

CIVIL PLANS FOR PROPOSED 12" WATER LINE & 10" SANITARY SEWER TO SERVE CUTTEN PARK IN H.C.M.U.D. NO. 191

LOCATED IN
CITY OF HOUSTON ETJ, HARRIS COUNTY,
TEXAS

NOTES:
I, PATRICK CARRIGAN, HEREBY ACKNOWLEDGE THAT I HAVE REVIEWED THE NEW FLOOD HAZARD RECOVERY DATA AND USED THE MOST RESTRICTIVE INFORMATION FOR THE DESIGN OF THIS PROJECT.

MMG Contractors, LLC
AS-BUILT
By: [Signature] Date: 12/10/18

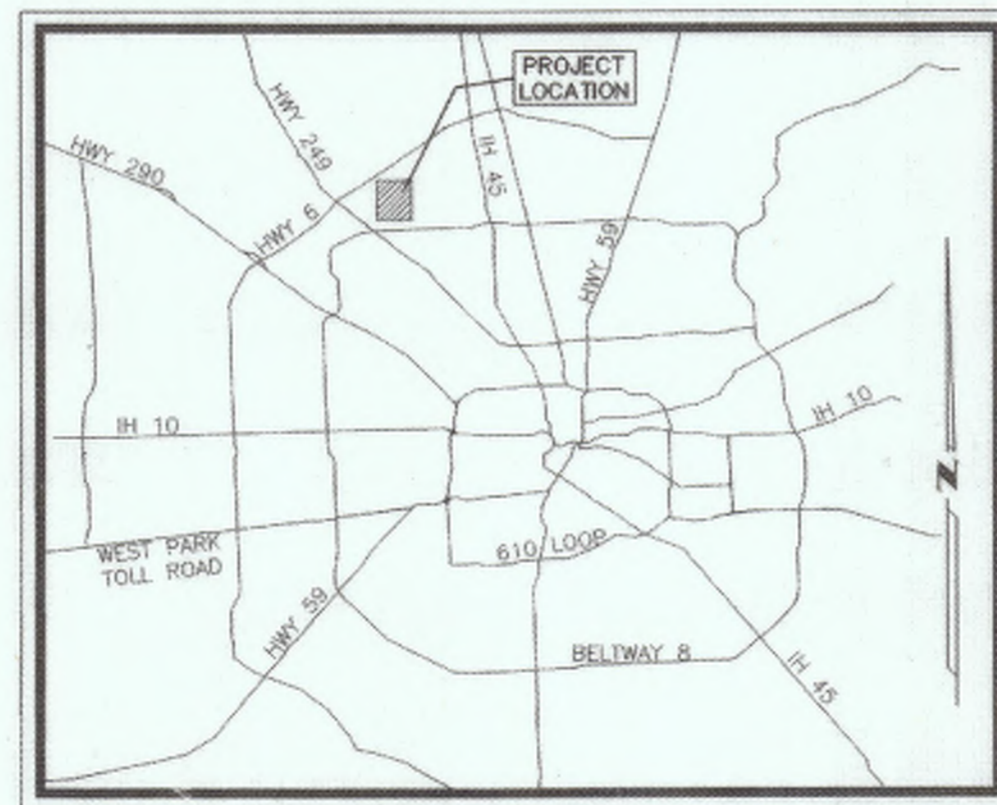
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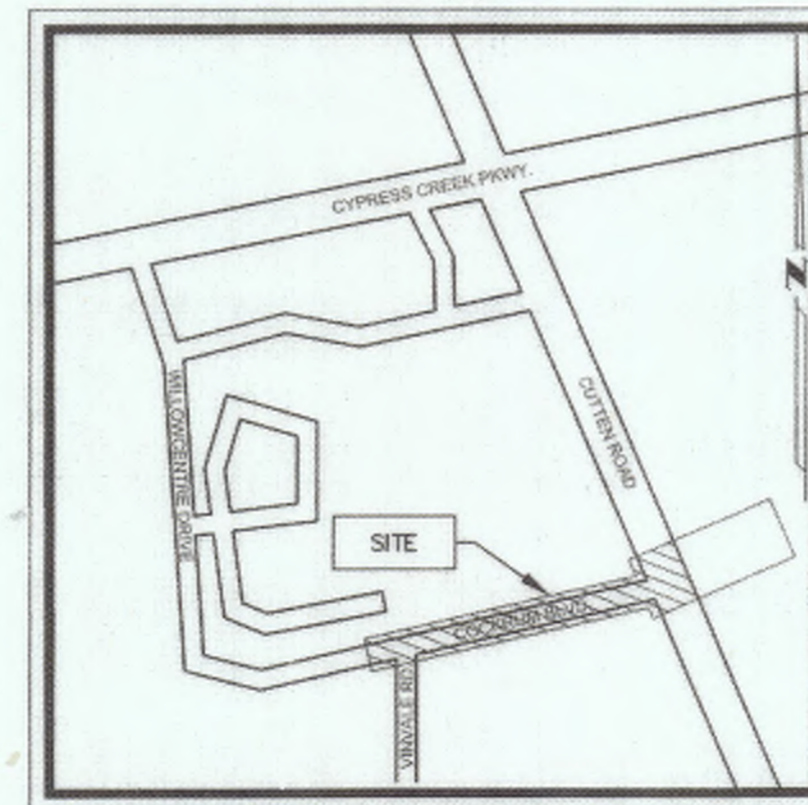
PLANS SUBMITTAL/REVIEW LOG

SUBMIT TO CITY OF HOUSTON, HARRIS COUNTY, AT&T & CPE -NOT FOR CONSTRUCTION	07/13/2016
RESUBMIT TO CITY OF HOUSTON -NOT FOR CONSTRUCTION	09/27/2016
RESUBMIT TO HARRIS COUNTY -NOT FOR CONSTRUCTION	10/04/2016
RESUBMIT TO MUD 191 -NOT FOR CONSTRUCTION	10/13/2016
SUBMIT FOR APPROVAL -FOR APPROVAL	12/12/2017

GIMS TILE: 4966d
KEYMAP NO.: 370F
ZIP CODE: 77066



VICINITY MAP
N.T.S.



LOCATION MAP
N.T.S.

ADDENDUM/REVISION LOG

REVISION NO.	AFFECTED SHEETS

PROJECT TEAM:

OWNER/REPRESENTATIVE
BD REALTY ADVISORS, L.L.C.
ATTN: BRAD DILL
5010 F LOUETTA ROAD #543
SPRING, TX 77379
PHONE # 281.272.2560
281.676.5619 FAX
281.635.5884 CELL
BDILL@BDREALTY.COM

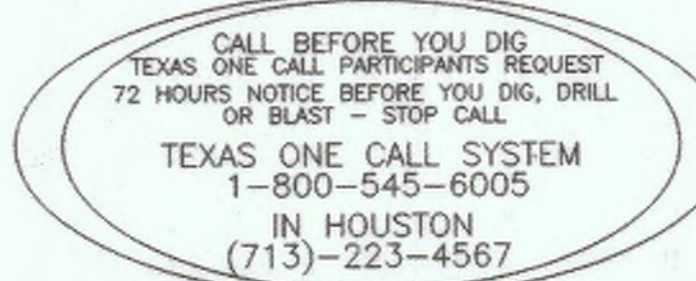
CIVIL ENGINEER
ALJ LINDSEY, LLC
5629 FM 1960 WEST, SUITE 314
HOUSTON, TEXAS 77069
281.301.5955
CONTACT: PATRICK CARRIGAN
PCARRIGAN@ALJLINDSEY.COM

ACCORDING TO MAP NO. 48201C0435M OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR HARRIS COUNTY AND INCORPORATED AREAS, DATED OCTOBER 16, 2013, THE SUBJECT TRACT IS SITUATED WITHIN: UNSHADED ZONE "X"

48 HOUR NOTICE:
CONTRACTOR SHALL NOTIFY HARRIS COUNTY PRIOR TO COMMENCING CONSTRUCTION AND/OR BACKFILLING ANY UTILITIES. CONTRACTOR(S) TO CONTACT PUBLIC REVIEW DEPARTMENT @ (713-274-3931) OR (PUBLIC.REVIEW@HCPID.ORG).

Chad Walker 1/12/2018
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 191 ENGINEER DATE
APPROVAL CAN BE REVOKED, SUSPENDED, OR MODIFIED AT ANY TIME, BUT, IN ANY EVENT, IT EXPIRES AUTOMATICALLY AFTER ONE YEAR.*

*OUR APPROVAL DOES NOT INCLUDE A DETERMINATION THAT THE ONSITE PRIVATE UTILITIES WERE DESIGNED PROPERLY. WE REVIEWED THE PLANS SOLELY FOR GENERAL COMPLIANCE WITH THE DISTRICT'S RATE ORDER.



ILMS NO: 16070498
LOG NO: 16-0834

ALJLindsey
Civil Engineers
5629 FM 1960 W., Suite 314
Houston, TX 77069
281.301.5955
FRN F-11528

12 DECEMBER 2017

SURVEYED BY: [Signature] FB NO.:
NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
WASTE WATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	
CITY ENGINEER	CITY DWG. NO.:
DIRECTOR OF PUBLIC WORKS AND ENGINEERING	59273

SHEET No: 1A OF 17

FOR CONSTRUCTION

PROPOSED 12" WATER LINE AND 10" SANITARY SEWER TO SERVE CUTTEN PARK

GENERAL NOTES - INSIDE CITY LIMITS (HOUSTON)

- 1. CONSTRUCT WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING IN ACCORDANCE WITH THE LATEST EDITION OF THE PUBLICATIONS STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING, PUBLISHED BY THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING.

SANITARY SEWERS (HOUSTON)

- 1. ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HOUSTON STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, STREET PAVING, AND TRAFFIC AND ALL CURRENT AMENDMENTS THERETO AND BE SUBJECT TO A STANDARD INFILTRATION TEST. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF SEWER LINE INCLUDED IN THE PROJECT. REQUIREMENTS OF TEXAS ADMINISTRATIVE CODE, TITLE 30 CHAPTER 317, DESIGN CRITERIA FOR SEWERAGE SYSTEMS, SHALL GOVERN WHERE CONFLICTS EXIST EXCEPT WHERE CITY REQUIREMENTS ARE MORE STRINGENT.

STORM SEWERS (HOUSTON)

- 1. STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE (C-76, CLASS B), AND SHALL BE INSTALLED, BEDED, AND BACKFILLED IN ACCORDANCE WITH THE CITY OF HOUSTON DRAWING NOS. 02317-02, 02317-03, 02317-04, 02317-07 (OCT. 2002) AS APPLICABLE UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

GRADING NOTES (HOUSTON)

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

WATER LINES (HOUSTON)

- 1) WATER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST CITY OF HOUSTON RULES AND REGULATIONS, STANDARD SPECIFICATIONS, AND CONSTRUCTION DETAILS.

SWPPP AND SWAMP COMPLIANCE NOTES

- A. < 1.0 ACRE
IF AREA IS DISTURBED (CLEARING AND GRUBBING AND/OR EXCAVATION INVOLVED)
PROVIDE SWPPS TO PREVENT ANY RUNOFF INTO THE CITY'S W454
PROVIDE SWPPP NOTES FOR CONSTRUCTION PLANS
ANY CONSTRUCTION SITE RUNOFF INTO THE CITY'S W454 IS A VIOLATION OF THE CITY STORM WATER ORDINANCE

SWPPP CONSTRUCTION NOTES

- 1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPPP) PLANS TO PREVENT SILT AND/OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STREAM.

TRAFFIC NOTES

- 1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD), MOST RECENT EDITION WITH REMISIONS DURING CONSTRUCTION.

STREET AND BRIDGE NOTES (HOUSTON)

- 1. DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S "STANDARD CONSTRUCTION SPECIFICATIONS" AND "STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING" UNLESS OTHERWISE NOTED AND APPROVED ON THESE PLANS.

Table 7.3: MINIMUM COVER REQUIREMENTS FOR WATER LINES (FEET) - SANITARY SEWER AND CROSSINGS. Includes columns for pipe size, depth, and material type.

FRANCHISE UTILITIES

CAUTION: UNDERGROUND GAS FACILITIES
LOCATION OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE LLC, WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY.

AT&T TEXAS/SMBT FACILITIES

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

HC MUD NO. 191 GENERAL CONSTRUCTION NOTES

- 1. CONTRACTOR SHALL CONTACT HC MUD NO. 191 DISTRICT ENGINEER, MR. CHAD WALKER, P.E., AT (281) 363-4039, A MINIMUM OF 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.

RULES AND REGULATIONS RELATING TO PERMITS, PLUMBING AND MAKING CONNECTIONS TO WATER AND SEWER FACILITIES OF HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 191

Permit Required. A permit issued by the District is required for: (1) making a new connection to the District's water or sanitary sewer system; or (2) altering the facilities (or their uses) served by an existing connection or making another change affecting the load on the water or sanitary sewer system of the District (e.g., changing fixtures or space served, changing the use of fixtures or space, changing type of occupancy, etc.).

Permit Conditions. Permit conditions include:

- A. ONLY THE DISTRICT OR ITS OPERATOR (OR A PERSON AUTHORIZED BY THE OPERATOR) MAY DISTURB, TAP, ALTER OR CONNECT TO THE DISTRICT'S FACILITIES.
B. CONNECTION MAY NOT BE MADE, AND SERVICE MAY NOT BE PROVIDED OR CONTINUED, UNLESS: (1) THE ENTIRE PERMITTED PARCEL HAS BEEN DULY PLATTED AND RECORDED AS REQUIRED BY CITY OF HOUSTON SUBDIVISION REGULATIONS; (2) PLANS AND SPECIFICATIONS FOR ALL BUILDINGS AND OTHER IMPROVEMENTS AND ALL WATER AND SANITARY SEWER FACILITIES AND FIXTURES (ON-SITE AND OFF-SITE) HAVE BEEN SUBMITTED TO, AND HAVE RECEIVED WRITTEN APPROVAL FROM, THE DISTRICT'S ENGINEER (AND SUCH FACILITIES AND FIXTURES MUST INCLUDE METERS AND PROTECTIVE EQUIPMENT AS MAY BE PRESCRIBED BY THE ENGINEER, E.G., METERS, VALVES, VAULTS, BACKFLOW PREVENTERS, FLOW DETECTORS, GRIT CHAMBERS, GREASE TRAPS, SAMPLING WELLS, ETC.); (3) EACH POINT OF CONNECTION TO DISTRICT FACILITIES HAS BEEN DESIGNATED BY THE DISTRICT'S ENGINEER; (4) ALL FACILITIES AND FIXTURES ON THE DISTRICT'S SIDE OF A DESIGNATED POINT OF CONNECTION HAVE BEEN COMPLETED AT PERMITTEE'S SOLE EXPENSE (IF ANY CONSTRUCTION OR ALTERATION IS NECESSARY), INSPECTED BY THE DISTRICT OPERATOR, APPROVED BY THE DISTRICT OPERATOR AND ENGINEER, CONVEYED TO THE DISTRICT (BY INSTRUMENT APPROVED BY THE ATTORNEY FOR THE DISTRICT), ACCEPTED BY THE DISTRICT'S BOARD AND PLACED IN SERVICE; (5) ALL WATER AND SEWER FACILITIES AND FIXTURES LOCATED ON THE CUSTOMER SIDE OF A DESIGNATED POINT OF CONNECTION--INCLUDING ANY WATER FACILITIES, GRAVITY SEWER FACILITIES, SEWER PUMPING FACILITIES AND SEWER FLOW MAINS--HAVE BEEN COMPLETED (AT PERMITTEE'S SOLE EXPENSE) INSPECTED BY THE DISTRICT OPERATOR AND PASSED (IT BEING UNDERSTOOD THAT OWNERSHIP OF SUCH FACILITIES AND FIXTURES--AND RESPONSIBILITY FOR THEIR OPERATION, MAINTENANCE, REPLACEMENT AND REPAIR--WILL REMAIN WITH PERMITTEE OR THE CUSTOMER AND NOT BE TRANSFERRED TO THE DISTRICT); (6) ALL ON-SITE WATER, SANITARY SEWER AND DRAINAGE FACILITIES AND FIXTURES, INCLUDING PLUMBING OF ALL BUILDINGS TO BE SERVED, HAVE BEEN COMPLETED, INSPECTED BY THE DISTRICT'S OPERATOR AND PASSED; HOWEVER, IF ONLY SOME OF THE FACILITIES, FIXTURES AND PLUMBING HAVE BEEN COMPLETED, THE REMAINDER MAY NOT BE SERVED UNDER THIS PERMIT UNLESS THEY ARE COMPLETED, INSPECTED AND PASSED BEFORE THE END OF THE PERMIT PERIOD; (7) ACTUAL CAPACITY NEEDED TO SERVE THE PERMITTED USE (AND ALL BUILDINGS, IMPROVEMENTS AND FIXTURES ON THE PERMITTED PARCEL) MUST BE LESS THAN OR EQUAL TO THE PERMITTED CAPACITY, IN THE OPINION OF THE DISTRICT'S ENGINEER; (8) ALL TAP FEES, PERMIT FEES, PLAN REVIEW FEES, INSPECTION FEES AND OTHER FEES AND DEPOSITS HAVE BEEN PAID, FOR THE ENTIRE PERMITTED PARCEL AND THE ENTIRE PERMITTED USE; (9) SERVICE AGREEMENT(S) COVERING THE ENTIRE PERMITTED PARCEL HAVE BEEN DULY SIGNED AS REQUIRED BY THE DISTRICT'S REGULATIONS; (10) IF REQUIRED BY THE DISTRICT'S OPERATOR, A SERVICE AGREEMENT OR NOTICE REGARDING OPERATION, MAINTENANCE, REPLACEMENT AND REPAIR RESPONSIBILITIES HAS BEEN SIGNED AND ACKNOWLEDGED BY THE PROPERTY OWNER AND RECORDED IN THE REAL PROPERTY RECORDS; AND (11) ALL OTHER APPLICABLE REGULATIONS HAVE BEEN COMPLIED WITH.

- C. ALL PERMIT CONDITIONS--INCLUDING THE REQUIREMENTS TO SUBMIT PLANS, ARRANGE INSPECTIONS AND OBTAIN APPROVALS--APPLY AND MUST BE FULFILLED AGAIN IF FACILITIES OR FIXTURES ARE ADDED OR CHANGED, OR IF ADDITIONAL BUILDING SPACE IS FINISHED OR BUILT-OUT, OR IF THE TYPE OF OCCUPANCY CHANGES. SUCH CONDITIONS MUST BE FULFILLED BEFORE FACILITIES ARE ADDED OR CHANGED AND BEFORE ANY CHANGE IN OCCUPANCY. A NEW PERMIT MAY ALSO BE REQUIRED.
D. OTHER: (1) A PERMIT IS ONLY A CONDITIONAL PERMISSION TO PROCEED; (2) ALL WORK AND CONNECTIONS MUST COMPLY WITH THE APPROVED PLANS AND ALL APPLICABLE LAWS, RULES AND REGULATIONS, INCLUDING THE DISTRICT'S RATE ORDER AND OTHER REGULATIONS; (3) PERMITS CAN BE REVOKED OR SUSPENDED; THEY DO NOT CONFER ANY PROPERTY RIGHT OR VESTED RIGHT OF ANY KIND.

NO CHANGE
MMG Contractors, LLC
AS-BUILT
By: [Signature] Date: 12/10/17

Chad Walker 1/12/2018
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 191 ENGINEER
DATE: 1/12/2018
APPROVAL CAN BE REVOKED, SUSPENDED, OR MODIFIED AT ANY TIME, BUT, IN ANY EVENT, IT EXPIRES AUTOMATICALLY AFTER ONE YEAR.

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

VERIFICATION OF PRIVATE UTILITY LINES

Signature: [Signature] DATE: 12/13/17
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT RELIEVE YOUR OBLIGATION TO CALL 811.

Signature: [Signature] DATE: 12/13/17
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
THIS SIGNATURE VERIFIES EXISTING UNDERGROUND FACILITIES--NOT TO BE USED FOR CONFLICT VERIFICATION.
Signature valid for six months.

Signature: [Signature] DATE: 12/13/17
APPROVED FOR AT&T TEXAS / SMBT UNDERGROUND CONDUIT FACILITIES ONLY
SIGNATURE VALID FOR ONE YEAR.

Table with columns: APP., REVISIONS, DATE. Includes handwritten entries for revisions and dates.

ALJ Lindsey
Civil Engineers
5023 FM 1500 W., Suite 314
Houston, TX 77069
281.301.5955
FRM F-11526
12 DECEMBER 2017

CUTTEN PARK UTILITIES

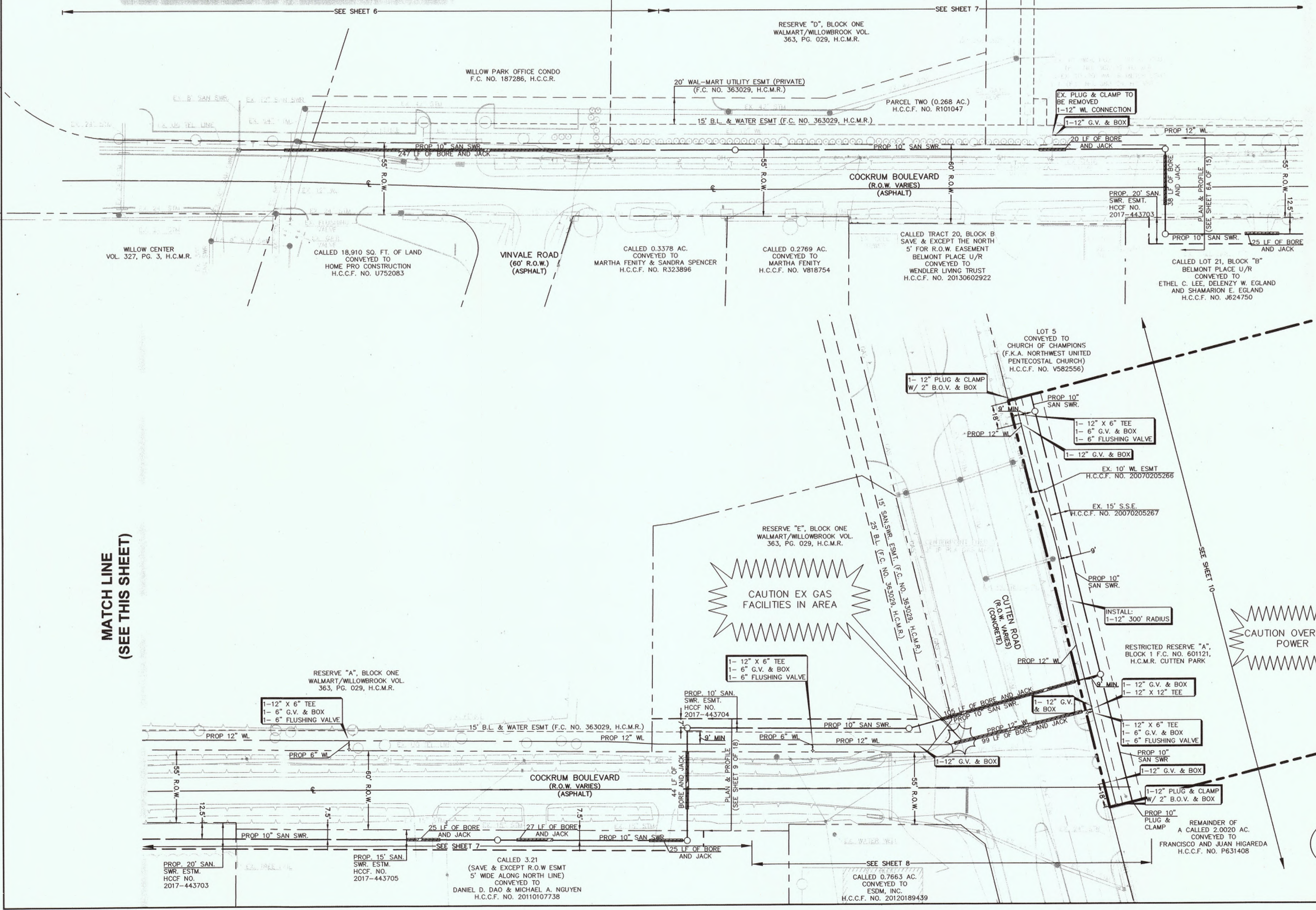
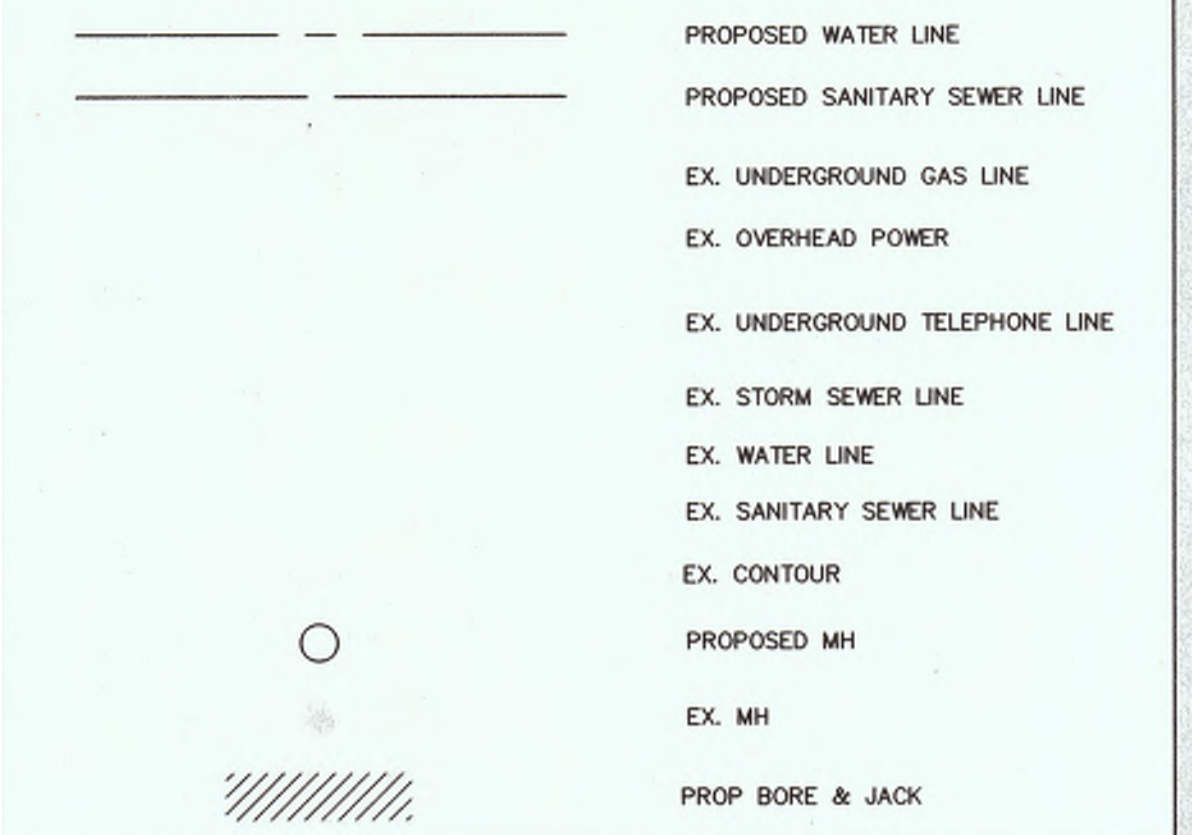
GENERAL NOTES

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

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

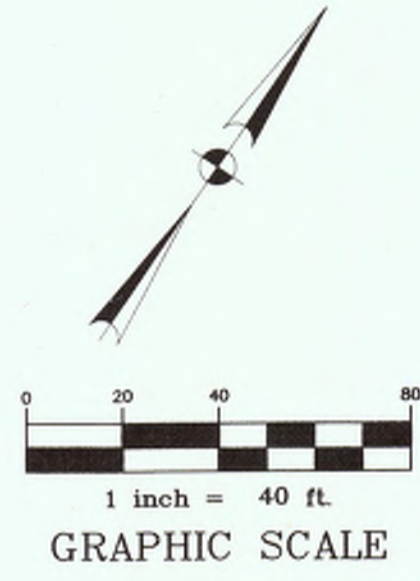
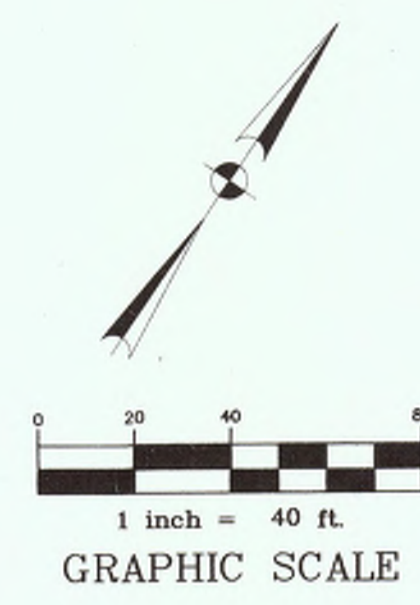
WATER, TRAFFIC & TRANSPORTATION, STORM WATER QUALITY, FACILITIES, STREET & BRIDGE, FILE NO., DRAWING SCALE, FOR CITY OF HOUSTON USE ONLY, SHEET NO 2A OF 17

LEGEND



MATCH LINE
(SEE THIS SHEET)

MATCH LINE
(SEE THIS SHEET)



BENCHMARK:
ELEVATIONS SHOWN HEREON ARE BASED ON TSARP FLOORPLAIN RM NO. 150770 (TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE NAD 83), HCS-D STAINLESS STEEL ROD STAMPED "HCS-D 11 1986" AT THE INTERSECTION OF FM 1960 AND BRETON RIDGE STREET LOCATED IN THE GROUND, NORTH OF INTERSECTION, WEST OF JARED JEWELER PARKING LOT.
ELEVATION = 120.92' (NAVD 1988M 2001 ADJUSTED)

TEMPORARY BENCHMARK "A":
CUT "X" ON NORTHERLY BOLT ON TOP FLANGE OF FIRE HYDRANT AT THE NORTHWEST INTERSECTION OF FM 1960 AND CUTTEN ROAD. (NOT SHOWN HEREON)
ELEVATION = 124.05'

TEMPORARY BENCHMARK "B":
CUT "X" IN LIGHT STANDARD LOCATED APPROX. 100 FEET WEST OF CUTTEN ROAD AND MOST SOUTHERN ENTRANCE OF WALMART, SOUTH SIDE OF ENTRANCE. (SHOWN HEREON)
ELEVATION = 122.42'

TEMPORARY BENCHMARK "C":
BOX CUT ON STORM INLET ALONG THE SOUTH SIDE OF COCKRUM BLVD., APPROX. 100 FEET WEST OF VINVALE ROAD. (SHOWN HEREON)
ELEVATION = 117.04'

Charles Walker 11/2/2018
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 191 ENGINEER DATE
APPROVAL CAN BE REVOKED, SUSPENDED, OR MODIFIED AT ANY TIME, BUT, IN ANY EVENT, IT EXPIRES AUTOMATICALLY AFTER ONE YEAR.

TO ARRANGE FOR LINE TO BE TURNED OFF OR MOVED, CALL CENTERPOINT AT (713) 207-2222
NOTICE:
For your safety, you are required by Texas Law to call 811 at least 48 hours before you dig so that underground lines can be marked. This signature does not fulfill your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES
Shanna DATE: 12/19/17
CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.
Signature valid for 6 months.

Shanna DATE: 12/13/17
CenterPoint Energy/Underground Electrical Facilities Verification ONLY.
(This signature verifies existing underground facilities—not to be used for conflict verification.)
Signature valid for six months.

CHC DATE: 12-13-17
APPROVED FOR AT&T TEXAS / SWIFT UNDERGROUND CONDUIT FACILITIES ONLY
SIGNATURE VALID FOR ONE YEAR.

APP.	REVISIONS	DATE
▲	ADD SHEETS 1-15 ADD SHEETS 16-18 PER MUD	12/18/17
▲		
▲		

NO CHANGE
MMG Contractors, LLC
AS-BUILT
By: *[Signature]* Date: 12/10/18

ALJLindsey
Civil Engineers
5625 FM 1960 W., Suite 314
Houston, TX 77069
281.301.5955
FIRM F-11529

12 DECEMBER 2017

CUTTEN PARK UTILITIES
OVERALL SITE PLAN

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

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
SEWER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

FILE NO:	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE:	
HORIZ :	
VERT :	
SHEET NO. 3A OF 17	59273

CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST
72 HOURS NOTICE BEFORE YOU DIG, DRILL
OR BLAST - STOP CALL
TEXAS ONE CALL SYSTEM
1-800-545-6005
IN HOUSTON
(713)-223-4567

LEGEND

- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER LINE
- EX. OVERHEAD POWER
- EX. UNDERGROUND TELEPHONE LINE
- EX. STORM SEWER LINE
- EX. WATER LINE
- EX. SANITARY SEWER LINE
- PROPOSED MH
- EX. MH
- PROP BORE & JACK

GENERAL NOTES

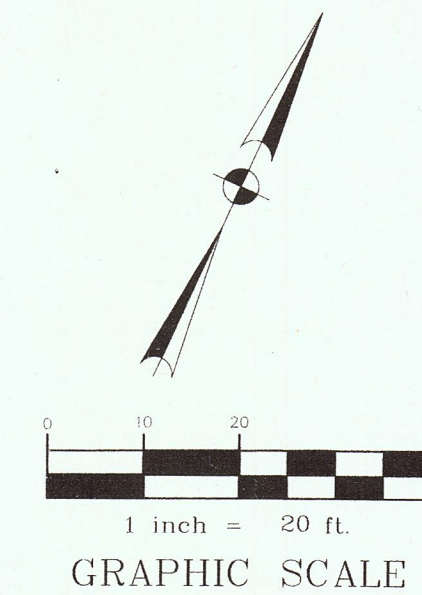
1. REFERENCE SANITARY SEWER AND WATER LINE NOTES SHEET 2 FOR PIPE MATERIAL REQUIREMENTS.
2. ALL DRIVEWAYS, SIDEWALKS, STREET LIGHTS, BUSHES, SHRUBBERY AND LANDSCAPING DAMAGED ON PUBLIC OR PRIVATE PROPERTY SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER. ALL TREES, LANDSCAPING, IRRIGATION, SPRINKLER HEADS, AND PLANTS SHALL BE PROTECTED DURING CONSTRUCTION.
3. CONTRACTOR TO VISUALLY INSPECT LOCATION OF EXISTING 12" WL PRIOR TO ORDERING MATERIALS. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY IF PROPOSED 10" SANITARY SEWER DOES NOT HAVE MINIMUM 2' OF VERTICAL CLEARANCE.
4. SANITARY SEWER-USE 10" GREEN P.V.C. C-900 DR-18 CL.235 FOR BORE & JACK.
5. CONTRACTOR TO SECURE ALL POWER POLES, GUY WIRES, ETC DURING CONSTRUCTION (NO SEPARATE PAY)

MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

MMG Contractors, LLC
AS-BUILT
Date: 12/24/17

1. CONSTRUCTION OF FACILITIES AND/OR PAVING WORK WITHIN PUBLIC RIGHT-OF-WAY NOTIFICATIONS (PERMIT) ISSUED BY HARRIS COUNTY PUBLIC INFRASTRUCTURE DEPARTMENT - PERMITS OFFICE - IS REQUIRED FOR PROPOSED WORK WITHIN HARRIS COUNTY RIGHT-OF-WAY. THE PROJECT MUST BE APPROVED PRIOR TO OBTAINING THE REQUIRED NOTIFICATION. BE ADVISED THAT A NOTIFICATION MUST BE OBTAINED SEPARATELY FROM SITE DEVELOPMENT PERMIT PACKAGE. FOR ADDITIONAL INFORMATION, PLEASE VISIT [HTTP://HCPID.ORG/PERMITS/PR_NOTIFICATION_OF_CONSTRUCTION.HTML](http://hcpid.org/permits/pr_notification_of_construction.html) OR CONTACT PUBLIC REVIEW INSPECTIONS DEPARTMENT @ (713)-274-3931 OR PUBLIC.REVIEW@HCPID.ORG

CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST
72 HOURS NOTICE BEFORE YOU DIG, DRILL OR BLAST - STOP CALL
TEXAS ONE CALL SYSTEM
1-800-545-6005
IN HOUSTON
(713)-223-4567

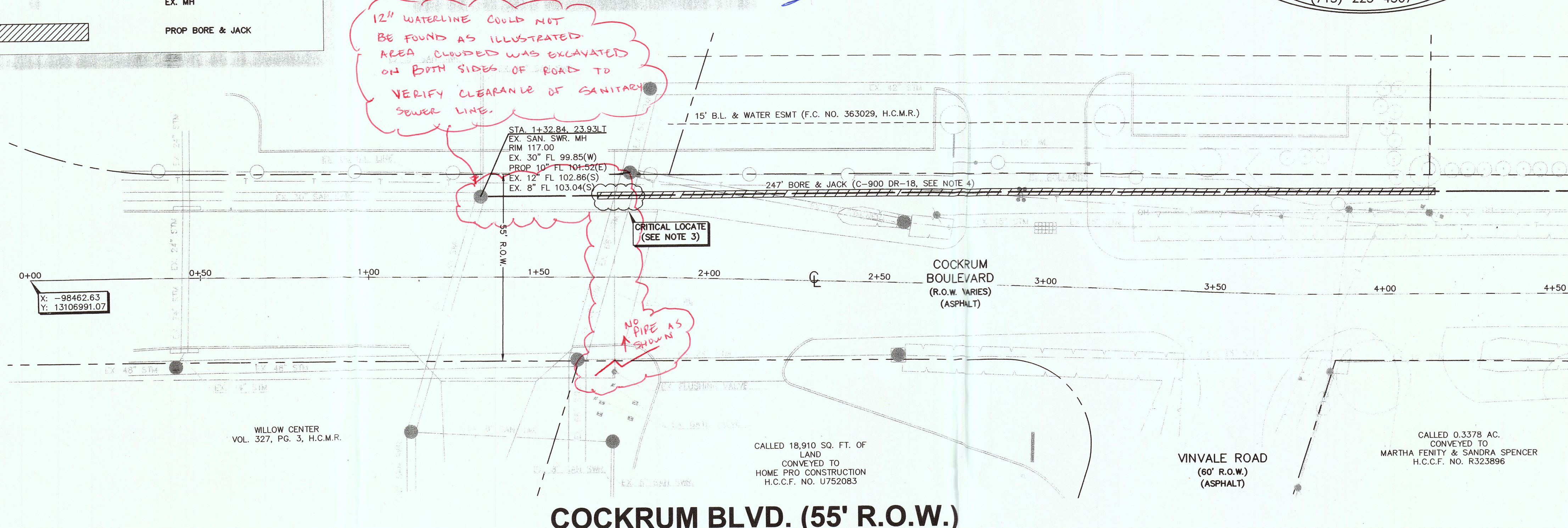


BENCHMARK:
ELEVATIONS SHOWN HEREON ARE BASED ON TSARP FLOORPLAIN RM NO. 150770 (TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE NAD 83), HGCS STAINLESS STEEL ROD STAMPED "HGCS 11 1986" AT THE INTERSECTION OF FM 1960 AND BRETON RIDGE STREET LOCATED IN THE GROUND, NORTH OF INTERSECTION, WEST OF JARED JEWELER PARKING LOT.
ELEVATION = 120.92' (NAV 1988M 2001 ADJUSTED)

TEMPORARY BENCHMARK "A":
CUT "X" ON NORTHERLY BOLT ON TOP FLANGE OF FIRE HYDRANT AT THE NORTHWEST INTERSECTION OF FM 1960 AND CUTTEN ROAD. (NOT SHOWN HEREON)
ELEVATION = 124.05'

TEMPORARY BENCHMARK "B":
CUT "BOX" IN LIGHT STANDARD LOCATED APPROX. 100 FEET WEST OF CUTTEN ROAD AND MOST SOUTHERN ENTRANCE OF WALMART, SOUTH SIDE OF ENTRANCE. (SHOWN HEREON)
ELEVATION = 122.42'

TEMPORARY BENCHMARK "C":
BOX CUT OR STORM INLET ALONG THE SOUTH SIDE OF COCKRUM BLVD., APPROX. 100 FEET WEST OF VINVALE ROAD. (SHOWN HEREON)
ELEVATION = 117.04'



MATCH LINE STA. 4+50.00
(SEE SHEET 5 OF 15)

Chad Walker 1/2/2018
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 191 ENGINEER DATE

APPROVAL DOES NOT INCLUDE A DETERMINATION THAT THE ONSITE PRIVATE UTILITIES WERE DESIGNED PROPERLY. WE REVIEWED THE PLANS SOLELY FOR GENERAL COMPLIANCE WITH THE DISTRICT'S RATE ORDER.

TO ADVANCE FOR LINE TO BE TURNED OFF OR MOVED, CALL CENTERPOINT AT (713) 207-2222

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Almora DATE: 12/13/17
CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.
Signature valid for 6 months.

Almora DATE: 12/13/17
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
(This signature verifies existing underground facilities-not to be used for conflict verification.)
Signature valid for six months.

ctm.ca DATE: 12-13-17
APPROVED FOR AT&T TEXAS / SHIRT UNDERGROUND CONDUIT FACILITIES ONLY
SIGNATURE VALID FOR ONE YEAR.

APP.	REVISIONS	DATE
1	VOID SHEETS 1-15 ADD SHEETS 1A-15 ADD SHEETS 16-18 PER MUD	12/14/17

ALJLindsey
Civil Engineers
5629 FM 1960 W., Suite 314
Houston, TX 77069
281.301.5955
FRN F-11526

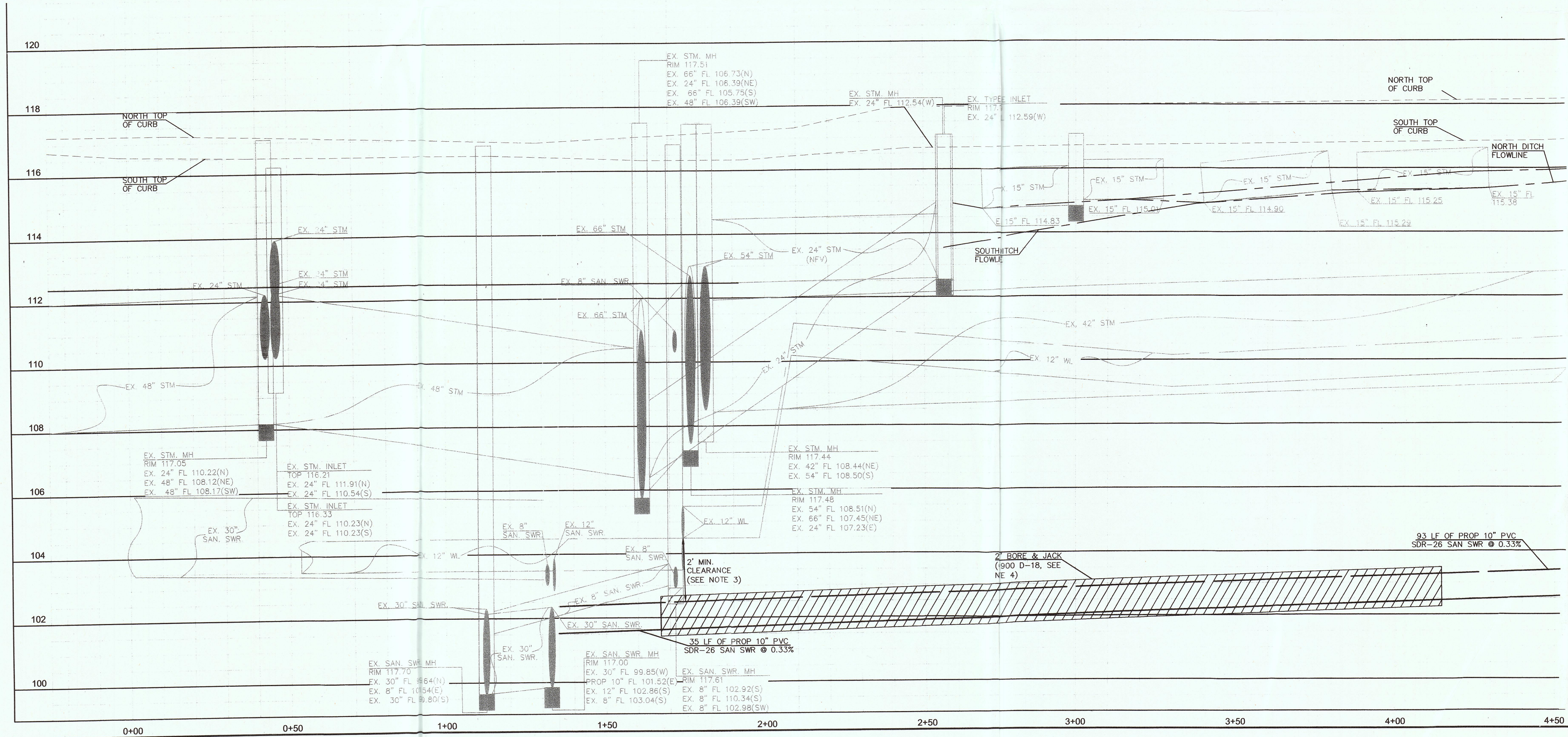
STATE OF TEXAS
PATRICK L. CARRIGAN
95617
REGISTERED PROFESSIONAL ENGINEER
12 DECEMBER 2017

CUTTEN PARK UTILITIES
COCKRUM BLVD. UTILITY PLAN & PROFILE (1 OF 4)

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

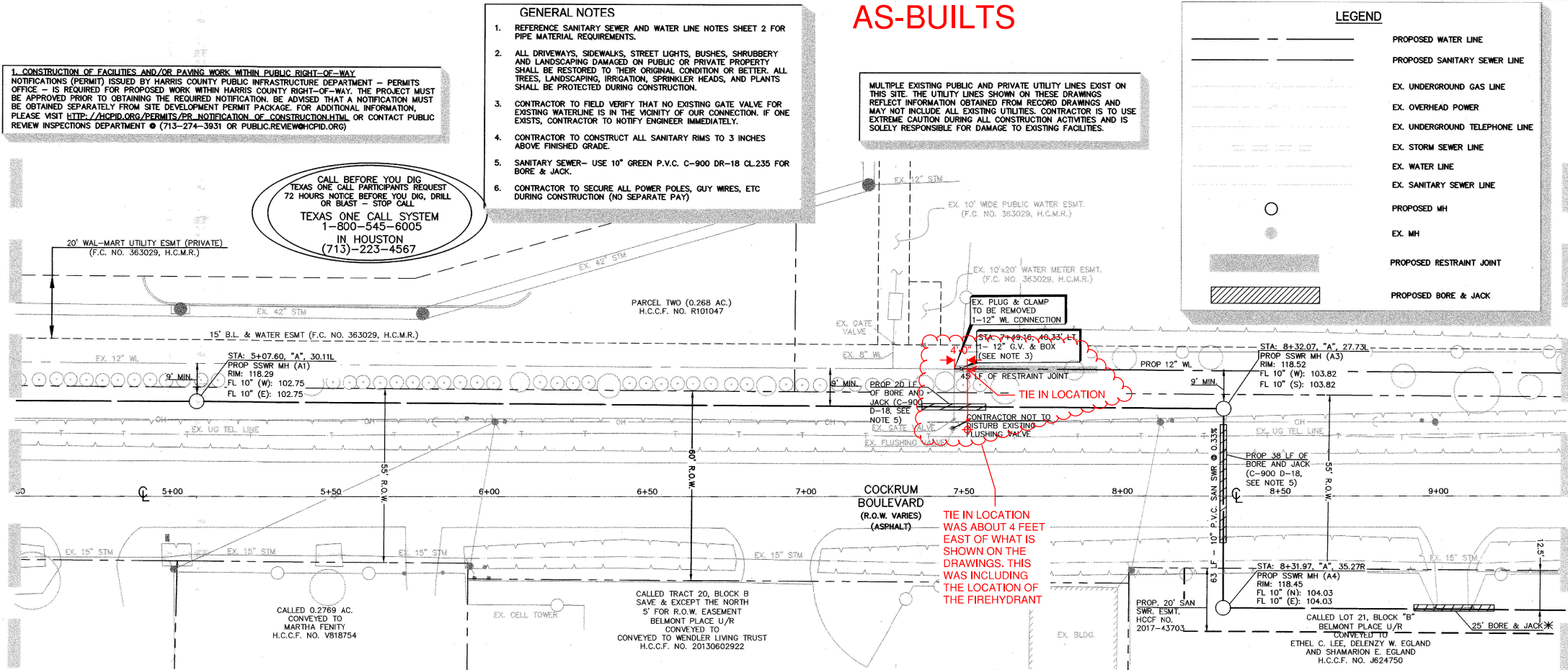
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
SEWER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	
FILE NO:	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
HORIZ : 1"=20'	
VERT : 1"=2'	
SHEET NO. 4 OF 17	



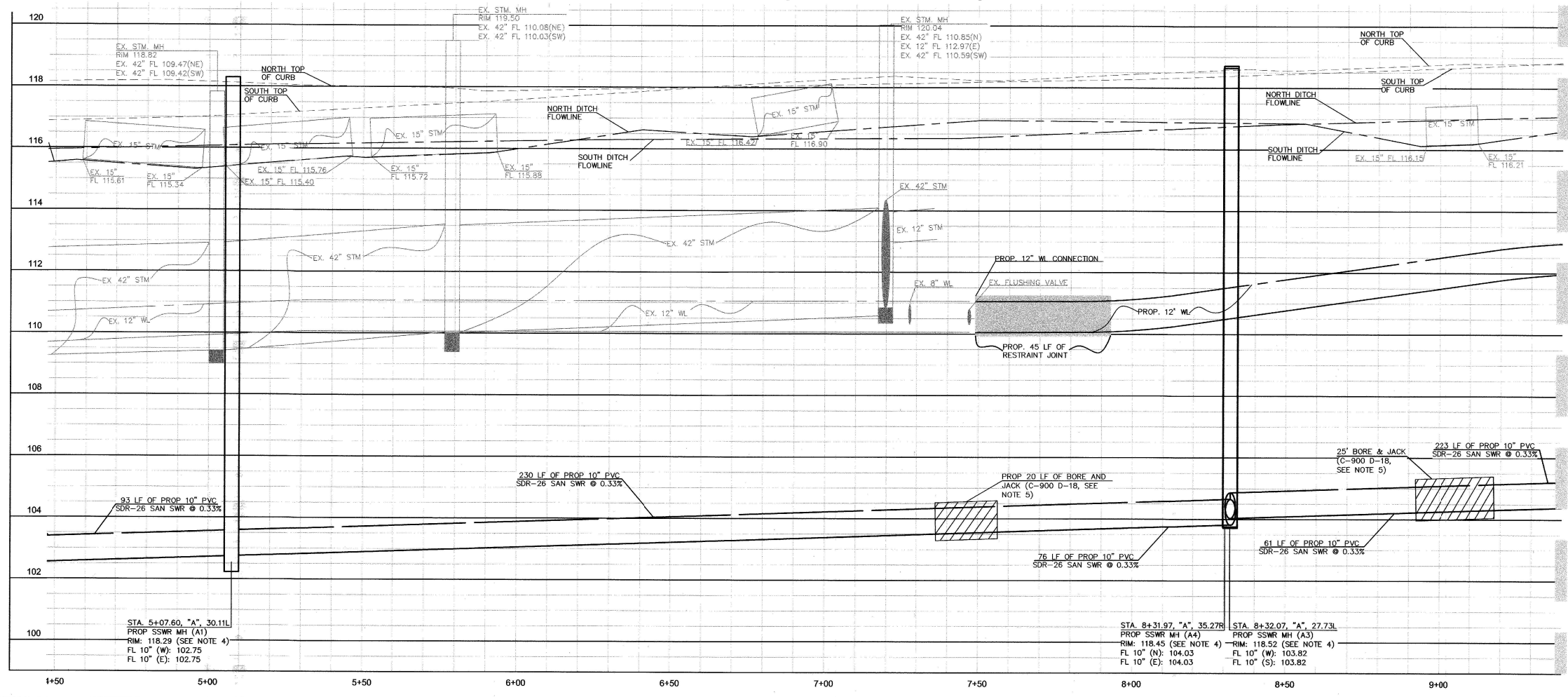
MATCH LINE STA. 4+50.00
(SEE SHEET 5 OF 15)

MATCH LINE 4+50.00
(SEE SHEET 4 OF 15)



MATCH LINE 9+40.00
(SEE SHEET 6 OF 15)

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



MATCH LINE 9+40.00
(SEE SHEET 6 OF 15)

BENCHMARK:

ELEVATORS SHOWN HEREON ARE BASED ON TSARP FLOORPLAN RM NO. 150770 (TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE NAD 83), HGCSO STAINLESS STEEL ROD STAMPED "HGCSO 11 1986" AT THE INTERSECTION OF FM 1560 AND BRETON RIDGE STREET LOCATED IN THE GROUND, NORTH OF INTERSECTION, WEST OF JARED JEWELER PARKING LOT. ELEVATION = 120.92' (NAVD 1988M 2001 ADJUSTED)

TEMPORARY BENCHMARK "A": CUT "X" ON NORTHERLY BOLT ON TOP FLANGE OF FIRE HYDRANT AT THE NORTHWEST INTERSECTION OF FM 1560 AND CUTTEN ROAD. (NOT SHOWN HEREON) ELEVATION = 124.05'

TEMPORARY BENCHMARK "B": CUT "X" IN LIGHT STANDARD LOCATED APPROX. 100 FEET WEST OF CUTTEN ROAD AND MOST SOUTHERN ENTRANCE OF WALMART, SOUTH SIDE OF ENTRANCE. (SHOWN HEREON) ELEVATION = 122.42'

TEMPORARY BENCHMARK "C": BOX CUT ON STORM INLET ALONG THE SOUTH SIDE OF COCKRUM BLVD., APPROX. 100 FEET WEST OF VINVALE ROAD. (SHOWN HEREON) ELEVATION = 117.04'

GRAPHIC SCALE

1 inch = 20 ft

Chad Walker 11/21/2015

HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 191 ENGINEER DATE

APPROVAL CAN BE REVOKED, SUSPENDED, OR MODIFIED AT ANY TIME, BUT, IN ANY EVENT, IT EXPIRES AUTOMATICALLY AFTER ONE YEAR.

*OUR APPROVAL DOES NOT INCLUDE A DETERMINATION THAT THE ONSITE PRIVATE UTILITIES WERE DESIGNED PROPERLY. WE REVIEWED THE PLANS SOLELY FOR GENERAL COMPLIANCE WITH THE DISTRICT'S RATE ORDER.

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VERIFICATION OF PRIVATE UTILITY LINES

Signature: *Hammer* DATE: 12/13/17

Signature: *Hammer* DATE: 12/13/17

Signature: *CTM Co* DATE: 12-13-17

APPROVED FOR AS-BUILTS / SANITARY UNDERGROUND CONDUIT FACILITIES ONLY SIGNATURE VALID FOR ONE YEAR.

APP.	REVISIONS	DATE
1	VOID SHEETS 1-15 ADD SHEETS A-15A ADD SHEETS 16-18 PER AWD	12/14/17

ALJLindsey

Civil Engineers
2625 FM 1960 W., Suite 314
Houston, TX 77069
281.301.5955
PRN F-11526

STATE OF TEXAS

PATRICK L. CARROLL

05617 REGISTERED PROFESSIONAL ENGINEER

12 DECEMBER 2017

CUTTEN PARK UTILITIES

COCKRUM BLVD. UTILITY PLAN & PROFILE (2 OF 4)

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

CITY OF HOUSTON

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER: *Hammer* 12/14/17

TRAFFIC & TRANSPORTATION

STORM WATER QUALITY

STORM FACILITIES

STREET & BRIDGE

FILE NO:

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE

HORIZ : 1"=20'

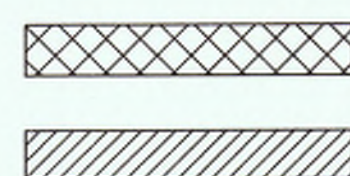
VERT : 1"=2'

SHEET NO. 54 OF 17

54273

LEGEND

- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER LINE
- EX. OVERHEAD POWER
- EX. UNDERGROUND TELEPHONE LINE
- EX. STORM SEWER LINE
- EX. WATER LINE
- EX. SANITARY SEWER LINE
- PROPOSED MH
- EX. MH



NOTES:
1-JOINT CENTERED ON WATER LINE/ SANITARY SEWER
PROP BORE & JACK

GENERAL NOTES

1. REFERENCE SANITARY SEWER AND WATER LINE NOTES SHEET 2 FOR PIPE MATERIAL REQUIREMENTS.
2. ALL DRIVEWAYS, SIDEWALKS, STREET LIGHTS, BUSHES, SHRUBBERY AND LANDSCAPING DAMAGED ON PUBLIC OR PRIVATE PROPERTY SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER. ALL TREES, LANDSCAPING, IRRIGATION, SPRINKLER HEADS, AND PLANTS SHALL BE PROTECTED DURING CONSTRUCTION.
3. CONTRACTOR TO CONSTRUCT ALL SANITARY RIMS TO 3 INCHES ABOVE FINISHED GRADE.
4. SANITARY SEWER- USE 10" GREEN P.V.C. C-900 DR-18 CL.235 FOR BORE & JACK.
5. CONTRACTOR TO SECURE ALL POWER POLES, GUY WRES, ETC DURING CONSTRUCTION (NO SEPARATE PAY)

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SANITARY SEWER & WATER LINE CROSSING NOTES:

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4. FOR WATER AND SANITARY CONTRACTOR TO REFERENCE TABLE 7.3 ON SHEET 2, FOR EXACT CONSTRUCTION METHODS AND PROTECTION REQUIREMENTS FOR INSTALLATION OF PROPOSED UTILITIES.

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ELEVATION = 120.92' (NAVD 1988M 2001 ADJUSTED)

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CUT "BOX" IN LIGHT STANDARD LOCATED APPROX. 100 FEET WEST OF CUTTEN ROAD AND MOST SOUTHERN ENTRANCE OF WALMART, SOUTH SIDE OF ENTRANCE. (SHOWN HEREON)
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TEMPORARY BENCHMARK "C":
BOX CUT ON STORM INLET ALONG THE SOUTH SIDE OF COCKRUM BLVD., APPROX. 100 FEET WEST OF VINVALE ROAD. (SHOWN HEREON)
ELEVATION = 117.04'

MATCH LINE 9+40.00
(SEE SHEET 5 OF 15)

MATCH LINE 14+00.00
(SEE SHEET 7 OF 15)

Chad Walker 1/12/2018
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 191 ENGINEER DATE
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VERIFICATION OF PRIVATE UTILITY LINES
DATE: 12/14/17
Signature valid for 6 months.

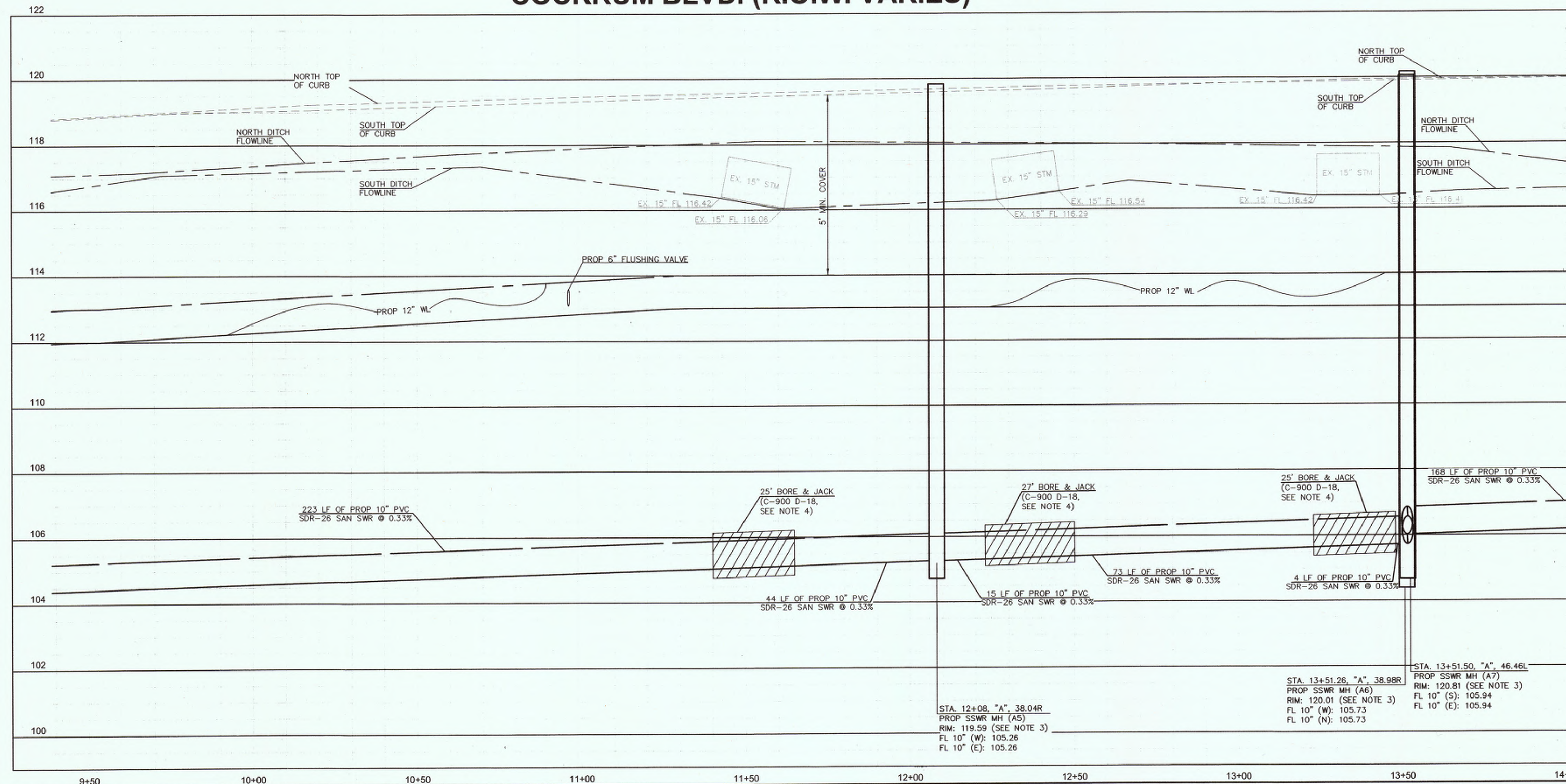
DATE: 12/13/17
Signature valid for six months.

DATE: 12-13-17
SIGNATURE VALID FOR ONE YEAR.

NO CHANGE
MMG Contractors, LLC
AS-BUILT
Date: 12/14/18

APP.	REVISIONS	DATE
1	VOID SHEETS 1-15 ADD SHEETS 1A-16A ADD SHEETS 16-19 PER MVD	12/14/17

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



MATCH LINE 14+00.00
(SEE SHEET 7 OF 15)

ALJLindsey
Civil Engineers
6023 FM 1960 W., Suite 314
Houston, TX 77069
281.301.9955
FRN F-11526

12 DECEMBER 2017

CUTTEN PARK UTILITIES

COCKRUM BLVD. UTILITY PLAN & PROFILE (3 OF 4)

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

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

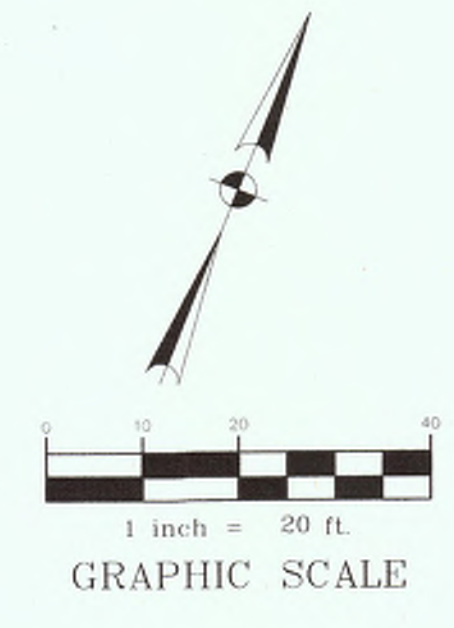
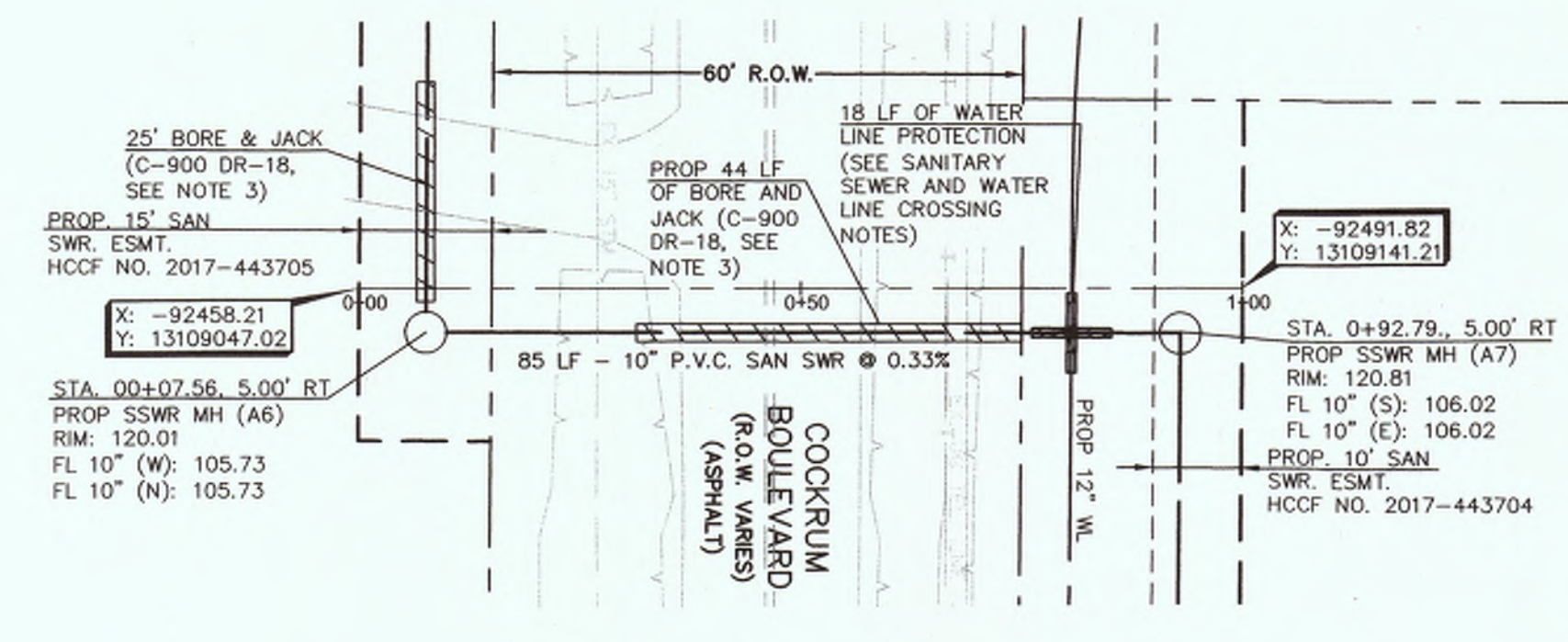
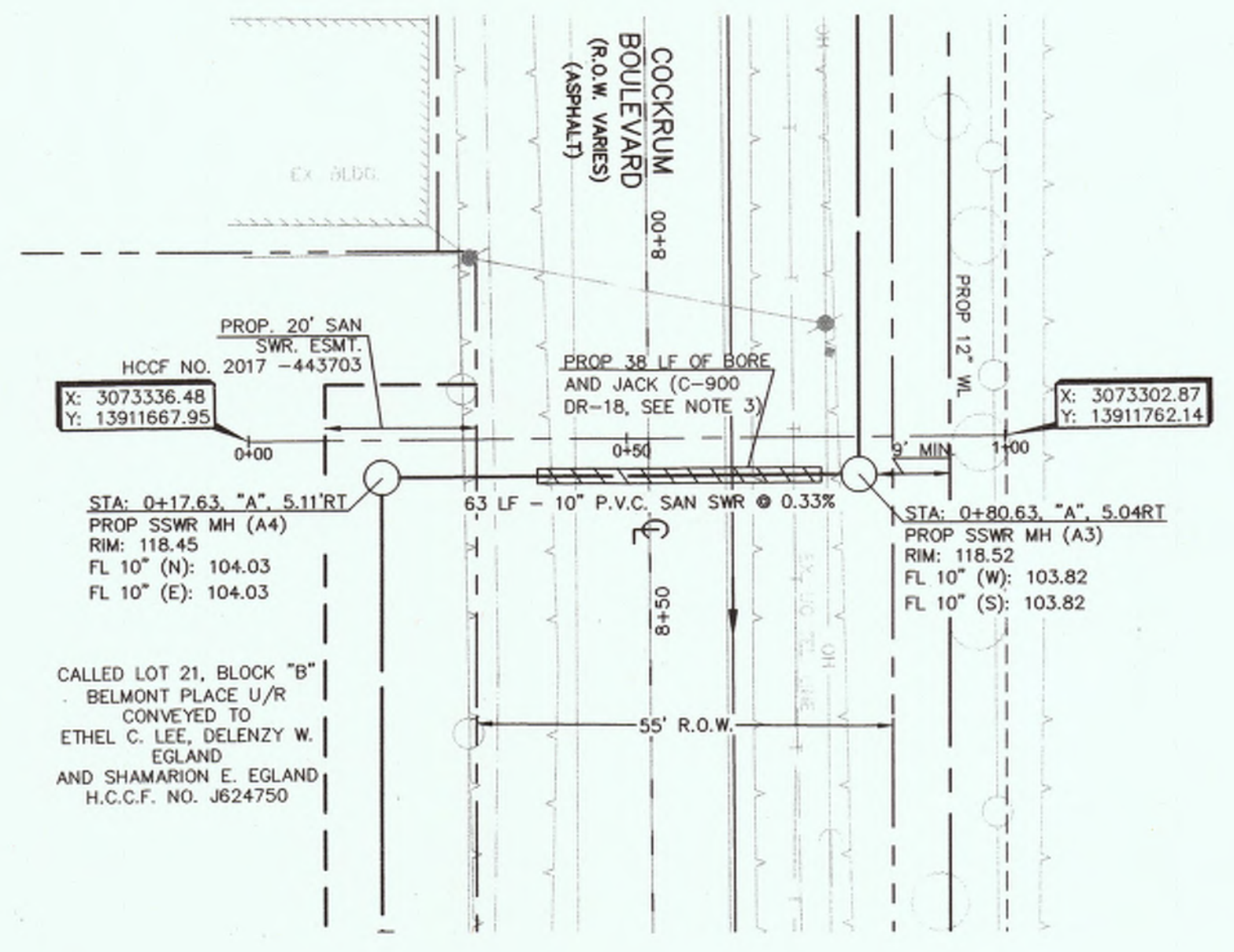
FILE NO: FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE

HORIZ : 1"=20'
VERT : 1"=2'

SHEET NO. 6 OF 17

59273



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Charlita 11/2/2018
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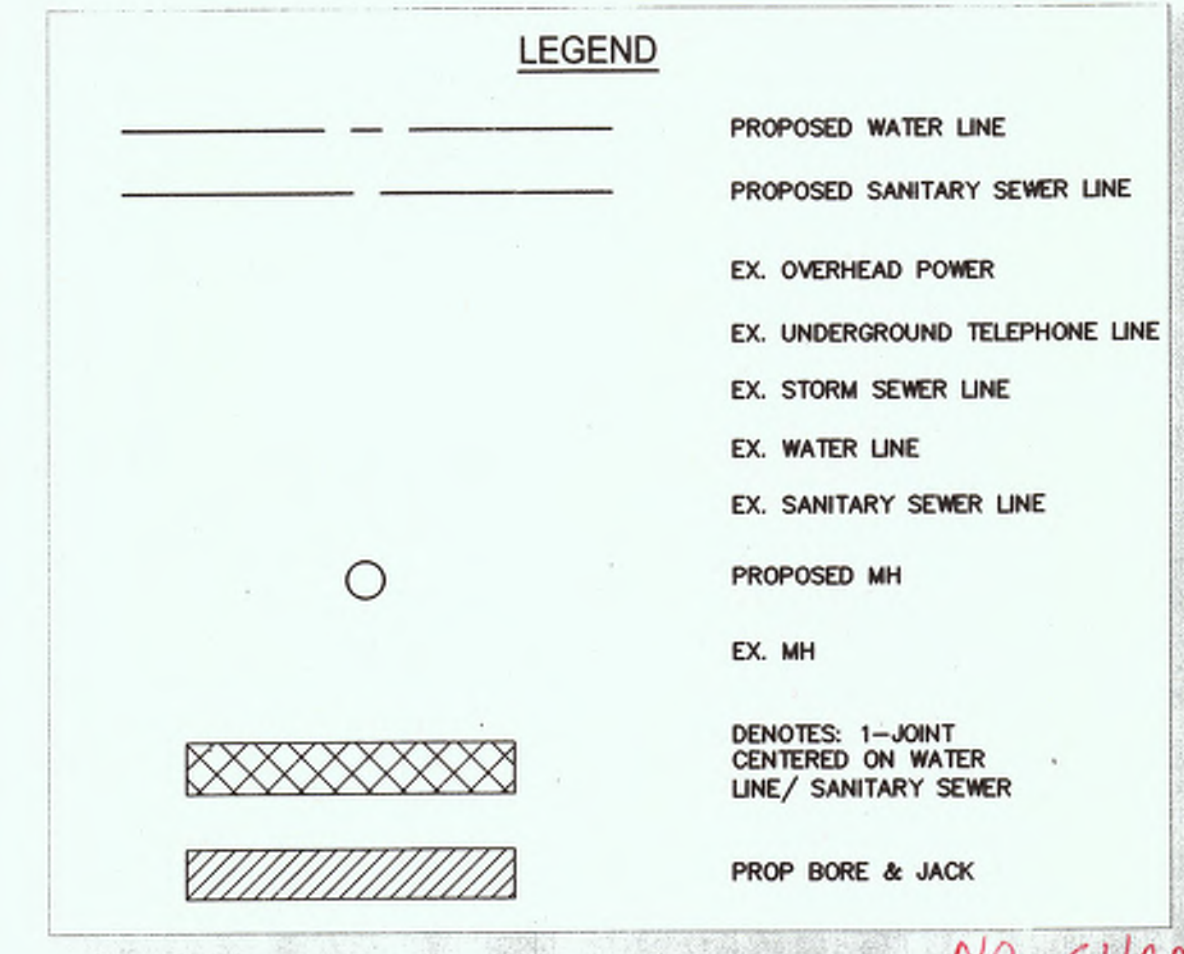
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APP.	REVISIONS	DATE
1	VOID SHEETS 1-15 ADD SHEETS 1A-15A ADD SHEETS 16-18 PER MVD	12/14/17



NO CHANGE
 MMG Contractors, LLC
AS-BUILT
 Date: 12/10/18

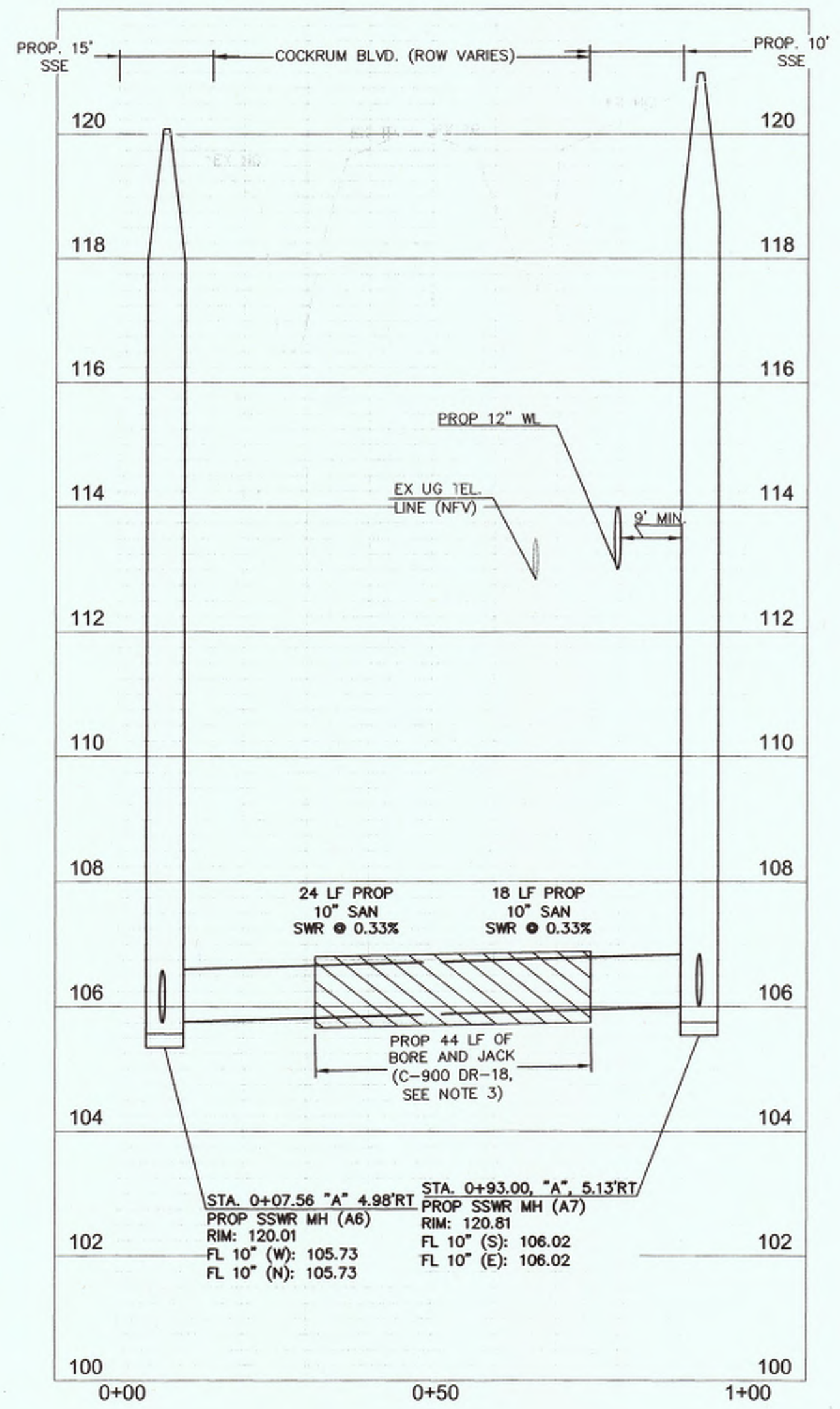
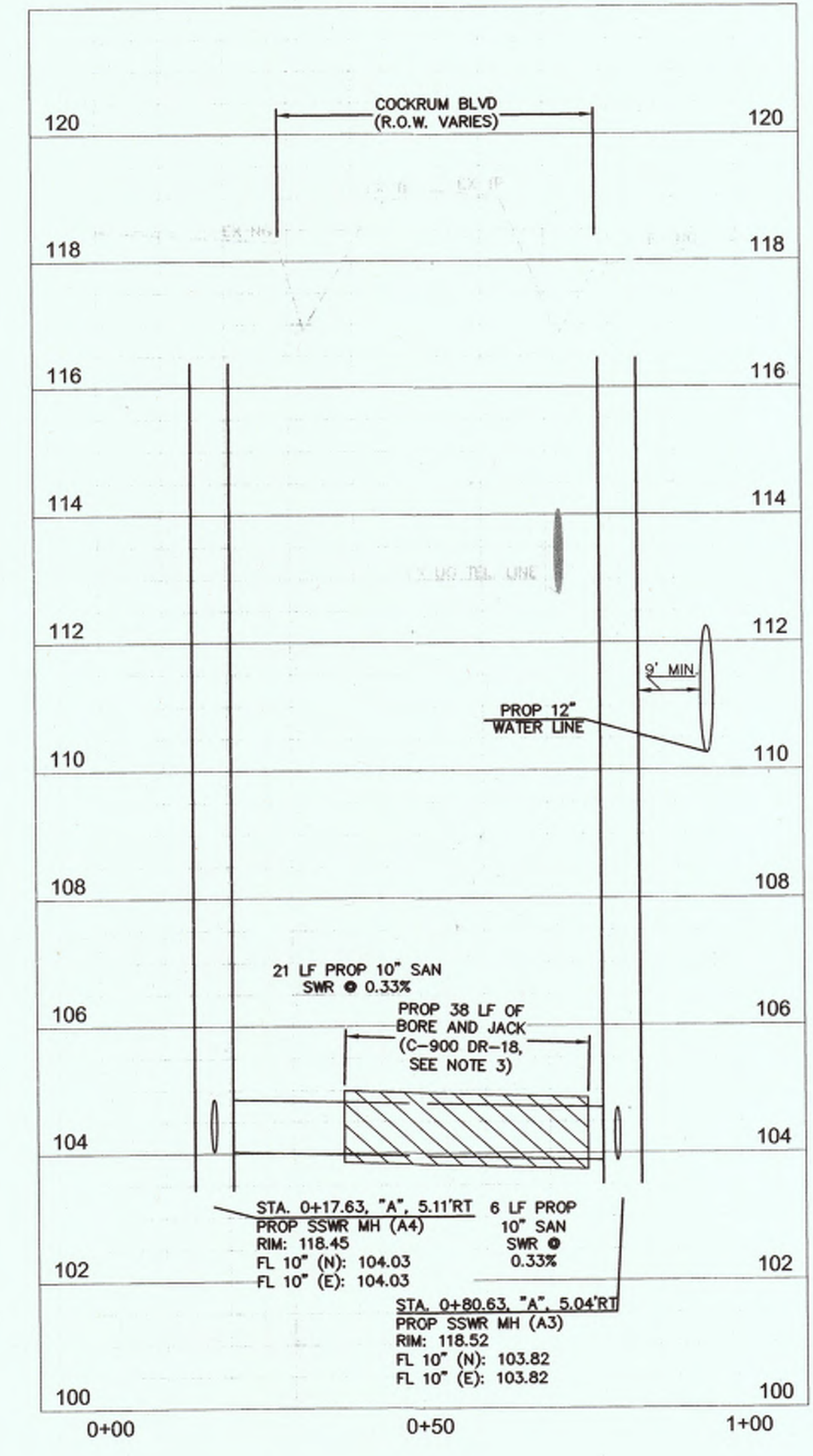
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- GENERAL NOTES**
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CALL BEFORE YOU DIG
 TEXAS ONE CALL PARTICIPANTS REQUEST
 72 HOURS NOTICE BEFORE YOU DIG, DRILL OR BLAST - STOP CALL
 TEXAS ONE CALL SYSTEM
 1-800-545-6005
 IN HOUSTON
 (713)-223-4567



ALJLindsey
 Civil Engineer
 6229 FM 1960 W, Suite 314
 Houston, TX 77069
 281.301.5955
 FRN F-11526

Patrick L. Carrigan
 REGISTERED PROFESSIONAL ENGINEER
 95617
 12 DECEMBER 2017

CUTTEN PARK UTILITIES

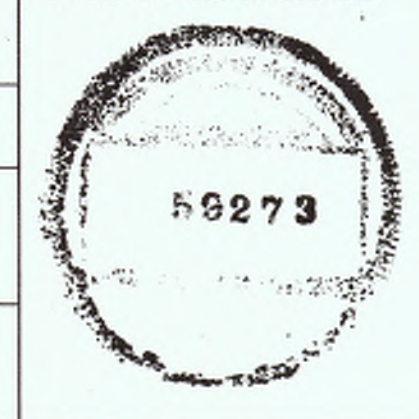
COCKRUM BLVD. UTILITY PLAN & PROFILE (3A OF 4)

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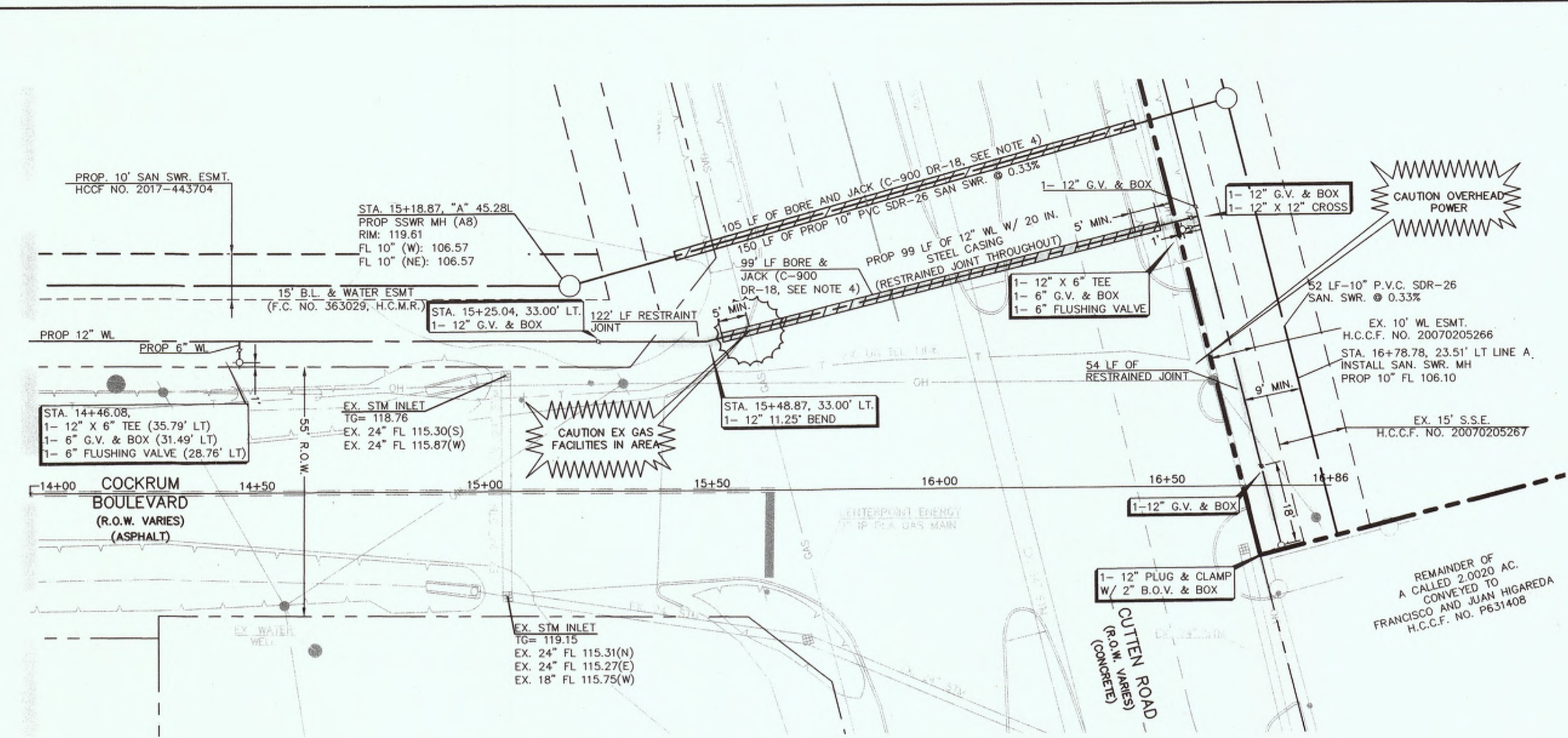
CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
SEWER	STORM WATER QUALITY
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STREET & BRIDGE	

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DRAWING SCALE	
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SHEET NO. 6 OF 17	

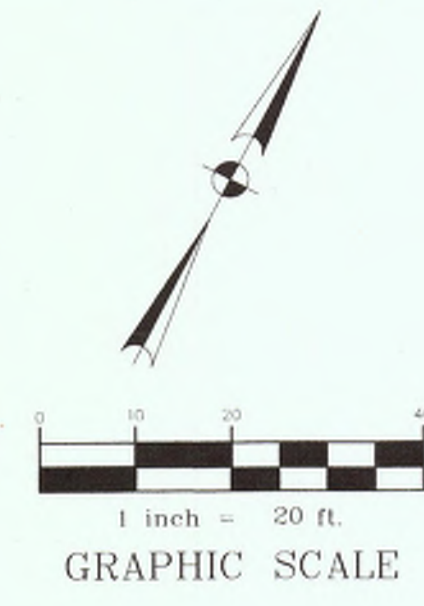
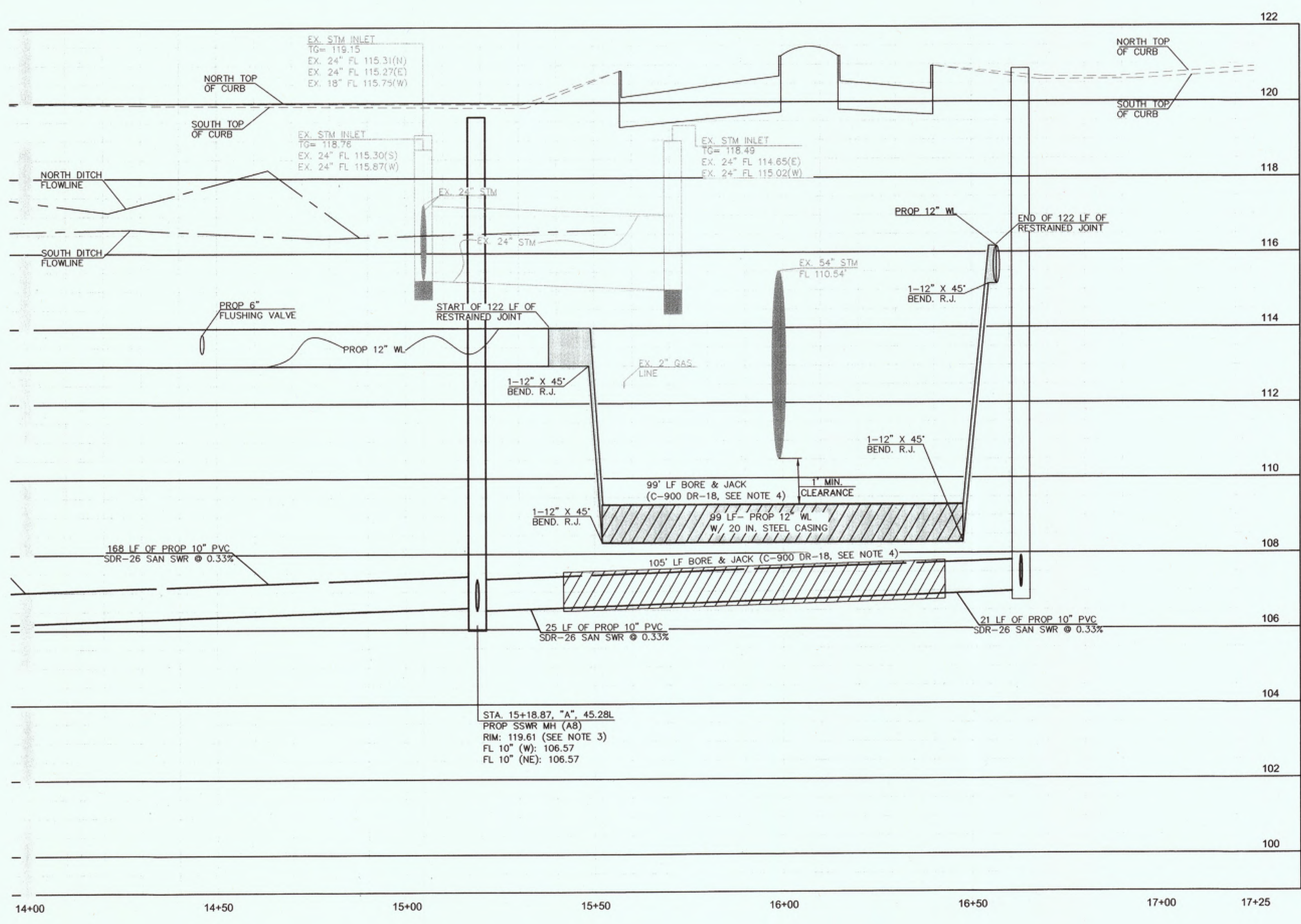


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COCKRUM BLVD. (R.O.W. VARIES)

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LEGEND

	PROPOSED WATER LINE
	PROPOSED SANITARY SEWER LINE
	EX. UNDERGROUND GAS LINE
	EX. OVERHEAD POWER
	EX. UNDERGROUND TELEPHONE LINE
	EX. STORM SEWER LINE
	EX. WATER LINE
	EX. SANITARY SEWER LINE
	PROPOSED MH
	EX. MH
	PROPOSED RESTRAINT JOINT
	PROPOSED BORE & JACK

Chad Walker 1/12/2018
DATE

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- CONTRACTOR TO SECURE ALL POWER POLES, GUY WIRES, ETC DURING CONSTRUCTION (NO SEPARATE PAY)

1. CONSTRUCTION OF FACILITIES AND/OR PAVING WORK WITHIN PUBLIC RIGHT-OF-WAY. NOTIFICATIONS (PERMIT) ISSUED BY HARRIS COUNTY PUBLIC INFRASTRUCTURE DEPARTMENT - PERMITS OFFICE - IS REQUIRED FOR PROPOSED WORK WITHIN HARRIS COUNTY RIGHT-OF-WAY. THE PROJECT MUST BE APPROVED PRIOR TO OBTAINING THE REQUIRED NOTIFICATION. BE ADVISED THAT A NOTIFICATION MUST BE OBTAINED SEPARATELY FROM SITE DEVELOPMENT PERMIT PACKAGE. FOR ADDITIONAL INFORMATION, PLEASE VISIT [HTTP://HCPID.ORG/PERMITS/PR_NOTIFICATION_OF_CONSTRUCTION.HTML](http://hcpid.org/permits/pr_notification_of_construction.html) OR CONTACT PUBLIC REVIEW INSPECTIONS DEPARTMENT @ (713)-274-3931 OR PUBLIC.REVIEW@HCPID.ORG

MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

NO CHANGE
MMG Contractors, LLC
AS-BUILT
By: *[Signature]* Date: 12/10/18

APP.	REVISIONS	DATE
	VOID SHEETS 1-15 ADD SHEETS 1A-15A ADD SHEETS 16-18 PER MUD	12/14/17

ALJLindsey
Civil Engineers
5623 FM 1960 W., Suite 314
Houston, TX 77069
281.301.5955
FRN F-11526

Patrick L. Carrigan
STATE OF TEXAS
PATRICK L. CARRIGAN
95617
REGISTERED PROFESSIONAL ENGINEER
12 DECEMBER 2017

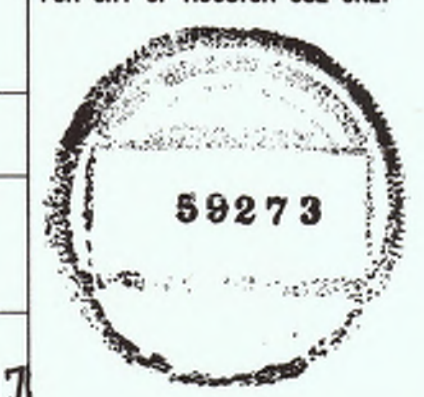
CUTTEN PARK UTILITIES

COCKRUM BLVD. UTILITY PLAN & PROFILE (4 OF 4)

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

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

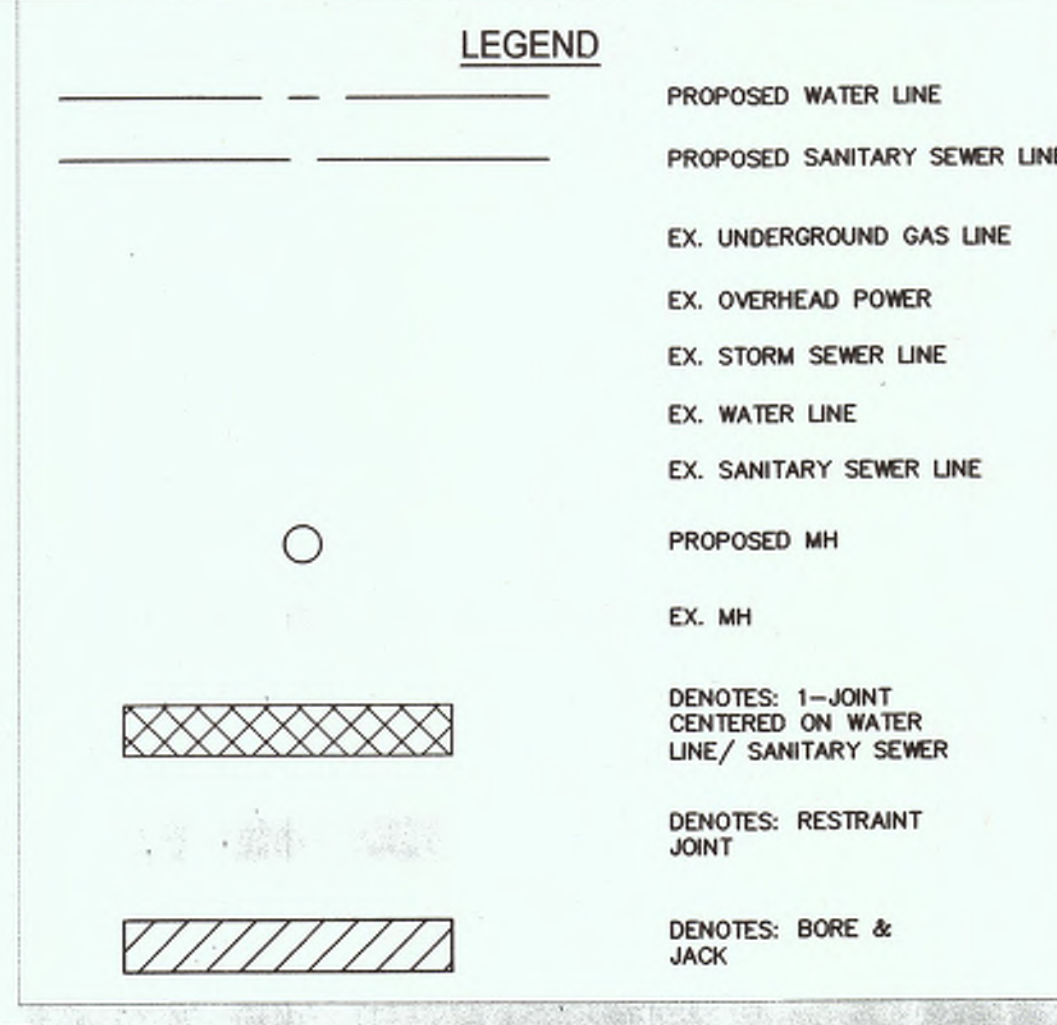
WATER	TRAFFIC & TRANSPORTATION
SEWER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	
FILE NO:	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
HORIZ : 1"=20'	
VERT : 1"=2'	
SHEET NO. 7A OF 17	



1. CONSTRUCTION OF FACILITIES AND/OR PAVING WORK WITHIN PUBLIC RIGHT-OF-WAY NOTIFICATIONS (PERMIT) ISSUED BY HARRIS COUNTY PUBLIC INFRASTRUCTURE DEPARTMENT - PERMITS OFFICE - IS REQUIRED FOR PROPOSED WORK WITHIN HARRIS COUNTY RIGHT-OF-WAY. THE PROJECT MUST BE APPROVED PRIOR TO OBTAINING THE REQUIRED NOTIFICATION. BE ADVISED THAT A NOTIFICATION MUST BE OBTAINED SEPARATELY FROM SITE DEVELOPMENT PERMIT PACKAGE. FOR ADDITIONAL INFORMATION, PLEASE VISIT [HTTP://HCPID.ORG/PERMITS/PR_NOTIFICATION_OF_CONSTRUCTION.HTML](http://hcpid.org/permits/pr_notification_of_construction.html) OR CONTACT PUBLIC REVIEW INSPECTIONS DEPARTMENT @ (713)-274-3931 OR PUBLIC.REVIEW@HCPID.ORG

- GENERAL NOTES**
- REFERENCE SANITARY SEWER AND WATER LINE NOTES SHEET 2 FOR PIPE MATERIAL REQUIREMENTS.
 - ALL DRIVEWAYS, SIDEWALKS, STREET LIGHTS, BUSHES, SHRUBBERY AND LANDSCAPING DAMAGED ON PUBLIC OR PRIVATE PROPERTY SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER. ALL TREES, LANDSCAPING, IRRIGATION, SPRINKLER HEADS, AND PLANTS SHALL BE PROTECTED DURING CONSTRUCTION.
 - USE 10" GREEN P.V.C. C-900 DR-18 CL.235 FOR BORE & JACK.
 - CONTRACTOR TO SECURE ALL POWER POLES, GUY WIRES, ETC DURING CONSTRUCTION (NO SEPARATE PAY)

- SANITARY SEWER & WATER LINE CROSSING NOTES:**
- PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS. SPACED AT LEAST 9 FT HORIZONTALLY FROM CENTERLINE OF WL.
 - PLACE 1 FULL SECTION (MIN 18 FT) OF WL CENTERED AT SS CROSSING. PROVIDE RESTRAINED JOINTS ON WL. SPACED AT LEAST 9 FT HORIZONTALLY FROM CENTERLINE OF SS.
 - EMBED SS WITH CSS FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND JOINTS AT EACH END. NOT REQUIRED FOR AUGURED WL UNLESS THERE IS EVIDENCE OF LEAKAGE, COMPLETELY FILL AUGURED HOLE WITH BENTONITE/CLAY MIXTURE
 - FOR WATER AND SANITARY CONTRACTOR TO REFERENCE TABLE 7.3 ON SHEET 2, FOR EXACT CONSTRUCTION METHODS AND PROTECTION REQUIREMENTS FOR INSTALLATION OF PROPOSED UTILITIES.



BENCHMARK: ELEVATIONS SHOWN HEREON ARE BASED ON TSARP FLOORPLAN RM NO. 150770 (TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE NAD 83). HESD STAINLESS STEEL ROD STAMPED "HESD 11 1986" AT THE INTERSECTION OF FM 1960 AND BRETON RIDGE STREET LOCATED IN THE GROUND, NORTH OF INTERSECTION, WEST OF JARED JEWELER PARKING LOT. ELEVATION = 120.92' (NAVD 1988M 2001 ADJUSTED)

TEMPORARY BENCHMARK "A": CUT "X" ON NORTHERLY BOLT ON TOP FLANGE OF FIRE HYDRANT AT THE NORTHWEST INTERSECTION OF FM 1960 AND CUTTEN ROAD. (NOT SHOWN HEREON) ELEVATION = 124.85

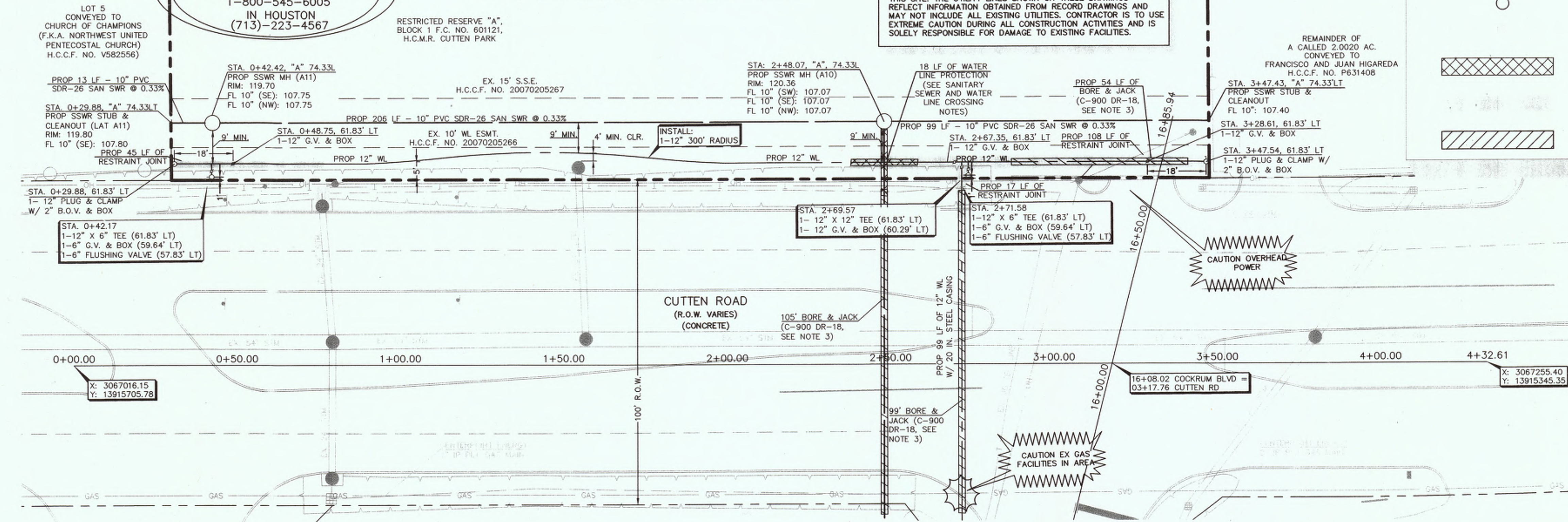
TEMPORARY BENCHMARK "B": CUT "BOX" IN LIGHT STANDARD LOCATED APPROX. 100 FEET WEST OF CUTTEN ROAD AND MOST SOUTHERN ENTRANCE OF WALMART, SOUTH SIDE OF ENTRANCE. (SHOWN HEREON) ELEVATION = 122.42

TEMPORARY BENCHMARK "C": BOX CUT ON STORM INLET ALONG THE SOUTH SIDE OF COCKRUM BLVD., APPROX. 100 FEET WEST OF VINVALE ROAD. (SHOWN HEREON) ELEVATION = 117.04'

Chad Walker 1/12/2018
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 391 ENGINEER DATE APPROVAL CAN BE REVOKED, SUSPENDED, OR MODIFIED AT ANY TIME, IN ANY EVENT, IT EXPIRES AUTOMATICALLY AFTER ONE YEAR.

*OUR APPROVAL DOES NOT INCLUDE A DETERMINATION THAT THE ONSITE PRIVATE UTILITIES WERE DESIGNED PROPERLY. WE REVIEWED THE PLANS SOLELY FOR GENERAL COMPLIANCE WITH THE DISTRICT'S RATE ORDER.

CALL BEFORE YOU DIG
TEXAS ONE CALL SYSTEM
1-800-545-6005
IN HOUSTON
(713)-223-4567



NOTICE:
For your safety, you are required by Texas Law to call 811 at least 48 hours before you dig so that underground lines can be marked. This signature does not fulfill your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES
Chad Walker DATE: 12/13/17
CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification. Signature valid for 6 months.

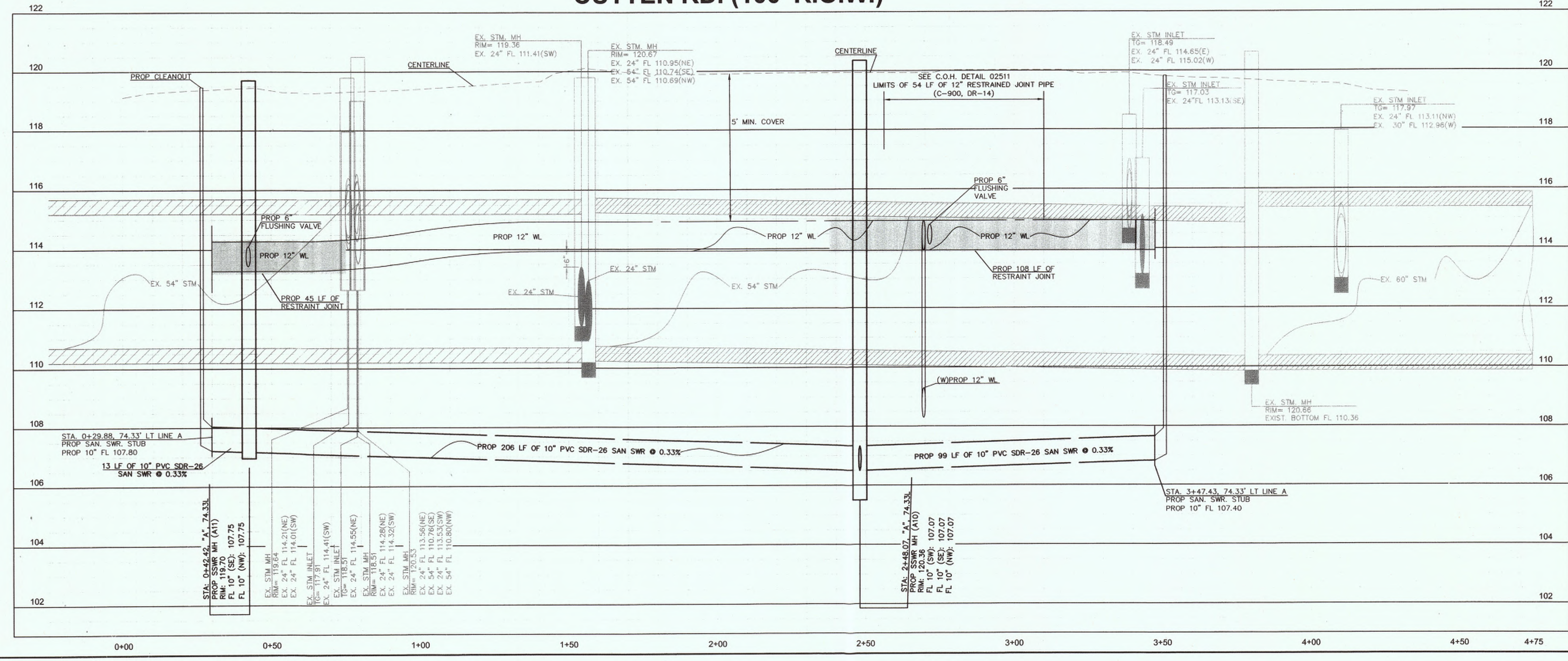
Chad Walker DATE: 12/13/17
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities-not to be used for conflict verification.) Signature valid for 6 months.

Chad Walker DATE: 12-13-17
APPROVED FOR AT&T TEXAS / SWEET UNDERGROUND CONDUIT FACILITIES ONLY
SIGNATURE VALID FOR ONE YEAR.

GRAPHIC SCALE
1 inch = 20 ft
NO CHANGE
MMG Contractors, LLC
AS-BUILT
By: *[Signature]* Date: 12/10/18

APP.	REVISIONS	DATE
1	VOID SHEETS 1-15 ADD SHEETS 1A-15A ADD SHEETS 16-18 PER MVD	12/14/17

CUTTEN RD. (100' R.O.W.)



ALJLindsey
Civil Engineers
6025 FM 1960 W., Suite 314
Houston, TX 77069
281.301.5955
FRN F-11629

PATRICK L. CARRIGAN
REGISTERED PROFESSIONAL ENGINEER
95617
12 DECEMBER 2017

CUTTEN PARK UTILITIES

CUTTEN RD. UTILITY PLAN & PROFILE

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

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

FILE NO:
DRAWING SCALE
HORZ : 1"=20'
VERT : 1"=2'

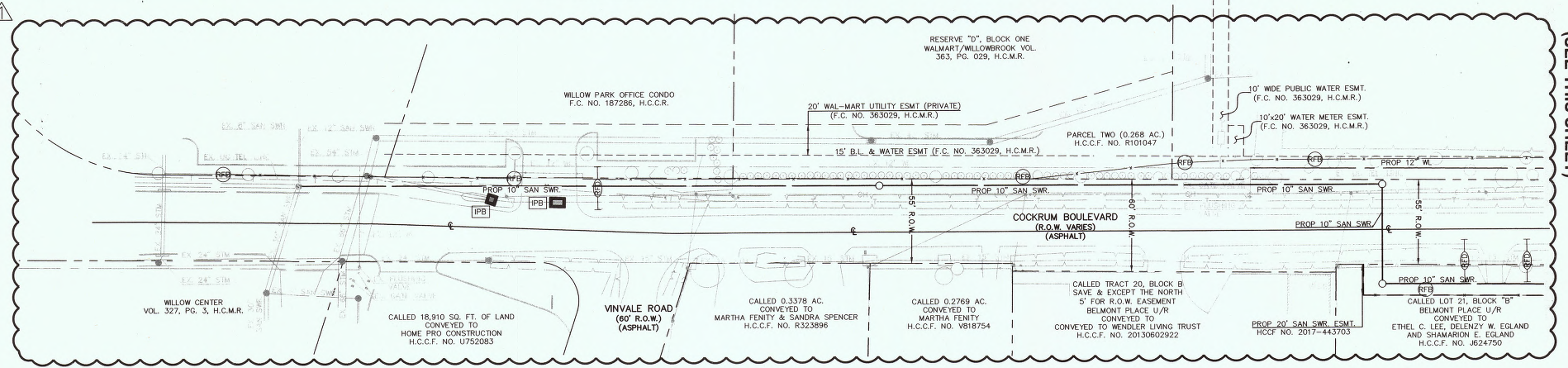
FOR CITY OF HOUSTON USE ONLY
59273

SHEET NO. 8A OF 17

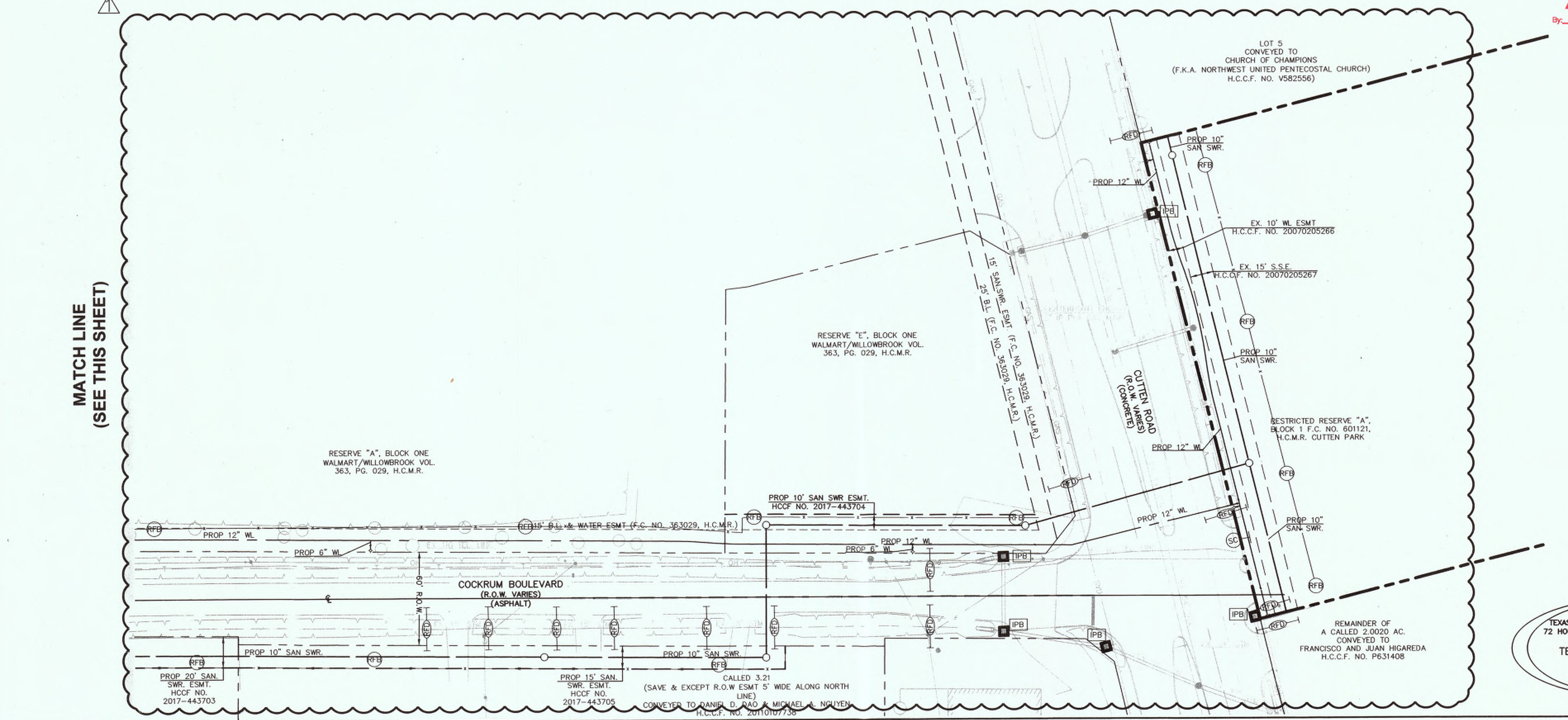
LEGEND

	INLET PROTECTION BARRIER (SEE DETAIL SHEET 14)
	REINFORCED FILTER FABRIC BARRIER (SEE DETAIL SHEET 14)
	ROCK FILTER DAM (SEE DETAIL SHEET 14)
	STABILIZED CONSTRUCTION ACCESS (SEE DETAIL SHEET 14)

- GENERAL NOTES**
- CONTRACTOR TO MAINTAIN A CLEAN PROJECT SITE AND ENSURE THAT ALL DEBRIS IS PLACED IN DESIGNATED AREA PER PLANS. ALL SPOIL MATERIAL GENERATED FROM CONSTRUCTION ACTIVITY TO BE HAULED OFFSITE AND DISPOSED IN ACCORDANCE WITH LOCAL LAWS, RULES, AND REGULATIONS.
 - STABILIZED CONSTRUCTION EXIT LENGTH SHALL BE NOT LESS THAN 50- FEET.
 - THICKNESS SHALL BE NOT LESS THAN 8-INCHES.
 - WIDTH SHALL BE NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS AND EGRESS.
 - STABILIZATION FOR OTHER AREAS SHALL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT, UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
 - STABILIZED AREA MAY BE WIDENED OR LENGTHENED TO ACCOMMODATE A TRUCK WASHING AREA. AN OUTLET SEDIMENT TRAP MUST BE PROVIDED FOR THE TRUCK WASHING AREA.

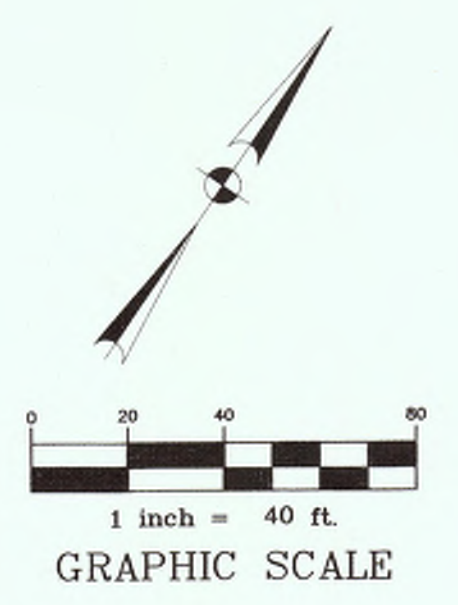
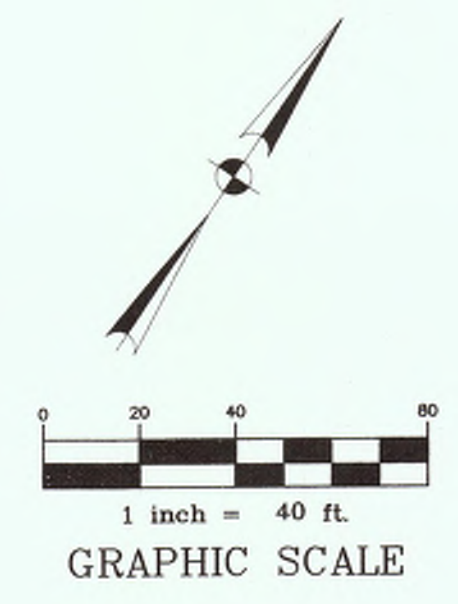


MATCH LINE
(SEE THIS SHEET)



MATCH LINE
(SEE THIS SHEET)

NO CHANGE
MMG Contractors, LLC
AS-BUILT
By: [Signature] Date: 12/14/18



BENCHMARK:
ELEVATIONS SHOWN HEREON ARE BASED ON TSARP FLOORPLAN RM NO. 150770 (TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE NAD 83), HGCS STAINLESS STEEL ROD STAMPED "HGCS 11 1986" AT THE INTERSECTION OF FM 1960 AND BRETON RIDGE STREET LOCATED IN THE GROUND, NORTH OF INTERSECTION, WEST OF JARED JEWELER PARKING LOT. ELEVATION = 120.92' (NAVD 1988M 2001 ADJUSTED)

TEMPORARY BENCHMARK "A":
CUT "X" ON NORTHERLY BOLT ON TOP FLANGE OF FIRE HYDRANT AT THE NORTHWEST INTERSECTION OF FM 1960 AND CUTTEN ROAD. (NOT SHOWN HEREON) ELEVATION = 124.05'

TEMPORARY BENCHMARK "B":
CUT "BOX" IN LIGHT STANDARD LOCATED APPROX. 100 FEET WEST OF CUTTEN ROAD AND MOST SOUTHERN ENTRANCE OF WALMART, SOUTH SIDE OF ENTRANCE. (SHOWN HEREON) ELEVATION = 122.42'

TEMPORARY BENCHMARK "C":
BOX CUT ON STORM INLET ALONG THE SOUTH SIDE OF COCKRUM BLVD., APPROX. 100 FEET WEST OF VINVALE ROAD. (SHOWN HEREON) ELEVATION = 117.04'

Chad Walker 1/12/2018
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 191 ENGINEER DATE APPROVAL CAN BE REVOKED, SUSPENDED, OR MODIFIED AT ANY TIME, BUT, IN ANY EVENT, IT EXPIRES AUTOMATICALLY AFTER ONE YEAR.

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

VERIFICATION OF PRIVATE UTILITY LINES

<i>[Signature]</i>	DATE: 12/13/17
<i>[Signature]</i>	DATE: 12/13/17
<i>[Signature]</i>	DATE: 12-18-17

APPROVED FOR ABOVE TEXAS / SWIFT UNDERGROUND CONDUIT FACILITIES ONLY
SIGNATURE VALID FOR ONE YEAR.

APP.	REVISIONS	DATE
1	VOID SHEETS 1-15 ADD SHEETS 1A-15A ADD SHEETS 16-18 PER MUD	12/14/17
2		
3		

ALJLindsey
Civil Engineers
5629 FM 1960 W., Suite 314
Houston, TX 77069
281.301.5955
FRN F-11526

12 DECEMBER 2017

CUTTEN PARK UTILITIES

EROSION CONTROL PLAN

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

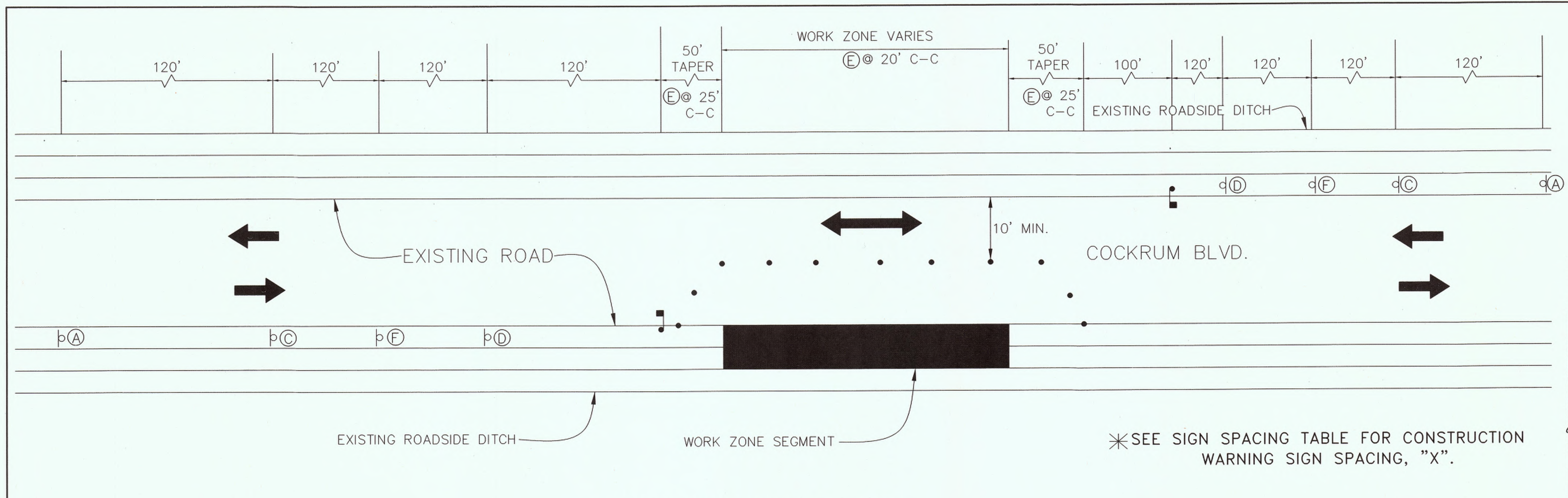
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

FILE NO:	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
HORIZ :	
VERT :	
SHEET NO. 9A OF 17	

CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST 72 HOURS NOTICE BEFORE YOU DIG, DRILL OR BLAST - STOP CALL
TEXAS ONE CALL SYSTEM
1-800-545-6005
IN HOUSTON
(713)-223-4567





TYPICAL TRAFFIC CONTROL LAYOUT
N.T.S.

*SEE SIGN SPACING TABLE FOR CONSTRUCTION WARNING SIGN SPACING, "X".

Chad Wilber 1/12/2018
 HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 191 ENGINEER DATE
 APPROVAL CAN BE REVOKED, SUSPENDED, OR MODIFIED AT ANY TIME, BUT, IN ANY EVENT, IT EXPIRES AUTOMATICALLY AFTER ONE YEAR.
 *OUR APPROVAL DOES NOT INCLUDE A DETERMINATION THAT THE ONSITE PRIVATE UTILITIES WERE DESIGNED PROPERLY. WE REVIEWED THE PLANS SOLELY FOR GENERAL COMPLIANCE WITH THE DISTRICT'S RATE ORDER.
 TO ARRANGE FOR LINE TO BE TURNED OFF OR MOVED, CALL CENTERPOINT AT (713) 207-2222
 NOTICE:
 For your safety, you are required by Texas Law to call 811 at least 48 hours before you dig so that underground lines can be marked. This signature does not fulfill your obligation to call 811.
 VERIFICATION OF PRIVATE UTILITY LINES
 DATE: 12/14/17
 CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.
 Signature valid for 6 months.
 DATE: 12/14/17
 CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
 (This signature verifies existing underground facilities-not to be used for conflict verification.)
 Signature Valid for six months.
 DATE: 12-13-17
 APPROVED FOR STATE TEXAS / SHEET UNDERGROUND CONDUIT FACILITIES ONLY
 SIGNATURE VALID FOR ONE YEAR.

APP.	REVISIONS	DATE
1	VOID SHEETS 1-15 ADD SHEETS 1A-15A ADD SHEETS 16-18 PER AUD	12/14/17
2		
3		

No CHANGE
 MMG Contractors, LLC
AS-BUILT
 By: *[Signature]* Date: 12/14/18

ALJLindsey
 Civil Engineers
 5623 FM 1960 W., Suite 314
 Houston, TX 77069
 281.301.5955
 FRN F-11526

12 DECEMBER 2017

CUTTEN PARK UTILITIES
 TRAFFIC CONTROL PLAN
 NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
SEWER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	
FILE NO:	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
HORIZ : NTS	
VERT : N/A	
SHEET NO. 10A OF 17	

- TRAFFIC NOTES**
- CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD - LATEST EDITION WITH REVISIONS) DURING CONSTRUCTION.
 - NO LANES SHALL BE BLOCKED FROM 7 A. M. TO 9 A. M. AND 4 P. M. TO 6:30 P. M. MONDAY THRU FRIDAY.
 - OFF DUTY POLICE OFFICERS/FLAGGERS ARE REQUIRED TO DIRECT TRAFFIC WHEN LANES ARE BLOCKED.
 - CONTRACTOR SHALL COVER THE EXCAVATION WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND ALLOW NORMAL TRAFFIC FLOW. IF COVERING IS NOT FEASIBLE, USE TRANTEX FR 336 EFX 36" DELINEATOR OR APPROVED EQUAL WITH SHEETING AND BASE EPOXYED TO PAVEMENT NEXT TO EXCAVATION DURING NON-WORKING HOURS.
 - APPROVED COPIES OF "TRAFFIC CONTROL PLANS" SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES.
 - IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF TRAFFIC CONTROL PLAN DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS, (SHE SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT ALTERNATE PLANS* TO TRAFFIC SECTION OF HCPID FOR APPROVAL TEN WORKING DAYS PRIOR TO IMPLEMENTATION.
 - *THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLARS AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME A PART OF THE CONTRACT DRAWINGS.
 - IF THE PROJECT IS WITHIN 400 FEET FROM A SIGNALIZED INTERSECTION, THE CONTRACTOR SHALL CONTACT HARRIS COUNTY PUBLIC INFRASTRUCTURE DEPARTMENT, SIGNAL DIVISION, AT 713-881-3210 FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

SIGNS

LEGEND

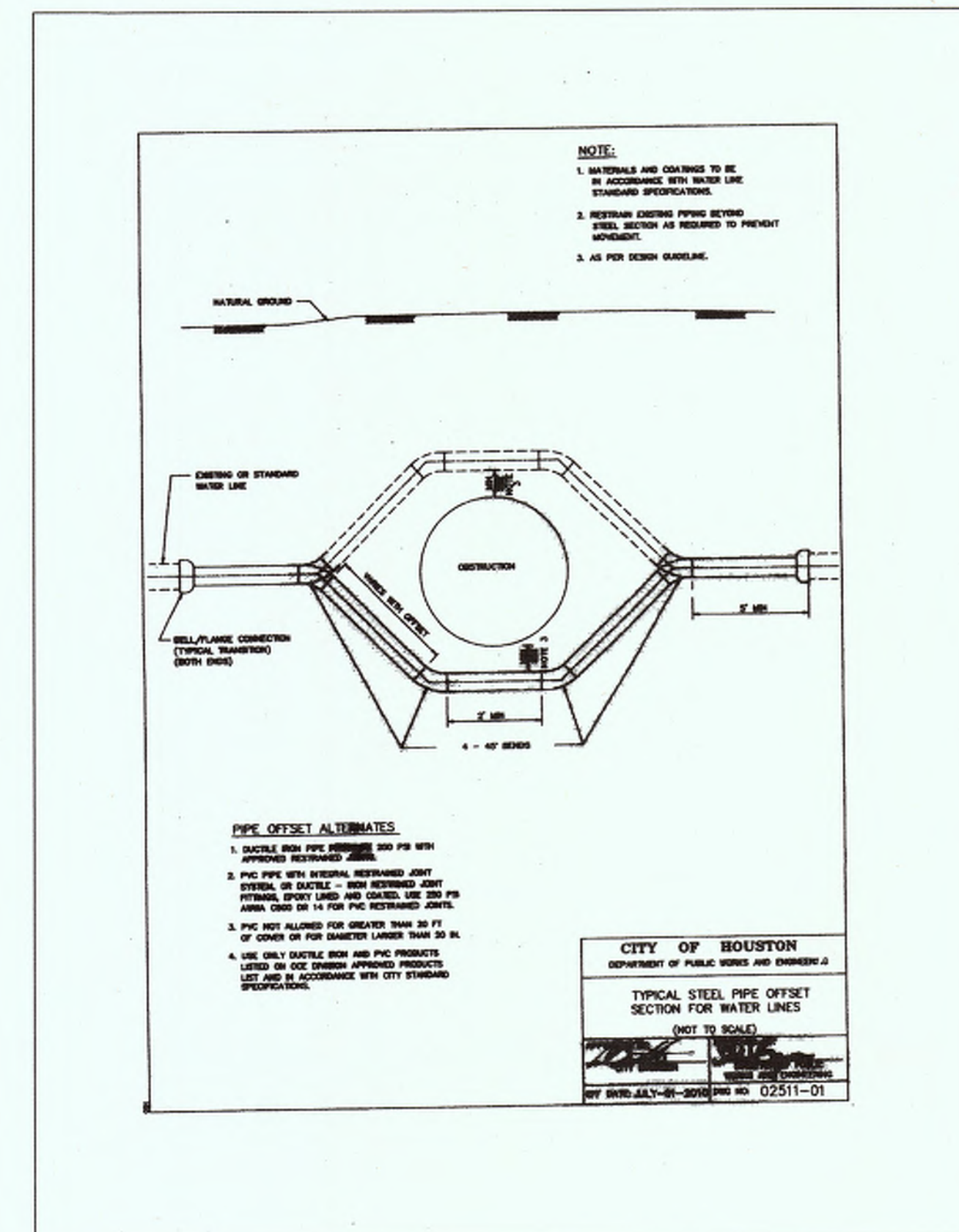
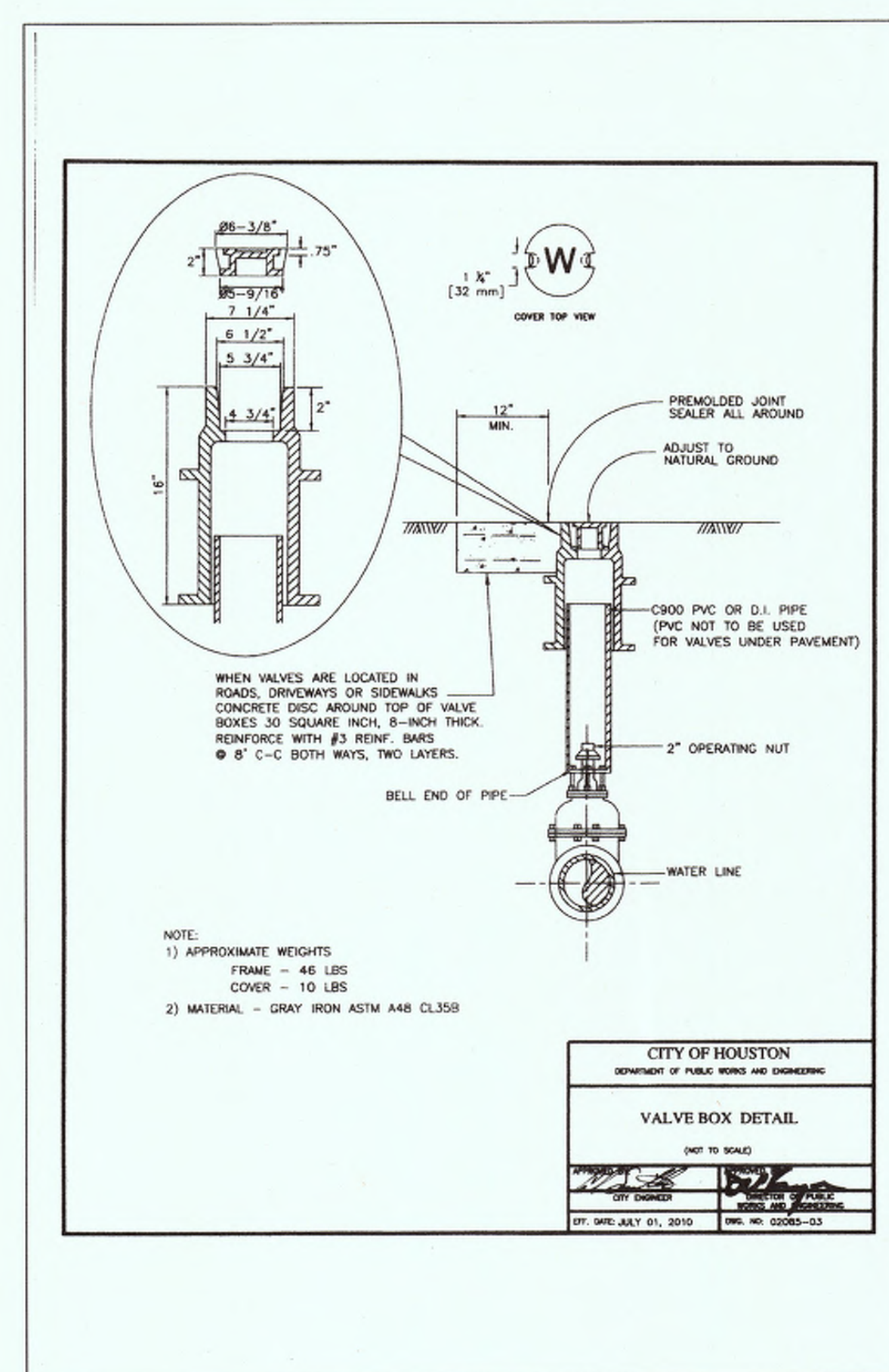
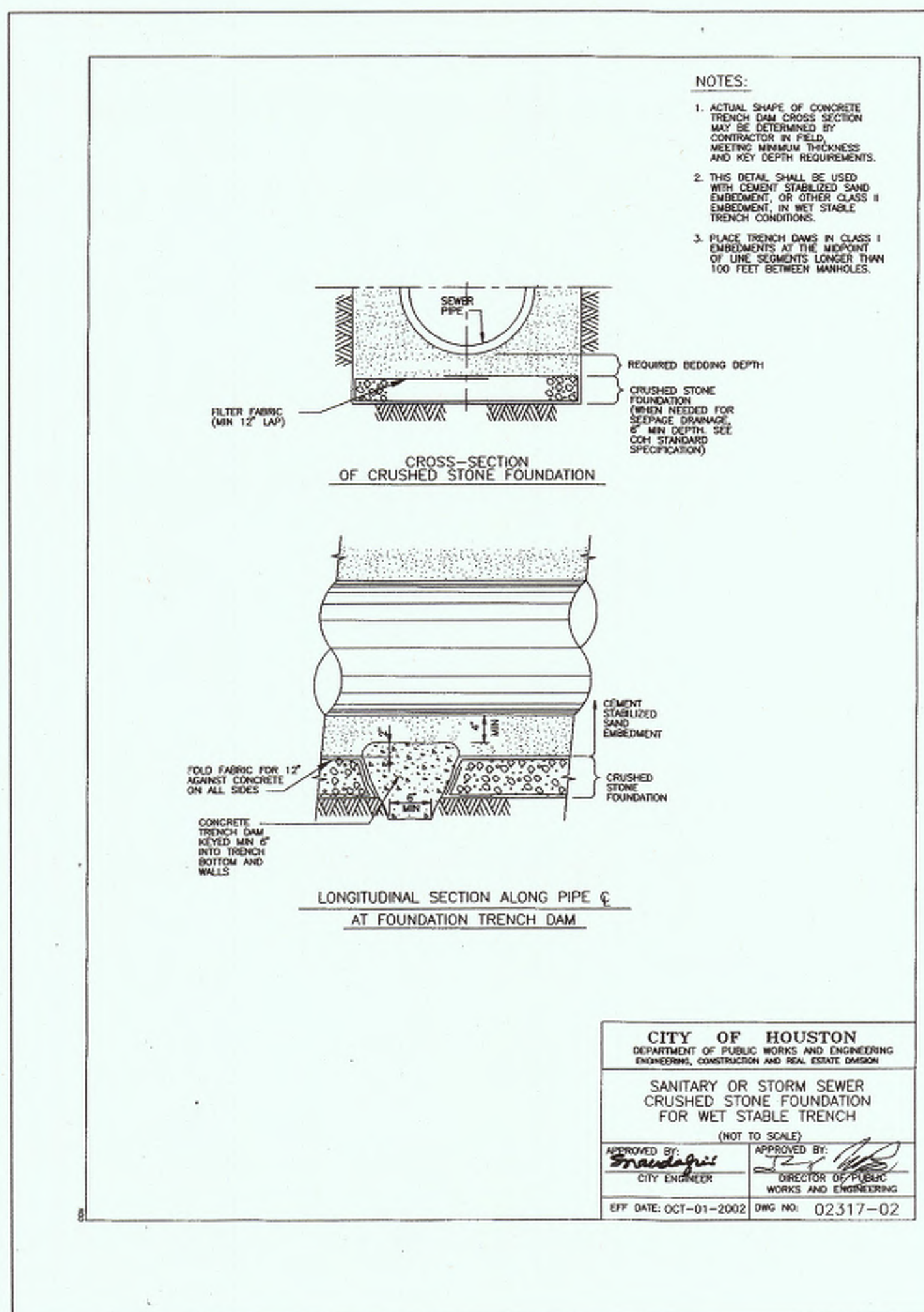
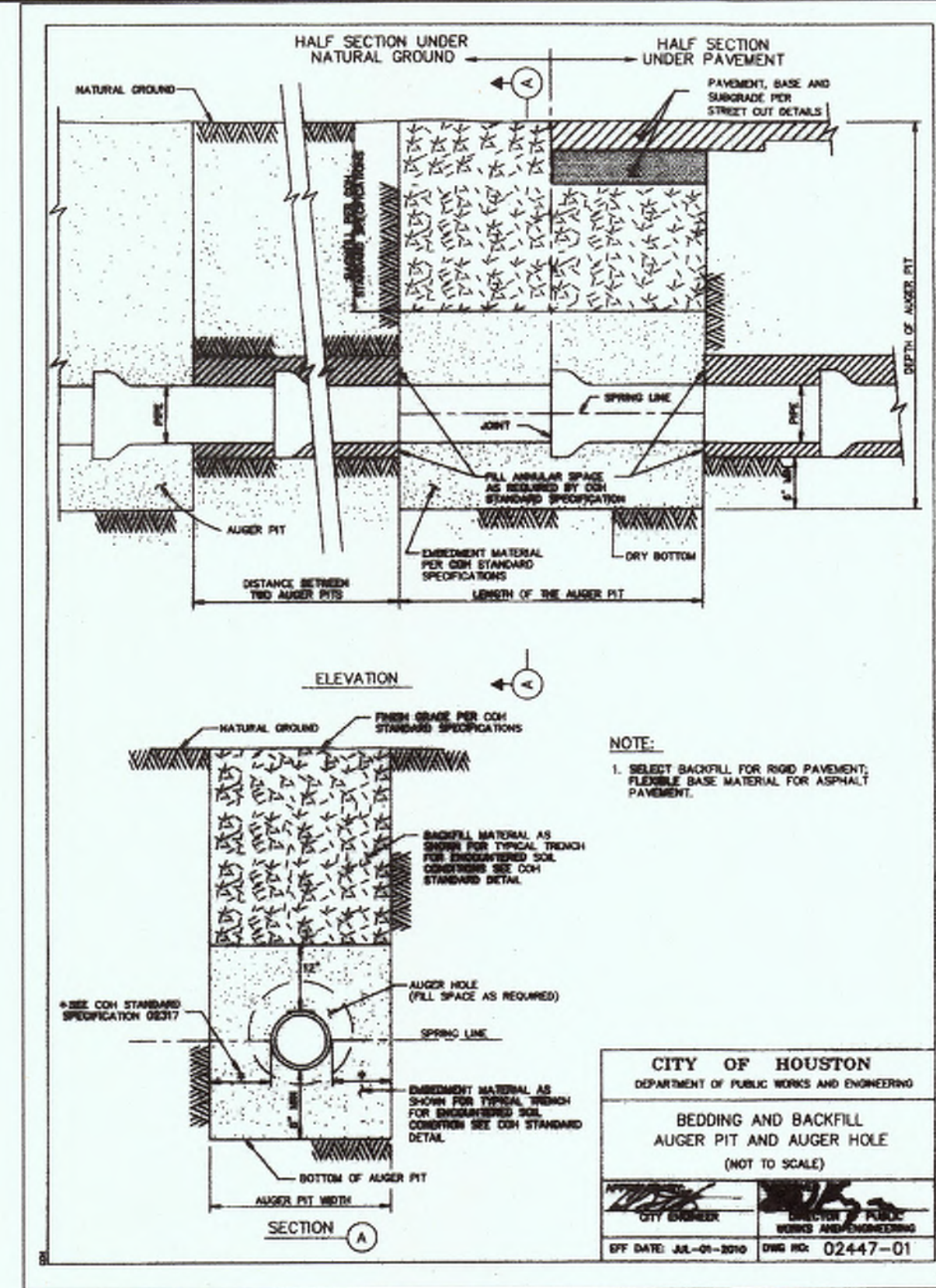
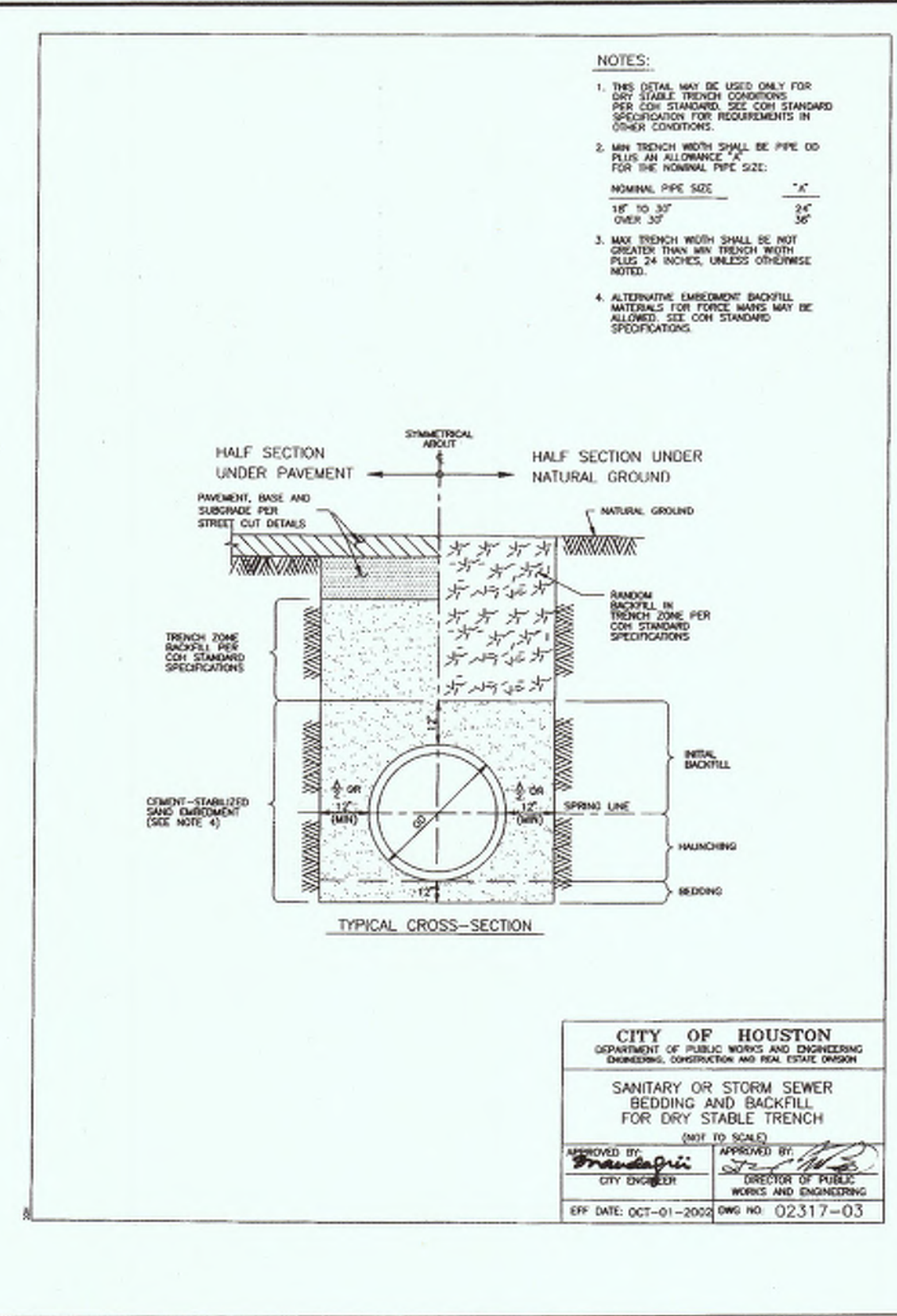
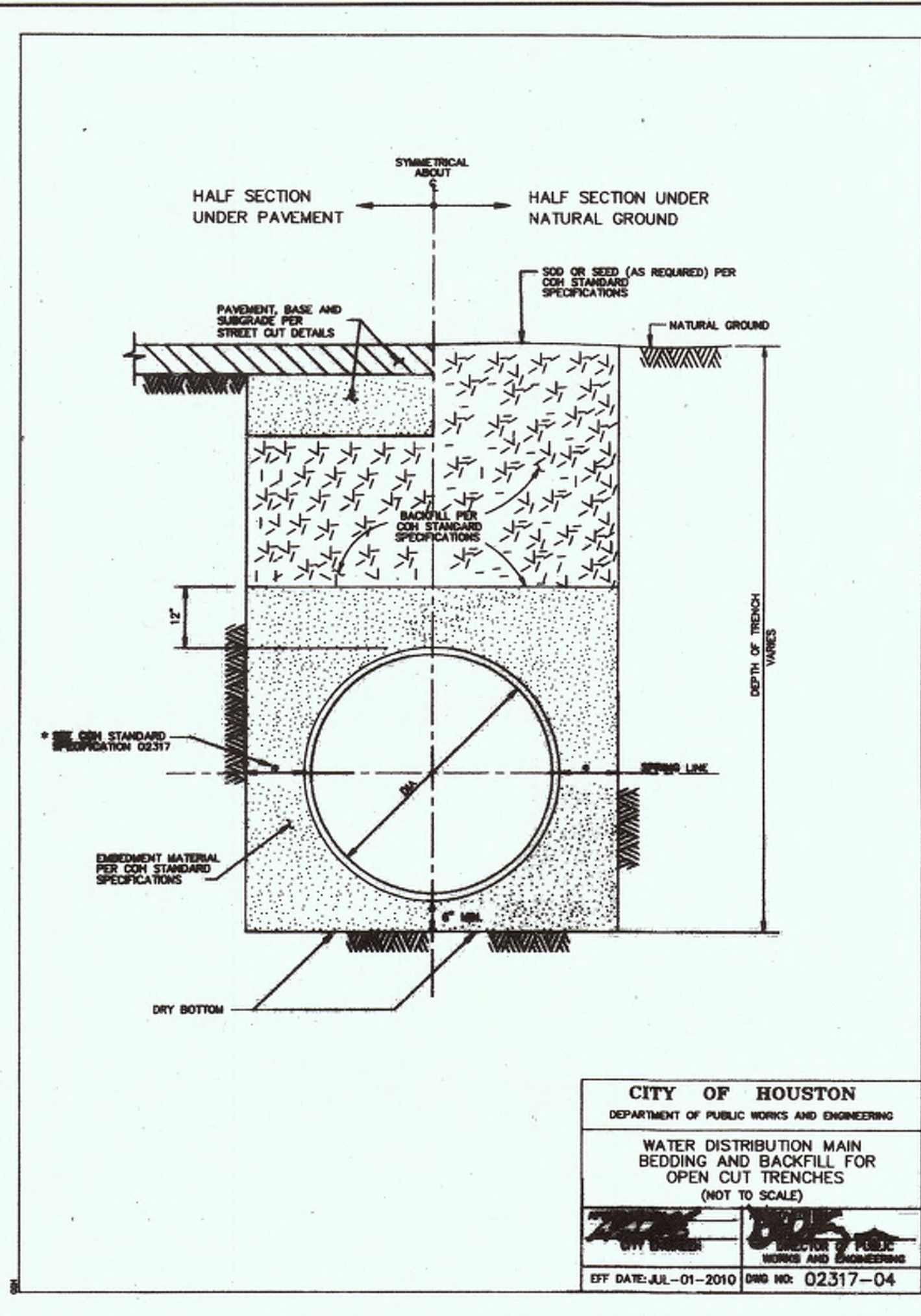
- CONSTRUCTION WARNING SIGN
- WORK ZONE
- CHANNELIZING DEVICE
- TRAFFIC FLOW DIRECTION
- FLAGGER

SIGN SPACING TABLE

ROAD	SPEED LIMIT	SIGN SPACING
COCKRUM	30 MPH	120'

MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

CALL BEFORE YOU DIG
 TEXAS ONE CALL PARTICIPANTS REQUEST
 72 HOURS NOTICE BEFORE YOU DIG, DRILL
 OR BLAST - STOP CALL
 TEXAS ONE CALL SYSTEM
 1-800-545-6005
 IN HOUSTON
 (713)-223-4567



Chad Walker 1/12/2018

HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 151 ENGINEER DATE APPROVAL CAN BE REVOKED, SUSPENDED, OR MODIFIED AT ANY TIME, BUT, IN ANY EVENT, IT EXPIRES AUTOMATICALLY AFTER ONE YEAR.

NOTICE: *OUR APPROVAL DOES NOT INCLUDE A DETERMINATION THAT THE ONSITE PRIVATE UTILITIES WERE DESIGNED PROPERLY. WE REVIEWED THE PLANS SOLELY FOR GENERAL COMPLIANCE WITH THE DISTRICT'S RATE ORDER.

TO ARRANGE FOR LINE TO BE TURNED OFF OR MOVED, CALL CENTERPOINT AT (713) 207-2222

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

Signature valid for 6 months.

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

APPROVED FOR GREAT TEXAS / SHEET UNDERGROUND CONDUIT FACILITIES ONLY SIGNATURE VALID FOR ONE YEAR.

APP.	REVISIONS	DATE
▲	VOID SHEETS 1-15	12/14/17
▲	ADD SHEETS 1A-15A	
▲	ADD SHEETS 16-18	
▲	PER MUD	

NO CHANGE
MMG Contractors, LLC
AS-BUILT
Date: 12/12/18

ALJLindsey
Civil Engineers
5625 FM 1960 W., Suite 314
Houston, TX 77069
281.301.5955
FRN F-11526

STATE OF TEXAS
PATRICK L. CARRIGAN
05617
REGISTERED PROFESSIONAL ENGINEER
12 DECEMBER 2017

CUTTEN PARK UTILITIES

**CONSTRUCTION DETAILS
(1 OF 4)**

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

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

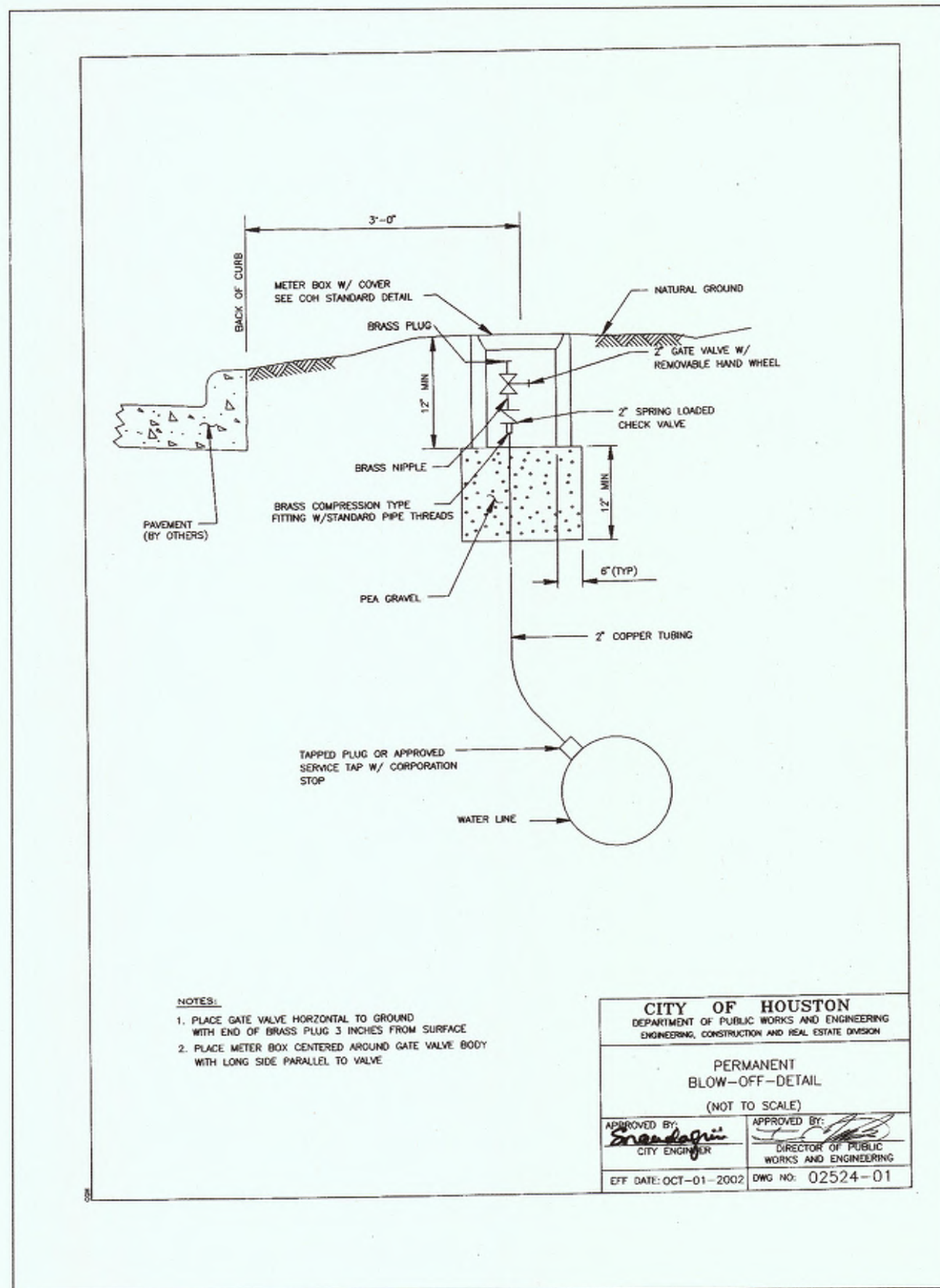
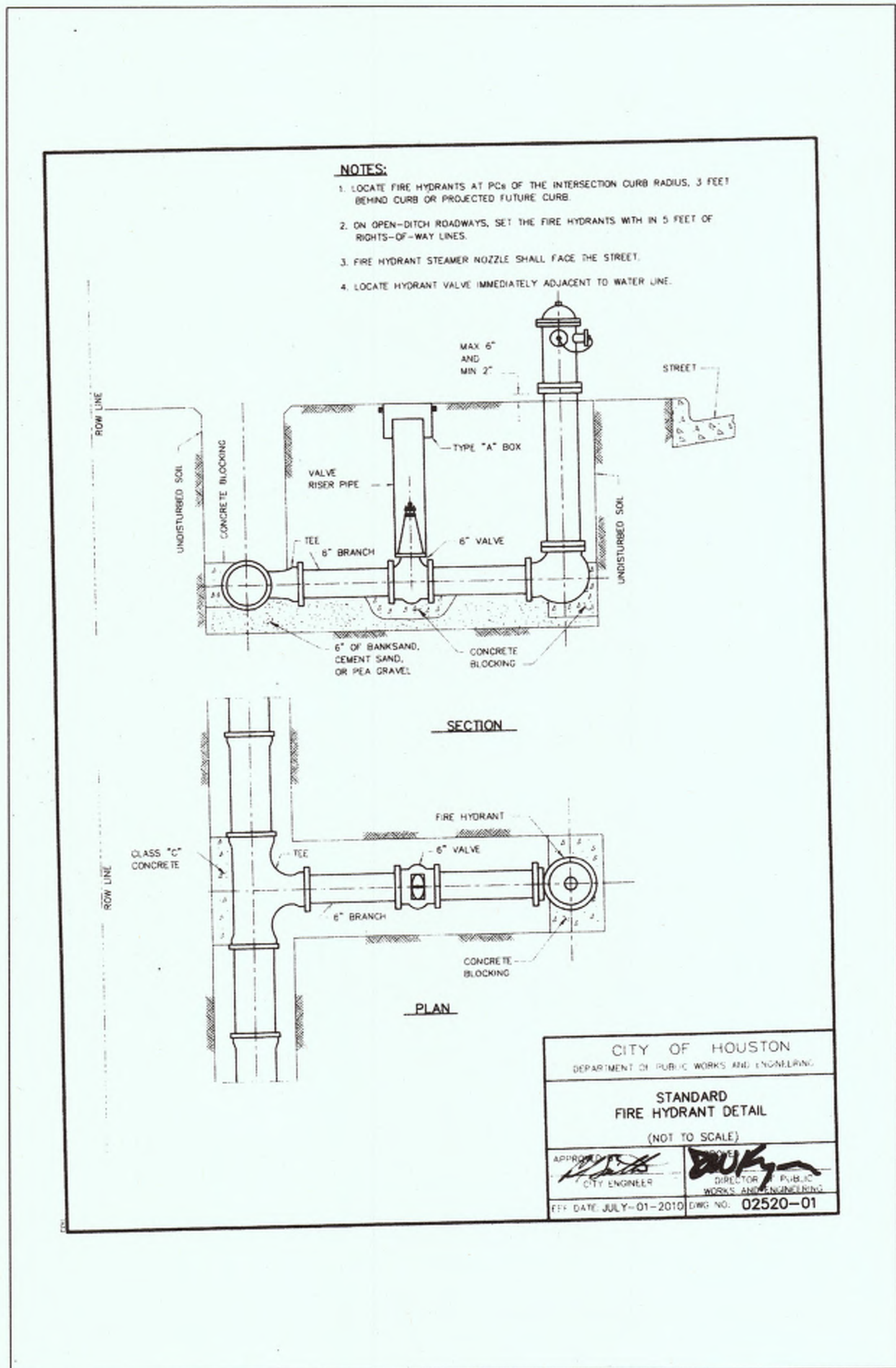
WATER	TRAFFIC & TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

FILE NO: FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
HORZ : N/A
VERT : N/A

SHEET NO. 11A OF 17





NO CHANGE
MMG Contractors, LLC
AS-BUILT
By: *[Signature]* Date: 12/10/18

Chad Walker 11/2/2018
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 191 ENGINEER DATE APPROVAL CAN BE REVOKED, SUSPENDED, OR MODIFIED AT ANY TIME, BUT, IN ANY EVENT, IT EXPIRES AUTOMATICALLY AFTER ONE YEAR.
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For your safety, you are required by Texas Law to call 811 at least 48 hours before you dig so that underground lines can be marked. This signature does not fulfill your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES

N/A DATE: _____
CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.
Signature valid for 6 months.

N/A DATE: _____
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

N/A DATE: _____
APPROVED FOR AT&T TDS / DWBT UNDERGROUND CONDUIT FACILITIES ONLY
SIGNATURE VALID FOR ONE YEAR.

APP.	REVISIONS	DATE
1	VOID SHEETS 1-15	12/14/17
2	ADD SHEETS 1A-15A	
3	ADD SHEETS 16-18	
4	PER MUD	

ALJLindsey
Civil Engineer
5029 FM 1900 N., Suite 314
Houston, TX 77069
281.301.5955
FRN F-11526

[Signature]
PATRICK L. CARRIGAN
05617
REGISTERED PROFESSIONAL ENGINEER
12 DECEMBER 2017

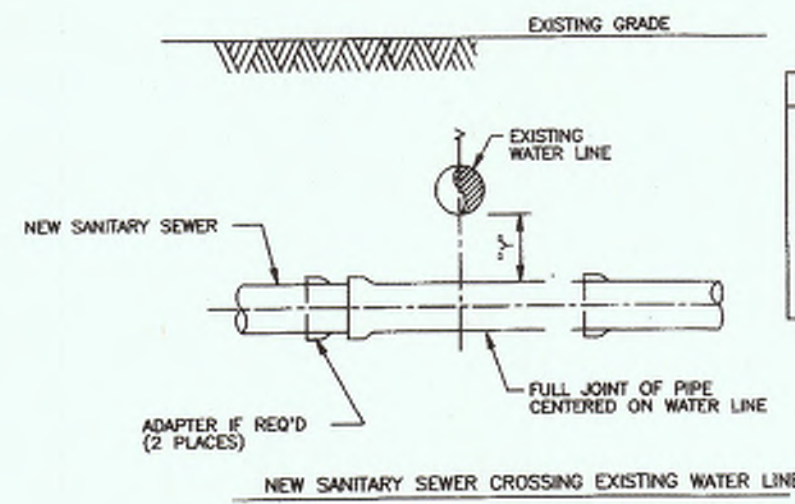
CUTTEN PARK UTILITIES

CONSTRUCTION DETAILS
(2 OF 4)

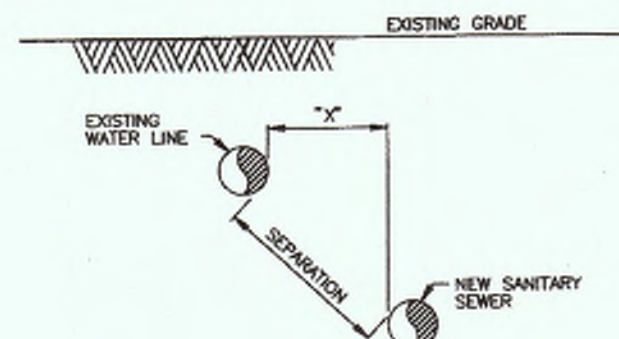
NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
<i>[Signature]</i> 12/14/17	STORM WATER QUALITY
<i>[Signature]</i> 12-18-17	STORM FACILITIES
STREET & BRIDGE	
FILE NO:	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	59273
HORIZ : N/A	
VERT : N/A	
SHEET NO. 12A OF 17	



- INSTALLATION REQUIREMENTS**
1. If "Y" is greater than 6" and "X" is less than 2', USE MINIMUM 15 FT. JOINT OF PRESSURE-RATED PIPE PER COH STANDARD DRAWING.
 2. If "Y" is greater than 2' and "X" is less than 8', USE GRAVITY SEWER PIPE IN COSENT-STABILIZED SAND EMBEDMENT.
 3. If "Y" is greater than 8', USE STANDARD EMBEDMENT AND NORMAL JOINT SPACING.



- INSTALLATION REQUIREMENTS**
1. If "X" is less than 8" AND SEPARATION IS LESS THAN 8', USE PRESSURE-RATED PIPE MIN TO MIN. "X" MUST BE AT LEAST 4 FT.
 2. If "X" IS GREATER THAN OR EQUAL TO 8' AND SEPARATION IS 8' OR GREATER, USE STANDARD PIPE AND EMBEDMENT.

INSTALLING SANITARY SEWERS CROSSING OR PARALLEL TO WATER LINES

- NOTES:**
1. SANITARY SEWER MUST BE BELOW WATER LINE UNLESS POSSIBLE. WHEN WATERLINE IS BELOW THE SANITARY SEWER, PROVIDE MINIMUM 2 FT. SEPARATION AND INSTALL PIPE SAME AS FOR SEWER BELOW WATER.
 2. WHEN PRESSURE-RATED PIPE IS REQUIRED, PROVIDE PIPE WITH MINIMUM 150 PSI PRESSURE RATING.
 3. ADAPTERS MUST BE FACTORY MOLDED OR FABRICATED, WITH RING STIFFENED AT LEAST EQUAL TO THE ADJOINING SANITARY SEWER PIPE AND USING RESILIENT GASKET OR SEAL MATERIAL. FLEXIBLE RUBBER "BOOT" TYPE ADAPTERS WILL NOT BE ACCEPTED.
 4. INSTALL FORCE MAINS SAME AS FOR GRAVITY SEWER, USING SPECIFIED PRESSURE PIPE.
 5. "Y" MUST ALWAYS BE GREATER THAN OR EQUAL 6".
 6. "X" MUST BE GREATER THAN OR EQUAL TO 4 FT.
 7. ALTERNATIVES MAY BE SHOWN ON THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS.
 8. SEPARATION REQUIREMENTS SHOWN HERE DO NOT APPLY TO SIMILAR CONNECTIONS - REFER TO PLUMBING CODE FOR APPLICABLE REQUIREMENTS.

TABLE 02730-04 SEWER LINE CROSSING BELOW WATER LINE WITHIN 2 FT SEPARATION		
GRAVITY SANITARY SEWER PIPE SIZE	PRESSURE-RATED PIPE SIZE & TYPE (NOTE 2)	ADAPTERS REQUIRED
6" TO 12" (ASTM D3034)	SAME SIZE ASTM D2241, SDR 26	ASTM D3034 TO D2645 (SEWER TO D.W.M.) ADAPTER COUPLING
10" (ASTM D3034)	14" LINED DUCTILE IRON OR AMMA C905, D205	NONE REQUIRED
18" AND 24"	SAME SIZE AMMA C905, PRESSURE-RATED FRP OR LINED DUCTILE IRON, MANHOLE TO MANHOLE	NONE REQUIRED
21" AND 27"	PRESSURE PIPE NOT AVAILABLE, SEE CASING ALTERNATIVE	NOT APPLICABLE
30" AND LARGER	SAME SIZE PRESSURE-RATED FRP OR LINED DUCTILE IRON, MANHOLE TO MANHOLE	NOT APPLICABLE
CASING ALTERNATIVE: ANY SIZE AND TYPE	INSTALL AS CASING PIPE MIN 15 FT JOINT OF PRESSURE PIPE AT LEAST 2 NOMINAL SIZES LARGER THAN SAN. SEWER COVER PIPE. GROUT ANNUAL SPACE WITH TUNNEL GROUT	NOT APPLICABLE

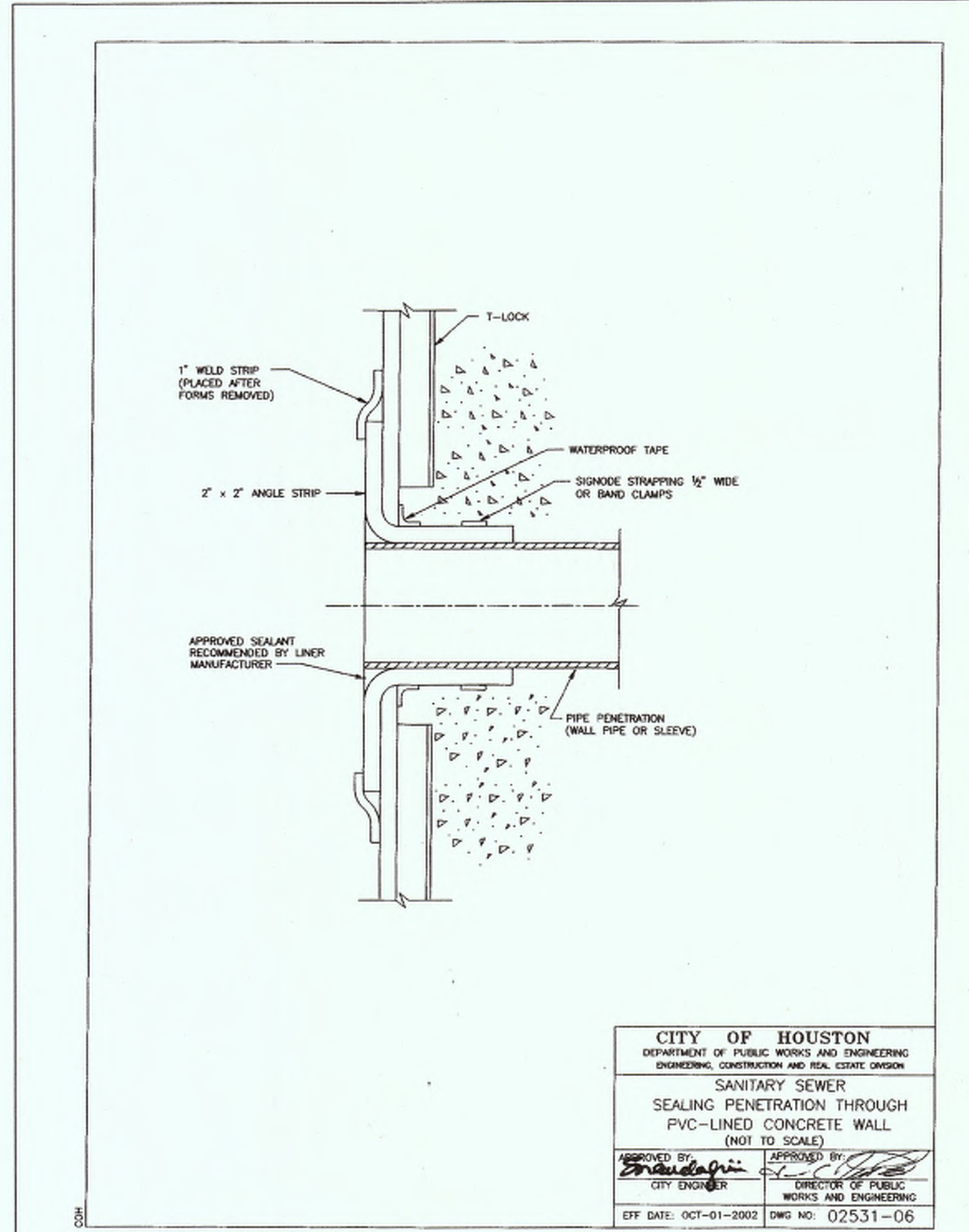
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER
INSTALLING SANITARY SEWERS CROSSING OR PARALLEL TO WATER LINES (NOT TO SCALE)

APPROVED BY: *[Signature]*
CITY ENGINEER

APPROVED BY: *[Signature]*
DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: OCT-01-2002 DWG NO: 02531-05



CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER
SEALING PENETRATION THROUGH PVC-LINED CONCRETE WALL (NOT TO SCALE)

APPROVED BY: *[Signature]*
CITY ENGINEER

APPROVED BY: *[Signature]*
DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: OCT-01-2002 DWG NO: 02531-06

Chad Walker 1/12/2018
DATE

HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 131 ENGINEER
APPROVAL CAN BE REVOKED, SUSPENDED, OR MODIFIED AT ANY TIME, BUT, IN ANY EVENT, IT EXPIRES AUTOMATICALLY AFTER ONE YEAR.

*OUR APPROVAL DOES NOT INCLUDE A DETERMINATION THAT THE ONSITE PRIVATE UTILITIES WERE DESIGNED PROPERLY. WE REVIEWED THE PLANS SOLELY FOR GENERAL COMPLIANCE WITH THE DISTRICT'S RATE ORDER.

TO ARRANGE FOR LINE TO BE TURNED OFF OR MOVED, CALL CENTERPOINT AT (713) 207-2222
NOTICE:
For your safety, you are required by Texas Law to call 811 at least 48 hours before you dig so that underground lines can be marked. This signature does not fulfill your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES

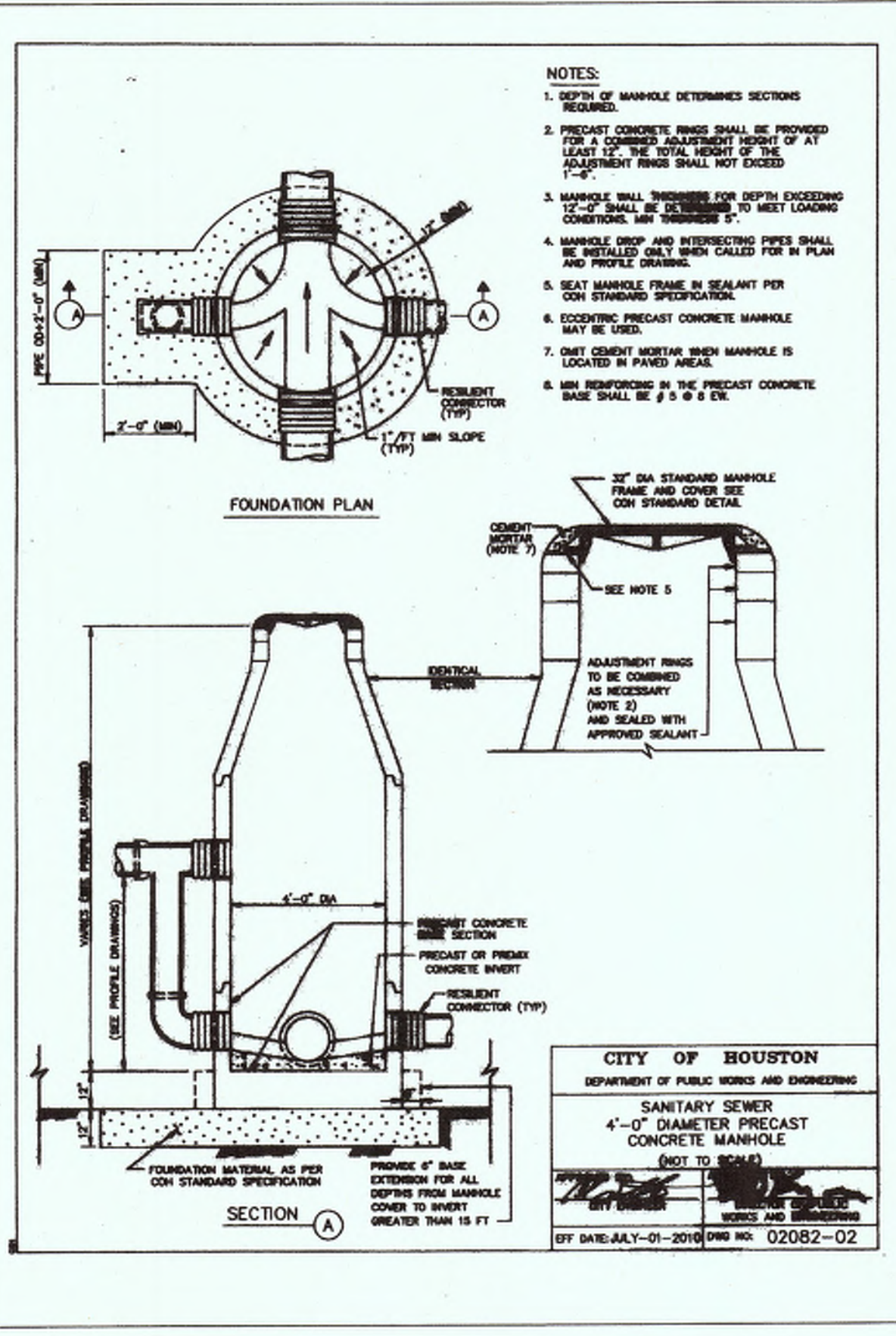
N/A DATE: _____
CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.
Signature valid for 6 months.

N/A DATE: _____
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
(This signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

N/A DATE: _____
APPROVED FOR AT&T TEXAS / SPRINT UNDERGROUND CONDUIT FACILITIES ONLY
SIGNATURE VALID FOR ONE YEAR.

APP.	REVISIONS	DATE
▲	VOID SHEETS 1-15 ADD SHEETS 1A-16A ADD SHEETS 16-18 PER MUD	12/14/17

NO CHANGE
AMM Contractors, LLC
AS-BUILT
By: *[Signature]* Date: 12/10/18



- NOTES:**
1. DEPTH OF MANHOLE DETERMINES SECTIONS SHOWN.
 2. PRECAST CONCRETE RINGS SHALL BE PROVIDED FOR A CORNER ADJUSTMENT HEIGHT OF AT LEAST 1/2\"/>

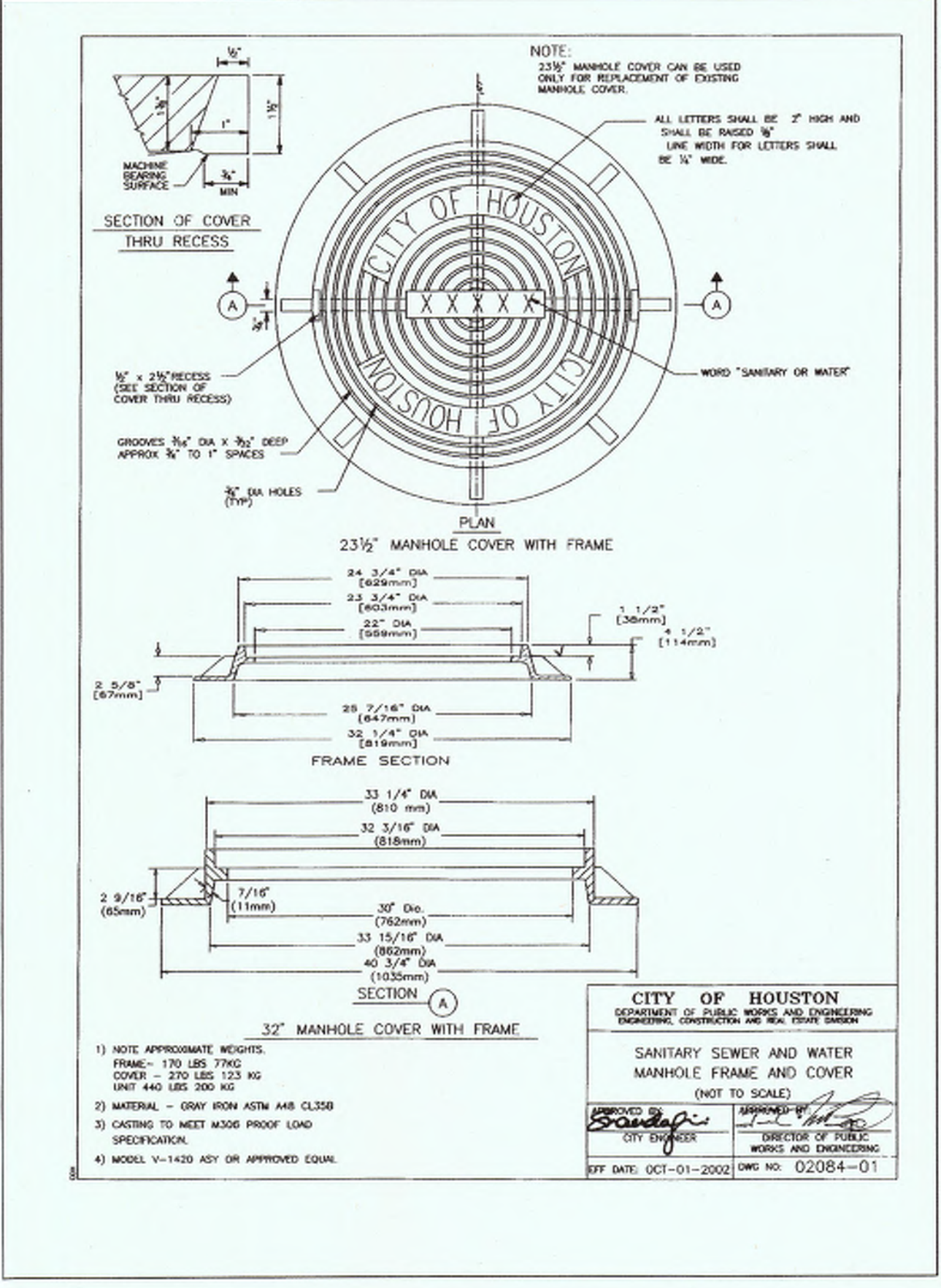
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER
4'-0" DIAMETER PRECAST CONCRETE MANHOLE (NOT TO SCALE)

APPROVED BY: *[Signature]*
CITY ENGINEER

APPROVED BY: *[Signature]*
DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: JULY-01-2010 DWG NO: 02082-02



- NOTE:**
23 1/2" MANHOLE COVER CAN BE USED ONLY FOR REPLACEMENT OF EXISTING MANHOLE COVER.
- ALL LETTERS SHALL BE 1/2" HIGH AND SHALL BE RAISED BY LINE WITH FOR LETTERS SHALL BE 1/4" WIDE.

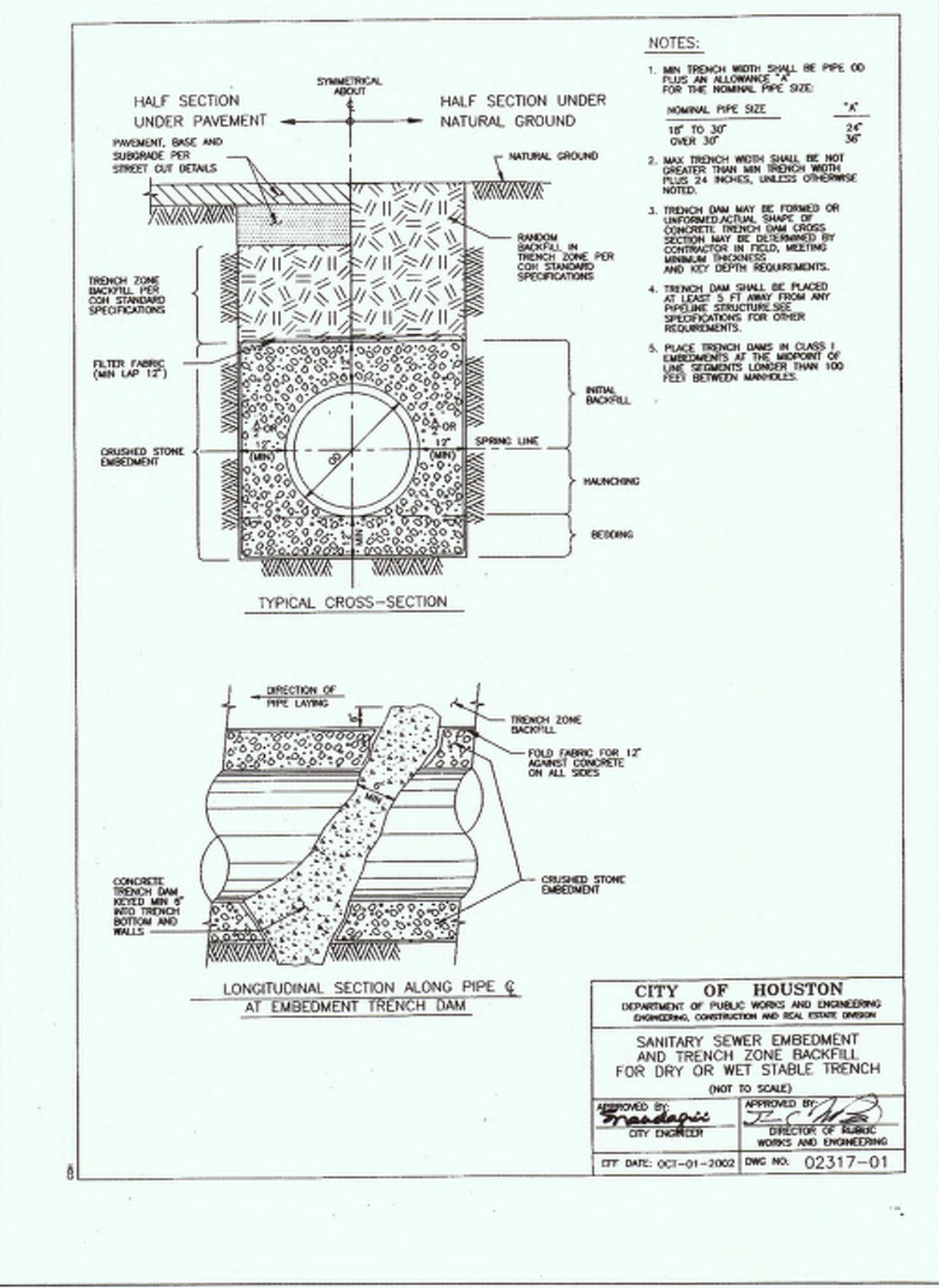
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER AND WATER
MANHOLE FRAME AND COVER (NOT TO SCALE)

APPROVED BY: *[Signature]*
CITY ENGINEER

APPROVED BY: *[Signature]*
DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: OCT-01-2002 DWG NO: 02084-01



- NOTES:**
1. MIN TRENCH WIDTH SHALL BE PIPE OD PLUS AN ALLOWANCE "X" FOR THE NOMINAL PIPE SIZE. "X" IS 1/4" FOR 12" AND 1/2" OVER 12".
 2. MAX TRENCH WIDTH SHALL BE NOT GREATER THAN MIN TRENCH WIDTH. MINIMUM TRENCH WIDTH SHALL BE 18" FOR ALL SIZES.
 3. TRENCH SHALL BE OPENED OR REOPENED AT THE END OF EACH SECTION. TRENCH LINE LOGS SECTION MAY BE OBTAINED BY CONTACTING THE FIELD OFFICE AND KEY DEPT REQUIREMENTS.
 4. TRENCH SHALL BE FENCED AT LEAST 5 FT FROM ANY EXISTING UNDERGROUND UTILITIES. SPECIFICATIONS FOR OTHER REQUIREMENTS.
 5. PLACE TRENCH DAM IN CLASS 1 BACKFILL AT THE END OF THE TRENCH OR AT THE END OF THE TRENCH LONGER THAN 100 FEET BETWEEN MANHOLES.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER EMBEDMENT
AND TRENCH ZONE BACKFILL FOR DRY OR WET STABLE TRENCH (NOT TO SCALE)

APPROVED BY: *[Signature]*
CITY ENGINEER

APPROVED BY: *[Signature]*
DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: OCT-01-2002 DWG NO: 02317-01

ALJLindsey
Civil Engineers
5629 FM 1960 W., Suite 314
Houston, TX 77069
281.301.5955
FRN F-11526

STATE OF TEXAS
PATRICK L. CARRIGAN
95617
REGISTERED PROFESSIONAL ENGINEER
12 DECEMBER 2017

CUTTEN PARK UTILITIES

CONSTRUCTION DETAILS
(3 OF 4)

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

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
<i>[Signature]</i> 12/14/17	
<i>[Signature]</i> 12-18-17	STORM WATER QUALITY
	FACILITIES
	STREET & BRIDGE

FILE NO: _____ FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE: _____

HORIZ : N/A
VERT : N/A

SHEET NO. 13A OF 17

59273

SWPPP NOTES

- 1) POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH CONSTRUCTION SITE:
 -ADHESIVES, PESTICIDES, DETERGENTS, PAINTS, FUELS, SOLVENTS, SEALANTS, FERTILIZERS, OILS, HERBICIDES, CLEANING SOLUTIONS, CONCRETE/CEMENT/PLASTER
- 2) STORM WATER QUALITY MEASURE IMPLEMENTATION RELATIVE TO LAND DISTURBING ACTIVITIES:
 - A) PRIOR TO CONSTRUCTION: SILT FENCING SHALL BE INSTALLED IN ALL LOCATIONS SHOWN ON SITE MAP THAT WILL NOT BE DISTURBED DURING THE INITIAL GRADING PROCESS. THE STABILIZED CONSTRUCTION EXIT SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
 - B) DURING CONSTRUCTION:
 - a) IMMEDIATELY AFTER PAVING CONSTRUCTION IS COMPLETE, INLET PROTECTION TRAPS WILL BE INSTALLED ON ALL NEWLY CONSTRUCTED INLETS.
 - b) WHEN EXISTING SILT FENCING NEEDS TO BE REMOVED FOR CONSTRUCTION OR ACCESS PURPOSES, IT WILL BE REPLACED AS SOON AS POSSIBLE AFTER CONSTRUCTION IN THE VICINITY OF THE REMOVED FENCE IS COMPLETE.
 - c) AS SOON AS PRACTICABLE AFTER SITE GRADING IS COMPLETE, FINAL STABILIZATION PROCEDURES SUCH AS TURF ESTABLISHMENT AND INSTALLATION OF PLANT MATERIAL WILL BE COMMENCED.
 - C) AFTER CONSTRUCTION: AFTER CONSTRUCTION ACTIVITY AND SITE STABILIZATION PROCEDURES ARE COMPLETE, STRUCTURAL EROSION AND SEDIMENT CONTROLS WILL BE REMOVED. SOIL DISTURBED BY THE REMOVAL OF CONTROLS WILL BE STABILIZED.

- 3) PERMANENT STORM WATER CONTROLS: AFTER CONSTRUCTION ACTIVITY IS COMPLETE, AREAS NOT COVERED BY CONCRETE PAVEMENT OR BY STRUCTURES WILL BE LANDSCAPED AND IRRIGATED. ONCE ESTABLISHED, THIS VEGETATION WILL HELP PREVENT SEDIMENT RUNOFF IN THE FUTURE STORM EVENTS. NEWLY GRADED AREA WILL BE TEXTURED TO REDUCE FLOW VELOCITY.
- 4) MATERIAL HANDLING AND SPILL PREVENTION PLAN:
 - A) HAZARDOUS MATERIALS WILL BE STORED AND USED IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. DISPOSAL WILL BE PERFORMED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION, AND IN ACCORDANCE WITH STATE AND LOCAL LAWS AND REGULATIONS.
 - B) THE FOLLOWING PROCEDURES WILL BE FOLLOWED FOR CONTAINMENT AND CLEAN-UP OF SPILLS:
 - a) ALL SPILLS WILL BE CLEANED UP AND PROPERLY REMOVED IN ACCORDANCE WITH STATE REGULATIONS AND LOCAL ORDINANCES.
 - b) SOIL AND SPILLED MATERIALS WILL BE COLLECTED UNTIL NO VISIBLE EVIDENCE OF SPILLED MATERIAL REMAINS.
 - c) THE TYPE OF MATERIAL AND QUANTITY OF RELEASE SHALL BE IDENTIFIED, AND APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN AS RECOMMENDED BY THE PRODUCT-SPECIFIC MSDS.
 - d) SPILL CONTAINMENT MAY INCLUDE CONSTRUCTION OF EARTH DIKES AROUND THE SPILL AREA, DEPLOYMENT OF ABSORBENT MATERIALS, OR USE OF COMMERCIALY AVAILABLE KITS.
 - e) CONTAMINATED SOIL AND SPILLED MATERIAL WILL BE STORED IN APPROPRIATE AND PROPERLY LABELED CONTAINERS, AND DISPOSED OF IN ACCORDANCE WITH STATE, LOCAL, AND FEDERAL RULES AND REGULATIONS.

- 5) GENERAL PERMIT MAINTENANCE REQUIREMENTS (FROM GENERAL PERMIT):
 - A) ALL PROTECTIVE MEASURES IDENTIFIED IN THIS SWPPP MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. IF, THROUGH INSPECTION OR OTHER MEANS, THE PERMITEE DETERMINES THAT BMP'S ARE NOT OPERATING EFFECTIVELY, THEN THE PERMITEE SHALL PERFORM MAINTENANCE AS NECESSARY TO MAINTAIN THE CONTINUED EFFECTIVENESS OF STORM WATER CONTROLS, AND PRIOR TO THE NEXT RAIN EVENT, IF FEASIBLE. IF MAINTENANCE PRIOR TO THE NEXT ANTICIPATED STORM EVENT IS IMPRACTICABLE, THE REASON SHALL BE DOCUMENTED IN THE SWPPP AND MAINTENANCE MUST BE SCHEDULED AND ACCOMPLISHED AS SOON AS PRACTICABLE. EROSION AND SEDIMENT CONTROLS THAT HAVE BEEN INTENTIONALLY DISABLED, RUN-OVER, REMOVED, OR OTHERWISE RENDERED INEFFECTIVE MUST BE REPLACED OR CORRECTED IMMEDIATELY UPON DISCOVERY.
 - B) IF PERIODIC INSPECTIONS OR OTHER INFORMATION INDICATES A CONTROL HAS BEEN USED INCORRECTLY, IS PERFORMING INADEQUATELY, OR IS DAMAGED, THEN THE OPERATOR MUST REPLACE OR MODIFY THE CONTROL AS SOON AS PRACTICABLE AFTER MAKING THE DISCOVERY.
 - C) SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS AND SEDIMENTATION PONDS NO LATER THAN THE TIME THAT DESIGN CAPACITY HAS BEEN REDUCED BY 50%. FOR PERIMETER CONTROLS SUCH AS SILT FENCES, BERMS, ETC., THE TRAPPED SEDIMENT MUST BE REMOVED BEFORE IT REACHES 50% OF THE ABOVE GROUND HEIGHT.
 - D) IF SEDIMENT ESCAPES THE SITE, ACCUMULATIONS MUST BE REMOVED AT A FREQUENCY THAT MINIMIZES OFF-SITE IMPACTS, AND PRIOR TO THE NEXT RAIN EVENT, IF FEASIBLE. IF THE PERMITEE DOES NOT OWN THE OFFSITE CONVEYANCE, THEN THE PERMITEE MUST WORK WITH THE OWNER OR OPERATOR OF THE PROPERTY TO REMOVE THE SEDIMENT.

- 6) EROSION AND SEDIMENT CONTROLS:
 - A) THE FOLLOWING NON-STRUCTURAL EROSION AND SEDIMENT CONTROLS WILL BE UTILIZED ON THE PROJECT SITE:
 - a) WHERE PRACTICAL, CARE WILL BE TAKEN TO PROTECT NATURAL VEGETATION THAT DOES NOT NEED TO BE REMOVED FOR CONSTRUCTION PURPOSES.
 - b) PLACEMENT OF CONCRETE PARKING AND DRIVEWAY AREAS WILL BE PERFORMED AS SOON AS POSSIBLE AFTER SUB-GRADE STABILIZATION, TO MINIMIZE THE AMOUNT OF TIME DISPOSED SOIL IS EXPOSED TO THE ELEMENTS. THIS PRACTICE WILL REDUCE THE FREQUENCY THAT MAINTENANCE IS REQUIRED ON THE STRUCTURAL BMP'S.
 - c) THE GENERAL PERMIT REQUIRES THAT EROSION AND STABILIZATION MEASURES MUST BE INITIATED WITHIN 14 DAYS IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED. IF CONSTRUCTION ACTIVITY IS SCHEDULED TO RESUME WITHIN 21 DAYS FROM THE CESSATION OF CONSTRUCTION ACTIVITY, EROSION AND STABILIZATION MEASURES ARE NOT REQUIRED FOR THAT PORTION OF THE SITE.
 - d) STABILIZATION PROCEDURES SUCH AS TURF ESTABLISHMENT AND INSTALLATION OF PLANT MATERIAL SHOULD BE COMMENCED AS SOON AS PRACTICABLE AFTER SITE GRADING IS COMPLETE AND FINAL.
 - B) THE FOLLOWING STRUCTURAL EROSION AND SEDIMENT CONTROLS WILL BE UTILIZED ON THE PROJECT SITE:
 - a) A STABILIZED CONSTRUCTION EXIT WILL BE INSTALLED AT THE LOCATION WHERE CONSTRUCTION TRAFFIC EXITS THE PROJECT SITE
 - b) INLET PROTECTION TRAPS WILL BE INSTALLED AT ALL INLETS IMMEDIATELY AFTER CONCRETE PAVEMENT IS PLACED
 - c) SILT FENCING (FILTER FABRIC FENCE OR REINFORCED FILTER FABRIC FENCE) WILL BE INSTALLED ALONG THE PROPERTY BOUNDARY AND ADJACENT TO EXISTING DITCHES, BAYOUS, STREAMS, RIVERS, AND/OR CHANNELS.
 - d) ANY SEDIMENT THAT ENTERS THE STORM SEWER SYSTEM WILL BE REMOVED IMMEDIATELY (NOT FLUSHED).
 - e) SINCE ALL PROPOSED INLETS DRAIN LESS THAN 10-ACRES, SEDIMENT BASINS ARE NOT REQUIRED FOR THIS SITE.
 - f) WHERE PRACTICAL, CARE WILL BE TAKEN TO PROTECT NATURAL VEGETATION THAT DOES NOT NEED TO BE REMOVED FOR CONSTRUCTION PURPOSES.

Chad Walker 1/12/2018
 HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 191 ENGINEER DATE
 APPROVAL CAN BE REVOKED, SUSPENDED, OR MODIFIED AT ANY TIME, BUT, IN ANY EVENT, IT EXPIRES AUTOMATICALLY AFTER ONE YEAR.
 *OUR APPROVAL DOES NOT INCLUDE A DETERMINATION THAT THE ON-SITE PRIVATE UTILITIES WERE DESIGNED PROPERLY. WE REVIEWED THE PLANS SOLELY FOR GENERAL COMPLIANCE WITH THE DISTRICT'S RATE ORDER.

TO ARRANGE FOR LINE TO BE TURNED OFF OR MOVED, CALL CENTERPOINT AT (713) 207-2222
 NOTICE:
 For your safety, you are required by Texas Law to call 811 at least 48 hours before you dig so that underground lines can be marked. This signature does not fulfill your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES	
DATE	DATE
N/A	
CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.	
Signature valid for 6 months.	
N/A	
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities-not to be used for conflict verification.)	
Signature Valid for six months.	
N/A	
APPROVED FOR AT&T TEXAS / BENT UNDERGROUND CONDUIT FACILITIES ONLY	
SIGNATURE VALID FOR ONE YEAR.	

APP.	REVISIONS	DATE
1	VOID SHEETS 1-15 ADD SHEETS 1A-15A ADD SHEETS 16-18 PER MUD	12/14/17
2		
3		

MMG Contractors, LLC
AS-BUILT NO CHANGE
 By: *[Signature]* Date: 12/14/18

ALJLindsey
 Civil Engineers
 5629 FM 1960 W., Suite 314
 Houston, TX 77069
 281.301.5955
 FRN F-11526

Patrick L. Carstgen
 95617
 REGISTERED PROFESSIONAL ENGINEER
 12 DECEMBER 2017

CUTTEN PARK UTILITIES

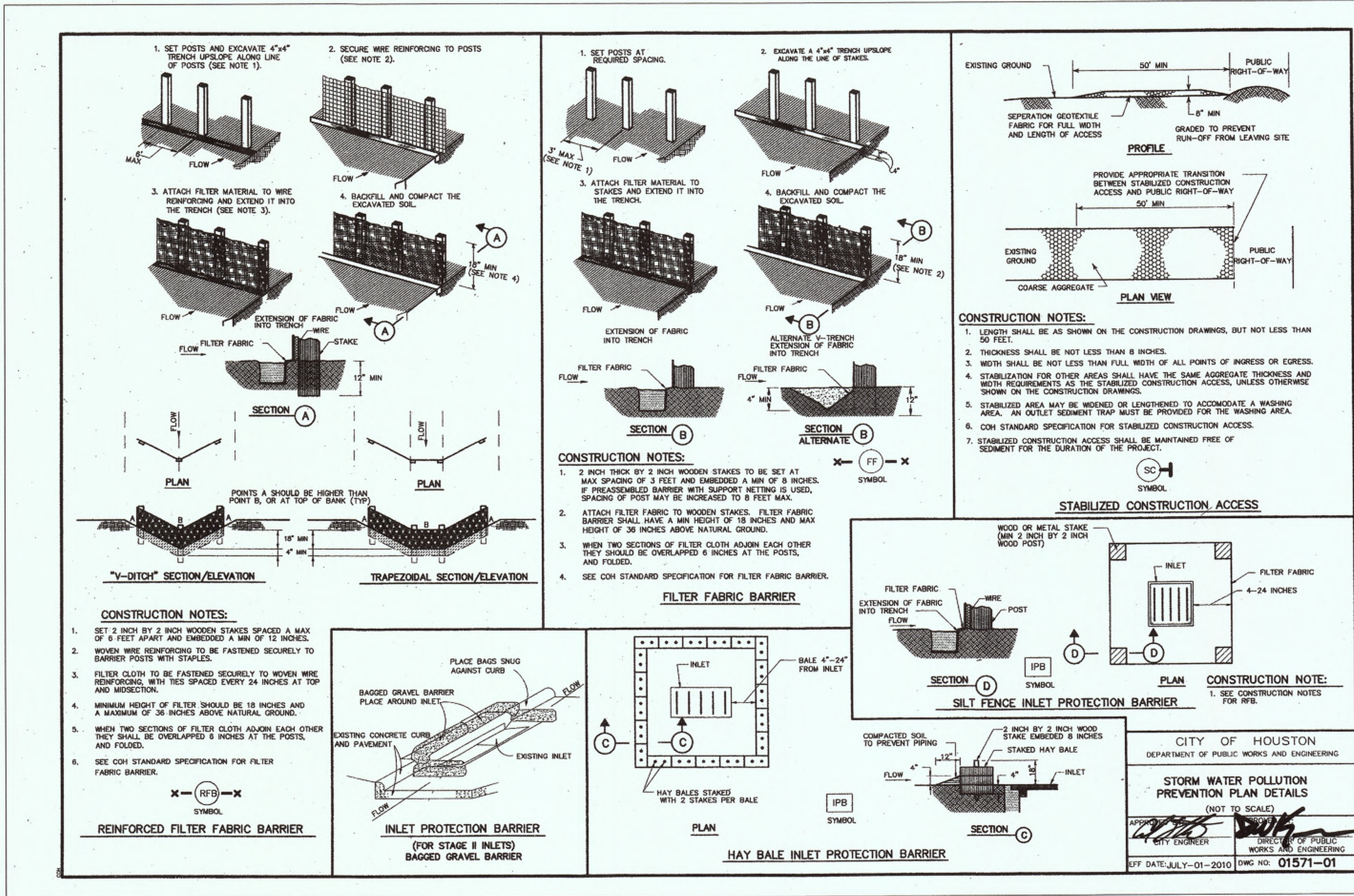
CONSTRUCTION DETAILS (4 OF 4)

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

CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

FILE NO:	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
HORIZ : N/A	
VERT : N/A	
SHEET NO. 14A OF 17	



1. PAVING

(FOR H.C. PUBLIC R.O.W. ONLY)

DESIGN THICKNESS OF PAVING	STABILIZED SUBGRADE DEPTH	DESIGN STRENGTH OF CONCRETE	STEEL SPACING
LONG	TRANS.	LONG	TRANS.
X" (IN.)	X" (IN.)	XXXX (PSI)	X" (IN.) X" (IN.)
X"	X"	XXXX	X" X"
X"	X"	XXXX	X" X"

DRIVEWAYS (in H.C. ROW only)

DRWY	WIDTH	MATERIAL	CULVERT?	CULVERT LENGTH	NEAREST X-STREET	DIST. TO X-STREET
1	XX'	XXXX	XXXX	XXXX	XXXX	XXXX
2						
3						
4						
5						

FIRE APPARATUS ACCESS ROAD

I. HARRIS COUNTY STANDARD DRIVEWAY DETAIL APPEARS ON SHEET _____

II. REQUIRED AND SHOWN ON SHEET(S) _____

III. STANDARD 6" CURBING PROPOSED

IV. ISLANDS AND MEDIANS REQUIRE STANDARD 6" CURBING

TRAFFIC CONSIDERATIONS

I. MEDIAN CUTS

II. LEFT / RIGHT TURN LANE

III. TRAFFIC CONTROL PLAN

IV. TRAFFIC SIGNAL

V. TRAFFIC IMPACT ANALYSIS

7. FLOOD CONTROL DISTRICT CRITERIA

I. DETENTION SUMMARY

RAINFALL EVENT PROBABILITY	PRE-DEVELOPED PEAK RUNOFF (CFS)	POST-DEVELOPED PEAK RUNOFF (CFS)	DETENTION BASIN PEAK OUTFLOW (CFS)	MAXIMUM WATER SURFACE ELEVATION (AC-FT)	PEAK STORAGE VOLUME (AC-FT)	STORAGE RATE (AC-FT PER AC)
10% EXCEEDANCE (10-YEAR)	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
1% EXCEEDANCE (100-YEAR)	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

STORMWATER DETENTION BASIN ROUTING TABLE

DETECTION BASIN DRAINAGE AREA = _____ ACRES	MAX BASIN DRAIN TIME (100-YR EVENT) = _____ HOURS
10% EXCEEDANCE (10-YEAR)	XXXX
1% EXCEEDANCE (100-YEAR)	XXXX

STORMWATER DETENTION DESIGN REPORT

REPORT TITLE: XXXXXXXXXXXXXXXXXXXXXXXX

REPORT DATE: XXXXXXXXXX

DATE OF ACCEPTANCE BY HCFCO OR FLOODPLAIN ADMINISTRATOR: XXXXXXXXXX

NOTES

I. COMPLETE ONLY IF HCFCO OR HARRIS COUNTY IS REQUIRING DETENTION.

II. COMPLETE ONLY IF PROJECT HAS WITHIN IT OR IS IMMEDIATELY ADJACENT TO AN EXISTING OR PROPOSED HCFCO MAINTAINED CHANNEL OR DETENTION BASIN.

III. COMPLETE ONLY IF PROJECT INCLUDES NEW OUTFALL, BACKSLOPE INTERCEPTOR OR OTHER RELATED WORK WITHIN AN EXISTING OR PROPOSED HCFCO MAINTAINED CHANNEL OR DETENTION BASIN.

IV. COMPLETE ONLY IF PROJECT HAS WITHIN OR IMMEDIATELY ADJACENT TO IT AN EXISTING OR PROPOSED PUBLIC DRAINAGE CHANNEL OR DETENTION BASIN.

2. RESIDENTIAL / SUBDIVISION DRAINAGE

I. PROPOSED DRAINAGE SYSTEM TYPE

II. DESIGN METHOD USED

III. DRAINAGE SYSTEM OUTFALLS DIRECTLY TO EXISTING

IV. H.C. OUTFALL CALCULATIONS

OFFSITE SHEET FLOW: (100 YEAR)

NOTE: ALL OFFSITE SHEET FLOW FROM ADJACENT PROPERTIES MUST BE IDENTIFIED AND PROPERLY ACCOUNTED FOR IN THE PROJECT. THE SIGNING ENGINEER HEREBY CERTIFIES THAT THESE AREAS HAVE BEEN ADDRESSED.

V. DETENTION PROVIDED BY

I. DETENTION BASIN IS PART OF THIS PLAN SET. SERVICE AREA MAP IS ON SHEET _____

II. REGIONAL DETENTION BASIN SYSTEM (APPROVED H.C. PRJ NO.): _____

8. FLOOD PLAIN STATUS

I. GENERAL INFORMATION

II. FLOODPLAIN STORAGE SUMMARY

III. FLOODPLAIN STORAGE SUMMARY (APPLIES ONLY TO PORTION OF LAND LOCATED WITHIN FLOODPLAIN AS Delineated BY FIRM PANEL)

IV. OLMR REQUIRED

I. COMPLETE FOR ALL PROJECTS

II. COMPLETE ONLY IF PROJECT IS ADJACENT TO 100-YEAR FLOOD PLAIN

FOR PROJECTS LOCATED IN FLOODPLAINS

Development constructed or placed in accordance with these plans will comply with all provisions of the Regulations of Harris County, Texas for Floodplain Management.

NOTES

I. COMPLETE ONLY IF PROJECT IS ADJACENT TO 100-YEAR FLOOD PLAIN

II. COMPLETE ONLY IF PROJECT IS ADJACENT TO 100-YEAR FLOOD PLAIN

3. COMMERCIAL / OTHER SITE DRAINAGE

I. PROPOSED DRAINAGE AREA

II. DETENTION VOLUME

III. OUTFALL

IV. PUMPED DETENTION FACILITIES

V. FLOW RESTRICTOR SIZE

OUTFALL PIPE SIZE: XXX

RESTRICTOR PIPE SIZE: XXX

VI. FLOW RESTRICTOR SIZE

OUTFALL PIPE SIZE: XXX

RESTRICTOR PIPE SIZE: XXX

NOTE: ALL ROADSIDE DITCH OUTFALLS REQUIRE EROSION CONTROL MEASURES.

RIPRAP IS NOT ALLOWED AS AN EROSION CONTROL MEASURE IN HARRIS COUNTY ROW. ALL PUMPED DETENTION OUTFALLS TO ROADSIDE DITCHES REQUIRE MANHOLE W/LEADS.

7. FLOOD CONTROL DISTRICT CRITERIA

I. DETENTION SUMMARY

STORMWATER DETENTION DESIGN REPORT

REPORT TITLE: XXXXXXXXXXXXXXXXXXXXXXXX

REPORT DATE: XXXXXXXXXX

DATE OF ACCEPTANCE BY HCFCO OR FLOODPLAIN ADMINISTRATOR: XXXXXXXXXX

NOTES

I. COMPLETE ONLY IF PROJECT IS ADJACENT TO 100-YEAR FLOOD PLAIN

II. COMPLETE ONLY IF PROJECT IS ADJACENT TO 100-YEAR FLOOD PLAIN

FOR PROJECTS LOCATED IN FLOODPLAINS

Development constructed or placed in accordance with these plans will comply with all provisions of the Regulations of Harris County, Texas for Floodplain Management.

HARRIS COUNTY ENGINEERING DEPARTMENT REVIEW SHEET

DATE: 07/26/2016

4. WATER AND WASTEWATER

I. COMMERCIAL PROJECTS

II. SUBDIVISION PROJECTS

H.C. WASTE WATER REVIEWER APPROVAL

NAME & DATE: _____

REVIEWER COMMENTS: _____

NOTE: ALL EXISTING AND PROPOSED UTILITIES MUST BE ACCURATELY SHOWN & LABELED ON THE SITE PLANS.

NOTE: A COPY OF TCEQ APPROVAL FOR PRIVATE WATER & WASTE WATER SYSTEMS IS REQUIRED FOR PLAN APPROVAL.

10. PERMITS REQUIRED

TO BE FILLED OUT BY HARRIS COUNTY

STORM WATER QUALITY

SEPTIC (EXISTING) / SEPTIC (PROPOSED)

CIVIL SITE WORK (PHASE II PERMIT CLASS I (non-floodplain))

CIVIL SITE WORK (PHASE II PERMIT CLASS II (floodplain))

DRIVEWAY WITH CULVERT / CURB AND GUTTER

BUILDING PERMITS (NO. OF BUILDINGS = _____) / CRITICAL FACILITY

SUBDIVISION INFRASTRUCTURE PHASE II (NO. OF LOTS = _____)

NOTICE OF DETENTION AFFIDAVIT REQUIRED

MUD MAINTENANCE AGREEMENT REQUIRED

HCFCO ROW NOTIFICATION PERMIT REQUIRED

WORK IN HCFCO RIGHT-OF-WAY

I. TYPE OF WORK TO BE PERFORMED IN CHANNEL

II. USAGE ENVIRONMENTAL PERMIT

III. REFERENCE / BASIS OF DETERMINATION

NOTES

I. - IS REQUIRED ON PROJECTS WITH WORK IN A HCFCO CHANNEL. PLEASE REFERENCE SECTION 17 OF THE FLOOD CONTROL DISTRICT POLICY, CRITERIA, AND PROCEDURE MANUAL FOR MORE INFORMATION.

11. CURB RAMPS

A. ARE CURB RAMPS THAT CONNECT TO PUBLIC STREETS PROPOSED IN THIS SET OF PLANS? YES NO

12. LANDSCAPING

REQUIRED AND SHOWN ON SHEET(S) _____

NOT REQUIRED

5. DESCRIPTION OF PROPERTY

I. LEGAL DESCRIPTION

A. ACREAGE: 4.593 ACRES

B. SUBDIVISION: CUTTEN PARK

C. ADJACENT ROADS: CUTTEN ROAD

II. PLATING

A. SUBDIVISION PLAT

B. STREETS PROPOSED

PLAT NAME: CUTTEN PARK

H.C. PLAT NUMBER: F.C. 601121

III. JURISDICTIONS

CITY OF HOUSTON

ETJ, CITY OF HOUSTON

ETJ, CITY OF _____

NO ETJ

IV. UNOBSTRUCTED VISIBILITY EASEMENT (U.V.E.)

REQUIRED AND SHOWN ON SHEET(S) _____

NOT REQUIRED

AS-BUILT

MMG Contractors, LLC

DATE: 12/19/18

WORK IN HARRIS COUNTY R.O.W.

UTILITY WORK / SANITARY SEWER & WATER LINE

LEFT TURN LANE

OTHER CONSTRUCTION

NOTES

A PERMIT IS REQUIRED FOR EACH SCOPE OF WORK ON SITE. A NOTIFICATION IS REQUIRED FOR EACH SCOPE OF WORK IN HC OR HCFCO ROW. REFER TO www.hcpid.org/permits FOR EACH SCOPE OF WORK IN HC OR IN HCFCO ROW.

11. CURB RAMPS

A. ARE CURB RAMPS THAT CONNECT TO PUBLIC STREETS PROPOSED IN THIS SET OF PLANS? YES NO

12. LANDSCAPING

REQUIRED AND SHOWN ON SHEET(S) _____

NOT REQUIRED

6. STORM WATER QUALITY

I. CONSTRUCTION PROTECTIVE MEASURES (must be completed on all projects)

II. APPLICABILITY FOR PERMANENT FEATURES (must be completed on all projects)

EXEMPT NEW DEVELOPMENT:

PROJECT IS ON A PARCEL LESS THAN 5 ACRES. (must be verified with plat)

EXEMPT REDEVELOPMENT:

PROJECT IS ON A PARCEL LARGER THAN 5 ACRES AND THE NET INCREASE OF IMPERVIOUS SURFACE SINCE OCT. 2001 (INCLUDING THIS PRJ.) IS LESS THAN 1 ACRE.

EXEMPT GRANDFATHERED:

EXEMPT "GRAND FATHERED" BY AN EXISTING DRAINAGE SYSTEM PRIOR TO OCT. 2001. ** (REQUIRED: PROVIDE ORIGINAL DRAINAGE AREA MAP INCLUDING CALCULATIONS)

PROJECT'S SWQ REQUIREMENTS ARE WITHIN THE JURISDICTION OF THE FOLLOWING CITY/MUNICIPALITY: _____

STORM WATER QUALITY PERMIT REQUIREMENT FOR THIS PROJECT IS COVERED BY PROJECT TITLE: _____

GENERAL:

PROJECT'S SWQ REQUIREMENTS ARE WITHIN THE JURISDICTION OF THE FOLLOWING CITY/MUNICIPALITY: _____

STORM WATER QUALITY PERMIT REQUIREMENT FOR THIS PROJECT IS COVERED BY PROJECT TITLE: _____

HARRIS COUNTY PROJECT NO. _____ & SWQ PERMIT NO. _____

ENGINEERING DIVISION

WAS ACCEPTED BY THE FOLLOWING GROUPS FOR THE PURPOSES LISTED BELOW:

INTERPOSE NO OBJECTION

AS TO LOCATION OF ITEMS IN COUNTY RIGHT OF WAY

AS TO PAVING AND/OR DRAINAGE ONLY

AS TO STORM WATER QUALITY

DATE: 8/2/16

HARRIS COUNTY FLOOD CONTROL DISTRICT

INTERPOSE NO OBJECTION

FOR ITEMS LOCATED OUTSIDE OF HCFCO RIGHT-OF-WAY

FOR ITEMS LOCATED WITHIN EXISTING HCFCO RIGHT-OF-WAY

FOR ITEMS LOCATED WITHIN PROPOSED HCFCO RIGHT-OF-WAY

DATE: 8/3/16

ENGINEER'S CERTIFICATION

I, PATRICK CARRIGAN, A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THE INFORMATION PRESENTED ON THIS SHEET IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I AM NOT VIOLATING ANY PROVISION OF THE CURRENT TEXAS ENGINEERING PRACTICE ACT AND RULES CONCERNING THE PRACTICE OF ENGINEERING AND PROFESSIONAL ENGINEERING LICENSURE.

ANY VIOLATIONS WILL BE FORWARDED TO THE HARRIS COUNTY DISTRICT ATTORNEY'S OFFICE FOR PROSECUTION.

THE COMPLETED PROJECT CONSISTS OF DRAWING SHEETS 1 THRU 15

DATE: 07-25-2016

REVISIONS

NOTE: REVISION BLOCK IS TO BE USED ONLY FOR CHANGES MADE AFTER PLANS HAVE BEEN APPROVED BY HARRIS COUNTY.

DATE	SHEET NO.	DESCRIPTION	P.E. INITIAL	H.C. APPROVED DATE
9-21-16	2-9	SANITARY SEWER ALONG COCKRUM WAS REDIRECTED SOUTH JUST PAST EXISTING STORAGE BUILDING. SANITARY SEWER EASEMENTS WERE PROPOSED ON THE SOUTH SIDE OF COCKRUM. WATER LINE FLUSHING VALVES ON THE SOUTH SIDE OF COCKRUM WERE MOVED TO THE NORTH, AND WATERLINE CROSSING CUTTEN WAS REVISED TO BE PERPENDICULAR TO THE R.O.W.	PLC	

REVISIONS

NOTE: REVISION BLOCK IS TO BE USED ONLY FOR CHANGES MADE AFTER PLANS HAVE BEEN APPROVED BY HARRIS COUNTY.

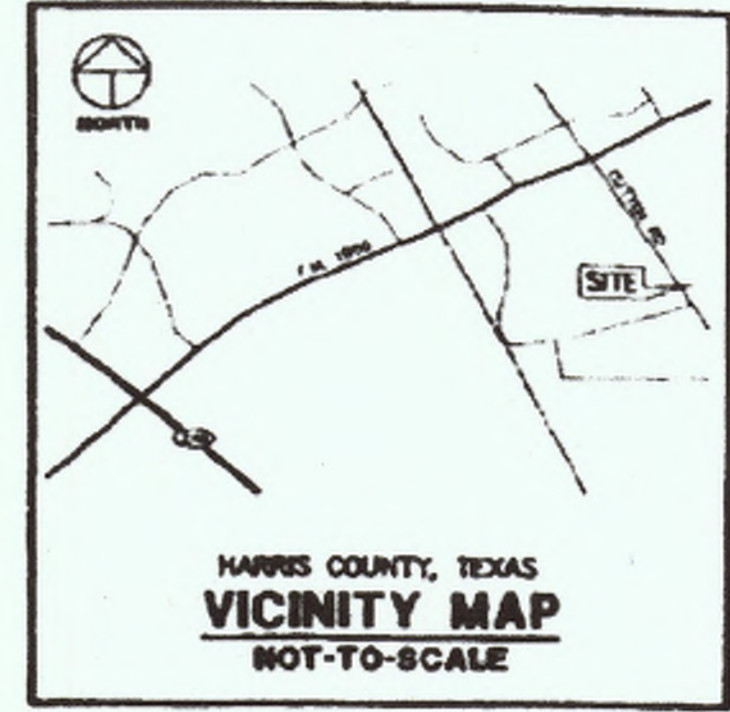
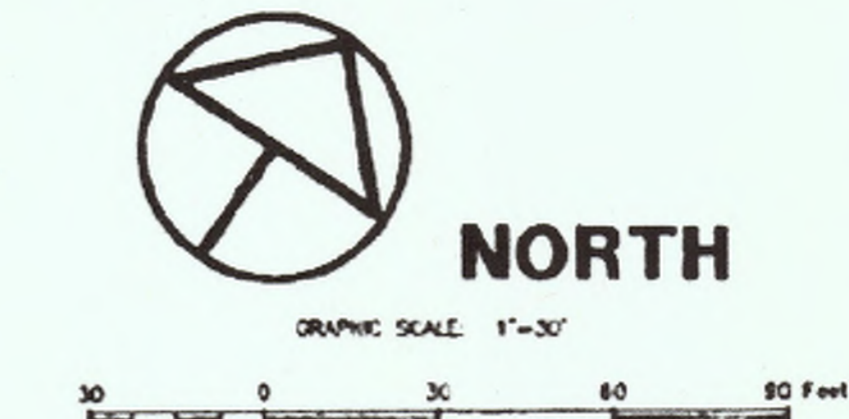
REVISIONS

NOTE: REVISION BLOCK IS TO BE USED ONLY FOR CHANGES MADE AFTER PLANS HAVE BEEN APPROVED BY HARRIS COUNTY.



F.M. 1960

LOT 5
CONVEYED TO CHURCH OF CHAMPIONS
(F.K.A. NORTHWEST UNITED PENTECOSTAL CHURCH)
H.C.C.F. NO. V582556



CALLED 3.7417 ACRES
CONVEYED TO ARC, LTD.
H.C.C.F. NO. X733217

LEGAL DESCRIPTION

A TRACT OR PARCEL OF LAND CONTAINING 4.5930 ACRES OR 200,070 SQUARE FEET OUT OF LOT 6, BLOCK 1 OF INDEPENDENCE GROVE SUBDIVISION, A SUBDIVISION IN HARRIS COUNTY, TEXAS AS SHOWN ON PLAT MAP OR PLAT INSTRUMENT RECORDED IN VOL. 3, PG. 39 OF THE MAP RECORDS OF HARRIS COUNTY TEXAS, SAID 4.5930-ACRE TRACT BEING COMPOSED OF THE REMAINDER OF A CALLED 2.3829-ACRE TRACT BEING THE NORTH 1/2 OF LOT 6, BLOCK 1 OF SAID INDEPENDENCE GROVE SUBDIVISION AS DESCRIBED IN HARRIS COUNTY CLERK'S FILE NO. H106720, AND THE REMAINDER OF A CALLED 2.50-ACRE TRACT KNOWN AS THE SOUTH 1/2 OF LOT 6, BLOCK 1 OF SAID INDEPENDENCE GROVE SUBDIVISION AS DESCRIBED IN HARRIS COUNTY CLERK'S FILE NO. S143286, SAID 4.5930-ACRE TRACT BEING MORE PARTICULARLY DESCRIBED BY BEARS AND BOUNDS AS FOLLOWS WITH BEARINGS BEING ON THE NORTHEASTERLY LINES OF A CALLED 0.0927-ACRE TRACT CONVEYED IN HARRIS COUNTY CLERK'S FILE NO. X234430 AND A CALLED 0.0984-ACRE TRACT CONVEYED IN HARRIS COUNTY CLERK'S FILE NO. X343047, BEING NORTH 33 DEGREES 37 MINUTES 43 SECONDS WEST BEINGING AS A 5/8-INCH IRON ROD WITH CAP FOUND MARKING THE MOST SOUTHERLY CORNER OF THE HEREIN DESCRIBED TRACT, SAME BEING THE MOST SOUTHERLY CORNER OF SAID REMAINDER OF A CALLED 2.3829-ACRE TRACT, THE MOST WESTERLY CORNER OF THE REMAINDER OF A CALLED 2.0020-ACRE TRACT DESCRIBED IN HARRIS COUNTY CLERK'S FILE NO. W003542, THE MOST NORTHERLY CORNER OF A CALLED 0.0927-ACRE TRACT DESCRIBED IN HARRIS COUNTY CLERK'S FILE NO. X234430, AND THE MOST EASTERLY CORNER OF SAID 0.0984-ACRE TRACT. THENCE NORTH 33 DEGREES 37 MINUTES 43 SECONDS WEST, ALONG THE NORTHEASTERLY LINE OF SAID 0.0984-ACRE TRACT, AT 156.41 FEET PASSING A 5/8-INCH IRON ROD WITH CAP FOUND MARKING THE MOST WESTERLY CORNER OF SAID REMAINDER OF A CALLED 2.50-ACRE TRACT, THE MOST NORTHERLY CORNER OF SAID 0.0927-ACRE TRACT, THE MOST EASTERLY CORNER OF SAID 0.0927-ACRE TRACT AND THE MOST SOUTHERLY CORNER OF SAID REMAINDER OF A CALLED 2.3829-ACRE TRACT, AND CONTINUING ON THE SAME BEARING, ALONG THE NORTHEASTERLY LINE OF SAID 0.0927-ACRE TRACT FOR A TOTAL DISTANCE OF 317.70 FEET TO A 5/8-INCH IRON ROD WITH CAP FOUND MARKING THE MOST WESTERLY CORNER OF THE HEREIN DESCRIBED TRACT, SAME BEING THE MOST WESTERLY CORNER OF SAID REMAINDER OF A CALLED 2.3829-ACRE TRACT AND THE MOST NORTHERLY CORNER OF SAID 0.0927-ACRE TRACT, SAID POINT BEING ON THE SOUTHWESTERLY LINE OF A TRACT CALLED TO BE LOT 5, BLOCK 1 OF SAID INDEPENDENCE GROVE SUBDIVISION CONVEYED IN HARRIS COUNTY CLERK'S FILE NO. V582556. THENCE NORTH 86 DEGREES 47 MINUTES 43 SECONDS EAST, ALONG THE SOUTHWESTERLY LINE OF SAID LOT 5, A DISTANCE OF 127.26 FEET TO A 1/2-INCH IRON ROD FOUND MARKING THE MOST NORTHERLY CORNER OF THE HEREIN DESCRIBED TRACT, SAME BEING THE MOST NORTHERLY CORNER OF SAID REMAINDER OF A CALLED 2.3829-ACRE TRACT AND THE MOST WESTERLY CORNER OF SAID LOT 5, SAID POINT CALLED TO BE THE MOST SOUTHERLY CORNER OF LOT 12 AND THE MOST WESTERLY CORNER OF LOT 11, BLOCK 1 OF SAID INDEPENDENCE GROVE SUBDIVISION AND BEING ON THE SOUTHWESTERLY LINE OF A CALLED 3.7417-ACRE TRACT CONVEYED IN HARRIS COUNTY CLERK'S FILE NO. X733217. THENCE SOUTH 33 DEGREES 42 MINUTES 04 SECONDS EAST, ALONG THE SAID SOUTHWESTERLY LINE OF SAID 3.7417-ACRE TRACT, PASSING AT 79.18 FEET THE MOST SOUTHERLY CORNER OF SAID 3.7417-ACRE TRACT, A DISTANCE OF 140.23 FEET TO A 1-1/2-INCH ANGLE FOUND MARKING THE MOST EASTERLY CORNER OF SAID REMAINDER OF A CALLED 2.50-ACRE TRACT, THE MOST WESTERLY CORNER OF SAID 3.7417-ACRE TRACT, THE MOST WESTERLY CORNER OF A CALLED 8-ACRE TRACT CONVEYED IN HARRIS COUNTY CLERK'S FILE NO. R218180 AND THE MOST NORTHERLY CORNER OF SAID REMAINDER OF A CALLED 2.0020-ACRE TRACT, SAID POINT CALLED TO BE THE COMMON CORNER OF LOTS 6, 7, 10, AND 11. THENCE SOUTH 35 DEGREES 52 MINUTES 27 SECONDS WEST, ALONG THE NORTHWESTERLY LINE OF SAID REMAINDER OF A CALLED 2.0020-ACRE TRACT, A DISTANCE OF 833.32 FEET TO THE PLACE OF BEGINNING AND CONTINUING A LINE 8' BY 800.07' SQUARE FEET OF LAND SURVEYED BY MINORSE LAND SERVICES, INC. JOB #381109C-COMB.

REMAINDER OF CALLED 2.3829 ACRES
A.K.A. THE NORTH 1/2 OF LOT 6
CONVEYED TO THE ESTATES OF LILLY MAE FLX,
ANDREW FLX AND GLORIA FLX TATE
H.C.C.F. NO. N106720

4.5930 AC. OR
200,070 SQ. FT.

REMAINDER OF CALLED 2.50 ACRES
A.K.A. THE SOUTH 1/2 OF LOT 6
CONVEYED TO JOSEPH C. WOODS
& JOSSE E. DURGAN
H.C.C.F. NO. S143286

REMAINDER OF CALLED 2.0020 ACRES
A.K.A. LOT 7B
CONVEYED TO MARICELA TREVIÑO NGAREDA
H.C.C.F. NO. W003542

CALLED 3.7371 ACRES
A.K.A. THE SOUTH 1/2 &
THE SOUTH 7/8 SO FLEET
OF THE NORTH 1/2 OF LOT 11
CONVEYED TO ARC, LTD.
H.C.C.F. NO. X733209

CALLED 9 ACRES
A.K.A. LOTS 9 & 10
CONVEYED TO JOSEPH C. WOODS
& DONNA WOODS
H.C.C.F. NO. R518960

NO CHANGE
MMG Contractors, LLC
AS-BUILT
Date: 12/10/18

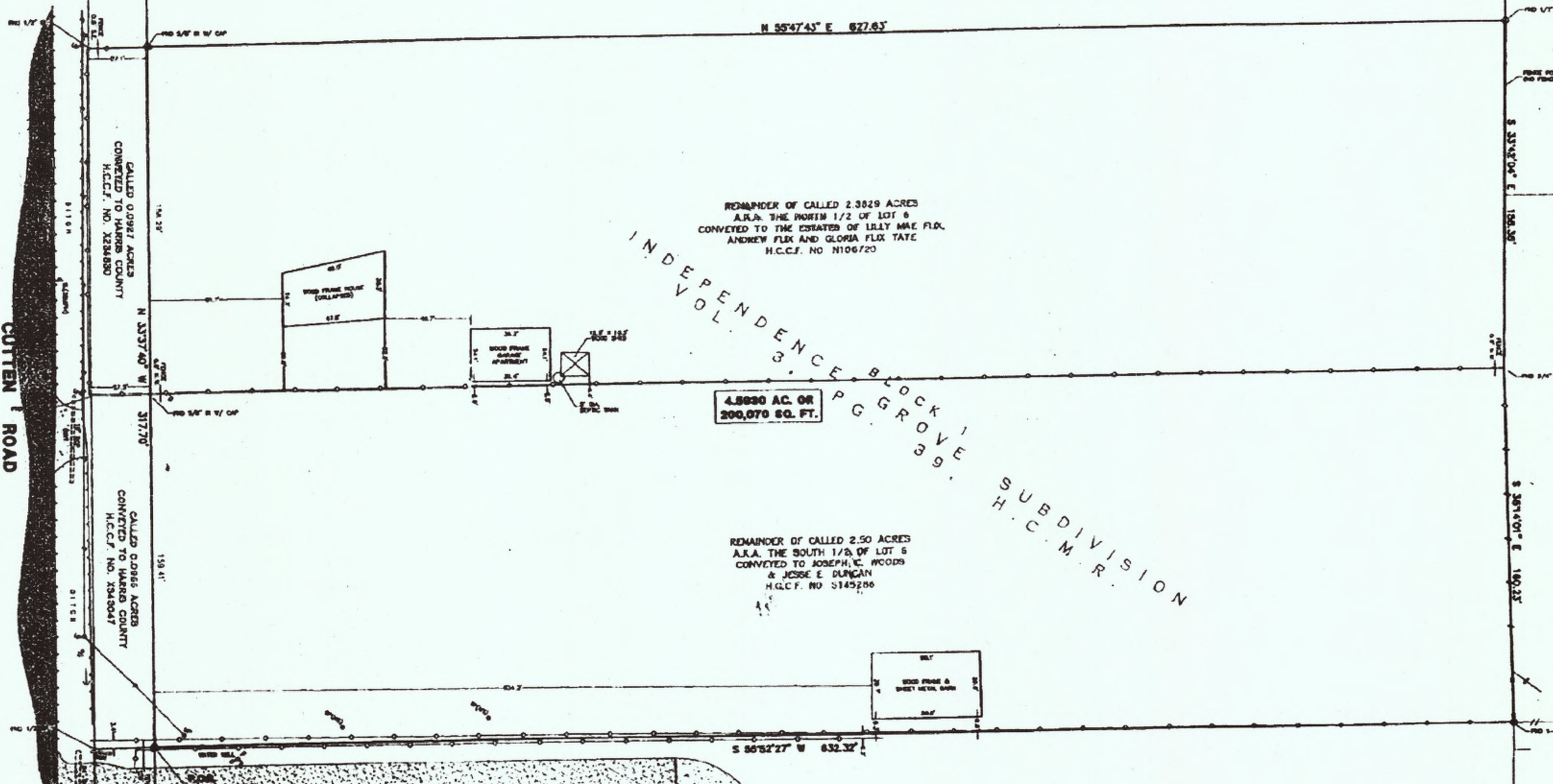
SURVEYOR'S CERTIFICATION

PURCHASER OR OWNER: WINDROSE CAPITAL PARTNERS
LENDER COMPANY: ALAMO TITLE INSURANCE
TITLE COMPANY:
I DO HEREBY CERTIFY TO THE ABOVE LISTED THAT THIS SURVEY WAS THIS DAY MADE ON THE GROUND AND WAS SUPERVISED UNDER MY SUPERVISION. THAT THIS PLAT CORRECTLY REPRESENTS THE PROPERTY LEGALLY DESCRIBED HEREIN, THAT THE FACTS FOUND AT THE TIME OF THIS SURVEY SHOW THE IMPROVEMENTS AND THAT THERE ARE NO OTHER ENCROACHMENTS APPARENT ON THE GROUND, EXCEPT AS SHOWN. THIS SURVEY SUBSTANTIALLY CONFORMS TO THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS STANDARDS AND SPECIFICATIONS FOR A CALIBRATED CONDITION SURVEY, TO THE BEST OF MY KNOWLEDGE.

MIKE KURPANSKI
Registered Professional Land Surveyor
Texas Registration No. 6101
DATE: 05/24/05

Windrose Land Services, Inc.
10875 Richmond Avenue, Bldg. 87
Houston, Texas 77042
Phone (713) 458-2262 Fax (713) 451-1191
Professional Surveying & Engineering Services

BOUNDARY SURVEY OF
4.5930 AC. OR 200,070 SQ. FT. OF LAND
OUT OF LOT 6, BLOCK 1 OF
INDEPENDENCE GROVE SUBDIVISION
VOL. 3, PG. 39, H.C.B.L.R.
HARRIS COUNTY, TEXAS
FIELD BY: PW CHECKED BY: MK JOB NO: 381109C-COMB
DRAWN BY: JY DATE: MAY 2005 SHEET NO: 1 OF 1

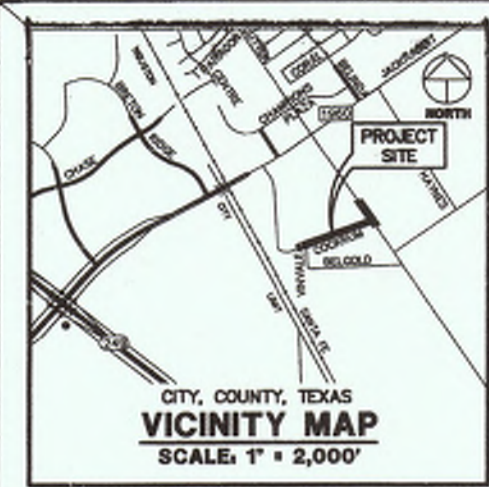


- LEGEND
- SURVEY MONUMENT
- SURVEY POLE
- WOOD POLE
- SERVICE POLE (NO SPARKS)
- BOLLARD
- OVERHEAD POWER LINE
- UNIDENTIFIED PERSONAL
- BOUNDARY MARK
- IRON PIPE FENCE
- WOOD PIPE FENCE
- WOOD ANGLE FENCE
- CHAINLINK FENCE
- SPEED LIMIT SIGN (IN MPH)
- REINFORCED CONCRETE PILE

- GENERAL NOTES
- 1. SURVEYOR DID NOT ABSTRACT SUBJECT PROPERTY THIS SURVEY WAS PREPARED WITH INFORMATION CONTAINED IN TITLE COMMITMENT OF NO. 04-40102836 OF ALAMO TITLE INSURANCE, EFFECTIVE DATE OF SEPTEMBER 27, 2004.
- 2. BEARINGS WERE BASED ON DEEDS RECORDED IN H.C.C.F. NOS. X234430 & X343047.
- 3. THE SUBJECT TRACT IS LOCATED IN ZONE 7C (UNSHADOWED) ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY FIRM NO. 80074 (DATE RECORDED SEPTEMBER 30, 2004). SOME DETERMINATION WAS DONE BY GRAPHIC PLOTTING ONLY. WE DO NOT ASSUME RESPONSIBILITY FOR EXACT DETERMINATION ZONE 7C (UNSHADOWED) ARE AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD PLAIN. FLOOD PLAN INFORMATION IS BASED ON THE T.S.A.R.P. REVISED PRELIMINARY FIRM MAPS DOWNLOADED FROM THE T.S.A.R.P. WEBSITE ON 02-11-05 AND IS SUBJECT TO CHANGE.
- 4. ENVIRONMENTAL AND GRAPHIC SURVEYS ARE BEYOND THE SCOPE OF THIS SURVEY.

REVISIONS table with columns: DATE, REASON, BY

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BENCHMARK PUBLISHED ELEVATION - 120.92'
 ELEVATIONS SHOWN HEREON ARE BASED ON STAMP FLOORPLAN (NO. 102775 TEXAS STATE PLANNING COMMISSION) WITHIN SOUTH CENTRAL ZONE AND 441.9000 STATIONED STREETS "1000" IS 1000' AT THE INTERSECTION OF FM 1960 AND WESTERN AVENUE, LOCATED IN WILCOX, NORTH OF INTERSECTION WEST OF JACOBO STREET, ELEVATION 120.92 FEET (NAD 83 1988 2001 ADJUSTED)

TEMPORARY BENCHMARK "A" ELEVATION - 124.05'
 10' x 10' IN IRON PIPE ON TOP FLANGE OF FIRE HYDRANT AT THE NORTHWEST INTERSECTION OF FM 1960 AND CUTTEN ROAD, (NOT SHOWN HEREON)

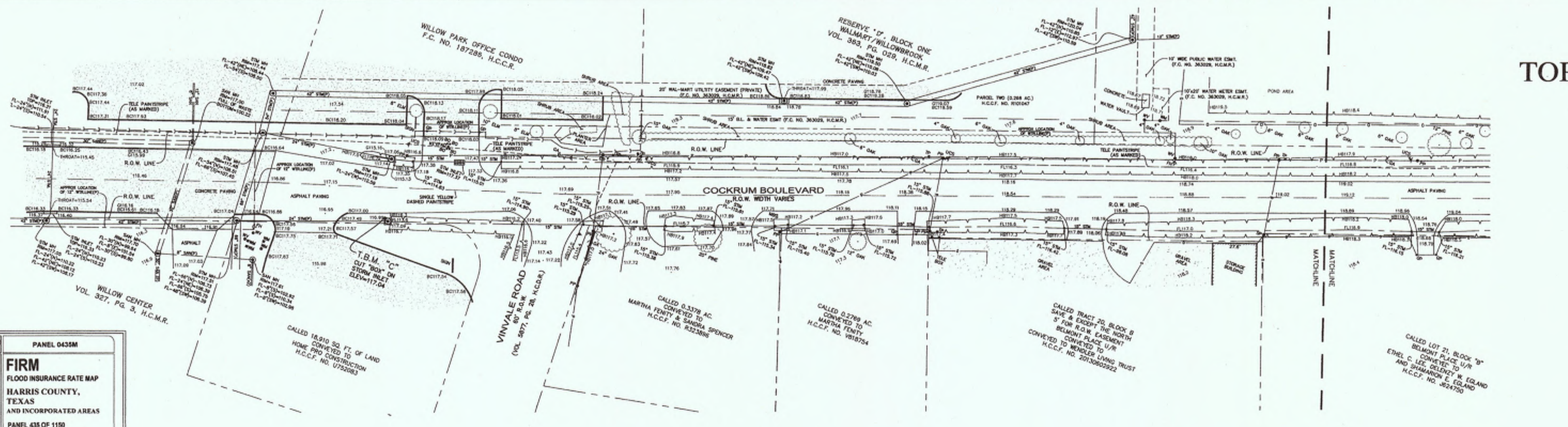
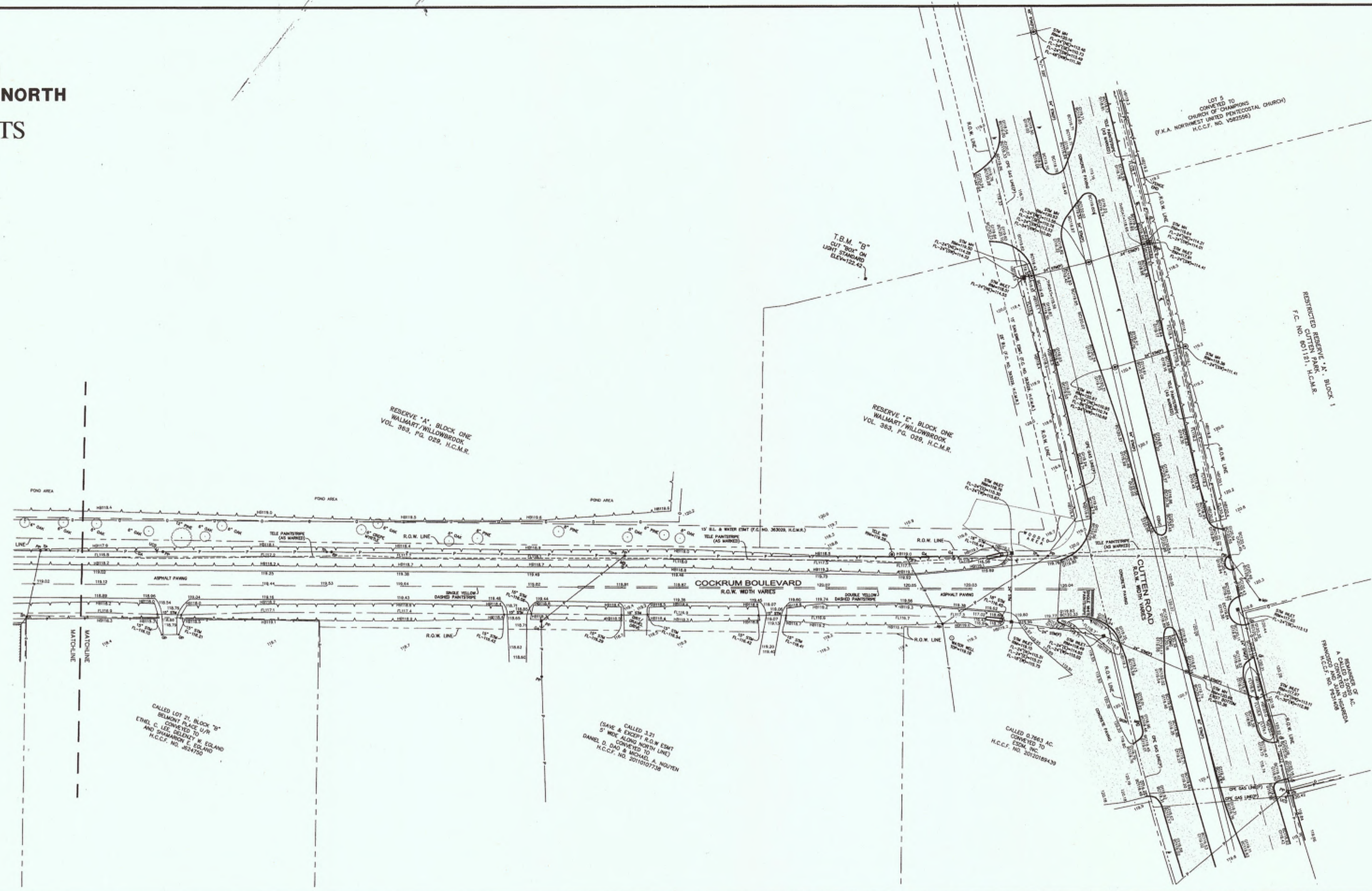
TEMPORARY BENCHMARK "B" ELEVATION - 122.42'
 10' x 10' IN IRON PIPE ON TOP FLANGE OF FIRE HYDRANT AT THE NORTHWEST INTERSECTION OF FM 1960 AND CUTTEN ROAD, (NOT SHOWN HEREON)

TEMPORARY BENCHMARK "C" ELEVATION - 117.04'
 8" x 8" IN IRON PIPE ON TOP FLANGE OF FIRE HYDRANT AT THE NORTHWEST INTERSECTION OF FM 1960 AND CUTTEN ROAD, (NOT SHOWN HEREON)

LEGEND

SOME OF THESE ELEMENTS MAY NOT BE USED ON THIS SURVEY

●	BULLY	○	PIPELINE MARKER
△	MANHOLE	—	UNDERGROUND CABLE RUN
□	GAS METER	—	CANTONMENT TEST LEAD
◇	GAS VALVE	—	WATERING WELL
○	FIRE HYDRANT	—	POW FLUORANT MARK
○	WATER METER	—	TOP OF CURB
○	WATER VALVE	—	TOP OF GRAVE
○	IRRIGATION CONTROL VALVE	—	TOP OF GRAVE
○	GRATE INLET	—	POW LINE
○	GRATE INLET	—	POW LINE
○	MANHOLE	—	SANITARY SINK
○	CLEANOUT	—	STORM GUTTER
○	TELEPHONE PENETRATION	—	CONCRETE METAL PIPE
○	ELECTRIC BOX	—	CONCRETE PLASTIC PIPE
○	METRIC SIGNAL BOX	—	CONCRETE CONCRETE PIPE
○	LIGHT POLE	—	TELEPHONE
○	METRIC LIGHT POLE	—	TELEPHONE
○	GROUND/POLE LIGHT	—	WATER
○	POWER POLE	—	UNDERGROUND
○	POWER POLE TRANSFORMER	—	UNDERGROUND
○	POWER POLE W/ LIGHT	—	HARRIS COUNTY CEM FILE
○	POWER POLE W/ HYDROSET	—	HARRIS COUNTY DEED RECORDS
○	WATER POLE	—	HARRIS COUNTY MAP RECORDS
○	SEWER POLE	—	IRON PIPE
○	OUT W/SEWER	—	IRON PIPE
○	OVERHEAD POWER LINE	—	W/SEWER
○	BARRIED WIRE FENCE	—	PAVE
○	WOOD POST	—	PAVE
○	WOOD FENCE	—	PAVE
○	CHAIN LINK FENCE	—	PAVE
○	GATE POST	—	PAVE
○	POLE PLANT	—	PAVE
○	APPROXIMATE	—	PAVE
○	HIGHWAY	—	PAVE
○	W/SEWER	—	PAVE

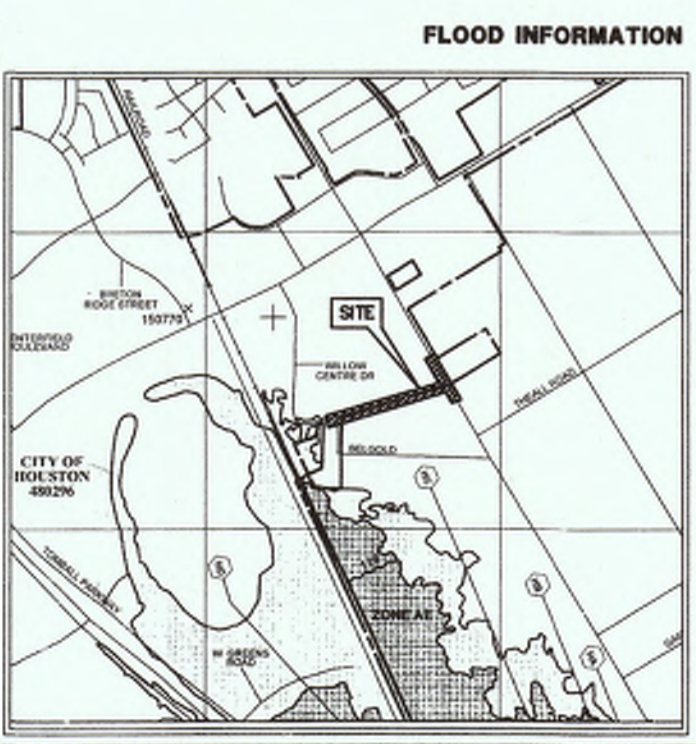


GENERAL NOTES

1. SURVEYOR DID NOT ABSTRACT SUBJECT PROPERTY. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT OR ABSTRACTS CERTIFICATE AND SHOULD BE SUBJECT TO ANY AND ALL CONDITIONS OR RESTRICTIONS THAT A CURRENT TITLE REPORT OR ABSTRACTS CERTIFICATE MAY DISCLOSE.
2. RECORDS WERE BASED ON THE TEXAS STATE PLANNING COMMISSION SOUTH CENTRAL ZONE (NO. 102775 TEXAS STATE PLANNING COMMISSION) WITHIN SOUTH CENTRAL ZONE AND 441.9000 STATIONED STREETS "1000" IS 1000' AT THE INTERSECTION OF FM 1960 AND WESTERN AVENUE, LOCATED IN WILCOX, NORTH OF INTERSECTION WEST OF JACOBO STREET, ELEVATION 120.92 FEET (NAD 83 1988 2001 ADJUSTED).
3. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR HARRIS COUNTY, TEXAS, THE PROJECT SITE IS UNDESIGNATED AND HAS NOT BEEN FIELD VERIFIED. THIS FLOOD STATEMENT DOES NOT CONSTITUTE AN INSURANCE POLICY AND DOES NOT PROVIDE FLOOD PROTECTION. THE FLOOD STATEMENT IS FOR INFORMATION ONLY AND DOES NOT PROVIDE FLOOD PROTECTION. THE FLOOD STATEMENT SHALL NOT BE INTERPRETED AS A GUARANTEE OF NATURAL CAUSES. THE FLOOD STATEMENT SHALL NOT BE INTERPRETED AS A GUARANTEE OF NATURAL CAUSES.
4. DEVELOPMENT OF THIS TRACT IS SUBJECT TO REQUIREMENTS PER CITY OF HOUSTON ORDINANCE NO. 303.345 WHICH OPERATES BY THE CITY OF HOUSTON. PROPOSED USES OF THIS TRACT WILL BE SUBJECT TO THE CITY OF HOUSTON'S PLANNING AND APPROVALS. ELEVATIONS TO CITY OF HOUSTON'S FLOOD PROTECTION PLAN OF HOUSTON PLANNING COMMISSION WILL BE REQUIRED. REVISIONS TO THIS SURVEY SHALL BE SUBJECT TO THE CITY OF HOUSTON'S PLANNING AND APPROVALS.
5. RECORDS VISIBLE IMPROVEMENTS AND UTILITIES WERE LOCATED WITH THIS SURVEY. NO SUBSURFACE PROBING, EXCAVATION OR EXPLORATION WAS PERFORMED BY WINDROSE LAND SURVEYING.
6. ENVIRONMENTAL AND DRAINAGE ISSUES ARE BEYOND THE SCOPE OF THIS SURVEY.
7. THE WORD "OFFSET" OR "CORRECTION" IS USED TO INDICATE MEASUREMENTS THAT ARE NOT CORRECTED TO A BENCHMARK OR GUARANTEED SURFACE OF SEA LEVEL.
8. ELEVATIONS SHOWN TO THE NEAREST TENTH ARE NATURAL GROUND SURFACE ELEVATIONS AND ELEVATIONS SHOWN TO THE NEAREST HUNDRETH ARE SLOTTED SURFACE ELEVATIONS.
9. GAS, SANITARY, STORM, AND WATER LINES SHOWN HEREON ARE BASED ON UTILITY PLANS AND FIELD VERIFICATION. OTHER UTILITY PLANS ON THE PROPERTY MAY BE AVAILABLE TO THE COMPANY. OTHER UTILITY PLANS ON THE PROPERTY MAY BE AVAILABLE TO THE COMPANY.
10. SURVEYOR DID NOT PHYSICALLY ENTER MANHOLES. UNDERGROUND PIPE SIZES WERE DETERMINED BY VISUAL INSPECTION FROM TOP OF MANHOLE. SIZE OF TOP OF GRAVE OR TOP OF CURB AND WERE COMPARED WITH UTILITY PLANS WHERE POSSIBLE.
11. SURVEYOR HAS CONTACTED UTILITY COMPANIES FOR LOCATION OF BURIED UTILITY AND FIELD VERIFICATION. THE SURVEYOR'S RESPONSIBILITY IS TO LOCATE AND FIELD VERIFY UTILITIES. THE SURVEYOR'S RESPONSIBILITY IS TO LOCATE AND FIELD VERIFY UTILITIES. THE SURVEYOR'S RESPONSIBILITY IS TO LOCATE AND FIELD VERIFY UTILITIES.

NO CHANGE
AS-BUILT
 Date: 12/10/18

TOPOGRAPHIC SURVEY
17 OF 17



FIRM FLOOD INSURANCE RATE MAP
 HARRIS COUNTY, TEXAS
 AND INCORPORATED AREAS
 PANEL 428 OF 1100
 FEDERAL EMERGENCY MANAGEMENT AGENCY

SURVEYOR'S CERTIFICATION

I, ALJ-LINDEY, LLC

I, SURVEYOR, CERTIFY TO THE ABOVE THAT THIS SURVEY WAS CONDUCTED BY ME OR UNDER MY SUPERVISION AND THAT I AM A LICENSED SURVEYOR IN THE STATE OF TEXAS. I HAVE REVIEWED THE SURVEY AND THE RESULTS THEREOF AND I AM Satisfied THAT THE SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE TEXAS SURVEYING ACT AND THE RULES OF THE BOARD OF SURVEYING AND MAPPING. I HAVE REVIEWED THE SURVEY AND THE RESULTS THEREOF AND I AM Satisfied THAT THE SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE TEXAS SURVEYING ACT AND THE RULES OF THE BOARD OF SURVEYING AND MAPPING.

DATE: 06-16-16

WINDROSE LAND SURVEYING & PLATTING
 2000 WILCOX STREET, SUITE 101, HOUSTON, TX 77049 | 713.438.2281
 TEXAS REGISTRATION NO. 151889 | WINDROSESERVICES.COM

TOPOGRAPHIC SURVEY OF
 A PORTION OF CUTTEN ROAD R.O.W. AND
 A PORTION OF COCKRUM BLVD. R.O.W.
 SITUATED IN THE
 W.C.R. CO. SURVEY, A-932
 AND THE STATE SURVEY, A-217
 HARRIS COUNTY, TEXAS

DATE: 06-16-16
 CHECKED BY: MT/AM
 JOB NO. 38110
 DRAWN BY: MT/AM
 DATE: 06-16-16
 SHEET NO. 1 OF 1

