

ExxonMobil Pipeline Company  
22777 Springwoods Village Pkwy  
EMHC/E3.5A.418  
Spring, Texas 77389  
Telephone - (281) 922-2024

Christopher Hinson  
Manager, ROW & Claims



November 16, 2017

### **Right-of-Way Consent Agreement**

RE: FM 1093 WESTPARK EXTENSION PHASE II-A over KATY GAS PLANT - DAMON JUNCTION TX-216

Fort Bend County Engineering  
301 Jackson Street  
Richmond, TX 77469

Gentlemen:

H-2017.058

ExxonMobil Pipeline Company (EMPCo) has reviewed proposed plans to construct a roadway and underground drainage structures over and across its pipeline easement giving a minimum 4 feet of separation between the drainage system and the EMPCo pipeline at approximately 5,137 feet East of Katy-Fulshear Rd.; 29°37'44.58"N,95°19'27.60"W. As you are aware, EMPCo owns and/or operates petroleum, petroleum products and chemicals pipelines that must be protected from external damage and maintained in accordance with EMPCo, State and Federal standards to protect the safety of the public and the environment. In order to do this, EMPCo has developed certain terms and conditions that must be agreed to by anyone intending to construct facilities on or within our rights of way. EMPCo consents to the roadway and underground drainage structures over and across its pipeline easement giving a minimum 4 feet of separation between the drainage system and the EMPCo pipeline at approximately 5,137 feet East of Katy-Fulshear Rd.; 29°37'44.58"N,95°19'27.60"W (the "Improvements") as shown in the drawings submitted by Dannenbaum Engineering (Project No. CC-543-2-63), provided Fort Bend County agrees to the following terms and conditions:

1. Fort Bend County and its contractors agree to conduct all activities and operations on, in, over, under, through or near EMPCo's easement in a manner that will not unreasonably interfere with EMPCo's operation or maintenance of its pipelines in the easement or pose a hazard to the pipelines. Fort Bend County recognizes its use of the easement area will always be subject to the prior rights of EMPCo to utilize any and all portions of its easement, in any manner that it deems necessary. Any change or deviation in the proposed design, layout or construction of the Improvements, which affects EMPCo's easement, excluding changes required by EMPCo, shall first be reviewed and consented to by EMPCo before any work or activity shall take place on, in, over, under or through the easement. Failure to do so voids this consent. No improvements, except for those shown on the plans, may be placed on, in, under, over, or through the easement, without express written consent from EMPCo.
2. Fort Bend County or its contractors will contact EMPCo's Javier Robles, at 281-705-6106, a minimum of 72 hours prior to performing any activity within the easement.
3. Excavating or digging within the easement is prohibited without prior consent and an EMPCo inspector on site.
4. In the event EMPCo shall excavate its pipelines for any reason, or should additional pipelines be installed within the easement, Fort Bend County and its successors and assigns will, at its sole expense be responsible for repairing damage to the Improvements resulting therefrom. Further, EMPCo shall not be held liable for any business interruption, business loss, loss of revenue or income, that may result due to the operation, maintenance, repair, replacement, installation, or any pipeline related work within EMPCo's pipeline easement.

5. Fort Bend County shall be liable for damages to EMPCo's pipelines resulting from or occurring out of the construction, maintenance and repair of the Improvements.
6. TO THE EXTENT ALLOWED BY LAW, FORT BEND COUNTY SHALL INDEMNIFY, DEFEND, RELEASE AND HOLD EMPCO (INCLUDING ITS AFFILIATES, CONTRACTORS, SUBCONTRACTORS, DIRECTORS, OFFICERS, EMPLOYEES, SUCCESSORS, AND ASSIGNS) HARMLESS FROM AND AGAINST ALL CLAIMS, LOSSES, DEMANDS, CAUSES OF ACTION, SUITS, AND LIABILITY OF EVERY KIND, TYPE, AND CHARACTER ARISING OUT OF OR ASSOCIATED WITH THE CONSTRUCTION, EXISTENCE, MAINTENANCE, REPAIR AND REMOVAL OF THE IMPROVEMENTS, WHICH ARE ASSERTED BY ANY PERSON OR ENTITY INCLUDING, WITHOUT LIMITATION, EMPCO'S AND FORT BEND COUNTY'S EMPLOYEES FOR PERSONAL INJURY, DEATH, OR LOSS OF OR DAMAGE TO PROPERTY.
7. Because the improvement to be placed in EMPCo's easement by Fort Bend County will obstruct EMPCo's access to its pipelines and impede its use of the easement Fort Bend County agrees to reimburse EMPCo for maintenance/construction expenses which exceed normal/customary expenses directly incurred as a result of the improvement being placed in the easement. EMPCo agrees to review maintenance/construction plans with Fort Bend County and to subsequently provide invoices documenting the additional expenses incurred.
8. Fort Bend County agrees that the terms, conditions and obligations of this letter agreement shall be made known to all successors, assigns or transferees of any interest in the property covered by this agreement. All successors, assigns or transferees of any interest in the subject property shall be bound by the terms, conditions and obligations contained herein.
9. Fort Bend County agrees to those pertinent terms and conditions outlined in the attached form, titled "ExxonMobil Pipeline Company Right-of-Way Restrictions", attached hereto and made a part hereof.

Fort Bend County agrees that EMPCo's consent is adequate consideration for Fort Bend County's obligations hereunder. The consent provided by EMPCo in this letter shall not be deemed to be an approval of the manner in which Fort Bend County performs the work described herein. Please indicate Fort Bend County's acceptance of the foregoing terms and conditions by signing this letter in the space provided below and returning one original to me at the above letterhead address.

Very truly yours,

Christopher Hinson  
Manager, Right-of-Way and Claims

AGREED TO AND ACCEPTED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

Fort Bend County

By: \_\_\_\_\_

Title: \_\_\_\_\_



PROJECT NO. : CC 543-2-63, ETC  
CSJ: 0543-02-063, ETC  
FORT BEND COUNTY

FM 1093 WESTPARK EXTENSION PHASE II

VOLUME 2 OF 2: SHEET 1002-1533  
MARCH 2017

SHEET NO.

DESCRIPTION

GENERAL INFORMATION

Table with 2 columns: SHEET NO. and DESCRIPTION. Rows include INDEX OF SHEETS, PROJECT LAYOUT, TYPICAL SECTIONS, SUMMARY OF TRAFFIC CONTROL QUANTITIES, SUMMARY OF EARTHWORK QUANTITIES, SUMMARY OF ROADWAY QUANTITIES, SUMMARY OF STORM SEWER QUANTITIES, TRAFFIC SIGNAL SUMMARY - FM 1093 AT FM1463/FM359-SOUTH AND CROSS CREEK RANCH BLVD, SUMMARY OF PAVEMENT MARKINGS, SUMMARY OF SMALL SIGNS, SUMMARY OF MISCELLANEOUS QUANTITIES.

TRAFFIC CONTROL PLAN

Table with 2 columns: SHEET NO. and DESCRIPTION. Rows include TRAFFIC CONTROL PLAN NARRATIVE, TRAFFIC CONTROL PLAN ADVANCED WARNING SIGNS, TRAFFIC CONTROL PLAN PHASING LAYOUT, TRAFFIC CONTROL PLAN TEMPORARY PAVEMENT DETAIL, TRAFFIC CONTROL PLAN PHASE 1 TYPICAL SECTIONS, TRAFFIC CONTROL PLAN PHASE 1, TRAFFIC CONTROL PLAN PHASE 1A TYPICAL SECTIONS, TRAFFIC CONTROL PLAN PHASE 1A, TRAFFIC CONTROL PLAN PHASE 1A CROSS CREEK RANCH BLVD, TRAFFIC CONTROL PLAN PHASE 1A FLEWELLEN WAY, TRAFFIC CONTROL PLAN PHASE 1A FM 1463, TRAFFIC CONTROL PLAN FM 1093 EBFR & WBFR DETOUR PLAN & PROFILE, TRAFFIC CONTROL PLAN PHASE 1B, TRAFFIC CONTROL PLAN PHASE 1B CROSS CREEK RANCH BLVD, TRAFFIC CONTROL PLAN PHASE 1B FLEWELLEN WAY, TRAFFIC CONTROL PLAN PHASE 1B FM 1463, TRAFFIC CONTROL PLAN PHASE 2 TYPICAL SECTIONS, TRAFFIC CONTROL PLAN PHASE 2, TRAFFIC CONTROL PLAN PHASE 2A TYPICAL SECTIONS, TRAFFIC CONTROL PLAN PHASE 2A, TRAFFIC CONTROL PLAN PHASE 3.

TRAFFIC CONTROL STANDARDS

Table with 2 columns: SHEET NO. and DESCRIPTION. Rows include BARRICADE AND CONSTRUCTION STANDARDS BC (1 THRU 12) - 14, TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK TCP(1-1)-12, TRAFFIC CONTROL PLAN ONE-LANE TWO-WAY TRAFFIC CONTROL TCP(1-2)-12, TRAFFIC CONTROL PLAN LANE CLOSURES FOR DIVIDED HIGHWAYS TCP(1-5)-12, TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK TCP(2-1)-12, TRAFFIC CONTROL PLAN ONE-LANE TWO-WAY TRAFFIC CONTROL TCP(2-2)-12, TRAFFIC CONTROL PLAN TRAFFIC SHIFTS ON TWO-LANE ROADS TCP(2-3)-12, TRAFFIC CONTROL PLAN LANE CLOSURES ON DIVIDED HIGHWAYS TCP(2-6)-12, TWO WAY ROADWAY INTERSECTION PHASING TWIP(1) TC2010-09 (HOUSTON DISTRICT), BOULEVARD CLOSURES TCPTC 3050-96 (HOUSTON DISTRICT), CONSTRUCTION SEQUENCE FOR MISCELLANEOUS DRIVES CSMD TC8010-2009 (HOUSTON DISTRICT), DRIVEWAY SIGNING DS TC8020-04 (HOUSTON DISTRICT), TRAFFIC CONTROL PLAN TYPICAL DETAILS WZ(TD)-13, LOW PROFILE CONCRETE BARRIER PRECAST BARRIER (TYPE 1) LPCB-13.

ROADWAY LAYOUTS AND DETAILS

Table with 2 columns: SHEET NO. and DESCRIPTION. Rows include HORIZONTAL AND VERTICAL CONTROL, HORIZONTAL ALIGNMENT DATA, REMOVAL LAYOUT, ROADWAY PLAN & PROFILE - EASTBOUND FM 1093, ROADWAY PLAN & PROFILE - WESTBOUND FM 1093, ROADWAY PLAN & PROFILE CROSS CREEK RANCH BLVD, INTERSECTION LAYOUT CROSS CREEK RANCH BLVD, INTERSECTION LAYOUT - FLEWELLEN PLACE LANE, ROADWAY PLAN & PROFILE - FLEWELLEN WAY, INTERSECTION LAYOUT - FLEWELLEN WAY, ROADWAY PLAN & PROFILE - FM 1463/FM 359, INTERSECTION LAYOUT - FM 1463/FM 359, DRIVEWAY SUMMARY SEGMENT B1, DRIVEWAY SUMMARY SEGMENT B2.

SHEET NO.

DESCRIPTION

ROADWAY STANDARDS

Table with 2 columns: SHEET NO. and DESCRIPTION. Rows include CONTINUOUSLY REINFORCED CONCRETE PAVEMENT: CRCP (1)-13, CONTINUOUSLY REINFORCED CONCRETE PAVEMENT HOUSTON SUPPLEMENT: CRCP-HS (HOUSTON DISTRICT), WIDE FLANGE PAVEMENT TERMINALS: WFPT (HOUSTON DISTRICT), CONCRETE PAVEMENT JUNCTURES CPJ (HOUSTON DISTRICT), FAST TRACK CONTINUOUSLY REINFORCED CONCRETE PAVEMENT CRCP-FT (HOUSTON DISTRICT), DRIVEWAY DETAILS: DD (HOUSTON DISTRICT), CONCRETE CURB AND CURB AND GUTTER: CCGG-12, U-TURN CURB DETAIL NEW CONSTRUCTION: HOU-U-CURB (HOUSTON DISTRICT), CONCRETE CURB AND DIRECTIONAL ISLAND DETAILS: CC&DID (HOUSTON DISTRICT), FERTILIZER, SEED, SOD, STRAW, COMPOST, AND WATER (HOUSTON DISTRICT), TRAFFIC RAIL SINGLE SLOPE: TYPE SSTR, PEDESTRIAN RAIL: PR1, SINGLE GUARDRAIL TERMINAL (SKT 350) (WOOD POST): SGT(8)31-14, METAL BEAM GUARD FENCE: GF(31)-14, METAL BEAM GUARD FENCE (Downstream Anchor Terminal): GF(31)DAT-14, METAL BEAM GUARD FENCE TRANSITION (Thrie-Beam Transition): GF(31) TR-14, METAL BEAM GUARD FENCE (MOW STRIP): GF(31) MS-11, BRIDGE END DETAILS METAL BEAM GUARD FENCE APPLICATIONS TO RIGID RAILS: BED-14, TAPERED EDGE DETAILS HMACE PAVEMENT: TE(HMAC)-11, CONCRETE RIPRAP AND SHOULDER DRAINS EMBANKMENTS AT BRIDGE ENDS (TYPES RR8 & RR9): CRR, PEDESTRIAN FACILITIES CURB RAMPS: PED-12A, MOW STRIP: MS (HOUSTON DISTRICT).

RETAINING WALL LAYOUTS

Table with 2 columns: SHEET NO. and DESCRIPTION. Rows include RETAINING WALL PLAN AND PROFILE - RETAINING WALL A AND D, RETAINING WALL PLAN AND PROFILE - RETAINING WALL B AND E, RETAINING WALL PLAN AND PROFILE - RETAINING WALL C AND F, RETAINING WALL PLAN AND PROFILE - RETAINING WALL G AND K, RETAINING WALL PLAN AND PROFILE - RETAINING WALL H AND L, RETAINING WALL PLAN AND PROFILE - RETAINING WALL J AND M, MECHANICALLY STABILIZED EARTH RETAINING WALL DESIGN DATA: RW(MSE)DD.

RETAINING WALL STANDARDS

Table with 2 columns: SHEET NO. and DESCRIPTION. Rows include MECHANICALLY STABILIZED RETAINING WALL: MSRWC-SB (HOUSTON DISTRICT), CEMENT STABILIZED BACKFILL EMBANKMENT: CSBE-RW (HOUSTON DISTRICT), EARTHWORK MEASUREMENT AT RETAINING WALLS: RW (EM), RETAINING WALL TRAFFIC RAILING FOUNDATIONS: RW (TRF), RETAINING WALL AND EMBANKMENT FOUNDATION IMPROVEMENTS RW & EFI (HOUSTON DISTRICT).

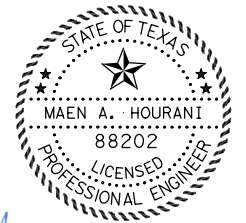
DRAINAGE PLANS

Table with 2 columns: SHEET NO. and DESCRIPTION. Rows include OVERALL DRAINAGE AREA MAP, DRAINAGE AREA MAP, HYDRAULIC COMPUTATIONS, STORM SEWER PLAN & PROFILE - EASTBOUND FM 1093, STORM SEWER PLAN & PROFILE - WESTBOUND FM 1093, STORM SEWER LATERALS, DETENTION POND 4 LAYOUT, DETENTION POND 4 CONTOUR LAYOUT, DETENTION POND 4 CROSS SECTIONS, DETENTION POND 4 COGO DATA, DETENTION POND 4 OUTFALL DITCH, DETENTION POND 5A LAYOUT, DETENTION POND 5A CONTOUR LAYOUT, DETENTION POND 5A CROSS SECTIONS, DETENTION POND 5A OUTFALL DITCH, DETENTION POND 5C LAYOUT- NORTH & SOUTH, DETENTION POND 5C CONTOUR LAYOUT, DETENTION POND 5C CROSS SECTIONS, DETENTION POND 5D LAYOUT, DETENTION POND 5D CONTOUR LAYOUT, DETENTION POND 5D CROSS SECTION, DETENTION POND OUTFALLS, CURB INLET DETAILS, DRAINAGE DETAILS, JUNCTION BOX DETAILS, BOX CULVERT SUPPLEMENT WINGS AND END TREATMENTS BCS.

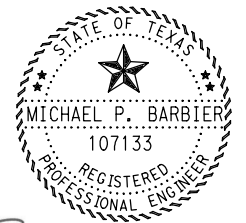
DRAINAGE STANDARDS

Table with 2 columns: SHEET NO. and DESCRIPTION. Rows include EXCAVATION AND BACKFILL DIAGRAMS E&BD (HOUSTON DISTRICT), SINGLE BOX CULVERTS CAST-IN-PLACE MISCELLANEOUS DETAILS: SCC-MD, SINGLE BOX CULVERTS CAST-IN-PLACE: SCC-3 & 4, SINGLE BOX CULVERTS CAST-IN-PLACE: SCC-5 & 6, SINGLE BOX CULVERTS CAST-IN-PLACE: SCC-8.

THE STANDARD SHEETS IDENTIFIED AS SHOWN HAVE BEEN SELECTED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.



Signature of Maen A. Hourani, P.E. 02/28/2017, #88202, DATE. Includes checkboxes 1, 2, 4.



Signature of Michael P. Barbier, P.E. 02/28/2017, #107133, DATE. Includes checkboxes 2, 3, 4.

Table with 4 columns: REV, DATE, BY, DESCRIPTION. Includes logos for Fort Bend County Toll Road Authority, State of Texas, and Texas Department of Transportation. Company name: DANNENBAUM ENGINEERING CORPORATION, T.B.P.E. FIRM REGISTRATION #392, 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570. Project: FM 1093 WESTPARK EXTENSION. Title: INDEX OF SHEETS. SHEET 1 OF 2. Designer: JR, Drawn: JJ, Checked: MJK, Checked: MH. County: FORT BEND, Cont: 0543, Sec: 02, Job: 063, ETC, Hwy No: FM 1093, Sheet No: 1002.

SHEET NO.

DESCRIPTION

1325 BOX CULVERTS PRECAST MISCELLANEOUS DETAILS SCP-MD
1326 SINGLE BOX CULVERTS PRECAST 3'-0" SPAN SCP-3
1327 SINGLE BOX CULVERTS PRECAST 4'-0" SPAN SCP-4
1328 SINGLE BOX CULVERTS PRECAST 5'-0" SPAN SCP-5
1329 SINGLE BOX CULVERTS PRECAST 6'-0" SPAN SCP-6
1330 SINGLE BOX CULVERTS PRECAST 8'-0" SPAN SCP-8
1331 MULTIPLE BOX CULVERTS CAST-IN-PLACE MISCELLANEOUS DETAILS: MC-MD
1332 - 1333 MULTIPLE BOX CULVERTS CAST-IN-PLACE 6'-0" SPAN 0' TO 16' FILL MC-6-16
1334 EXTENDED CURB DETAILS: ECD
1335 CURB INLET TYPE C: HIL-C (HOUSTON DISTRICT)
1336 CURB INLET TYPE C1: HIL-C1 (HOUSTON DISTRICT)
1337 INLETS TYPE AD & AAD: HIL-AD/AAD (HOUSTON DISTRICT)
1338 MANHOLES TYPE A & B MH-A/B (HOUSTON DISTRICT)
1339 MANHOLE TYPE M (MOD) (JUNCTION BOX WITH ACCESS) 15' MAX FILL
1340 MISCELLANEOUS SEWER DETAILS MSD (HOUSTON DISTRICT)
1341 GUTTER DEPRESSION DETAILS FOR CURB INLETS: GD (HOUSTON DISTRICT)
1342 SAFETY END TREATMENT FOR (12" DIA TO 72") DIA PIPE CULVERTS TYPE II PARALLEL DRAINAGE SETP-PD
1343 - 1342 SAFETY END TREATMENT TYPE II CROSS DRAINAGE (12" TO 60"): SETP-CD
1343 - 1344 PRECAST SAFETY END TREATMENT TYPE II-CROSS DRAINAGE PSET-SC
1345 PRECAST SAFETY END TREATMENT TYPE II-PARALLEL DRAINAGE PSET-SP
1346 SAFETY END TREATMENT FOR BOX CULVERTS (MAXIMUM HW=7'-0") SETB-PD
1347 - 1348 CONCRETE WINGWALLS WITH FLARED WINGS FOR 0° SKEW BOX CULVERTS: FW-O
1349 CONCRETE WINGWALLS WITH FLARED WINGS FOR SKEWED BOX CULVERTS: FW-S
1350 HCFCD INTERCEPTOR STRUCTURE DETAILS: HCFCD-ISD (1) (HOUSTON DISTRICT)
1351 - 1352

BRIDGE LAYOUT

1353 - 1355 SOIL BORING SITE PLAN
1356 - 1368 SOIL BORING LOGS
1369 HYDRAULIC DATA SHEET - WBFR OVER FLEWELLEN CREEK
1370 BRIDGE LAYOUT - WBFR OVER FLEWELLEN CREEK
1371 TYPICAL SECTION - WBFR OVER FLEWELLEN CREEK
1372 ESTIMATED QUANTITIES & BEARING SEAT ELEVATIONS WBFR OVER FLEWELLEN CREEK
1373 FOUNDATION LAYOUT - WBFR OVER FLEWELLEN CREEK
1374 ABUTMENT NO 1 - WBFR OVER FLEWELLEN CREEK
1375 ABUTMENT NO 2 - WBFR OVER FLEWELLEN CREEK
1376 ABUTMENT MISC DETAILS WBFR OVER FLEWELLEN CREEK
1377 BRIDGE FRAMING PLAN - WBFR OVER FLEWELLEN CREEK
1378 WBFR FLEWELLEN CREEK BRIDGE SLAB DETAILS
1379 WBFR FLEWELLEN CREEK BRIDGE SLAB DETAILS
1380 HYDRAULIC DATA SHEET - EBFR OVER FLEWELLEN CREEK
1381 BRIDGE LAYOUT - EBFR OVER FLEWELLEN CREEK
1382 TYPICAL SECTION - EBFR OVER FLEWELLEN CREEK
1383 ESTIMATED QUANTITIES & BEARING SEAT ELEVATIONS EBFR OVER FLEWELLEN CREEK
1384 FOUNDATION LAYOUT - EBFR OVER FLEWELLEN CREEK
1385 ABUTMENT NO 1 - EBFR OVER FLEWELLEN CREEK
1386 ABUTMENT NO 2 - EBFR OVER FLEWELLEN CREEK
1387 ABUTMENT MISC DETAILS EBFR OVER FLEWELLEN CREEK
1388 BRIDGE FRAMING PLAN - EBFR OVER FLEWELLEN CREEK
1389 EBFR FLEWELLEN CREEK BRIDGE SLAB DETAILS
1390 EBFR FLEWELLEN CREEK BRIDGE SLAB DETAILS

BRIDGE STANDARDS

1391 BRIDGE SIDEWALK EXPANSION JOINT COVER PLATE BS-EJCP
1392 PRESTRESSED CONCRETE I-GIRDER DESIGNS (NON-STANDARD SPANS) IGND
1393 - 1394 PRESTRESSED CONCRETE I-GIRDER DETAILS IGD
1395 - 1397 ELASTOMERIC BEARING AND GIRDER END DETAILS PRESTR CONCRETE I-GIRDERS IGEB
1398 - 1399 MISCELLANEOUS SLAB DETAILS PRESTR CONCRETE I-GIRDERS IGMS
1400 THICKENED SLAB END DETAILS PRESTRESSED CONCRETE I-GIRDER SPANS IGTS
1401 SHEAR KEY DETAIL PRESTR CONCRETE I-GIRDERS IGSK
1402 - 1403 MINIMUM ERECTION AND BRACING REQUIREMENTS PRESTRESSED CONCRETE I-GIRDERS AND I-BEAMS MEBR ( C )
1404 - 1407 PRESTRESSED CONCRETE PANELS DECK DETAILS PCP (MOD)
1408 PRESTRESSED CONCRETE PANEL FABRICATION DETAILS PCP-FAB
1409 - 1410 PERMANENT METAL DECK FORMS PMDF
1411 - 1412 SEALED EXPANSION JOINT TYPE A WITHOUT OVERLAY SEJ-A

TRAFFIC ITEMS

1413 TEMPORARY TRAFFIC SIGNAL NOTES - FM 1093 AT FM1463/FM359-SOUTH AND CROSS CREEK RANCH BLVD
1414 TRAFFIC SIGNAL NOTES - FM 1093 AT FM1463/FM359-SOUTH AND CROSS CREEK RANCH BLVD
1415 - 1417 TEMPORARY TRAFFIC SIGNAL LAYOUT - FM 1093 AT FM1463/FM359-SOUTH
1418 EXISTING TRAFFIC SIGNAL LAYOUT - FM 1093 AT FM1463/FM359-SOUTH
1419 - 1421 TRAFFIC SIGNAL LAYOUT - FM 1093 AT FM1463/FM359-SOUTH
1422 - 1426 TEMPORARY TRAFFIC SIGNAL LAYOUT - FM 1093 AT CROSS CREEK RANCH BLVD

SHEET NO.

DESCRIPTION

1427 EXISTING TRAFFIC SIGNAL LAYOUT - FM 1093 AT CROSS CREEK RANCH BLVD
1428 - 1430 TRAFFIC SIGNAL LAYOUT - FM 1093 AT CROSS CREEK RANCH BLVD
1431 - 1443 SIGNING LAYOUT
1444 SMALL SIGN DETAILS
1445 - 1459 PAVEMENT MARKING LAYOUT

TRAFFIC STANDARDS

1460 ELECTRICAL DETAILS - CONDUIT ED(1)-14
1461 ELECTRICAL DETAILS - CONDUIT SUPPORTS ED(2)-14
1462 ELECTRICAL DETAILS - CONDUCTORS ED(3)-14
1463 ELECTRICAL DETAILS - GROUND BOXES-TYPE TP (OVERHEAD) ED(4)-14
1464 ELECTRICAL DETAILS - SERVICE NOTES & DATA ED(5)-14
1465 ELECTRICAL DETAILS - SERVICE ENCLOSURE AND NOTES ED(6)-14
1466 ELECTRICAL DETAILS - SERVICE SUPPORT TYPES SF & SP ED(7)-14
1467 ELECTRICAL DETAILS - ELECTRICAL SERVIC SUPPORT PEDESTAL SERVICE TYPE PS ED(9)-14
1468 ELECTRICAL DETAILS - SERVICE SUPPORT TYPES GC, OC, & TP ED(10)-14
1469 MOWING PAD DETAILS FOR ELECTRICAL SERVICES
1470 - 1473 LONG MAST ARM ASSEMBLY (50 FT TO 65 FT) (80 AND 100 MPH WIND ZONE) LMA(1 THRU 4)-12
1474 LONG MAST ARM ASSEMBLY PARTS LIST LMA(5)-12
1475 STANDARD ASSEMBLY DRAWINGS FOR LUMINAIRE SUPPORT STRUCTURES LUM-A-12
1476 STANDARD ASSEMBLY FOR TRAFFIC SIGNAL SUPPORT STRUCTURES - MAST ARM CONNECTIONS MA-C-12
1477 TRAFFIC SIGNAL SUPPORT STRUCTURES - MAST ARM POLE DETAILS MA-D-12
1478 MAST ARM DAMPING PLATE DETAILS MA-DPD-12
1479 SIGNAL DETAILS/STANDARDS - CONTROLLER FOUNDATION DETAIL SD/SCFD
1480 CONSTRUCTION DETAILS FOR POLE MOUNTED (APS) PEDESTRIAN SIGNALS CD/PM(APS)PS
1481 SIGNAL DETAILS/STANDARDS - OVERHEAD STREET NAME SIGN MOUNTING DETAILS OSNS/MD
1482 SIGNAL DETAILS/STANDARDS - VIVDS CAMERA MOUNTING DETAILS VC/MD
1483 CONSTRUCTION DETAILS FOR TRAFFIC SIGNALS (WOOD POLE) CD/TS/WP
1484 SIGNAL DETAILS/STANDARDS - SPREAD SPECTRUM RADIO ANTENNA MOUNTING DETAILS SSR/AMD
1485 SIGNAL HEAD SPAN WIRE MOUNT DETAILS SHS/WMD
1486 SIGNAL DETAILS /STANDARD - LOOP DETECTOR DETAILS LDD
1487 SIGNAL DETAILS /STANDARD - LOOP DETECTOR DETAILS PLACEMENT LDDP
1488 SIGNAL DETAILS/ STANDARDS INSTALLATION OF BBU EXTERNAL BATTERY CABINET (SIDE MOUNT) BBU
1489 TRAFFIC SIGNAL WORK TYPICAL DETAILS WZ(BTS-1)-13
1490 TRAFFIC SIGNAL WORK BARRICADES AND SIGNS WZ(BTS-2)-13
1491 DELINEATOR & OBJECT MARKER MATERIAL DESCRIPTION D & OM (1)-15
1492 SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS GENERAL NOTES & DETAILS SMD (GEN)-08
1493 - 1495 SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM SMD(SLIP -1 THRU 3)-08
1496 - 1500 TYPICAL SIGN REQUIREMENTS TSR(1)-13 THRU TSR(5)-13
1501 REGULATORY SIGNS (LANE USE CONTROL) R(LUC-1)-04
1502 TYPICAL STANDARD PAVEMENT MARKINGS PM(1)-12
1503 POSITION GUIDANCE USING RAISED MARKERS REFLECTORIZED PROFILE MARKINGS PM(2)-12
1504 PAVEMENT MARKINGS FOR TWO-WAY LEFT TURN LANES DIVIDED HIGHWAYS AND RURAL LEFT TURN BAYS PM(3)-12
1505 PAVEMENT MARKINGS (DOTTED EXTENSION DETAILS): PM(DOT)-11 (HOUSTON DISTRICT)
1506 PAVEMENT MARKINGS (CONTRAST LANE LINES): PM(CLL)-14 (HOUSTON DISTRICT)

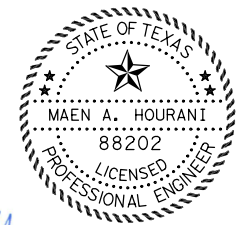
ENVIRONMENTAL ISSUES

1507 TXDOT STORM WATER POLLUTION PREVENTION PLAN SWP3
1508 - 1519 SWP3 LAYOUTS
1520 - 1523 ENVIRONMENTAL PERMITS ISSUES AND COMMITMENTS (EPIC)
1524 - 1529 ENVIRONMENTAL DATA SHEETS

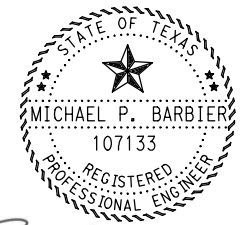
ENVIRONMENTAL STANDARDS

1530 TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES FENCE & VERTICAL TRACKING EC(1)-16
1531 TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES ROCK FILTER DAMS EC (2)-16
1532 TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES CONSTRUCTION EXITS EC (3)-16
1533 EROSION CONTROL LOGS: ECL-12 (HOUSTON DISTRICT)

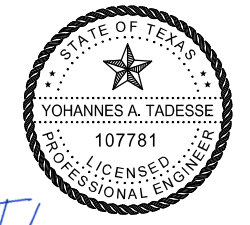
THE STANDARD SHEETS IDENTIFIED AS SHOWN HAVE BEEN SELECTED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.



Maen A. Hourani, P.E. 02/28/2017
#88202 DATE



Michael P. Barbier, P.E. 02/28/2017
#107133 DATE



Yohannes A. Tedesse, P.E. 02/28/2017
#107781 DATE

Table with 4 columns: REV, DATE, BY, DESCRIPTION



DANNENBAUM ENGINEERING CORPORATION
T.B.P.E. FIRM REGISTRATION #392
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

FM 1093 WESTPARK EXTENSION

INDEX OF SHEETS

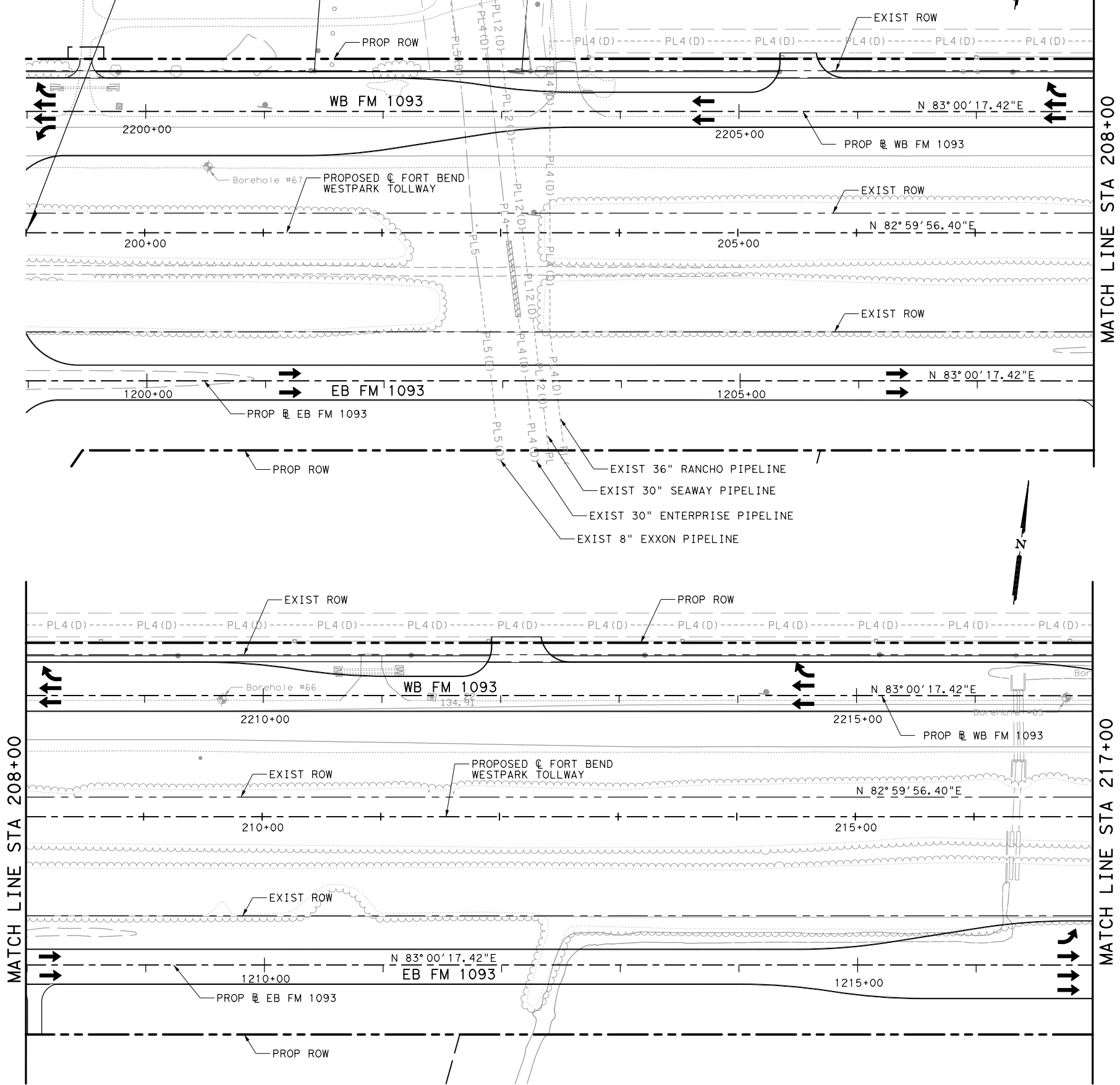
SHEET 2 OF 2

Table with 6 columns: DESIGNED BY, DRAWN BY, CHECKED BY, COUNTY, CONT, SEC, JOB, HWY NO., SHEET NO.

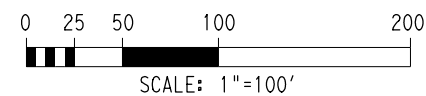
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DATE: 3/8/2017

BEGIN PROJECT  
 BEGIN SEGMENT B1  
 PROP C FORT BEND WESTPARK TOLLWAY  
 STA 199+00.00  
 N=13,814,136.92  
 E=2,960,163.13

LEGEND  
 CURVE HORIZONTAL CURVE IDENTIFIER



- NOTES:
1. STATIONING IN TITLE BLOCK, FOR PROJECT LAYOUT IS BASED ON WESTPARK MAINLANE STATIONS.
  2. SEE "HORIZONTAL ALIGNMENT DATA" SHEETS FOR FURTHER INFORMATION.



REV	DATE	BY	DESCRIPTION



**DANNENBAUM**  
 ENGINEERING CORPORATION  
 T.B.P.E. FIRM REGISTRATION #392  
 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

FM 1093 WESTPARK EXTENSION  
 PROJECT LAYOUT  
 STA 199+00 TO STA 217+00

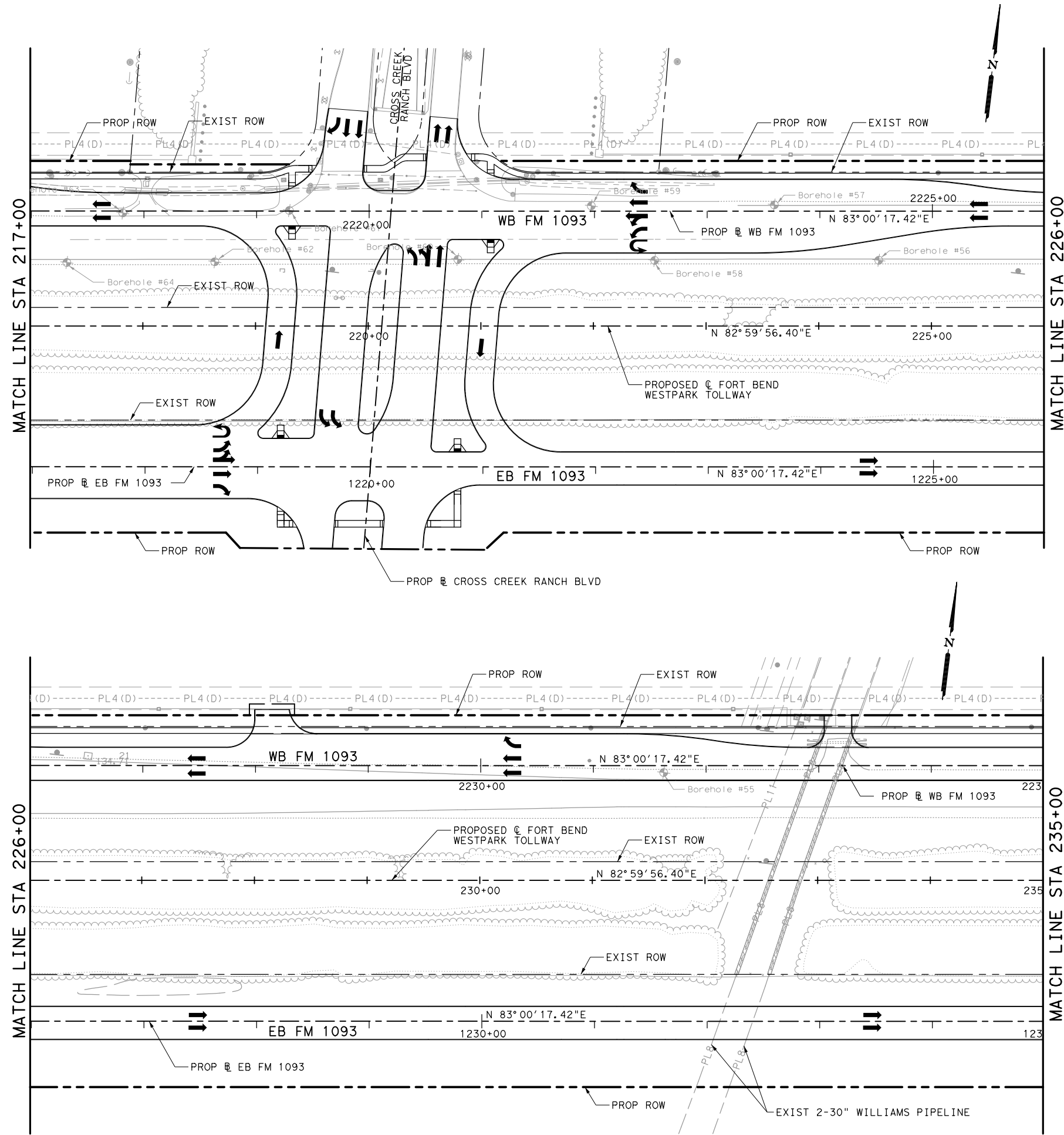
SHEET 1 OF 7

DESIGNED BY: JR	DRAWN BY: JJ				
CHECKED BY: MJK	CHECKED BY: MH				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1004

FILE: G:\1204593-02 Westpark\04 DGN\GENERAL\WPBgap01.dgn  
 DATE: 3/7/2017

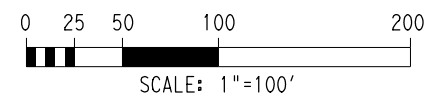
LEGEND

CURVE HORIZONTAL CURVE IDENTIFIER



NOTES:

1. STATIONING IN TITLE BLOCK, FOR PROJECT LAYOUT IS BASED ON WESTPARK MAINLANE STATIONS.
2. SEE "HORIZONTAL ALIGNMENT DATA" SHEETS FOR FURTHER INFORMATION.



REV	DATE	BY	DESCRIPTION



**DANNENBAUM**  
**ENGINEERING CORPORATION**  
 T.B.P.E. FIRM REGISTRATION #392  
 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

**FM 1093 WESTPARK EXTENSION**  
 PROJECT LAYOUT  
 STA 217+00 TO STA 235+00

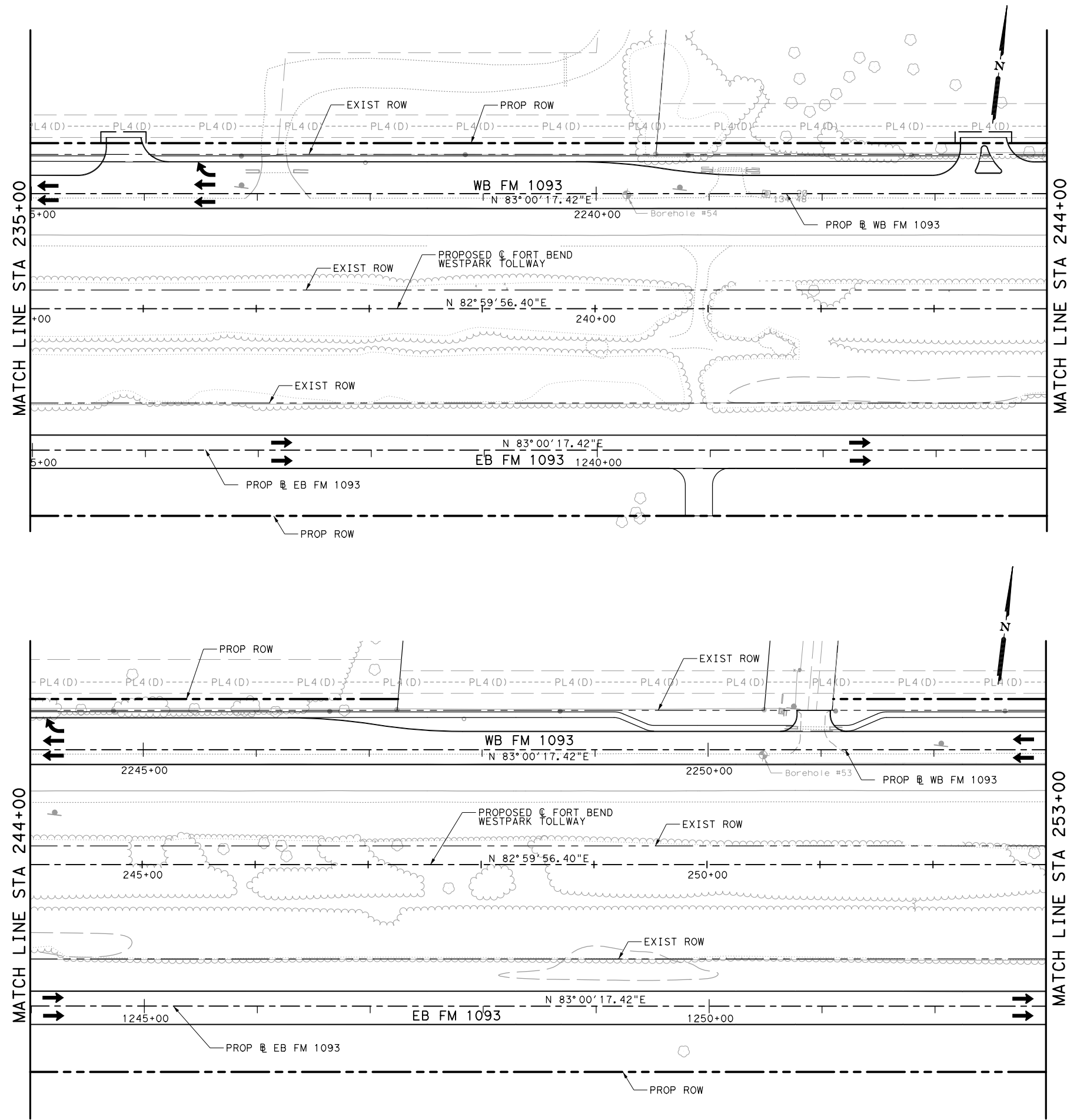
SHEET 2 OF 7

DESIGNED BY: JR	DRAWN BY: JJ				
CHECKED BY: MJK	CHECKED BY: MH				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1005

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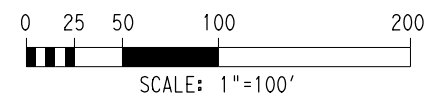
LEGEND

CURVE HORIZONTAL CURVE IDENTIFIER



NOTES:

1. STATIONING IN TITLE BLOCK, FOR PROJECT LAYOUT IS BASED ON WESTPARK MAINLANE STATIONS.
2. SEE "HORIZONTAL ALIGNMENT DATA" SHEETS FOR FURTHER INFORMATION.



REV	DATE	BY	DESCRIPTION

**DANNENBAUM**  
**ENGINEERING CORPORATION**  
 T.B.P.E. FIRM REGISTRATION #392  
 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

**FM 1093 WESTPARK EXTENSION**  
 PROJECT LAYOUT  
 STA 235+00 TO STA 253+00

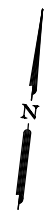
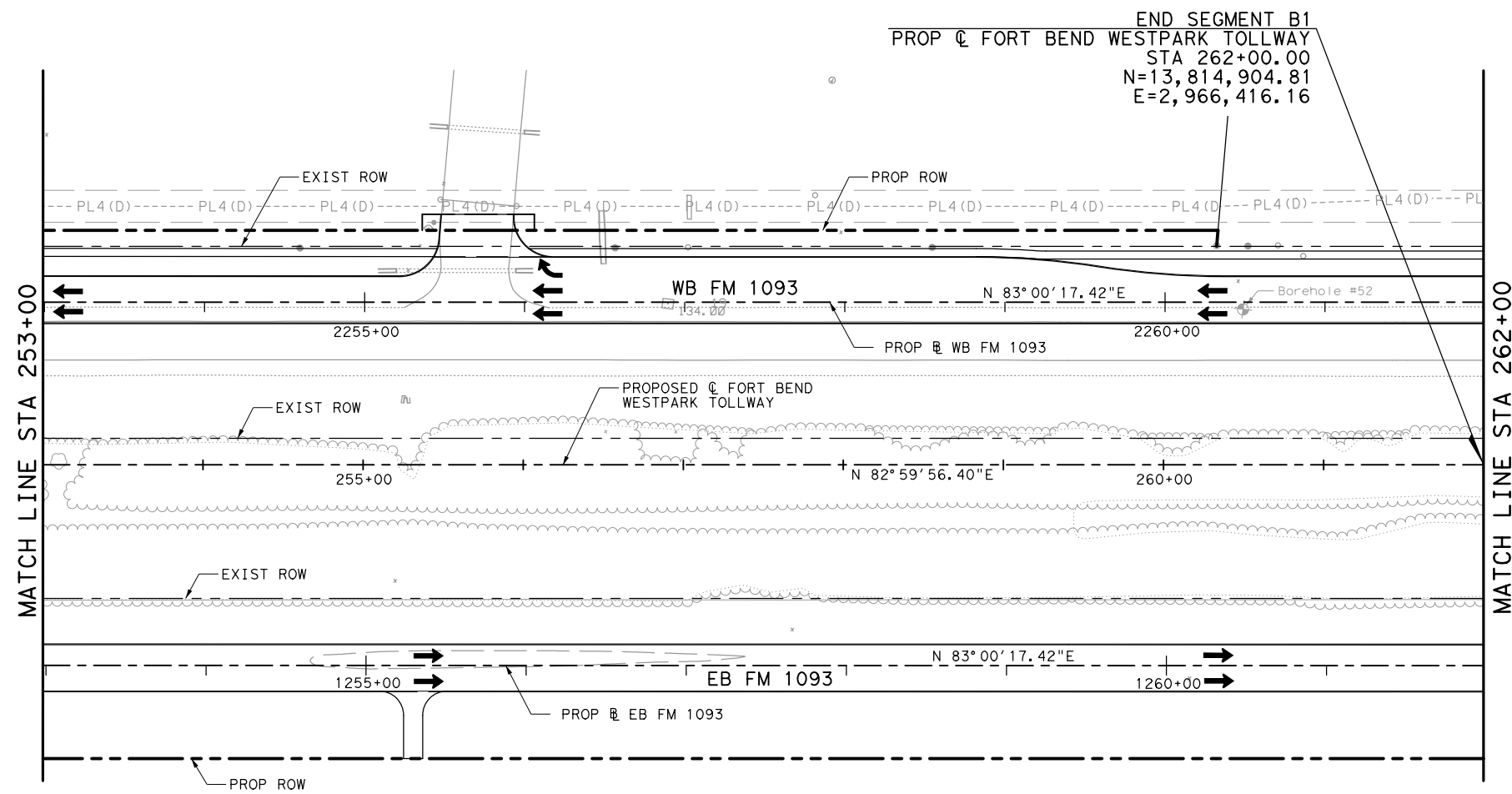
SHEET 3 OF 7

DESIGNED BY: JR	DRAWN BY: JJ				
CHECKED BY: MJK	CHECKED BY: MH				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1006

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 DATE: 3/7/2017

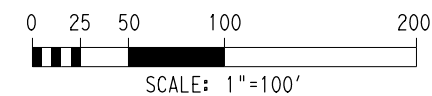
LEGEND

CURVE HORIZONTAL CURVE IDENTIFIER



NOTES:

1. STATIONING IN TITLE BLOCK, FOR PROJECT LAYOUT IS BASED ON WESTPARK MAINLANE STATIONS.
2. SEE "HORIZONTAL ALIGNMENT DATA" SHEETS FOR FURTHER INFORMATION.



REV	DATE	BY	DESCRIPTION



**DANNENBAUM**  
**ENGINEERING CORPORATION**  
 T.B.P.E. FIRM REGISTRATION #392  
 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

FM 1093 WESTPARK EXTENSION

PROJECT LAYOUT  
 STA 253+00 TO STA 262+00

SHEET 4 OF 7

DESIGNED BY: JR	DRAWN BY: JJ				
CHECKED BY: MJK	CHECKED BY: MH				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1007

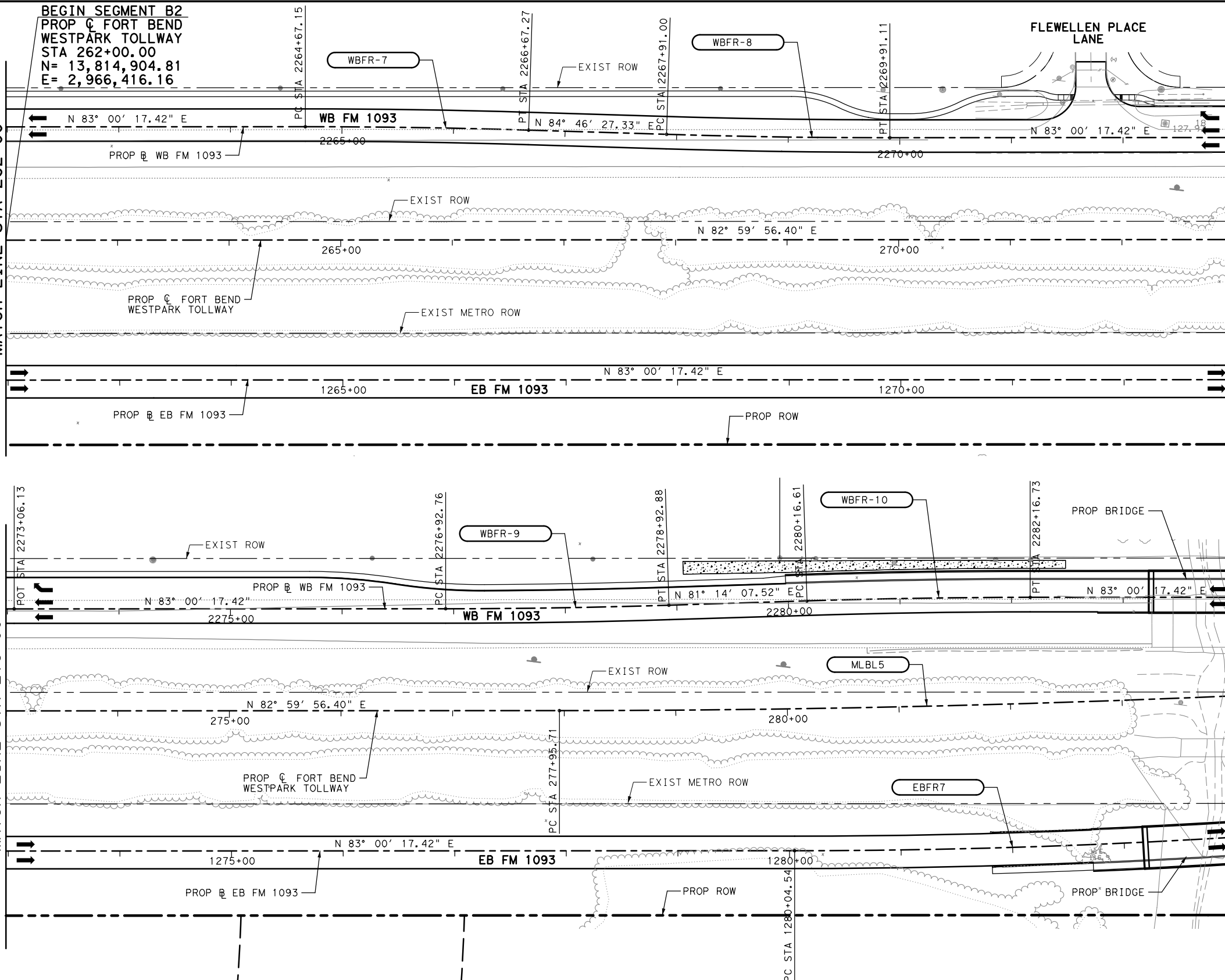
BEGIN SEGMENT B2  
 PROP C FORT BEND  
 WESTPARK TOLLWAY  
 STA 262+00.00  
 N= 13,814,904.81  
 E= 2,966,416.16

MATCH LINE STA 262+00

MATCH LINE STA 273+00

MATCH LINE STA 273+00

MATCH LINE STA 284+00

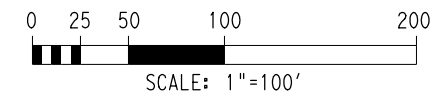


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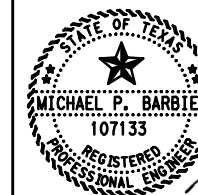
CURVE HORIZONTAL CURVE IDENTIFIER

NOTES:

1. STATIONING IN TITLE BLOCK, FOR PROJECT LAYOUT IS BASED ON WESTPARK MAINLANE STATIONS.
2. SEE "HORIZONTAL ALIGNMENT DATA" SHEETS FOR FURTHER INFORMATION.



REV	DATE	BY	DESCRIPTION



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MICHAEL P. BARBIER P.E. 107133, ON AUGUST 31, 2015, ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT. THE RECORD COPY OF THIS DRAWING IS ON FILE AT THE OFFICES OF HALFF ASSOCIATES, INC.

2-24-2017

*Michael P. Barbier*



**HALFF**

TBPE FIRM # F-312  
 14800 ST. MARY'S LANE, SUITE 160  
 HOUSTON, TEXAS 77079-2943  
 TEL (713) 588-2450 FAX (281) 310-5259

**FM 1093 WESTPARK EXTENSION  
 PROJECT LAYOUT  
 STA 262+00 TO STA 284+00**

SHEET 5 OF 7

DESIGNED BY: BRC	DRAWN BY: LDW				
CHECKED BY: MPB	CHECKED BY: B3				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1008

FILE: I:\30000s\30736\SEG2\DM\HOU\WPB2a103.dgn  
 DATE: 3/16/2017

Curve 02MLBL5  
 P.I. Station 281+63.54  
 N 13,815,144.1388  
 E 2,968,365.0589  
 Delta = 2° 59' 19.3653" (LT)  
 Degree = 0° 24' 22.8710"  
 Tangent = 367.8317  
 Length = 735.4965  
 Radius = 14,100.0000  
 External = 4.7971  
 Long Chord = 735.4132  
 Mid. Ord. = 4.7954  
 P.C. Station 277+95.71  
 P.T. Station 285+31.21

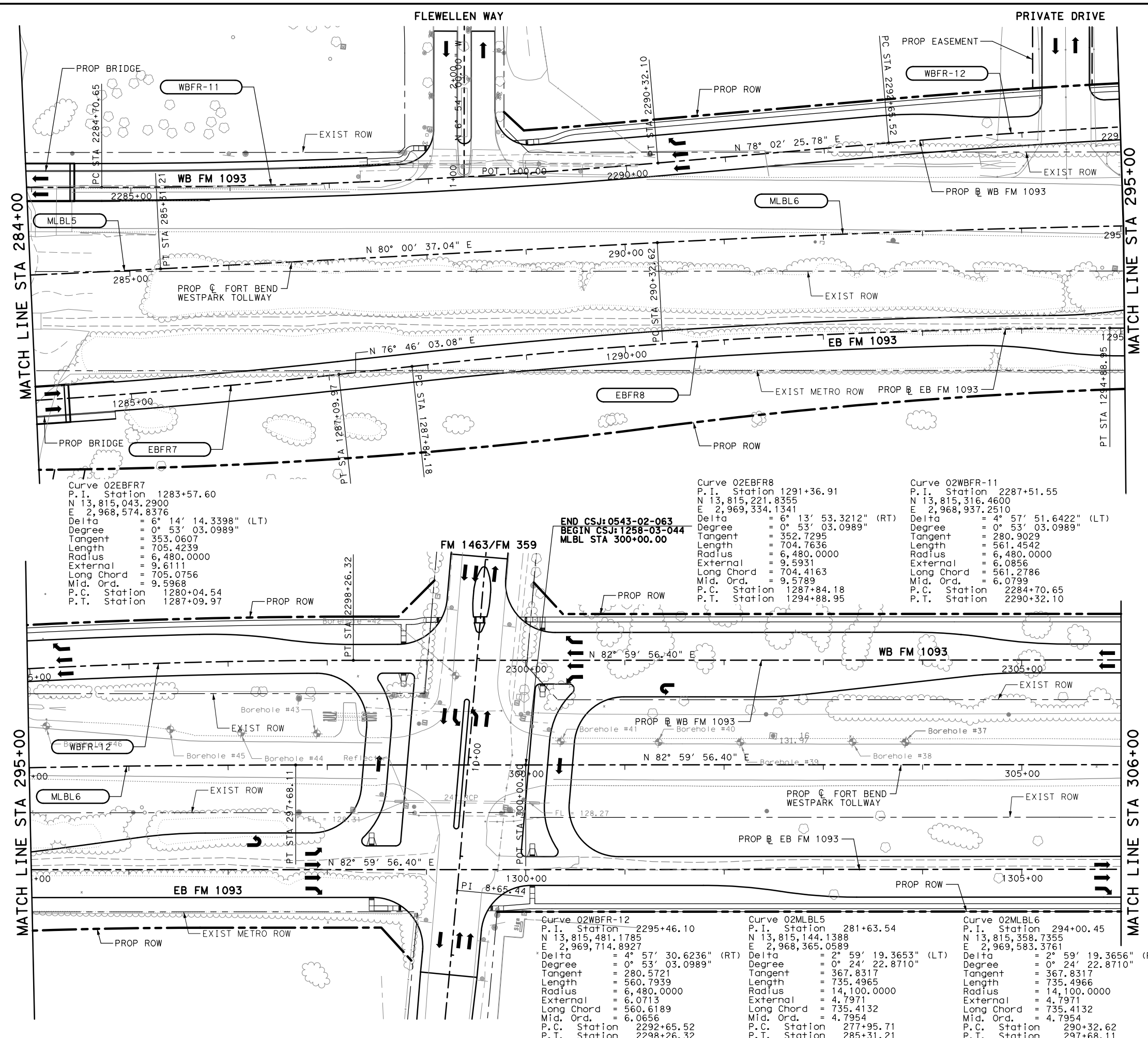
Curve 02WBFR-7  
 P.I. Station 2265+67.22  
 N 13,815,050.4696  
 E 2,966,769.4190  
 Delta = 1° 46' 09.9048" (RT)  
 Degree = 0° 53' 03.0989"  
 Tangent = 100.0662  
 Length = 200.1165  
 Radius = 6,480.0000  
 External = 0.7726  
 Long Chord = 200.1085  
 Mid. Ord. = 0.7725  
 P.C. Station 2264+67.15  
 P.T. Station 2266+67.27

Curve 02WBFR-8  
 P.I. Station 2267+91.06  
 N 13,815,079.9670  
 E 2,967,091.9358  
 Delta = 1° 46' 09.9048" (LT)  
 Degree = 0° 53' 03.0989"  
 Tangent = 100.0662  
 Length = 200.1165  
 Radius = 6,480.0000  
 External = 0.7726  
 Long Chord = 200.1085  
 Mid. Ord. = 0.7725  
 P.C. Station 2267+91.00  
 P.T. Station 2269+91.11

Curve 02WBFR-9  
 P.I. Station 2277+92.83  
 N 13,815,189.7908  
 E 2,967,987.0042  
 Delta = 1° 46' 09.9048" (LT)  
 Degree = 0° 53' 03.0989"  
 Tangent = 100.0662  
 Length = 200.1165  
 Radius = 6,480.0000  
 External = 0.7726  
 Long Chord = 200.1085  
 Mid. Ord. = 0.7725  
 P.C. Station 2276+92.76  
 P.T. Station 2278+92.88

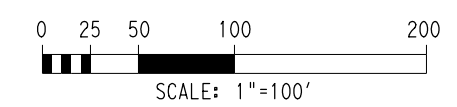
Curve 02WBFR-10  
 P.I. Station 2281+16.68  
 N 13,815,239.1394  
 E 2,968,307.0853  
 Delta = 1° 46' 09.9049" (RT)  
 Degree = 0° 53' 03.0989"  
 Tangent = 100.0662  
 Length = 200.1165  
 Radius = 6,480.0000  
 External = 0.7726  
 Long Chord = 200.1085  
 Mid. Ord. = 0.7725  
 P.C. Station 2280+16.61  
 P.T. Station 2282+16.73

Curve 02EBFR7  
 P.I. Station 1283+57.60  
 N 13,815,043.2900  
 E 2,968,574.8376  
 Delta = 6° 14' 14.3398" (LT)  
 Degree = 0° 53' 03.0989"  
 Tangent = 353.0607  
 Length = 705.4239  
 Radius = 6,480.0000  
 External = 9.6111  
 Long Chord = 705.0756  
 Mid. Ord. = 9.5968  
 P.C. Station 1280+04.54  
 P.T. Station 1287+09.97



**LEGEND**  
 CURVE HORIZONTAL CURVE IDENTIFIER

- NOTES:**
1. STATIONING IN TITLE BLOCK, FOR PROJECT LAYOUT IS BASED ON WESTPARK MAINLANE STATIONS.
  2. SEE "HORIZONTAL ALIGNMENT DATA" SHEETS FOR FURTHER INFORMATION.



Curve 02EBFR7  
 P.I. Station 1283+57.60  
 N 13,815,043.2900  
 E 2,968,574.8376  
 Delta = 6° 14' 14.3398" (LT)  
 Degree = 0° 53' 03.0989"  
 Tangent = 353.0607  
 Length = 705.4239  
 Radius = 6,480.0000  
 External = 9.6111  
 Long Chord = 705.0756  
 Mid. Ord. = 9.5968  
 P.C. Station 1280+04.54  
 P.T. Station 1287+09.97

Curve 02EBFR8  
 P.I. Station 1291+36.91  
 N 13,815,221.8355  
 E 2,969,334.1341  
 Delta = 6° 13' 53.3212" (RT)  
 Degree = 0° 53' 03.0989"  
 Tangent = 352.7295  
 Length = 704.7636  
 Radius = 6,480.0000  
 External = 9.5931  
 Long Chord = 704.4163  
 Mid. Ord. = 9.5789  
 P.C. Station 1287+84.18  
 P.T. Station 1294+88.95

Curve 02WBFR-11  
 P.I. Station 2287+51.55  
 N 13,815,316.4600  
 E 2,968,937.2510  
 Delta = 4° 57' 51.6422" (LT)  
 Degree = 0° 53' 03.0989"  
 Tangent = 280.9029  
 Length = 561.4542  
 Radius = 6,480.0000  
 External = 6.0856  
 Long Chord = 561.2786  
 Mid. Ord. = 6.0799  
 P.C. Station 2284+70.65  
 P.T. Station 2290+32.10

**END CSJ: 0543-02-063**  
**BEGIN CSJ: 1258-03-044**  
**MLBL STA 300+00.00**

Curve 02WBFR-12  
 P.I. Station 2295+46.10  
 N 13,815,481.1785  
 E 2,969,714.8927  
 Delta = 4° 57' 30.6236" (RT)  
 Degree = 0° 53' 03.0989"  
 Tangent = 280.5721  
 Length = 560.7939  
 Radius = 6,480.0000  
 External = 6.0713  
 Long Chord = 560.6189  
 Mid. Ord. = 6.0656  
 P.C. Station 2292+65.52  
 P.T. Station 2298+26.32

Curve 02MLBL5  
 P.I. Station 281+63.54  
 N 13,815,144.1388  
 E 2,968,365.0589  
 Delta = 2° 59' 19.3653" (LT)  
 Degree = 0° 24' 22.8710"  
 Tangent = 367.8317  
 Length = 735.4965  
 Radius = 14,100.0000  
 External = 4.7971  
 Long Chord = 735.4132  
 Mid. Ord. = 4.7954  
 P.C. Station 277+95.71  
 P.T. Station 285+31.21

Curve 02MLBL6  
 P.I. Station 294+00.45  
 N 13,815,358.7355  
 E 2,969,583.3761  
 Delta = 2° 59' 19.3656" (RT)  
 Degree = 0° 24' 22.8710"  
 Tangent = 367.8317  
 Length = 735.4966  
 Radius = 14,100.0000  
 External = 4.7971  
 Long Chord = 735.4132  
 Mid. Ord. = 4.7954  
 P.C. Station 290+32.62  
 P.T. Station 297+68.11

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REV	DATE	BY	DESCRIPTION

2-24-2017

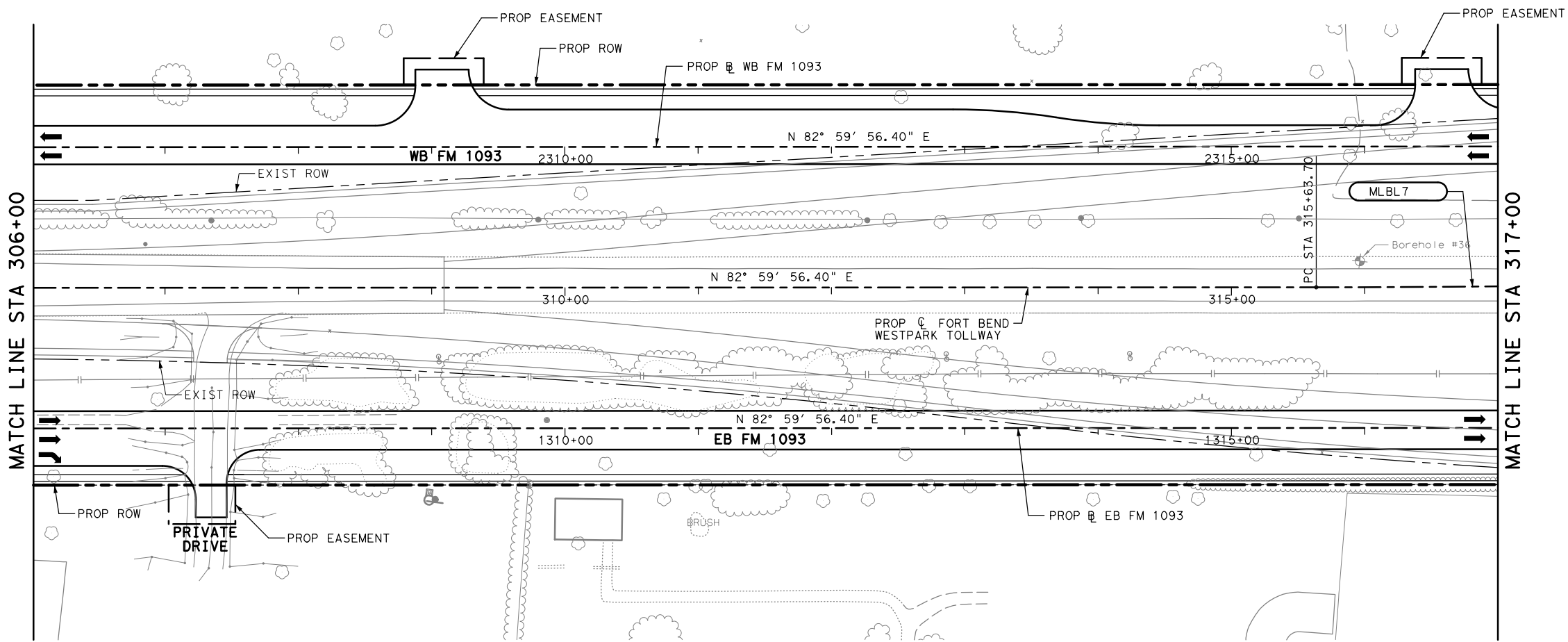
HALFF  
TBPE FIRM # F-312  
 14800 ST. MARY'S LANE, SUITE 160  
 HOUSTON, TEXAS 77079-2943  
 TEL (713) 588-2450 FAX (281) 310-5259

**FM 1093 WESTPARK EXTENSION**  
**PROJECT LAYOUT**  
**STA 284+00 TO 306+00**

SHEET 6 OF 7

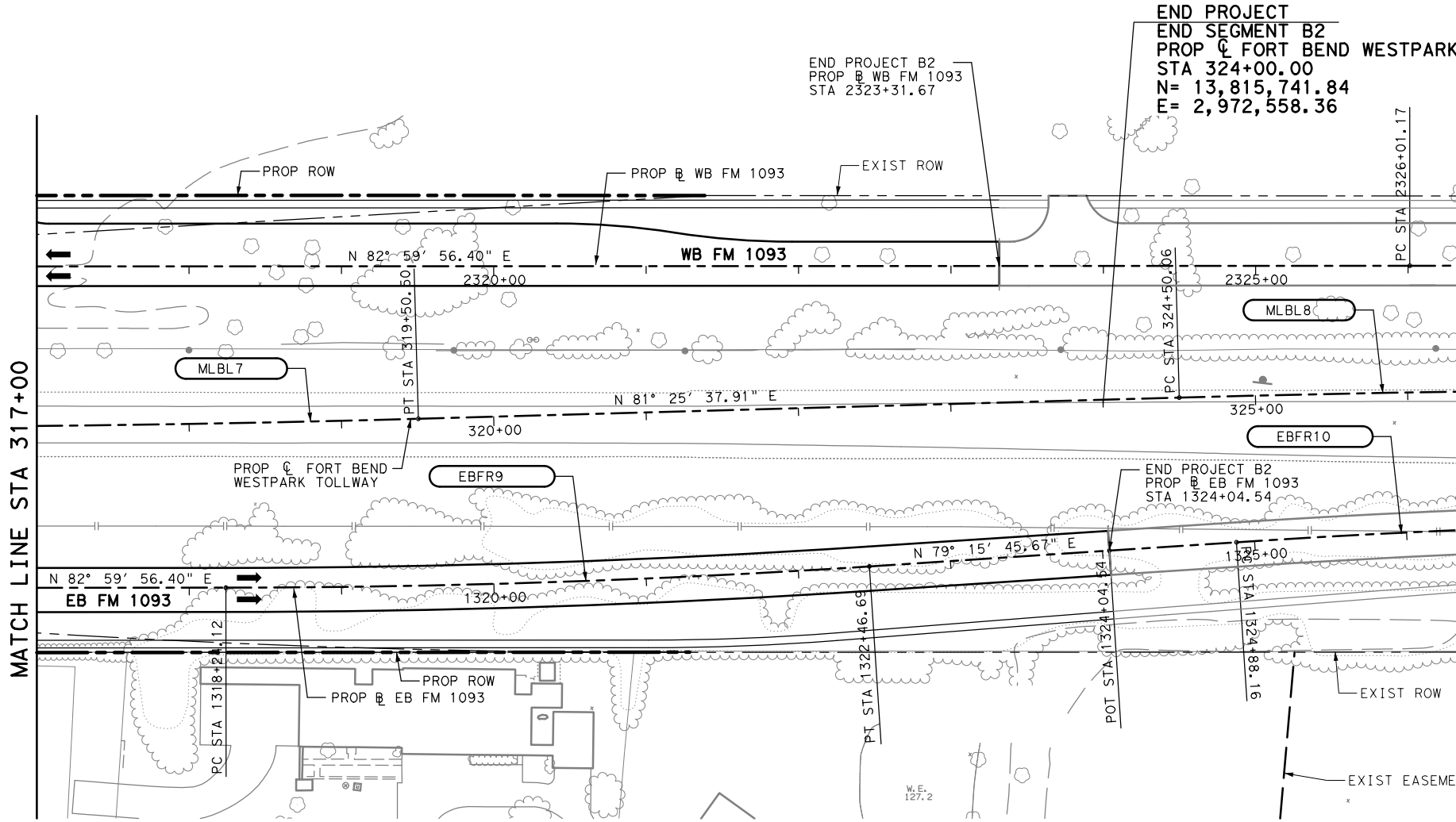
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CHECKED BY: MPB	CHECKED BY: B3				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1009

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DATE: 3/16/2017



LEGEND  
CURVE HORIZONTAL CURVE IDENTIFIER

- NOTES:
1. STATIONING IN TITLE BLOCK, FOR PROJECT LAYOUT IS BASED ON WESTPARK MAINLANE STATIONS.
  2. SEE "HORIZONTAL ALIGNMENT DATA" SHEETS FOR FURTHER INFORMATION.



**END PROJECT**  
**END SEGMENT B2**  
**PROP & FORT BEND WESTPARK TOLLWAY**  
**STA 324+00.00**  
**N= 13,815,741.84**  
**E= 2,972,558.36**

**END PROJECT B2**  
**PROP & WB FM 1093**  
**STA 2323+31.67**

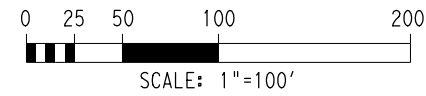
**END PROJECT B2**  
**PROP & EB FM 1093**  
**STA 1324+04.54**

**Curve 02MLBL7**  
P.I. Station 317+57.11  
N 13,815,646.0017 E 2,971,922.6348  
Delta = 1° 34' 18.4939" (LT)  
Degree = 0° 24' 22.8710"  
Tangent = 193.4159  
Length = 386.8074  
Radius = 14,100.0000  
External = 1.3265  
Long Chord = 386.7953  
Mid. Ord. = 1.3264  
P.C. Station 315+63.70  
P.T. Station 319+50.50

**Curve 02MLBL8**  
P.I. Station 326+46.58  
N 13,815,778.5948 E 2,972,802.1892  
Delta = 1° 35' 49.4410" (RT)  
Degree = 0° 24' 22.8710"  
Tangent = 196.5250  
Length = 393.0245  
Radius = 14,100.0000  
External = 1.3695  
Long Chord = 393.0118  
Mid. Ord. = 1.3694  
P.C. Station 324+50.06  
P.T. Station 328+43.08

**Curve 02EBFR9**  
P.I. Station 1320+35.48  
N 13,815,575.2175 E 2,972,211.7848  
Delta = 3° 44' 10.7271" (LT)  
Degree = 0° 53' 03.0989"  
Tangent = 211.3584  
Length = 422.5671  
Radius = 6,480.0000  
External = 3.4460  
Long Chord = 422.4922  
Mid. Ord. = 3.4442  
P.C. Station 1318+24.12  
P.T. Station 1322+46.69

**Curve 02EBFR10**  
P.I. Station 1327+00.95  
N 13,815,699.2268 E 2,972,865.7508  
Delta = 3° 45' 41.6762" (RT)  
Degree = 0° 53' 03.0989"  
Tangent = 212.7886  
Length = 425.4243  
Radius = 6,480.0000  
External = 3.4928  
Long Chord = 425.3479  
Mid. Ord. = 3.4909  
P.C. Station 1324+88.16  
P.T. Station 1329+13.59



REV	DATE	BY	DESCRIPTION

2-24-2017

HALFF  
TBE FIRM # F-312  
14800 ST. MARY'S LANE, SUITE 160  
HOUSTON, TEXAS 77079-2943  
TEL (713) 588-2450 FAX (281) 310-5259

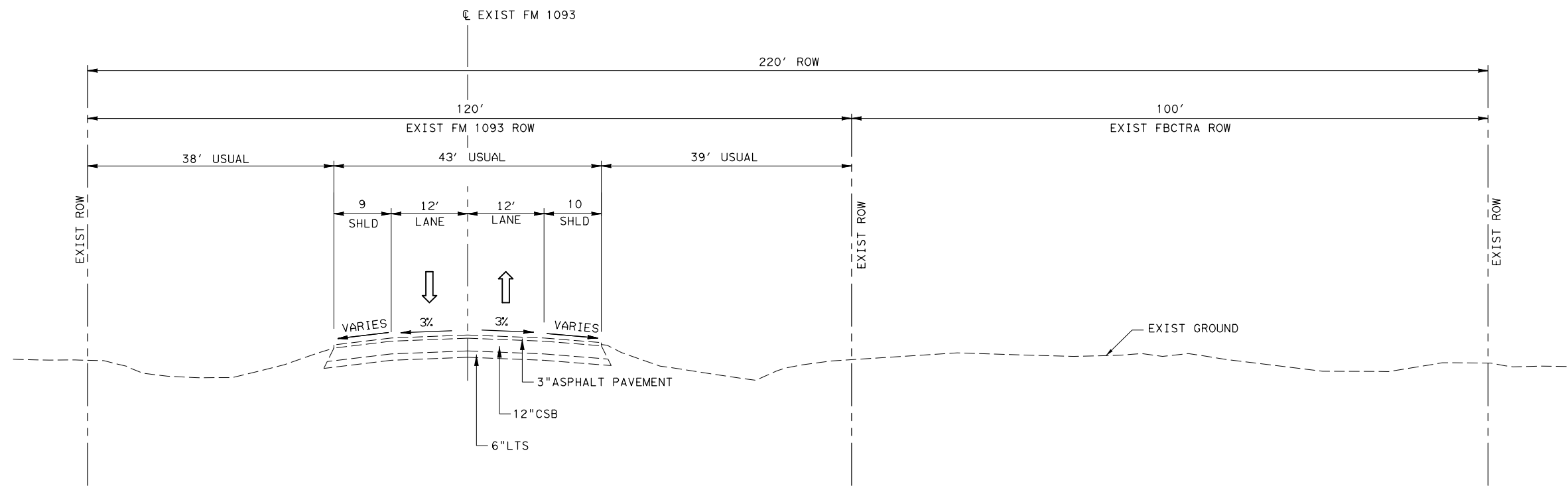
**FM 1093 WESTPARK EXTENSION**  
**PROJECT LAYOUT**  
**STA 306+00 TO END**

SHEET 7 OF 7

DESIGNED BY: BRC	DRAWN BY: LDW				
CHECKED BY: MPB	CHECKED BY: B3				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1010

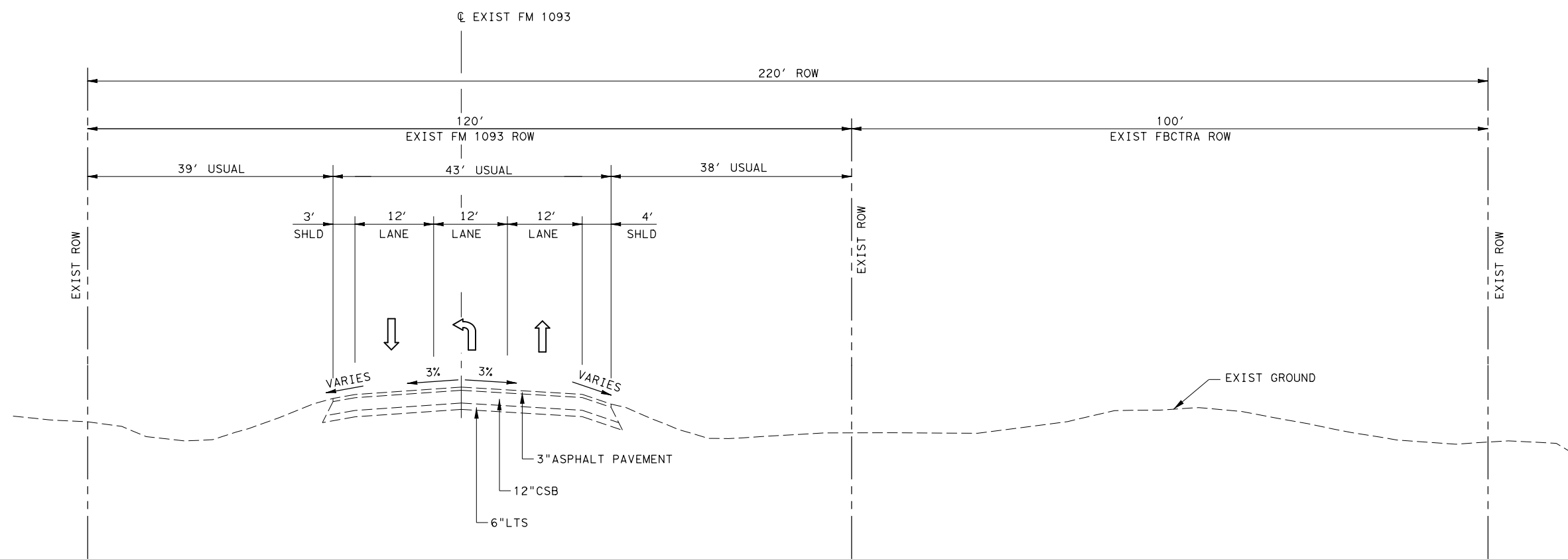
**LEGEND**

- (A) 12" CRCP
- (B) 1" ASB
- (C) 6" CEMENT TREATED BASE
- (D) 6" LTS
- (E) 9" CRCP
- (F) RAIL (TY SSTR) W/DRAIN SLOTS
- (G) RAIL (TY SSTR)
- (H) RAIL (TY SSCB) (42") (TY I)
- (I) METAL BEAM GUARD FENCE
- (J) 2" PVC CONDUIT (SCHD 80)
- (K) MONO CURB (TYPE I)
- (L) MONO CURB (TYPE II)
- (M) 4" RIPRAP (CL B)
- (N) REINFORCED VOLUME
- (O) RETAINING WALL
- (P) DRILL SEED (PERM) (WARM OR COOL)
- (Q) BLOCK SOD (BERMUDA)
- (R) 4" TOPSOIL
- (S) 4" SIDEWALK (5')
- ➔ PROPOSED LANE
- ➔ EXISTING LANE
- (X) TYPICAL SECTION



**EXISTING FM 1093 SECTION**

PROP @ TOLLWAY STA 199+00 TO STA 210+00  
 PROP @ TOLLWAY STA 231+44 TO STA 262+00

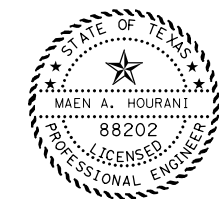


**EXISTING FM 1093 SECTION**

PROP @ TOLLWAY STA 210+00 TO STA 220+20

NOT TO SCALE

REV	DATE	BY	DESCRIPTION



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MAEN A. HOURANI P.E. 88202, ON FEBRUARY 28, 2017

*Maen A. Hourani*



**DANNENBAUM**  
**ENGINEERING CORPORATION**

T.B.P.E. FIRM REGISTRATION #392  
 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

FM 1093 WESTPARK EXTENSION

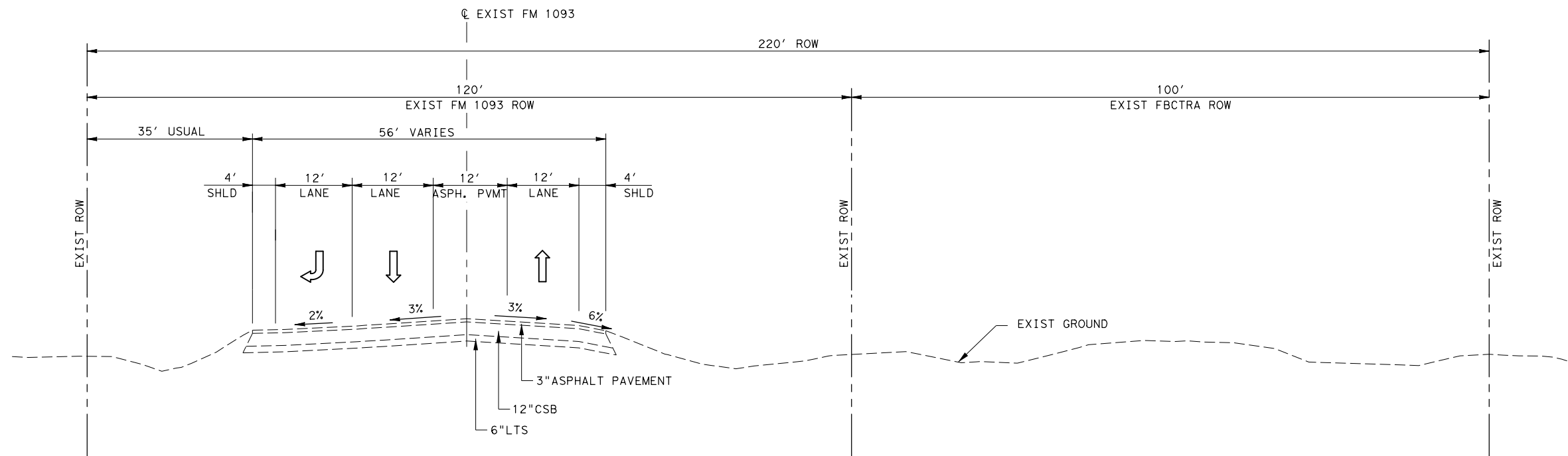
TYPICAL SECTIONS

SHEET 1 OF 11

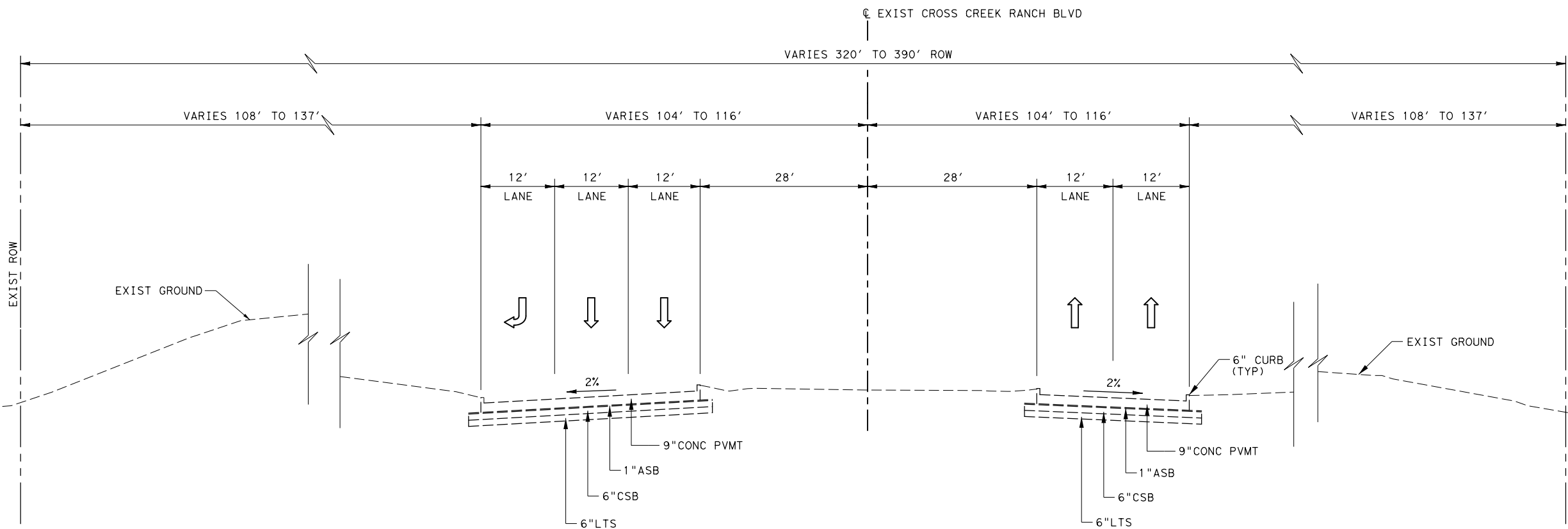
DESIGNED BY: JR	DRAWN BY: JJ				
CHECKED BY: MJK	CHECKED BY: MH				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1011

**LEGEND**

- (A) 12" CRCP
- (B) 1" ASB
- (C) 6" CEMENT TREATED BASE
- (D) 6" LTS
- (E) 9" CRCP
- (F) RAIL (TY SSTR) W/DRAIN SLOTS
- (G) RAIL (TY SSTR)
- (H) RAIL (TY SSCB) (42") (TY I)
- (I) METAL BEAM GUARD FENCE
- (J) 2" PVC CONDUIT (SCHD 80)
- (K) MONO CURB (TYPE I)
- (L) MONO CURB (TYPE II)
- (M) 4" RIPRAP (CL B)
- (N) REINFORCED VOLUME
- (O) RETAINING WALL
- (P) DRILL SEED (PERM) (WARM OR COOL)
- (Q) BLOCK SOD (BERMUDA)
- (R) 4" TOPSOIL
- (S) 4" SIDEWALK (5')
- ➔ PROPOSED LANE
- ➔ EXISTING LANE
- (X) TYPICAL SECTION



**EXISTING FM 1093**  
PROP ☒ TOLLWAY STA 220+20 TO STA 231+44



**EXISTING CROSS CREEK RANCH BLVD SECTION**  
PROP ☒ CCR BLVD STA 5+28 TO STA 6+35

NOT TO SCALE

REV	DATE	BY	DESCRIPTION

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MAEN A. HOURANI P.E. 88202, ON FEBRUARY 28, 2017

**DANNENBAUM**  
**ENGINEERING CORPORATION**  
T.B.P.E. FIRM REGISTRATION #392  
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

**FM 1093 WESTPARK EXTENSION**  
**TYPICAL SECTIONS**

SHEET 2 OF 11

DESIGNED BY: JR	DRAWN BY: JJ				
CHECKED BY: MJK	CHECKED BY: MH				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1012

FILE: G:\1204593-02 Westpark\04 DGN\GENERAL\WIP\Btyp02.dgn  
DATE: 3/7/2017

**LEGEND**

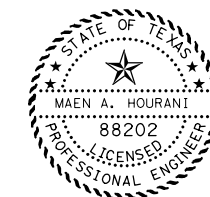
- (A) 12" CRCP
- (B) 1" ASB
- (C) 6" CEMENT TREATED BASE
- (D) 6" LTS
- (E) 9" CRCP
- (F) RAIL (TY SSTR) W/DRAIN SLOTS
- (G) RAIL (TY SSTR)
- (H) RAIL (TY SSCB) (42") (TY I)
- (I) METAL BEAM GUARD FENCE
- (J) 2" PVC CONDUIT (SCHD 80)
- (K) MONO CURB (TYPE I)
- (L) MONO CURB (TYPE II)
- (M) 4" RIPRAP (CL B)
- (N) REINFORCED VOLUME
- (O) RETAINING WALL
- (P) DRILL SEED (PERM) (WARM OR COOL)
- (Q) BLOCK SOD (BERMUDA)
- (R) 4" TOPSOIL
- (S) 4" SIDEWALK (5')
- PROPOSED LANE
- ⇄ EXISTING LANE
- (X) TYPICAL SECTION

**NOTES:**

1. ALL SWALES AND DITCHES SHALL HAVE A FRONT SLOPE AND BACK SLOPE NOT TO EXCEED 3:1 MAX UNLESS NOTED OTHERWISE ON THE PLANS.
2. SEE ROADWAY PLAN & PROFILE SHEETS FOR LIMITS OF SEEDING AND SODDING.
3. SEE ROADWAY PLAN & PROFILE SHEETS FOR CROSS SLOPE TRANSITIONS AT INTERSECTIONS.

NOT TO SCALE

REV	DATE	BY	DESCRIPTION



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MAEN A. HOURANI P.E. 88202, ON FEBRUARY 28, 2017

*Maen A. Hourani*

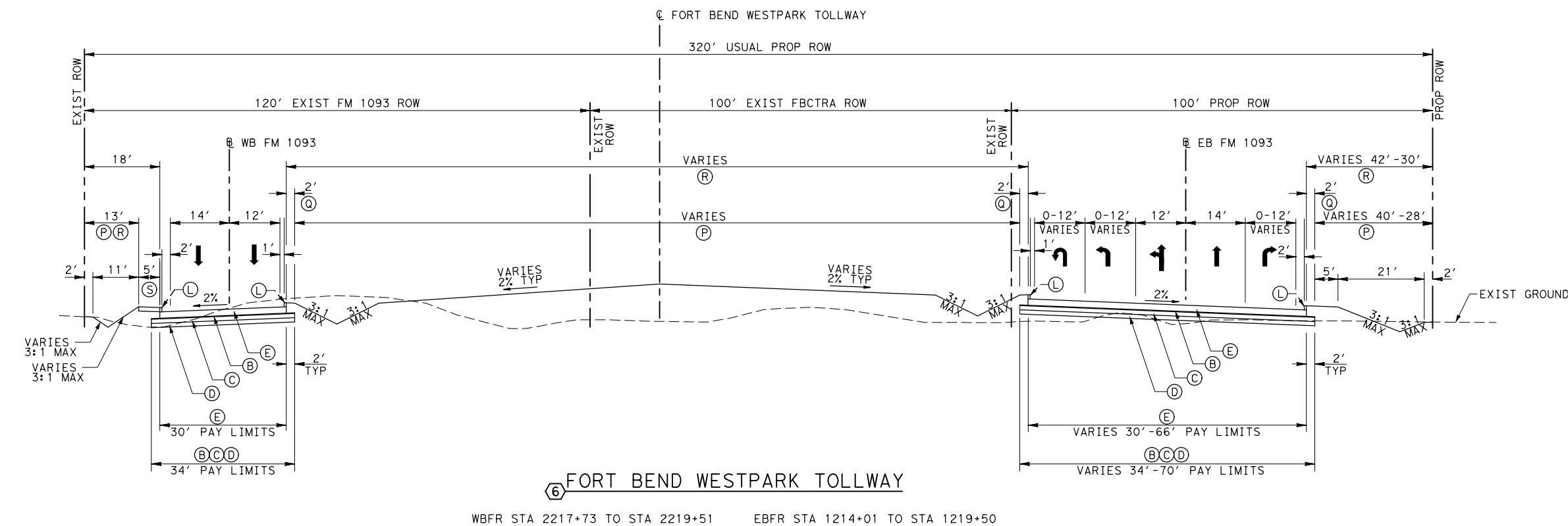
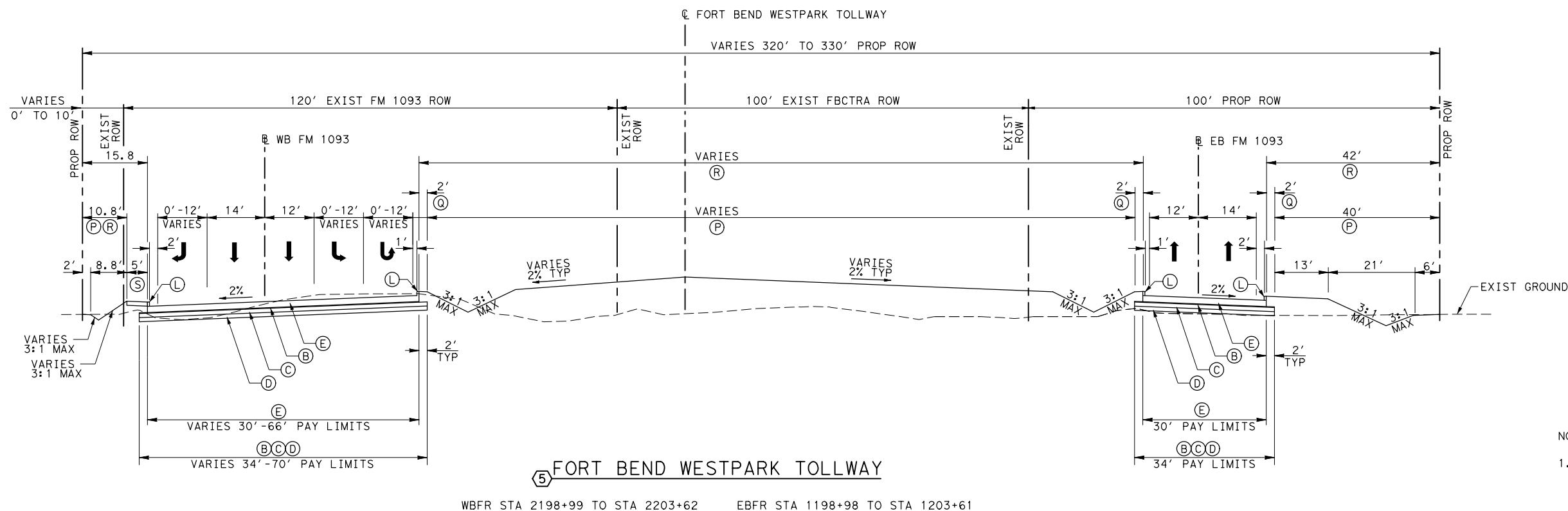


**DANNENBAUM**  
**ENGINEERING CORPORATION**  
 T.B.P.E. FIRM REGISTRATION #392  
 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

**FM 1093 WESTPARK EXTENSION**  
**TYPICAL SECTIONS**

SHEET 3 OF 11

DESIGNED BY:	DRAWN BY:				
CHECKED BY:	CHECKED BY:				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1013



**LEGEND**

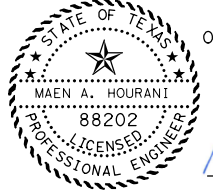
- (A) 12" CRCP
- (B) 1" ASB
- (C) 6" CEMENT TREATED BASE
- (D) 6" LTS
- (E) 9" CRCP
- (F) RAIL (TY SSTR) W/DRAIN SLOTS
- (G) RAIL (TY SSTR)
- (H) RAIL (TY SSCB) (42") (TY I)
- (I) METAL BEAM GUARD FENCE
- (J) 2" PVC CONDUIT (SCHD 80)
- (K) MONO CURB (TYPE I)
- (L) MONO CURB (TYPE II)
- (M) 4" RIPRAP (CL B)
- (N) REINFORCED VOLUME
- (O) RETAINING WALL
- (P) DRILL SEED (PERM) (WARM OR COOL)
- (Q) BLOCK SOD (BERMUDA)
- (R) 4" TOPSOIL
- (S) 4" SIDEWALK (5')
- PROPOSED LANE
- ⇨ EXISTING LANE
- (X) TYPICAL SECTION

**NOTES:**




1. ALL SWALES AND DITCHES SHALL HAVE A FRONT SLOPE AND BACK SLOPE NOT TO EXCEED 3:1 MAX UNLESS NOTED OTHERWISE ON THE PLANS.
2. SEE ROADWAY PLAN & PROFILE SHEETS FOR LIMITS OF SEEDING AND SODDING.
3. SEE ROADWAY PLAN & PROFILE SHEETS FOR CROSS SLOPE TRANSITIONS AT INTERSECTIONS.

NOT TO SCALE

REV	DATE	BY	DESCRIPTION



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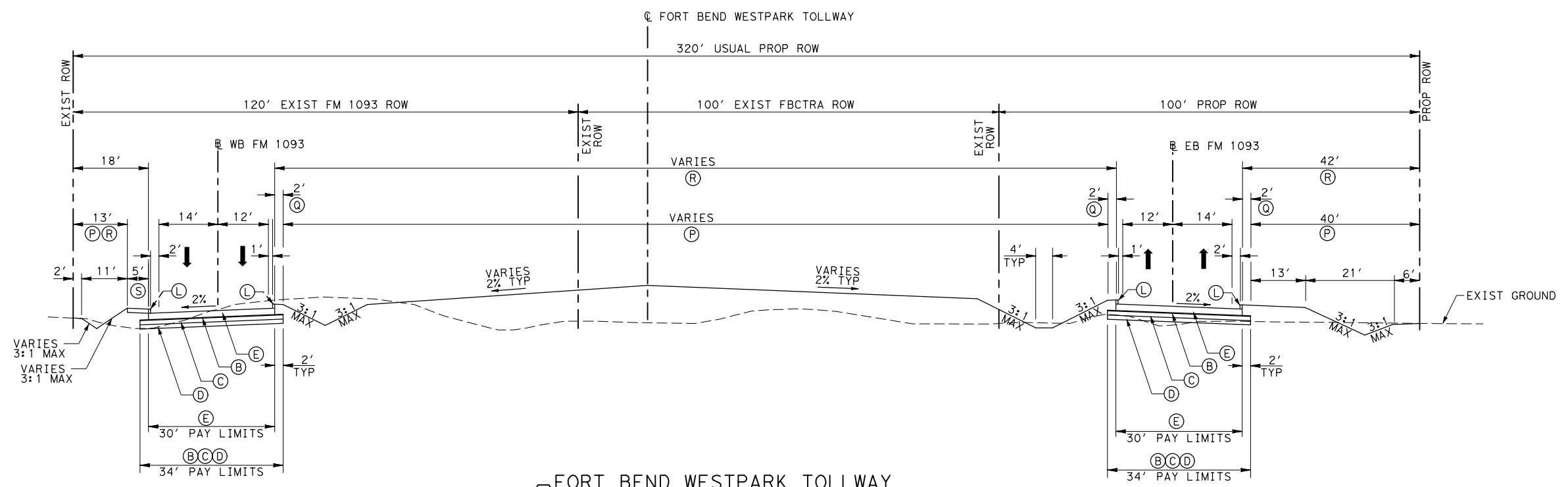




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**FM 1093 WESTPARK EXTENSION**  
TYPICAL SECTIONS

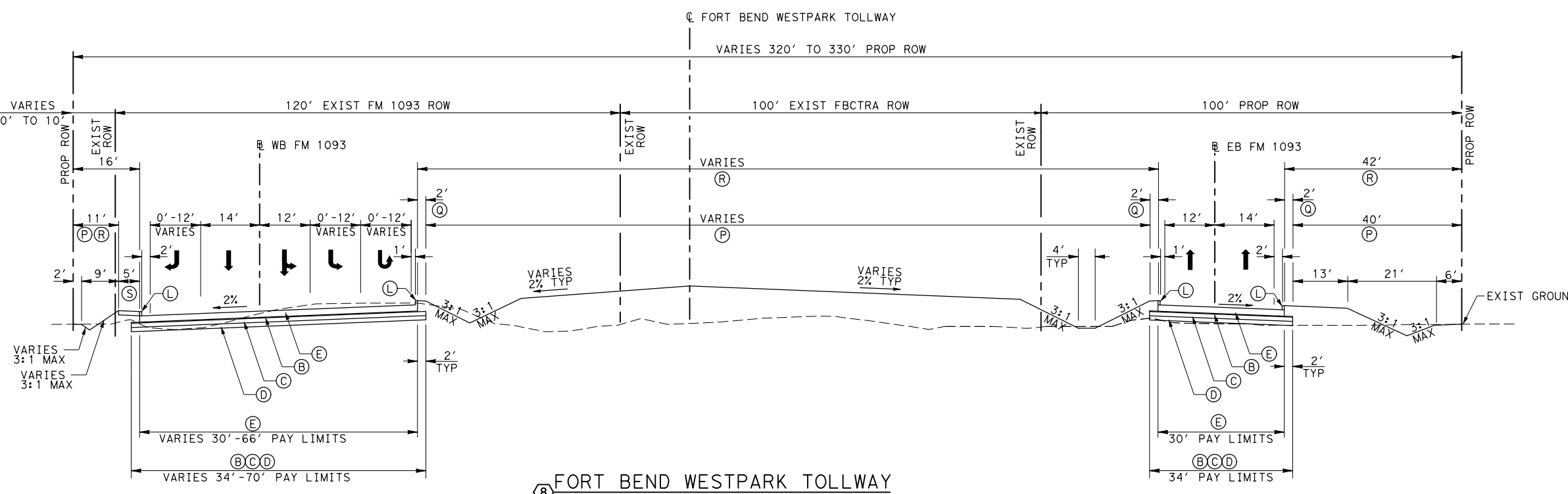
SHEET 4 OF 11

DESIGNED BY:		DRAWN BY:	
CHECKED BY:		CHECKED BY:	
COUNTY	CONT	SEC	JOB
FORT BEND	0543	02	063, ETC
HWY NO.		SHEET NO.	
FM 1093		1014	



**7 FORT BEND WESTPARK TOLLWAY**

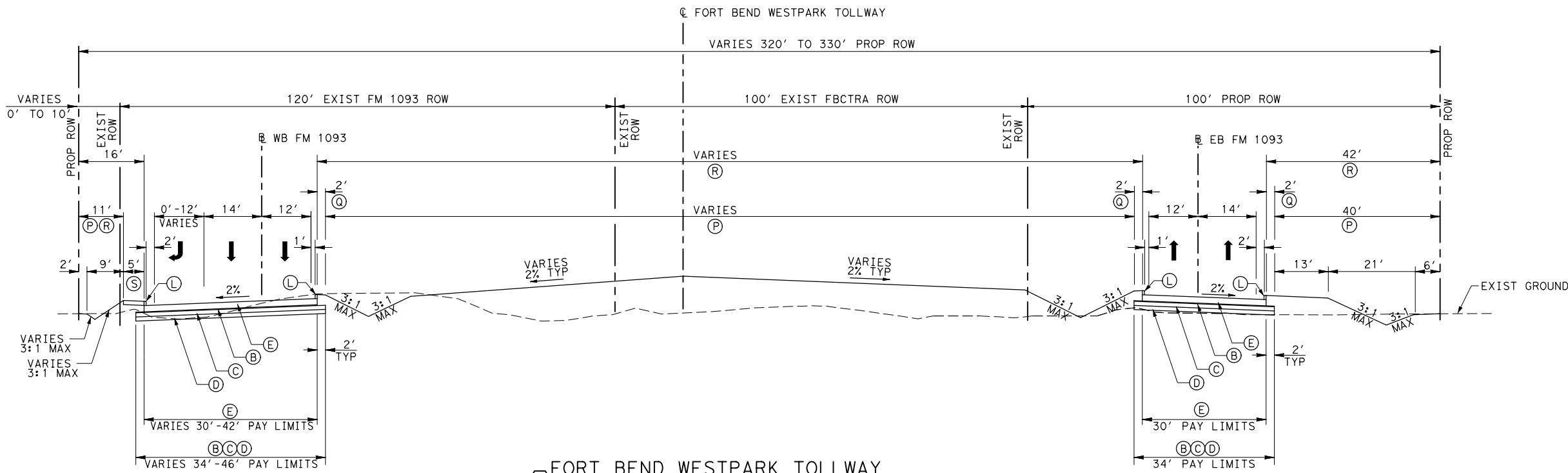
WBFR STA 2203+62 TO STA 2205+09	EBFR STA 1203+61 TO STA 1205+09
WBFR STA 2211+04 TO STA 2211+67	EBFR STA 1211+04 TO STA 1211+67
WBFR STA 2226+18 TO STA 2227+74	EBFR STA 1226+18 TO STA 1227+74
WBFR STA 2233+44 TO STA 2235+41	EBFR STA 1233+43 TO STA 1235+41
WBFR STA 2241+36 TO STA 2242+97	EBFR STA 1241+36 TO STA 1242+97
WBFR STA 2247+82 TO STA 2255+22	EBFR STA 1247+82 TO STA 1255+21
WBFR STA 2260+36 TO STA 2261+99	EBFR STA 1260+36 TO STA 1261+98



**8 FORT BEND WESTPARK TOLLWAY**

WBFR STA 2219+51 TO STA 2226+18	EBFR STA 1219+50 TO STA 1226+18
---------------------------------	---------------------------------

FILE: G:\V20\4593-02 Westpark\04 DGN\GENERAL\WPBtypRev.dgn  
DATE: 3/7/2017



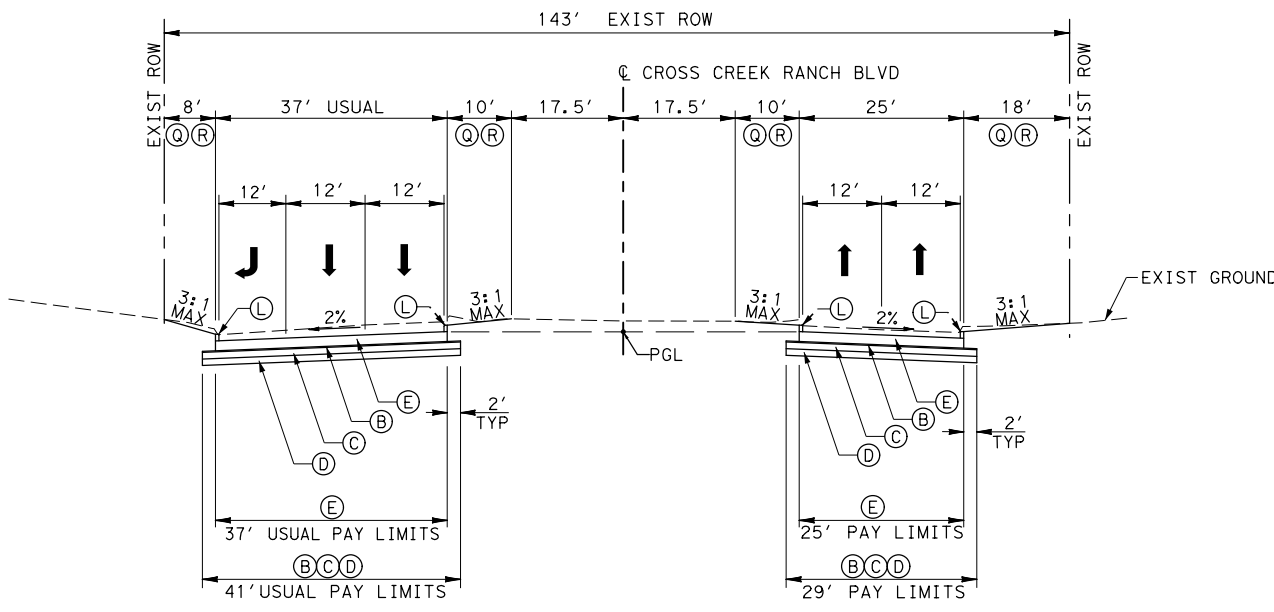
9 FORT BEND WESTPARK TOLLWAY

WBFR STA 2205+09 TO STA 2211+04	EBFR STA 1205+09 TO STA 1211+04
WBFR STA 2211+67 TO STA 2217+73	EBFR STA 1211+67 TO STA 1214+01
WBFR STA 2227+74 TO STA 2233+44	EBFR STA 1227+74 TO STA 1233+43
WBFR STA 2235+41 TO STA 2241+36	EBFR STA 1235+41 TO STA 1241+36
WBFR STA 2242+97 TO STA 2247+82	EBFR STA 1242+97 TO STA 1247+82
WBFR STA 2255+22 TO STA 2260+36	EBFR STA 1255+21 TO STA 1260+36

- LEGEND**
- (A) 12" CRCP
  - (B) 1" ASB
  - (C) 6" CEMENT TREATED BASE
  - (D) 6" LTS
  - (E) 9" CRCP
  - (F) RAIL (TY SSTR) W/DRAIN SLOTS
  - (G) RAIL (TY SSTR)
  - (H) RAIL (TY SSCB) (42") (TY I)
  - (I) METAL BEAM GUARD FENCE
  - (J) 2" PVC CONDUIT (SCHD 80)
  - (K) MONO CURB (TYPE I)
  - (L) MONO CURB (TYPE II)
  - (M) 4" RIPRAP (CL B)
  - (N) REINFORCED VOLUME
  - (O) RETAINING WALL
  - (P) DRILL SEED (PERM) (WARM OR COOL)
  - (Q) BLOCK SOD (BERMUDA)
  - (R) 4" TOPSOIL
  - (S) 4" SIDEWALK (5')
  - PROPOSED LANE
  - EXISTING LANE
  - (X) TYPICAL SECTION

NOTES:

1. ALL SWALES AND DITCHES SHALL HAVE A FRONT SLOPE AND BACK SLOPE NOT TO EXCEED 3:1 MAX UNLESS NOTED OTHERWISE ON THE PLANS.
2. SEE ROADWAY PLAN & PROFILE SHEETS FOR LIMITS OF SEEDING AND SODDING.
3. SEE ROADWAY PLAN & PROFILE SHEETS FOR CROSS SLOPE TRANSITIONS AT INTERSECTIONS.



10 CROSS CREEK BOULEVARD

STA 5+41 TO STA 6+00

NOT TO SCALE

REV	DATE	BY	DESCRIPTION

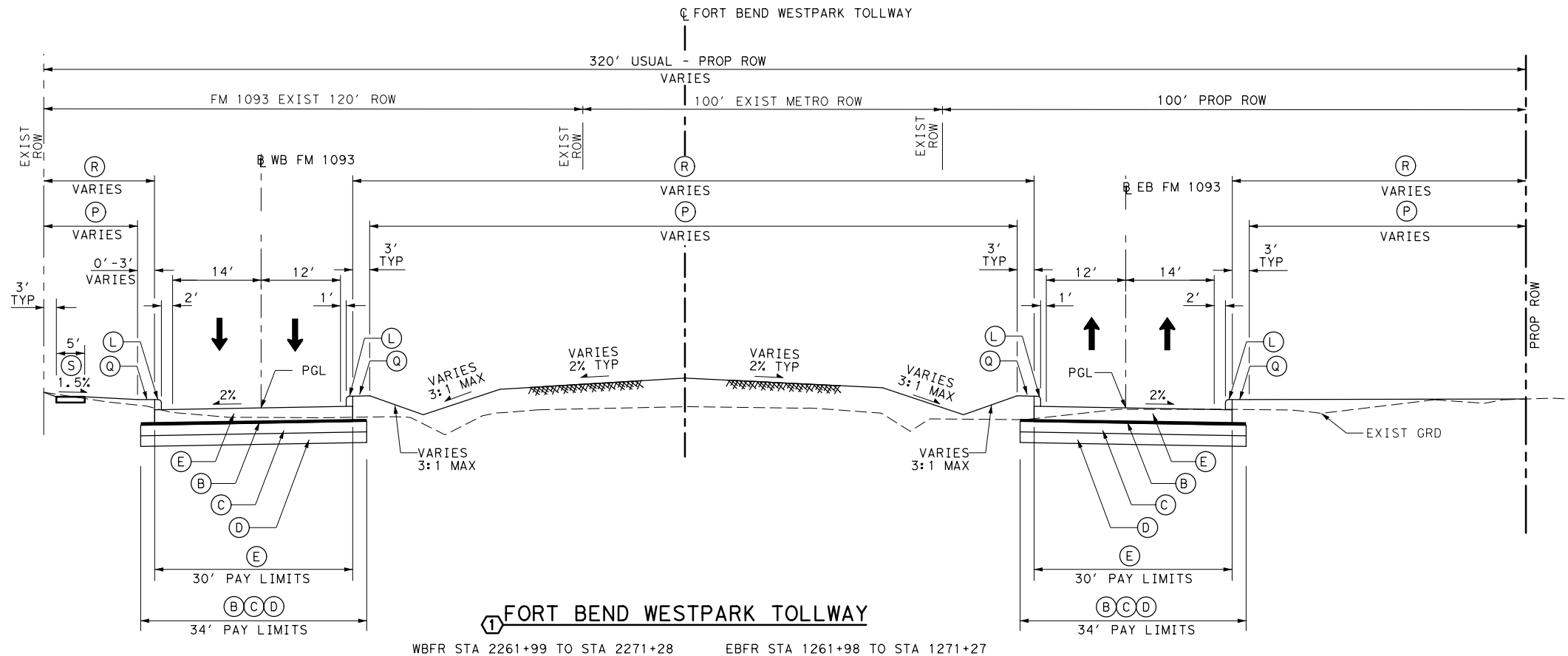
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ENGINEERING CORPORATION  
T.B.P.E. FIRM REGISTRATION #392  
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

FM 1093 WESTPARK EXTENSION  
TYPICAL SECTIONS

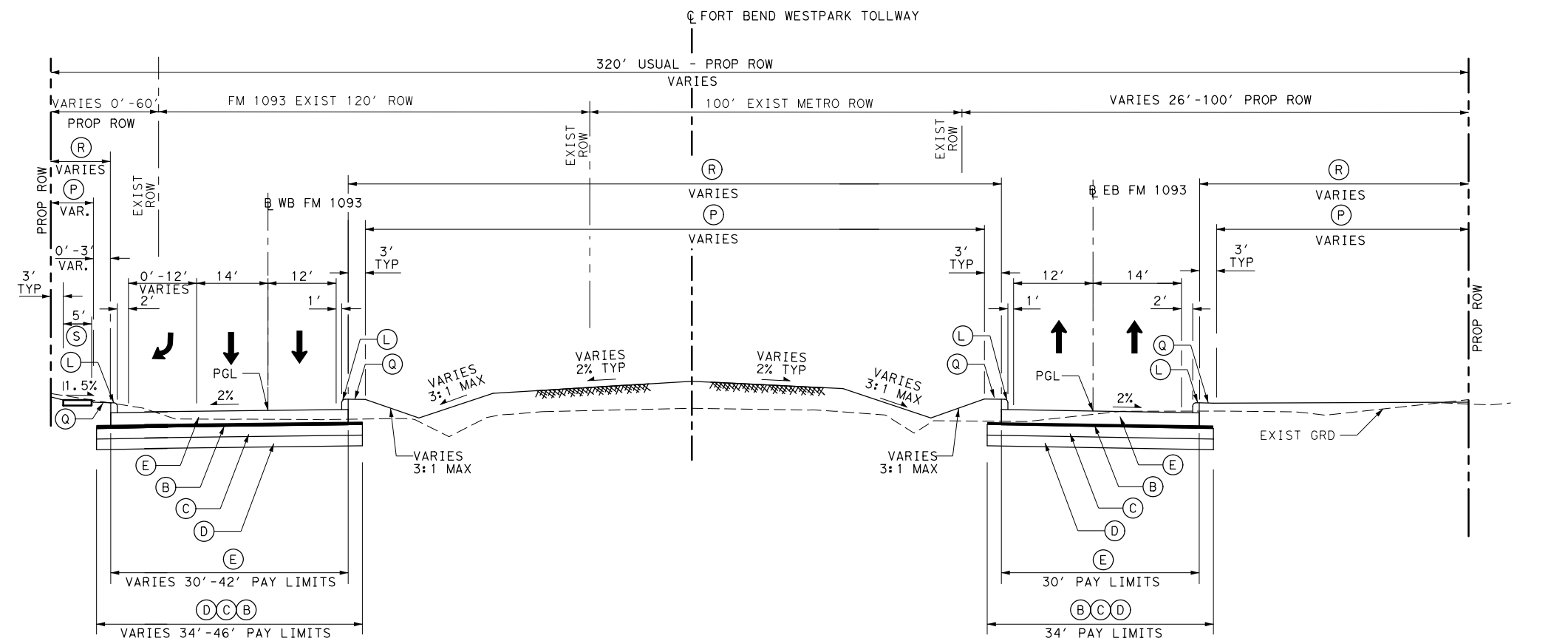
SHEET 5 OF 11

DESIGNED BY:	DRAWN BY:				
CHECKED BY:	CHECKED BY:				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1015



**1 FORT BEND WESTPARK TOLLWAY**  
WBFR STA 2261+99 TO STA 2271+28 EBFR STA 1261+98 TO STA 1271+27

- LEGEND**
- (A) 12" CRCP
  - (B) 1" ASB
  - (C) 6" CEMENT TREATED BASE
  - (D) 6" LTS
  - (E) 9" CRCP
  - (F) RAIL (TY SSTR) W/DRAIN SLOTS
  - (G) RAIL (TY SSTR)
  - (H) RAIL (TY SSCB) (42") (TY I)
  - (I) METAL BEAM GUARD FENCE
  - (J) 2" PVC CONDUIT (SCHD 80)
  - (K) MONO CURB (TYPE I)
  - (L) MONO CURB (TYPE II)
  - (M) 4" RIPRAP (CL B)
  - (N) REINFORCED VOLUME
  - (O) RETAINING WALL
  - (P) DRILL SEED (PERM) (WARM OR COOL)
  - (Q) BLOCK SOD (BERMUDA)
  - (R) 4" TOPSOIL
  - (S) 4" SIDEWALK (5')
  - (T) 3" HMAC
  - (U) 9" ASB
  - (V) PRIME COAT
  - (W) RAIL (PR1)
  - PROPOSED LANE
  - ← EXISTING LANE
  - (X) TYPICAL SECTION
- NOTES:**
- ALL SWALES AND DITCHES SHALL HAVE A FRONT SLOPE AND BACK SLOPE NOT TO EXCEED 3:1 MAX. UNLESS NOTED OTHERWISE ON THE PLANS.



**2 FORT BEND WESTPARK TOLLWAY**  
WBFR STA 2271+28 TO STA 2277+28 EBFR STA 1271+27 TO STA 1274+98  
WBFR STA 2287+62 TO STA 2293+29 EBFR STA 1288+28 TO STA 1293+45

REV	DATE	BY	DESCRIPTION

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2-24-2017

**MICHAEL P. BARBIER**  
107133  
REGISTERED PROFESSIONAL ENGINEER

*Michael P. Barbier*

FORT BEND COUNTY  
TOLL ROAD AUTHORITY

STATE OF TEXAS  
COUNTY OF FORT BEND

Texas Department of Transportation

**HALFF**  
TBPB FIRM # F-312  
14800 ST. MARY'S LANE, SUITE 160  
HOUSTON, TEXAS 77079-2943  
TEL (713) 588-2450 FAX (281) 310-5259

**FM 1093 WESTPARK EXTENSION**  
**TYPICAL SECTIONS**

SHEET 6 OF 11

DESIGNED BY:	BRC	DRAWN BY:	LDW		
CHECKED BY:	MPB	CHECKED BY:	B3		
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1016

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DATE: 3/6/2017

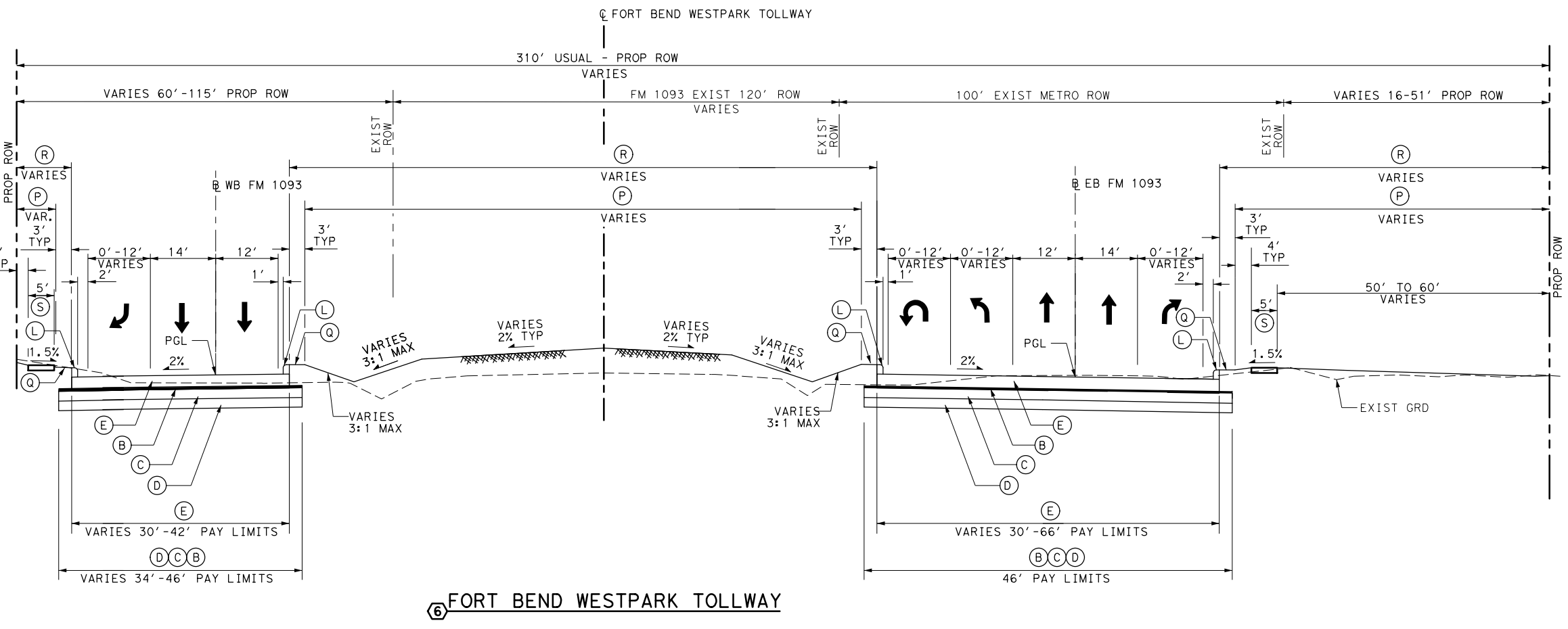
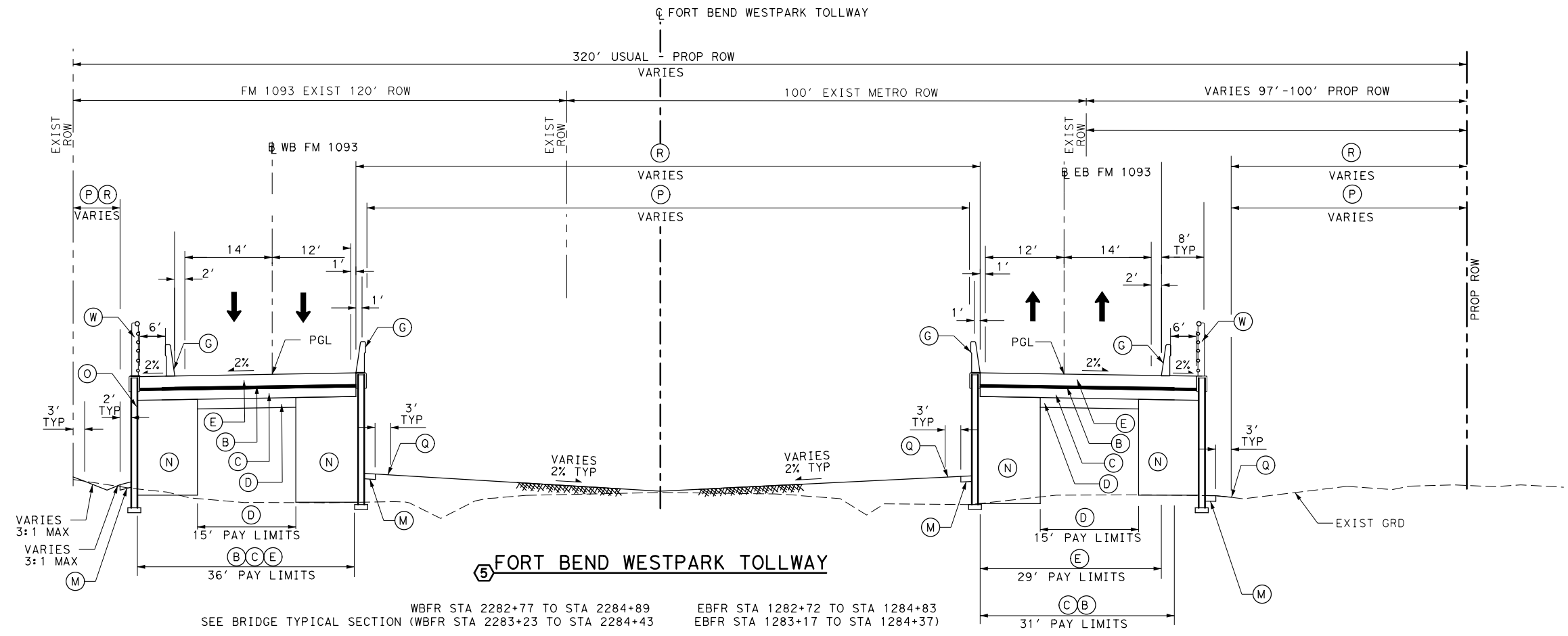


LEGEND

- (A) 12" CRCP
- (B) 1" ASB
- (C) 6" CEMENT TREATED BASE
- (D) 6" LTS
- (E) 9" CRCP
- (F) RAIL (TY SSTR) W/DRAIN SLOTS
- (G) RAIL (TY SSTR)
- (H) RAIL (TY SSCB) (42") (TY I)
- (I) METAL BEAM GUARD FENCE
- (J) 2" PVC CONDUIT (SCHD 80)
- (K) MONO CURB (TYPE I)
- (L) MONO CURB (TYPE II)
- (M) 4" RIPRAP (CL B)
- (N) REINFORCED VOLUME
- (O) RETAINING WALL
- (P) DRILL SEED (PERM) (WARM OR COOL)
- (Q) BLOCK SOD (BERMUDA)
- (R) 4" TOPSOIL
- (S) 4" SIDEWALK (5')
- (T) 3" HMAC
- (U) 9" ASB
- (V) PRIME COAT
- (W) RAIL (PR1)
- ➔ PROPOSED LANE
- ➔ EXISTING LANE
- (X) TYPICAL SECTION

NOTES:

1. ALL SWALES AND DITCHES SHALL HAVE A FRONT SLOPE AND BACK SLOPE NOT TO EXCEED 3:1 MAX. UNLESS NOTED OTHERWISE ON THE PLANS.



REV	DATE	BY	DESCRIPTION

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2-24-2017

*Michael P. Barbier*

MICHAEL P. BARBIER  
107133  
REGISTERED PROFESSIONAL ENGINEER

FORT BEND COUNTY  
TOLL ROAD AUTHORITY

STATE OF TEXAS  
FORT BEND COUNTY

Texas Department of Transportation

**HALFF**  
TBE FIRM # F-312  
14800 ST. MARY'S LANE, SUITE 160  
HOUSTON, TEXAS 77079-2943  
TEL (713) 588-2450 FAX (281) 310-5259

**FM 1093 WESTPARK EXTENSION**  
**TYPICAL SECTIONS**

SHEET 8 OF 11

DESIGNED BY:	BRC	DRAWN BY:	LDW		
CHECKED BY:	MPB	CHECKED BY:	B3		
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1018

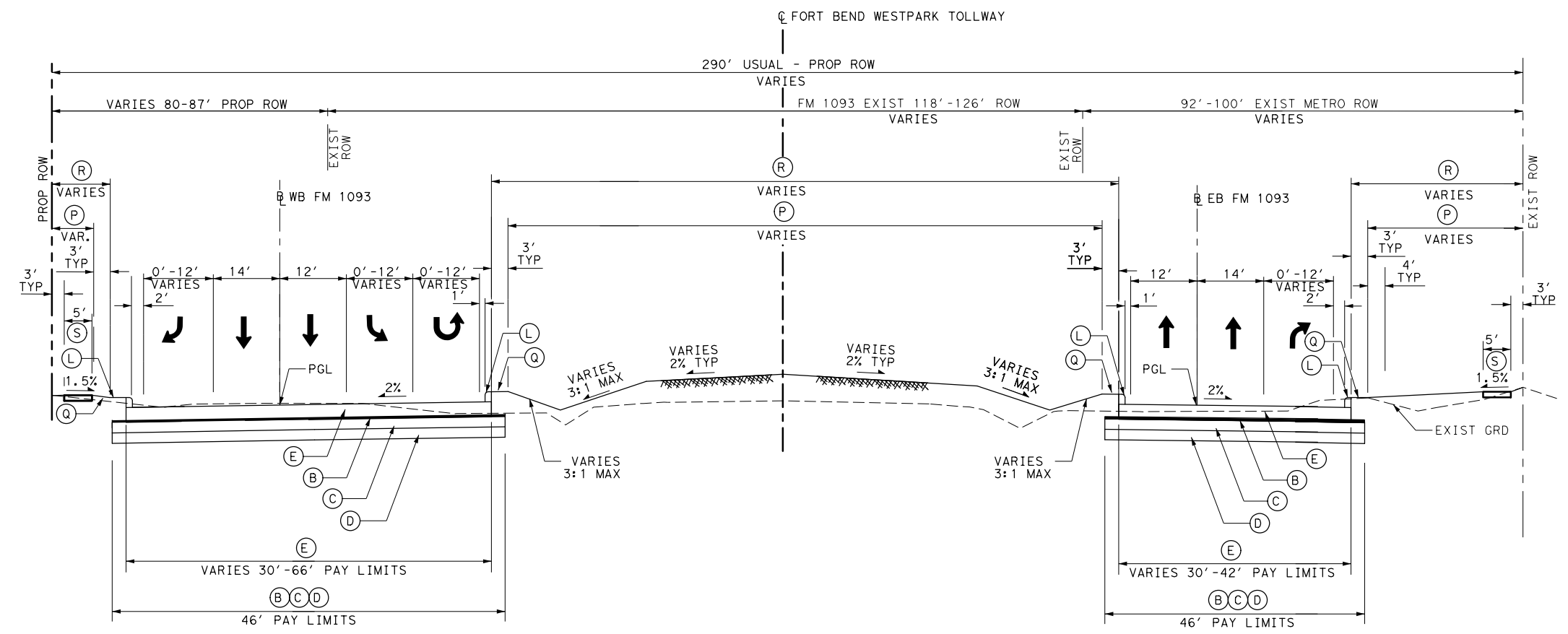
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DATE: 3/16/2017

LEGEND

- (A) 12" CRCP
- (B) 1" ASB
- (C) 6" CEMENT TREATED BASE
- (D) 6" LTS
- (E) 9" CRCP
- (F) RAIL (TY SSTR) W/DRAIN SLOTS
- (G) RAIL (TY SSTR)
- (H) RAIL (TY SSCB) (42") (TY I)
- (I) METAL BEAM GUARD FENCE
- (J) 2" PVC CONDUIT (SCHD 80)
- (K) MONO CURB (TYPE I)
- (L) MONO CURB (TYPE II)
- (M) 4" RIPRAP (CL B)
- (N) REINFORCED VOLUME
- (O) RETAINING WALL
- (P) DRILL SEED (PERM) (WARM OR COOL)
- (Q) BLOCK SOD (BERMUDA)
- (R) 4" TOPSOIL
- (S) 4" SIDEWALK (5')
- (T) 3" HMAC
- (U) 9" ASB
- (V) PRIME COAT
- (W) RAIL (PR1)
- PROPOSED LANE
- EXISTING LANE
- ⊗ TYPICAL SECTION

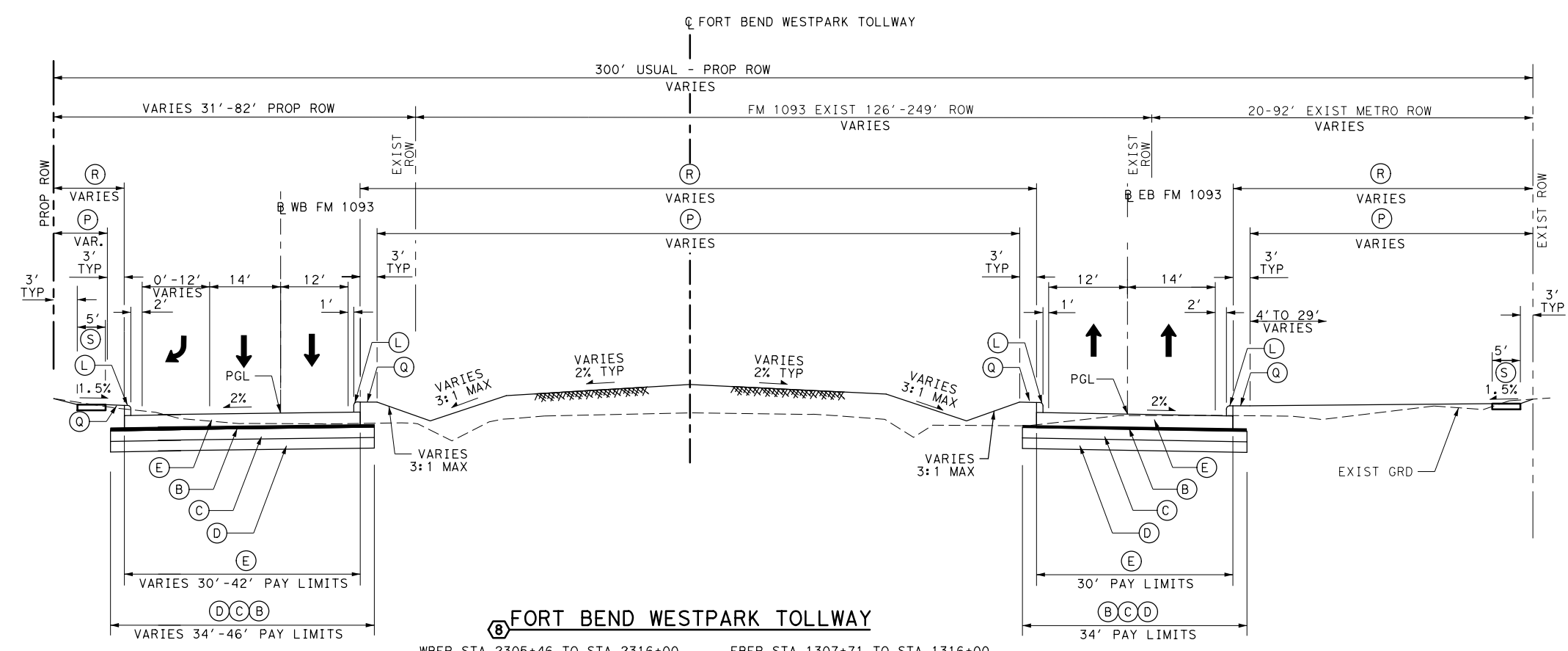
NOTES:

1. ALL SWALES AND DITCHES SHALL HAVE A FRONT SLOPE AND BACK SLOPE NOT TO EXCEED 3:1 MAX. UNLESS NOTED OTHERWISE ON THE PLANS.



7 FORT BEND WESTPARK TOLLWAY

WBFR STA 2299+51 TO STA 2305+46 EBFR STA 1299+33 TO STA 1307+71



8 FORT BEND WESTPARK TOLLWAY

WBFR STA 2305+46 TO STA 2316+00 EBFR STA 1307+71 TO STA 1316+00

REV	DATE	BY	DESCRIPTION

2-24-2017

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TBPE FIRM # F-312  
 14800 ST. MARY'S LANE, SUITE 160  
 HOUSTON, TEXAS 77079-2943  
 TEL (713) 588-2450 FAX (281) 310-5259

**FM 1093 WESTPARK EXTENSION**  
**TYPICAL SECTIONS**

SHEET 9 OF 11

DESIGNED BY: BRC	DRAWN BY: LDW				
CHECKED BY: MPB	CHECKED BY: B3				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1019

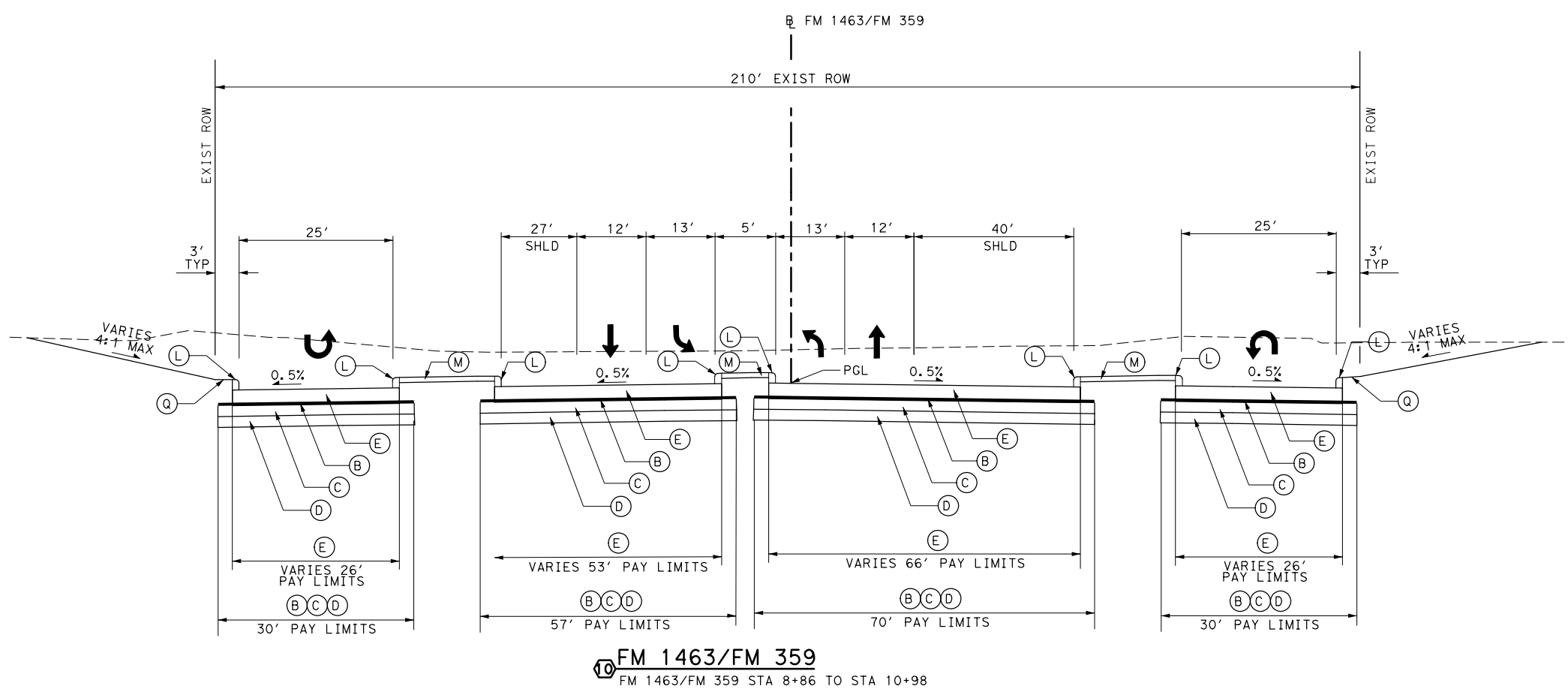
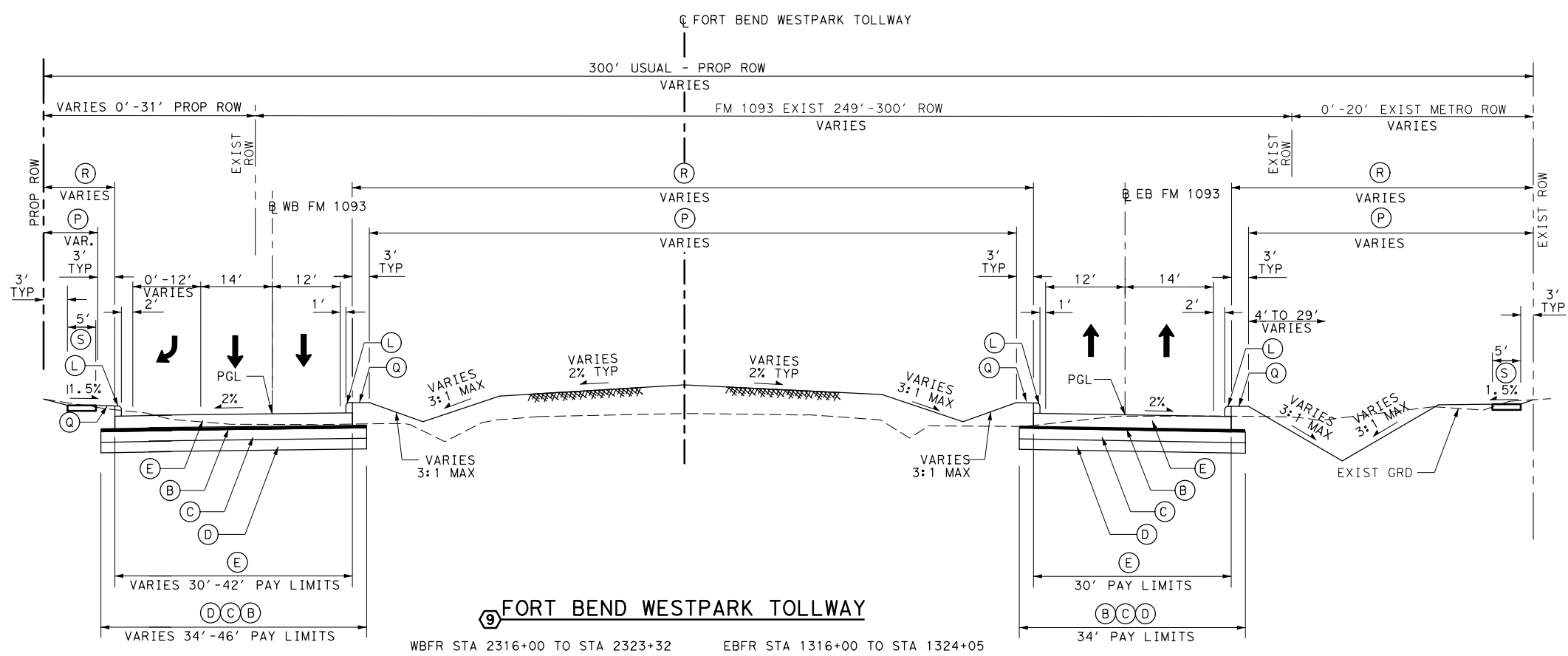
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 DATE: 3/16/2017

LEGEND

- (A) 12" CRCP
- (B) 1" ASB
- (C) 6" CEMENT TREATED BASE
- (D) 6" LTS
- (E) 9" CRCP
- (F) RAIL (TY SSTR) W/DRAIN SLOTS
- (G) RAIL (TY SSTR)
- (H) RAIL (TY SSCB) (42") (TY I)
- (I) METAL BEAM GUARD FENCE
- (J) 2" PVC CONDUIT (SCHD 80)
- (K) MONO CURB (TYPE I)
- (L) MONO CURB (TYPE II)
- (M) 4" RIPRAP (CL B)
- (N) REINFORCED VOLUME
- (O) RETAINING WALL
- (P) DRILL SEED (PERM) (WARM OR COOL)
- (Q) BLOCK SOD (BERMUDA)
- (R) 4" TOPSOIL
- (S) 4" SIDEWALK (5')
- (T) 3" HMAC
- (U) 9" ASB
- (V) PRIME COAT
- (W) RAIL (PR1)
- PROPOSED LANE
- ← EXISTING LANE
- ⊞ TYPICAL SECTION

NOTES:

1. ALL SWALES AND DITCHES SHALL HAVE A FRONT SLOPE AND BACK SLOPE NOT TO EXCEED 3:1 MAX. UNLESS NOTED OTHERWISE ON THE PLANS.



REV	DATE	BY	DESCRIPTION

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2-24-2017

*Michael P. Barbier*

**HALFF**

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HOUSTON, TEXAS 77079-2943  
TEL (713) 588-2450 FAX (281) 310-5259

**FM 1093 WESTPARK EXTENSION**

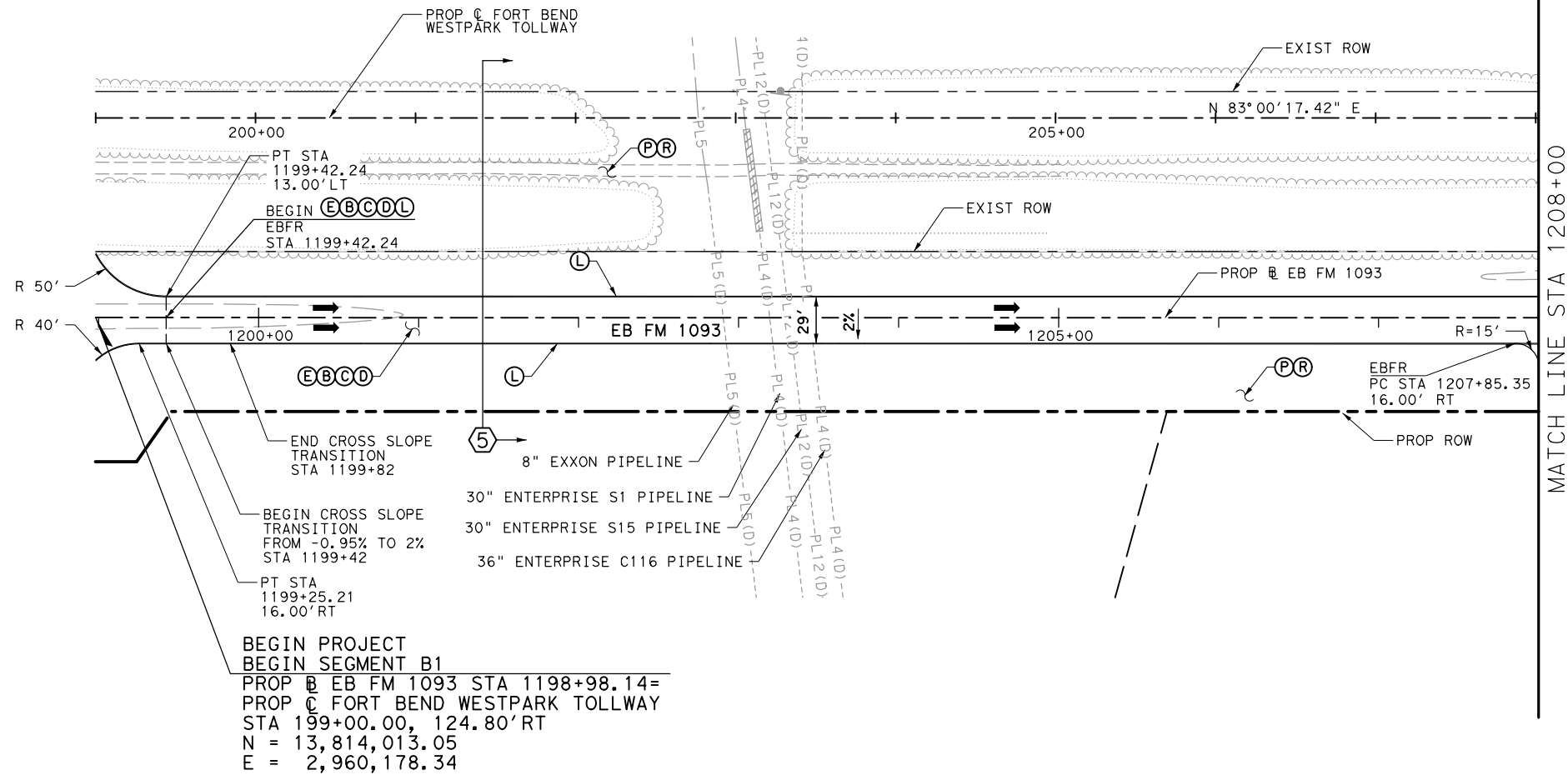
**TYPICAL SECTIONS**

SHEET 10 OF 11

DESIGNED BY: BRC	DRAWN BY: LDW				
CHECKED BY: MPB	CHECKED BY: B3				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1020

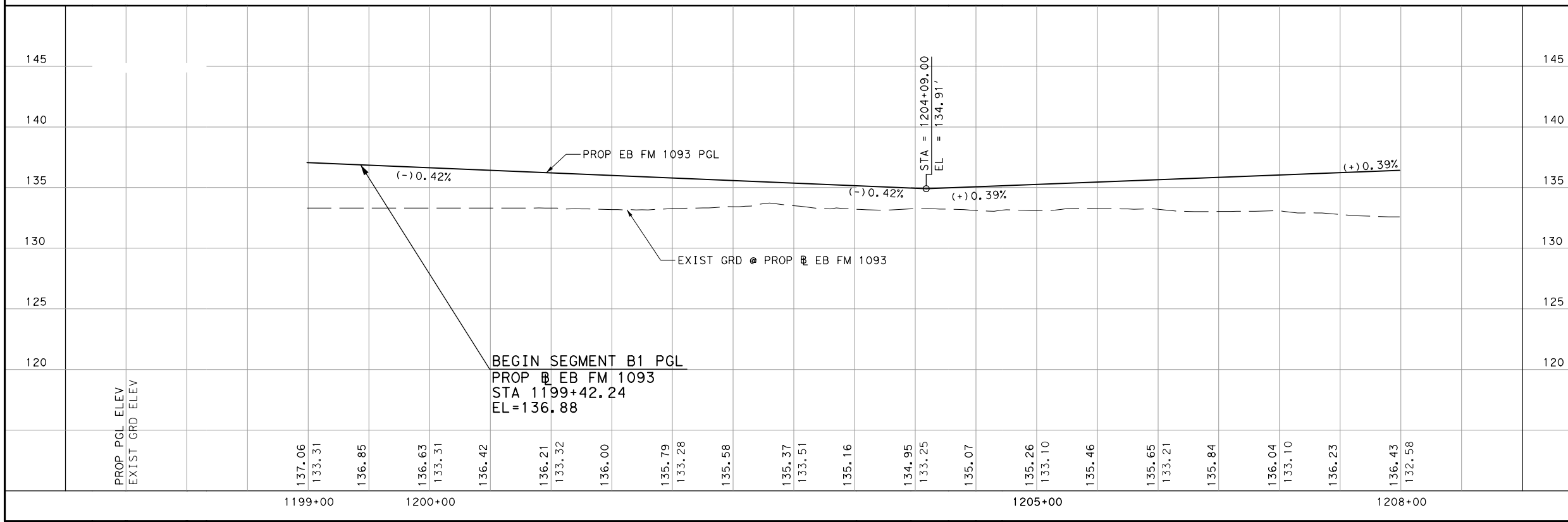
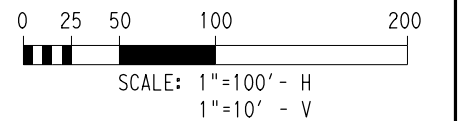
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 DATE: 3/16/2017

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DATE: 3/7/2017



- LEGEND**
- (A) 12" CRCP
  - (B) 1" ASB
  - (C) 6" CEMENT TREATED BASE
  - (D) 6" LTS
  - (E) 9" CRCP
  - (F) RAIL (TY SSTR) W/DRAIN SLOTS
  - (G) RAIL (TY SSTR)
  - (H) RAIL (TY SSCB) (42") (TY I)
  - (I) METAL BEAM GUARD FENCE
  - (J) 2" PVC CONDUIT (SCHD 80)
  - (K) MONO CURB (TYPE I)
  - (L) MONO CURB (TYPE II)
  - (M) 4" RIPRAP (CL B)
  - (N) REINFORCED VOLUME
  - (O) RETAINING WALL
  - (P) DRILL SEED (PERM) (WARM OR COOL)
  - (Q) BLOCK SOD (BERMUDA)
  - (R) 4" TOPSOIL
  - (S) 4" SIDEWALK (5')
  - PROPOSED LANE
  - EXISTING LANE
  - (X) TYPICAL SECTION

- NOTES:**
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
  - SEE TYPICAL SECTION SHEETS FOR LIMITS OF CONSTRUCTION.



REV	DATE	BY	DESCRIPTION

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MAEN A. HOURANI P.E. 88202, ON FEBRUARY 28, 2017

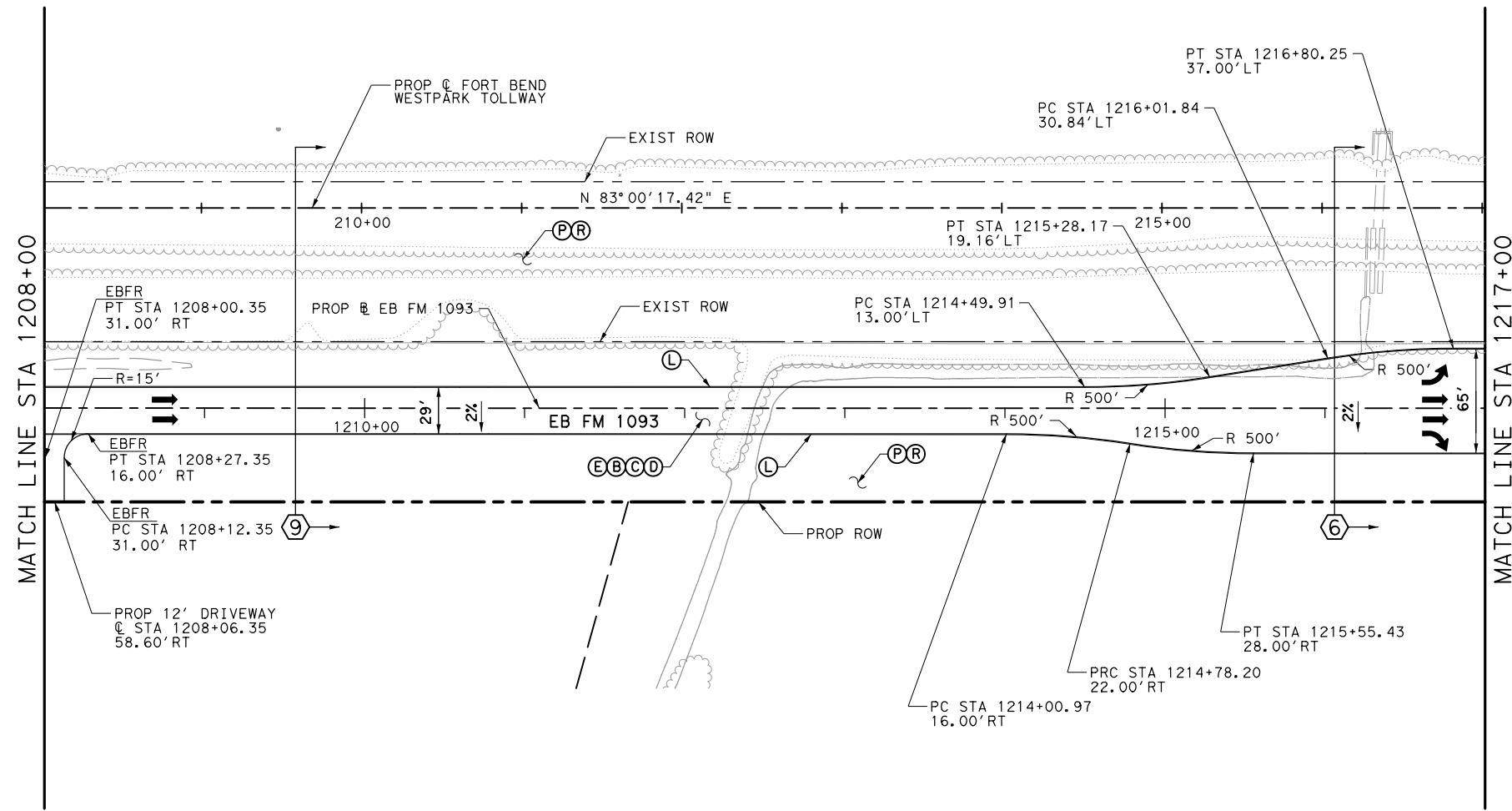
**DANNENBAUM ENGINEERING CORPORATION**  
T.B.P.E. FIRM REGISTRATION #392  
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

**FM 1093 WESTPARK EXTENSION**  
ROADWAY PLAN & PROFILE  
EASTBOUND FM 1093  
STA 1198+98.14 TO STA 1208+00

SHEET 1 OF 13

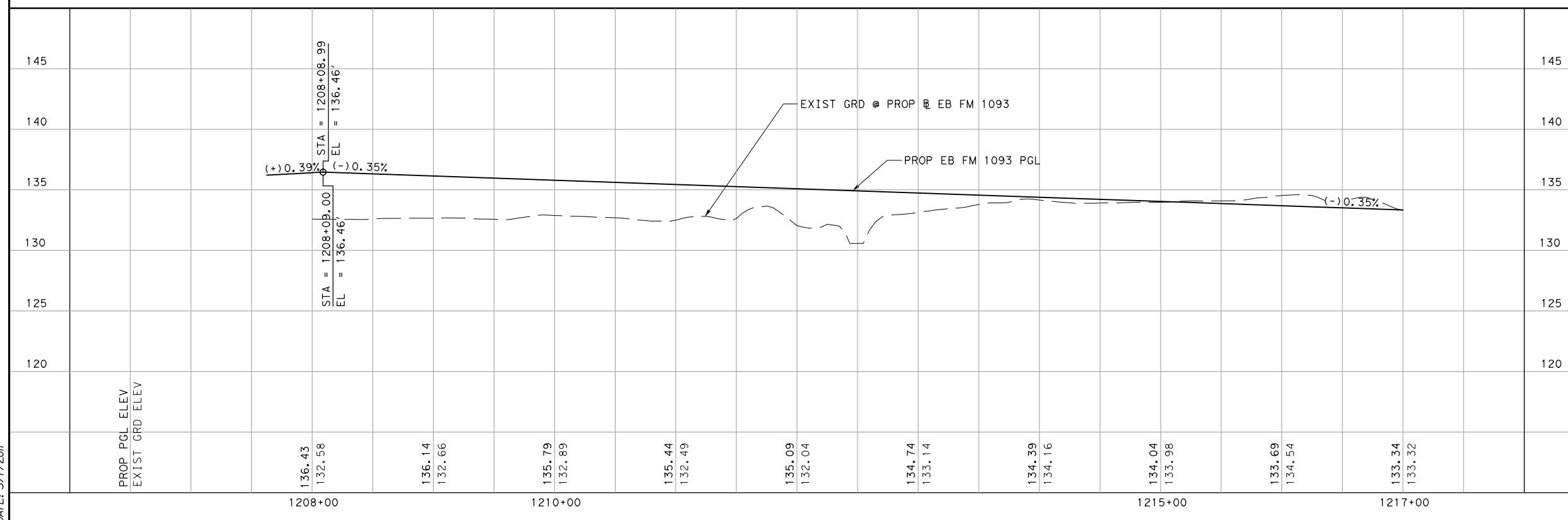
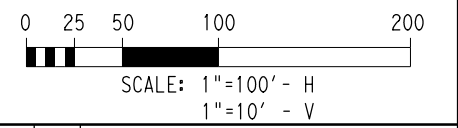
DESIGNED BY: JR	DRAWN BY: JJ
CHECKED BY: MJK	CHECKED BY: MH
COUNTY: FORT BEND	CONTRACT: 0543
SECTION: 02	JOB: 063, ETC
HWY NO.: FM 1093	SHEET NO.: 1136

FILE: G:\V20\4593-02 Westpark\04 DGN\Roadway\WPBRp02.dgn  
DATE: 3/7/2017



- LEGEND**
- (A) 12" CRCP
  - (B) 1" ASB
  - (C) 6" CEMENT TREATED BASE
  - (D) 6" LTS
  - (E) 9" CRCP
  - (F) RAIL (TY SSTR) W/DRAIN SLOTS
  - (G) RAIL (TY SSTR)
  - (H) RAIL (TY SSCB) (42") (TY I)
  - (I) METAL BEAM GUARD FENCE
  - (J) 2" PVC CONDUIT (SCHD 80)
  - (K) MONO CURB (TYPE I)
  - (L) MONO CURB (TYPE II)
  - (M) 4" RIPRAP (CL B)
  - (N) REINFORCED VOLUME
  - (O) RETAINING WALL
  - (P) DRILL SEED (PERM) (WARM OR COOL)
  - (Q) BLOCK SOD (BERMUDA)
  - (R) 4" TOPSOIL
  - (S) 4" SIDEWALK (5')
  - PROPOSED LANE
  - ⇨ EXISTING LANE
  - (X) TYPICAL SECTION

- NOTES:**
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
  - SEE TYPICAL SECTION SHEETS FOR LIMITS OF CONSTRUCTION.



REV	DATE	BY	DESCRIPTION

MAEN A. HOURANI  
88202  
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MAEN A. HOURANI P.E. 88202, ON FEBRUARY 28, 2017

**DANNENBAUM**  
**ENGINEERING CORPORATION**  
T.B.P.E. FIRM REGISTRATION #392  
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

**FM 1093 WESTPARK EXTENSION**  
ROADWAY PLAN & PROFILE  
EASTBOUND FM 1093  
STA 1208+00 TO STA 1217+00

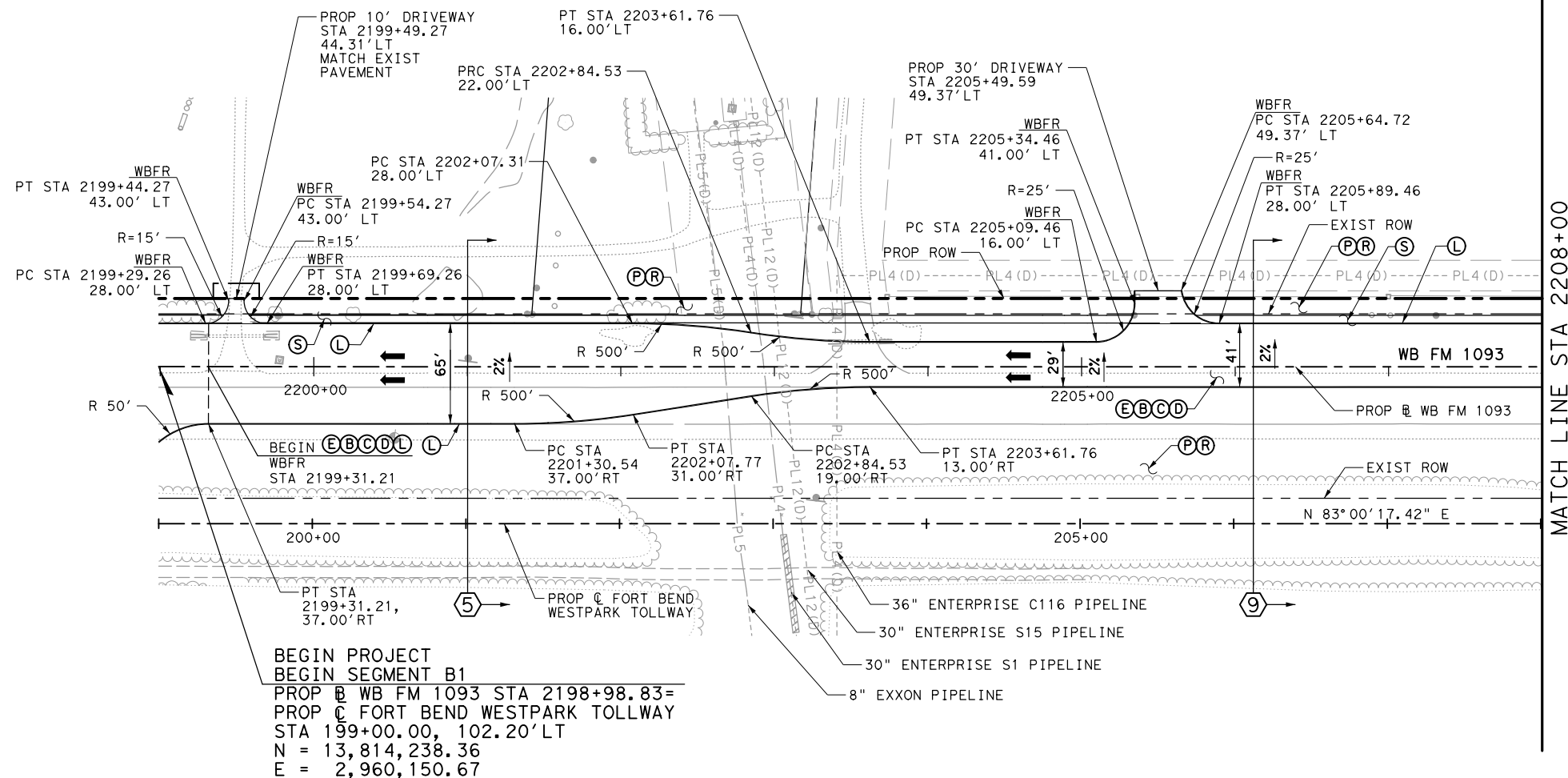
SHEET 2 OF 13

DESIGNED BY: JR	DRAWN BY: JJ
CHECKED BY: MJK	CHECKED BY: MH
COUNTY: FORT BEND	CONT: 0543
SEC: 02	JOB: 063, ETC
HWY NO.: FM 1093	SHEET NO.: 1137

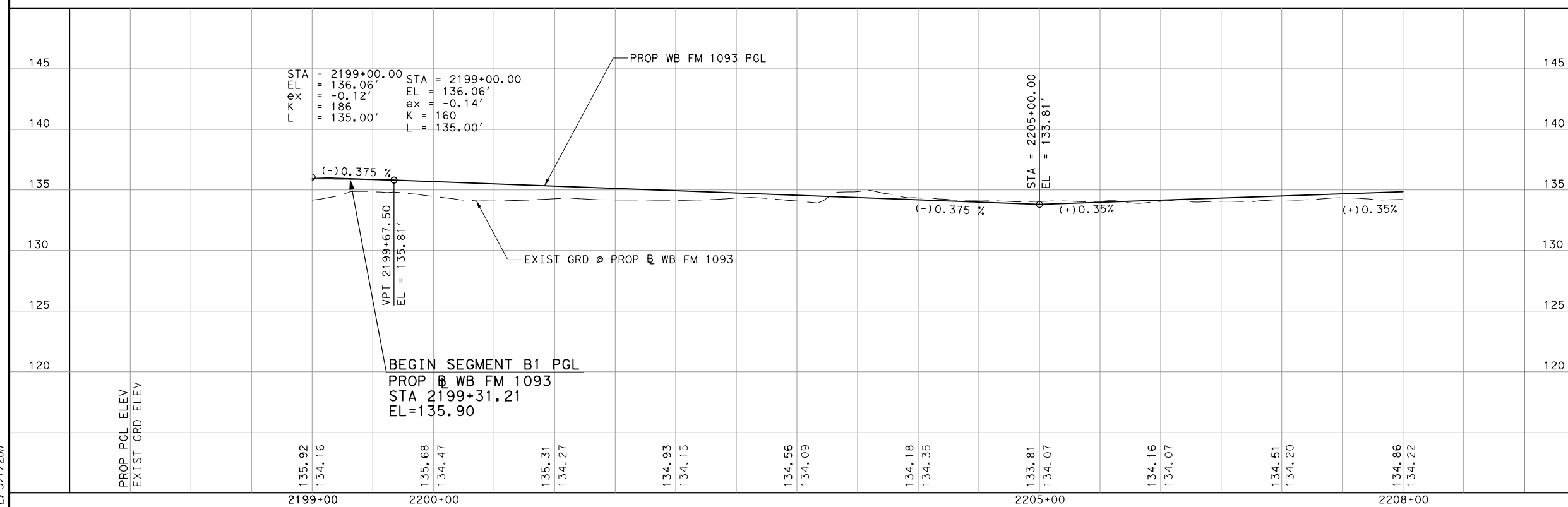
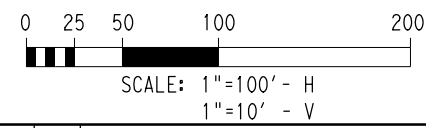
**LEGEND**

- (A) 12" CRCP
- (B) 1" ASB
- (C) 6" CEMENT TREATED BASE
- (D) 6" LTS
- (E) 9" CRCP
- (F) RAIL (TY SSTR) W/DRAIN SLOTS
- (G) RAIL (TY SSTR)
- (H) RAIL (TY SSCB) (42") (TY I)
- (I) METAL BEAM GUARD FENCE
- (J) 2" PVC CONDUIT (SCHD 80)
- (K) MONO CURB (TYPE I)
- (L) MONO CURB (TYPE II)
- (M) 4" RIPRAP (CL B)
- (N) REINFORCED VOLUME
- (O) RETAINING WALL
- (P) DRILL SEED (PERM) (WARM OR COOL)
- (Q) BLOCK SOD (BERMUDA)
- (R) 4" TOPSOIL
- (S) 4" SIDEWALK (5')
- PROPOSED LANE
- EXISTING LANE
- (X) TYPICAL SECTION

- NOTES:**
1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
  2. SEE TYPICAL SECTION SHEETS FOR LIMITS OF CONSTRUCTION.



BEGIN PROJECT  
 BEGIN SEGMENT B1  
 PROP WB FM 1093 STA 2198+98.83=  
 PROP FORT BEND WESTPARK TOLLWAY  
 STA 199+00.00, 102.20' LT  
 N = 13,814,238.36  
 E = 2,960,150.67



REV	DATE	BY	DESCRIPTION

MAEN A. HOURANI  
 88202  
 LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MAEN A. HOURANI P.E. 88202, ON FEBRUARY 28, 2017

**DANNENBAUM**  
**ENGINEERING CORPORATION**  
 T.B.P.E. FIRM REGISTRATION #392  
 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

**FM 1093 WESTPARK EXTENSION**  
 ROADWAY PLAN & PROFILE  
 WESTBOUND FM 1093  
 STA 2198+98.83 TO STA 2208+00

SHEET 1 OF 13

DESIGNED BY: JR	DRAWN BY: JJ
CHECKED BY: MJK	CHECKED BY: MH
COUNTY: FORT BEND	CONT: 0543
SEC: 02	JOB: 063, ETC
HWY NO.: FM 1093	SHEET NO.: 1149

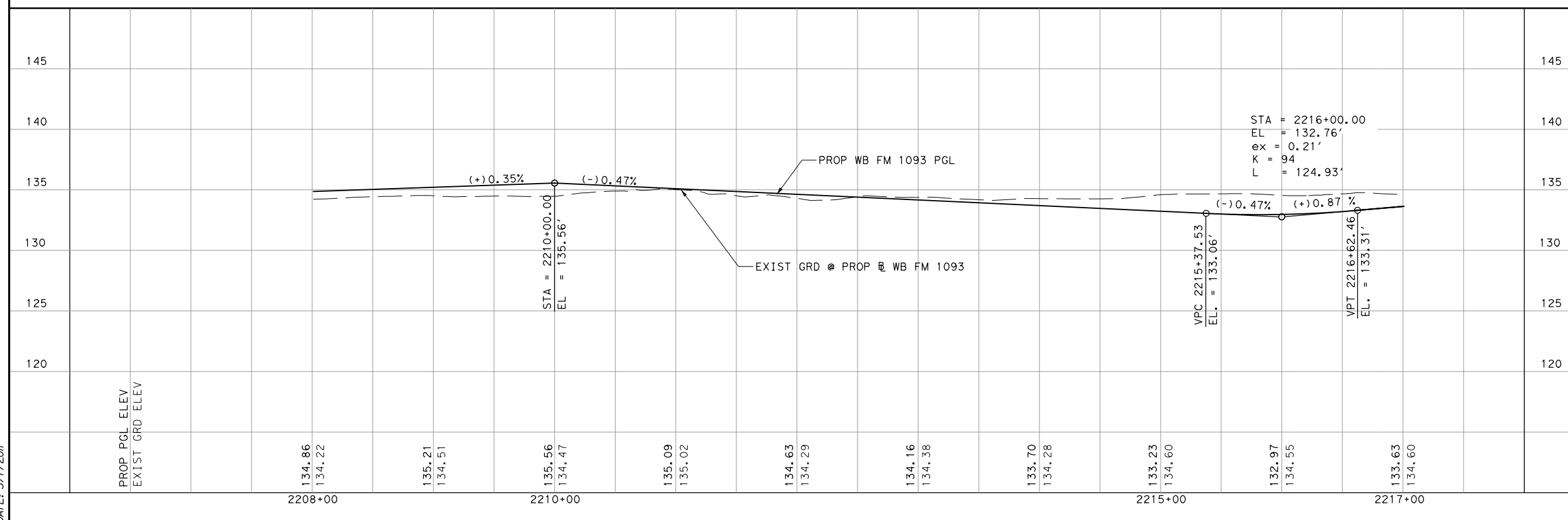
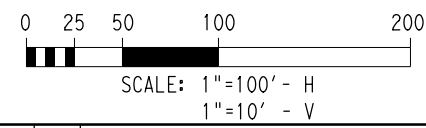
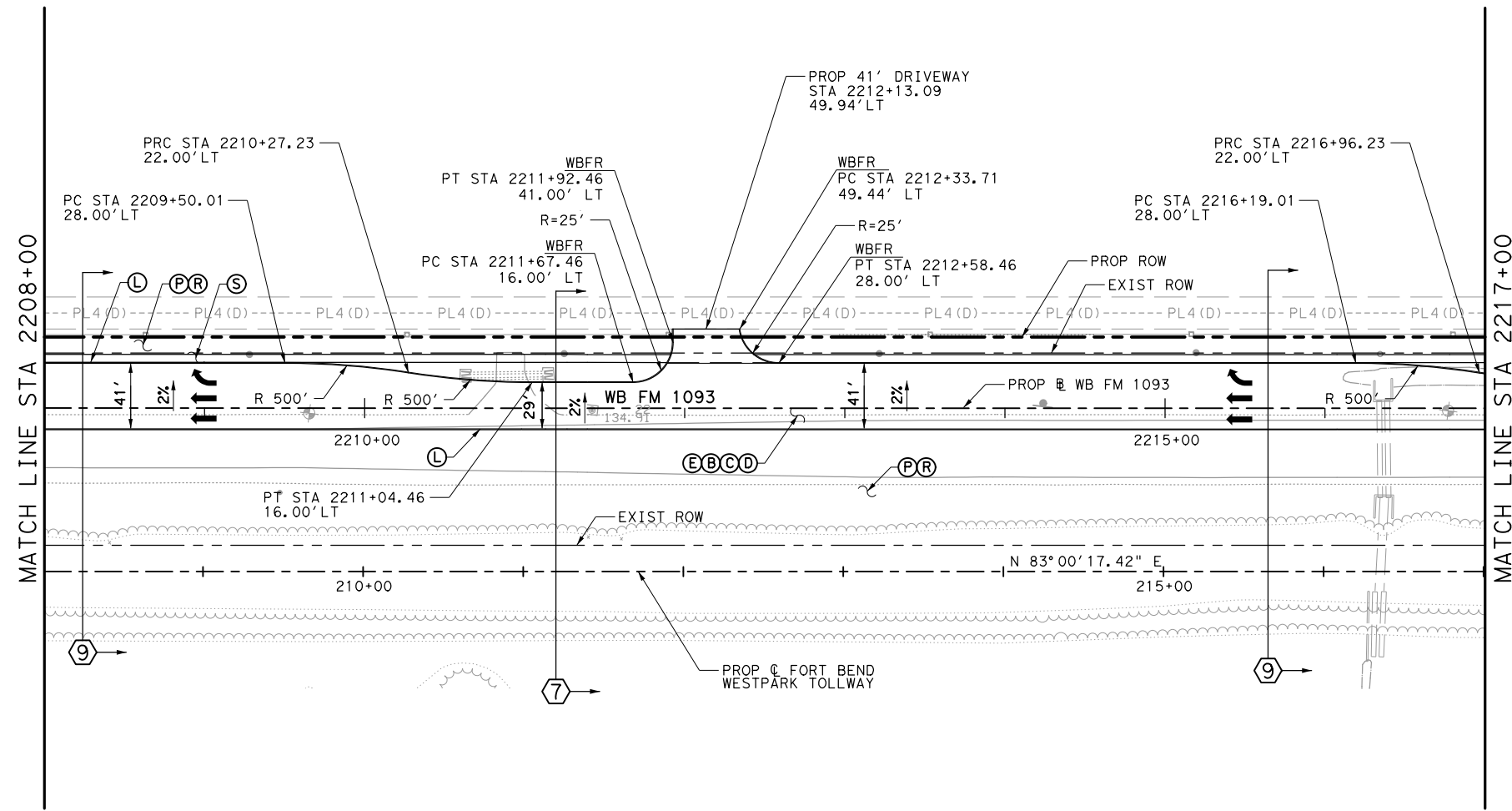
FILE: G:\2010\4593-02 Westpark\04 DGN\Roadway\WPBfpw01.dgn  
 DATE: 3/7/2017

**LEGEND**

- (A) 12" CRCP
- (B) 1" ASB
- (C) 6" CEMENT TREATED BASE
- (D) 6" LTS
- (E) 9" CRCP
- (F) RAIL (TY SSTR) W/DRAIN SLOTS
- (G) RAIL (TY SSTR)
- (H) RAIL (TY SSCB) (42") (TY I)
- (I) METAL BEAM GUARD FENCE
- (J) 2" PVC CONDUIT (SCHD 80)
- (K) MONO CURB (TYPE I)
- (L) MONO CURB (TYPE II)
- (M) 4" RIPRAP (CL B)
- (N) REINFORCED VOLUME
- (O) RETAINING WALL
- (P) DRILL SEED (PERM) (WARM OR COOL)
- (Q) BLOCK SOD (BERMUDA)
- (R) 4" TOPSOIL
- (S) 4" SIDEWALK (5')
- PROPOSED LANE
- ⇌ EXISTING LANE
- (X) TYPICAL SECTION

**NOTES:**

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. SEE TYPICAL SECTION SHEETS FOR LIMITS OF CONSTRUCTION.



REV	DATE	BY	DESCRIPTION

MAEN A. HOURANI  
P.E. 88202, ON  
FEBRUARY 28, 2017

Texas Department  
of Transportation

**DANNENBAUM**  
**ENGINEERING CORPORATION**  
T.B.P.E. FIRM REGISTRATION #392  
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

**FM 1093 WESTPARK EXTENSION**  
ROADWAY PLAN & PROFILE  
WESTBOUND FM 1093  
STA 2208+00 TO STA 2217+00

SHEET 2 OF 13

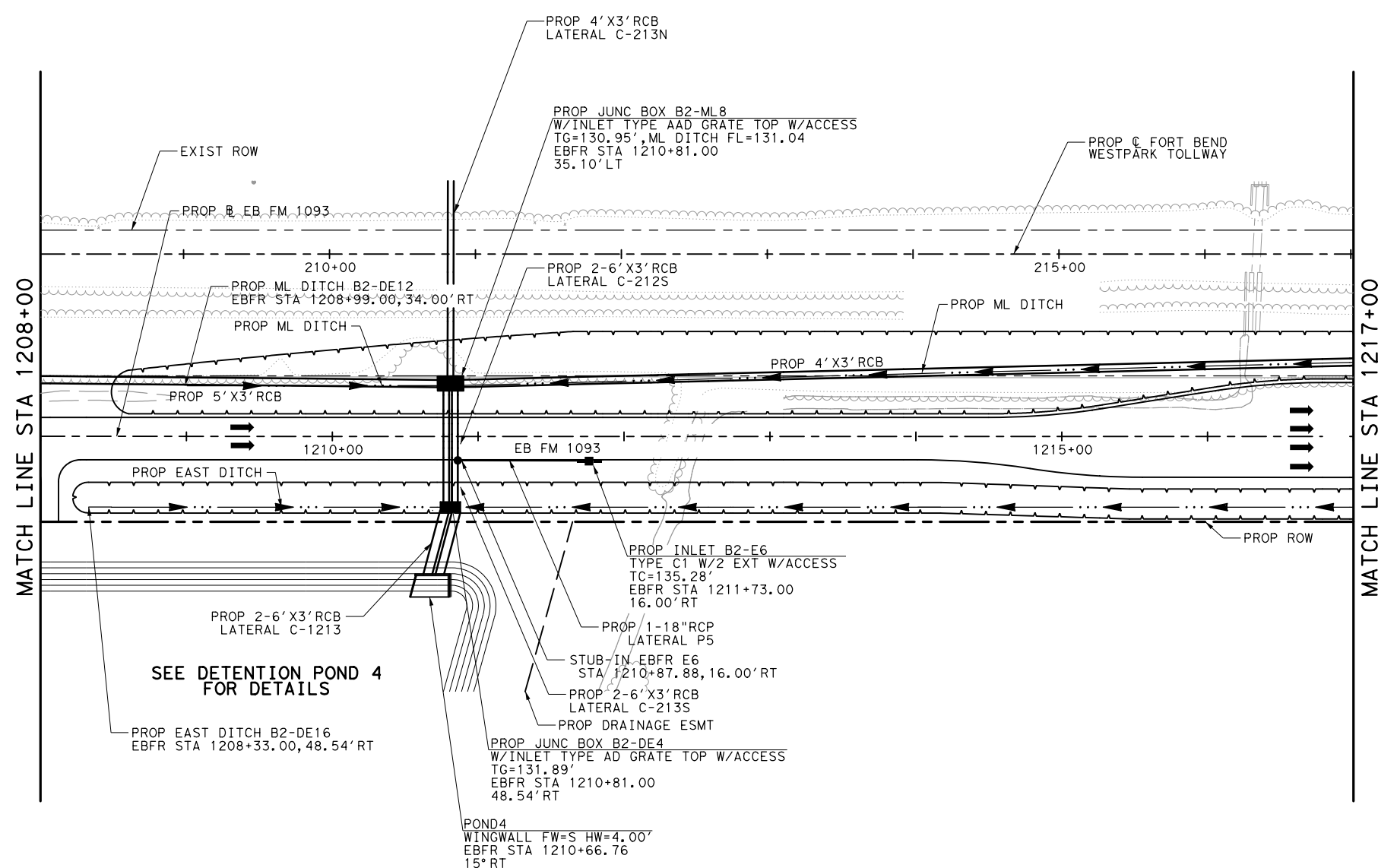
DESIGNED BY: JR	DRAWN BY: JJ				
CHECKED BY: MJK	CHECKED BY: MH				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1150

FILE: G:\V20\4593-02 Westpark\04 DGN\Roadway\WB\Fpaw02.dgn  
 DATE: 3/7/2017

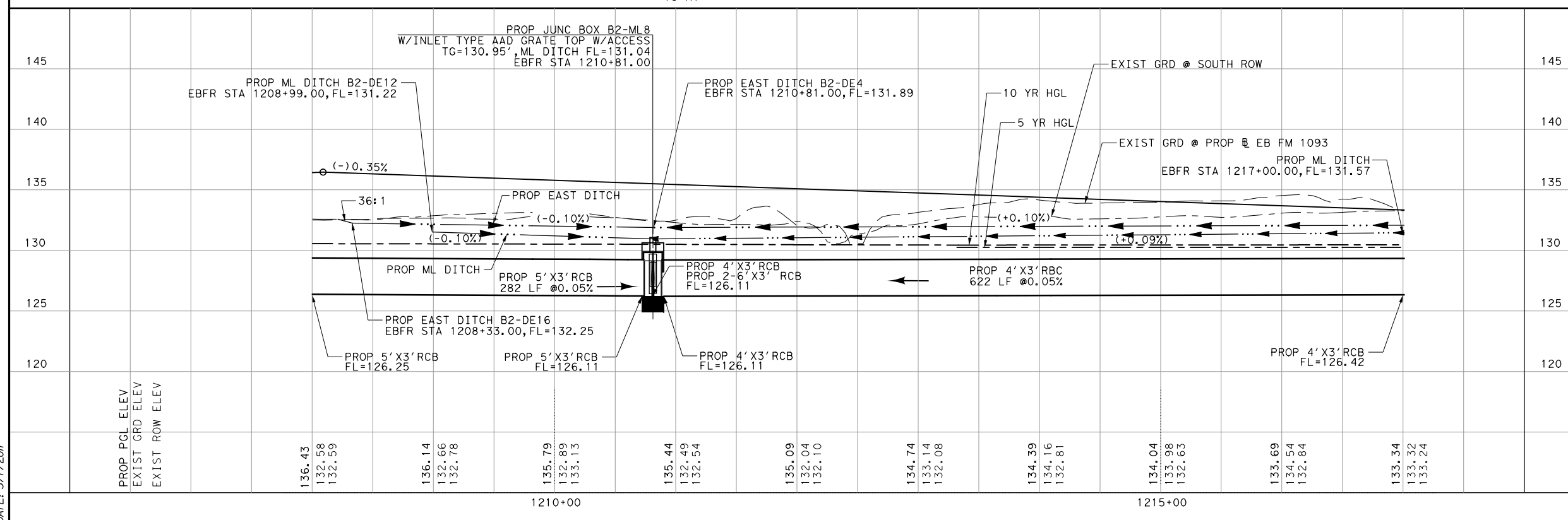
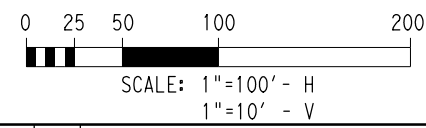


LEGEND

- EXIST MANHOLE
- EXIST INLET
- PROP MANHOLE
- PROP AREA INLET
- ▬ PROP CURB INLET
- ▬▬ PROP DITCH OR SWALE
- PROP JUNCTION BOX
- TOP OF DITCH/BANK
- ⊙ BORE LOG
- CONST ESMT



- NOTES:
1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
  2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
  3. SEE STORM SEWER LATERAL SHEETS FOR MORE INFORMATION.
  4. ALL DITCHES ARE V-SHAPE UNLESS OTHERWISE NOTED.



REV	DATE	BY	DESCRIPTION

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**DANNENBAUM**  
ENGINEERING CORPORATION  
T.B.P.E. FIRM REGISTRATION #392  
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

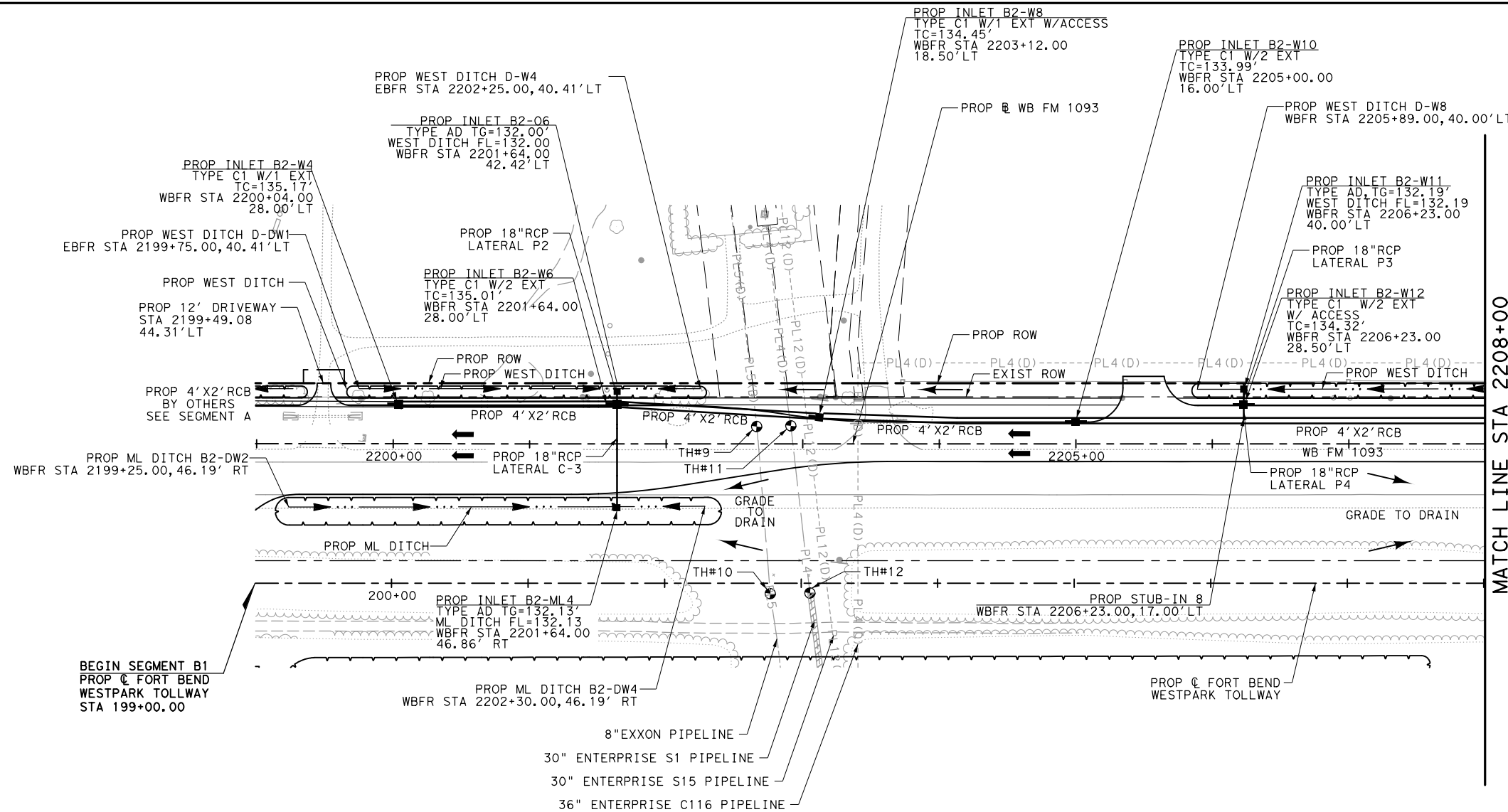
**FM 1093 WESTPARK EXTENSION**  
**STORM SEWER PLAN & PROFILE**  
**EASTBOUND FM 1093**  
**STA 1208+00 TO STA 1217+00**

SHEET 2 OF 13

DESIGNED BY: JR	DRAWN BY: JJ				
CHECKED BY: MJK	CHECKED BY: MH				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1253

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DATE: 3/7/2017

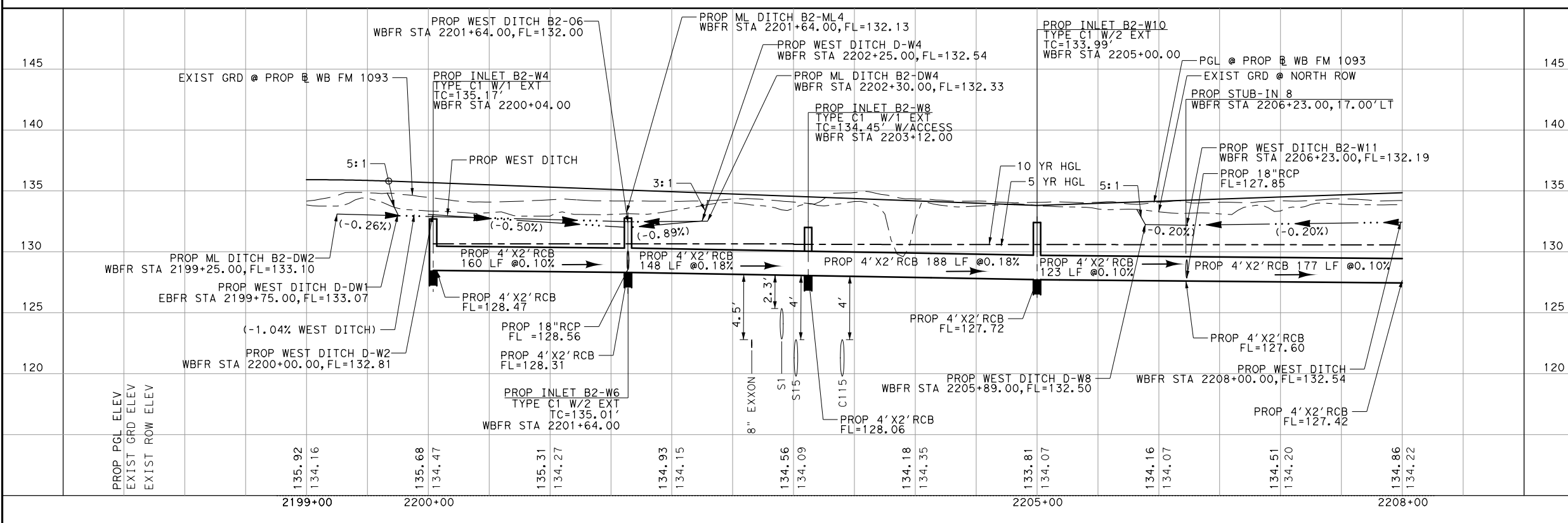
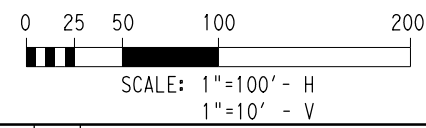
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DATE: 3/7/2017



MATCH LINE STA 2208+00

- LEGEND**
- EXIST MANHOLE
  - EXIST INLET
  - PROP MANHOLE
  - PROP AREA INLET
  - ▬ PROP CURB INLET
  - PROP DITCH OR SWALE
  - PROP JUNCTION BOX
  - TOP OF DITCH/BANK
  - ⊙ BORE LOG
  - CONST ESMT

- NOTES:**
1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
  2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
  3. SEE STORM SEWER LATERAL SHEETS FOR MORE INFORMATION.
  4. ALL DITCHES ARE V-SHAPE UNLESS OTHERWISE NOTED.



REV	DATE	BY	DESCRIPTION

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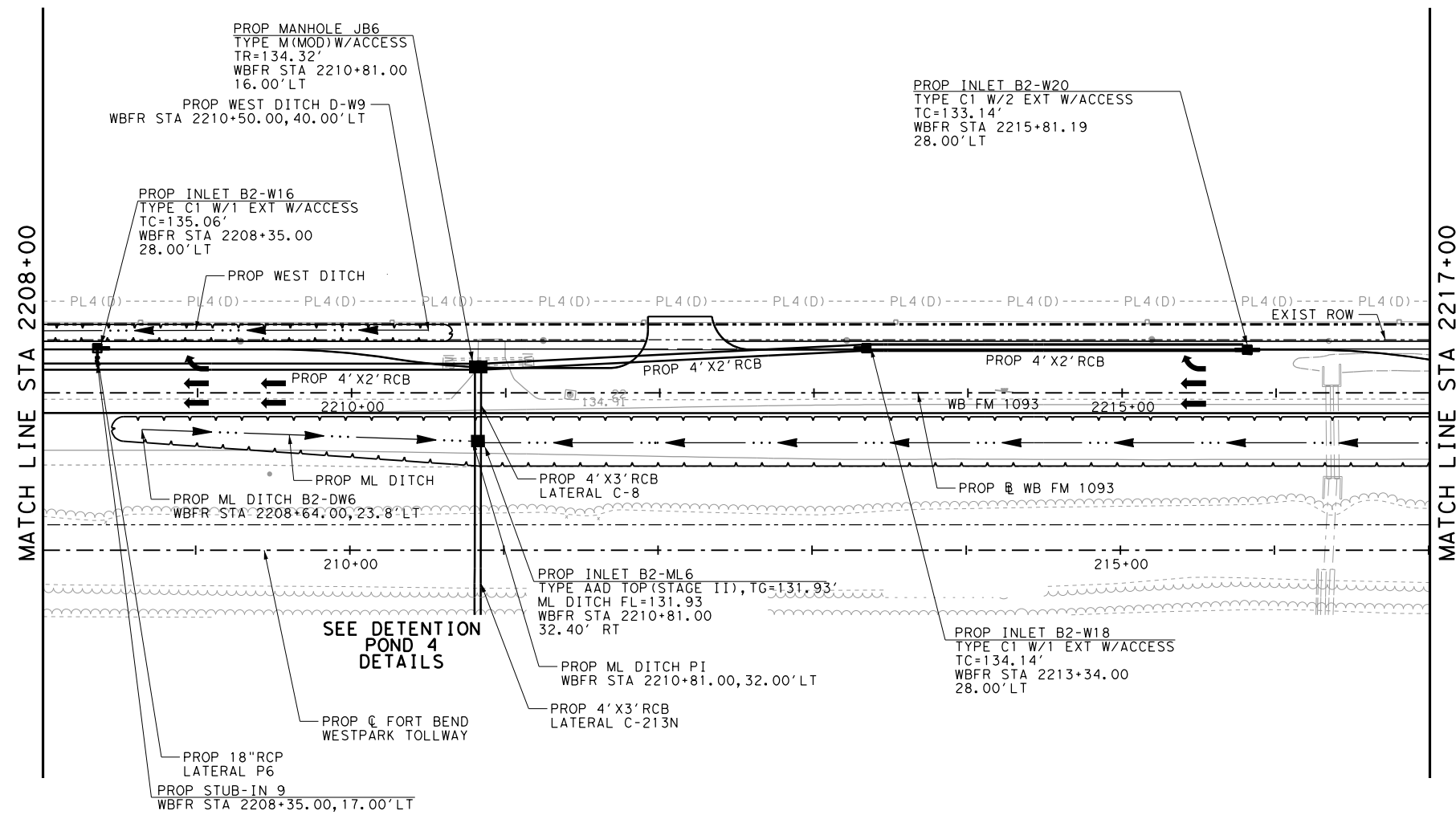
**DANNENBAUM ENGINEERING CORPORATION**  
T.B.P.E. FIRM REGISTRATION #392  
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

**FM 1093 WESTPARK EXTENSION**  
**STORM SEWER PLAN & PROFILE**  
**WESTBOUND FM 1093**  
**STA 2198+99.09 TO STA 2208+00**

SHEET 1 OF 13

DESIGNED BY: JR	DRAWN BY: JJ
CHECKED BY: MJK	CHECKED BY: MH
COUNTY: FORT BEND	CONT: 0543
SEC: 02	JOB: 063, ETC
HWY NO.: FM 1093	SHEET NO.: 1265

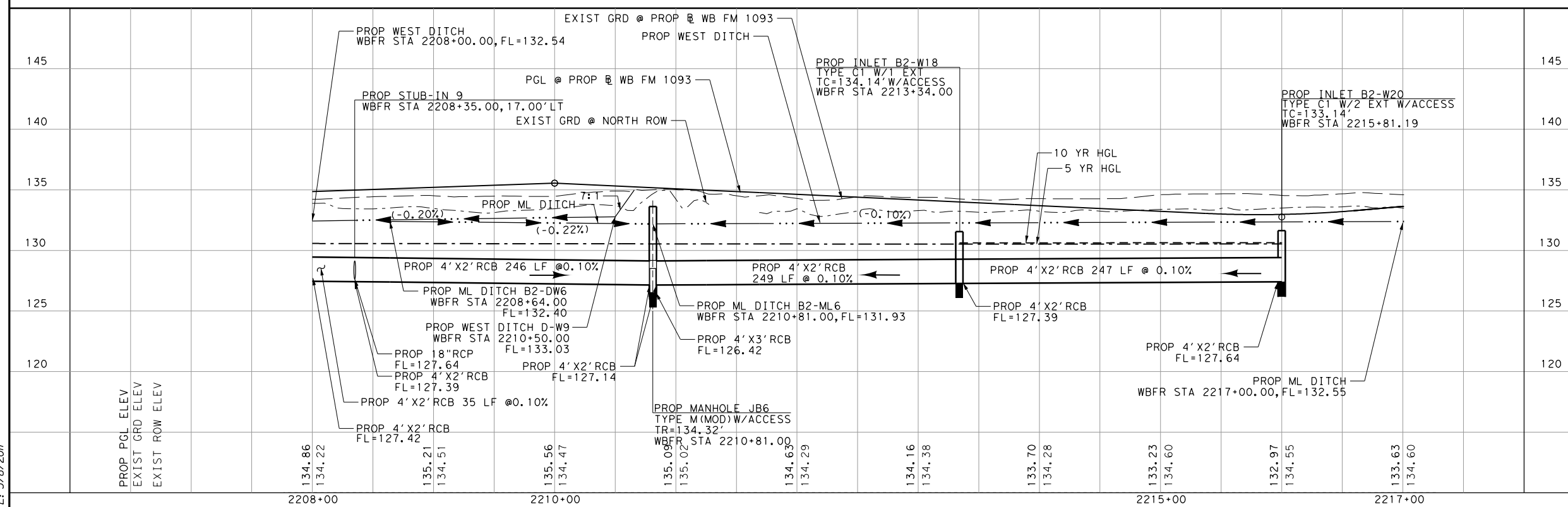
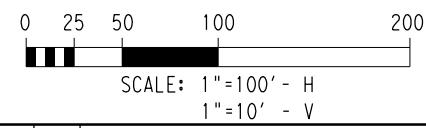
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DATE: 3/8/2017



**LEGEND**

- — EXIST MANHOLE
- — EXIST INLET
- — PROP MANHOLE
- — PROP AREA INLET
- ▬ — PROP CURB INLET
- — PROP DITCH OR SWALE
- — PROP JUNCTION BOX
- — TOP OF DITCH/BANK
- ⊙ — BORE LOG
- — CONST ESMT

- NOTES:**
1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
  2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
  3. SEE STORM SEWER LATERAL SHEETS FOR MORE INFORMATION.
  4. ALL DITCHES ARE V-SHAPE UNLESS OTHERWISE NOTED.



REV	DATE	BY	DESCRIPTION

MAEN A. HOURANI  
88202  
LICENSED PROFESSIONAL ENGINEER

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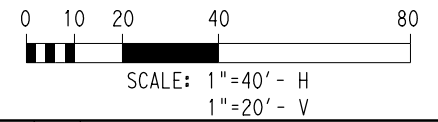
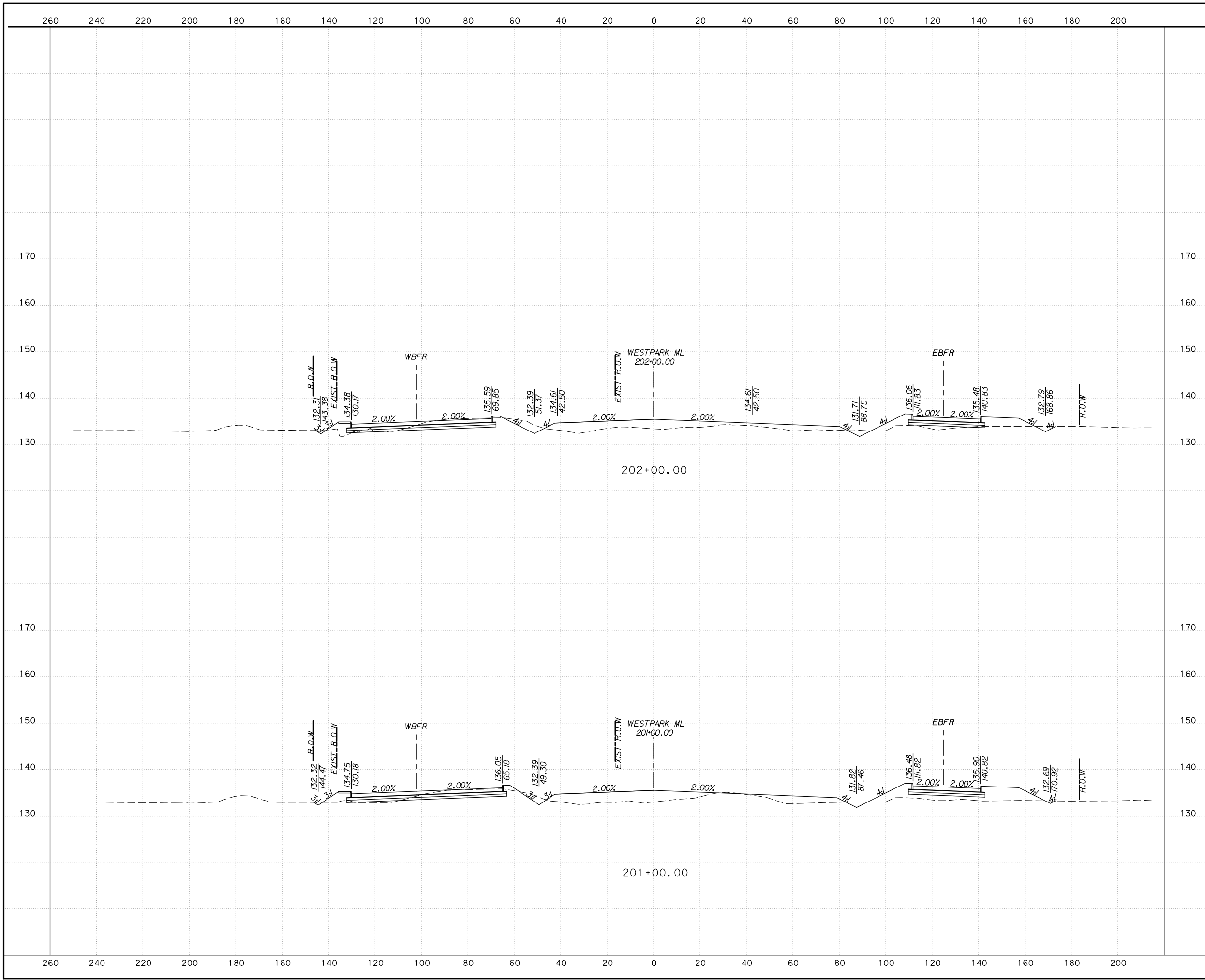
**DANNENBAUM ENGINEERING CORPORATION**  
T.B.P.E. FIRM REGISTRATION #392  
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

**FM 1093 WESTPARK EXTENSION**  
**STORM SEWER PLAN & PROFILE**  
**WESTBOUND FM 1093**  
**STA 2208+00 TO STA 2217+00**

SHEET 2 OF 13

DESIGNED BY: JR	DRAWN BY: JU				
CHECKED BY: MJK	CHECKED BY: MH				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063, ETC	FM 1093	1266

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DATE: 3/18/2017



REV	DATE	BY	DESCRIPTION



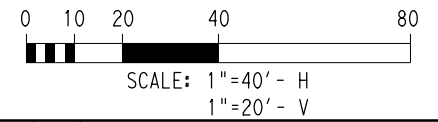
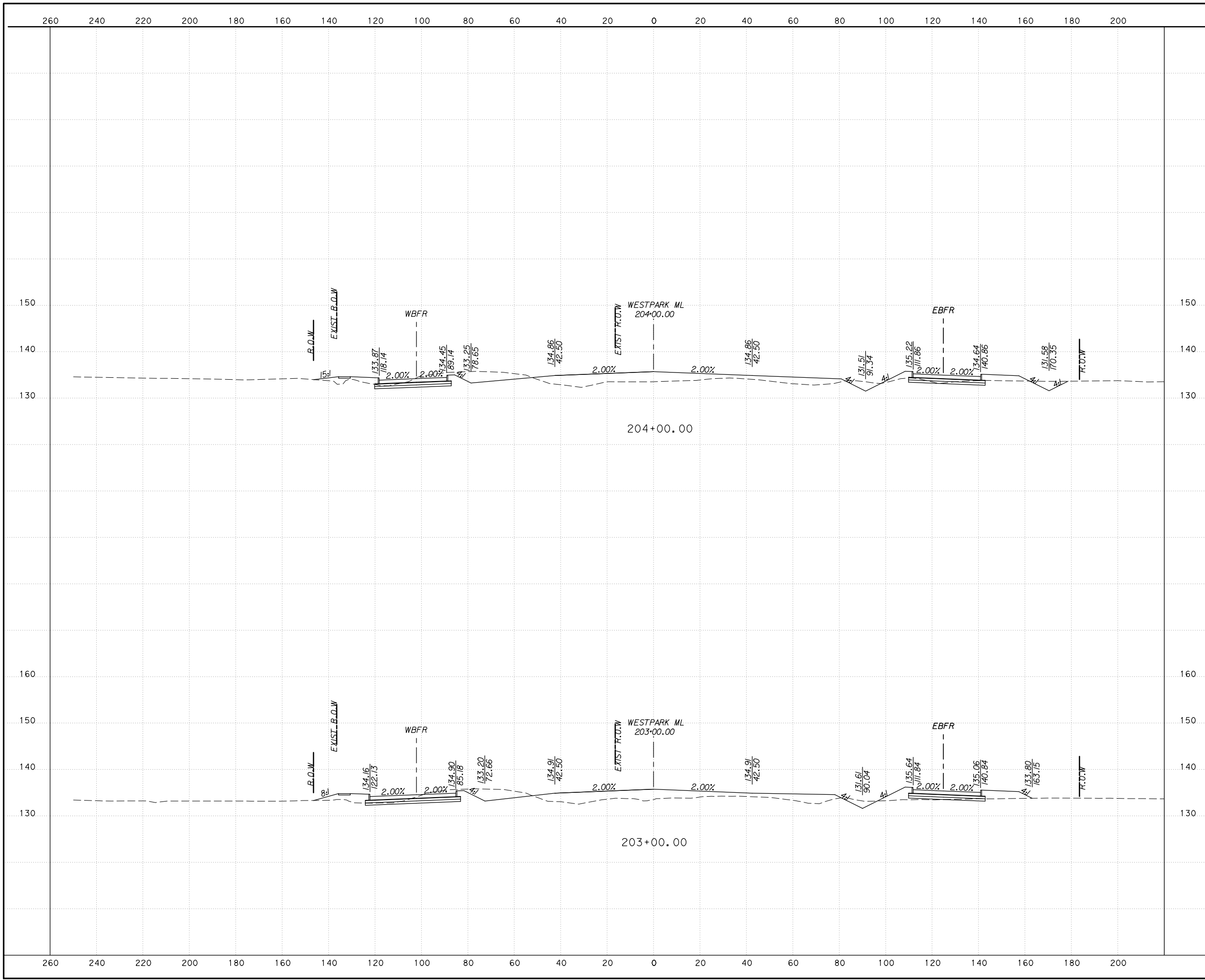
**DANNENBAUM**  
ENGINEERING CORPORATION  
T.B.P.E. FIRM REGISTRATION #392  
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

FM 1093 WESTPARK EXTENSION  
DESIGN CROSS SECTIONS

SHEET 2 OF 23

DESIGNED BY: NA	DRAWN BY: NA				
CHECKED BY: MH	CHECKED BY: MJK				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063,ETC	FM 1093	2

FILE: G:\20\4593-02 Westpark\04 DGN\GEOPAK\SECTION\WPm2pxs02\_S1Ms.dgn  
DATE: 3/18/2017



REV	DATE	BY	DESCRIPTION



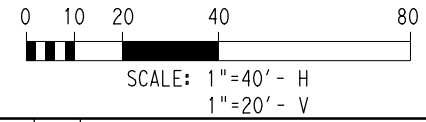
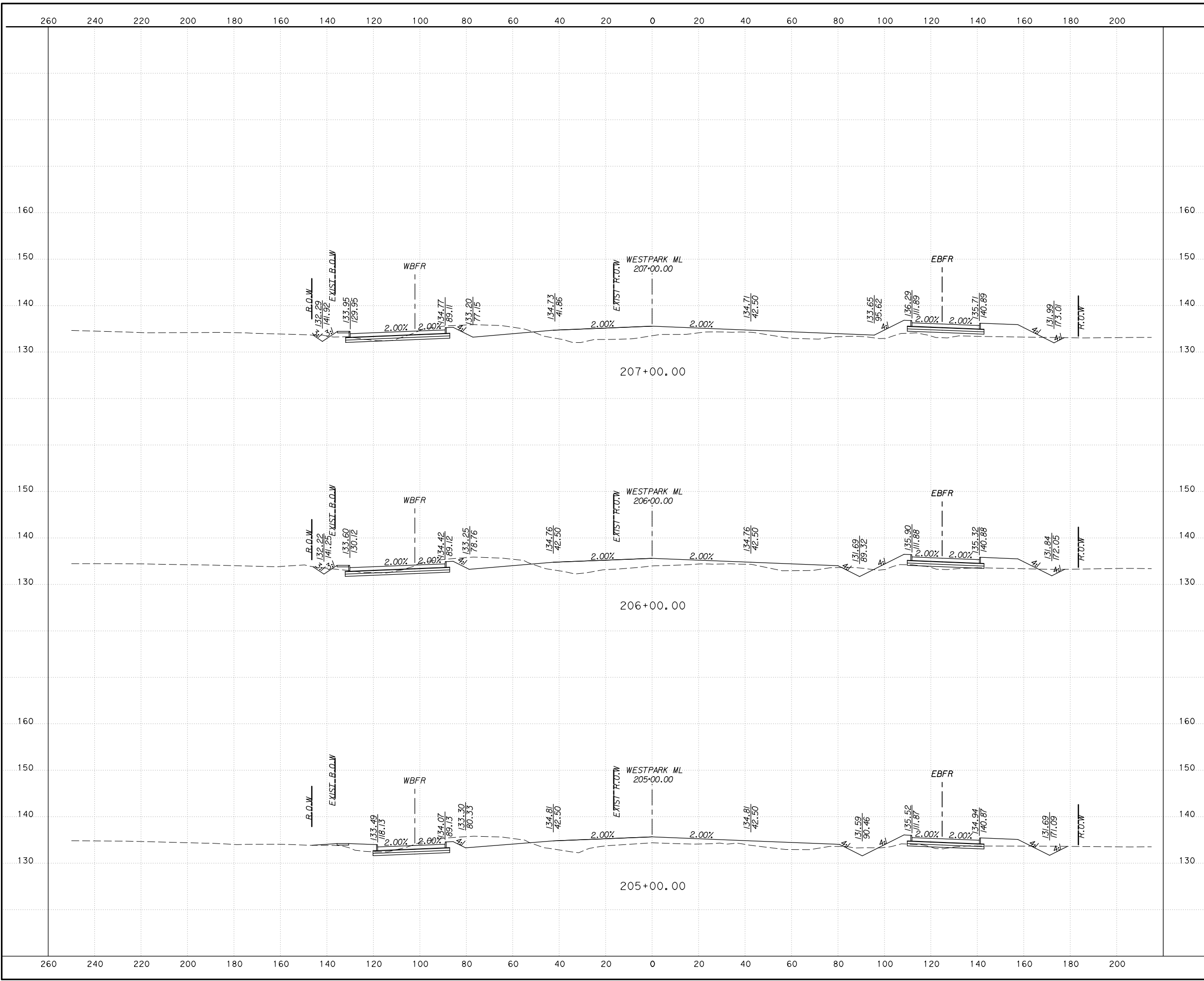
**DANNENBAUM**  
ENGINEERING CORPORATION  
T.B.P.E. FIRM REGISTRATION #392  
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

FM 1093 WESTPARK EXTENSION  
DESIGN CROSS SECTIONS

SHEET 3 OF 23

DESIGNED BY: NA	DRAWN BY: NA				
CHECKED BY: MH	CHECKED BY: MJK				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063,ETC	FM 1093	3

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DATE: 3/8/2017



REV	DATE	BY	DESCRIPTION



**DANNENBAUM**  
ENGINEERING CORPORATION  
T.B.P.E. FIRM REGISTRATION #392  
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

**FM 1093 WESTPARK EXTENSION**  
**DESIGN CROSS SECTIONS**

SHEET 4 OF 23

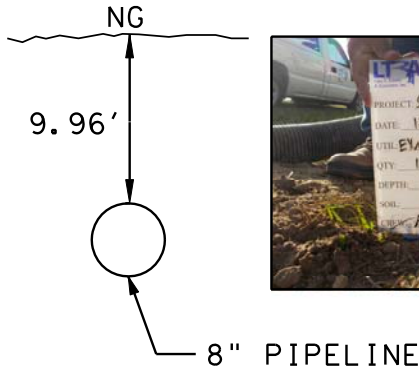
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CHECKED BY: MH	CHECKED BY: MJK				
COUNTY	CONT	SEC	JOB	HWY NO.	SHEET NO.
FORT BEND	0543	02	063,ETC	FM 1093	4



SURFACE ELEVATION: 132.75  
 TOP OF UTILITY: 122.79  
 PAVEMENT THICKNESS AND TYPE: NG

TH#: 9  
 DATE: 12-6-12

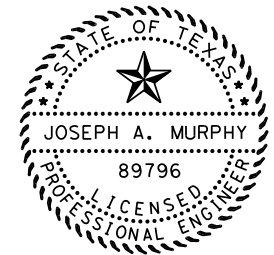
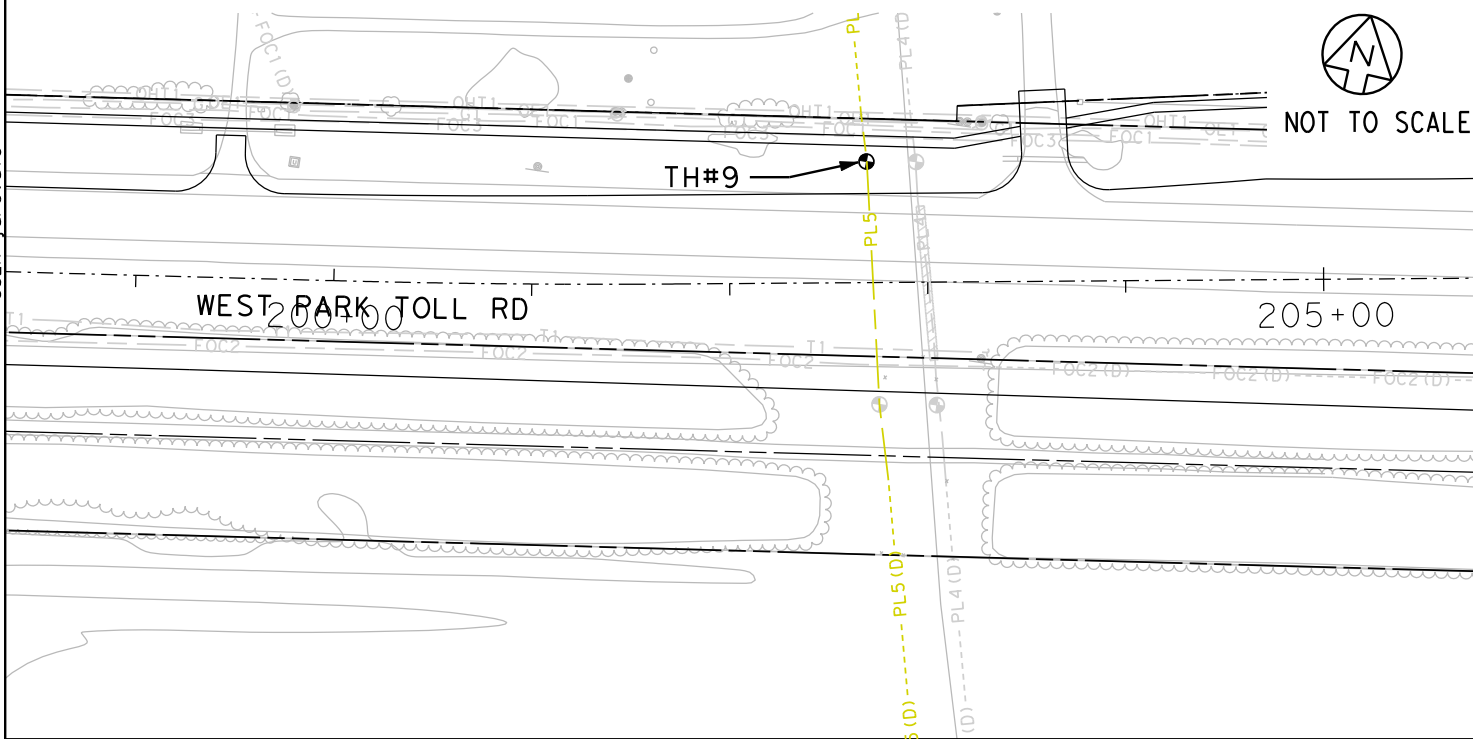
PROJECT NAME: WEST PARK TOLL ROAD  
 PROJECT No: SUE 12-104-02  
 OWNER: DANNENBAUM  
 CSJ NO: -  
 LOCATION: WEST PARK TOLL RD  
 CITY, COUNTY: HOUSTON, HARRIS



SOIL CONDITIONS: CLAY  
 UTILITY OWNER: EXXON  
 UTILITY TYPE: PIPELINE  
 UTILITY SIZE: 8"  
 UTILITY MATERIAL: STEEL

REFERENCE PLAN SHEET: OF

COORDINATES: N 13814295.67 E 2960513.80 STA: 202+70 OFFSET: 60' LT



JOSEPH A. MURPHY, PE  
 DATE: 1/3/2013

BM: 1093-017 CP

BM: 1093-005 CP

LINA T. RAMEY & ASSOCIATES, INC  
 TBPE FIRM #782

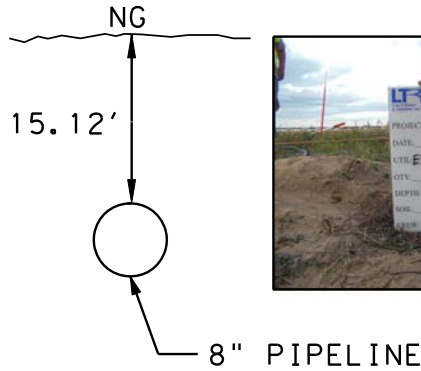
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 USER: jarevalo  
 DATE: 1/3/2013  
 TIME: 5:56:40 PM



SURFACE ELEVATION: 133.75  
 TOP OF UTILITY: 118.63  
 PAVEMENT THICKNESS AND TYPE: NG

TH#: 10  
 DATE: 12-7-12

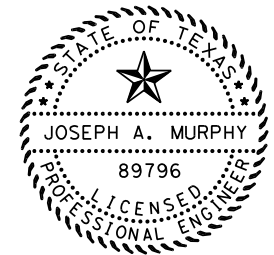
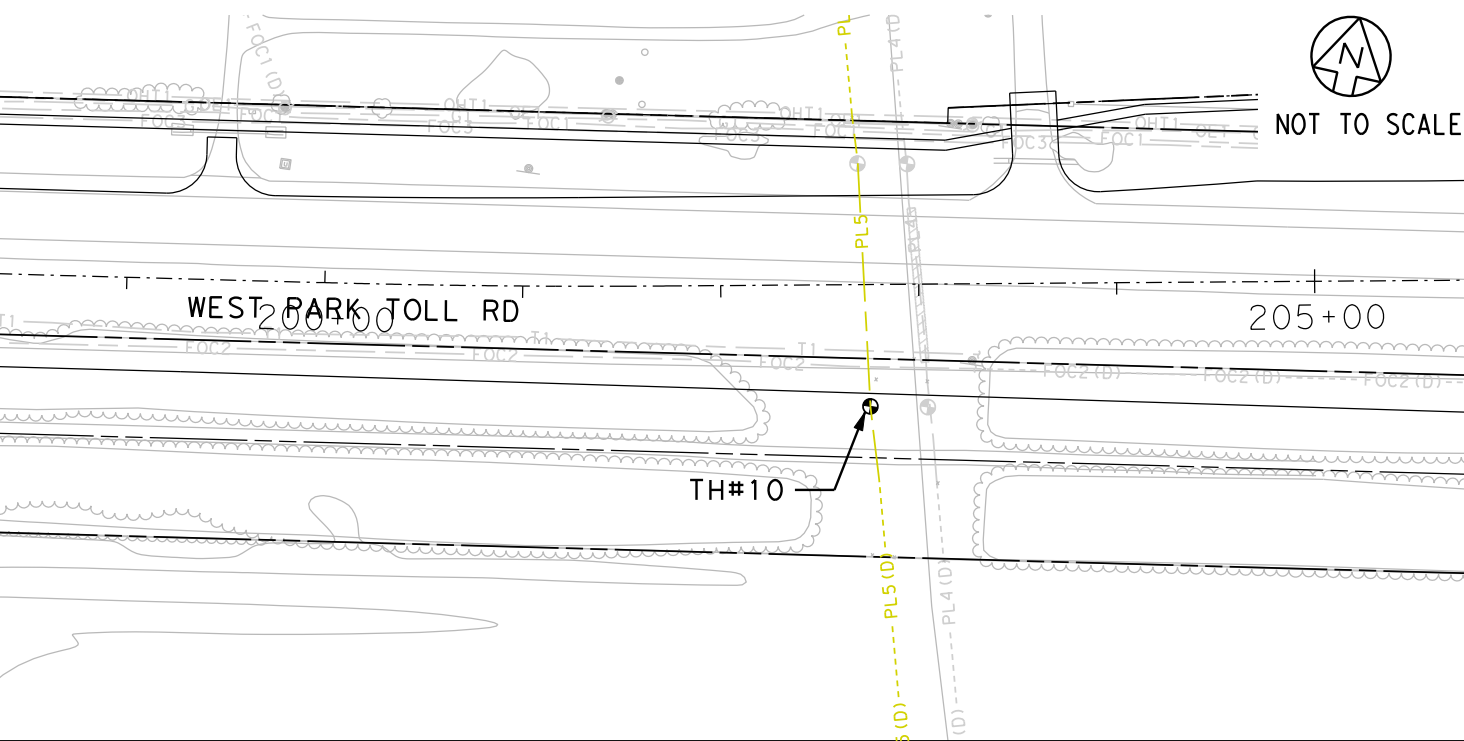
PROJECT NAME: WEST PARK TOLL ROAD  
 PROJECT No: SUE 12-104-02  
 OWNER: DANNENBAUM  
 CSJ NO: -  
 LOCATION: WEST PARK TOLL RD  
 CITY, COUNTY: HOUSTON, HARRIS



SOIL CONDITIONS: CLAY  
 UTILITY OWNER: EXXON  
 UTILITY TYPE: PIPELINE  
 UTILITY SIZE: 8"  
 UTILITY MATERIAL: STEEL

REFERENCE PLAN SHEET: OF

COORDINATES: N 13814175.36 E 2960538.60 STA: 202+74 OFFSET: 60' RT



JOSEPH A. MURPHY, PE  
 DATE: 1/3/2013

BM: 1093-017 CP

BM: 1093-005 CP

LINA T. RAMEY & ASSOCIATES, INC  
 TBPE FIRM #782

FILE: p:\projects\8\sue\westpar\kto\lra\d\*sue\dgn\sheets\WPTR\*TH010.dgn  
 USER: jarevalo  
 DATE: 1/3/2013  
 TIME: 5:56:46 PM

## RIGHT-OF-WAY RESTRICTIONS & REQUIREMENTS

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In a continuing effort to provide a safe environment for persons working on or near pipelines operated by ExxonMobil Pipeline Company (EMPCo), the following restrictions will apply to all work. Deviations from these restrictions will not be allowed without the express written consent of EMPCo. EMPCo operates its pipelines in accordance with the regulations of the U.S. Department of Transportation and other state and local agencies and will enforce any restrictions necessary to protect the pipelines, properties, and safety of the public.

Detailed plans (plan and profile) for proposed construction must be submitted to ExxonMobil Pipeline Company (EMPCo) for review and approval to determine to what extent, if any, the pipeline right-of-way will be affected by the proposed construction or development. See submission addresses below.

These restrictions apply only to EMPCo operated pipelines. Other ExxonMobil affiliates should be contacted to determine requirements for their rights-of-way.

### GENERAL RESTRICTIONS & REQUIREMENTS

1. In accordance with law, constructors must contact the appropriate ONE CALL system(s) prior to work and comply with all applicable laws and regulations.
2. No work may commence in or around EMPCo's right of way until an EMPCo representative has authorized it to begin. Notice of desired work start date should be given to EMPCo a minimum of 72 hours in advance.
3. A Third Party Excavation Safe Work Checklist should be signed each day prior to beginning work on EMPCo's right of way.
4. If it is determined that your project impacts EMPCo's facilities a non-refundable advance fee may be required to conduct preliminary engineering design work. Any work performed by EMPCo to remedy such impacts will be entirely at the requestor's expense, which will first require the full execution of EMPCo's standard Reimbursement Agreement. Any necessary inspection, protection, lowering, adjustment, casing, re-coating, and/or relocation of the pipelines will not be scheduled until: (A) all prerequisite data is compiled; (B) the appropriate agreements are executed; and (C) sufficient funds are received. It is EMPCo's minimum practice to inspect and recondition the pipeline(s) at proposed driveway, roadway or railroad crossings, the costs for which will be borne by the developer or owner.
5. EMPCo's right of way should not be used as temporary workspace (which includes its use for the staging, storage or laydown of equipment, materials or spoil) without proper approval from EMPCo.
6. No encroachments of any kind, including but in no way limited to signs, monuments, buildings, parking lots, structures, patios, decks, slabs, trees, shrubs, manholes, swimming pools, wells, leach beds, septic systems, cesspools, impoundments or large debris (such as cars, boats, trailers, tanks, scrap metal or boulders) shall be located within the pipeline right of way. The intention of this restriction is to maintain an unobstructed right of way.
7. A driveway, roadway, or railroad may be allowed to cross the right-of-way perpendicular, and will require an agreement to be signed by the party responsible for the crossing.
8. Any change in the surface grade or elevation over or along the pipeline(s) and right-of-way must be approved in advance.

9. Blasting activities within 500 feet of an EMPCo pipeline will require an approved blasting plan in advance.
10. Any crossings of EMPCo's pipelines with vehicles or heavy equipment shall be approved by EMPCo and may require ramping, matting or air bridging at requestor's expense. An EMPCo inspector should be present when temporary materials are installed and removed on EMPCo right of way.
11. The constructor shall assume full liability for any damages to EMPCo facilities due to construction /excavation activities. Be advised that our pipelines are cathodically protected and may have an effect on utility lines that are made of electrically conductive material

## **EXCAVATION/CONSTRUCTION RESTRICTIONS & REQUIREMENTS**

12. No holes are to be bored or excavated within the boundaries of the right of way without prior approval of EMPCo.
13. All heavy equipment will have a spotter with it at all times while working within 10 feet of EMPCo's pipeline or on EMPCo's right of way.
14. The excavator shall install a bar across the teeth of the bucket to be used during excavation.
15. Excavation to initially expose the pipeline shall be parallel with the pipeline.
16. Mechanical excavation will cease once the earth has been removed to within (24") twenty-four inches of EMPCo pipeline, appurtenances and at all valve/stopple sites until exposed.
17. Shovels or other soft digging techniques will be used to manually clean the area above and below the line. After the line has been initially located, the line shall be kept visible to the equipment operator during the excavation process.
18. No excavations shall be made on land adjacent to the pipeline that will in anyway impair or withdraw the lateral support and cause any subsidence or damage to the pipeline.
19. Driving of sheet piling or any other vibration inducing activities in the vicinity of EMPCo Right of Way must be reviewed and approved by EMPCo.
20. All backfill on EMPCo's right of way shall be approved by EMPCo's on-site inspector.
21. If EMPCo's line is exposed during the excavation, the excavation will be made safe for entry and left open until EMPCo installs test leads or performs other visual inspection that may be required.
22. Constructor shall abide by all State & Federal Safety Rules and Regulations and shall operate equipment that is in good working condition and in a manner that is conducive to a safe working environment while working in or around EMPCo's facilities. An ExxonMobil representative has the authority to suspend all excavation/construction activities in and around EMPCo facilities if the equipment operator appears to be unqualified or equipment maintenance is not in accordance with applicable regulations.

## PIPELINE & UTILITY CROSSINGS

23. All pipelines, utility lines and other underground facilities constructed across EMPCo facilities shall cross the pipeline easement at an angle as close to 90 degrees as is possible but not less than 45 degrees, must be installed under the pipelines with a minimum vertical separation of 24 inches between structures, and installed in a manner acceptable to EMPCo's on-site representative. If the installer elects to install its pipelines/utilities across EMPCo's easement by any method of boring, then the installer at the request of EMPCo's representative, shall verify the vertical separation between EMPCo's facilities and the installer's pipelines/utilities.(See Bore Crossings)
24. An approved crossing ABOVE an EMPCo pipeline will need to clear EMPCo's pipeline by 24 inches and require a crossing agreement to be signed by the company responsible for that crossing.
25. When approved by EMPCo, all electrical, fiber optic, and communications cables crossing above an EMPCo pipeline should be cased across the width of EMPCo's right of way and covered with concrete 6" to 8" thick and a minimum width of 6 inches on each side and above the conduit.
26. Permanent aboveground markers identifying the crossing pipeline or utility shall be installed and maintained at the limits of EMPCo's right of way and/or at the crossing.
27. If it is impractical to install and maintain aboveground markers due to the crossing location, plastic marker tape shall be installed below cultivation level and over EMPCo's pipeline, extending the width of the right of way.

## BORE CROSSINGS

28. Bored crossings without a wire guide or with a clearance of 10' or less will require the installation of peepholes on the incoming sides of EMPCo's pipeline, at the point of intersection as to view the drill stem clearance prior to crossing.

## HYDRO-VAC EXCAVATION

29. Hydro-Excavation (Hydro-Vac) may be required in some situations to reduce the risk of damage to a pipeline if so deemed by EMPCo.
30. Grounding of the vacuum truck and wand is required and should be tested; downwind venting of the vacuum truck is required.
31. The water wand tip is to be an oscillation type (circular pattern) to prevent a concentrated water stream; stream nozzles are not allowed. The vacuum wand tip must have a neoprene or equivalent tip to prevent damage to the pipeline coating and surrounding structures.
32. If the excavation site is suspected to contain hydrocarbon-impacted soil, a plan must be developed for testing and disposal of soil/water slurry (e.g., lined roll-off bin.) at requestor's expense.

## FENCE POST/UTILITY POLES

33. Fences may be allowed to cross EMPCo's easement, but will not be allowed along and within EMPCo's easement. Fence posts shall not be placed within 4 feet horizontally of the pipeline(s). Fences should not be installed in manner that would obstruct EMPCo's line of sight or access to EMPCo's facilities. Flag poles, Utility poles and guy wires shall not be placed within EMPCo's right of way or within 8 feet horizontally of EMPCo's pipeline(s).



34. Overhead electrical or telephone lines shall be installed so that a minimum of 20 feet vertical clearance is maintained between the lowest point of the overhead crossing and the natural ground level above EMPCo's pipeline.

**OFFSHORE/OPEN WATER CROSSINGS**

35. EMPCo should be notified of any crossings of EMPCo pipelines located offshore or in open water. Upon notification of a proposed offshore or open water crossing an EMPCo representative will inform you of the crossing requirements.

**NOTIFICATIONS**

All improvement, construction, or encroachment notifications and/or requests for information pertaining to assets operated by ExxonMobil Pipeline Company must be directed, in writing, to the appropriate address noted below:

Requests should include:

1. A brief description of the project or work to be performed
2. Appropriate vicinity map page(s) and coordinates
3. Three (3) copies of pertinent plan and profile drawings
4. Estimated timing of your project or special timing requirements
5. A contact name, company name, mailing address, and telephone number

Once received, your request will be logged, researched and responded to as soon as possible (minimum 45 days). Large requests for information may require substantially more time. Inclusion of all of the above information will help to expedite your request.

**Submission Address by Area**

State	Company	Area	Address
MT	ExxonMobil Pipeline Company	All	ROW & Claims: ENCROACHMENTS 22777 Springwoods Village Parkway E3.5A.552 Spring, TX 77389 Phone (406) 670-3979
AR, IL, MA, MO, RI, TN, IN, MI, MN, OK, CA, TX	Mobil Pipe Line Company ExxonMobil Pipe Line Company	All All	ROW & Claims: ENCROACHMENTS 22777 Springwoods Village Parkway E3.5A.552 Spring, TX 77389 Phone (281) 922-2024
LA	ExxonMobil Pipeline Company	All	ROW & Claims: ENCROACHMENTS 108 Business Park Avenue, Suite E Denham Springs, LA 70726 Phone (225) 715-9381

# CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.  
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

## OFFICE USE ONLY CERTIFICATION OF FILING

**1 Name of business entity filing form, and the city, state and country of the business entity's place of business.**  
ExxonMobil Pipeline Company  
Spring, TX United States

Certificate Number:  
2017-286031

Date Filed:  
11/20/2017

**2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.**  
Fort Bend County

Date Acknowledged:

**3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.**

23381

23381- 11/20/17 - Utility Relocation regarding FM 1093/Westpark, Mobility Bond Project No. 748

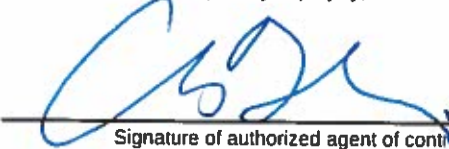
4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	Exxon Pipeline Holdings, Inc.	Spring, TX United States	X	

5 Check only if there is NO Interested Party.

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.



*SAD*   
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Christopher Hinson, this the 29 day of November, 2017, to certify which, witness my hand and seal of office.

Lauren Allen Signature of officer administering oath  
Lauren Allen Printed name of officer administering oath  
Right of Way & Claims Agent Title of officer administering oath