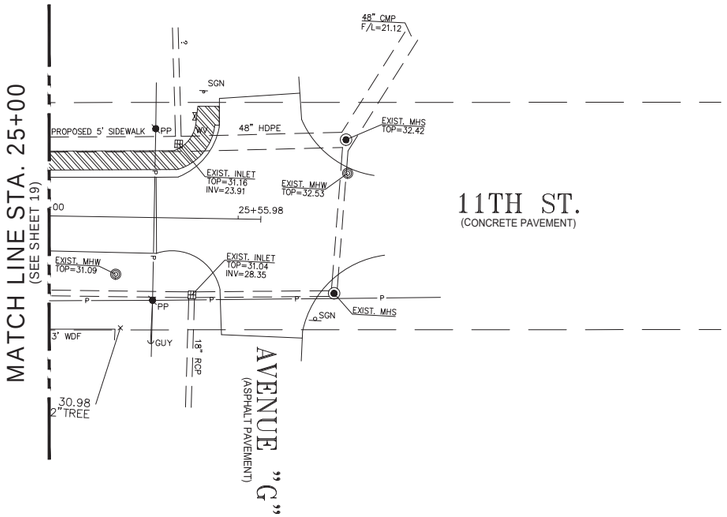
SOUTH HOUSTON SIDEWALK PROJECT
11th STREET
PLAN AND PROFILE

E-11-17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		28



0' 40' 80' 120'

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STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
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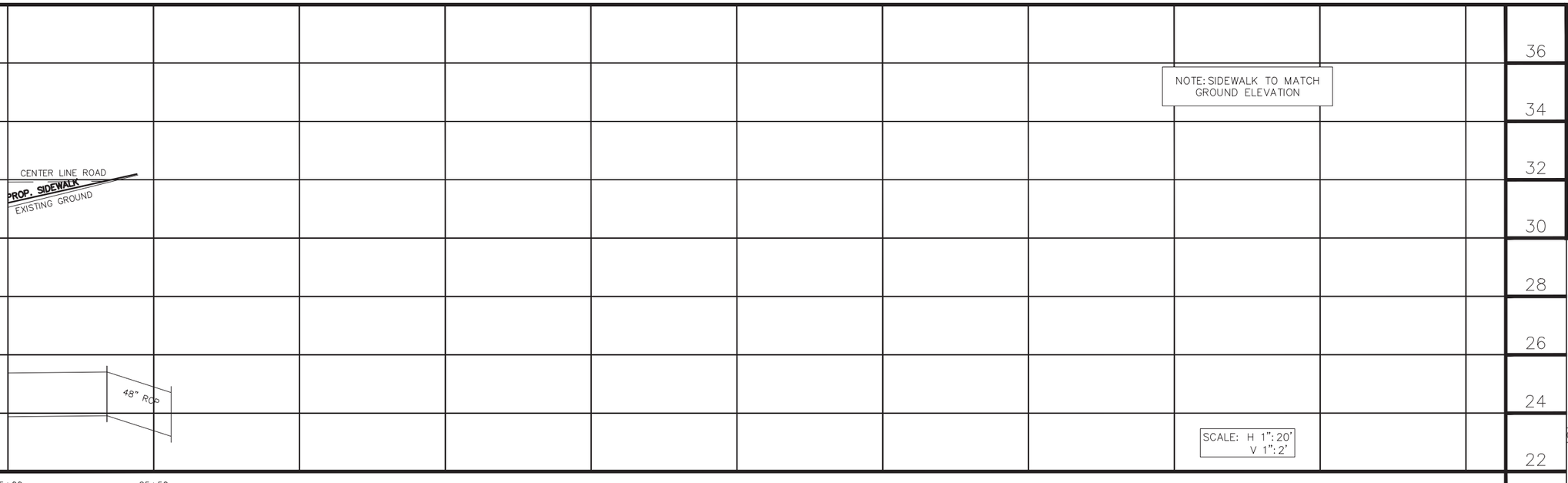

LEGEND

—x—	= CHAIN LINK FENCE	MH	= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
PLMK	= GAS PIPELINE MARKER		= SERVICE POLE
GM	= GAS METER	SW	= SIDEWALK
GP	= GUARD POST	TELB	= TELEPHONE BOX
GUY	= GUY WIRE	TM	= TELEPHONE MARKER
	= INLET	—//—	= WOODEN FENCE
MB	= MAILBOX	—◇—	= WROUGHT IRON FENCE
MHS	= MANHOLE STORM	WM	= WATER METER
MHT	= MANHOLE TELEPHONE	WV	= WATER VALVE
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Texas Department of Transportation

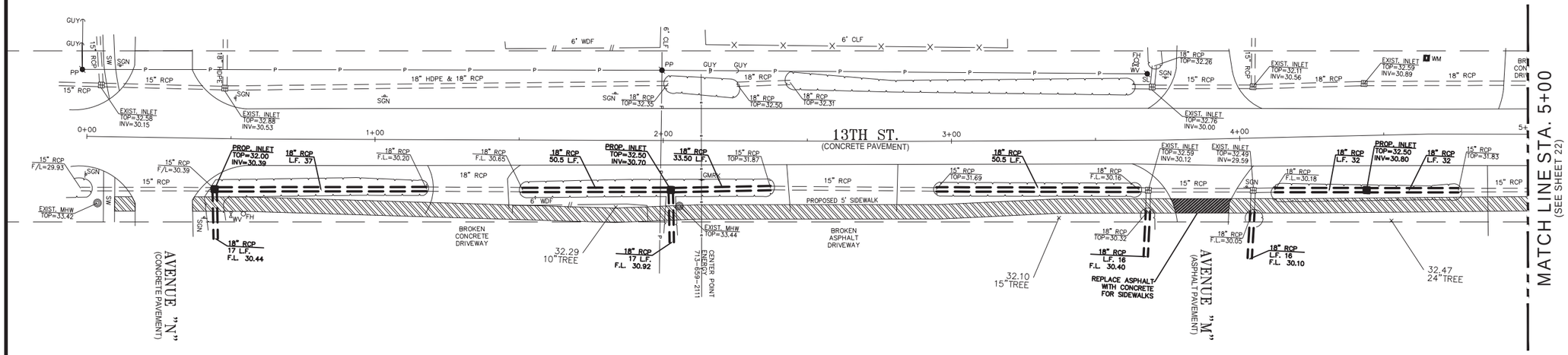
SOUTH HOUSTON SIDEWALK PROJECT
11th STREET
PLAN AND PROFILE

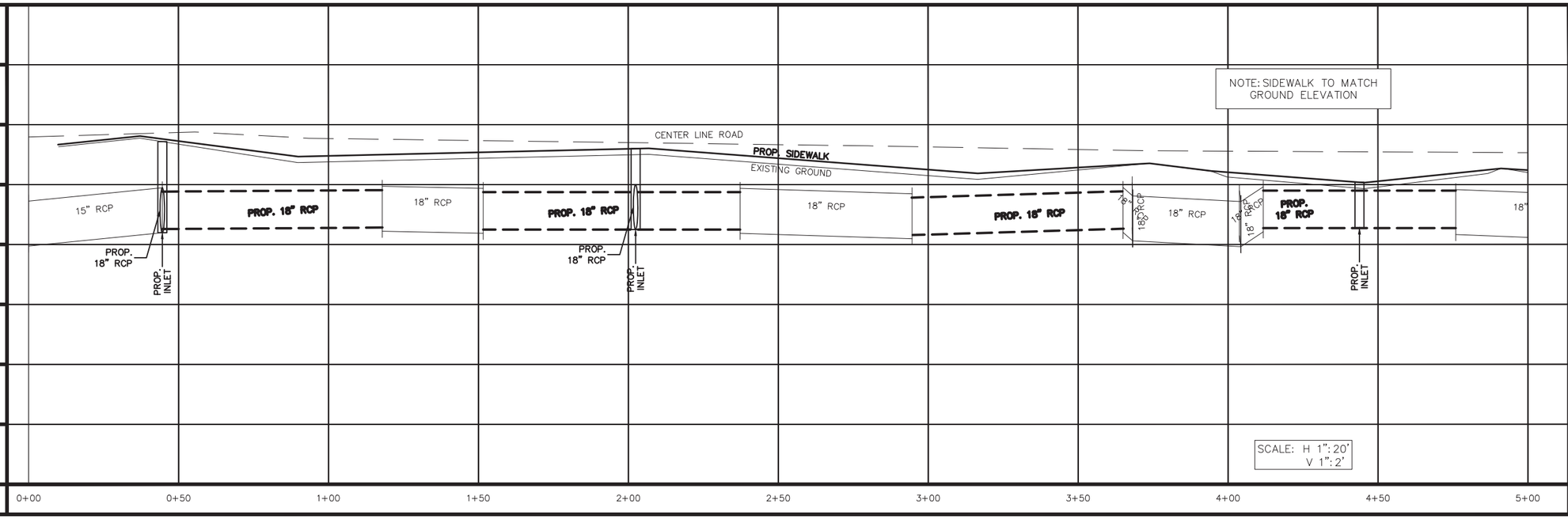
E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		29





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LEGEND

- = CHAIN LINK FENCE
- CO = CLEAN OUT
- FH = FIRE HYDRANT
- PLMK = GAS PIPELINE MARKER
- GM = GAS METER
- GP = GUARD POST
- GUY = GUY WIRE
- = INLET
- MB = MAILBOX
- MHS = MANHOLE STORM
- MHT = MANHOLE TELEPHONE
- MHU = MANHOLE UNKNOWN
- = MANHOLE WASTE
- = POWER POLE
- = SIGN
- = SERVICE POLE
- SW = SIDEWALK
- TELB = TELEPHONE BOX
- TM = TELEPHONE MARKER
- = WOODEN FENCE
- = WROUGHT IRON FENCE
- WM = WATER METER
- WV = WATER VALVE

Texas Department of Transportation

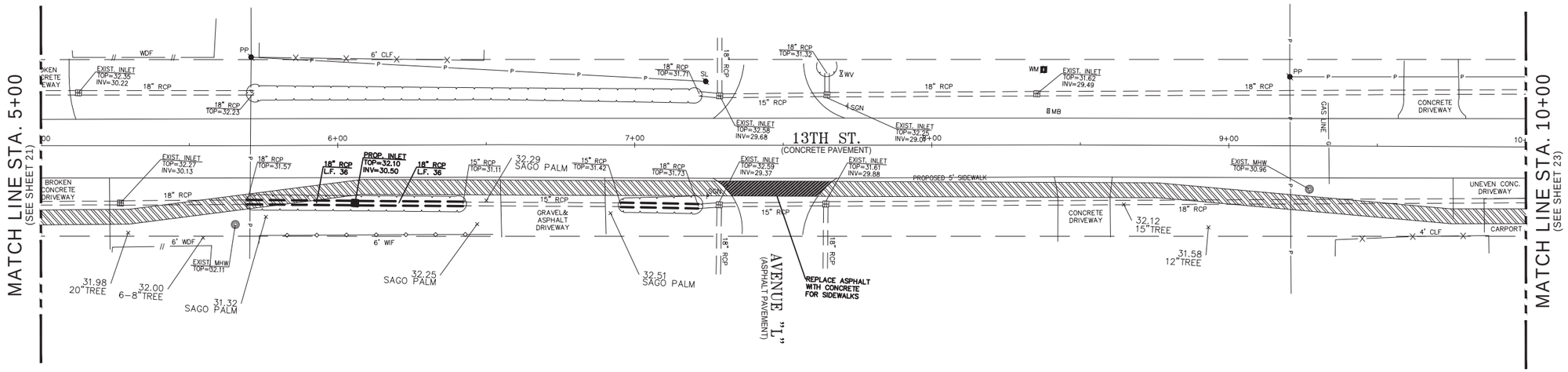
SOUTH HOUSTON SIDEWALK PROJECT
13th STREET
PLAN AND PROFILE

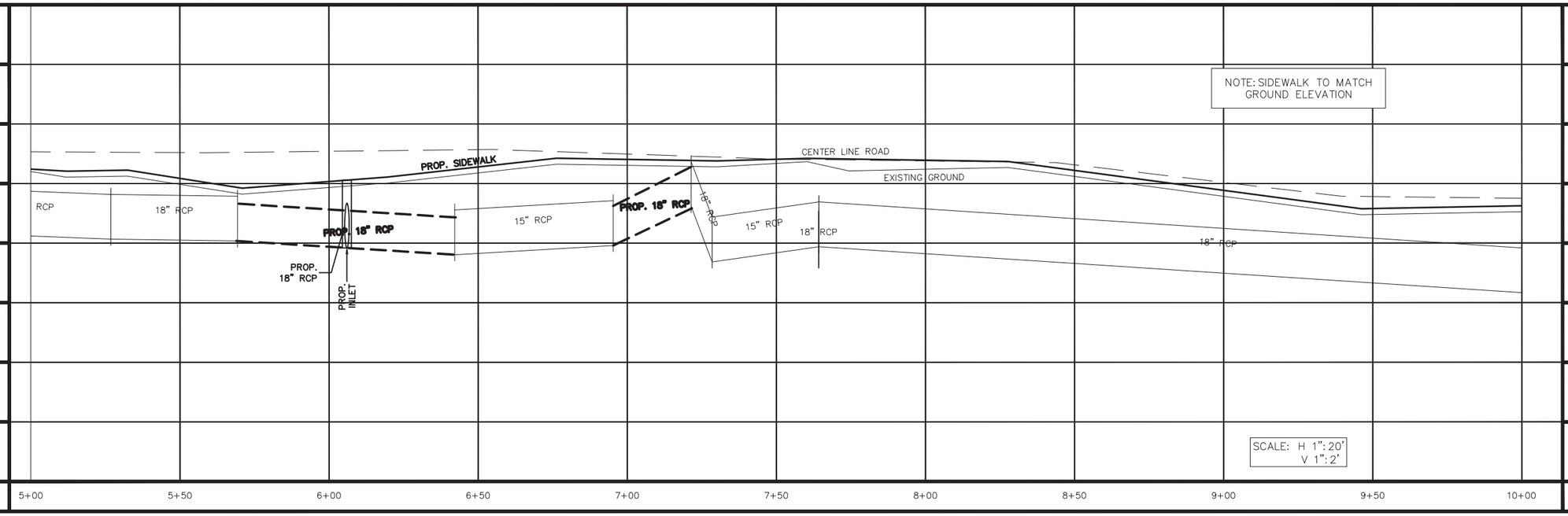
E-11-17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		30





0' 40' 80' 120'

SCALE : 1" = 40'

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LEGEND

- = CHAIN LINK FENCE
- CO = CLEAN OUT
- FH = FIRE HYDRANT
- PLMK = GAS PIPELINE MARKER
- GM = GAS METER
- GP = GUARD POST
- GUY = GUY WIRE
- = INLET
- MB = MAILBOX
- MHS = MANHOLE STORM
- MHT = MANHOLE TELEPHONE
- MHU = MANHOLE UNKNOWN
- = MANHOLE WASTE
- = POWER POLE
- = SIGN
- = SERVICE POLE
- SW = SIDEWALK
- TELB = TELEPHONE BOX
- TM = TELEPHONE MARKER
- = WOODEN FENCE
- = WROUGHT IRON FENCE
- WM = WATER METER
- WV = WATER VALVE

Texas Department of Transportation

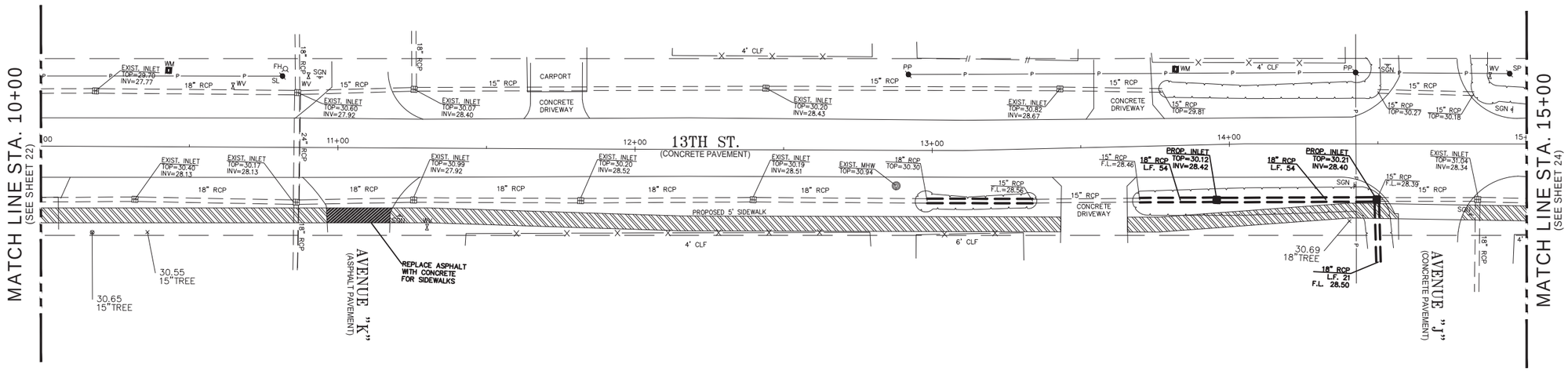
SOUTH HOUSTON SIDEWALK PROJECT
13th STREET
PLAN AND PROFILE

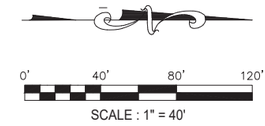
E-11-17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		31



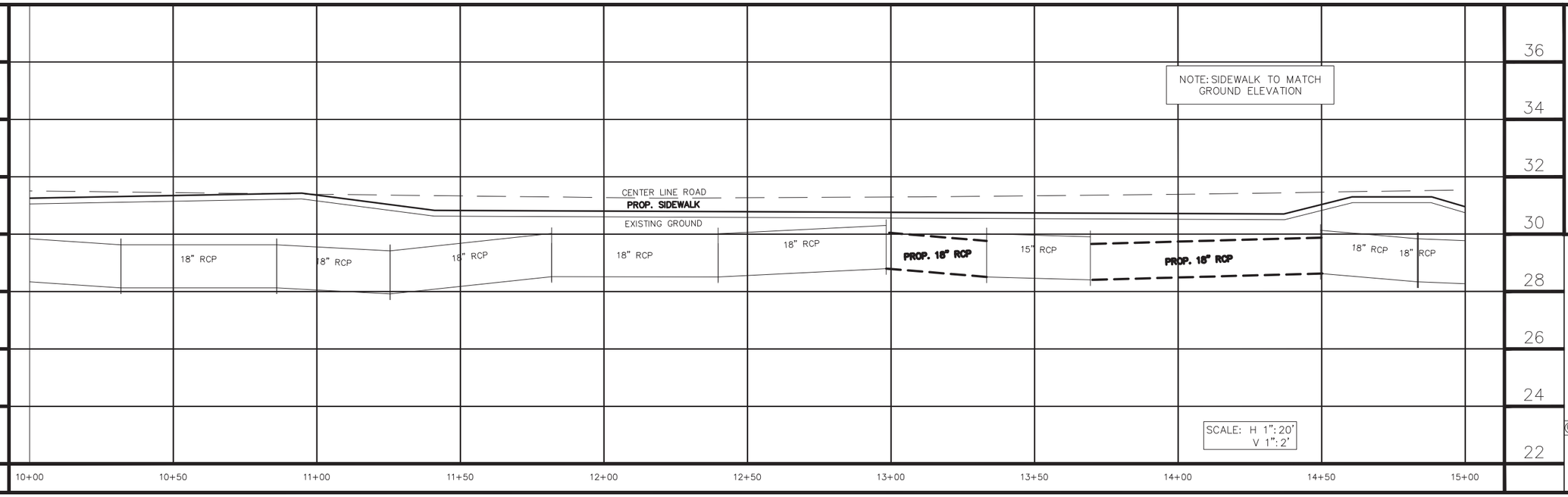


Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

4/8/2022
Date:

BENCH MARK

FEMA FLOODPLAIN RM No. 030235
ELEVATION - 29.05' (NAVD 1988)
Floodplain Reference Mark Number 030235 is a BRASS DISC Stamped 030235 on bridge at intersection of Spencer Highway and Berry Bayou located on downstream sidewalk, on northwest corner of W-bound bridge in Key Map 536X in the Sims Bayou Watershed near stream C106-00-00.



LEGEND

- = CHAIN LINK FENCE
- CO = CLEAN OUT
- FH = FIRE HYDRANT
- PLMK = GAS PIPELINE MARKER
- GM = GAS METER
- GP = GUARD POST
- GUY = GUY WIRE
- = INLET
- MB = MAILBOX
- MHS = MANHOLE STORM
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Texas Department of Transportation

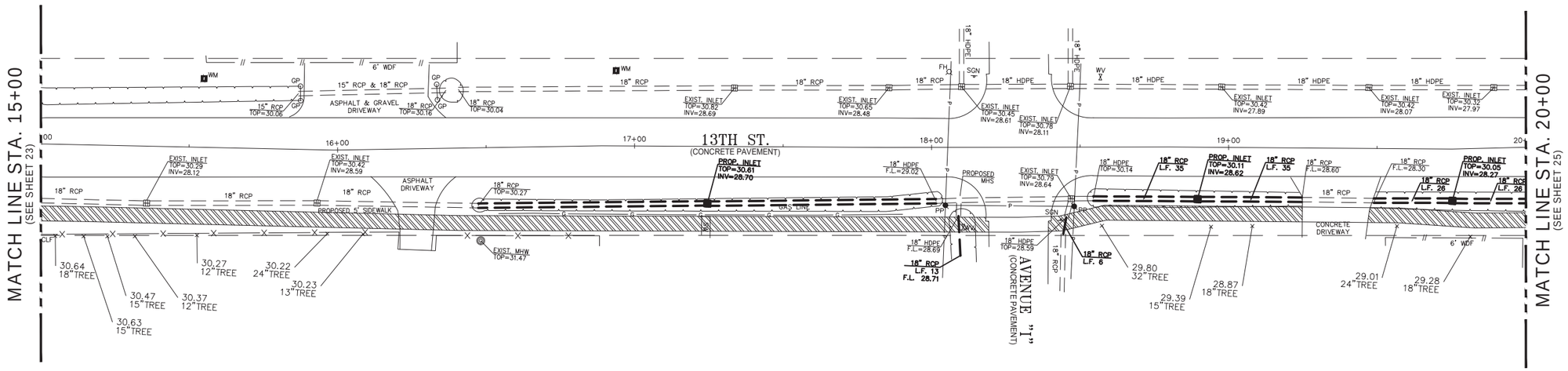
SOUTH HOUSTON SIDEWALK PROJECT
13th STREET
PLAN AND PROFILE

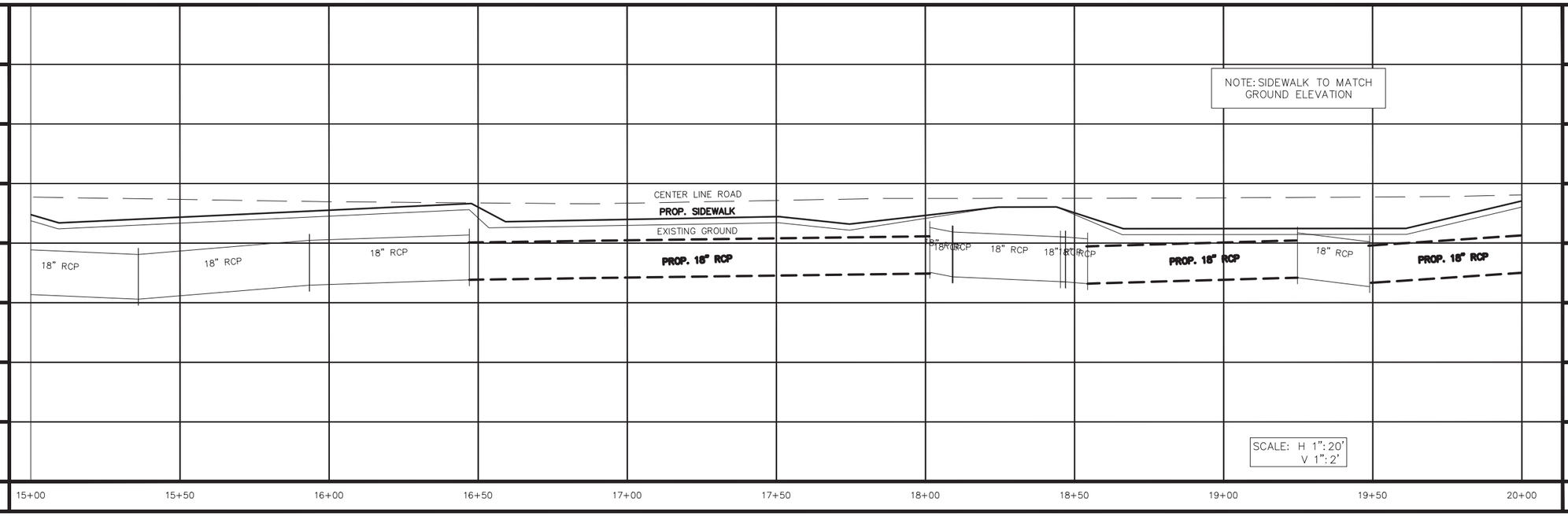
E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		32





0' 40' 80' 120'

SCALE : 1" = 40'

STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
PROFESSIONAL ENGINEER

Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

4/8/2022
Date:

BENCH MARK

FEMA FLOODPLAIN RM No. 030235
ELEVATION - 29.05' (NAVD 1988)
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LEGEND

	= CHAIN LINK FENCE		= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
PLMK	= GAS PIPELINE MARKER		= SERVICE POLE
GM	= GAS METER	SW	= SIDEWALK
GP	= GUARD POST	TELB	= TELEPHONE BOX
GUY	= GUY WIRE	TM	= TELEPHONE MARKER
	= INLET		= WOODEN FENCE
MB	= MAILBOX		= WROUGHT IRON FENCE
MHS	= MANHOLE STORM	WM	= WATER METER
MHT	= MANHOLE TELEPHONE	WV	= WATER VALVE
MHU	= MANHOLE UNKNOWN		

Texas Department of Transportation

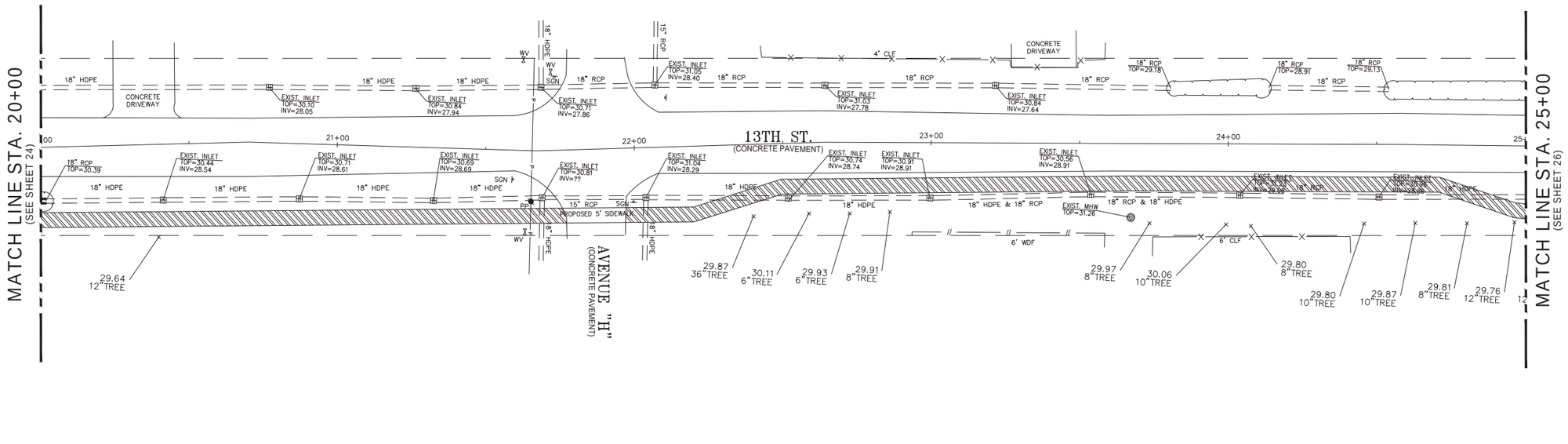
SOUTH HOUSTON SIDEWALK PROJECT
13tH STREET
PLAN AND PROFILE

E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		33



0' 40' 80' 120'

SCALE : 1" = 40'

STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
PROFESSIONAL ENGINEER

Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

4/8/2022
Date:

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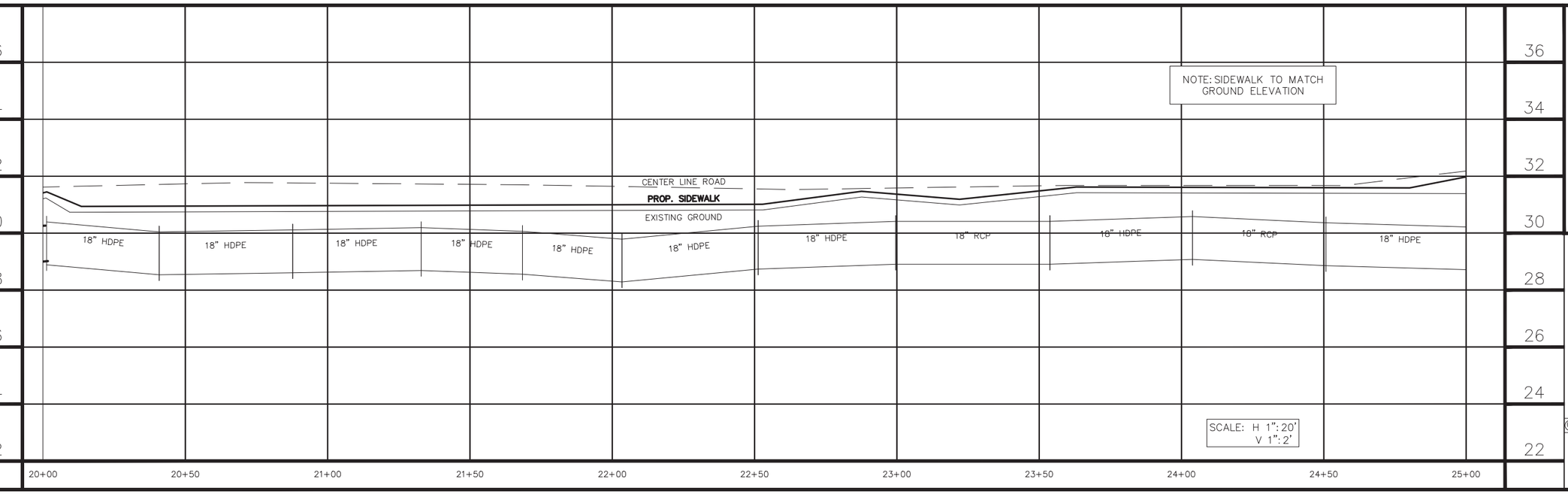

LEGEND

- = CHAIN LINK FENCE
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- FH = FIRE HYDRANT
- PLMK = GAS PIPELINE MARKER
- GM = GAS METER
- GP = GUARD POST
- GUY = GUY WIRE
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Texas Department of Transportation

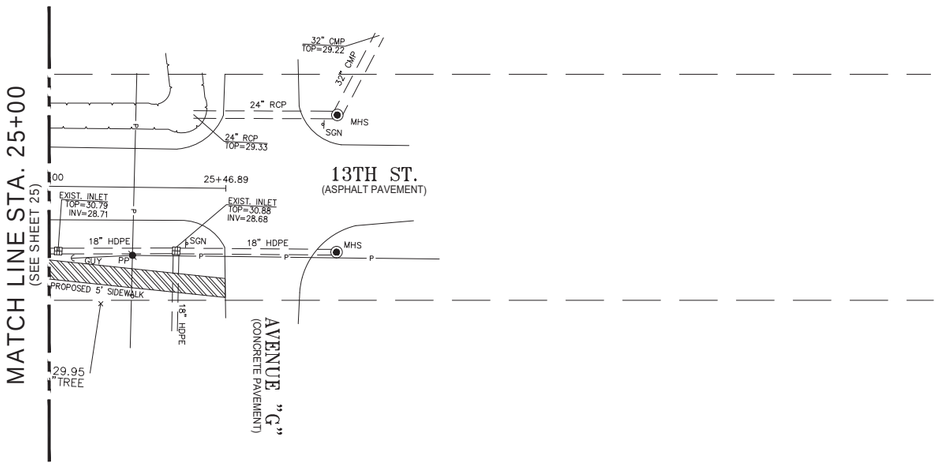
SOUTH HOUSTON SIDEWALK PROJECT
13th STREET
PLAN AND PROFILE

E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		34



Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

4/8/2022
Date:

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FEMA FLOODPLAIN RM No. 030235
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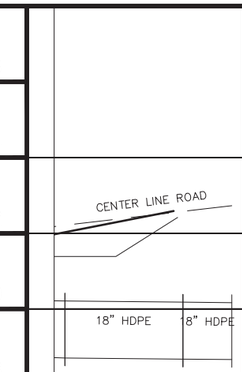


NOTE: SIDEWALK TO MATCH GROUND ELEVATION

SCALE: H 1": 20'
V 1": 2'

36 34 32 30 28 26 24 22

25+00 25+50

LEGEND

—x—	= CHAIN LINK FENCE		= MANHOLE WASTE
CO	= CLEAN OUT		= POWER POLE
FH	= FIRE HYDRANT		= SIGN
PLMK	= GAS PIPELINE MARKER		= SERVICE POLE
GM	= GAS METER	SW	= SIDEWALK
GP	= GUARD POST	TELB	= TELEPHONE BOX
GUY	= GUY WIRE	TM	= TELEPHONE MARKER
	= INLET	— // —	= WOODEN FENCE
MB	= MAILBOX		= WROUGHT IRON FENCE
MHS	= MANHOLE STORM	WM	= WATER METER
MHT	= MANHOLE TELEPHONE	WV	= WATER VALVE
MHU	= MANHOLE UNKNOWN		

Texas Department of Transportation

SOUTH HOUSTON SIDEWALK PROJECT
13th STREET
PLAN AND PROFILE

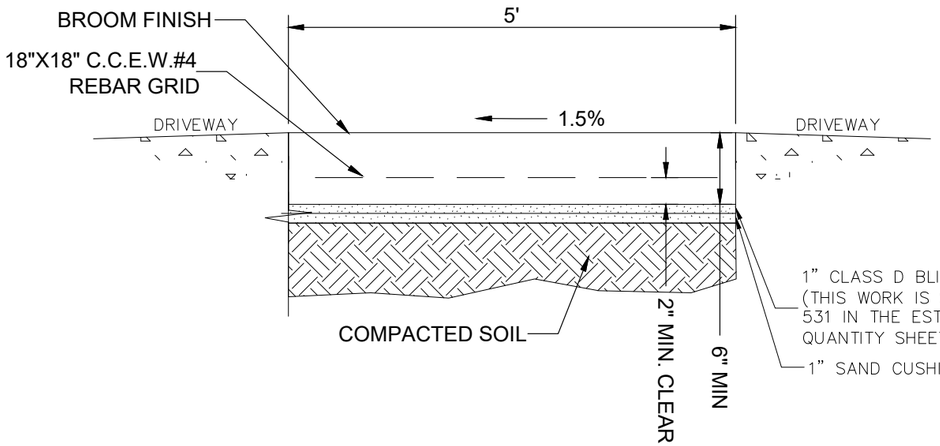
E–11–17

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

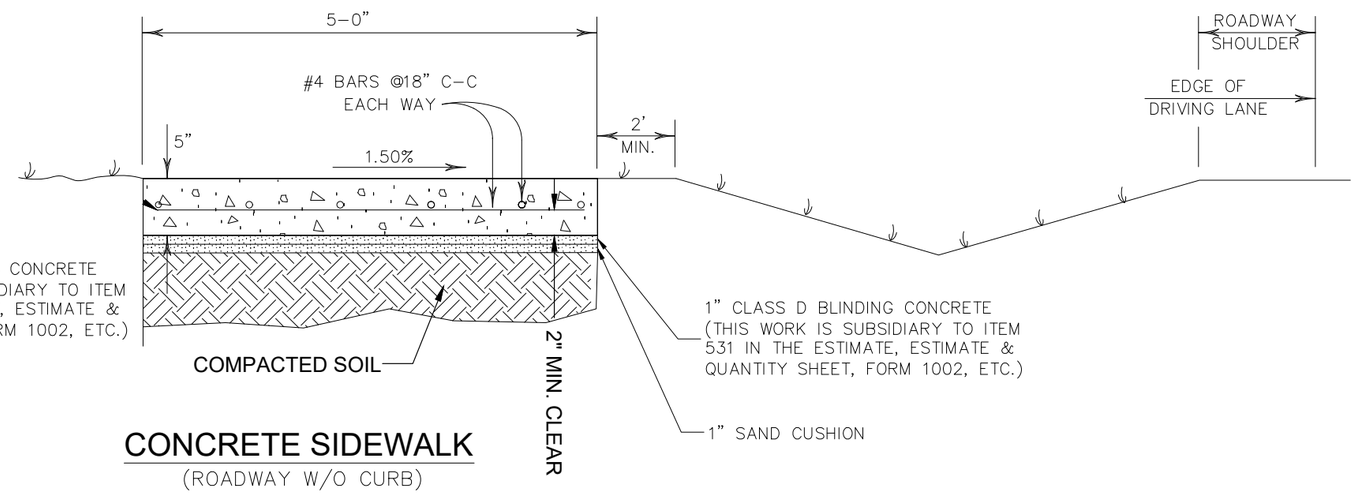
REVISIONS

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		35

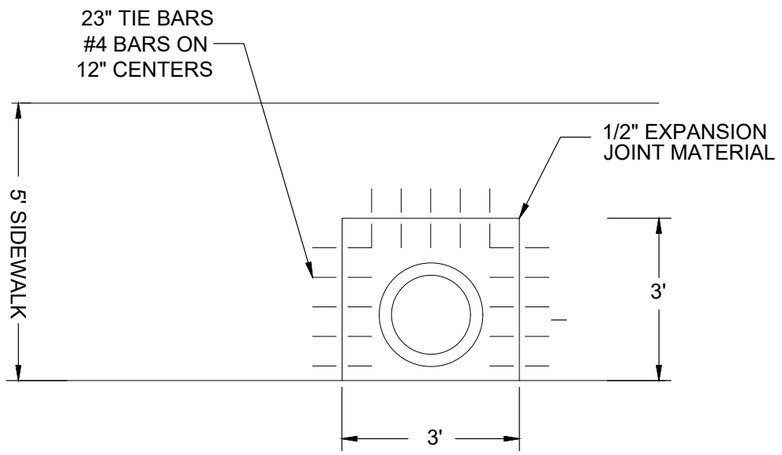
DATE:
FILE:



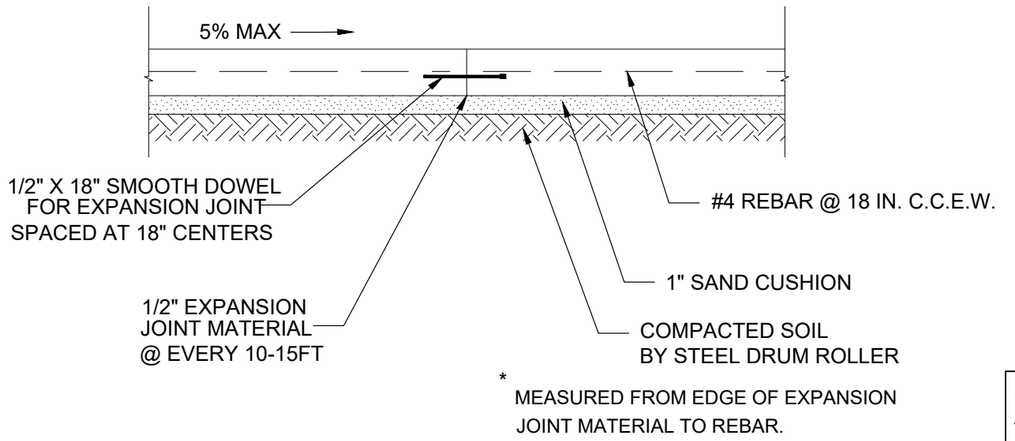
DRIVEWAY SIDEWALK DETAIL
NTS



CONCRETE SIDEWALK
(ROADWAY W/O CURB)



SIDEWALK MANHOLE SEWER
NTS



TYPICAL EXPANSION JOINT IN SIDEWALK
NTS

Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

7/5/2022
Date:

Texas Department of Transportation

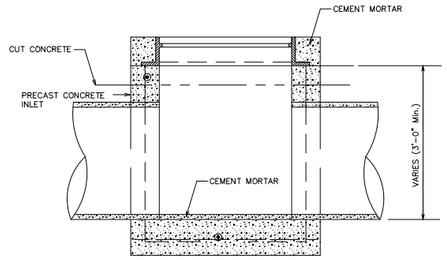
SIDEWALK DETAILS

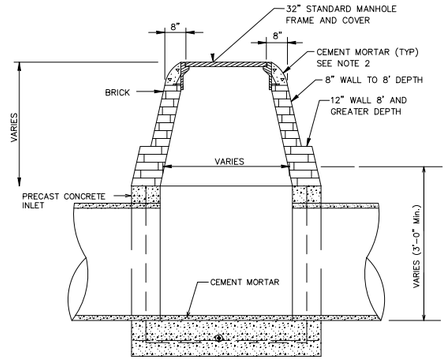
REVISIONS

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		36

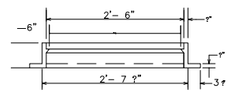
DATE:
FILE:



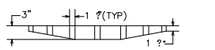


INLET TO MANHOLE CONVERSION

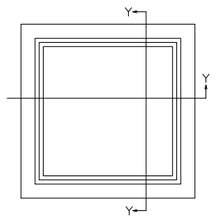
(NOT TO SCALE)

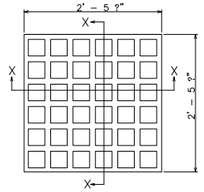


SECTION Y-Y

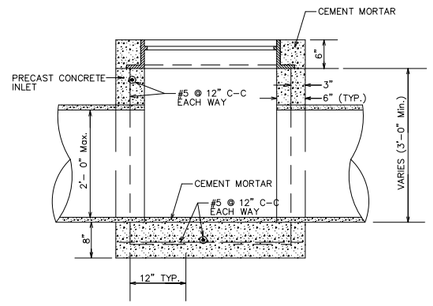


SECTION X-X





PLAN GRATE



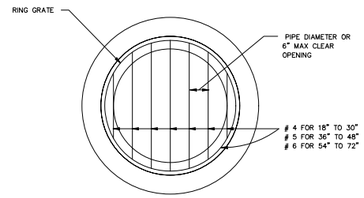
ELEVATION VIEW

TYPE "A" GRATE INLET

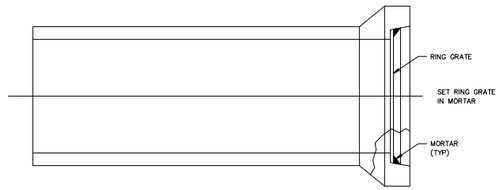
(NOT TO SCALE)

NOTE:

1. GALVANIZE GRATE AFTER FABRICATION.



END VIEW



SIDE VIEW

STORM SEWER RING GRATE FOR OPEN END OF 18" TO 72" RCP STUBS TO DITCH

(NOT TO SCALE)

7/5/2022
Date:

Anwar Alshahristani
Tex. Reg. No: 135003
Firm No. F-571

Texas Department of Transportation

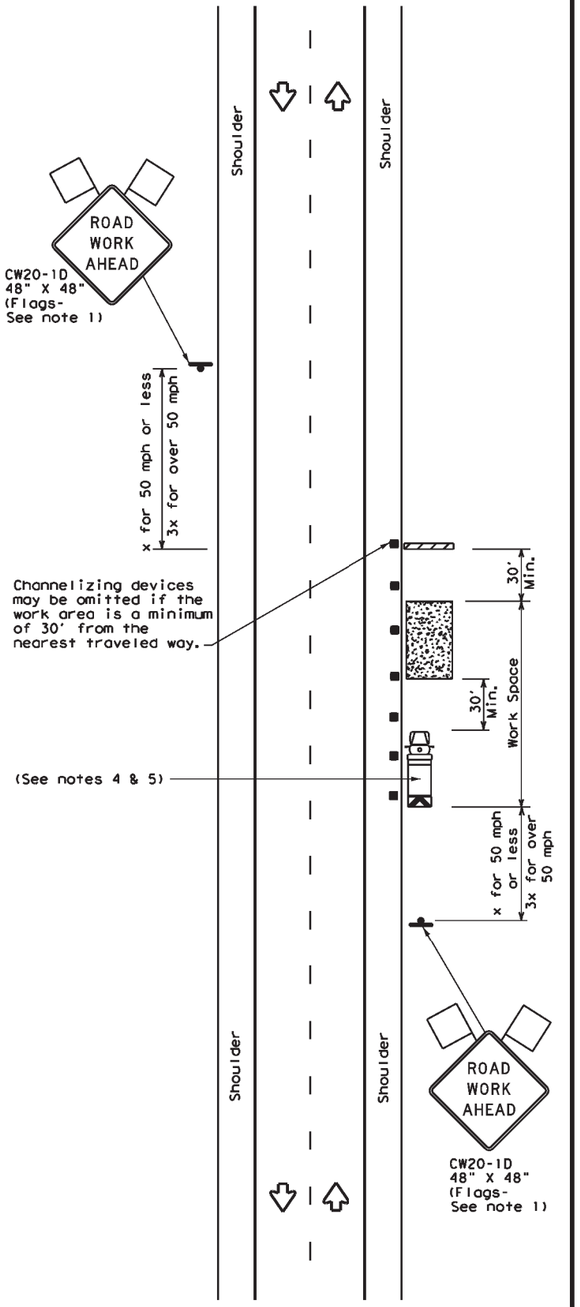
STORM WATER DETAILS

REVISIONS

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

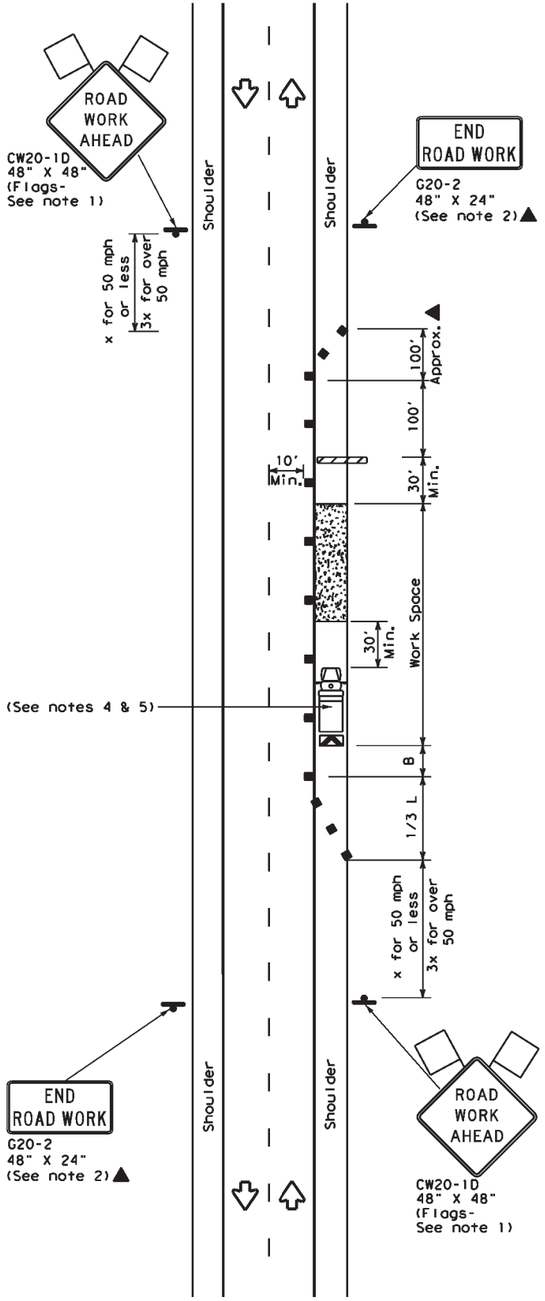
CONT	SECT	JOB	HIGHWAY
0917	72	397	VAR
DIST	COUNTY		SHEET NO.
HOU	HARRIS		37

DATE:
FILE:



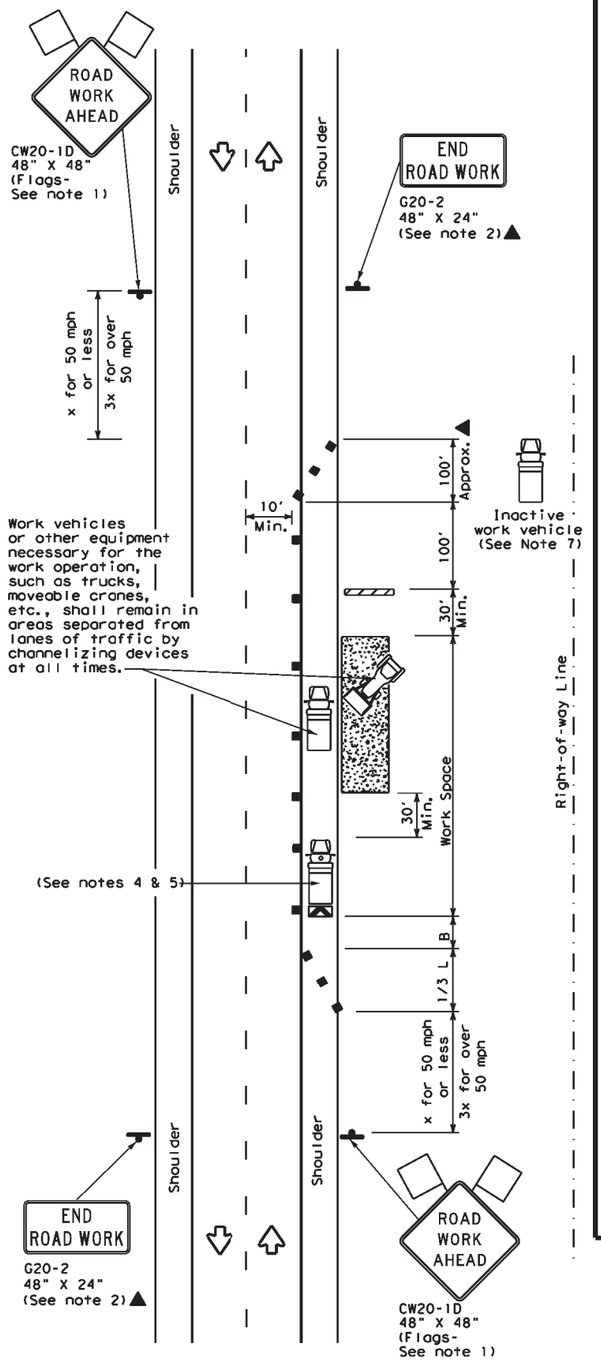
TCP (2-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (2-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (2-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	✓

GENERAL NOTES

1. Flags attached to signs where shown, are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated in the plans, or for routine maintenance work, when approved by the Engineer.
3. Stockpiled material should be placed a minimum of 30 feet from nearest traveled way.
4. Shadow Vehicle with TMA and high intensity rotating, flashing, oscillating or strobe lights. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
5. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.
6. See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
7. Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
8. CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

Texas Department of Transportation

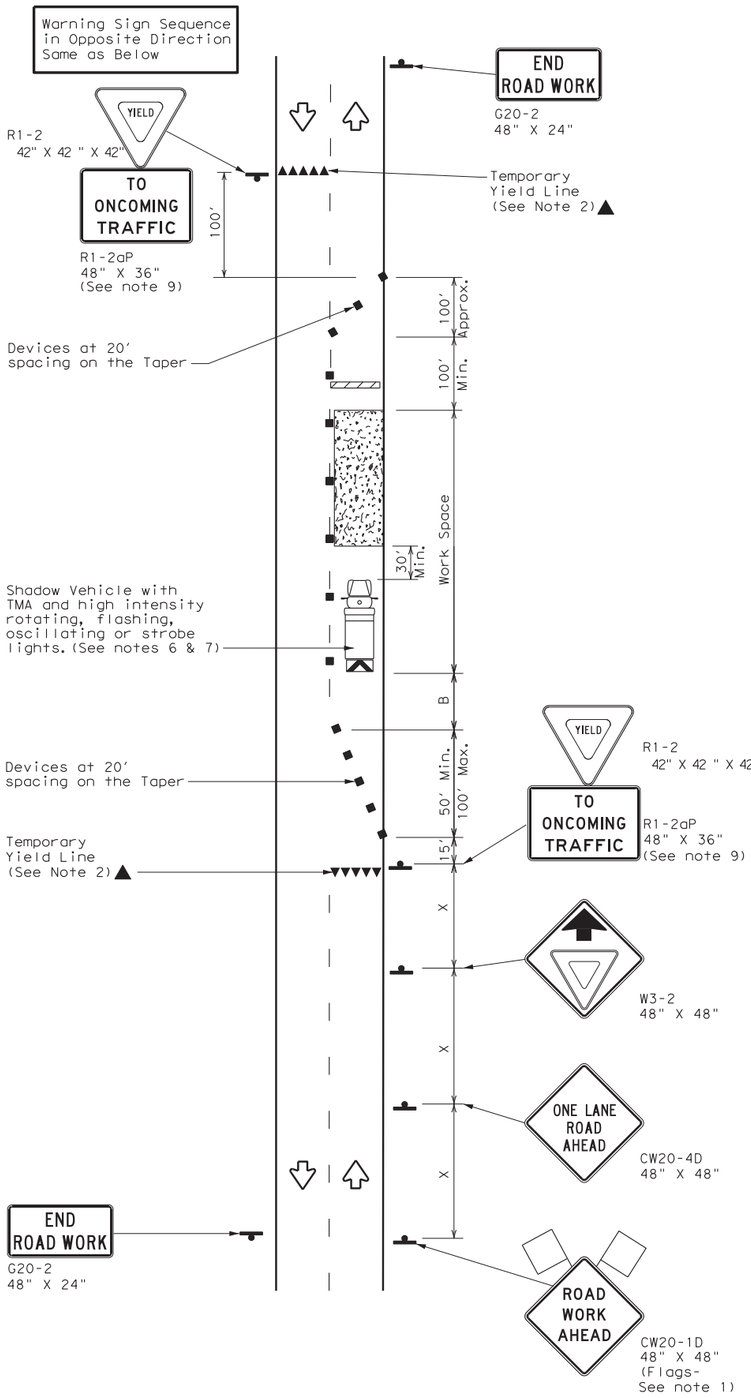
Traffic Operations Division Standard

TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK

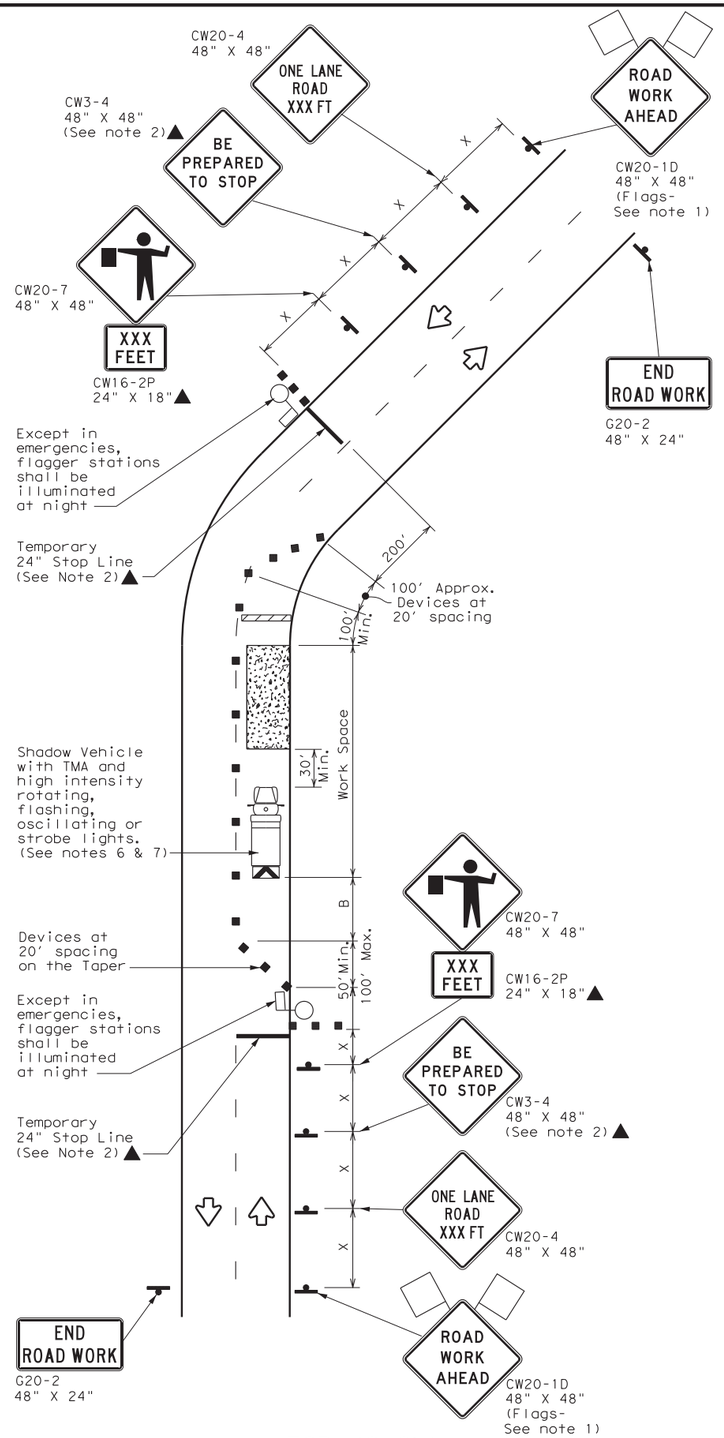
TCP(2-1)-18

FILE: tcp2-1-18.dgn	DN:	CK:	DW:	CK:
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS	0912	72	397	VAR
2-94 4-98	DIST	COUNTY		SHEET NO.
8-95 2-12	HOU	HARRIS		38
1-97 2-18				

DATE:
FILE:



TCP (2-2a)
2-LANE ROADWAY WITHOUT PAVED SHOULDERS
ONE LANE TWO-WAY
CONTROL WITH YIELD SIGNS
(Less than 2000 ADT - See Note 9)



TCP (2-2b)
2-LANE ROADWAY WITHOUT PAVED SHOULDERS
ONE LANE TWO-WAY
CONTROL WITH FLAGGERS

LEGEND

	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L=WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE

MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	

GENERAL NOTES

1. Flags attached to signs where shown, are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4 "ONE LANE ROAD XXX FT" sign, but proper sign spacing shall be maintained.
4. Flaggers should use two-way radios or other methods of communication to control traffic.
5. Length of work space should be based on the ability of flaggers to communicate.
6. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
7. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.

TCP (2-2a)

8. The R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work space should be no longer than one half city block. In rural areas, roadways with less than 2000 ADT, work space should be no longer than 400 feet.
9. The R1-2aP "YIELD TO ONCOMING TRAFFIC" sign shall be placed on a support at a 7 foot minimum mounting height.

TCP (2-2b)

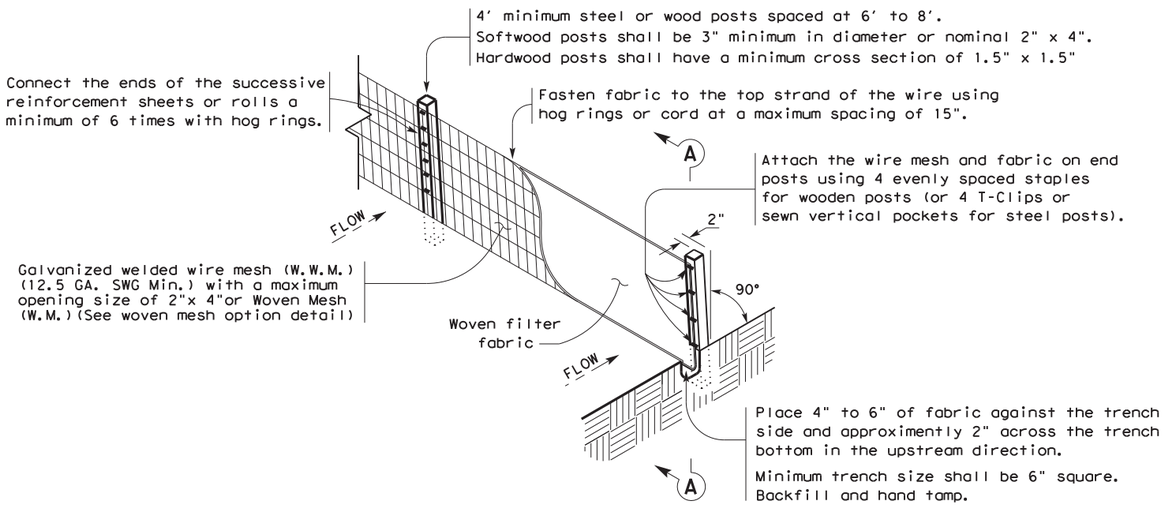
10. Channelizing devices on the center line may be omitted when a pilot car is leading traffic and approved by the Engineer.
11. If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain stopping sight distance to the flagger and a queue of stopped vehicles. (See table above).
12. Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situtations.

Texas Department of Transportation
Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
ONE-LANE TWO-WAY
TRAFFIC CONTROL

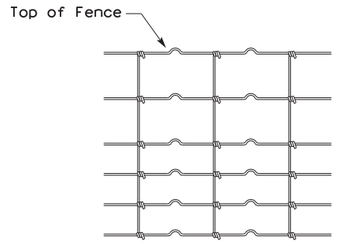
TCP(2-2)-18

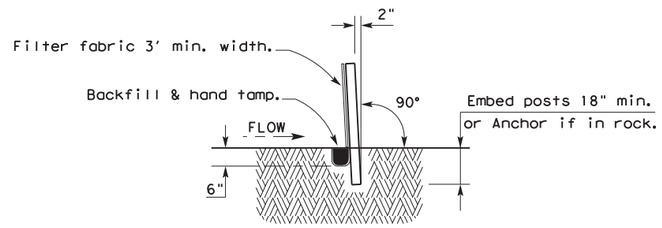
FILE: tcp2-2-18.dgn	DN:	CK:	DW:	CK:
©TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS	0912	72	397	VAR
8-95 3-03	DIST	COUNTY		SHEET NO.
1-97 2-12	HOU	HARRIS		39
4-98 2-18				



TEMPORARY SEDIMENT CONTROL FENCE

SCF





SECTION A-A

HINGE JOINT KNOT WOVEN MESH (OPTION) DETAIL

Galvanized hinge joint knot woven mesh (12.5 GA.SWG Min.) requires a minimum of five horizontal wires spaced at a maximum of 12 inches apart and all vertical wires spaced at a maximum of 12 inches apart.

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a maximum flow through rate of 100 GPM/FT^2. Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

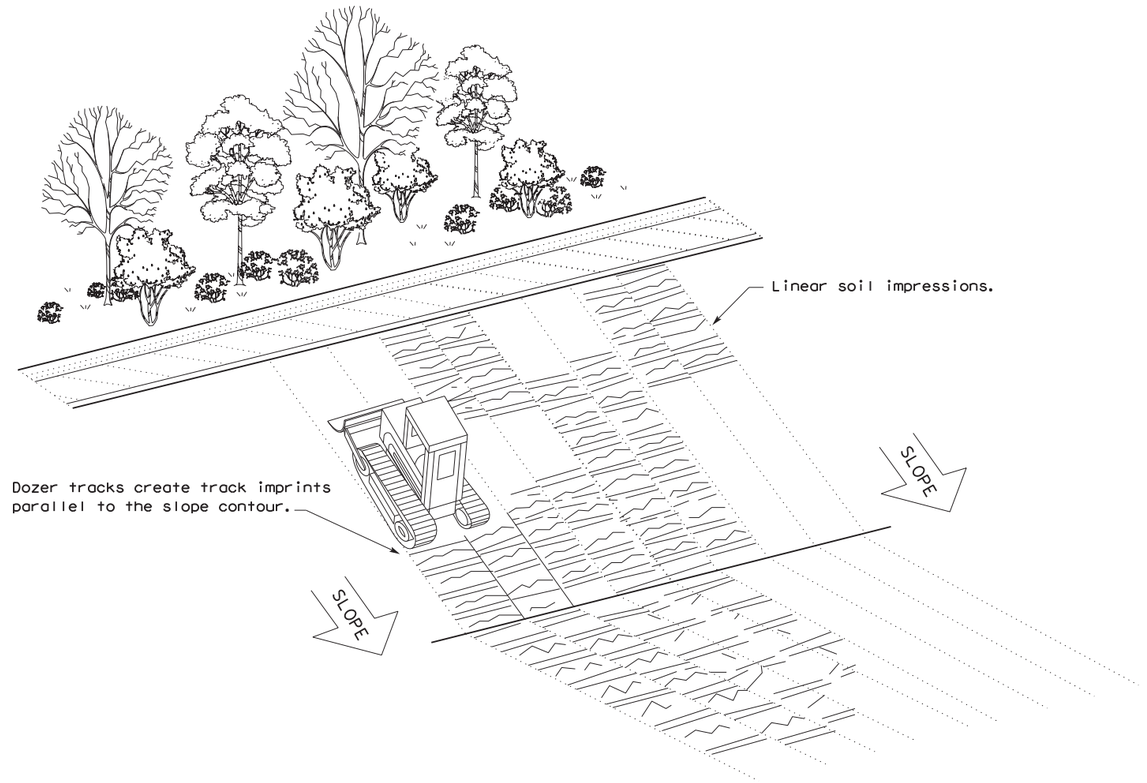
LEGEND

Sediment Control Fence

SCF

GENERAL NOTES

1. Vertical tracking is required on projects where soil distributing activities have occurred unless otherwise approved.
2. Perform vertical tracking on slopes to temporarily stabilize soil.
3. Provide equipment with a track undercarriage capable of producing linear soil impressions measuring a minimum of 12" in length by 2" to 4" in width by 1/2" to 2" in depth.
4. Do not exceed 12" between track impressions.
5. Install continous linear track impressions where the minimum 12" length impressions are perpendicular to the slope or direction of water flow.



VERTICAL TRACKING

Texas Department of Transportation

Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

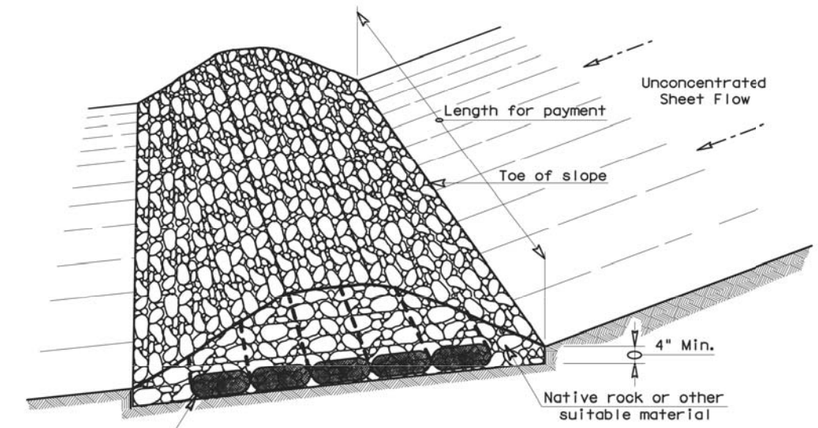
FENCE & VERTICAL TRACKING

EC(1)-16

FILE: ec116	DN: TxDOT		CK: KM		DW: VP	DN/CK: LS
© TxDOT: JULY 2016	CONT	SECT	JOB		HIGHWAY	
REVISIONS	0912	72	397		VAR	
	DIST	COUNTY			SHEET NO.	
	HOU	HARRIS			40	

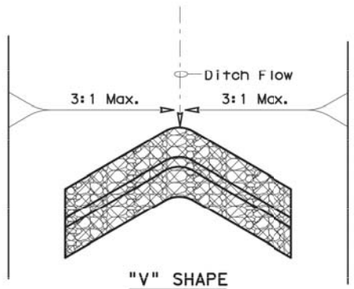
DATE
FILE

DATE:
FILE:

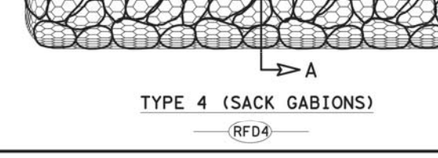


FILTER DAM AT TOE OF SLOPE

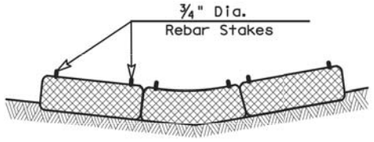
RFD1



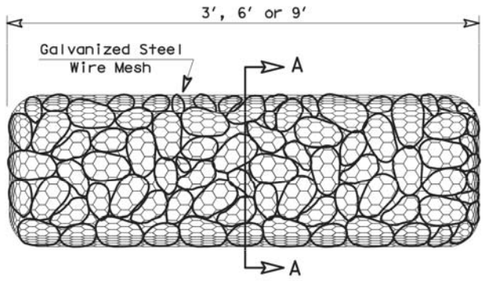
"V" SHAPE
PLAN VIEW



PLAN VIEW

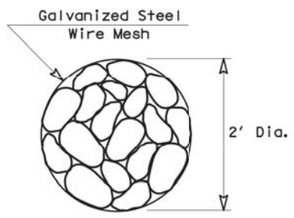


SECTION B-B

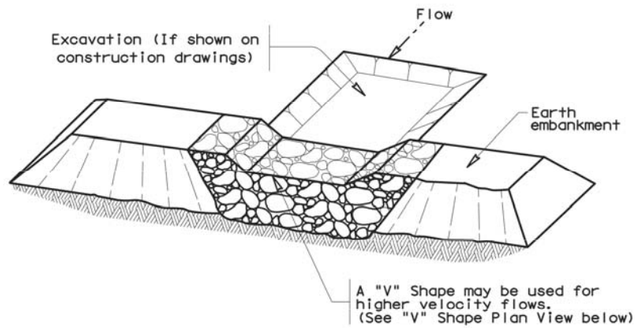


TYPE 4 (SACK GABIONS)

RFD4

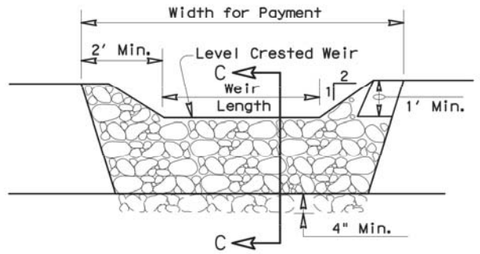


SECTION A-A

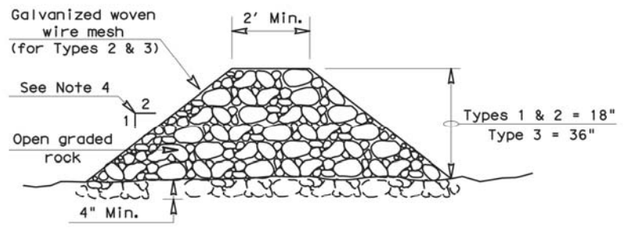


FILTER DAM AT SEDIMENT TRAP

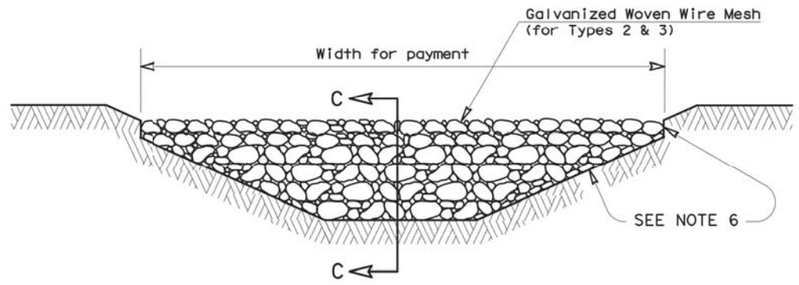
RFD1 OR RFD2



PROFILE



SECTION C-C



FILTER DAM AT CHANNEL SECTIONS

RFD1 OR RFD2 OR RFD3

GENERAL NOTES

1. If shown on the plans or directed by the Engineer, filter dams should be placed near the toe of slopes where erosion is anticipated, upstream and/or downstream at drainage structures, and in roadway ditches and channels to collect sediment.
2. Materials (aggregate, wire mesh, sandbags, etc.) shall be as indicated by the specification for "Rock Filter Dams for Erosion and Sedimentation Control".
3. The rock filter dam dimensions shall be as indicated on the SW3P plans.
4. Side slopes should be 2:1 or flatter. Dams within the safety zone shall have sideslopes of 6:1 or flatter.
5. Maintain a minimum of 1' between top of rock filter dam weir and top of embankment for filter dams at sediment traps.
6. Filter dams should be embedded a minimum of 4" into existing ground.
7. The sediment trap for ponding of sediment laden runoff shall be of the dimensions shown on the plans.
8. Rock filter dam types 2 & 3 shall be secured with 20 gauge galvanized woven wire mesh with 1" diameter hexagonal openings. The aggregate shall be placed on the mesh to the height & slopes specified. The mesh shall be folded at the upstream side over the aggregate and tightly secured to itself on the downstream side using wire ties or hog rings. For in stream use, the mesh should be secured or staked to the stream bed prior to aggregate placement.
9. Sack Gabions should be staked down with ¾" dia. rebar stakes, and have a double-twisted hexagonal weave with a nominal mesh opening of 2 ½" x 3 ¼"
10. Flow outlet should be onto a stabilized area (vegetation, rock, etc.).
11. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

ROCK FILTER DAM USAGE GUIDELINES

Rock Filter Dams should be constructed downstream from disturbed areas to intercept sediment from overland runoff and/or concentrated flow. The dams should be sized to filter a maximum flow through rate of 60 GPM/FT^2 of cross sectional area. A 2 year storm frequency may be used to calculate the flow rate.

Type 1 (18" high with no wire mesh) (3" to 6" aggregate): Type 1 may be used at the toe of slopes, around inlets, in small ditches, and at dike or swale outlets. This type of dam is recommended to control erosion from a drainage area of 5 acres or less. Type 1 may not be used in concentrated high velocity flows (approximently 8 Ft/Sec or more) in which aggregate wash out may occur. Sandbags may be used at the embedded foundation (4" deep min.) for better filtering efficiency of low flows if called for on the plans or directed by the Engineer.

Type 2 (18" high with wire mesh) (3" to 6" aggregate): Type 2 may be used in ditches and at dike or swale outlets.

Type 3 (36" high with wire mesh) (4" to 8" aggregate): Type 3 may be used in stream flow and should be secured to the stream bed.

Type 4 (Sack gabions) (3" to 6" aggregate): Type 4 May be used in ditches and smaller channels to form an erosion control dam.

Type 5: Provide rock filter dams as shown on plans.

PLAN SHEET LEGEND

Type 1 Rock Filter Dam	RFD1
Type 2 Rock Filter Dam	RFD2
Type 3 Rock Filter Dam	RFD3
Type 4 Rock Filter Dam	RFD4

Texas Department of Transportation

Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

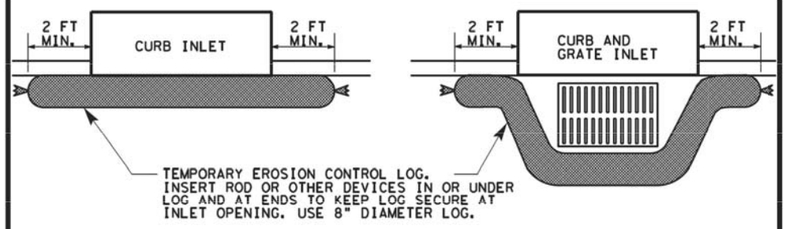
ROCK FILTER DAMS

EC(2)-16

FILE: ec216	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS	
© TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY	
REVISIONS	0917	72	397	VAR	
	DIST	COUNTY		SHEET NO.	
	HOU	HARRIS		41	

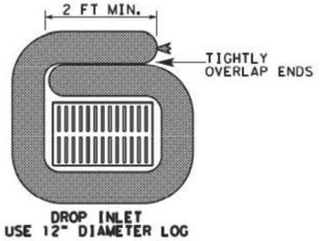
CURB INLETS
8" DIAMETER LOGS

ITEM 506-6040 BIODEG EROSN CONT LOGS (INSTL) (8")

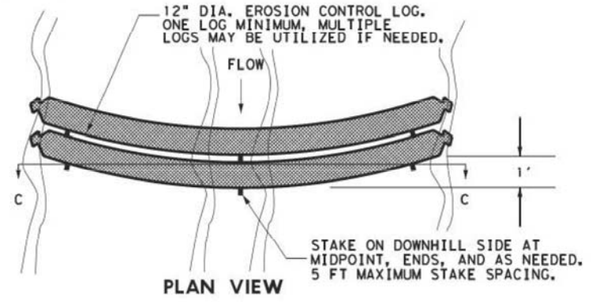


DROP INLETS AND OTHER LOCATIONS
12" DIAMETER LOGS

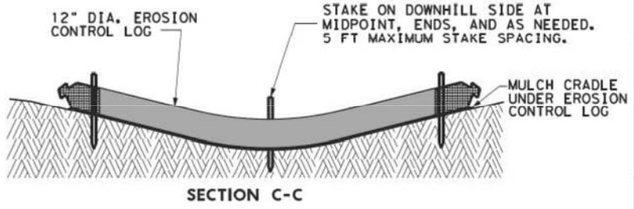
ITEM 506-6041 BIODEG EROSN CONT LOGS (INSTL)(12")



DROP INLETS

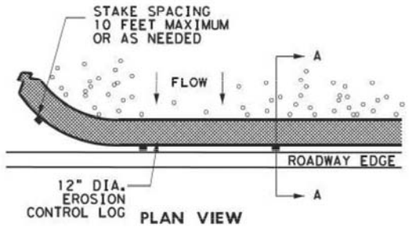


PLAN VIEW

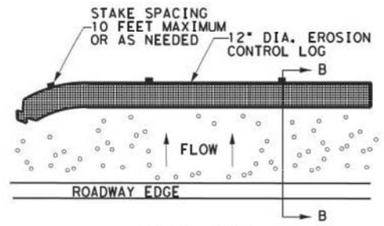


SECTION C-C

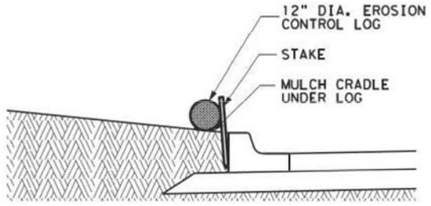
DRAINAGE SWALE OR DITCH



PLAN VIEW

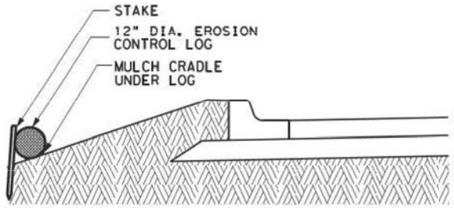


PLAN VIEW



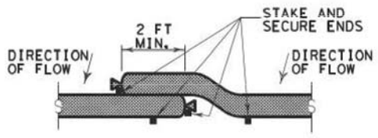
SECTION A-A

SLOPE TO ROADWAY EDGE



SECTION B-B

SLOPE AWAY FROM ROADWAY EDGE



END OF LOG OVERLAP

MATERIAL REQUIREMENTS

FILL:

Use 100% shredded mulch or other non-compost biodegradable material as fill for logs.
No compost or fines.

DO NOT USE MATERIAL WHICH PROHIBITS WATER INFILTRATION.

LOG MESH:
Use mesh with 1/4" openings or larger. Mesh must allow water infiltration but also hold fill material in place.

SEDIMENT BASIN & TRAP USAGE GUIDELINES

A sediment trap (erosion control log) may be used to filter sediment out of runoff draining from an unstabilized area.

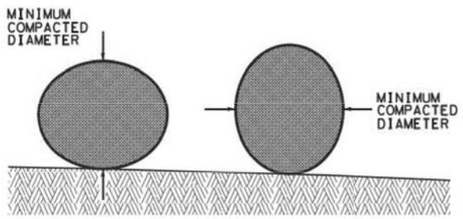
Traps: The drainage area for a sediment trap should not exceed 5 acres. The trap capacity should be 1800 CF/Acre (0.5" over the drainage area).

Sediment traps should be placed in the following locations:
1. Within drainage ditches spaced as needed or min. 500' on center
2. Immediately preceding ditch inlets
3. Just before the drainage enters a water course
4. Just before the drainage leaves the right of way

The trap should be cleaned when the capacity has been reduced by 1/2 or the sediment has accumulated to a depth of 1', whichever is less.

REQUIRED ITEMS:

- ITEM 506-6040 BIODEG EROSN CONT LOGS (INSTL) (8") LF
- ITEM 506-6041 BIODEG EROSN CONT LOGS (INSTL) (12") LF
- ITEM 506-6043 BIODEG EROSN CONT LOGS (REMOVE) LF



DIAMETER MEASUREMENTS OF EROSION CONTROL LOGS SPECIFIED IN PLANS

Texas Department of Transportation
Houston District

EROSION CONTROL LOG

ECL-12

FILE: STDG4a.DGN	DN: TxDot	CK: TxDot	DW: TxDot	CK: TxDot
©TxDOT 2014	DISTRICT	FED REG	PROJECT NUMBER	SHEET
REVISIONS 3/15 MINOR CORRECTIONS	HOU	6	F2022(875)	42
	COUNTY	CONTROL	SECT	JOB	HIGHWAY
	HARRIS	0917	72	397	VAR

STD G-4A

I. STORMWATER POLLUTION PREVENTION

Texas Pollutant Discharge Elimination System (TPDES) TXR 150000: Stormwater Discharge Permit or Construction General Permit is required for projects with 1 or more acres disturbed soil. Projects with any disturbed soil must protect for erosion and sedimentation in accordance with Item 506. Refer to Storm Water Pollution Prevention Plan (SWP3) Houston District standard plan.

No Additional Comments

II. WORK IN OR NEAR STREAMS, WATERBODIES AND WETLANDS

United States Army Corps of Engineers (USACE) Permit is required for filling, dredging, excavating or other work in water bodies, rivers, creeks, streams, wetlands or wet areas. The Contractor must adhere to all of the terms and general conditions associated with the following permit(s). If additional work not represented in the plans is required, contact the Engineer immediately.

☒ No United States Army Corps (USACE) Permit Required

☐ Work is authorized by the United States Army Corps of Engineers (USACE) under a Nationwide Permit (NWP) without a Pre-Construction Notification (PCN). Project specific permit was not issued by USACE, therefore is not in the plan set. The USACE general conditions are in the "General Notes."

☐ Work is authorized by the United States Army Corps of Engineers (USACE) under a Nationwide Permit (NWP) with a Pre-Construction Notification (PCN). The project specific permit issued by the United States Army Corps of Engineers (USACE) is included in the plan set. The USACE general conditions are in the "General Notes."

☐ Work is authorized by the United States Army Corps of Engineers (USACE) under a Individual Permit (IP). The project specific permit issued by the United States Army Corps of Engineers (USACE) is included in the plan set.

☐ Work would be authorized by the United States Army Corps of Engineers (USACE) permit. The project specific permit issued by the USACE will be provided to the contractor.

United States Coast Guard (USCG) Permit is required for projects that involve the construction or modification (including changes to lighting) of a bridge or causeway across a water body determined to be navigable by the United States Coast Guard (USCG) under Section 9 of the Rivers and Harbors Act. If additional work not represented in the plans is required, contact the Engineer immediately.

☒ No United States Coast Guard (USCG) Coordination Required

☐ United States Coast Guard (USCG) Permit

☐ United States Coast Guard (USCG) Exemption

Additional Comments

III. CULTURAL RESOURCES

Refer to TxDOT Standard Specifications in the event historical issues or archeological artifacts are found during construction. Upon discovery of archeological artifacts (bones, burnt rock, flint, pottery, etc.) cease work in the area and contact the Engineer immediately.

No Additional Comments

IV. VEGETATION RESOURCES

Preserve native vegetation to the extent practical. Refer to TxDOT Standard Specifications in order to comply with requirements for invasive species, beneficial landscaping and tree/brush removal.

No Additional Comments

V. FEDERAL LISTED, PROPOSED THREATENED, ENDANGERED SPECIES, CRITICAL HABITAT, STATE LISTED SPECIES, CANDIDATE SPECIES AND MIGRATORY BIRDS

If any of the listed species below are observed, cease work in the area, do not disturb species or habitat and contact the Engineer immediately.

The work may not remove active nests (from bridges, structures, or vegetation adjacent to the roadway, etc.) during nesting season (February 15 to October 1). If removal of structures or vegetation is necessary during the nesting season, the Contractor shall conduct a bird survey no more than 3 days in advance of the clearing/demolish start date. All bird surveys shall be conducted by a Field Biologist and adhere to the guidance document "Avoiding Migratory Birds and Handling Potential Violations" found in the TxDOT Environmental Compliance Toolkits at the time of the survey. (See below for Field Biologist and Ornithologist qualifications)

No Additional Comments

Field Biologist, Ornithologist – a field biologist is defined as an individual qualified to perform field investigations, presence/absence surveys and habitat surveys for protected avian species or species of concern. A mandatory bachelor's degree in biology or a related science is required. At a minimum, the Field Biologist, Ornithologist, shall have completed and reported a minimum of three presence/absence and habitat surveys for protected avian species in the past five years. A minimum of three projects must have been conducted in Texas. Surveys shall have been performed for documentation of species in accordance with a protocol approved by USFWS or TPWD, or following generally accepted methodologies.

VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES

Refer to TxDOT Standard Specifications in the event potentially contaminated materials are observed, such as dead or distressed vegetation, trash disposal areas, drums, canisters, barrels, leaching or seepage of substances, unusual smells or odors, or stained soil, cease work in the area and contact the Engineer immediately.

No Additional Comments

VII. OTHER ENVIRONMENTAL ISSUES

Comments:

Version 2.1

DATE: Apr 20, 2020
FILE:

Texas Department of Transportation

TxDOT Houston District

ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS

EPIC

FILE: EPIC Sheet.dgn	DN:	CK:	DW:	CK:
© TxDOT: March 2017	CONT	SECT	JOB	HIGHWAY
REVISIONS	0912	72	397	Var
UPDATED section V. text and added definition (10/17) ADDED USCG and USACE notes in Section VII (04/18)	DIST	COUNTY		SHEET NO.
	12	Harris		43

SITE DESCRIPTION

PROJECT LIMITS: Ave. 6th, Ave. 8th, Ave. 11th, and Ave. 13th bounded by Ave. G and Ave. N.

PROJECT DESCRIPTION: Installing Sidewalk.

MAJOR SOIL DISTURBING ACTIVITIES: Excavating the existing ground for the sidwalks.

TOTAL PROJECT AREA: 1.975 Acres.

TOTAL AREA TO BE DISTURBED: 1.975 Acres.

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.64

EXISTING CONDITION OF SOIL & VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: Grass and pavement.

NAME OF RECEIVING WATERS: Berry Bayou Segment ID 1007F.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

____ TEMPORARY SEEDING
____ PERMANENT PLANTING, SODDING, OR SEEDING
____ MULCHING
____ SOIL RETENTION BLANKET
____ BUFFER ZONES
____ PRESERVATION OF NATURAL RESOURCES

OTHER: ____

STRUCTURAL PRACTICES:

____ SILT FENCES
____ HAY BALES
____ ROCK BERMS
____ DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
____ DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
____ DIVERSION DIKE AND SWALE COMBINATIONS
____ PIPE SLOPE DRAINS
____ PAVED FLUMES
____ ROCK BEDDING AT CONSTRUCTION EXIT
____ TIMBER MATTING AT CONSTRUCTION EXIT
____ CHANNEL LINERS
____ SEDIMENT TRAPS
____ SEDIMENT BASINS
____ STORM INLET SEDIMENT TRAP
____ STONE OUTLET STRUCTURES
____ CURBS AND GUTTERS
____ STORM SEWERS
____ VELOCITY CONTROL DEVICES
____ EROSION CONTROL LOGS

OTHER: ____

NARRATIVE - SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES: ____

After the signs and barricades have been installed:

1. Install any SW3P as directed by the Engineer
2. Maintain the SW3P during the project.
3. Remove the SW3P on completion of work at each location.

STORM WATER MANAGEMENT:

Any devices required to minimize sediment runoff in the event of a storm will be placed in position before construction begins. The Storm Water drainage will be provided by the existing systems already in place. Water within the Right Of Way will be carried by ditches to lows in the road profile where it will outfall into the receiving waters.

POST CONSTRUCTION STORM WATER MANAGEMENT
There will be no devices installed during the construction process to control Storm Water discharges that will remain after construction operations have been completed.

OTHER EROSION AND SEDIMENT CONTROLS:

MAINTENANCE: All erosion and sediment controls will be maintained in good working order. If a repair is necessary it will be done at the earliest date possible, but no later than 7 calendar days after the surrounding exposed ground has dried sufficiently to prevent further damage from heavy equipment. The area adjacent to creeks and drainageways shall have priority followed by devices protecting storm sewer inlets.

INSPECTION: All inspections will be performed by a TxDOT inspector per one of the options below as directed by the Area Engineer
1. At least every 7 calendar days
2. At least every 14 days or after 0.5 inches or more of rainfall
An inspection and maintenance report should be made for each inspection. Based on the inspection results, the controls shall be revised according to the inspection report.

WASTE MATERIALS: The dumpster used to store all waste material will meet all state and local city solid waste management regulations. All trash and construction debris will be deposited in the dumpster. The dumpster will be emptied as necessary or as required by local regulation and the trash will be hauled to a local dump. No construction waste material will be buried on site.

HAZARDOUS WASTE (INCLUDING SPILL REPORTING): In the event of a spill which may be considered hazardous, the Houston District Safety Office shall be contacted immediately at 713-802-5962.

SANITARY WASTE: All Sanitary Waste will be collected from the portable units as necessary or as required by local regulations by a licensed sanitary waste management contractor.

OFFSITE VEHICLE TRACKING:

____ HAUL ROADS DAMPENED FOR DUST CONTROL
_X_ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
_X_ EXCESS DIRT ON ROAD REMOVED DAILY
____ STABILIZED CONSTRUCTION ENTRANCE

OTHER: ____

REMARKS: Disposal areas, stockpiles, and haul roads shall be constructed in a manner that will minimize and control the sediment that may enter receiving waterways. Disposal areas shall not be located in any waterway, waterbody or streambed. Construction staging areas and vehicle maintenance areas shall be constructed by the contractor in a manner which minimizes the runoff of all pollutants. All waterways shall be cleared as soon as practical of temporary embankments, temporary bridges, matting, falsework, piling, debris, and other obstructions placed during construction operations that are not part of the finished work.

STATE OF TEXAS
ANWAR ALSHAHRISTANI
135003
LICENSED
PROFESSIONAL ENGINEER

Texas Department of Transportation
Houston District

TxDOT STORM WATER POLLUTION PREVENTION PLAN

SWP3

FILE: STDG1.DGN	DN: TxDot	CK: TxDot	DW: TxDot	CK: TxDot
©TxDOT JANUARY 2007	DIST	FED REG	PROJECT NO.	SHEET
REVISIONS 9/2010 INSPECTION NOTE 9/2013 INSPECTION NOTE 11/2013 SW3P TO SWP3 03/2015 2014 SPECS	HOU	6	F2022(722)	44
	COUNTY	CONTROL	SECT	JOB	HIGHWAY
	HARRIS	0917	72	397	VAR

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