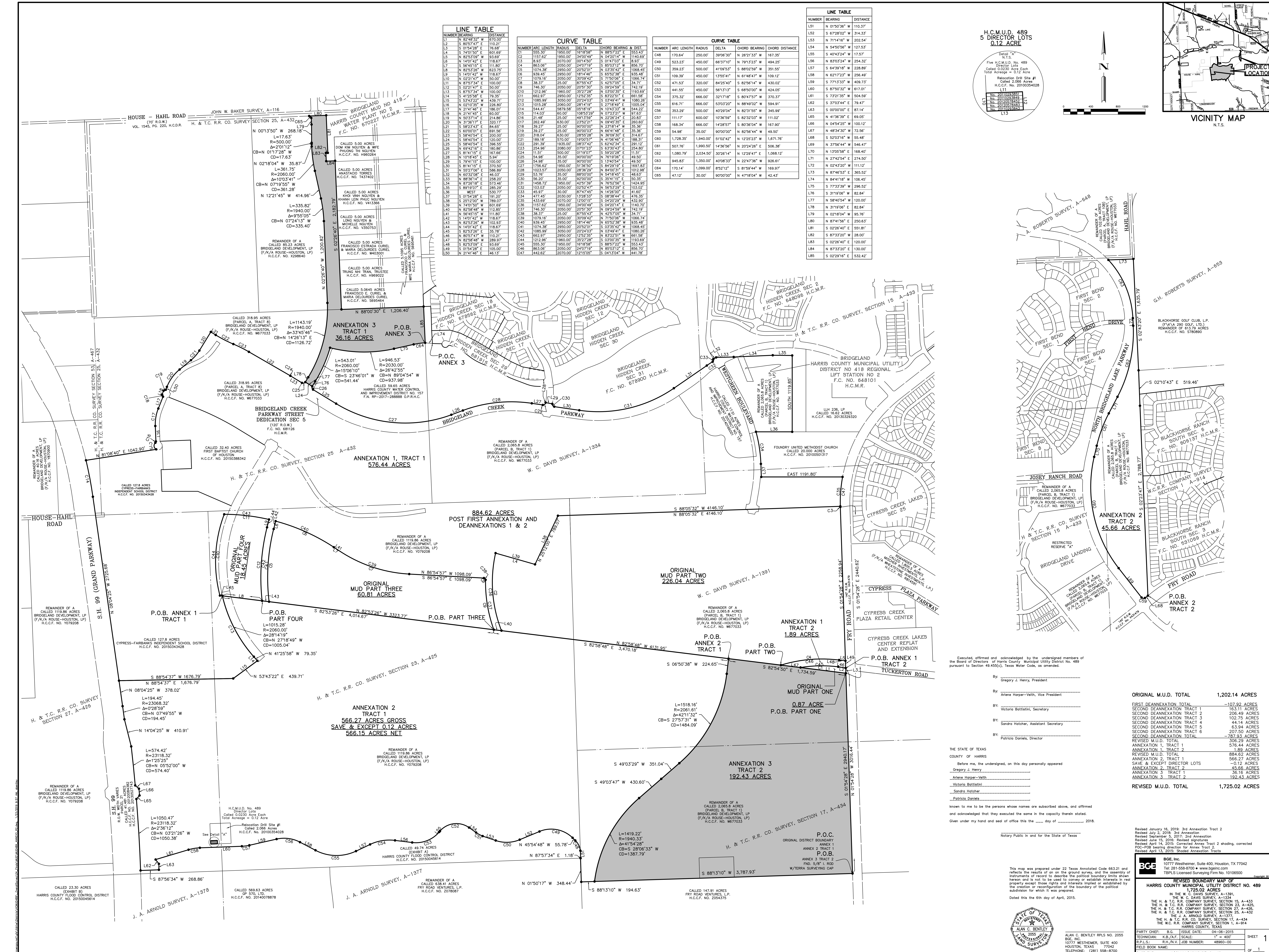


VICINITY MAP

N.T.S.

KEY MAP 365R & 366N,W,X



LINE TABLE

NUMBER	BEARING	DISTANCE
L1	N 82°48'32" W	670.00'
L2	S 89°57'47" E	110.31'
L3	S 01°54'28" E	76.68'
L4	S 74°01'50" W	601.69'
L5	S 82°53'09" W	83.69'
L6	N 14°01'42" E	118.67'
L7	S 26°40'15" E	111.80'
L8	N 82°53'28" W	823.75'
L9	S 14°01'42" W	118.67'
L10	N 02°01'47" W	100.00'
L11	N 87°57'34" E	100.00'
L12	S 02°21'47" E	100.00'
L13	S 87°57'34" W	100.00'
L14	S 41°25'58" E	75.38'
L15	S 33°42'27" E	139.71'
L16	N 02°10'35" W	226.80'
L17	S 82°53'09" W	83.69'
L18	N 21°41'42" E	60.00'
L19	S 02°01'47" W	100.00'
L20	N 31°36'17" E	325.17'
L21	S 58°23'45" E	84.65'
L22	S 63°00'01" E	69.38'
L23	S 58°40'54" E	200.00'
L24	S 58°40'54" E	133.00'
L25	S 58°40'54" E	396.55'
L26	N 09°21'16" E	180.86'
L27	S 81°41'10" E	162.66'
L28	N 10°18'45" E	386.89'
L29	S 79°41'19" E	103.00'
L30	S 81°41'10" E	370.50'
L31	N 55°27'06" E	386.89'
L32	N 60°33'08" E	445.03'
L33	N 88°36'14" E	258.20'
L34	N 07°19'55" W	214.86'
L35	S 89°19'07" E	285.29'
L36	WEST	530.77'
L37	S 01°54'28" E	119.30'
L38	S 25°12'00" W	789.07'
L39	N 74°01'50" W	601.69'
L40	N 82°58'48" W	112.85'
L41	N 58°41'01" W	111.80'
L42	S 14°01'42" W	100.00'
L43	N 82°53'28" W	102.93'
L44	N 14°01'42" E	118.67'
L45	S 82°53'28" E	35.78'
L46	N 80°57'47" W	110.31'
L47	N 02°06'08" W	289.37'
L48	S 82°53'09" W	83.69'
L49	S 01°54'28" E	105.00'
L50	N 21°41'46" E	46.13'

CURVE TABLE

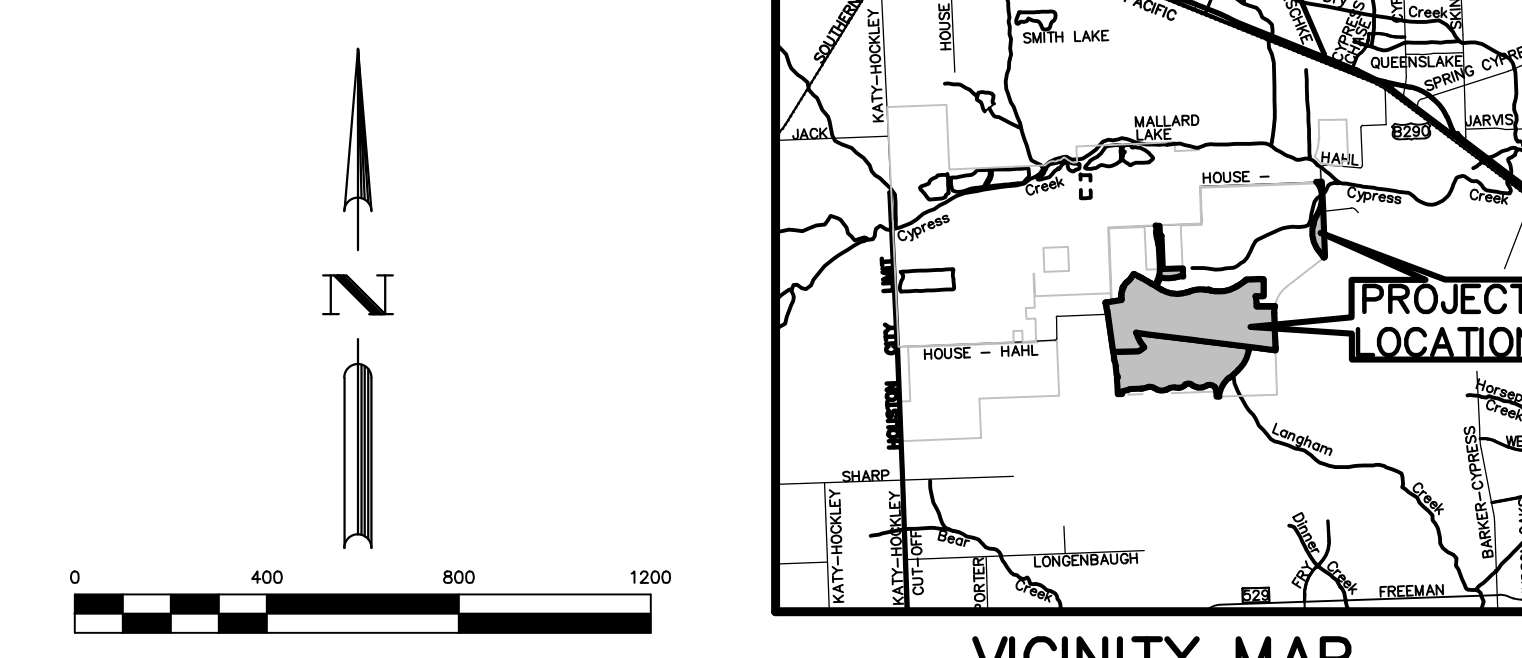
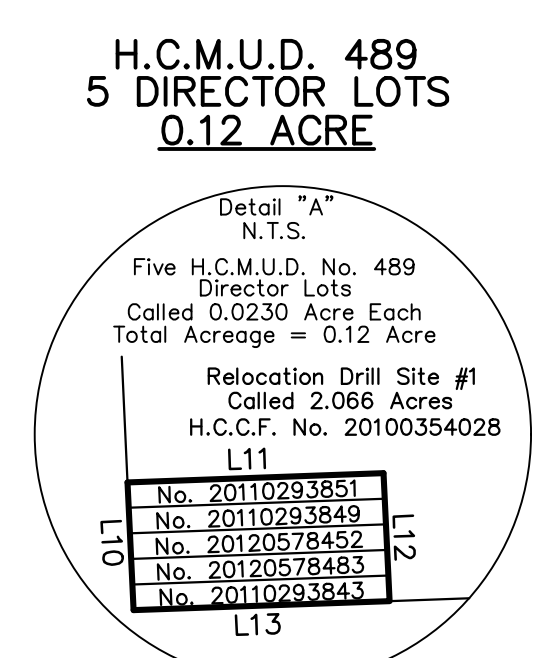
NUMBER	ARC LENGTH	RADIUS	DELTA	CHORD BEARING & DIST.
C1	555.30'	1950.00'	16°19'58"	S 55°33'22" E 553.43'
C2	1151.62'	1950.00'	34°04'44"	S 69°38'14" W 1140.69'
C3	8.93'	2070.00'	0°04'50"	S 0°14'03" E 8.93'
C4	863.96'	2950.00'	24°07'42"	S 24°07'42" E 856.70'
C5	1074.38'	2950.00'	29°52'01"	N 69°53'42" E 1068.45'
C6	939.45'	2950.00'	18°14'48"	S 18°14'48" E 939.45'
C7	1079.16'	2000.00'	30°59'42"	S 30°59'42" E 1056.74'
C8	38.37'	25.00'	87°50'43"	S 87°50'43" E 34.71'
C9	746.30'	2950.00'	18°24'54"	N 61°48'47" W 743.18'
C10	1212.96'	1950.00'	32°57'28"	N 32°57'28" E 1193.69'
C11	662.87'	2950.00'	12°52'51"	S 12°52'51" E 661.58'
C12	1085.99'	3050.00'	20°24'03"	S 20°24'03" E 1080.26'
C13	1015.28'	2060.00'	28°14'19"	S 28°14'19" E 1005.04'
C14	544.41'	847.83'	48°18'58"	N 48°18'58" E 544.22'
C15	114.03'	60.00'	108°53'29"	N 07°23'21" E 97.83'
C16	31.48'	25.00'	80°00'00"	S 80°00'00" E 28.83'
C17	262.49'	630.00'	23°52'21"	N 69°45'55" E 260.60'
C18	39.27'	25.00'	80°00'00"	N 80°00'00" E 35.36'
C19	39.27'	25.00'	80°00'00"	N 80°00'00" E 35.36'
C20	318.04'	630.00'	28°50'28"	N 59°50'28" E 314.67'
C21	189.18'	570.00'	19°00'57"	N 41°08'48" E 188.31'
C22	291.39'	1935.00'	08°37'42"	S 82°42'34" E 291.12'
C23	254.96'	2080.00'	07°07'23"	S 83°30'43" E 254.80'
C24	11.91'	500.00'	01°10'07"	S 01°10'07" E 11.51'
C25	54.88'	35.00'	80°00'00"	S 80°00'00" E 49.50'
C26	54.88'	35.00'	80°00'00"	S 80°00'00" E 49.50'
C27	1756.62'	1950.00'	51°38'50"	S 84°29'19" E 1697.83'
C28	1023.57'	2000.00'	28°36'29"	N 84°00'31" E 1012.08'
C29	53.76'	35.00'	80°00'00"	N 81°45'45" E 48.63'
C30	56.20'	35.00'	82°00'00"	S 30°41'15" E 56.35'
C31	1458.72'	1950.00'	42°51'59"	N 42°51'59" E 1140.70'
C32	103.03'	2050.00'	02°52'47"	N 96°53'29" E 103.02'
C33	45.97'	30.00'	87°47'45"	N 14°26'00" E 41.67'
C34	477.45'	2010.00'	13°28'33"	S 04°44'44" E 476.35'
C35	433.69'	2070.00'	12°01'15"	S 04°20'29" E 432.90'
C36	1153.62'	1950.00'	24°00'49"	S 24°00'49" E 1140.70'
C37	746.30'	2050.00'	20°51'50"	N 69°24'59" W 742.19'
C38	38.37'	25.00'	87°50'43"	N 87°50'43" E 34.71'
C39	1079.16'	2000.00'	30°59'42"	N 30°59'42" E 1056.74'
C40	939.45'	2950.00'	18°14'48"	N 18°14'48" E 939.45'
C41	1074.38'	2950.00'	24°07'42"	S 24°07'42" E 1068.45'
C42	1085.99'	3050.00'	20°24'03"	N 69°45'55" E 1080.26'
C43	662.87'	2950.00'	12°52'51"	N 12°52'51" E 661.58'
C44	1212.96'	1950.00'	32°57'28"	N 32°57'28" E 1193.69'
C45	555.30'	1950.00'	16°19'58"	S 55°33'22" E 553.43'
C46	863.96'	2950.00'	24°07'42"	N 24°07'42" E 856.70'
C47	442.62'	2070.00'	12°15'05"	S 04°30'34" E 441.78'

CURVE TABLE

NUMBER	ARC LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD DISTANCE
C48	170.64'	250.00'	39°06'30"	N 26°21'33" W	167.35'
C49	523.23'	450.00'	66°37'01"	N 79°13'23" W	494.25'
C50	359.23'	500.00'	41°09'53"	S 88°02'59" W	351.55'
C51	109.39'	450.00'	13°55'41"	N 61°48'47" W	108.12'
C52	471.53'	320.00'	84°25'40"	S 82°56'14" W	430.02'
C53	441.55'	450.00'	56°13'18"	S 68°50'00" W	424.05'
C54	375.32'	666.00'	32°17'18"	S 84°07'57" W	370.37'
C55	616.71'	666.00'	53°07'20"	N 89°49'02" W	594.91'
C56	363.29'	600.00'	40°07'04"	N 82°31'56" W	348.99'
C57	111.17'	600.00'	10°38'59"	S 82°32'07" W	111.02'
C58	168.34'	666.00'	14°28'51"	S 82°36'04" W	167.80'
C59	54.98'	35.00'	80°00'00"	N 82°36'44" W	49.50'
C60	1728.35'	1940.00'	51°02'42"	N 12°25'23" W	1671.78'
C61	507.76'	1980.50'	14°36'56"	N 20°24'26" E	506.38'
C62	1080.79'	2034.80'	30°28'14"	N 12°29'47" E	1068.12'
C63	945.83'	1350.00'	40°00'33"	N 22°47'36" E	926.61'
C64	170.14'	1099.00'	87°51'12"	S 81°59'44" W	169.97'
C65	47.12'	30.00'	90°00'00"	N 47°18'04" W	42.43'

LINE TABLE

NUMBER	BEARING	DISTANCE
L51	N 01°50'36" W	110.37'
L52	S 67°28'02" W	314.33'
L53	N 71°14'18" W	202.54'
L54	N 54°50'56" W	127.57'
L55	S 40°43'24" W	17.57'
L56	N 83°03'24" W	254.32'
L57	S 64°39'18" W	228.89'
L58	N 62°17'23" W	256.49'
L59	S 77°13'35" W	269.73'
L60	S 67°50'32" W	617.01'
L61	S 33°21'35" W	504.58'
L62	S 37°03'44" W	79.47'
L63	S 02°00'00" E	87.14'
L64	N 47°36'39" E	69.00'
L65	N 47°36'39" E	100.12'
L66	N 47°36'39" E	72.56'
L67	N 82°36'44" W	100.12'
L68	S 82°30'16" W	55.48'
L69	N 37°56'44" W	564.47'
L70	N 13°05'58" E	168.40'
L71	N 27°42'54" E	274.50'
L72	N 02°43'20" W	111.12'
L73	N 87°46'13" E	365.92'
L74	N 84°41'18" W	106.45'
L75	S 77°33'08" W	296.52'
L76	S 31°19'08" W	82.84'
L77	N 58°40'54" W	120.00'
L78	N 31°19'08" W	82.84'
L79	N 02°18'04" W	95.78'
L80	N 67°14'56" E	250.63'
L81	S 02°28'40" E	551.81'
L82	S 87°33'08" W	288.90'
L83	S 02°28'40" E	120.00'
L84	N 87°33'08" W	130.00'
L85	S 02°29'16" E	532.42'



Executed, affirmed and acknowledged by the undersigned members of the Board of Directors of Harris County Municipal Utility District No. 489 pursuant to Section 49.45(c), Texas Water Code, as amended.

By: Gregory J. Henry, President
 By: Anne Harper-Veith, Vice President
 By: Victoria Battistini, Secretary
 By: Sandra Hatcher, Assistant Secretary
 By: Patricia Daniels, Director

THE STATE OF TEXAS
 COUNTY OF HARRIS

Before me, the undersigned, on this day personally appeared
 Gregory J. Henry
 Anne Harper-Veith
 Victoria Battistini
 Sandra Hatcher
 Patricia Daniels

known to me to be the persons whose names are subscribed above, and affirmed and acknowledged that they executed the same in the capacity therein stated.
 Given under my hand and seal of office this ____ day of _____, 2018.

Notary Public in and for the State of Texas

ORIGINAL M.U.D. TOTAL 1,202.14 ACRES

FIRST DEANNEXXATION TRACT 1	-107.92 ACRES
SECOND DEANNEXXATION TRACT 2	163.11 ACRES
SECOND DEANNEXXATION TRACT 3	206.49 ACRES
SECOND DEANNEXXATION TRACT 4	102.75 ACRES
SECOND DEANNEXXATION TRACT 5	44.14 ACRES
SECOND DEANNEXXATION TRACT 6	63.94 ACRES
SECOND DEANNEXXATION TRACT 7	207.50 ACRES
SECOND DEANNEXXATION TRACT 8	787.93 ACRES
REVERSED M.U.D. TOTAL	306.29 ACRES
ANNEXATION 1, TRACT 1	0.87 ACRES
ANNEXATION 1, TRACT 2	1.89 ACRES
ANNEXATION 2, TRACT 1	576.44 ACRES
ANNEXATION 2, TRACT 2	566.27 ACRES
SAVE & EXCEPT DIRECTOR LOTS	-0.12 ACRES
ANNEXATION 2, TRACT 2	45.66 ACRES
ANNEXATION 3, TRACT 1	36.16 ACRES
ANNEXATION 3, TRACT 2	192.43 ACRES
REVERSED M.U.D. TOTAL	1,725.02 ACRES

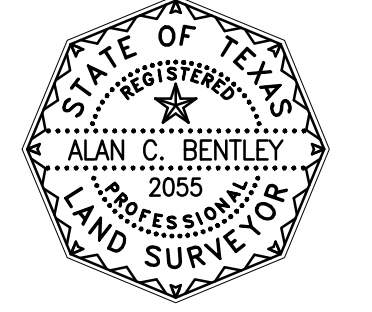
Revised January 16, 2018; 3rd Annexation Tract 2
 Revised July 26, 2018; 3rd Annexation
 Revised September 5, 2017; 2nd Annexation
 Revised June 15, 2016; Revised Signatures
 Revised April 14, 2015; Corrected Annex Tract 2 shading, corrected P.O.C. bearing direction for Annex Tract 2.
 Revised April 13, 2015; Shaded Annexation Tracts

BGE, Inc.
 10777 Westheimer, Suite 400, Houston, TX 77042
 Tel: 281-558-8700 • www.bgeinc.com
 TBPUS Licensed Surveying Firm No. 10106500

REVISED BOUNDARY MAP OF HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 489
 1,725.02 ACRES

IN THE W. C. DAVIS SURVEY, A-1391
 THE H. & T.C. R.R. COMPANY SURVEY, SECTION 15, A-433
 THE H. & T.C. R.R. COMPANY SURVEY, SECTION 23, A-425
 THE H. & T.C. R.R. COMPANY SURVEY, SECTION 25, A-432
 THE H. & T.C. R.R. COMPANY SURVEY, SECTION 27, A-428
 THE H. & T.C. R.R. COMPANY SURVEY, SECTION 29, A-425
 THE H. & T.C. R.R. COMPANY SURVEY, SECTION 17, A-434
 THE H. & T.C. R.R. COMPANY SURVEY, SECTION 1, A-914
 HARRIS COUNTY, TEXAS

PARTY CHECKS: B.G. (ISSUE DATE: 04-06-2015)
 TECHNICAL: K.B./A.J. SCALE: 1" = 400'
 R.P.I.S.: R.H./N.V. JOB NUMBER: 48960-00 SHEET 1
 FIELD BOOK NAME: _____
 BASE FILE: \\charlie\hcmud489a_owner\Survey



ALAN C. BENTLEY RPLS NO. 2055
 BGE, INC.
 10777 WESTHEIMER, SUITE 400
 HOUSTON, TEXAS 77042
 TELEPHONE: (281) 558-8700

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction, and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator, Zone 15. The horizontal datum was NAD83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey, SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit their website at <http://www.ngs.noaa.gov/>.

Base map information shown on this FIRM was provided in digital format by the Harris Galveston Area Council and was revised and enhanced by Harris County.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels, community map repository addresses; and a listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

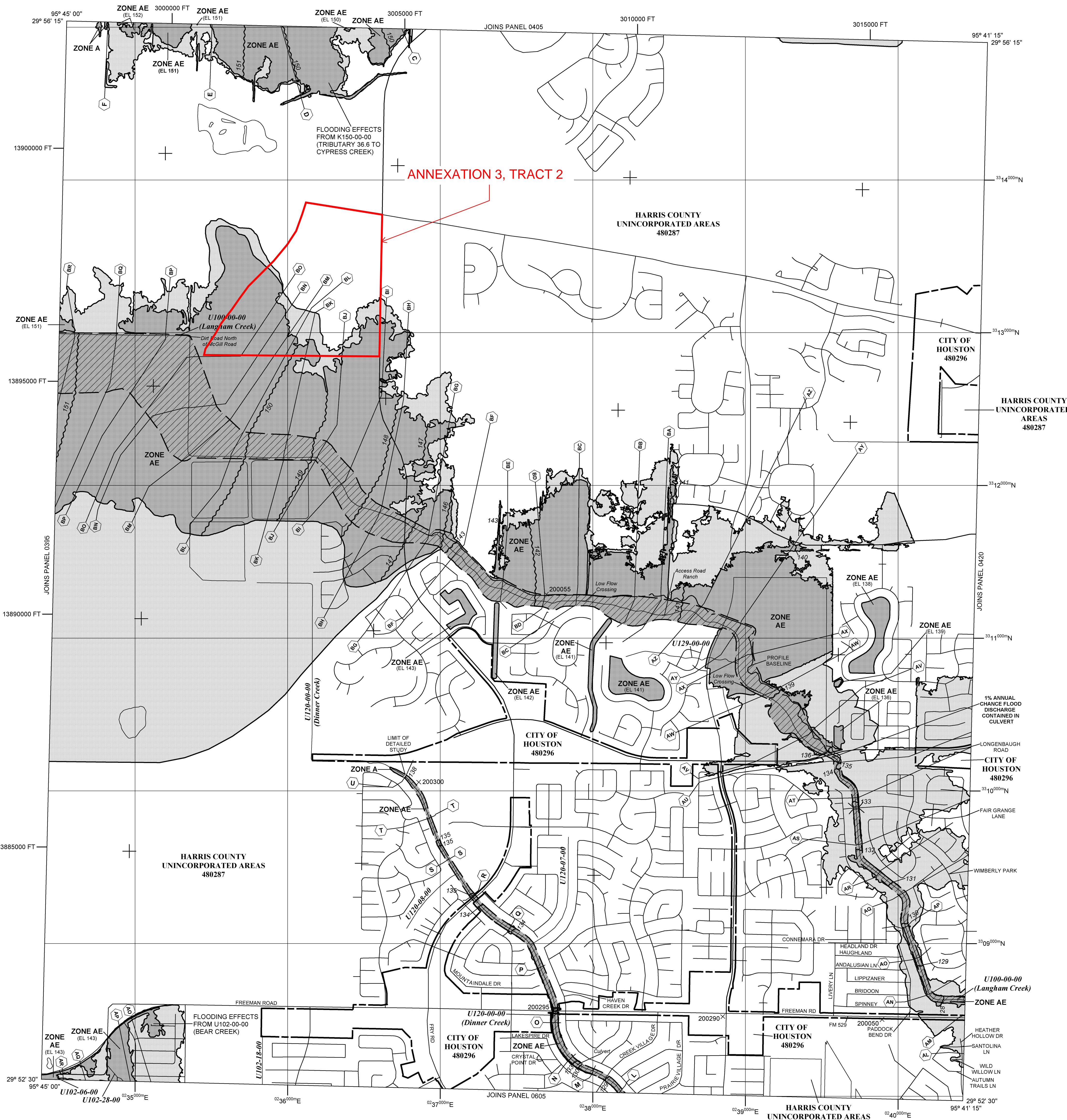
Contact the FEMA Map Information eXchange at 1-877-FEMA MAP (1-877-336-2627) for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Information eXchange may also be reached by Fax at 1-800-358-9620 and their website at <http://www.msc.fema.gov/>.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/business/nfp>.

Vertical Datum Adjustment due to subsidence is the 2001 adjustment.

Benchmarks shown on this map were provided by either Harris County or the National Geodetic Survey. To obtain elevation, description, and location information for benchmarks provided by Harris County, please contact the Permits Office of the Public Infrastructure Department at (713) 956-3000 or visit their website at <http://www.eng.hctx.net/permits/>. For information regarding the benchmarks provided by the National Geodetic Survey, please see note above.

Some bridges and other structures shown on the detailed studied streams are not labeled. See corresponding flood profile for appropriate name.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently deteriorated. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

Floodplain boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
Base Flood Elevation line and value; elevation in feet
Base Flood Elevation value where uniform within zone; elevation in feet

513 (EL 987)
Cross section line
Transsect line
Culvert, Flume, Penstock or Aqueduct
Road or Railroad Bridge
Footbridge

97° 07' 30", 32° 22' 30"
Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
360°
1000-meter Universal Transverse Mercator grid values, zone 15
5000-foot grid ticks; Texas State Plane coordinate system, zone South Central (FIPS ZONE 4204), Lambert Conformal Conic Projection
Bench mark (see explanation in Notes to Users section of this FIRM panel)
M.L.5
River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index.

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP PANEL
SEPTEMBER 28, 1990

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
SEPTEMBER 30, 1992
NOVEMBER 6, 1996
APRIL 20, 2000
JUNE 18, 2007
OCTOBER 16, 2013

For accompanying Reasons for Revision, refer to the Notice to Flood Insurance Study Users page in the Flood Insurance Study report.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

500 0 1000 2000
300 0 300 600
FEET
METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0415M

FIRM
FLOOD INSURANCE RATE MAP
HARRIS COUNTY, TEXAS
AND INCORPORATED AREAS

PANEL 415 OF 1150
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HARRIS COUNTY, UNINCORPORATED AREAS	480287	0415	M
HOUSTON, CITY OF	480296	0415	M

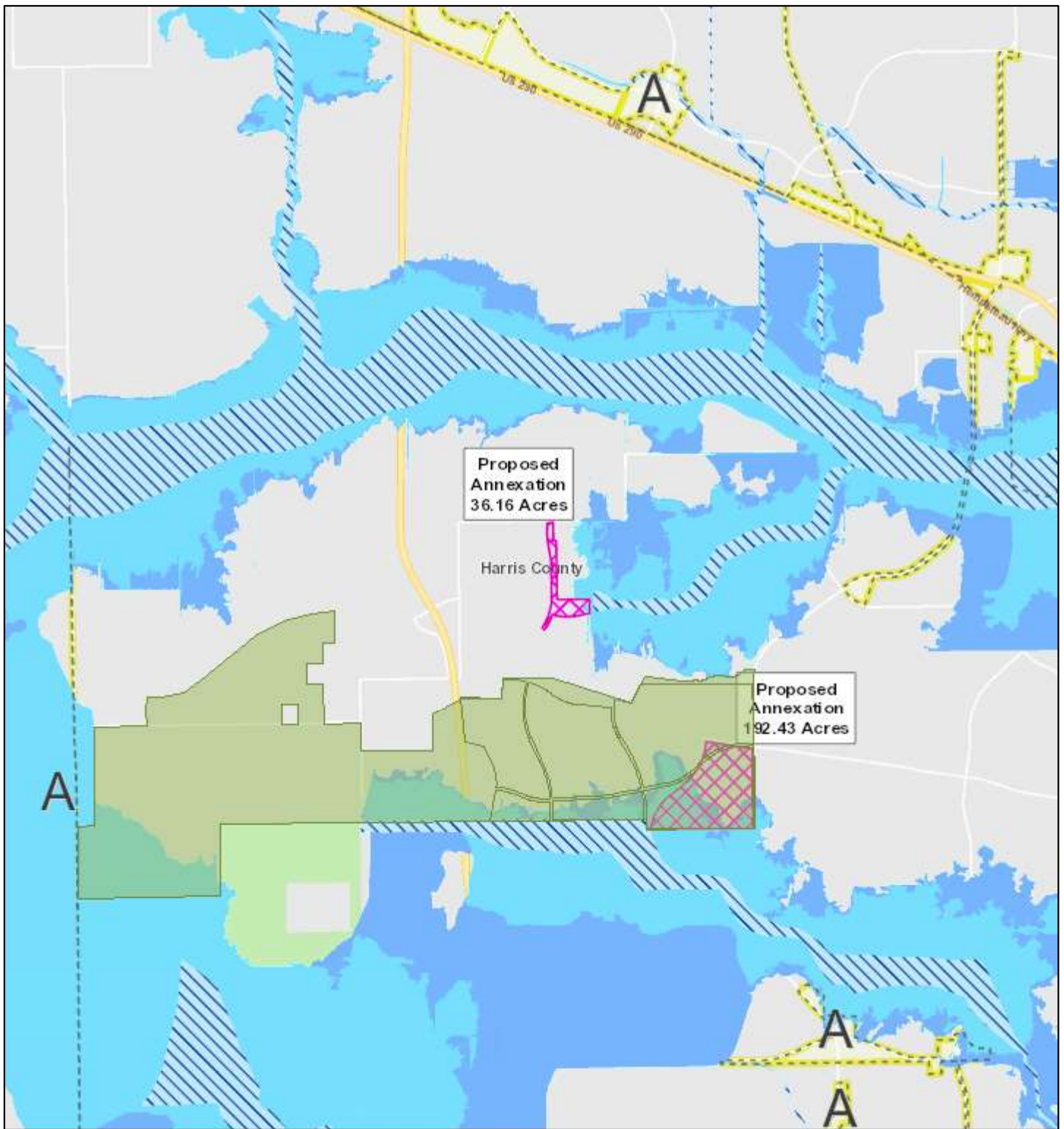
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER 48201C0415M

MAP REVISED OCTOBER 16, 2013








Federal Emergency Management Agency

Harris County MUD 489 (228.59acres)



6/18/2019 10:02:55 AM

1:72,224

- | | |
|---|---|
|  Existing Acreage of District |  500 Year Floodplain |
|  Proposed Annexation |  Floodway |
|  Council Districts |  City Limits |
- Flood Zone**
-  100 Year Floodplain

