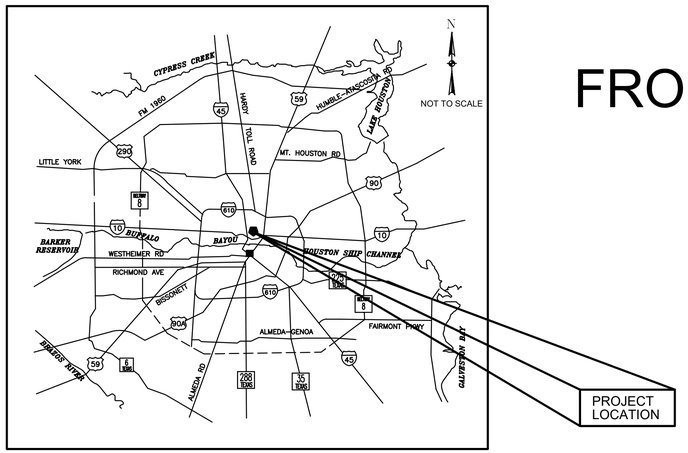
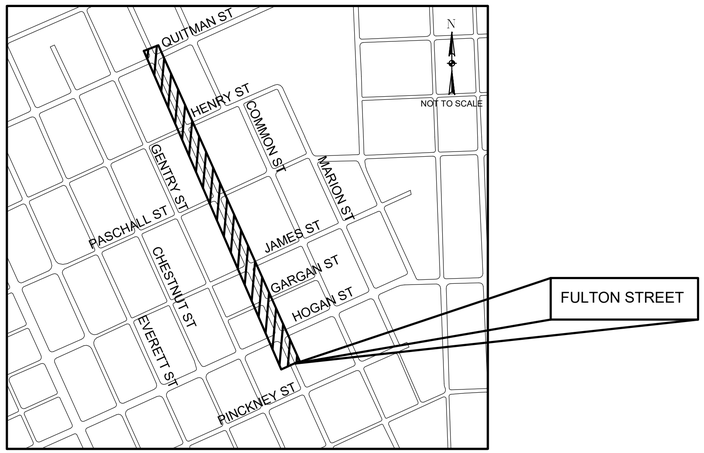
CITY OF HOUSTON

HOUSTON PUBLIC WORKS
ENGINEERING AND CONSTRUCTION DIVISION
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS
FROM QUITMAN STREET TO HOGAN STREET

WBS NO. N-000818-0001-3



LOCATION MAP



VICINITY MAP
KEY MAP NO. 493H AND 493D
GIMS MAP NO. 5458A AND 5458C

TDLR EABPR _____

MAYOR
JOHN WHITMIRE

CONTROLLER
CHRIS HOLLINS

DISTRICT COUNCIL MEMBERS

AMY PECK, DISTRICT A
TARSHA JACKSON, DISTRICT B
ABBIE KAMIN, DISTRICT C
CAROLYN EVANS-SHABAZZ, DISTRICT D
FRED FLICKINGER, DISTRICT E
TIFFANY D. THOMAS, DISTRICT F
MARY NAN HUFFMAN, DISTRICT G
MARIO CASTILLO, DISTRICT H
JOAQUIN MARTINEZ, DISTRICT I
EDWARD POLLARD, DISTRICT J
MARTHA CASTEX-TATUM, DISTRICT K

COUNCIL MEMBERS AT LARGE

JULIAN RAMIREZ, POSITION 1
WILLIE DAVIS, POSITION 2
TWILA CARTER, POSITION 3
ALEJANDRA SALINAS, POSITION 4
SALLIE ALCORN, POSITION 5

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD,
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% SUBMITTAL

SURVEYED BY: AMANI ENGINEERING, INC.
FB NO. F-4528

_____
PARKS-FORESTRY DEPT.

_____
METRO

_____
HOUSTON WATER

_____
TRANSPORTATION & DRAINAGE OPERATIONS

_____ _____
CAPITAL PROJECTS SURVEY

FOR CITY OF HOUSTON USE ONLY

_____
CITY ENGINEER DATE

_____
DIRECTOR OF DATE
HOUSTON PUBLIC WORKS

SHEET NO 1 OF 152 SHEETS

4/1/2026 C:\PWWORKING\HATCH-DPD-SOUTH_CENTRAL_US\DMS800086\01 COVER.DWG

SHEET NO.	SHEET TITLE
GENERAL	
1	COVER SHEET
2	SHEET INDEX
3	ABBREVIATIONS
4	SYMBOLS
5	GENERAL NOTES
6	CONSTRUCTION NOTES
7–9	QUANTITY TAKE OFF SHEETS
10–12	SURVEY CONTROL MAP
13	PARCEL INDEX MAP
14	OVERALL LAYOUT – PAVING AND STORM SEWERS
15	OVERALL LAYOUT – WATER AND SANITARY
16–18	EXISTING AND PROPOSED TYPICAL SECTIONS
ROADWAY AND STORM SEWERS	
19–24	DEMOLITION PLANS
25–36	FULTON STREET PAVING AND DRAINAGE PLANS AND PROFILES
37–38	HOGAN STREET PAVING AND DRAINAGE PLANS AND PROFILES
39–40	GARGAN STREET PAVING AND DRAINAGE PLANS AND PROFILES
41–42	JAMES STREET PAVING AND DRAINAGE PLANS AND PROFILES
43–44	PASCHALL STREET PAVING AND DRAINAGE PLANS AND PROFILES
45–46	HENRY STREET PAVING AND DRAINAGE PLANS AND PROFILES
47–48	QUITMAN STREET PAVING AND DRAINAGE PLANS AND PROFILES
49	DRIVEWAY SCHEDULE
50	POINT TABLES
51–67	SANITARY SEWER AND WATER MAIN PLAN AND PROFILE
DRAINAGE	
68	FIRM MAP
69	DRAINAGE AREA MAP
70–73	STORM SEWER COMPUTATIONS
SIGNING AND PAVEMENT MARKING	
74–75	SIGNING AND PAVEMENT MARKING PLANS
76	STANDARD SINGING NOTES AND DETAILS
77–78	SUMMARY OF SMALL SIGNS
79–80	STANDARD PAVEMENT MARKING NOTES AND DETAILS
ELECTRICAL AND SIGNALIZATION (BY OTHERS)	
81–86	ELECTRICAL DEMOLITION PLANS
87–92	ELECTRICAL PLANS
93	TRAFFIC SIGNAL NOTES
94	FULTON ST. AT QUITMAN ST. TRAFFIC SIGNAL PLAN
95–96	FULTON ST. AT QUITMAN ST. TRAFFIC SIGNAL SCHEUDLE
97–98	FULTON ST. AT QUITMAN ST. CABLE SCHEMATIC
99	FULTON ST. AT HOGAN ST. TRAFFIC SIGNAL PLAN
100–101	FULTON ST. AT HOGAN ST. TRAFFIC SIGNAL SCHEUDLE
102–103	FULTON ST. AT HOGAN ST. CABLE SCHEMATIC
104–106	TRAFFIC SIGNAL DETAILS

SHEET NO.	SHEET TITLE
STORM WATER POLLUTION PREVENTION	
107–108	STORM WATER POLLUTION PREVENTION PLANS
TRAFFIC CONTROL	
109	TRAFFIC CONTROL PLAN NOTES
110	TRAFFIC CONTROL PLAN CROSS SECTION
111–120	TRAFFIC CONTROL PLAN PHASE 1/ TRAFFIC CONTROL DETOUR PLAN PHASE 1
121	TCP HOGAN–FULTON INTERSECTION
122–125	TRAFFIC CONTROL PLAN PHASE 2 / TRAFFIC CONTROL DETOUR PLAN PHASE 2
126	TCP QUITMAN ST – FULTON INTERSECTION
TREE PROTECTION AND LANDSCAPING	
127–133	TREE PROTECTION PLANS
134	TREE PROTECTION DETAILS
135	TREE PROTECTION NOTES AND TREE MITIGATION TABLE
STANDARD DETAILS	
136–139	PAVING DETAILS
140–144	STORM SEWER DETAILS
145–146	WATER DETAILS
147–149	SANITARY SEWER DETAILS
150	PROJECT SIGN DETAIL
151	STORMWATER POLLUTION PREVENTION DETAILS
BORING LOGS	
152	BORING LOGS

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SHEET INDEX

WBS NUMBER	
N–000818–0001–3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 2 OF **152**	

PLOTTED: 3/30/2026 11:18 AM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\02 INDEX.dwg

ABBREVIATIONS:

&	AND
@	AT
AB	ALL BELL
AC	ACRE / ASBESTOS CEMENT
AI/VR	AIR INLET / VACUUM RELIEF
APPROX	APPROXIMATELY
ASPH	ASPHALT
AVE	AVENUE
℄	BASELINE
B/B	BACK TO BACK
BC	BACK OF CURB
BFV	BUTTERFLY VALVE
BL	BUILDING LINE
BLDG	BUILDING
BLVD	BOULEVARD
℄	CENTER LINE
C/C	CENTER TO CENTER
CGMP	CORRUGATED GALVANIZED METAL PIPE
CMP	CORRUGATED METAL PIPE
CIP	CAST IRON PIPE
CLR	CLEARANCE
CO	CLEAN OUT
COH	CITY OF HOUSTON
CONC	CONCRETE
CONSTR	CONSTRUCTION
CPEE	CENTERPOINT ENERGY ELECTRIC
CPEG	CENTERPOINT ENERGY GAS
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DR	DRIVE
DWG	DRAWING
DWY	DRIVEWAY
E	EAST
EL	ELEVATION
EP	EDGE OF PAVEMENT
E/R	END OF RADIUS
ESMT	EASEMENT
EXST	EXISTING
FC	FACE OF CURB
F/F	FACE TO FACE
FH	FIRE HYDRANT
℄	FLOW LINE
FM	FORCE MAIN
FT	FEET
GPS	GLOBAL POSITIONING SYSTEM
GV	GATE VALVE
GV&B	GATE VALVE AND BOX
HCFCD	HARRIS COUNTY FLOOD CONTROL DISTRICT
HDPE	HIGH-DENSITY POLYETHYLENE
HGL	HYDRAULIC GRADE LINE
HP	HIGH PRESSURE
INV EL	INVERT ELEVATION
IP	INTERMEDIATE PRESSURE
IR	IRON ROD

ABBREVIATIONS:

J-BOX	JUNCTION BOX
JT	JOINT
JUNCT	JUNCTION
LF	LINEAR FEET
LN	LANE
LPT	LOW POINT
LT	LEFT
LS	LIFT STATION
MAX	MAXIMUM
METRO	METROPOLITAN TRANSIT AUTHORITY
MH	MANHOLE
MIN	MINIMUM
MON	MONUMENT
N	NORTH
NA	NOT APPLICABLE
NAVD	NORTH AMERICAN VERTICAL DATUM
NG	NATURAL GROUND
NO	NUMBER
NTS	NOT TO SCALE
OCC	ZERO CURB CUT
OS	OFFSET
OH	OVERHEAD
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVATURE
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
PERM	PERMANENT
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PNT	POINT
PPCA	POTENTIALLY PETROLEUM CONTAMINATED AREA
PRC	POINT OF REVERSE
PROP	PROPOSED
PSI	POUND PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE PIPE / POINT OF VERTICAL CURVATURE
PVMT	PAVEMENT
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY

ABBREVIATIONS:

	RECORD DRAWING
R	RADIUS
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REINF	REINFORCED
REM	REMOVABLE
RJ	RESTRAINED JOINT
ROW	RIGHT OF WAY
RR	RAILROAD
RRPM	REFLECTIVE REMOVABLE PAVEMENT MARKERS
RT	RIGHT
S	SOUTH
SAN	SANITARY
SCHED	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SSE	SANITARY SEWER EASEMENT
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STM	STORM
SWBT	SOUTHWESTERN BELL TELEPHONE
SWR	SEWER
SY	SQUARE YARD
TAN	TANGENT
TBM	TEMPORARY BENCHMARK
TEMP	TEMPORARY
TOB	TOP OF BANK
TOC	TOP OF CURB
TOP	TOP OF PAVEMENT
TOS	TOP OF STACK
TS&V	TAPPING SLEEVE AND VALVE
TXDOT	TEXAS DEPARTMENT OF TRANSPORTATION
TYP	TYPICAL
UE	UTILITY EASEMENT
UGND	UNDERGROUND
VC	VERTICAL CURVE
VPI	VERTICAL POINT OF INTERSECTION
W	WEST
W/	WITH
WL	WATER LINE
WLE	WATER LINE EASEMENT
WM	WATER METER
WP	WOOD POLE
WSEL	WATER SURFACE ELEVATION
WV	WATER VALVE
WWTP	WASTE WATER TREATMENT PLANT

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

ABBREVIATIONS

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 3 OF **152**

PLOTTED: 3/29/2026 11:34 AM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\03 ABBREVIATIONS.dwg

EXISTING PLAN VIEW

- WATER METER
- WATER VALVE (GATE)
- WATER VALVE (BUTTERFLY)
- FIRE HYDRANT/FLUSHING VALVE
- TAPPING SLEEVE & VALVE
- REDUCER (8" W / 6" W)
- ROUND CONNECTION
- SANITARY SEWER CLEANOUT & MANHOLE (CO, SAN, SAN MH)
- STORM SEWER MANHOLE (STM, STM MH)
- STORM SEWER INLETS ('B' 'B–B' 'C' 'C–1' 'C–2' 'C–2A' 'GRATE')
- CULVERT PIPE AND HEADWALL
- TOP OF CURB ELEVATION (TC=XX.XX)
- GUTTER ELEVATION (G=XX.XX)
- TOP OF PAVEMENT ELEVATION (TP=XX.XX)
- CONTOUR LINE (XX.X')
- ROW LINE
- PROPERTY LINE
- LOT LINES
- EASEMENT LINE
- CENTER LINE OF ROW
- TRANSIT LINE
- EDGE OF DITCHES
- CENTER LINE OF DITCHES
- EDGE OF DITCHES
- FENCE LINE, WOOD
- FENCE LINE, CHAIN LINK
- FENCE LINE, BARBED WIRE
- FENCE LINE, HOG WIRE
- EDGE OF CONCRETE
- CURB LINE
- CONCRETE WALK
- EDGE OF ASPHALT
- EDGE OF SHELL OR GRAVEL
- DIMENSION LINE (28" 3–17)
- AERIAL POWER LINE (P)
- UNDERGROUND POWER LINE (UGP)
- GAS LINE (GAS)
- UNKNOWN UNDERGROUND LINE (MISC)
- OIL PIPELINE (IDENTIFY CONDUIT) (OGP)
- UNDERGROUND TELECOMM LINE W/VAULT (UGT)
- AERIAL TELECOMM LINE (T)
- RAILROAD LINE
- WATER LINE (20" (AND SMALLER) WATER W; 24" (LARGER THAN 20") WATER LDWL)
- SANITARY SEWER LINE (24" (AND SMALLER) SANITARY SEWER SAN; 30" (LARGER THAN 24") SANITARY SEWER SAN)
- STORM SEWER LINE (24" (AND SMALLER) STORM SEWER STM; 30" (LARGER THAN 24") STORM SEWER STM)
- SANITARY SEWER FORCE MAIN (FM)
- RECLAIMED WATER LINE (RWL)
- NON–POTABLE WATER LINE (NPW)
- GAS METER (GAS)
- GAS VALVE (GAS)
- PROPANE LINE (PROPANE)
- STEAM LINE (STEAM)
- MISC UNDERGROUND PIPELINE LABLE (A2)

PROPOSED PLAN VIEW

- WATER METER (WM)
- WATER VALVE (GATE) (WV)
- WATER VALVE (BUTTERFLY) (BFWV)
- FIRE HYDRANT/FLUSHING VALVE (FH, WV)
- TAPPING SLEEVE & VALVE (TS&V)
- REDUCER (12" W / 8" W)
- ROUND CONNECTION
- SANITARY SEWER CLEANOUT & MANHOLE (CO, SAN, SAN MH)
- STORM SEWER MANHOLE (STM, STM MH)
- STORM SEWER INLETS ('B' 'B–B' 'C' 'C–1' 'C–2' 'C–2A' 'GRATE')
- CULVERT PIPE AND HEADWALL
- TOP OF CURB ELEVATION (TC=XX.XX)
- GUTTER ELEVATION (G=XX.XX)
- TOP OF PAVEMENT ELEVATION (TP=XX.XX)
- CONTOUR LINE (XX.X')
- ROW LINE
- PROPERTY LINE
- LOT LINES
- EASEMENT LINE
- CENTER LINE OF ROW
- TRANSIT LINE
- EDGE OF DITCHES
- CENTER LINE OF DITCHES
- EDGE OF DITCHES
- FENCE LINE, WOOD
- FENCE LINE, CHAIN LINK
- FENCE LINE, BARBED WIRE
- FENCE LINE, HOG WIRE
- EDGE OF CONCRETE
- CURB LINE
- CONCRETE WALK
- EDGE OF ASPHALT
- EDGE OF SHELL OR GRAVEL
- DIMENSION LINE (28" 3–17)
- AERIAL POWER LINE (P)
- UNDERGROUND POWER LINE (UGP)
- GAS LINE (GAS)
- UNKNOWN UNDERGROUND LINE (MISC)
- OIL PIPELINE (IDENTIFY CONDUIT) (OGP)
- UNDERGROUND TELECOMM LINE W/ VAULT (UGT)
- AERIAL TELECOMM LINE (T)
- RAILROAD LINE
- WATER LINE (20" (AND SMALLER) WATER W; 24" (LARGER THAN 20") WATER LDWL)
- SANITARY SEWER LINE (24" (AND SMALLER) SANITARY SEWER SAN; 30" (LARGER THAN 24") SANITARY SEWER SAN)
- STORM SEWER LINE (24" (AND SMALLER) STORM SEWER STM; 30" (LARGER THAN 24") STORM SEWER STM)
- SANITARY SEWER FORCE MAIN (FM)
- RECLAIMED WATER LINE (RWL)
- NON–POTABLE WATER LINE (NPW)
- GAS METER (GAS)
- GAS VALVE (GAS)
- PROPANE LINE (PROPANE)
- STEAM LINE (STEAM)
- MISC UNDERGROUND PIPELINE LABLE (A2)
- MATCH LINE

EXISTING PLAN VIEW

- PAVING HEADER
- BUILDING, RESIDENTIAL (RES. 1–STORY BR, BLDG.)
- BUILDING, COMMERCIAL (COMM. 1–STORY BR, BLDG.)
- TREE
- HEDGE
- IRON PIPE OR IRON ROD MONUMENT (3/4" IP)
- POINT OF INTERSECTION (PI)
- POINT OF CURVE (PC)
- POINT OF TANGENCY (PT)
- POWER POLE (P)
- POWER POLE W/DOWN GUY (P)

EXISTING PROFILE VIEW

- NORTH OR EAST PROPERTY LINE
- SOUTH OR WEST PROPERTY LINE
- NORTH OR EAST CURB
- SOUTH OR WEST CURB
- NORTH OR EAST DITCH
- SOUTH OR WEST DITCH
- NORTH OR EAST NATURAL GROUND
- SOUTH OR WEST NATURAL GROUND
- NORTH OR EAST CULVERT (CULVERT)
- SOUTH OR WEST CULVERT (CULVERT)
- CENTERLINE OF ROW
- CENTERPOINT ENERGY CONDUIT (UGP CENTERPOINT ENERGY CONDUIT UGP)
- GAS LINE (GAS GAS LINE GAS)
- WESTERN UNION (OGP WESTERN UNION OGP)
- AT&T CONDUIT (UGT AT&T CONDUIT UGT)
- WATER LINE (W 20" (AND SMALLER) WATER LINE W; W 24" (LARGER THAN 20") WATER W)
- SANITARY SEWER LINE (SAN 24" (AND SMALLER) SANITARY SEWER SAN; SAN 30" (LARGER THAN 24") SANITARY SEWER SAN)
- STORM SEWER LINE (STM 24" (AND SMALLER) STORM SEWER STM; STM 30" (LARGER THAN 24") STORM SEWER STM)
- SANITARY SEWER FORCE MAIN (FM FM)
- RECLAIMED WATER LINE (RWL RWL)
- NON–POTABLE WATER LINE (NPW NPW)
- CENTERPOINT ENERGY MANHOLE
- AT&T MANHOLE
- WATER LINE MANHOLE (W W)
- SANITARY SEWER MANHOLE & CLEANOUT
- STORM SEWER MANHOLE
- STORM SEWER INLET

PROPOSED PLAN VIEW

- PAVING HEADER
- BUILDING, RESIDENTIAL (RES. 1–STORY BR, BLDG.)
- BUILDING, COMMERCIAL (COMM. 1–STORY BR, BLDG.)
- TREE
- HEDGE
- IRON PIPE OR IRON ROD MONUMENT (3/4" IP)
- POINT OF INTERSECTION (PI)
- POINT OF CURVE (PC)
- POINT OF TANGENCY (PT)
- POWER POLE (P)
- POWER POLE W/DOWN GUY (P)

PROPOSED PROFILE VIEW

- NORTH OR EAST PROPERTY LINE
- SOUTH OR WEST PROPERTY LINE
- NORTH OR EAST CURB
- SOUTH OR WEST CURB
- NORTH OR EAST DITCH
- SOUTH OR WEST DITCH
- NORTH OR EAST NATURAL GROUND
- SOUTH OR WEST NATURAL GROUND
- NORTH OR EAST CULVERT (CULVERT)
- SOUTH OR WEST CULVERT (CULVERT)
- CENTERLINE OF ROW
- CENTERPOINT ENERGY CONDUIT (UGP CENTERPOINT ENERGY CONDUIT UGP)
- GAS LINE (GAS GAS LINE GAS)
- WESTERN UNION (OGP WESTERN UNION OGP)
- AT&T CONDUIT (UGT AT&T CONDUIT UGT)
- WATER LINE (W 20" (AND SMALLER) WATER LINE W; W 24" (LARGER THAN 20") WATER W)
- SANITARY SEWER LINE (SAN 24" (AND SMALLER) SANITARY SEWER SAN; SAN 30" (LARGER THAN 24") SANITARY SEWER SAN)
- STORM SEWER LINE (STM 24" (AND SMALLER) STORM SEWER STM; STM 30" (LARGER THAN 24") STORM SEWER STM)
- SANITARY SEWER FORCE MAIN (FM FM)
- RECLAIMED WATER LINE (RWL RWL)
- NON–POTABLE WATER LINE (NPW NPW)
- CENTERPOINT ENERGY MANHOLE
- AT&T MANHOLE
- WATER LINE MANHOLE (W W)
- SANITARY SEWER MANHOLE & CLEANOUT
- STORM SEWER MANHOLE
- STORM SEWER INLET

MISC STANDARD ELEMENTS

- COH NORTH ARROW (N, W, E)
- COH BAR SCALE (0' 10' 20' 40'; SCALE: 1"=20')
- REVISION CLOUD/DELTA (1)
- DETAIL/SECTION TITLE (1 VIEW TITLE; SCALE: 1:1)
- SECTION CALLOUT (1 / XX)
- DETAIL CALLOUT (1 / XX)

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P–6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAG IMPROVEMENTS FROM QUITMAN STREE TO HOGAN STREET

SYMBOLS

WBS NUMBER	
N–000818–0001–3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHFFT NO 4 OF **152**	

PRIVATE UTILITY NOTES:

AT&T TEXAS/ SWBT FACILITIES:

1. THE LOCATIONS OF AT&T TEXAS/SWBT FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 (TEXAS 811) A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SWBT FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SWBT FACILITIES.
4. WHEN AT&T TEXAS/SWBT FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SWBT UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURIED CABLES OR OTHER CABLES IN CONDUIT IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER ROOSEVELT LEE JR. AT (713) 567-4552 OR EMAIL HIM AT RL7259@ATT.COM, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR OUR AT&T TEXAS/SWBT FACILITIES.

CENTERPOINT ENERGY NOTES:

CAUTION: UNDERGROUND GAS FACILITIES

1. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
   - -WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL 713-945-8036 OR 713-945-8037 (7:00 AM TO 4:30 PM) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
   - -WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
   - -WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
   - -FOR EMERGENCIES REGARDING GAS LINES CALL 713-659-3552 OR 713-207-4200
2. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

WARNING: OVERHEAD ELECTRICAL LINES:

1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
   - -ANY ACTIVITY WHERE PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
   - -OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
2. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT 713-207-2222.

ACTIVITIES ON/OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY

1. NO APPROVAL TO USE, CROSS, OR OCCUPY NO CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING AND RIGHT OF WAY DIVISION AT (713) 207-6348 OR (713) 207-5769

WARNING: UNDERGROUND ELECTRICAL UTILITIES

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

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

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES WHEN AND WHERE THEY FALL IN THE PATH OF CONSTRUCTION.

THE CONTRACTOR IS ALSO RESPONSIBLE FOR CONTACTING THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 AND TEXAS ONE CALL AT 1-800-245-4545, FORTY-EIGHT (48) HOURS PRIOR TO ANY CONSTRUCTION.

THE LOCATION OF ANY CENTERPOINT ENERGY UTILITIES ARE SHOWN IN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. THEY AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.

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

STANDARD NOTES FOR CONSTRUCTION DRAWINGS (HCFCD):

1. OBTAIN AND COMPLY WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL PERMITS AND APPROVALS, WITH ASSISTANCE FROM ENGINEER, IF NECESSARY. OBTAIN PERMIT (CERTIFICATION) FROM HARRIS COUNTY ENGINEER TO ENTER HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT-OF-WAY.
2. NOTIFY THE HARRIS COUNTY FLOOD CONTROL DISTRICT'S PROPERTY MANAGEMENT DEPARTMENT IN WRITING AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. SUBMIT THE HCFCD 48 HOUR PRE-CONSTRUCTION NOTIFICATION FORM, A COPY OF THE APPROVED CONSTRUCTION DRAWINGS, AND A COPY OF THE CORPS OF ENGINEERS INDIVIDUAL SECTION 404 PERMIT, IF APPLICABLE, TO HCFCD, 9900 NORTHWEST FREEWAY, HOUSTON, TEXAS 77092, ATTN: PROPERTY MANAGEMENT DEPT. BY HAND DELIVERY, OR FAX TO 713-684-4129 (FAX NUMBER).
3. ENGINEER SHALL SUBMIT CERTIFICATION LETTER AND RECORD DRAWINGS TO THE HARRIS COUNTY FLOOD CONTROL DISTRICT'S PROPERTY MANAGEMENT DEPARTMENT REQUESTING INSPECTION OF ITEMS CONSTRUCTED IN HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT-OF-WAY. PRIOR TO REQUESTING INSPECTION, THE DRAINAGE RIGHT-OF-WAY AND/OR EASEMENTS SHALL BE STAKED AND FLAGGED.
4. PROTECT, MAINTAIN, AND RESTORE EXISTING BACKSLOPE DRAINAGE SYSTEMS.
5. BACKSLOPE SWALE AND INTERCEPTOR STRUCTURE ELEVATIONS AND LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. FINAL ELEVATIONS AND LOCATIONS SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
6. ESTABLISH TURF GRASS ON ALL DISTURBED AREAS WITHIN THE CHANNEL OR DETENTION RIGHT-OF-WAY, EXCEPT THE CHANNEL BOTTOM AND WHERE STRUCTURAL EROSION MEASURES ARE USED. MINIMUM ACCEPTANCE CRITERIA ARE 75% COVERAGE OF LIVE BERMUDA GRASS AND NO EROSION OR RILLS DEEPER THAN 4".
7. BACKFILL IN ACCORDANCE WITH THE HARRIS COUNTY FLOOD CONTROL DISTRICT STANDARD SPECIFICATION, SECTION 02315 – EXCAVATING AND BACKFILLING, OR EQUIVALENT.
8. EXCAVATE CHANNEL FLOWLINE TO DESIGN ELEVATION AS SHOWN ON PLANS AND DOWNSTREAM, AS NECESSARY, TO ENSURE NO WATER REMAINS IN THE FACILITY (STORM SEWER, LATERAL CHANNEL, OR DRY BOTTOM DETENTION BASIN) DURING NORMAL WATER SURFACE CONDITIONS IN THE CHANNEL, SO THE FACILITY WILL FUNCTION AS INTENDED. FOR WET BOTTOM DETENTION BASINS, ENSURE NO WATER IS ABOVE THE DESIGN LEVEL IN THE WET BOTTOM DURING NORMAL WATER SURFACE CONDITIONS IN THE CHANNEL.
9. MAINTAIN FLOW IN CHANNEL DURING CONSTRUCTION AND RESTORE CHANNEL TO ORIGINAL CONDITION.
10. REMOVE ALL EXCAVATED MATERIAL FROM THE HARRIS COUNTY FLOOD CONTROL DISTRICT OR DRAINAGE RIGHT-OF-WAY. NO FILL IS TO BE PLACED WITHIN A DESIGNATED FLOOD PLAIN AREA WITHOUT FIRST OBTAINING A FILL PERMIT FROM THE APPROPRIATE JURISDICTIONAL AUTHORITY.

GENERAL NOTES – METRO:

1. CONTRACTOR SHALL NOTIFY METRO AT 713-615-6195 TWO WEEKS PRIOR TO DISTURBING EXISTING BUS STOPS.

1. CONTRACTOR SHALL COORDINATE WITH METRO TO REMOVE EXISTING AMENITIES.
2. BUS STOPS SHALL CONSTRUCTED PER CITY OF HOUSTON INFRASTRUCTURE DESIGN MANUAL AND MEET CURRENT ADA REQUIREMENTS

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

GENERAL NOTES

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 5 OF **152**

PLOTTED: 3/29/2026 11:38 AM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\05 GENERAL NOTES.dwg

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 11:38 AM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\05 GENERAL NOTES.dwg

GRADING NOTES:

1. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. BEFORE STARTING CONSTRUCTION, CONTRACTOR SHALL VERIFY BENCHMARK ELEVATION AND NOTIFY ENGINEER IF ANY DISCREPANCY AND/OR CONFLICT IS FOUND.
3. CONTRACTOR SHALL ENSURE THERE IS POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS AND NO PONDING IN PAVED AREAS, AND SHALL NOTIFY ENGINEER IF ANY GRADING DISCREPANCIES ARE FOUND IN THE EXISTING AND PROPOSED GRADES PRIOR TO PLACEMENT OF PAVEMENT OR UTILITIES.
4. CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES THAT ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION.
5. ALL EXISTING CONCRETE PAVING, SIDEWALK, AND CURB DEMOLITION SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR. DISPOSAL SHALL BE AT AN APPROVED OFF-SITE, LAWFUL LOCATION, UNLESS DIRECTED OTHERWISE BY THE OWNER.

WATER CONSTRUCTION NOTES:

1. ALL 4" THROUGH 12" WATER LINE TO BE AWWA C-900 PVC DR-18 BLUE PRESSURE RATED WATER MAIN WITH 2" AND SMALLER WATER SERVICE LINE TO BE CONTINUOUS TYPE K COPPER TUBING PER COH STANDARD SPECIFICATION SECTION 02503. ALL 4" THRU 54" DI PIPE WATER LINES SHALL BE AWWA C151 WITH INSIDE LINING WITH AWWA C104 AND DOUBLE WRAPPED WITH 8-MIL POLYETHYLENE SHEETS.
2. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AS NECESSARY TO PREVENT PIPE MOVEMENT. USE RESTRAINED JOINTS WHERE PREVENTING PIPE MOVEMENT IS NECESSARY DUE TO THRUST.
3. ALL WATER LINES UNDER PROPOSED OR FUTURE PAVING AND TO A POINT OF ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE ENCASED IN BANK SAND TO 12" OVER PIPE AND BACKFILLED WITH CEMENT STABILIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE.
4. ALL WATER LINE AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED PER CITY OF HOUSTON AND TCEQ REGULATIONS.
5. ALL WATER VALVES SHALL BE SUPPLIED AND INS TALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C-500 AND SHALL BE OF THE RESILIENT SEAT TYPE.
6. ALL WATER LINES TO BE DISINFECTED IN CONFORMANCE WITH AWWA C-651 AND THE TEXAS STATE DEPARTMENT OF HEALTH. AT LEAST ONE BACTERIOLOGICAL SAMPLE SHALL BE COLLECTED FOR EVERY 1,000 LINEAR FEET OF WATER LINE AND SHALL BE REPEATED IF CONTMINATION PERSISTS.
7. ALL BELOW GRADE VALVES SHALL BE GASKETED, HUB-END GATE VALVES WITH A CAST IRON BOX, EXCEPT WHERE FLANGES ARE CALLED OUT ON THE PLANS.
8. 4" THRU 12" FITTINGS SHALL BE CEMENT MORTAR LINED COMPACT DUCTILE IRON PRESSURE FITTINGS PER ANSI A21.53, OR PUSH ON FITTINGS PER ANSI A21.10 PRESSURE RATED AT 250 PSIG.
9. HYDROSTATIC TESTING: ALL WATER PIPE SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LATEST CITY OF HOUSTON STANDARD CONSTRUCTION SPECIFICATIONS. TESTS ARE TO BE PERFORMED ON THE ENTIRE FOOTAGE OF WATER PIPE INCLUDED IN THE PROJECT.
10. ALL WATER LINES TO HAVE 4' MINIMUM COVER TO FINISHED GRADE AND MINIMUM 12" CLEARANCE TO OTHER UTILITIES AT CROSSING UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINE INSTALLED OVER 8' DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS.
11. CONTRACTOR SHALL KEEP WATER PIPE CLEAN AND CAPPED (OR OTHERWISE EFFECTIVELY COVERED) OPEN PIPE ENDS TO EXCLUDE INSECTS, ANIMALS OR OTHER SOURCES OF CONTAMINATION FROM UNFINISHED LINES AT TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS.

STORM SEWER CONSTRUCTION NOTES:

1. STORM SEWER SHALL BE REINFORCED CONCRETE PIPE (C-76, CLASS III), AND SHALL BE INSTALLED, BEDDED, AND BACK FILLED IN ACCORDANCE WITH THE CITY OF HOUSTON DRAWING NOS. 2317-02, 02317-3, 02317-05, 02317-06, AND 02317-07 (JULY 2019) AS APPLICABLE UNLESS OTHERWISW SHOWN ON THE DRAWINGS.
2. ALL STORM SEWER CONSTRUCTED IN SIDELOT EASMENT SHALL BE R.C.P (C-76, CLASSIII) AND SHALL BE EMBEDDED IN ACCORDANCE WITH THE CITY OF HOUSTON DRAWING NOS. 02317-02, 02317-03, 02317-05, 02317-06, AND 02317-07 AS APPLICABLE.
3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABLIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH SHALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
4. ALL TRENCH BACKFILL SHALL BE IN 8" LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS IN EACH LIFT, AND MECHNICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMACTION TEST (ASTM D-698/AASHTO T99).
5. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINT CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
6. ALL STORM SEWER PIPES AND INLET LEADS SHALL BE 24" AND LARGER R.C.P. (C-76, CLASSIII).
7. ALL PRPOSED PIPE STUB-OUTS FROM MANHOLES AND INLET LEADS ARE TO BE PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
8. MINIMUM HORIZONTAL CLEARANCE BETWEEN ANY STORM PIPE AND BOX SHALL BE AT LEAST 48-INCHES FROM EXTERIOR OF THE STORM PIPE OR BOX TO THE EXTERIOR OF THE EXISTING OR PROPOSED PUBLIC OR PRIVATE UTILITY AND OTHER APPURTENANCES. MINIMUM VERTICAL CLEARANCE BETWEEN ANY STORM PIPE AND BOX SHALL BE AT LEAST 24-INCHES FROM EXTERIOR OF THE STORM PIPE OR BOX TO THE EXTERIOR OF THE EXISTING OR PROPOSED PUBLIC OR PRIVATE UTILITY AND OTHER APPURTENANCES.
9. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF SECTION 02086-ADJUSTING MANHOLES, INLETS, AND VALAVE BOXES TO GRADE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACK SLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF THIS WORK.
11. ALL DITCHES SHALL BE GRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.
12. ALL DRIVEWAYS WILL BE LOCATED TO AVOID EXISTING CURB INLET STRUCTURES.

SANITARY SEWER CONSTRUCTION NOTES:

1. ALL SEWERS SHALL BE SUBJECT TO A STANDARD EXFILTRATION TEST. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF SEWER LINE INCLUDED IN THE PROJECT. REQUIREMENTS OF TEXAS ADMINISTRATIVE CODE, TITLE 30 CHAPTER 217, "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS" SHALL GOVERN WHERE CONFLICTS EXIST EXCEPT WHERE CITY REQUIREMENTS ARE MORE STRINGENT.
2. ALL MANHOLES ARE TO BE PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBERS 02082-01, 02082-02, 02082N-02, 02082-03, AND 02082N-03 UNLESS OTHERWISE NOTED. USE THE LATEST VERSION AS APPLICABLE.
3. SANITARY SEWER MANHOLES WILL HAVE BEDDING AND BACKFILL PER CITY OF HOUSTON STANDARD DETAILS DRAWING NO. 02317-08 UNLESS OTHERWISE NOTED.
4. THE SANITARY SEWER PVC PIPE SHALL BE ASTM D 3034 TYPE PSM SDR 26 GRAVITY SEWER PIPE, ASTM D2241 SDR 26 PRESSURE RATED SEWER PIPE OR AWWA C-900 DR-18 GREEN PVC PRESSURE RATED SEWER PIPE BASED ON CONSTRUCTION CONDITION REQUIREMENT AND CONFORMING TO ASTM D1784 AND CITY OF HOUSTON STANDARD SPECIFICATION SECTION 02506 POLYVINYL CHLORIDE PIPE.
5. WHEN SS PRESSURE RATED PVC PIPE IS USED ON WATERLINE (WL) CROSSING UNDER CONDITION 1 OF COH IDM TABLE 7.3, THE SAME TYPE OF D2241 SDR 26 PVC PIPE OR C-900 GREEN DR-18 PVC GREEN PRESSURED TO BE UTILIZING IN-BETWEEN TWO SS MH'S. OR TO UTILIZE A DI TRANSITION ADAPTER FOR THE CONNECTING OF ASTM D-3034 PVC GRAVITY PIPE TO DI-OD AWWA C-900 PVC PIPE CENTERED AT WL WHEN CONNECTING TWO DIFFERENT TYPES OF PVC PIPES FOR SEWER CONSTRUCTION.
6. AWWA C-900 DR-18 PVC PIPE USES EITHER AWWA C900 DR-18 PVC FITTINGS OR DIP FITTINGS.
7. ALL SANITARY SEWER LINES UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL HAVE BEDDING PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBERS 02317-01, 02317-02, OR 02317-03 AS APPLICABLE, WITH 1 ½ SACK CEMENT/CY STABILIZED SAND BACKFILL UP TO THE BOTTOM OF THE PAVEMENT SUBGRADE. 100 PSI PERFORMANCE RESULTS ARE STILL REQUIRED.
8. ALL NEW SANITARY SEWERS CROSSING WATER LINES WITH A CLEARANCE BETWEEN 12 INCHES AND 9 FEET SHALL HAVE A MINIMUM OF ONE 18' JOINT OF DUCTILE IRON OR (GREEN) C900 PVC PIPE MEETING ASTM SPECIFICATION D2241 CENTERED ON WATER LINE. WHEN WATER LINE IS BELOW SANITARY SEWER, PROVIDE MINIMUM 2 FOOT SEPARATION.
9. CONTRACTOR SHALL PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 9' FEET BETWEEN WATER LINES AND SANITARY SEWER MANHOLES AND LINES.
10. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" – 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER TO DRAIN AWAY FROM MANHOLE RIM.
11. IN WET STABLE TRENCH AREAS USE BEDDING PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBER 02317-02.
12. DEFLECTION TEST: DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID SEWER PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5% IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED AS PER 30 TAC 217.57 LATEST AMENDMENT AND WITHOUT MECHANICAL PULLING DEVICES. NO BALL-TYPE MANDREL IS ALLOWED.
13. INFILTRATION, EXFILTRATION OR LOW-PRESSURE AIR TEST: EITHER OF THE FOLLOWING TESTS SHALL BE PERFORMED AS PER TAC, TITLE 30 217.57 WITHIN THE SPECIFIED TOLERANCES ON ALL GRAVITY SEWERS.

    A. INFILTRATION OR EXFILTRATION TEST: TOTAL LEAKAGE AS DETERMINED BY A HYDROSTATIC HEAD TEST SHALL NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO (2) FEET.

    B. LOW-PRESSURE AIR TEST: PERFORM TEST ACCORDING TO UNI-B-6-90 OR OTHER APPROPRIATE PROCEDURES. FOR SECTIONS OF PIPE LESS THAN 36" (INCH) AVERAGE INSIDE DIAMETER, THE MINIMUM ALLOWABLE TIME FOR PRESSURE DROP FROM 3.5 P.S.I.G. TO 2.5 P.S.I.G. SHALL BE AS FOLLOWS:

    6" 340 SECONDS OR 0.855(L) FOR TEST LENGTHS GREATER THAN 398'
    8" 454 SECONDS OR 1.520(L) FOR TEST LENGTHS GREATER THAN 298'
    10" 567 SECONDS OR 2.374(L) FOR TEST LENGTHS GREATER THAN 239'
    12" 680 SECONDS OR 3.419(L) FOR TEST LENGTHS GREATER THAN 199'
    15" 850 SECONDS OR 5.342(L) FOR TEST LENGTHS GREATER THAN 159'
    18" 1020 SECONDS OR 7.693(L) FOR TEST LENGTHS GREATER THAN 133'

    WHERE L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET.

14. "SAN. S. E." INDICATES "SANITARY SEWER EASEMENT"
15. FOR SANITARY MANHOLE (MH) RIMS SET INSIDE OF OR @ CURB & GUTTER PAVEMENT AND/OR BELOW T.C., MH RIMS WILL BE SET FLUSHED WITH AN ABUTTING PAVED SURFACE. THE (VALCUN, NEENAH OR EQUAL) HEAVY DUTY BOLTED SOLID MH COVER SHALL BE PROPERLY (AND SECURELY) ATTACHED AND SEALED TO ITS COMPATIBLE GASKETED FRAME BY USING BOTH A NEOPRENE GASKET AND (AT LEAST) 4 COUNTER-SUNK HEX-HEAD COARSE THREADED ½"-13 UNC STAINLESS STEEL BOLTS. THE HEAVY DUTY FRAME MH COVER SHALL BE SOLID (NO AIR HOLES). SAID FRAME SHALL BE BOTH EMBEDDED INTO THE MH'S TOP ALSO SECURELY ANCHORED TO THE UNDERLYING MH STRUCTURE WITH EITHER SECURELY ATTACHED EMBEDDED ANCHOR BOLTS OR THE CONCRETE MH'S EXPOSED REBARS WELDED TO THE FRAME OR OTHER EQUALLY SECURED METHODS TO PREVENT MH COVER/FRAME BLOW-OFFS/EJECTIONS.

.

GENERAL NOTES – INSIDE CITY LIMITS:

1. UNLESS OTHERWISE NOTED AND APPROVED ON DRAWINGS, CONSTRUCT CIVIL INFRASTRUCTURE IN ACCORDANCE WITH THE EFFECTIVE EDITION OF THE HOUSTON PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS, STANDARD CONSTRUCTION DETAILS, AND SUPPLEMENTS, ADDENDA AND AMENDMENTS THERETO. THE LATEST EDITION OF THE ABOVE PUBLICATIONS CAN BE FOUND AT: HTTP://WWW.HOUSTONPERMITTINGCENTER.ORG/OFFICE-CITY-ENGINEER/DESIGN-AND-CONSTRUCTION-STANDARDS.
2. THE DESIGN MUST BE CONSISTENT WITH THE EFFECTIVE EDITION OF HOUSTON PUBLIC WORKS INFRASTRUCTURE DESIGN MANUAL AND TCEQ (TEXAS COMMISSION ON ENVIRONMENTAL QUALITY) REQUIREMENTS.
3. THE GEOTECHNICAL INVESTIGATION FOR THIS PROJECT WAS CONDUCTED IN ACCORDANCE WITH CHAPTER 11 OF THE LATEST EDITION OF THE PUBLICATION INFRASTRUCTURE DESIGN MANUAL, PUBLISHED BY HOUSTON PUBLIC WORKS. SOILS REPORT WAS PREPARED BY [GEOTECHNICAL ENGINEERING FIRM] REPORT NO. [NO. OF REPORT], DATED [DATE OF REPORT].
4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 713-223-4567/811 OR 800-344-8377 AND LONE STAR NOTIFICATION CENTER AT 800-669-8344 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION. UTILITIES MARKED WITHIN THE PUBLIC RIGHT OF WAY OR IN EASEMENTS SHALL COMPLY WITH TAC TITLE 16, PART 1, CHAPTER 18, RULE §18.6 AND THE AMERICAN PUBLIC WORKS ADMINISTRATION (APWA) UNIFORM COLOR CODE.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES AND TRAFFIC CONTROL DEVICES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE EFFECTIVE EDITION OF HOUSTON PUBLIC WORKS, STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAINAGE, STREET PAVING, AND TRAFFIC AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, STREET PAVING, AND TRAFFIC, REFERENCED ABOVE AND SUPPLEMENTS, ADDENDA AND AMENDMENTS THERETO, AT NO ADDITIONAL COST TO THE CITY OF HOUSTON.
6. CONTRACTOR SHALL NOTIFY THE OFFICE OF THE CITY ENGINEER, HOUSTON PUBLIC WORKS @ 832-394-9098 OR VIA FAX AT 832-395-4424 FOR INSPECTION AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER AND TO THE SATISFACTION OF THE OWNING AUTHORITY.
8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
9. CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
10. CONTRACTOR SHALL MAINTAIN A SET OF REDLINE DRAWINGS AND RECORD AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE AS-BUILT DRAWINGS WILL BE SUBMITTED TO THE DESIGN CONSULTANT WHO WILL MAKE THE CHANGES ON THE ORIGINAL TRACINGS, LABEL EACH SHEET IN THE SET AS "RECORD DRAWINGS", AND RETURN IT TO THE OFFICE OF THE CITY ENGINEER.

STREET & BRIDGE CONSTRUCTION NOTES:

1. FILL AREAS ON PLANS SHALL BE FILLED IN LAYERS NOT EXCEEDING 8" IN DEPTH AND EACH COMPACTED TO NOT LESS THAN 95% STANDARD PROCTOR DENSITY PRIOR TO INSTALLATION OF WATER LINE AND FILL AREA SHALL BE SEEDED AND FERTILIZED WITHIN 10 WORKING DAYS.
2. UTILITY CONTRACTOR SHALL PROVIDE TEMPORARY SILT BARRIER FENCE ON ALL NON-CURBED INLETS WHICH WILL REMAIN IN PLACE AFTER UNDERGROUND CONTRACT IS COMPLETE.
3. CONTRACTOR SHALL PROVIDE SILT BARRIER FENCE ON ALL STAGE 1 CURB INLETS.
4. EXISTING PAVEMENTS, CURBS, DRIVEWAYS, AND SIDEWALKS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO CITY OF HOUSTON STANDARDS, WITH LATEST ADDENDA AND AMENDMENTS THERETO.
5. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY UPON COMPLETION OF JOB SHALL BE AS GOOD AS OR BETTER THAN PRIOR TO STARTING WORK.
6. EXPOSED 15" OF REINFORCING STEEL AT PROPOSED SAWED JOINT IF NO REINFORCING STEEL EXISTS, USE HORIZONTAL DOWELS. HORIZONTAL DOWELS SHALL BE #6 BARS 24" LONG 24" C-C DRILLED AND EMBEDDED 8" INTO THE CENTER OF THE EXISTING SLAB WITH "PO ROC" OR EQUAL.
7. WHEELCHAIR RAMPS SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF HOUSTON STANDARDS AT ALL INTERSECTIONS WHERE SIDEWALKS EXIST AND THE EXISTING CURB OR SIDEWALK IS DAMAGED OR REMOVED DURING CONSTRUCTION.
8. PRIOR TO STREET CONSTRUCTION, THE CONTRACTOR SHALL CONTACT HOUSTON PUBLIC WORKS AT (PHONE) 832-394-9578 AND COMPLY WITH ALL REQUIREMENTS FOR THE ISSUANCE OF NECESSARY PERMITS/WORK ORDERS FOR STREET CONSTRUCTION.
9. DOUBLE REFLECTORIZED BLUE TRAFFIC MARKERS SHALL BE PLACED 6-INCHES OFFSET OF THE CENTERLINE OF ALL FIRE HYDRANT LOCATIONS BY THE PAVING CONTRACTOR. HYDRANTS LOCATED AT INTERSECTIONS SHALL HAVE A BUTTON PLACED ON EACH STREET.

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

DRAINAGE AND SANITARY CONTRUCTION NOTES

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 6 OF **152**	

FCM Engineers, PC

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS
FROM QUITMAN STREET TO HOGAN STREET
WBS NO. N-000818-0001-3
90% QUANTITY TAKEOFF
DATE: 03/2026

Item No.	Spec Sec	Item Description	Unit Measure	Unit Quantity	Fulton St 1+00 to 5+00	Fulton St 5+00 to 9+00	Fulton St 9+00 to 13+50	Fulton St 13+50 to 17+00	Fulton St 17+00 to 21+00	Fulton St 21+00 to End	Hogan St STA. 1+00 to 5+00	Gargan St STA. 1+50 to 4+50	James St STA. 1+50 to 4+50	Pacshall St. STA. 4+50 to 7+50	Henrt St. STA. 2+00 to 4+50	Quitman St. STA. 1+50 to 5+00	Sheet 71	Sheet 72	Sheet 92	Sheet 93
GENERAL ITEMS																				
1	01502	Mobilization	LS	1																
2	01582	Build Houston Forward Project Identification Sign	EA	2																
3	01554	Installation or Replacement of Permanent Signs (signs, poles, anchors and hardware provided by city)	LS	1																
4	01555	Flagmen (Uniform Peace Officer)	HR	3,850																
5	01555	Traffic Control and Regulation	LS	1																
6	01555	Install Low Profile Concrete Barriers	LF	900																
7	01555	Relocate Low Profile Concrete Barriers	LF	900																
8	01555	Remove Low Profile Concrete Barriers	LF	900																
8a	01555	Install Low Profile Plastic Barriers/Drums	LF	800																
8b	01555	Relocate Low Profile Plastic Barriers/Drums	LF	800																
8c	01555	Remove Low Profile Plastic Barriers/Drums	LF	800																
9	01562	Tree and Plant Protection	LS	1																
10	01570	Inlet Protection Barrier	LF	624															378	324
11	01575	Stabilized Construction Exit	SY	334																
12	01740	Site Restoration	LF	2,466																
13	02233	Clearing and Grubbing	LS	1																
14	02921	Hydromulch	AC	2																
15	02922	Sodding	SY	1,114	129.5	277.3	318.9	291.7	96.2											
WATER ITEMS																				
16	02520	Remove and salvage existing fire hydrant	EA	2			1		1											
17	02260	Trench safety system for trench excavations	LF	802	98	323	137	56	151	37										
18	02520	Proposed Fire Hydrant	EA	4	1		1	1	1											
19	02501	6-inch diamter Ductile Iron water line with Restrained Joint	LF	77		72			5											
20	02513	6" Wet Connection	EA	4		4														
21	02513	8" Wet Connection	EA	4		2	2													
22	02501	8-inch diamter Ductile Iron water line with Restrained Joint	LF	205		126	79													
23	02501	12-inch diamter Ductile Iron water line with Restrained Joint	LF	592	98	197	58	56	146	37										
24	02513	12" Wet Connection	EA	29	6	4	6	4	5	4										
WASTEWATER ITEMS																				
25	02221	Remove and Dispose of Sanitary Sewer (10") and Smaller	LF	84				44	40											
26	02221	Remove and Dispose of Sanitary Sewer Manhole	EA	16	1	1	10		1	3										
27	02531	Prop. 8" Sanitary Sewer	LF	959		214	342	332	71											
28	02082	4' Dia Sanitary Sewer Manhole, 8' depth and less	EA	8		2	2	3	1											
29	02082	Extra Depth 4' Dia Sanitary Sewer MH	VF	17		5	4	4	4											
30	02534	Sanitary sewer Service connections	EA	20																
30	02260	Trench Safety System for Sanitary Sewer Excavations	LF	959		214	342	332	71											
31	02086	Adjust sanitary sewer MH to new grade	EA	15	6	2	1	1	2	3										
PAVING ITEMS																				
32	02221	Remove & Dispose of Existing Storm Sewers (15" RCP)	LF	596	106	275	68		147											
33	02221	Remove & Dispose of Existing Storm Sewers (18" RCP)	LF	76		76														
34	02221	Remove & Dispose of Existing Storm Sewers (21" RCP)	LF	235		235														
35	02221	Remove & Dispose of Existing Storm Sewers (24" RCP)	LF	420		40	380													
36	02221	Remove & Dispose of Existing Storm Sewers (30" RCP)	LF	87			67		20											
37	02221	Remove & Dispose of Existing Storm Sewer Inlets	EA	27	4	10	4	0	7	2		0								
38	02221	Remove & Dispose of Existing Storm Sewer Manholes	EA	7	2	3	1	0	1	0		0								
39	02631	24" RCP (ASTM C76, Class III) (Rubber Gasketed)	LF	1,166	364	65.9	0.0	44.0	71.2	153.2		137.8	112.6	95.7	122.1	0.0				
40	02631	36" RCP (ASTM C76, Class III) (Rubber Gasketed)	LF	230	0	230.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0				
41	02631	42" RCP (ASTM C76, Class III) (Rubber Gasketed)	LF	420	0	0.0	0.0	0.0	320.0	100.0		0.0	0.0	0.0	0.0	0.0				
42	02631	48" RCP (ASTM C76, Class III) (Rubber Gasketed)	LF	92	0	0.0	0.0	0.0	53.7	0.0		0.0	0.0	38.3	0.0	0.0				

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SUMMARY OF QUANTITIES
1 OF 2

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 7 OF **152**

PLOTTED: 3/30/2026 11:19 AM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\07 QUANTITY TABLES.dwg

FCM Engineers, PC

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS
FROM QUITMAN STREET TO HOGAN STREET
WBS NO. N-000818-0001-3
90% QUANTITY TAKEOFF
DATE: 03/2026

Item No.	Spec Sec	Item Description	Unit Measure	Unit Quantity	Fulton St 1+00 to 5+00	Fulton St 5+00 to 9+00	Fulton St 9+00 to 13+50	Fulton St 13+50 to 17+00	Fulton St 17+00 to 21+00	Fulton St 21+00 to End	Hogan St STA. 1+00 to 5+00	Gargan St STA. 1+50 to 4+50	James St STA. 1+50 to 4+50	Pacshall St. STA. 4+50 to 7+50	Henrt St. STA. 2+00 to 4+50	Quitman St. STA. 1+50 to 5+00	Sheet 71	Sheet 72	Sheet 92	Sheet 93
43	02631	54" RCP (ASTM C76, Class III) (Rubber Gasketed)	EA	853	0	75.0	450.0	328.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0				
44	02081	Proposed Type C MH 5-foot dia (42-inch Dia Pipe or smaller)	EA	25	2	2.0			4.0	2.0		4.0	4.0	2.0	1.0	4.0				
45	02081	Proposed Type C MH 7-foot dia (48-inch to 72-inch Dia Pipe)	EA	6		1.0	1.0	2.0						1.0	1.0					
46	02633	Precast Type "B-B" Inlet	EA	38	4	6.0	0.0	4.0	3.0	4.0		3.0	4.0	4.0	4.0	2.0				
47	02633	Precast Type C inlet	EA	3	0	0.0	0.0	0.0	0.0	0.0		1.0	0.0	0.0	0.0	2.0				
48	02633	Precast Type A inlet	EA	2	0	0.0	0.0	0.0	0.0	0.0		2.0	0.0	0.0	0.0	0.0				
49	02260	Trench Protection for Storm Sewers	LF	2,761																
50	02221	Remove and Dispose of Existing Concrete Pavement with or Without Asphalt Overlay	SY	8,787	966	1730.5	1790.0	1211.0	1753.0	1336.0										
51	02221	Remove and Dispose of Existing Driveways	SY	843	287	88.0	141.0	175.0	152.0											
52	02221	Remove/Dispose Concrete Sidewalk	SY	1,897	288.44	337.8	439.6	311.1	362.2	158.2										
53	02221	Remove/Dispose Concrete Curb	LF	2,520	311	311.0	674.0	343.0	430.0	451.0										
54	02221	Remove and salvage existing Bus stop pad and benches	SY	17	5	5.0			7.0											
55	02221	Remove and Relocate existing Fence	LF	1,574	283	170.0	471.0	550.0	100.0											
56	02221	Remove, salvage and relocate existing flasing beacon sign post	EA	3				1.0	2.0											
57	02221	Remove and Salvage existing Traffic sign	EA	37	2	11.0	8.0	4.0	11.0	1.0										
58	02221	Remove existing Traffic signal	EA	5	5															
59	02714	Flexible Base Course/Temp Driveways Residential	EA	35																
60	02714	Flexible Base Course/Temp Driveways Commercial	EA	8																
61	02315	Roadway Excavation With or Without Subgrade	CY	5,133	564.6044	1019.5	1050.1	717.7	1021.7	759.3										
62	02336	Lime Stabilized Subgrade, 8-inch thick	SY	9,871	1085.778	1960.5	2019.3	1380.1	1964.8	1460.2										
63	02336	6% Lime Treor Stabilized Subgrade (Dry Weight)	TON	166	18.2411	32.9	33.9	23.2	33.0	24.5										
64	02751	11-inch Reinforced Concrete Pavement	SY	5,666	292	1011.5	1362.0	1211.0	1337.0	452.0										
65	02751	11-inch High early strength Reinforced Concrete Pavement	SY	3,121	674	719.0	428.0	0.0	416.0	884.0										
66	02960	Mill and Overlay existing asphalt to match existing pavement	SY	3,143	1099	592.6	577.0	0.0	265.0	609.0										
67	02754	Reinforced Concrete Driveways (7")	SF	9,491	1060.86	823.3	2264.5	2897.6	1815.1	0.0	380.0	249.9	0.0	0.0	0.0	0.0				
68	02775	6" Thick Reinforced Concrete Sidewalk	SF	25,833	2429.27	3680.0	4253.7	2714.9	7893.6	2227.3	1089.7	365.5	424.3	448.9	306.1	0.0				
69	02771	6" Reinforced Concrete Curb	LF	4,494	500	735.0	974.2	972.5	907.1	404.8	0.0	0.0	0.0	0.0	0.0	0.0				
70	02771	6" Reinforced Concrete Curb and gutter	LF	932	0	0.0	0.0	0.0	0.0	0.0	480.0	0.0	0.0	362.0	90.0	0.0				
71	02771	Proposed Curb ramps	SF	727	43.85	245.8	126.5	0.0	106.2	162.0	42.6	0.0	0.0	0.0	0.0	0.0				
72	02751	Proposed 9" concrete bus stop pad and landing	SY	370	64.7	59.7	116.2	0.0	106.9	0.0	23.0	0.0	0.0	0.0	0.0	0.0				
73	02752	Board Expansion Joints with Load Transfer Device	LF	1,260																
74	02752	Horizontal Dowels, All lengths	EA	1,260																
75	01554	TrafficSigns	EA	48													22.0	26.0		
76	01554	Traffic Sign - Plaque	EA	22													7.0	15.0		
77	01554	Street Narrie Signs	EA	18													10.0	8.0		
78	01554	Relocate Traffic Signs	EA	7													4.0	3.0		
79	02767	Thermoplastic Pavement Marking 12-inch Wide White (SLD)	LF	1,718																
80	02767	Thermoplastic Pavement Marking 24-inch Wide White (SLD)	LF	1,485																
81	02767	Thermoplastic Pavement Marking Symbol Arrow	EA	4																
82	02582	Metal light pole	EA	8		2.0	2.0	2.0	2.0											

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SUMMARY OF QUANTITIES
2 OF 2

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 8 OF 152

PLOTTED: 3/30/2026 11:19 AM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\07 QUANTITY TABLES.dwg

SUMMARY OF TRAFFIC SIGNAL ITEMS

ITEM NO.	SPEC NO.		ITEM DESCRIPTION	UNIT	QUITMAN ST	HOGAN ST	TOTAL
1	02582		4 INCH POLE, ALL STYLES, WITH FOUNDATION	EA	4	4	8
2	02582		25-FOOT GALVANIZED MAST ARM POLE WITH FOUNDATION	EA	0	4	4
3	02582		35-FOOT GALVANIZED MAST ARM POLE WITH FOUNDATION	EA	1	0	1
4	02590		TRAFFIC SIGNAL POLE LUMINAIRE	EA	4	4	8
5	02893		ELECTRICAL SERVICE POLE ASSEMBLY	EA	4	4	8
6	02893		OVERHEAD STREET NAME SIGNS	EA	4	4	8
7	02893		SIGN, LEFT TURN YIELD ON GREEN BALL (R10-12)	EA	2	2	4
8	02893		REMOVE AND SALVAGE EXISTING TRAFFIC SIGNAL EQUIPMENT	EA	1	0	1
10	16710		TYPE A PULL BOX WITH GRAVEL AND GROUND ROD	EA	11	12	23
11	16710		TYPE B PULL BOX WITH GRAVEL AND GROUND ROD	EA	4	4	8
12	16710		TYPE C PULL BOX WITH GRAVEL AND GROUND ROD	EA	1	1	2
13	16711		1-INCH PVC SCH.80 UNDERGROUND, EARTH	LF	410	220	630
14	16711		2-INCH PVC SCH.80 UNDERGROUND, EARTH	LF	405	460	865
15	16711		2-INCH PVC SCH.80 UNDERGROUND, BORE	LF	340	450	790
16	16711		3-INCH PVC SCH.80 UNDERGROUND, EARTH	LF	315	175	490
17	16711		4-INCH PVC SCH.80 UNDERGROUND, EARTH	LF	330	210	540
18	16713		VEHICLE PRE-FORMED LOOP DETECTOR, 6-FOOT BY 6-FOOT	EA	17	17	34
19	16715		3-SECTION VEHICLE SIGNAL HEAD ASSEMBLY	EA	8	8	16
20	16716		LED PEDESTRIAN SIGNAL HEAD ASSEMBLY (SYMBOLIC)	EA	8	8	16
21	16716		PEDESTRIAN PUSHBUTTON ASSEMBLY, LEFT, RIGHT, OR BOTH ARROWS	EA	8	8	16
22	16719		COUNTDOWN PEDESTRIAN SIGNAL MODULE	EA	8	8	16
23	16720		3/C-#14 AWG SOLID CABLE	LF	965	1060	2025
24	16720		5/C-#14 AWG SOLID CABLE	LF	965	1060	2025
25	16720		7/C-#14 AWG SOLID CABLE	LF	1370	980	2350
26	16724		EMERGENCY VEHICLE PREEMPTION	EA	4	4	8
27	16727		LOOP DETECTOR SAWCUT	LF	3	5	8
28	16730		ITS CONTROLLER CABINET ASSEMBLY (MODEL 340) INCLUDING FOUNDATION AND AI	EA	1	1	2
29	16731		MODEL 2070 CONTROLLER UNIT	EA	1	1	2
30	16732		UNINTERRUPTIBLE POWER SUPPLY	EA	1	1	2
31	16733		HARDENED ETHERNET SWITCH	EA	1	1	2
34	16739		BLUETOOTH EQUIPMENT	EA	1	1	2
35	16740		QTY ONE (1) 12 SM FIBER OPTIC CABLE	LF	395	400	795
38	16750		ACCESSIBLE PEDESTRIAN PUSH BUTTON STATION	EA	1	1	2

SUMMARY OF LIGHTING ITEMS

ITEM NO.	SPEC NO.	ITEM DESCRIPTION	UNIT	STA. 1+00 TO 5+00	STA. 5+00 TO 9+00	STA. 9+00 TO 13+50	STA. 13+50 TO 17+00	STA. 17+00 TO 21+00	STA. 21+00 TO 24+00	TOTAL
1	02581	STREET LIGHTING CONDUIT, 2-INCH, SCH 40 PVC	LF							
2	02581	STREET LIGHTING CONDUIT, 2-INCH, SCH 80 PVC	LF							

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

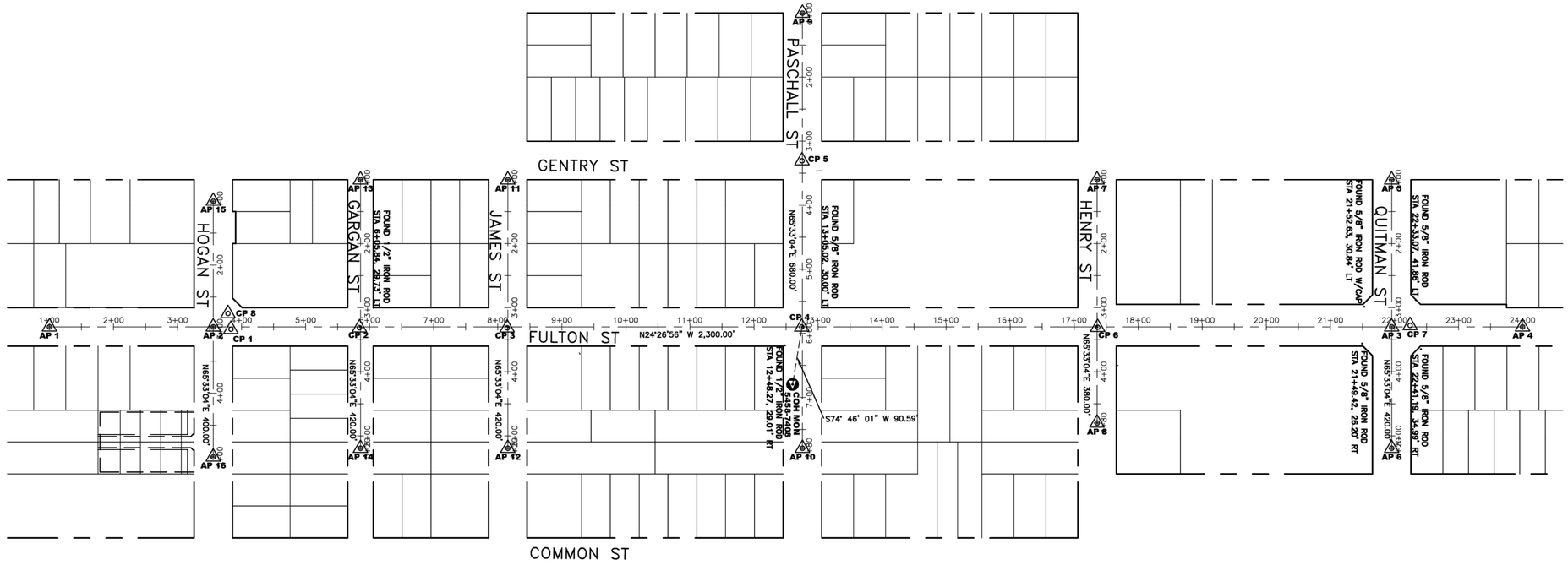
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

TRAFFIC QUANTITY TAKE-OFFS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-000818-0001-3	
DRAWING SCALE	THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
	KARI HUI-SHAN CAI, P.E. TEXAS PE No: 152599
CITY OF HOUSTON PM	DATE: 01/30/2026
MICHELLE RANDON, P.E.	
SHEET NO. 9 OF 152	

PLOTTED: 3/26/2026 3:40 PM
PLOT STYLE: COH.ctb
FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\5.0 Design\Signal Design\Traffic Quantity Take-offs.dwg



GRAPHIC SCALE

0 100 200

SCALE IN FEET
FULL SIZE: H. 1"=100'

NO.	DATE	REVISION	APP.

NOTE:

ALL BEARINGS AND COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204) NORTH AMERICAN DATUM OF 1983 (2011 ADJ) 2010 EPOCH. COORDINATES SHOWN HEREON ARE GRID VALUES AND ALL DISTANCES SHOWN ARE SURFACE VALUES. THE COMBINED SCALE FACTOR IS 0.99989533.

HORIZONTAL COORDINATES BASED ON GPS FIELD DATA COLLECTED NOVEMBER 2019.

ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) GEOID 18 AND HAVE BEEN TRANSFERRED FROM THE PROJECT BENCHMARK TO CONTROL POINTS VIA DIFFERENTIAL LEVELING.

PROJECT BENCHMARK:

CITY OF HOUSTON BRASS DISK 5458-7408 BRASS DISK LOCATED ON THE SOUTH SIDE ON PASCHALL ST. APPROXIMATELY 100' EAST OF THE INTERSECTION OF PASCHALL ST. AND FULTON ST.
ELEV.= 47.22' GEOID 18

KEY MAP: 493D, 493H

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS

STATE OF TEXAS REGISTERED WILLIAM H. REIMER III 4044 PROFESSIONAL LAND SURVEYOR
William H. Reimer III
07-11-2022

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

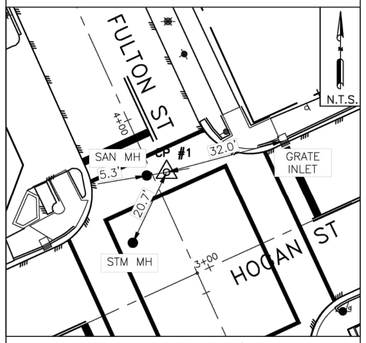
SURVEY CONTROL MAP
SHEET 1 OF 3

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=100'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 10 OF 152	

PLOT STYLE: COH CIP.CTB PLOTTED: 3/29/2026 11:35 AM

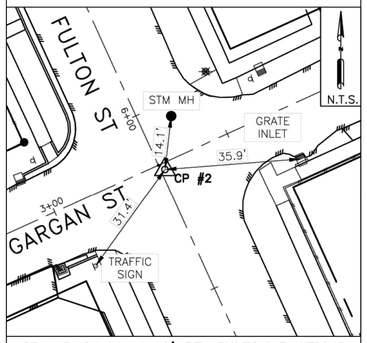
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\10 SURVEY CONTROL MAP.dwg

CP-1 -- MAG NAIL



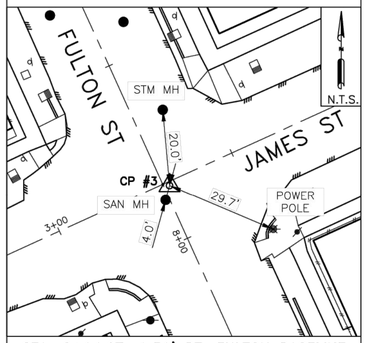
STA. 3+83.32, 3.68' RT,
FULTON BASELINE

CP-2 -- MAG NAIL



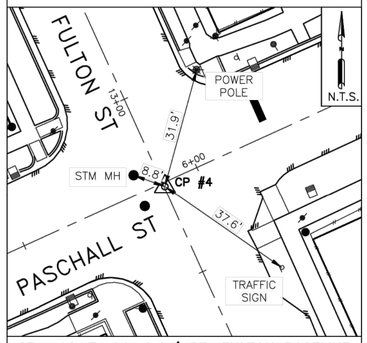
STA. 5+84.00, 1.18' RT, FULTON BASELINE
STA. 3+31.18, 1.70' RT, GARGAN BASELINE

CP-3 -- MAG NAIL



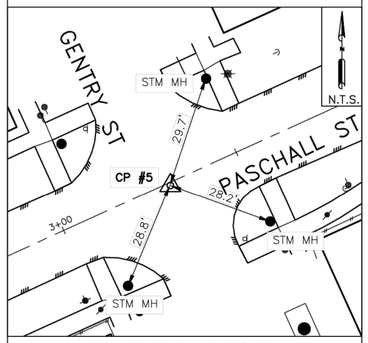
STA. 8+14.67, 1.51' RT, FULTON BASELINE
STA. 3+31.51, 1.03' RT JAMES BASELINE

CP-4 -- MAG NAIL



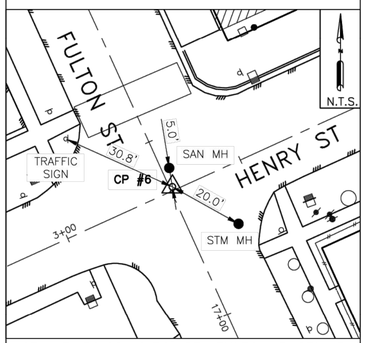
STA. 12+74.64, 0.24' RT, FULTON BASELINE
STA. 5+90.24, 1.06' RT PASCHALL BASELINE

CP-5 -- MAG NAIL



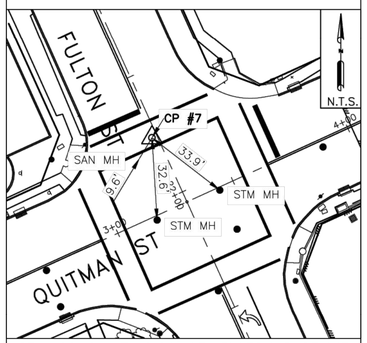
STA. 3+30.44, 0.67' RT,
PASCHALL ST BASELINE

CP-6 -- MAG NAIL



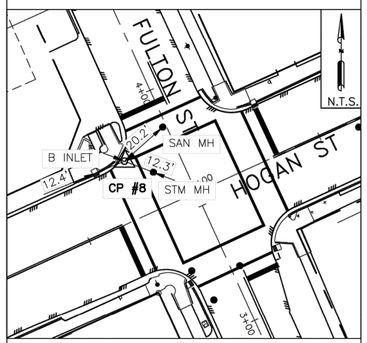
STA.17+36.68, 0.76' RT, FULTON BASELINE
STA.3+30.76, 0.98' LT, HENRY BASELINE

CP-7 -- X-CUT



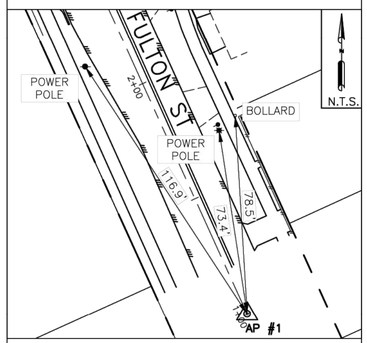
STA. 22+24.47, 2.06' LT, FULTON BASELINE
STA. 3+27.94, 28.77' LT, QUITMAN BASELINE

CP-8 -- MAG NAIL



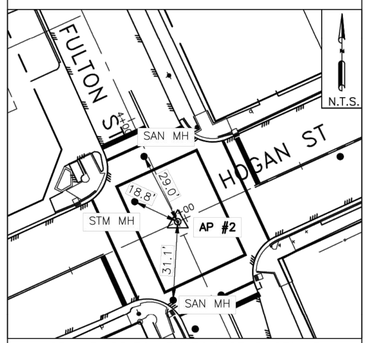
STA. 3+78.70, 20.80' LT, FULTON BASELINE
STA. 2+75.70, 23.01' LT, HOGAN BASELINE

AP-1 -- MAG NAIL



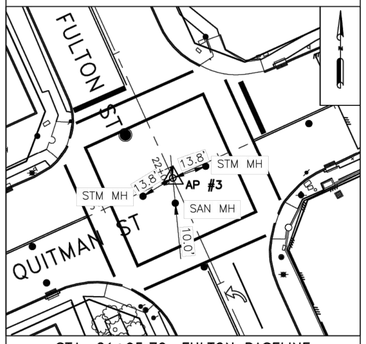
STA. 1+00.00,
FULTON ST BASELINE

AP-2 -- MAG NAIL



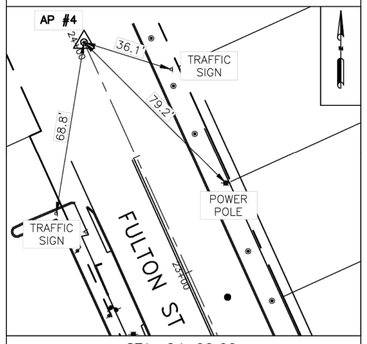
STA. 3+55.70, FULTON ST BASELINE
STA. 2+96.50, HOGAN BASELINE

AP-3 -- X-CUT



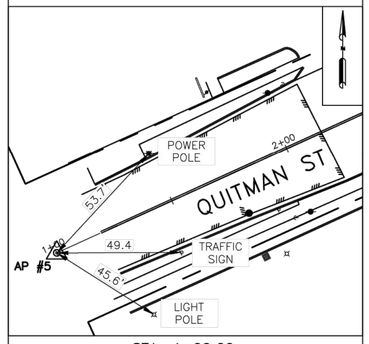
STA. 21+95.70, FULTON BASELINE
STA 3+30.00, QUITMAN BASELINE

AP-4 -- X-CUT



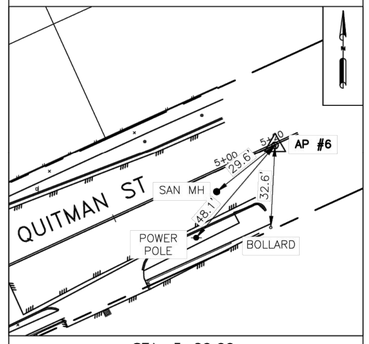
STA. 24+00.00,
FULTON ST BASELINE

AP-5 -- MAG NAIL



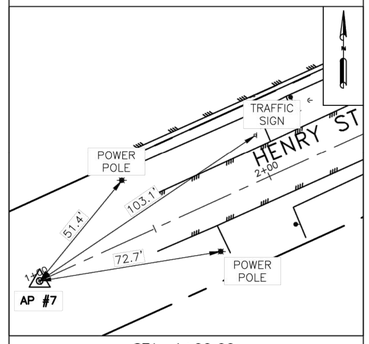
STA. 1+00.00,
QUITMAN ST BASELINE

AP-6 -- MAG NAIL



STA. 5+20.00,
QUITMAN ST BASELINE

AP-7 -- MAG NAIL



STA. 1+00.00,
HENRY ST BASELINE

NOTE:

ALL BEARINGS AND COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204) NORTH AMERICAN DATUM OF 1983 (2011 ADJ) 2010 EPOCH. COORDINATES SHOWN HEREON ARE GRID VALUES AND ALL DISTANCES SHOWN ARE SURFACE VALUES. THE COMBINED SCALE FACTOR IS 0.99989533.

HORIZONTAL COORDINATES BASED ON GPS FIELD DATA COLLECTED NOVEMBER 2019.

ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) GEOID 18 AND HAVE BEEN TRANSFERRED FROM THE PROJECT BENCHMARK TO CONTROL POINTS VIA DIFFERENTIAL LEVELING.

PROJECT BENCHMARK:

CITY OF HOUSTON BRASS DISK 5458-7408 BRASS DISK LOCATED ON THE SOUTH SIDE ON PASCHALL ST. APPROXIMATELY 100' EAST OF THE INTERSECTION OF PASCHALL ST. AND FULTON ST.
ELEV.= 47.22' GEOID 18

NO.	DATE	REVISION	APP.

KEY MAP: 493D, 493H

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS

STATE OF TEXAS
REGISTERED
WILLIAM H. REIMER III
4044
PROFESSIONAL
LAND SURVEYOR
William H. Reimer III
07-11-2022

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

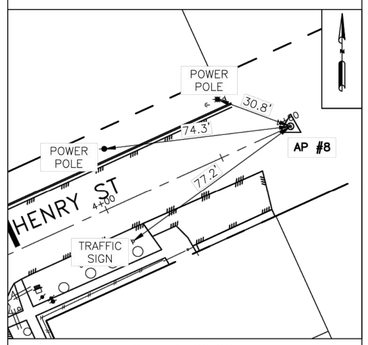
SURVEY CONTROL MAP
SHEET 2 OF 3

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 11 OF 152	

PLOTTED: 3/29/2026 11:35 AM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\10 SURVEY CONTROL MAP.dwg

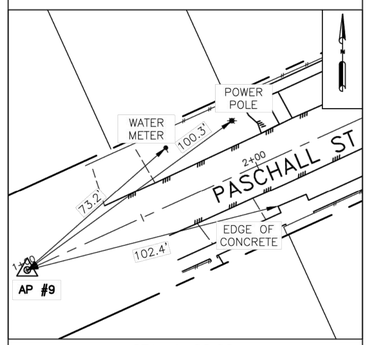
PLOT STYLE: COH CIP.CTB PLOTTED: 3/29/2026 11:35 AM

AP–8 -- MAG NAIL



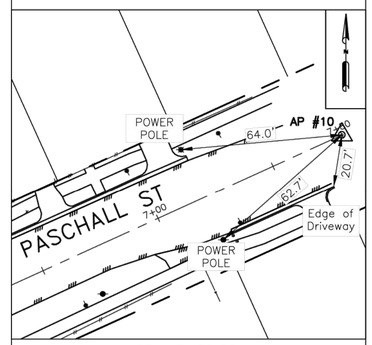
STA. 4+80.00,
HENRY ST BASELINE

AP–9 -- MAG NAIL



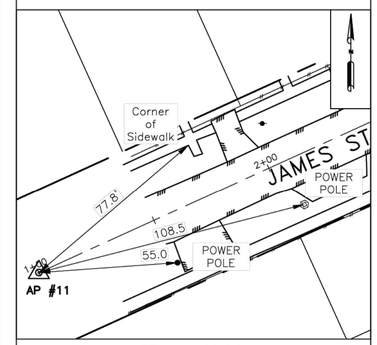
STA. 1+00.00,
PASCHALL ST BASELINE

AP–10 -- MAG NAIL



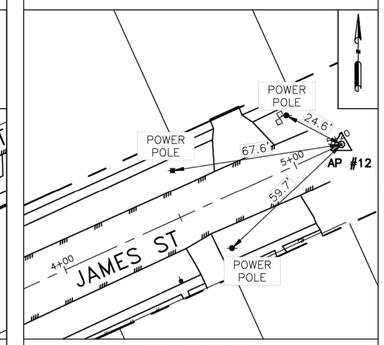
STA. 7+80.00,
PASCHALL ST BASELINE

AP–11 -- MAG NAIL



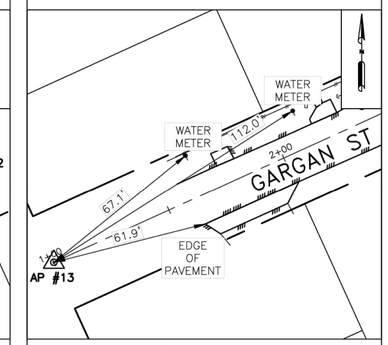
STA. 1+00.00,
JAMES ST BASELINE

AP–12 -- MAG NAIL



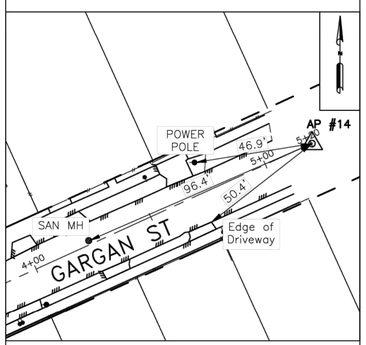
STA. 5+20.00,
JAMES ST BASELINE

AP–13 -- MAG NAIL



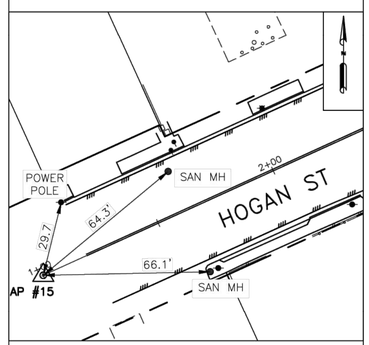
STA. 1+00.00,
GARGAN BASELINE

AP–14 -- MAG NAIL



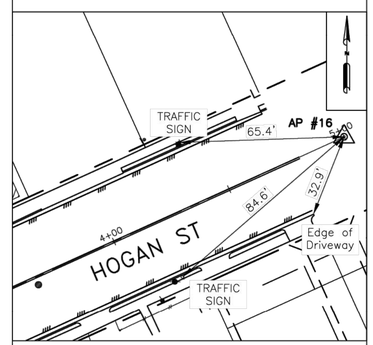
STA. 5+20.00,
GARGAN BASELINE

AP–15 -- MAG NAIL



STA. 1+00.00,
HOGAN ST BASELINE

AP–16 -- MAG NAIL



STA. 5+00.00,
HOGAN ST BASELINE

CONTROL POINTS & TEMPORARY BENCHMARKS (GRID COORDINATES)

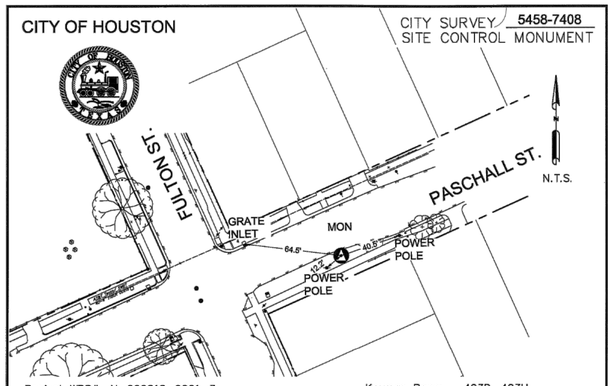
CP	(GRID) Northing	(GRID) Easting	Elevation	Description	Station	Remarks
1	13,848,264.87	3,123,715.83	46.61	MAG NAIL	STA. 3+83.32, 3.68' RT	FULTON ST
2	13,848,446.50	3,123,630.51	47.23	MAG NAIL	SAT. 5+84.00, 1.18' RT	FULTON ST
3	13,848,656.60	3,123,535.35	47.59	MAG NAIL	STA. 8+14.67, 1.51' RT	FULTON ST
4	13,849,074.75	3,123,343.84	48.34	MAG NAIL	STA. 12+74.64, 0.24' RT	FULTON ST
5	13,848,967.59	3,123,107.20	48.63	MAG NAIL	STA. 3+30.44, 0.67' RT	PASCHALL ST
6	13,849,495.53	3,123,153.10	48.55	MAG NAIL	STA. 17+36.68, 0.76' RT	FULTON ST
7	13,849,938.37	3,122,948.66	46.54	X-CUT	STA. 22+24.47, 2.06' LT	FULTON ST
8	13,848,250.54	3,123,695.45	46.19	MAG NAIL	STA. 3+78.70, 20.80' LT	FULTON ST

ADDITIONAL CONTROL POINTS (GRID COORDINATES)

AP	(GRID) Northing	(GRID) Easting	Description	Station	Remarks
1	13,848,005.46	3,123,829.73	MAG NAIL	STA. 1+00.00	FULTON ST
2	13,848,238.20	3,123,723.91	MAG NAIL	STA. 3+55.70	FULTON ST
3	13,849,913.03	3,122,962.45	X-CUT	STA. 21+95.70	FULTON ST
4	13,850,099.00	3,122,877.90	X-CUT	STA. 24+00.00	FULTON ST
5	13,849,817.85	3,122,753.09	MAG NAIL	STA. 1+00.00	QUITMAN ST
6	3,123,135.39	3,123,135.39	MAG NAIL	STA. 5+20.00	QUITMAN ST
7	13,849,399.14	3,122,943.46	MAG NAIL	STA. 1+00.00	HENRY ST
8	13,849,556.40	3,123,289.35	MAG NAIL	STA. 4+80.00	HENRY ST
9	13,848,872.84	3,122,897.16	MAG NAIL	STA. 1+00.00	PASCHALL ST
10	13,849,154.25	3,123,516.12	MAG NAIL	STA. 7+80.00	PASCHALL ST
11	13,848,561.73	3,123,324.19	MAG NAIL	STA. 1+00.00	JAMES ST
12	13,848,735.54	3,123,706.49	MAG NAIL	STA. 5+20.00	JAMES ST
13	13,848,352.37	3,123,419.37	MAG NAIL	STA. 1+00.00	GARGAN ST
14	13,848,526.19	3,123,801.67	MAG NAIL	STA. 5+20.00	GARGAN ST
15	13,848,156.88	3,123,545.05	MAG NAIL	STA. 1+00.00	HOGAN ST
16	13,848,322.42	3,123,909.14	MAG NAIL	STA. 5+00.00	HOGAN ST

CITY OF HOUSTON

CITY SURVEY SITE CONTROL MONUMENT 5458-7408



Project WBS# N-000818-0001-3
Texas Coordinate System of 1983, South Central Zone, U. S. Survey Feet
X= 3,123,431.24
Y= 13,849,098.55
Lat.= N 29° 46' 47.6373"
Lon.= W 95° 21' 30.9477"

Keymap Page: 493D, 493H
Orthometric Elevation = 47.22
Ellipsoid Height= -42.49
Geoid: GEOID 18
Datum Source & Adjustment: 2-HR STATIC GPS OBSERVATION MADE ON MONUMENT ON 12/11/2019

Reference Frame Used: NAD_83(2011)(EPOCH: 2010.0000)
Vertical Adjustment used: NAVD 88 GEOID 18
General Location: LOCATED ON THE SOUTH SIDE ON PASCHALL ST. APPROXIMATELY 100' EAST OF THE INTERSECTION OF PASCHALL ST AND FULTON ST.
Date Set: 12/11/2019 Type of Mark: COH BRASS DISK
3 Nearest project control points (bearings and distances stated below):
1. CP #4, S 74° 46' 01" W, 90.59'
2. CP #5, S 67° 59' 38" W, 349.54'
3. CP #3, S 13° 15' 20" E, 454.09'

NOTE:
1. Bearings are grid bearings.
2. Scale Factor (S.F)= 0.99989533.

Surface= Grid / S.F.

Surveyed By: Amani Engineering, Inc.
8303 Southwest Freeway Suite # 600
Houston, TX 77074
Tel. (713)270-5700 & TBPELS# 10028200

STATE OF TEXAS REGISTERED CHRISTINA I. WEAVER 6753 PROFESSIONAL LAND SURVEYOR 2.5.26

P:\Cadd\2019\19037 - Hatch-Fulton\Monuments\5458-7408.dwg

NOTE:

ALL BEARINGS AND COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204) NORTH AMERICAN DATUM OF 1983 (2011 ADJ) 2010 EPOCH. COORDINATES SHOWN HEREON ARE GRID VALUES AND ALL DISTANCES SHOWN ARE SURFACE VALUES. THE COMBINED SCALE FACTOR IS 0.99989533.

HORIZONTAL COORDINATES BASED ON GPS FIELD DATA COLLECTED NOVEMBER 2019.

ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) GEOID 18 AND HAVE BEEN TRANSFERRED FROM THE PROJECT BENCHMARK TO CONTROL POINTS VIA DIFFERENTIAL LEVELING.

PROJECT BENCHMARK:

CITY OF HOUSTON BRASS DISK 5458-7408 BRASS DISK LOCATED ON THE SOUTH SIDE ON PASCHALL ST. APPROXIMATELY 100' EAST OF THE INTERSECTION OF PASCHALL ST. AND FULTON ST.
ELEV.= 47.22' GEOID 18

NO.	DATE	REVISION	APP.

KEY MAP: 493D, 493H

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS

STATE OF TEXAS REGISTERED WILLIAM H. REIMER III 4044 PROFESSIONAL LAND SURVEYOR 07-11-2022

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

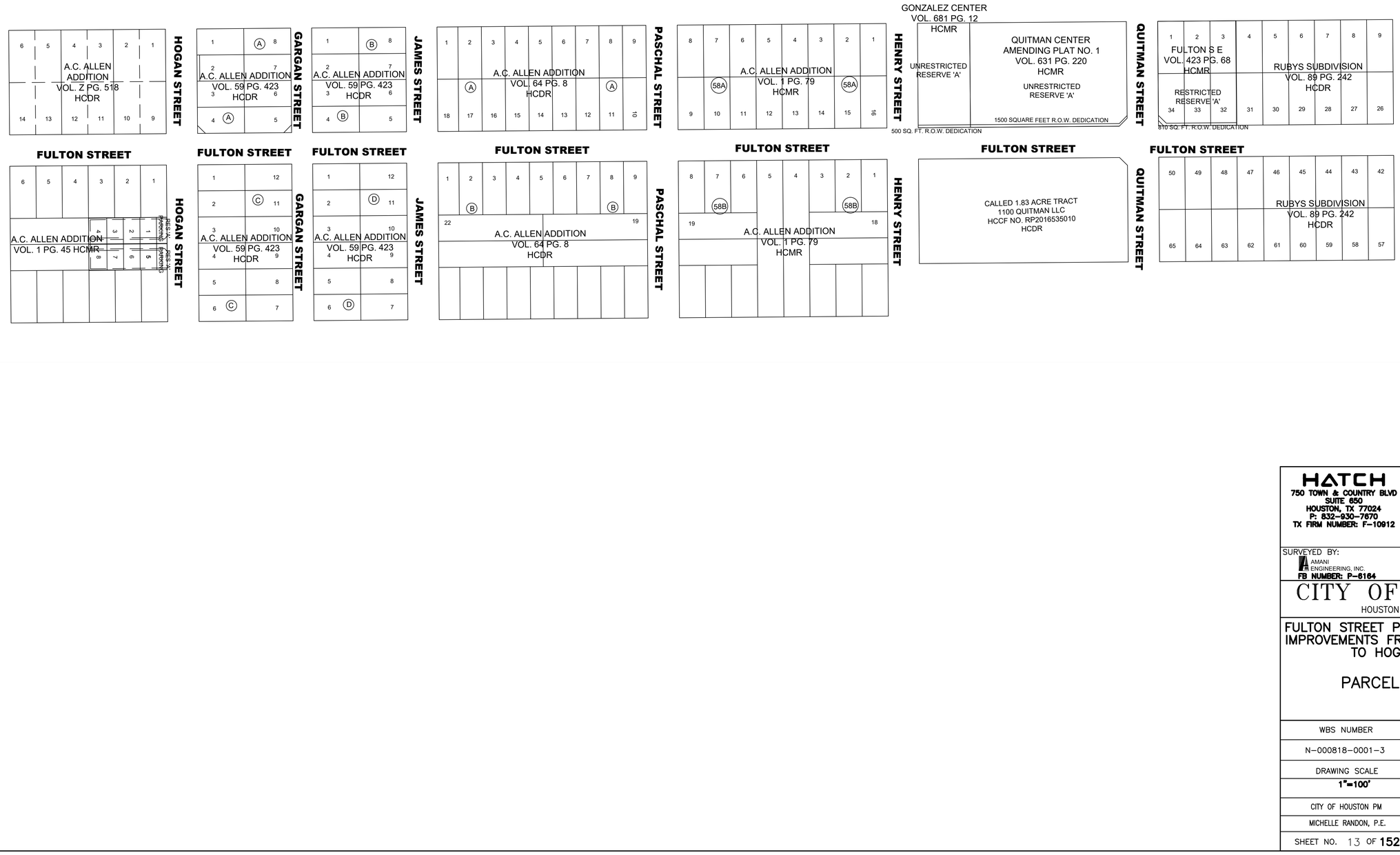
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SURVEY CONTROL MAP SHEET 3 OF 3

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 12 OF 152

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\10 SURVEY CONTROL MAP.dwg



GRAPHIC SCALE
0 100 200
(IN FEET)
FULL SIZE: H. 1"=100'
HALF SIZE: H. 1"=200'

NO.	DATE	REVISION	APP.

PLOTTED: 3/29/2026 11:35 AM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\13 PARCEL INDEX PLAN.dwg

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

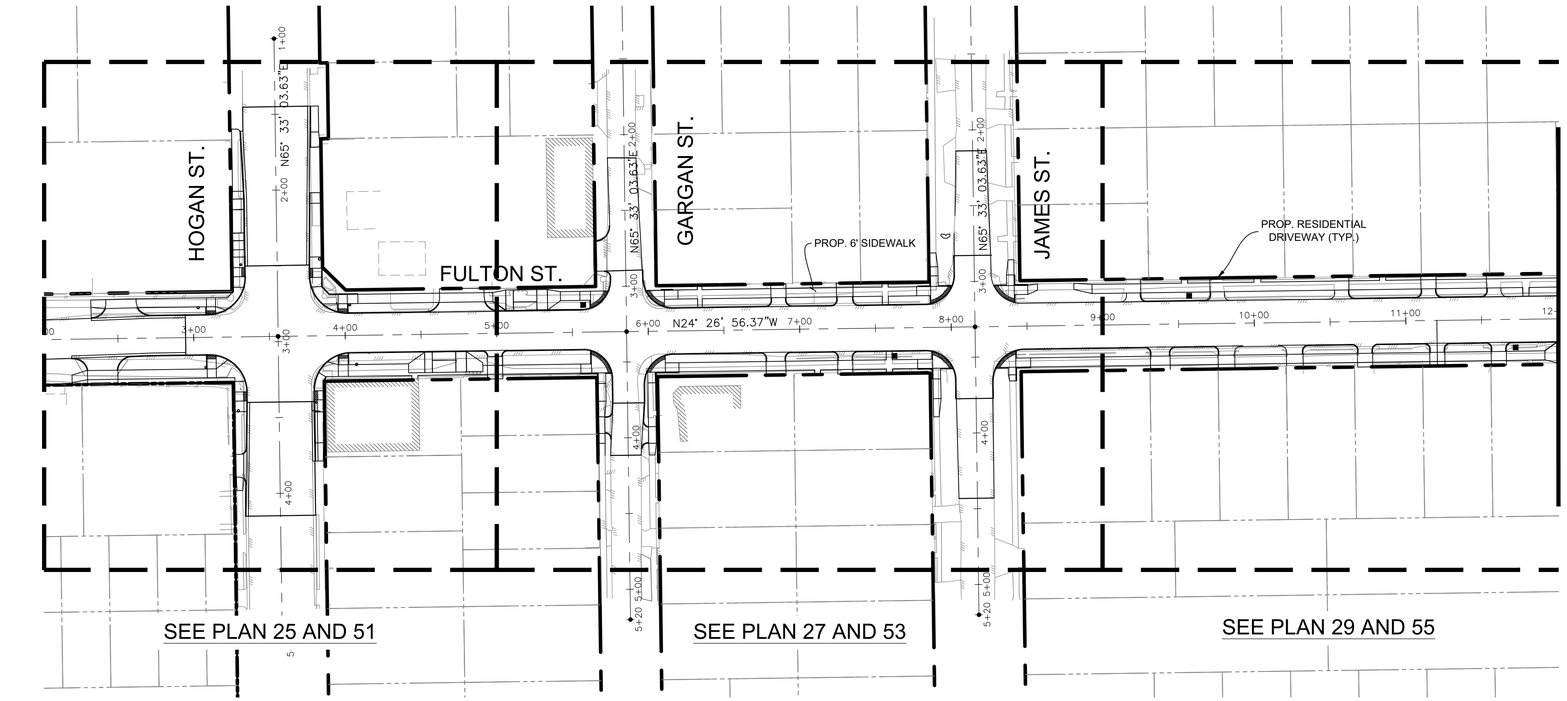
90% PROGRESS
3/30/26

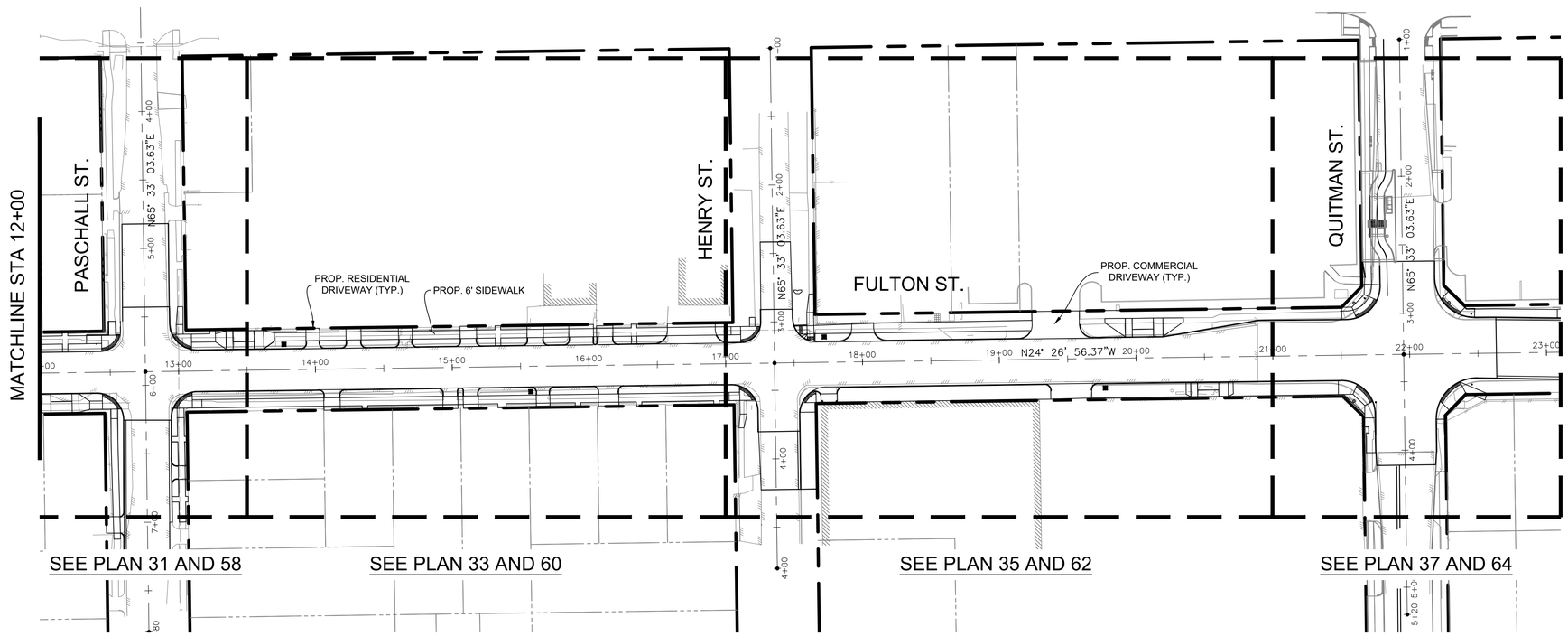
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

PARCEL INDEX MAP

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"=100'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 13 OF 152





GRAPHIC SCALE
0 50 100
(IN FEET)
FULL SIZE: H. 1"=50'
HALF SIZE: H. 1"=100'

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-8164

90% PROGRESS
3/30/26

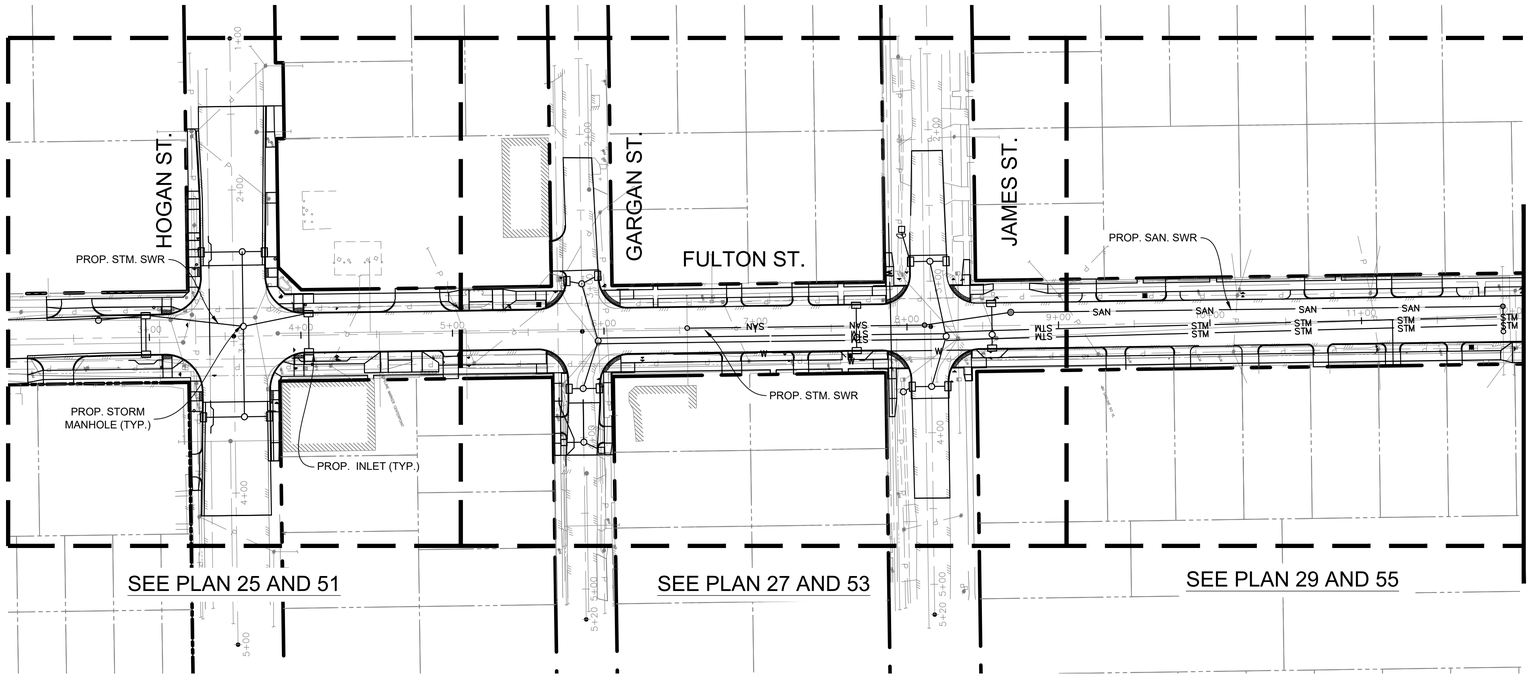
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

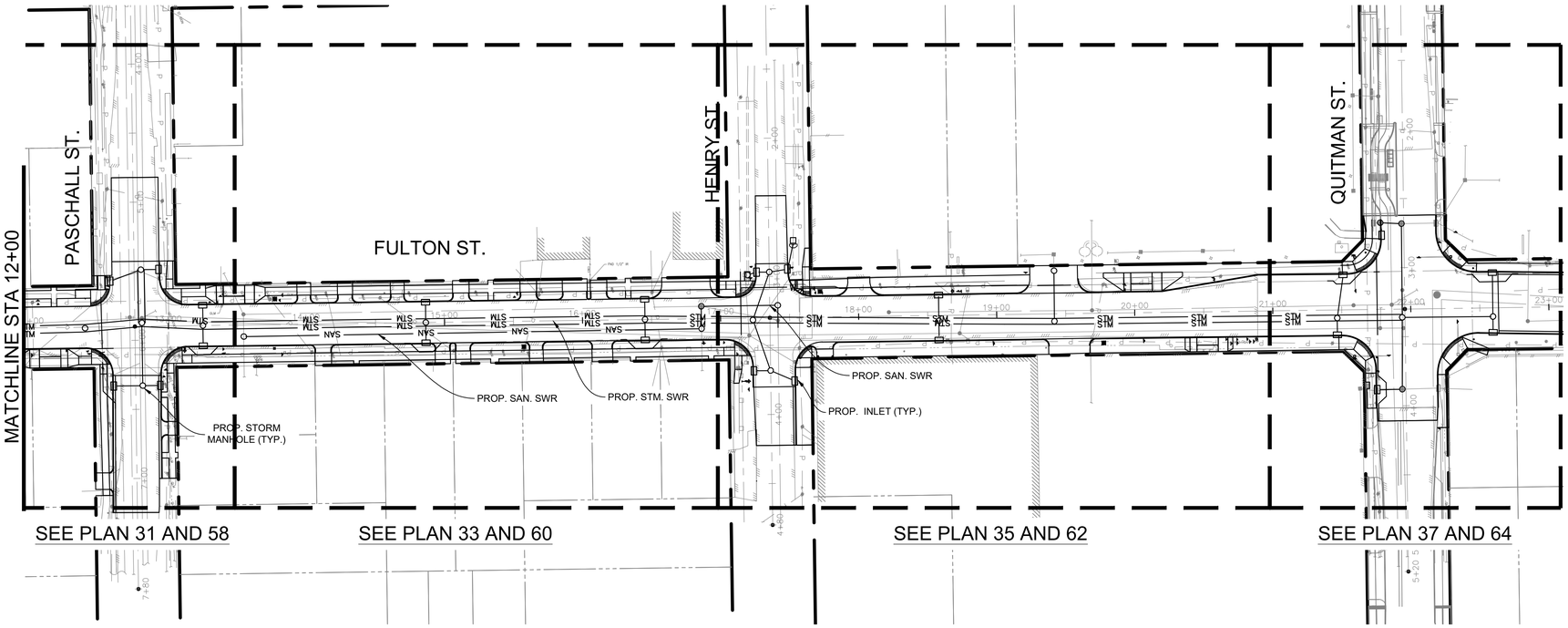
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

OVERALL PAVING PLAN

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"=50'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 14 OF 152

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/30/2026 4:12 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\14 OVERALL PAVING PLAN.dwg





GRAPHIC SCALE
0 50 100
(IN FEET)
FULL SIZE: H. 1"=50'
HALF SIZE: H. 1"=100'

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-8164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

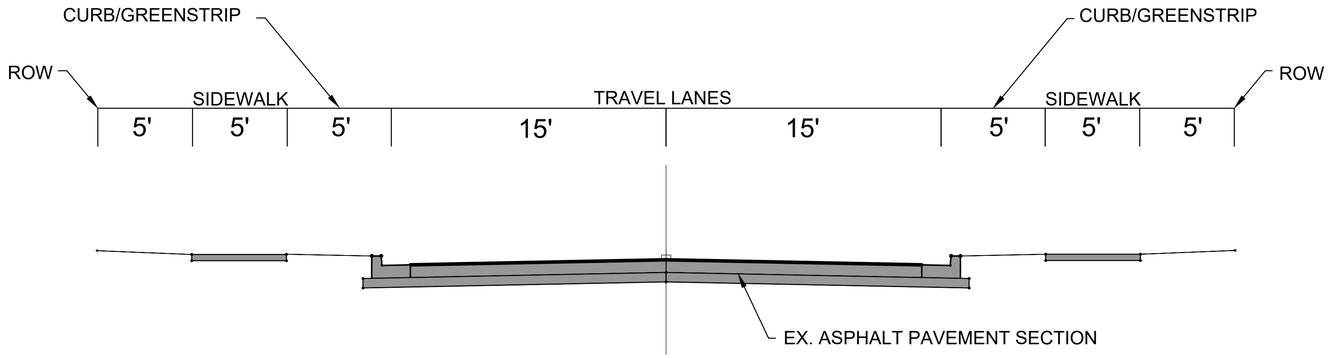
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

OVERALL STORM AND SANITARY SEWER LAYOUT

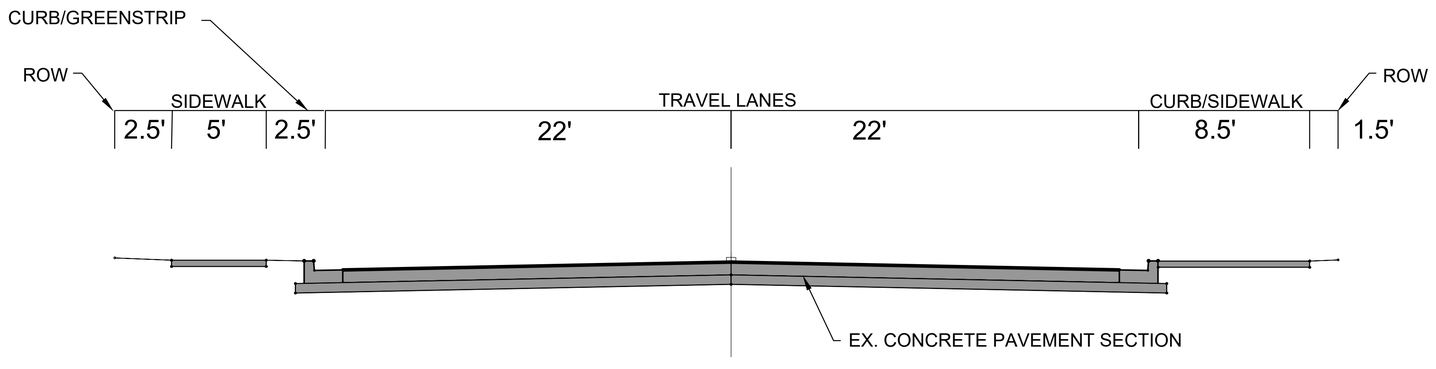
WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"=50'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 15 OF 152

PLOTTED: 3/30/2026 4:12 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\15 OVERALL SEWER PLAN.dwg

EXISTING SECTION - STA 2+66 TO STA 20+89



EXISTING SECTION - STA 20+89 TO STA 22+88



HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-8164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

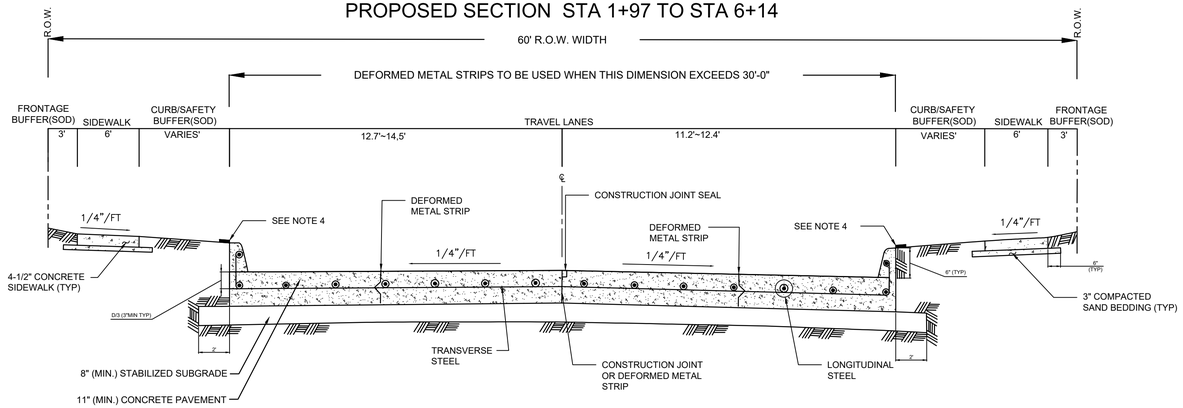
EXISTING
TYPICAL SECTIONS

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 16 OF **152**

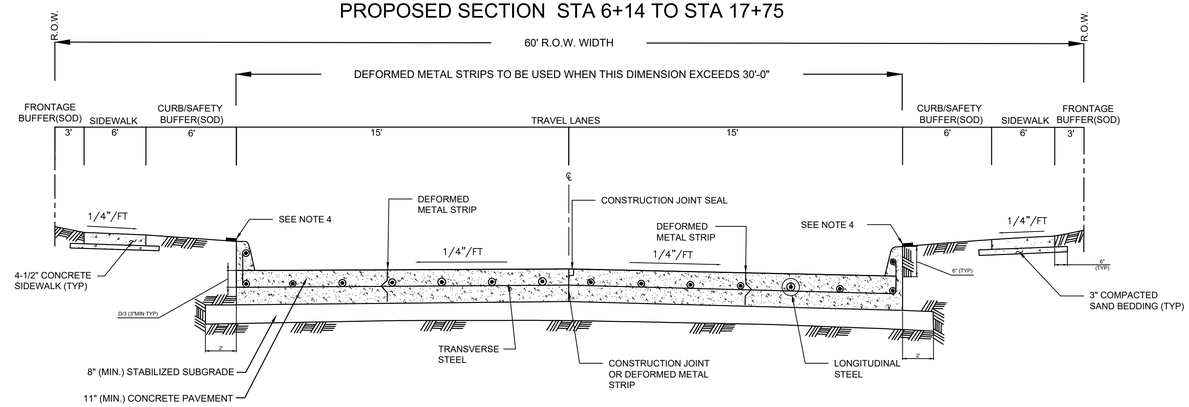
NO.	DATE	REVISION	APP.

PLOTTED: 3/30/2026 11:21 AM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\16 EXISTING AND PROPOSED TYPICAL SECTIONS.dwg

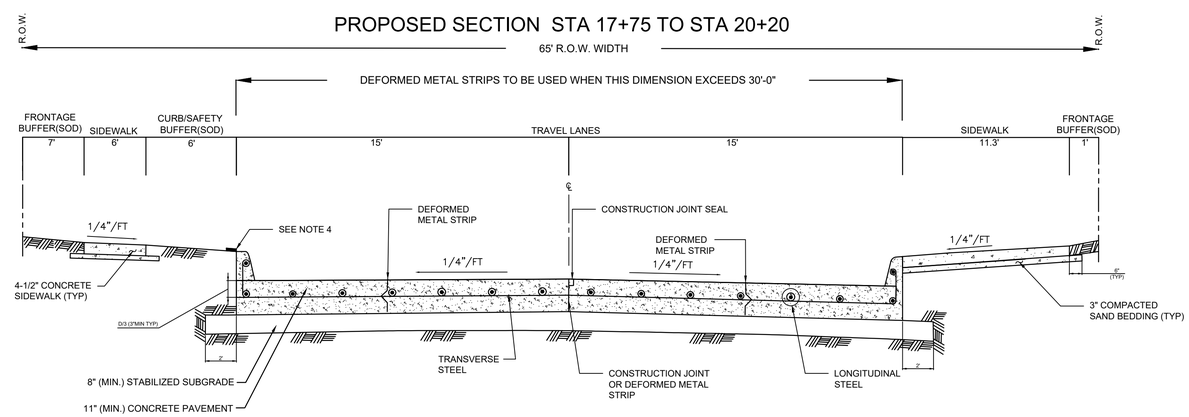
PROPOSED SECTION STA 1+97 TO STA 6+14



PROPOSED SECTION STA 6+14 TO STA 17+75



PROPOSED SECTION STA 17+75 TO STA 20+20



PAVEMENT THICKNESS 'D' (IN)	PAVEMENT WIDTH 'PW' (FT)	LONGITUDINAL STEEL									TRAVERSE STEEL		
		#4 BARS			#5 BARS			#6 BARS			#4 BARS	#5 BARS	#6 BARS
		NUMBER OF BARS	SPACING (IN)	END BAR SPACING (IN)	NUMBER OF BARS	SPACING (IN)	END BAR SPACING (IN)	NUMBER OF BARS	SPACING (IN)	END BAR SPACING (IN)	SPACING (IN)	SPACING (IN)	SPACING (IN)
6	28	17	20.50	4.00	–	–	–	–	–	–	36	–	–
7	25	17	18.25	4.00	–	–	–	–	–	–	36	–	–
7	35	24	18.00	3.00	–	–	–	–	–	–	36	–	–
7	36	25	17.75	3.00	–	–	–	–	–	–	36	–	–
7	37	25	18.25	3.00	–	–	–	–	–	–	36	–	–
7	41	28	18.00	3.00	–	–	–	–	–	–	36	–	–
7	45	31	17.75	3.75	–	–	–	–	–	–	36	–	–
8	25	20	15.50	2.75	13	24.50	3.0	–	–	–	36	36	–
8	34	27	15.50	2.50	17	25.00	4.0	–	–	–	36	36	–
8	35	27	16.00	2.00	18	24.25	4.0	–	–	–	36	36	–
8	36	28	15.75	3.25	18	25.00	3.0	–	–	–	30	36	–
8	44	24	15.75	4.00	22	24.75	4.0	–	–	–	30	36	–
8	45	35	15.75	2.25	23	24.25	3.0	–	–	–	30	36	–
9	25	22	14.00	3.00	14	22.50	4.0	–	–	–	36	36	–
9	34	31	13.50	2.00	19	22.25	3.5	–	–	–	30	36	–
9	35	31	13.75	3.75	20	21.75	3.5	–	–	–	30	36	–
9	36	32	13.75	3.00	21	21.25	3.5	–	–	–	30	36	–
9	44	39	13.75	2.75	25	21.75	3.0	–	–	–	24	36	–
9	45	39	14.00	4.00	26	21.25	4.5	–	–	–	24	36	–
10	25	24	12.75	3.50	17	18.25	4.0	–	–	–	36	36	36
10	34	33	12.50	4.00	21	20.00	4.0	–	–	–	30	36	36
10	35	34	12.50	3.75	23	18.75	4.0	–	–	–	30	36	36
10	36	35	12.50	3.50	24	18.50	3.0	–	–	–	30	36	36
10	44	44	12.00	4.00	29	18.50	4.5	–	–	–	24	36	36
10	45	44	12.50	3.00	29	19.00	3.0	–	–	–	24	36	36
11	25	27	11.25	3.00	17	18.25	4.0	12	26.75	3	36	36	36
11	34	36	11.50	2.75	24	17.50	2.5	17	25.00	4	24	36	36
11	35	37	11.50	3.00	24	18.00	3.0	17	25.75	4	24	36	36
11	36	40	11.00	2.00	25	17.75	3.0	17	26.50	4	24	36	36
11	44	48	11.125	2.50	30	18.00	3.0	21	26.00	4	24	36	36
11	45	49	11.125	3.00	31	17.75	4.0	22	25.50	3	24	36	36
12	25	–	–	–	19	16.25	4.0	13	24.50	3	36	36	36
12	34	–	–	–	26	16.00	4.0	18	23.50	4	24	36	36
12	35	–	–	–	26	16.50	4.0	19	23.00	3	24	36	36
12	36	–	–	–	27	16.25	4.5	20	22.25	4.5	24	36	36
12	44	–	–	–	33	16.25	4.0	24	22.50	5	24	30	36
12	45	–	–	–	35	15.75	3.0	25	22.25	3	24	30	36

NOTES:

1. THE MAXIMUM WIDTH BETWEEN LONGITUDINAL JOINTS SHALL NOT EXCEED 15'-0".
2. ALL EARTHEN AREAS ARE TO BE HYDROMULCHED UNLESS SHOWN OTHERWISE ON DRAWINGS.
3. CONTRACTOR MAY SAW CUT IN LIEU OF DEFORMED METAL STRIP.
4. USE STRIP OF SOD GRASS TO PREVENT EROSION UNTIL STAND OF GRASS IS ESTABLISHED.
5. AN EQUAL OR LARGER AREA OF WELDED REINFORCEMENT BAR CONFORMING TO ASTM A497, MAY BE SUBSTITUTED FOR REBARS LISTED IN TABLE 1.
6. IF AVAILABLE ROW IS NOT SUFFICIENT TO ACCOMMODATE SIDEWALK WIDTH (SW) ACCORDING TO IDM REQUIREMENTS, ENGINEER SHALL OBTAIN A VARIANCE FROM THE CITY ENGINEER.

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-8164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

PROPOSED TYPICAL SECTIONS

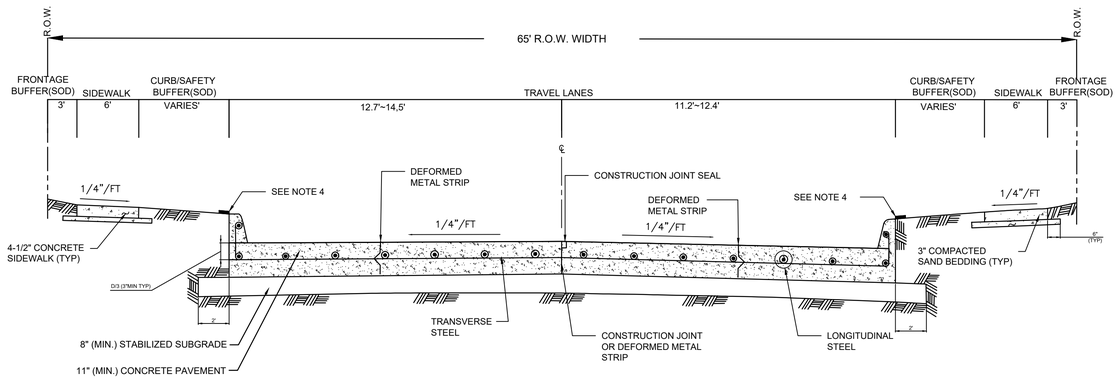
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 17 OF **152**	

PLOTTED: 3/30/2026 11:21 AM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\16 EXISTING AND PROPOSED TYPICAL SECTIONS.dwg

PLOTTED: 3/30/2026 11:21 AM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\16 EXISTING AND PROPOSED TYPICAL SECTIONS.dwg

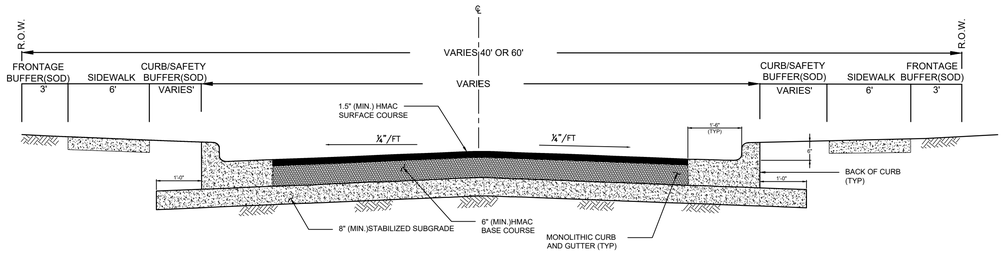
NO.	DATE	REVISION	APP.

PROPOSED SECTION STA 20+20 TO STA 23+37



NOTES:

1. THE MAXIMUM WIDTH BETWEEN LONGITUDINAL JOINTS SHALL NOT EXCEED 15'-0".
2. ALL EARTHEN AREAS ARE TO BE HYDROMULCHED UNLESS SHOWN OTHERWISE ON DRAWINGS.
3. CONTRACTOR MAY SAW CUT IN LIEU OF DEFORMED METAL STRIP.
4. USE STRIP OF SOD GRASS TO PREVENT EROSION UNTIL STAND OF GRASS IS ESTABLISHED.
5. AN EQUAL OR LARGER AREA OF WELDED REINFORCEMENT BAR CONFORMING TO ASTM A497, MAY BE SUBSTITUTED FOR REBARS LISTED IN TABLE 1.
6. IF AVAILABLE ROW IS NOT SUFFICIENT TO ACCOMMODATE SIDEWALK WIDTH (SW) ACCORDING TO IDM REQUIREMENTS, ENGINEER SHALL OBTAIN A VARIANCE FROM THE CITY ENGINEER.



HMAC PAVEMENT - CROSS ROADS

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-8164

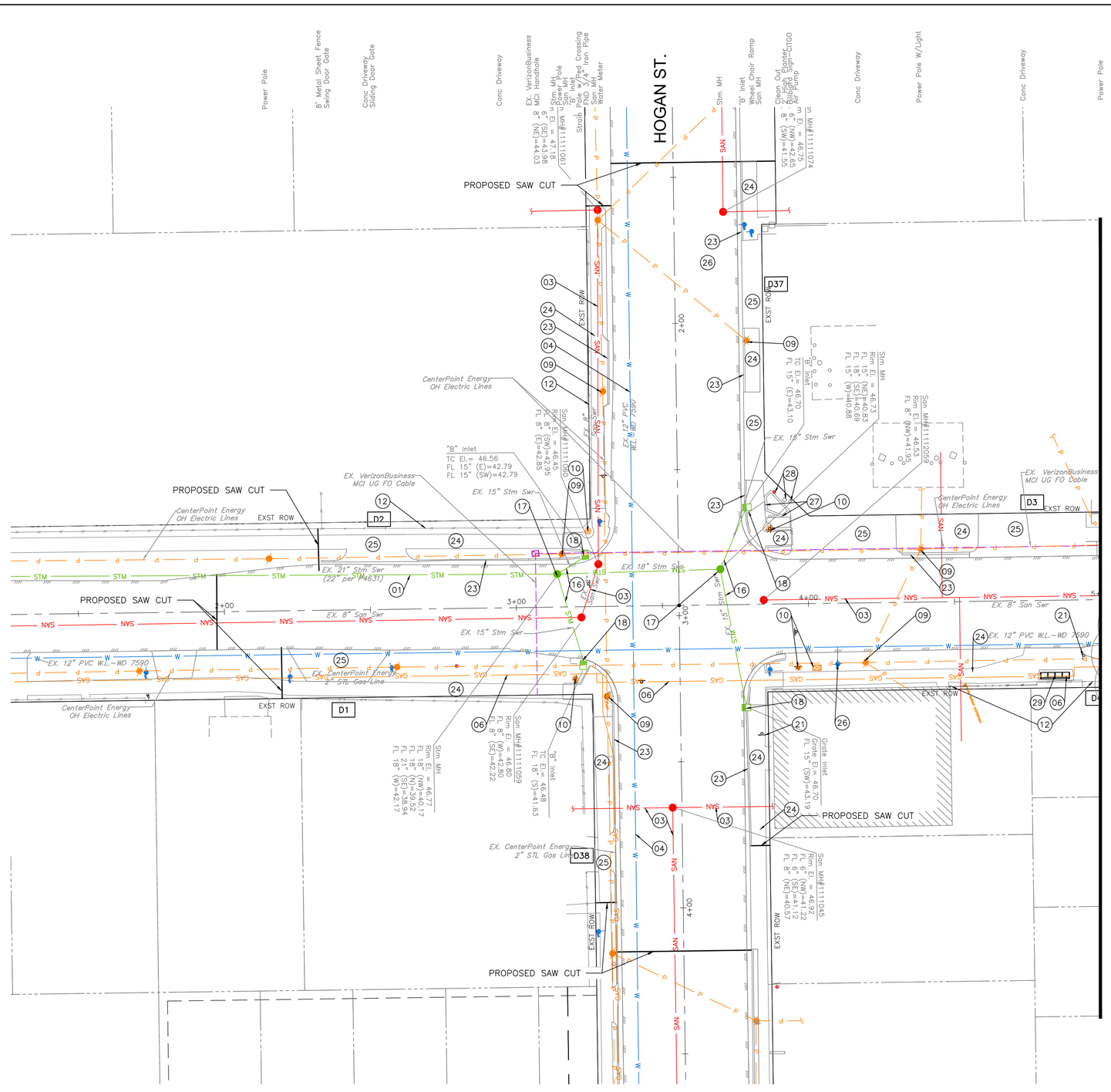
90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

PROPOSED TYPICAL SECTIONS

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 18 OF **152**	



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTE:

- REFER TO DRAINAGE AND PAVEMENT PLAN
- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION PLANS SHEETS
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

(01) EXISTING STORM SEWER TO REMAIN IN PLACE

(02) EXISTING INLET TO REMAIN IN PLACE

(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE

(04) EXISTING WATER MAIN TO REMAIN IN PLACE

(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE

(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317

(07) EXISTING TRAFFIC SIGN TO REMAIN IN PLACE

(08) PROCEED WITH CAUTION – WORK IN THE VICINITY OF GAS MAIN

(09) EXISTING POWER POLES/STREET LIGHTS AND/OR GUY WIRE

(10) EXISTING TRAFFIC SIGNALS TO BE REMOVED. SEE SIGNALIZATION PLANS

(11) EXISTING TRAFFIC SIGNALS POLES TO REMAIN. SIGNALS ANS SIGNAL CONTROL BOXES TO BE MODIFIED

(12) EXISTING FENCE TO BE REMOVED AND RELOCATED AT RIGHT-OF-WAY LINE

(13) REMOVE, SALVAGE AND RELOCATE EXISTING FLASHING BEACON SIGN POST

(14) REMOVE AND DISPOSE EXISTING SANITARY SEWER

(15) REMOVE AND DISPOSE EXISTING SANITARY MANHOLE

(16) REMOVE AND DISPOSE EXISTING STORM SEWER

(17) REMOVE AND DISPOSE EXISTING STORM SEWER MANHOLE

(18) REMOVE AND DISPOSE EXISTING INLET/CATCH BASIN

(19) REMOVE AND DISPOSE EXISTING WATER LINE

(20) REMOVE AND SALVAGE EXISTING FIRE HYDRANT

(21) REMOVE AND SALVAGE EXISTING TRAFFIC SIGN

(22) REMOVE AND DISPOSE OF EXISTING BOLLARD

(23) REMOVE AND DISPOSE EXISTING CONCRETE CURB OR CURB AND GUTTER

(24) REMOVE AND DISPOSE EXISTING SIDEWALK AND/OR WHEELCHAIR RAMP

(25) REMOVE AND DISPOSE EXISTING DRIVEWAY. SAW CUT AT R/W LINE, UNLESS NOTED OTHERWISE

(26) REMOVE AND DISPOSE OF EXISTING PAVEMENT

(27) RETAIN EXISTING CONCRETE PLANTER

(28) RETAIN EXISTING PRIVATE SIGN.

(29) REMOVE EXISTING BUS STOP PAD AND BENCHES. COORDINATE WITH METRO FOR SALVAGE OR DISPOSAL

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/2026

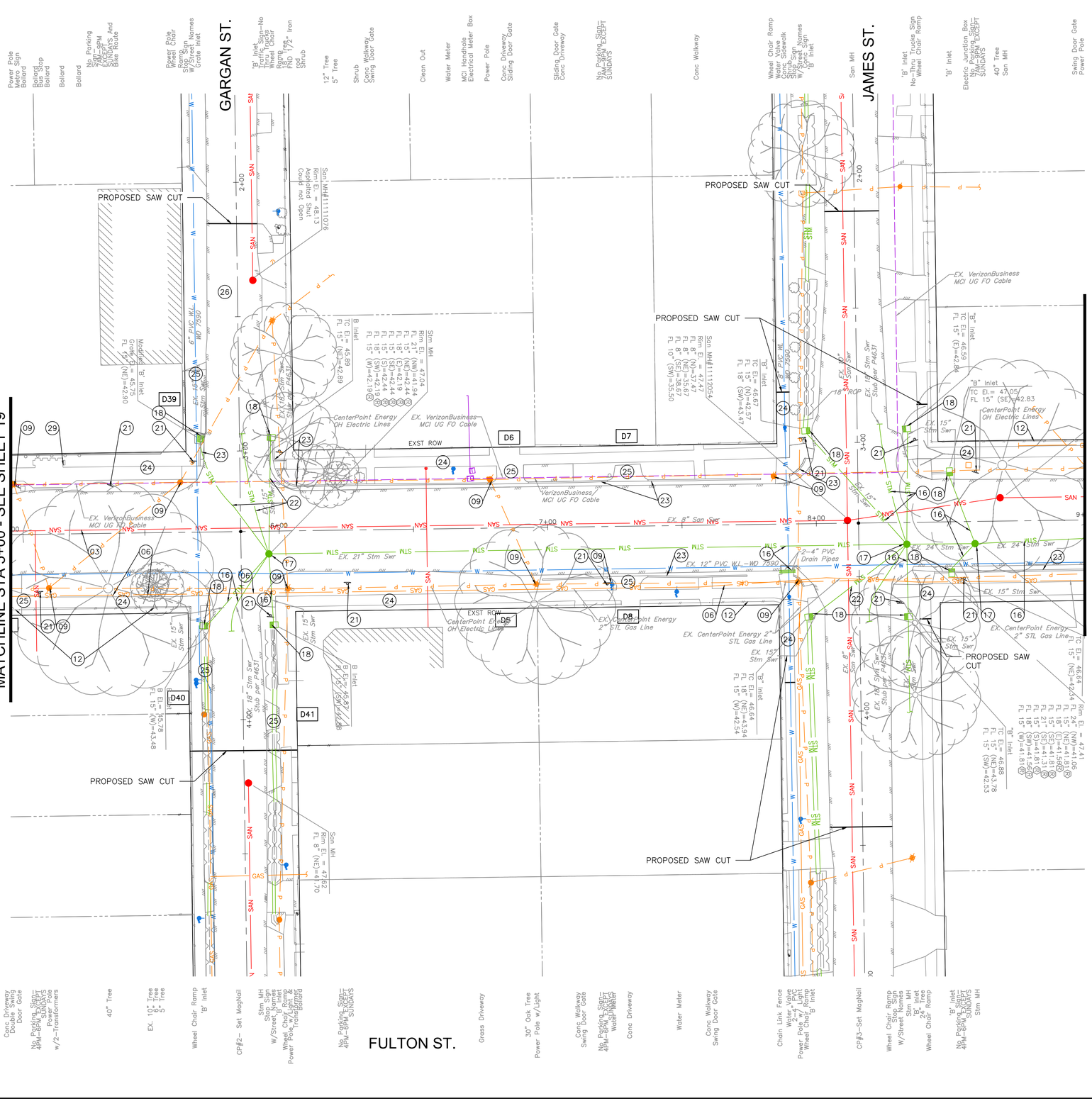
SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DEMO PLAN
STA. 1+00 TO 5+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 19 OF 152	

PLOTTED: 3/30/2026 2:59 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\18 DEMO PLAN.DWG



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NOTE:

- REFER TO DRAINAGE AND PAVEMENT PLAN
- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION PLANS
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

(01) EXISTING STORM SEWER TO REMAIN IN PLACE
(02) EXISTING INLET TO REMAIN IN PLACE
(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE
(04) EXISTING WATER MAIN TO REMAIN IN PLACE
(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE
(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317
(07) EXISTING TRAFFIC SIGN TO REMAIN IN PLACE
(08) PROCEED WITH CAUTION – WORK IN THE VICINITY OF GAS MAIN
(09) EXISTING POWER POLES/STREET LIGHTS AND/OR GUY WIRE
(10) EXISTING TRAFFIC SIGNALS TO BE REMOVED. SEE SIGNALIZATION PLANS
(11) EXISTING TRAFFIC SIGNALS POLES TO REMAIN. SIGNALS ANS SIGNAL CONTROL BOXES TO BE MODIFIED
(12) EXISTING FENCE TO BE REMOVED AND RELOCATED AT RIGHT-OF-WAY LINE
(13) REMOVE, SALVAGE AND RELOCATE EXISTING FLASHING BEACON SIGN POST
(14) REMOVE AND DISPOSE EXISTING SANITARY SEWER
(15) REMOVE AND DISPOSE EXISTING SANITARY MANHOLE
(16) REMOVE AND DISPOSE EXISTING STORM SEWER
(17) REMOVE AND DISPOSE EXISTING STORM SEWER MANHOLE
(18) REMOVE AND DISPOSE EXISTING INLET/CATCH BASIN
(19) REMOVE AND DISPOSE EXISTING WATER LINE
(20) REMOVE AND SALVAGE EXISTING FIRE HYDRANT
(21) REMOVE AND SALVAGE EXISTING TRAFFIC SIGN
(22) REMOVE AND DISPOSE OF EXISTING BOLLARD
(23) REMOVE AND DISPOSE EXISTING CONCRETE CURB OR CURB AND GUTTER
(24) REMOVE AND DISPOSE EXISTING SIDEWALK AND/OR WHEELCHAIR RAMP
(25) REMOVE AND DISPOSE EXISTING DRIVEWAY. SAW CUT AT R/W LINE, UNLESS NOTED OTHERWISE
(26) REMOVE AND DISPOSE OF EXISTING PAVEMENT
(27) RETAIN EXISTING CONCRETE PLANTER
(28) RETAIN EXISTING PRIVATE SIGN.
(29) REMOVE EXISTING BUS STOP PAD AND BENCHES. COORDINATE WITH METRO FOR SALVAGE OR DISPOSAL

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/2026

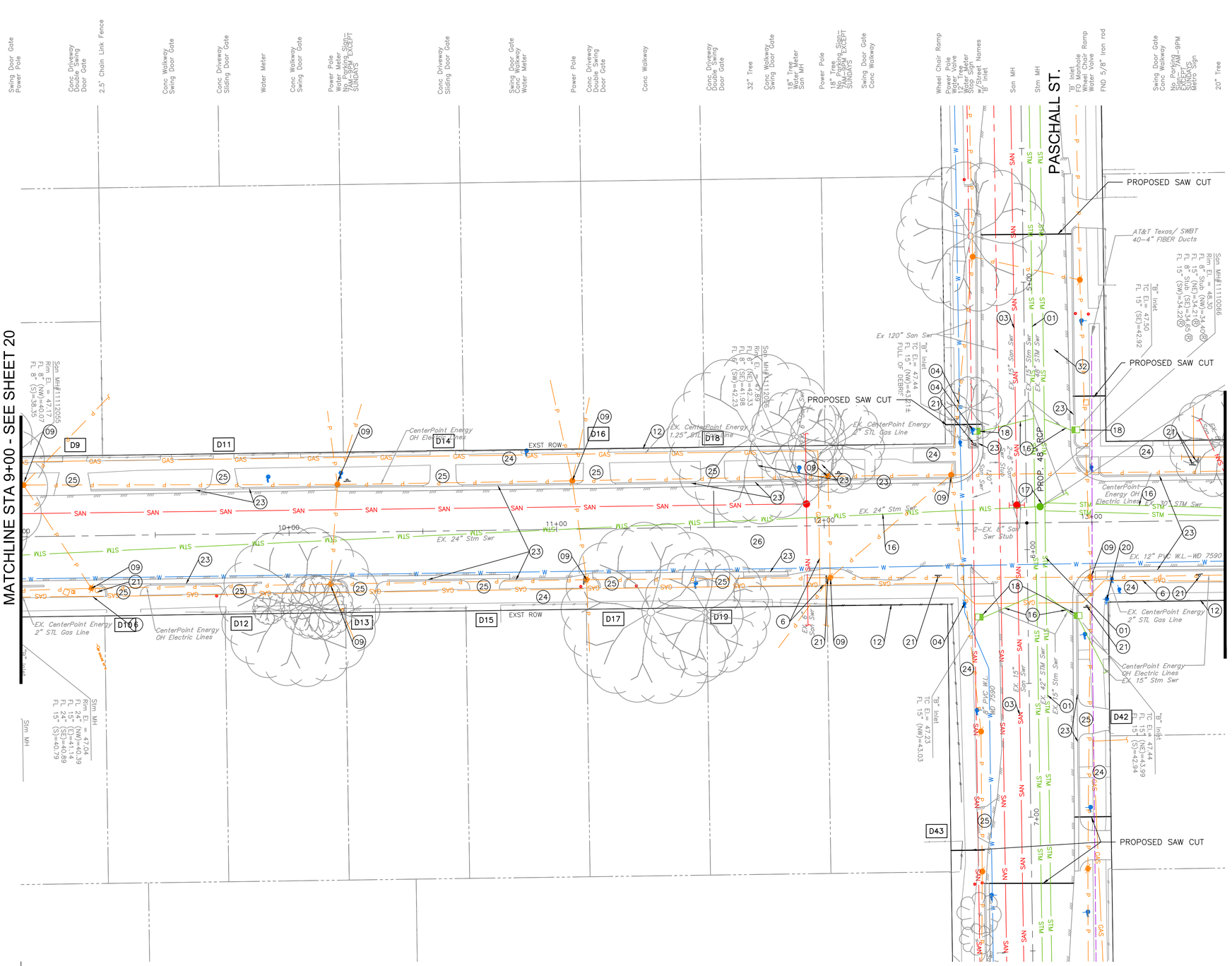
SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DEMO PLAN
STA. 5+00 TO 9+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 20 OF 152	

PLOTTED: 3/30/2026 2:59 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\18 DEMO PLAN.DWG



GRAPHIC SCALE

0 20 40

(IN FEET)

FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NOTE:

- REFER TO DRAINAGE AND PAVEMENT PLAN
- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANSREFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION PLANS
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

(01) EXISTING STORM SEWER TO REMAIN IN PLACE

(02) EXISTING INLET TO REMAIN IN PLACE

(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE

(04) EXISTING WATER MAIN TO REMAIN IN PLACE

(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE

(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317

(07) EXISTING TRAFFIC SIGN TO REMAIN IN PLACE

(08) PROCEED WITH CAUTION – WORK IN THE VICINITY OF GAS MAIN

(09) EXISTING POWER POLES/STREET LIGHTS AND/OR GUY WIR

(10) EXISTING TRAFFIC SIGNALS TO BE REMOVED. SEE SIGNALIZATION PLANS

(11) EXISTING TRAFFIC SIGNALS POLES TO REMAIN. SIGNALS ANS SIGNAL CONTROL BOXES TO BE MODIFIED

(12) EXISTING FENCE TO BE REMOVED AND RELOCATED AT RIGHT-OF-WAY LINE

(13) REMOVE, SALVAGE AND RELOCATE EXISTING FLASHING BEACON SIGN POST

(14) REMOVE AND DISPOSE EXISTING SANITARY SEWER

(15) REMOVE AND DISPOSE EXISTING SANITARY MANHOLE

(16) REMOVE AND DISPOSE EXISTING STORM SEWER

(17) REMOVE AND DISPOSE EXISTING STORM SEWER MANHOLE

(18) REMOVE AND DISPOSE EXISTING INLET/CATCH BASIN

(19) REMOVE AND DISPOSE EXISTING WATER LINE

(20) REMOVE AND SALVAGE EXISTING FIRE HYDRANT

(21) REMOVE AND SALVAGE EXISTING TRAFFIC SIGN

(22) REMOVE AND DISPOSE OF EXISTING BOLLARD

(23) REMOVE AND DISPOSE EXISTING CONCRETE CURB OR CURB AND GUTTER

(24) REMOVE AND DISPOSE EXISTING SIDEWALK AND/OR WHEELCHAIR RAMP

(25) REMOVE AND DISPOSE EXISTING DRIVEWAY. SAW CUT AT R/W LINE, UNLESS NOTED OTHERWISE

(26) REMOVE AND DISPOSE OF EXISTING PAVEMENT

(27) RETAIN CONCRETE PLANTER

(28) RETAIN EXISTING PRIVATE SIGN.

(29) REMOVE EXISTING BUS STOP PAD AND BENCHES. COORDINATE WITH METRO FOR SALVAGE OR DISPOSAL

NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DEMO PLAN
STA. 9+00 TO 13+50

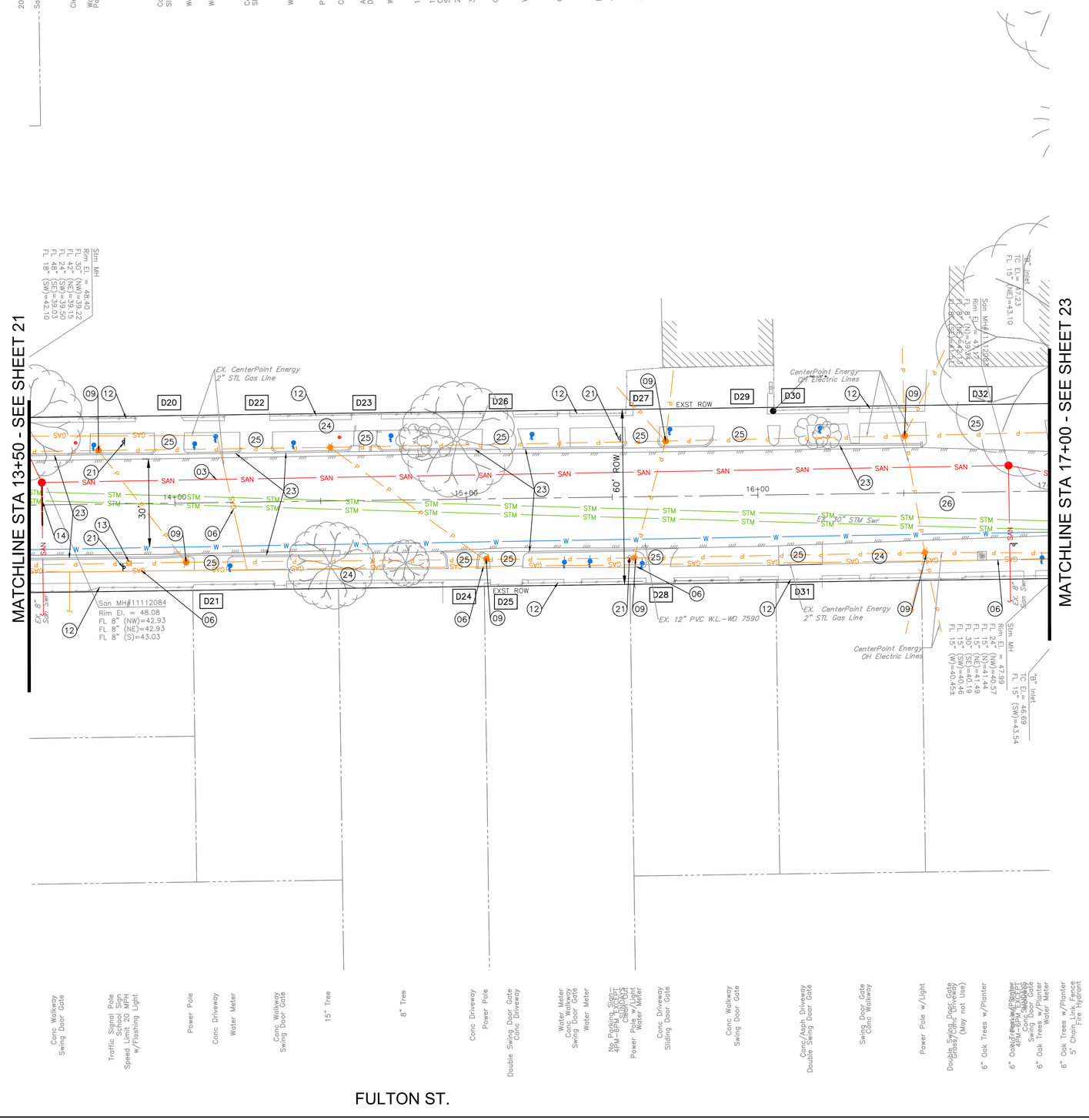
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 21 OF 152	

NO.	DATE	REVISION	APP.

PLOTTED: 3/30/2026 2:59 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_control_us\dms60086\18 DEMO PLAN.DWG



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTE:

- REFER TO DRAINAGE AND PAVEMENT PLAN
- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION PLANS
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

NOTE:

(01) EXISTING STORM SEWER TO REMAIN IN PLACE

(02) EXISTING INLET TO REMAIN IN PLACE

(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE

(04) EXISTING WATER MAIN TO REMAIN IN PLACE

(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE

(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317

(07) EXISTING TRAFFIC SIGN TO REMAIN IN PLACE

(08) PROCEED WITH CAUTION – WORK IN THE VICINITY OF GAS MAIN

(09) EXISTING POWER POLES/STREET LIGHTS AND/OR GUY WIRE

(10) EXISTING TRAFFIC SIGNALS TO BE REMOVED. SEE SIGNALIZATION PLANS

(11) EXISTING TRAFFIC SIGNALS POLES TO REMAIN. SIGNALS ANS SIGNAL CONTROL BOXES TO BE MODIFIED

(12) EXISTING FENCE TO BE REMOVED AND RELOCATED AT RIGHT-OF-WAY LINE

(13) REMOVE, SALVAGE AND RELOCATE EXISTING FLASHING BEACON SIGN POST

(14) REMOVE AND DISPOSE EXISTING SANITARY SEWER

(15) REMOVE AND DISPOSE EXISTING SANITARY MANHOLE

(16) REMOVE AND DISPOSE EXISTING STORM SEWER

(17) REMOVE AND DISPOSE EXISTING STORM SEWER MANHOLE

(18) REMOVE AND DISPOSE EXISTING INLET/CATCH BASIN

(19) REMOVE AND DISPOSE EXISTING WATER LINE

(20) REMOVE AND SALVAGE EXISTING FIRE HYDRANT

(21) REMOVE AND SALVAGE EXISTING TRAFFIC SIGN

(22) REMOVE AND DISPOSE OF EXISTING BOLLARD

(23) REMOVE AND DISPOSE EXISTING CONCRETE CURB OR CURB AND GUTTER

(24) REMOVE AND DISPOSE EXISTING SIDEWALK AND/OR WHEELCHAIR RAMP

(25) REMOVE AND DISPOSE EXISTING DRIVEWAY. SAW CUT AT R/W LINE, UNLESS NOTED OTHERWISE

(26) REMOVE AND DISPOSE OF EXISTING PAVEMENT

(27) RETAIN EXISTING CONCRETE PLANTER

(28) RETAIN EXISTING PRIVATE SIGN.

(29) REMOVE EXISTING BUS STOP PAD AND BENCHES. COORDINATE WITH METRO FOR SALVAGE OR DISPOSAL

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/2026

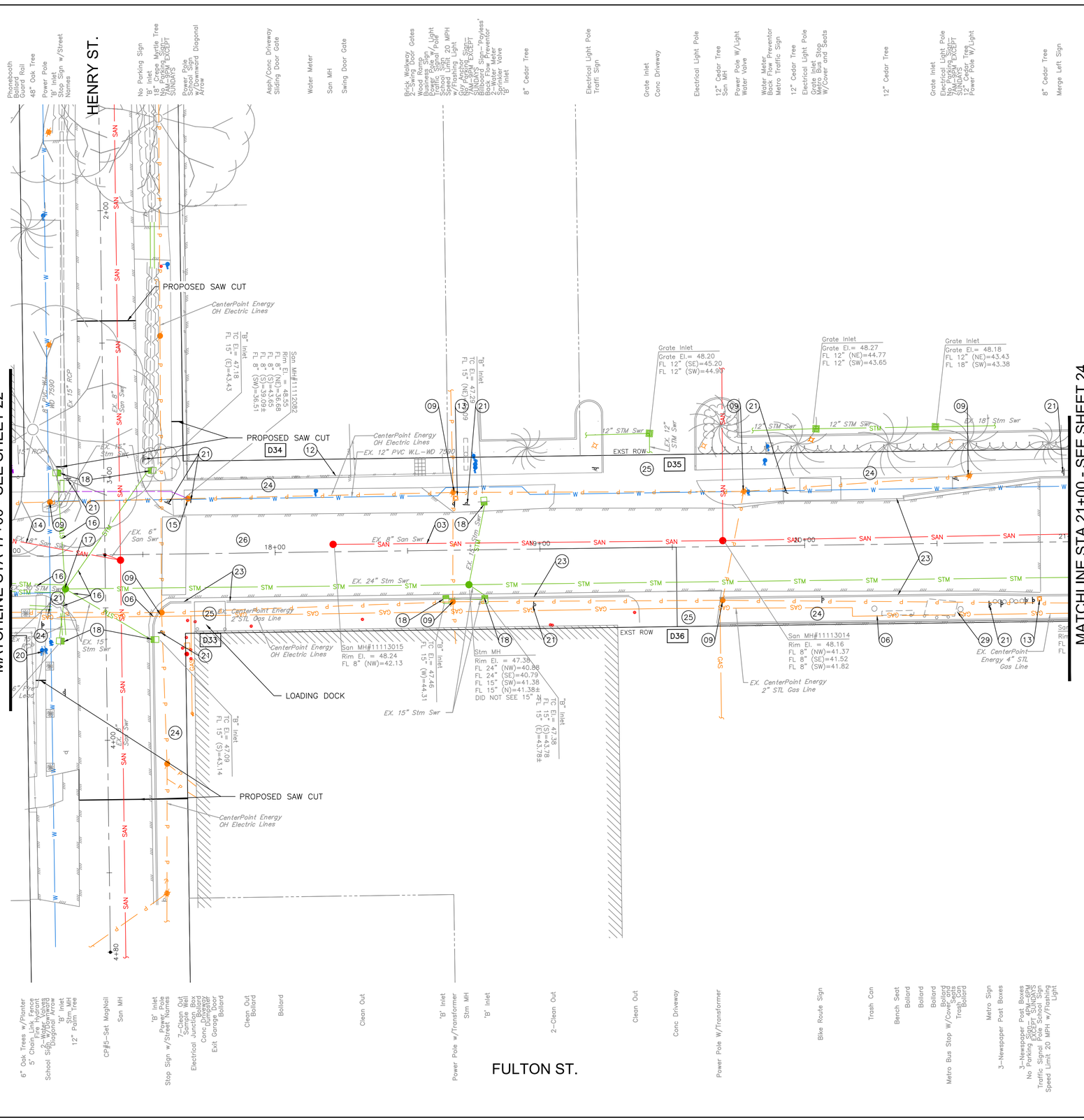
SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DEMO PLAN
STA. 13+50 TO 17+00

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"=20'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 22 OF 152

PLOT STYLE: COH CIP.CTB PLOTTED: 3/30/2026 2:59 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\18 DEMO PLAN.DWG



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NOTE:

- REFER TO DRAINAGE AND PAVEMENT PLAN
- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION PLANS
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

(01) EXISTING STORM SEWER TO REMAIN IN PLACE
(02) EXISTING INLET TO REMAIN IN PLACE
(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE
(04) EXISTING WATER MAIN TO REMAIN IN PLACE
(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE
(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317
(07) EXISTING TRAFFIC SIGN TO REMAIN IN PLACE
(08) PROCEED WITH CAUTION – WORK IN THE VICINITY OF GAS MAIN
(09) EXISTING POWER POLES/STREET LIGHTS AND/OR GUY WIRE
(10) EXISTING TRAFFIC SIGNALS TO BE REMOVED. SEE SIGNALIZATION PLANS
(11) EXISTING TRAFFIC SIGNALS POLES TO REMAIN. SIGNALS ANS SIGNAL CONTROL BOXES TO BE MODIFIED
(12) EXISTING FENCE TO BE REMOVED AND RELOCATED AT RIGHT-OF-WAY LINE
(13) REMOVE, SALVAGE AND RELOCATE EXISTING FLASHING BEACON SIGN POST
(14) REMOVE AND DISPOSE EXISTING SANITARY SEWER
(15) REMOVE AND DISPOSE EXISTING SANITARY MANHOLE
(16) REMOVE AND DISPOSE EXISTING STORM SEWER
(17) REMOVE AND DISPOSE EXISTING STORM SEWER MANHOLE
(18) REMOVE AND DISPOSE EXISTING INLET/CATCH BASIN
(19) REMOVE AND DISPOSE EXISTING WATER LINE
(20) REMOVE AND SALVAGE EXISTING FIRE HYDRANT
(21) REMOVE AND SALVAGE EXISTING TRAFFIC SIGN
(22) REMOVE AND DISPOSE OF EXISTING BOLLARD
(23) REMOVE AND DISPOSE EXISTING CONCRETE CURB OR CURB AND GUTTER
(24) REMOVE AND DISPOSE EXISTING SIDEWALK AND/OR WHEELCHAIR RAMP
(25) REMOVE AND DISPOSE EXISTING DRIVEWAY. SAW CUT AT R/W LINE, UNLESS NOTED OTHERWISE
(26) REMOVE AND DISPOSE OF EXISTING PAVEMENT
(27) RETAIN EXISTING CONCRETE PLANTER
(28) RETAIN EXISTING PRIVATE SIGN.
(29) REMOVE EXISTING BUS STOP PAD AND BENCHES. COORDINATE WITH METRO FOR SALVAGE OR DISPOSAL

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/2026

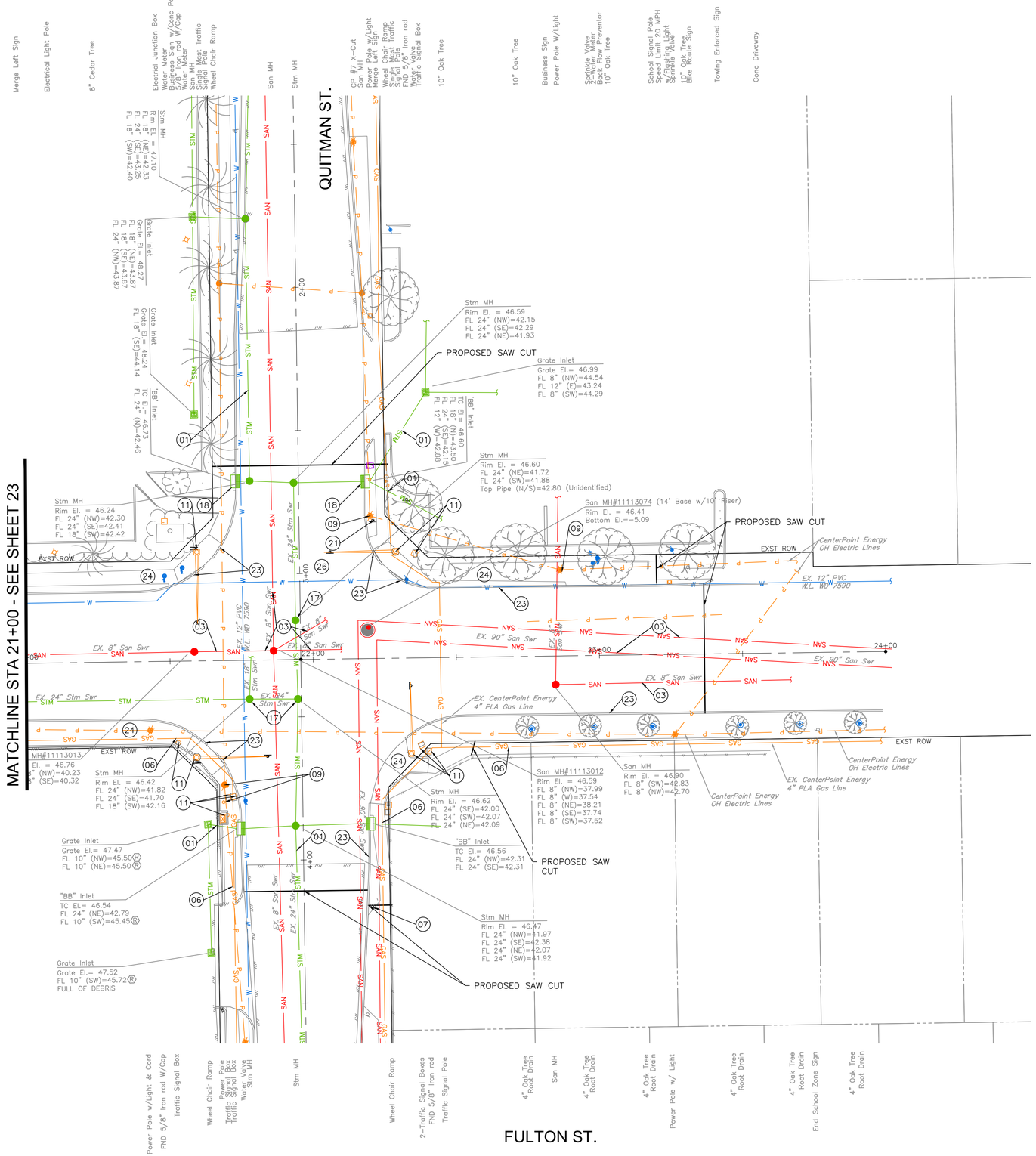
SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DEMO PLAN
STA. 17+00 TO 21+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 23 OF 152	

PLOTTED: 3/30/2026 2:59 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\18 DEMO PLAN.DWG



PLOT STYLE: COH CIP.CTB PLOTTED: 3/30/2026 2:59 PM

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\18 DEMO PLAN.DWG

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTE:

- REFER TO DRAINAGE AND PAVEMENT PLAN
- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION PLANS
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

(01) EXISTING STORM SEWER TO REMAIN IN PLACE

(02) EXISTING INLET TO REMAIN IN PLACE

(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE

(04) EXISTING WATER MAIN TO REMAIN IN PLACE

(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE

(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317

(07) EXISTING TRAFFIC SIGN TO REMAIN IN PLACE

(08) PROCEED WITH CAUTION – WORK IN THE VICINITY OF GAS MAIN

(09) EXISTING POWER POLES/STREET LIGHTS AND/OR GUY WIRE

(10) EXISTING TRAFFIC SIGNALS TO BE REMOVED. SEE SIGNALIZATION PLANS

(11) EXISTING TRAFFIC SIGNALS POLES TO REMAIN. SIGNALS ANS SIGNAL CONTROL BOXES TO BE MODIFIED

(12) EXISTING FENCE TO BE REMOVED AND RELOCATED AT RIGHT-OF-WAY LINE

(13) REMOVE, SALVAGE AND RELOCATE EXISTING FLASHING BEACON SIGN POST

(14) REMOVE AND DISPOSE EXISTING SANITARY SEWER

(15) REMOVE AND DISPOSE EXISTING SANITARY MANHOLE

(16) REMOVE AND DISPOSE EXISTING STORM SEWER

(17) REMOVE AND DISPOSE EXISTING STORM SEWER MANHOLE

(18) REMOVE AND DISPOSE EXISTING INLET/CATCH BASIN

(19) REMOVE AND DISPOSE EXISTING WATER LINE

(20) REMOVE AND SALVAGE EXISTING FIRE HYDRANT

(21) REMOVE AND SALVAGE EXISTING TRAFFIC SIGN

(22) REMOVE AND DISPOSE OF EXISTING BOLLARD

(23) REMOVE AND DISPOSE EXISTING CONCRETE CURB OR CURB AND GUTTER

(24) REMOVE AND DISPOSE EXISTING SIDEWALK AND/OR WHEELCHAIR RAMP

(25) REMOVE AND DISPOSE EXISTING DRIVEWAY. SAW CUT AT R/W LINE, UNLESS NOTED OTHERWISE

(26) REMOVE AND DISPOSE OF EXISTING PAVEMENT

(27) RETAIN EXISTING CONCRETE PLANTER

(28) RETAIN EXISTING PRIVATE SIGN.

(29) REMOVE EXISTING BUS STOP PAD AND BENCHES. COORDINATE WITH METRO FOR SALVAGE OR DISPOSAL

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

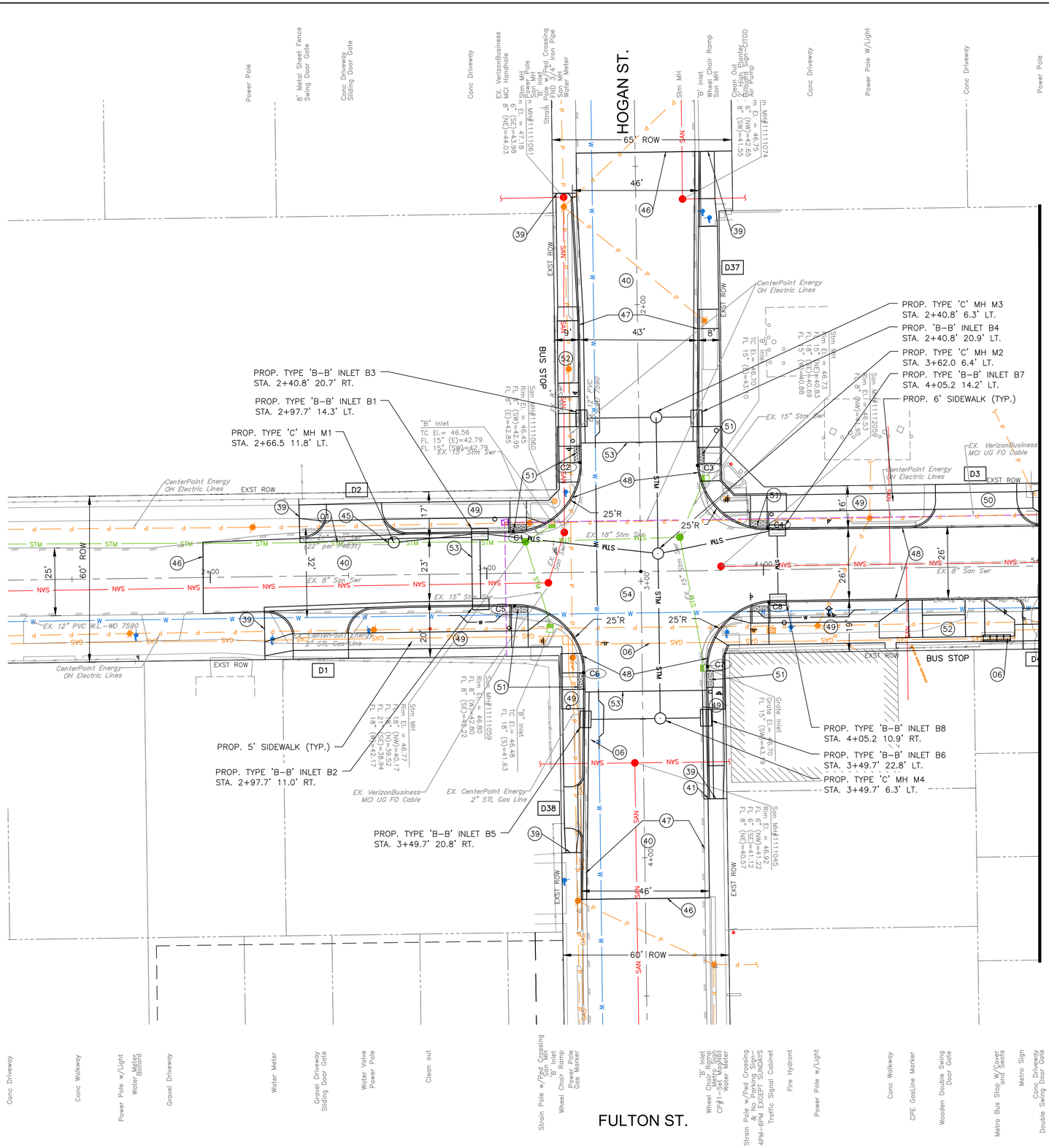
90% PROGRESS
3/30/2026

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DEMO PLAN
STA. 21+00 TO END

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 24 OF 152	



MATCHLINE STA 5+00 - SEE SHEET 27

NOTE:

- REFER TO SANITARY AND WATER PLAN SHEETS XX
- REFER TO TREE PLANTING AND PROTECTION PLANS SHEETS XX
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS SHEETS XX
- ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

DXX SEE SHEET 56 FOR DRIVEWAY DATA

CXX SEE SHEET 57 FOR DRIVEWAY DATA

(01) EXISTING STORM SEWER TO REMAIN IN PLACE

(02) EXISTING INLET TO REMAIN IN PLACE

(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317

(30) ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE

(35) EXISTING WATER MAIN TO REMAIN IN PLACE

(36) EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT

(37) EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER

(38) MATCH EXISTING CURB AND CURB GUTTER

(39) MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS

(40) PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(41) END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS

(44) CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX

(45) CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON-SHRINK GROUT

(46) MATCH EXISTING PAVEMENT

(47) PROPOSED 6" CONCRETE CURB AND GUTTER

(48) PROPOSED 6" CONCRETE CURB

(49) PROPOSED CONCRETE SIDEWALK, 4-1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)

(50) PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE

(51) PROPOSED CURB RAMP

(52) PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING

(53) CONCRETE AND ASPHALT PAVEMENT TRANSITION

(54) PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(55) PROPOSED 24" RCP STORM SEWER (UNO)

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DRAINAGE AND PAVING PLAN STA. 1+00 TO 5+00

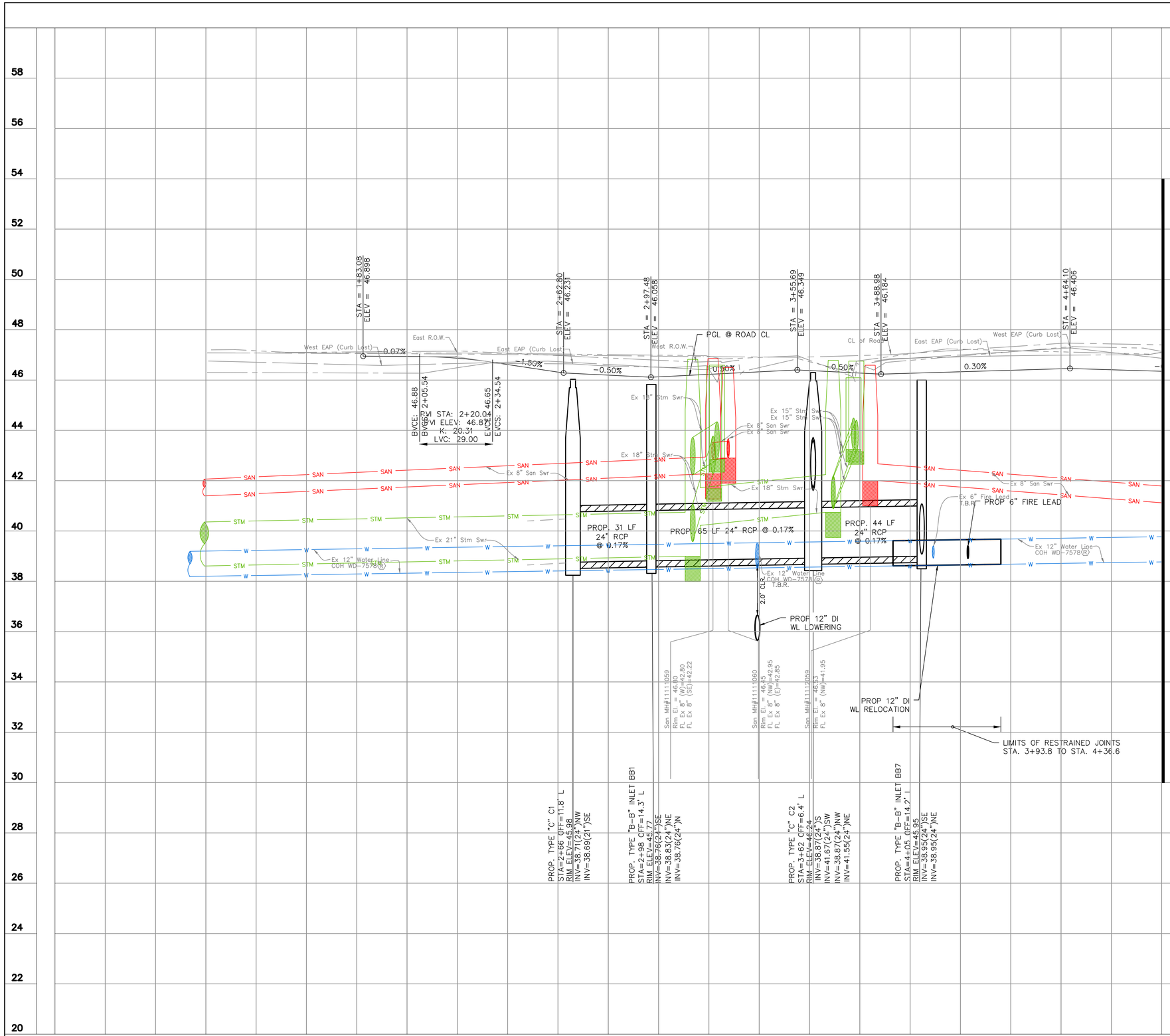
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 25 OF 152	

PLOTTED: 3/30/2026 4:08 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 FULTON PLAN_PROFILE.DWG

PLOTTED: 3/30/2026 4:08 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 FULTON PLAN_PROFILE.DWG



GRAPHIC SCALE

0 20 40

(IN FEET)

FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/2026

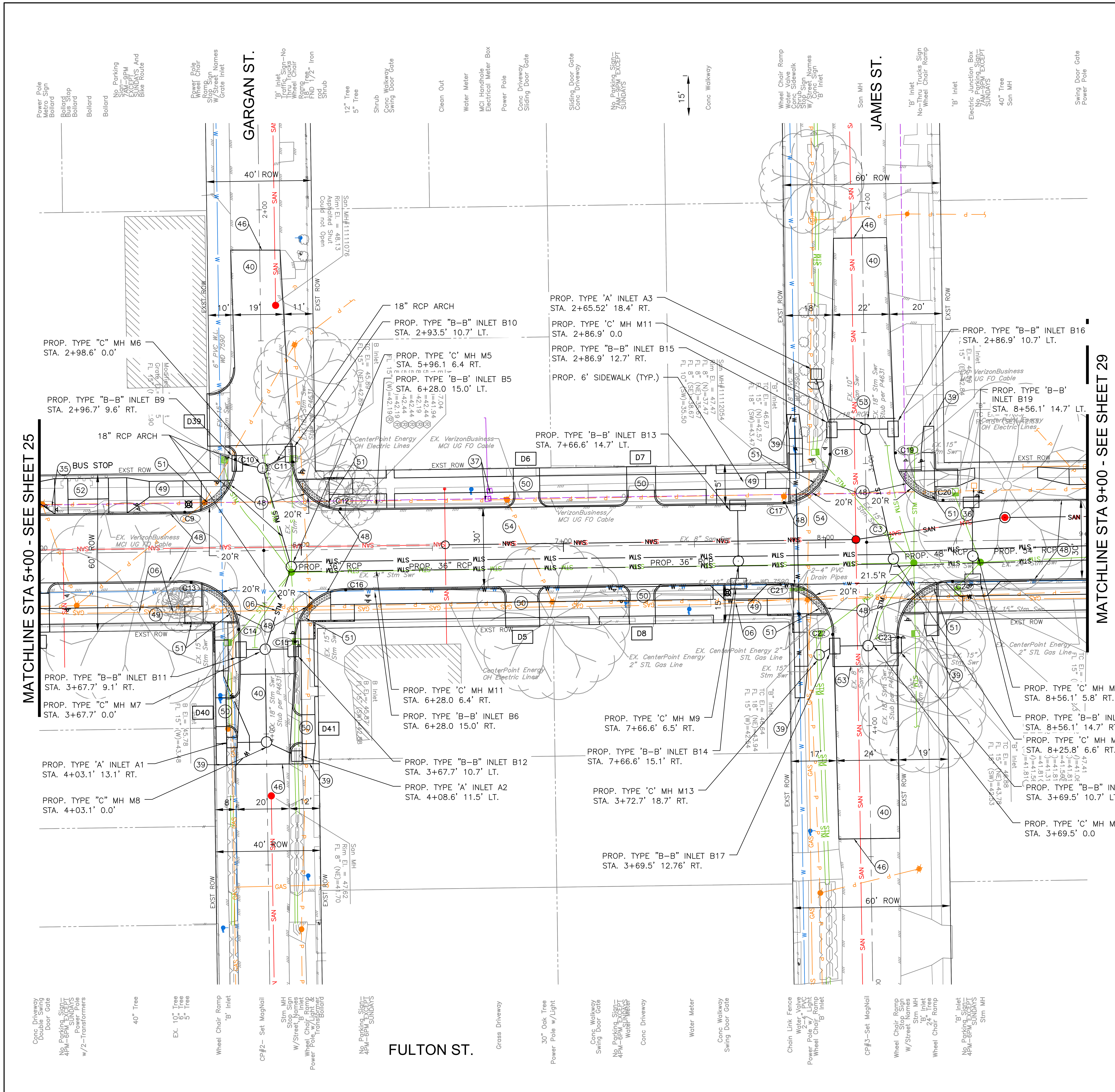
CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

FULTON STREET
DRAINAGE PROFILE
STA. 1+00 TO 5+00

WBS NUMBER	N-000818-0001-3
DRAWING SCALE	1"=20'
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.
SHEET NO.	26 OF 152



NOTE:

- REFER TO SANITARY AND WATER PLAN SHEETS XX
- REFER TO TREE PLANTING AND PROTECTION PLANS SHEETS XX
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS SHEETS XX
- ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

DXX	SEE SHEET 56 FOR DRIVEWAY DATA
CXX	SEE SHEET 57 FOR DRIVEWAY DATA
01	EXISTING STORM SEWER TO REMAIN IN PLACE
02	EXISTING INLET TO REMAIN IN PLACE
06	CRITICAL LOCATION. SEE COH SPEC SECTION 02317
30	ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE
35	EXISTING WATER MAIN TO REMAIN IN PLACE
36	EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT
37	EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER
38	MATCH EXISTING CURB AND CURB GUTTER
39	MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS
40	PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION
41	END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS
44	CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX
45	CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON-SHRINK GROUT
46	MATCH EXISTING PAVEMENT
47	PROPOSED 6" CONCRETE CURB AND GUTTER
48	PROPOSED 6" CONCRETE CURB
49	PROPOSED CONCRETE SIDEWALK, 4-1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)
50	PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE
51	PROPOSED CURB RAMP
52	PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING
53	CONCRETE AND ASPHALT PAVEMENT TRANSITION
54	PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION
55	PROPOSED 24" RCP STORM SEWER (UNO)

NO.	DATE	REVISION	APP.

NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/2026

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET DRAINAGE AND PAVING PLAN STA. 5+00 TO 9+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 27 OF **152**	

PLOTTED: 3/30/2026 4:09 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 FULTON PLAN_PROFILE.DWG

GRAPHIC SCALE

0 20 40

(IN FEET)

FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

MATCHLINE STA 5+00 - SEE SHEET 26

MATCHLINE STA 9+00 - SEE SHEET 30

STA = 5+42.43
ELEV = 46.171

STA = 6+51.12
ELEV = 46.509

STA = 7+14.66
ELEV = 46.780

STA = 7+66.64
ELEV = 46.321

STA = 7+67.70
ELEV = 46.677

STA = 8+56.14
ELEV = 46.386

PGL @ ROAD CL

East EAP (Curb Lost)
West EAP (Curb Lost)
East TOC
West TOC
East R.O.W.
West R.O.W.
Edge of Road
Ex 4" PVC

0.30%
0.31%
0.43%
-0.50%
0.50%
-0.50%
0.30%

Ex 18" Stm Swr
Ex 15" Stm Swr
Ex 21" Stm Swr
Ex 24" Stm Swr
STM

PROP. 171 LF 36" RCP @ 0.20%

PROP. 59 LF 36" RCP @ 0.20%

PROP. 30 LF 48" RCP @ 0.11%

Ex 8" San Swr
Ex 10" San Swr
SAN

Ex 12" Water Line
COH WD-7578(R)
Ex 8" Water Line
COH WD-7578(R)
W

PROP 12" DI WL RELOCATION

PROP 12" DI WL LOWERING

PROP. 157 LF 8" PVC SAN @ 0.44%

PROP. 57 LF 8" PVC SAN @ 0.34%

2.0' CLR.
2.1' CLR.
2.3' CLR.
2.8' CLR.

LIMITS OF RESTRAINED JOINTS
STA. 6+46 TO STA. 8+76.5

PROP. TYPE "C" C5
STA=5+96 OFF=6.4' R
RIM ELEV=46.26
INV=42.13(28")SW
INV=40.92(36")NW
INV=42.13(28")E

PROP. SAN MH S54A
STA=6+55 OFF=1.2' L
RIM ELEV=48.50
INV=36.36(8")NW
INV=39.87(8")SE

PROP. TYPE "C" C9
STA=7+67 OFF=6.5' R
RIM ELEV=46.39
INV=41.75(24")SW
INV=40.58(36")SE
INV=41.75(24")NE
INV=40.58(36")NW

CONNECT TO EX. SAN MH S5A
STA=8+12 OFF=1.1' L
RIM ELEV=48.60
INV=35.67(8")NW
INV=35.67(8")SE

Sta=NM#111112054
Rim El. = 47.67
FL Ex 8" (N)=37.47
FL Ex 8" (NE)=35.67
FL Ex 8" (E)=35.67
FL Ex 10" (SW)=35.50

PROP. TYPE "C" C10
STA=8+26 OFF=6.6' R
RIM ELEV=46.46
INV=40.46(36")SE
INV=41.76(24")SW
INV=40.03(48")NW
INV=41.73(24")E

PROP. TYPE "C" C14
STA=8+56 OFF=5.8' R
RIM ELEV=46.67
INV=40.00(48")SE
INV=41.81(24")SW
INV=39.50(54")NW
INV=41.81(24")NE

PROP. SAN MH S55
STA=8+69 OFF=8.7' L
RIM ELEV=48.25
INV=35.86(8")NW
INV=35.87(8")SE

5+00 6+00 7+00 8+00 9+00

58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20

NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

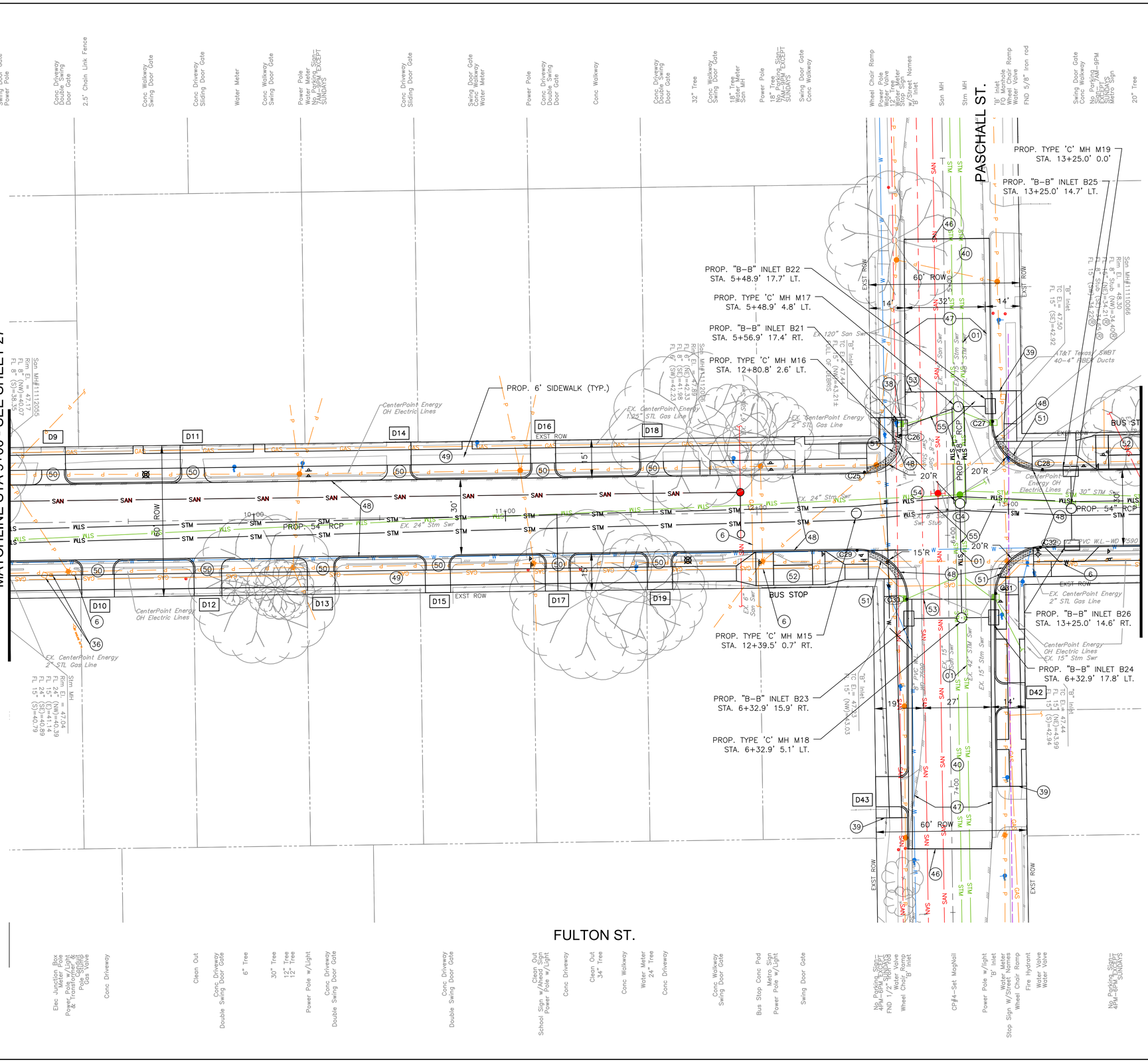
90% PROGRESS
3/30/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DRAINAGE PROFILE
STA. 5+00 TO 9+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

D33 SEE SHEET X FOR DRIVEWAY DATA

CXX SEE SHEET 57 FOR DRIVEWAY DATA

(01) EXISTING STORM SEWER TO REMAIN IN PLACE

(02) EXISTING INLET TO REMAIN IN PLACE

(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317

(30) ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE

(35) EXISTING WATER MAIN TO REMAIN IN PLACE

(36) EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT

(37) EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER

(38) MATCH EXISTING CURB GUTTER

(39) MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS

(40) PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(41) END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS

(44) CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX

(45) CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON-SHRINK GROUT

(46) MATCH EXISTING PAVEMENT

(47) PROPOSED 6" CONCRETE CURB AND GUTTER

(48) PROPOSED 6" CONCRETE CURB

(49) PROPOSED CONCRETE SIDEWALK, 4-1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)

(50) PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE

(51) PROPOSED CURB RAMP

(52) PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING

(53) CONCRETE AND ASPHALT PAVEMENT TRANSITION

(54) PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(55) PROPOSED 24" RCP STORM SEWER (UNO)

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Date

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

Date

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

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/2026

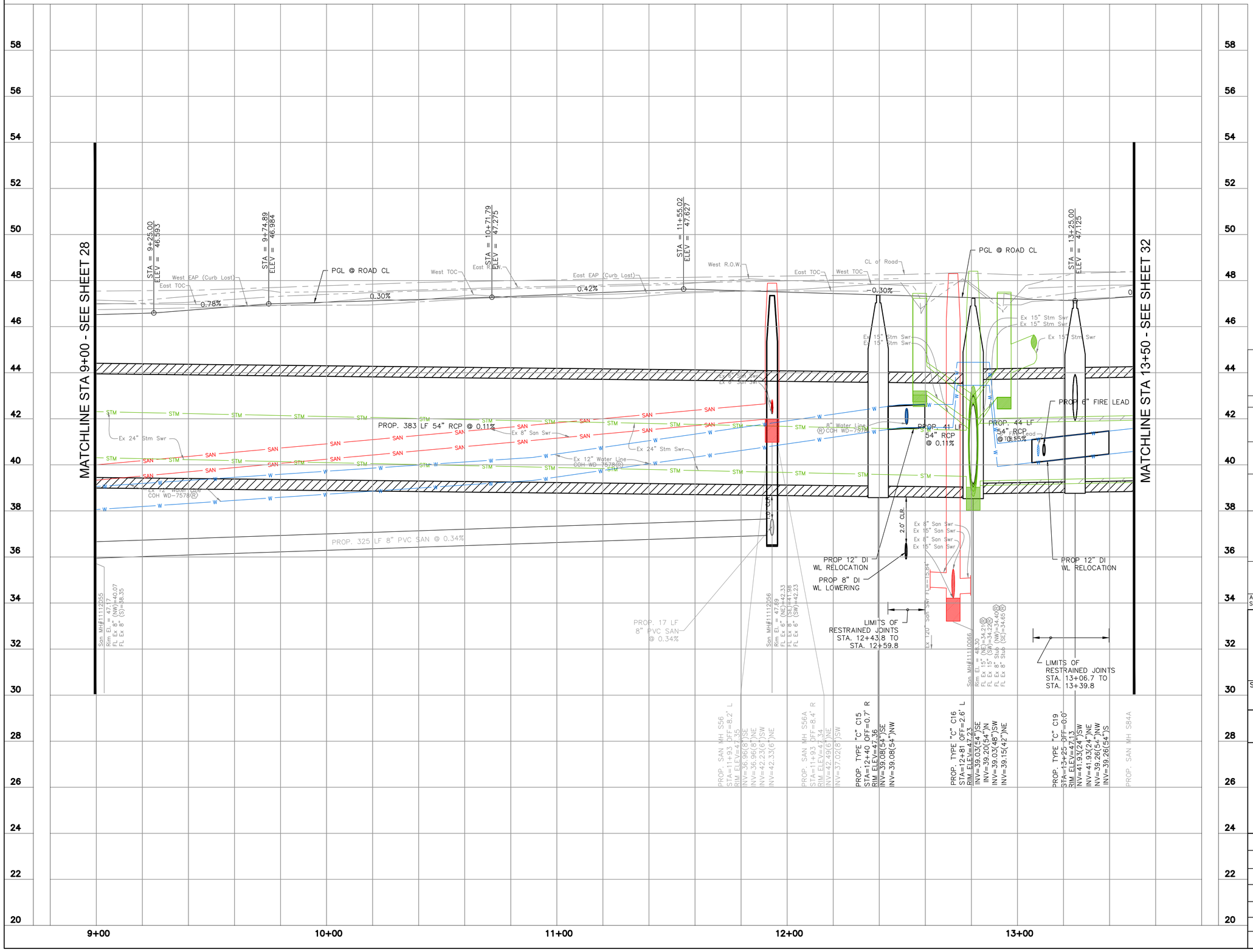
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DRAINAGE AND PAVING PLAN STA. 9+00 TO 13+50

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 29 OF 152	

PLOTTED: 3/30/2026 4:09 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 FULTON PLAN_PROFILE.DWG

PLOTTED: 3/30/2026 4:10 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 FULTON PLAN_PROFILE.DWG



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

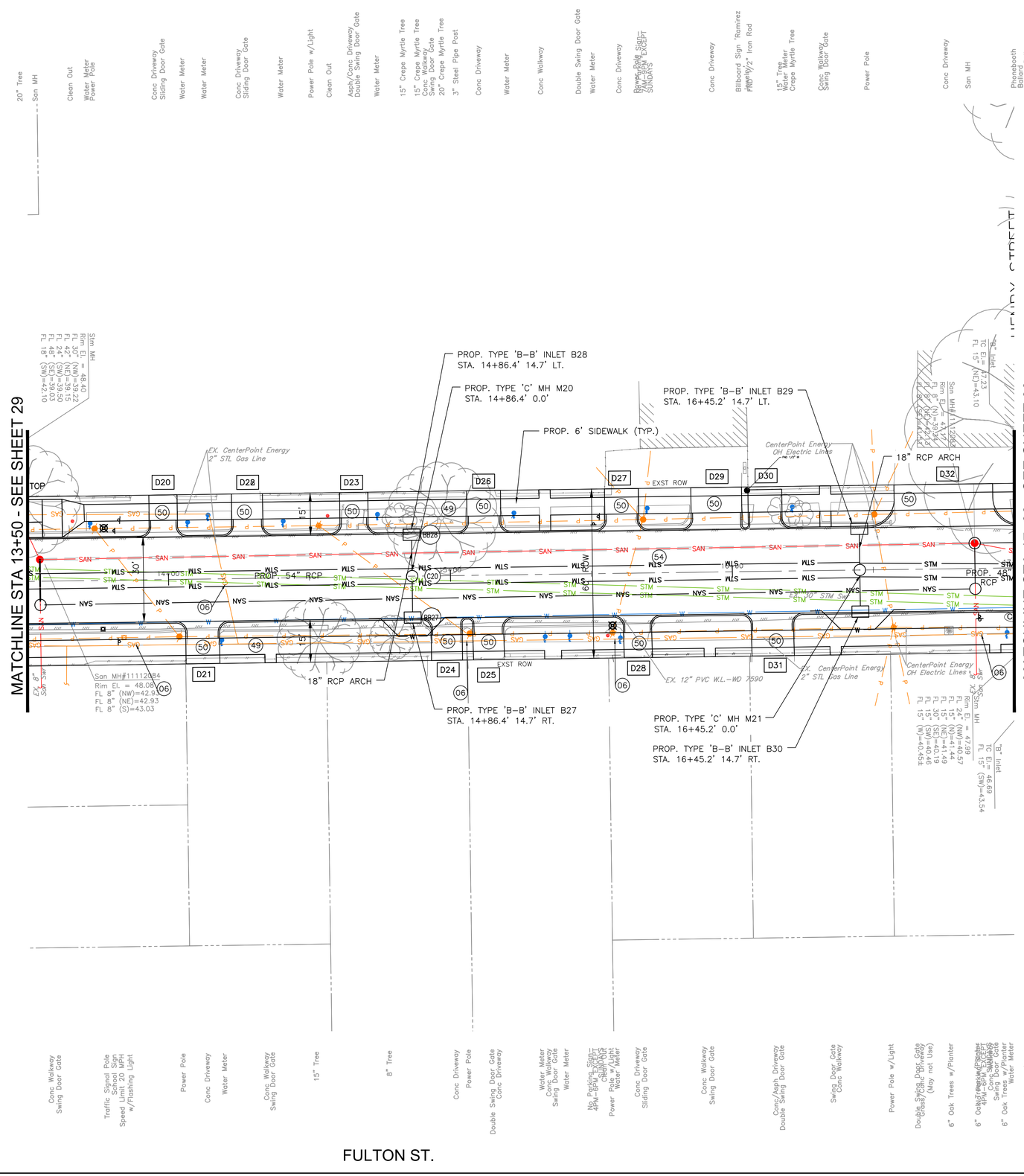
SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DRAINAGE PROFILE
STA. 9+00 TO 13+50

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 30 OF 152	



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

- [D33] SEE SHEET X FOR DRIVEWAY DATA
- (CXX) SEE SHEET 57 FOR DRIVEWAY DATA
- (01) EXISTING STORM SEWER TO REMAIN IN PLACE
- (02) EXISTING INLET TO REMAIN IN PLACE
- (06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317
- (30) ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE
- (35) EXISTING WATER MAIN TO REMAIN IN PLACE
- (36) EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT
- (37) EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER
- (38) MATCH EXISTING CURB GUTTER
- (39) MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS
- (40) PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION
- (41) END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS
- (44) CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX
- (45) CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON-SHRINK GROUT
- (46) MATCH EXISTING PAVEMENT
- (47) PROPOSED 6" CONCRETE CURB AND GUTTER
- (48) PROPOSED 6" CONCRETE CURB
- (49) PROPOSED CONCRETE SIDEWALK, 4-1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)
- (50) PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE
- (51) PROPOSED CURB RAMP
- (52) PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING
- (53) CONCRETE AND ASPHALT PAVEMENT TRANSITION
- (54) PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION
- (55) PROPOSED 24" RCP STORM SEWER (UNO)

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Date

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

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DRAINAGE AND PAVING PLAN STA. 13+50 TO 17+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 31 OF 152	

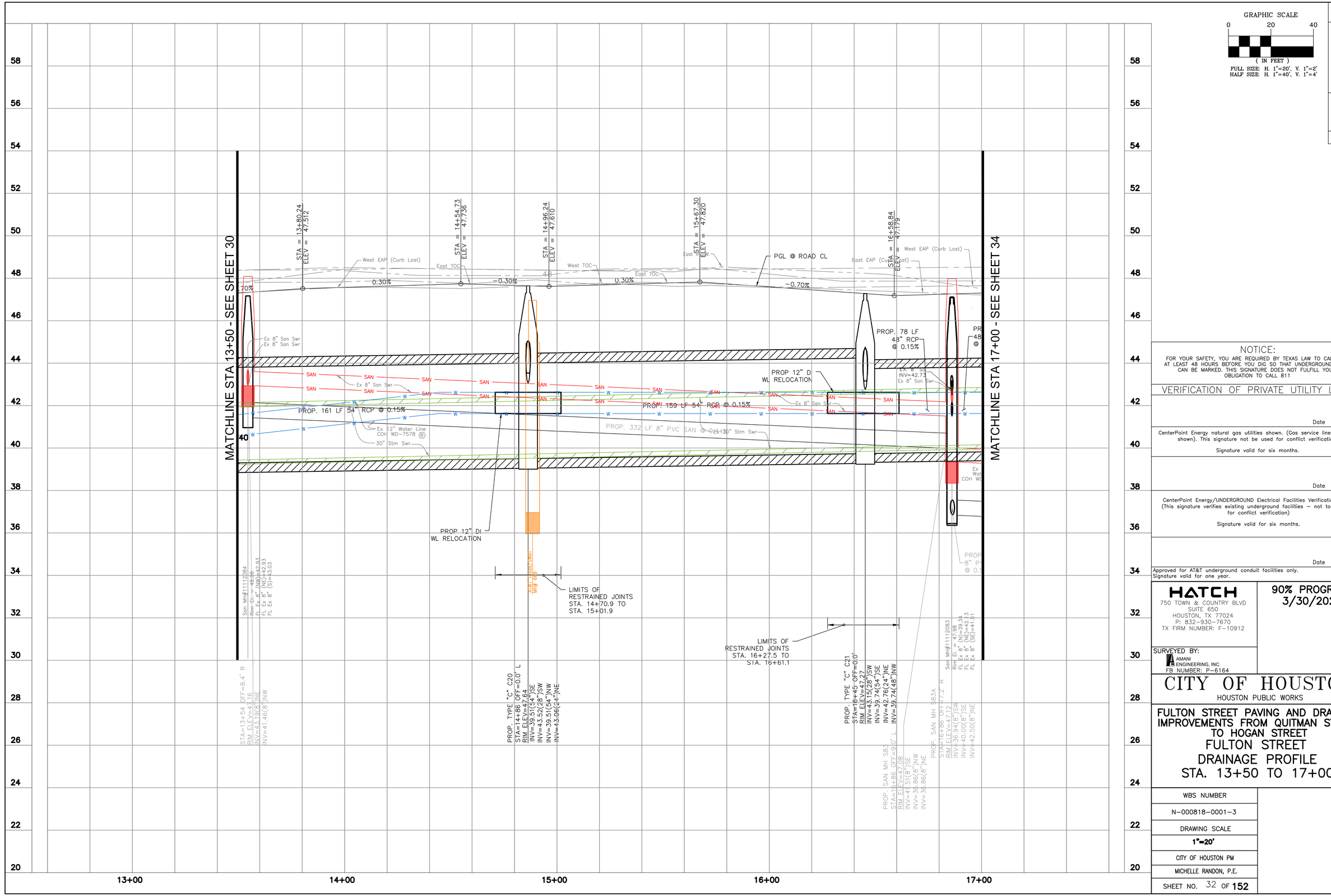
NO.	DATE	REVISION	APP.

PLOTTED: 3/30/2026 4:10 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 FULTON PLAN_PROFILE.DWG

PLOTTED: 3/30/2026 4:10 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 FULTON PLAN_PROFILE.DWG



GRAPHIC SCALE

0 20 40

(IN FEET)

FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/2026

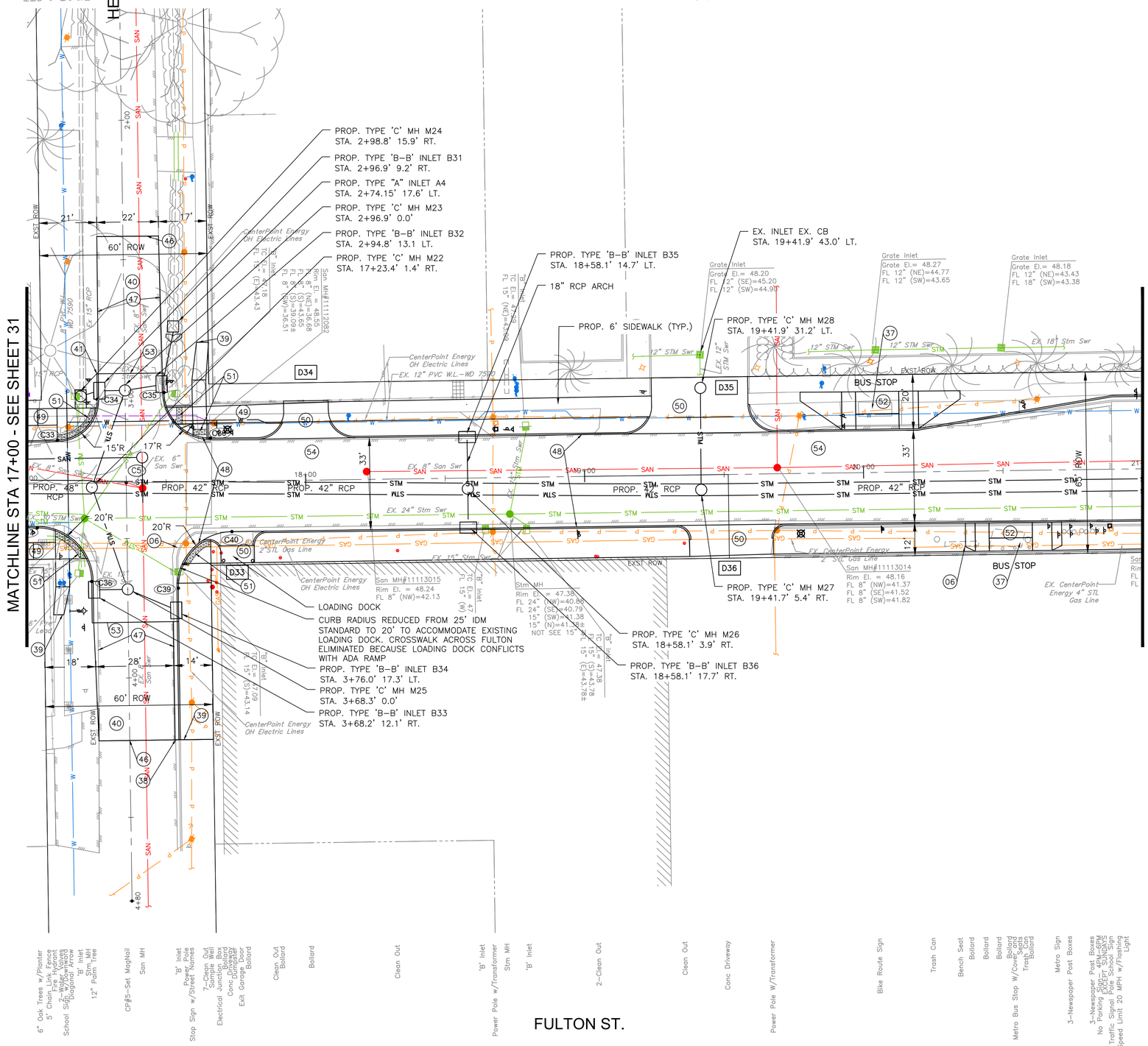
CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

FULTON STREET
DRAINAGE PROFILE
STA. 13+50 TO 17+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 32 OF 152	



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

- (D33) SEE SHEET X FOR DRIVEWAY DATA
- (CXX) SEE SHEET 57 FOR DRIVEWAY DATA
- (01) EXISTING STORM SEWER TO REMAIN IN PLACE
- (02) EXISTING INLET TO REMAIN IN PLACE
- (06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317
- (30) ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE
- (35) EXISTING WATER MAIN TO REMAIN IN PLACE
- (36) EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT
- (37) EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER
- (38) MATCH EXISTING CURB GUTTER
- (39) MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS
- (40) PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION
- (41) END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS
- (44) CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX
- (45) CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON–SHRINK GROUT
- (46) MATCH EXISTING PAVEMENT
- (47) PROPOSED 6" CONCRETE CURB AND GUTTER
- (48) PROPOSED 6" CONCRETE CURB
- (49) PROPOSED CONCRETE SIDEWALK, 4–1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)
- (50) PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE
- (51) PROPOSED CURB RAMP
- (52) PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING
- (53) CONCRETE AND ASPHALT PAVEMENT TRANSITION
- (54) PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION
- (55) PROPOSED 24" RCP STORM SEWER (UNO)

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Date

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

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P–6164

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DRAINAGE AND PAVING PLAN STA. 17+00 TO 21+00

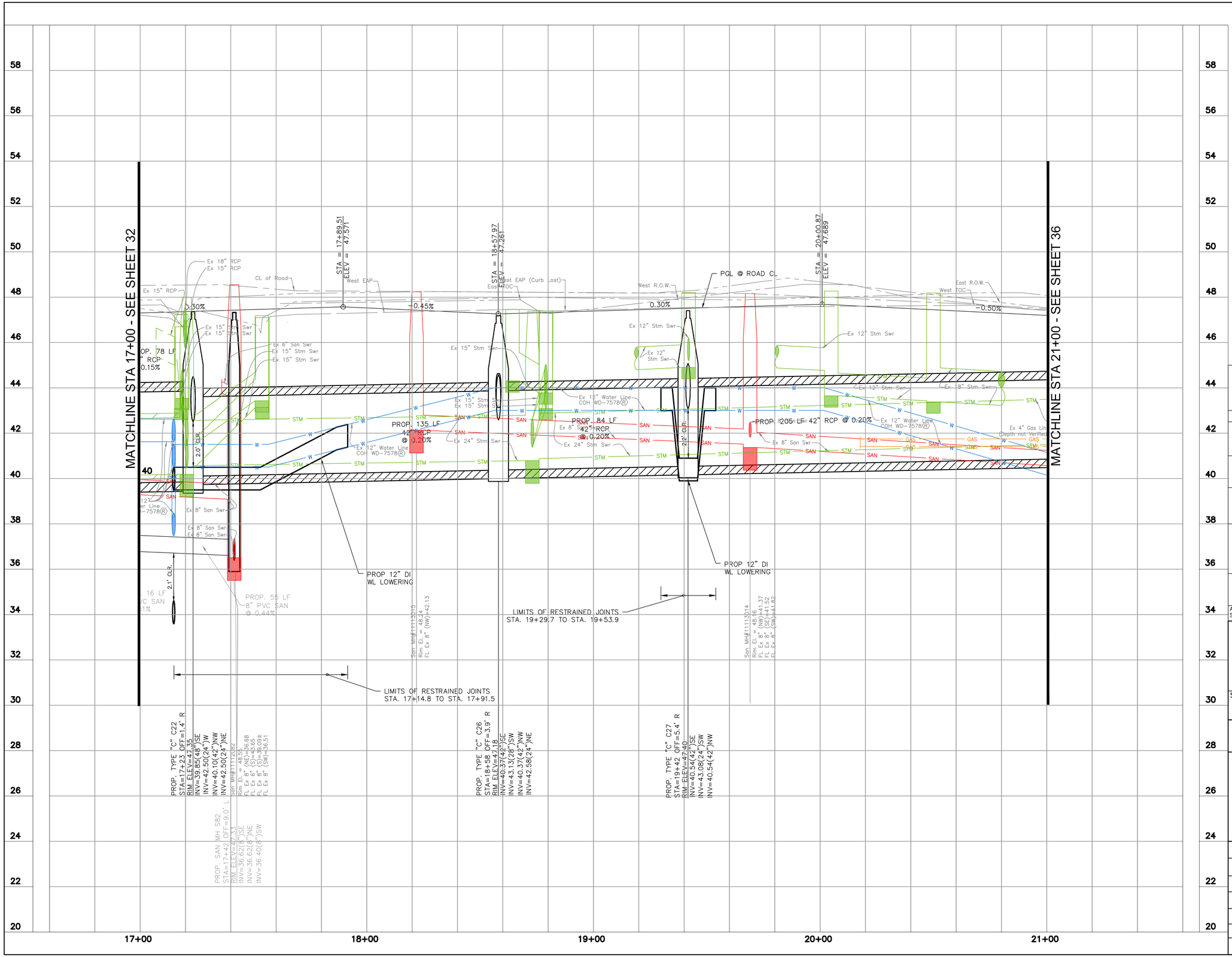
WBS NUMBER	
N–000818–0001–3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 33 OF 152	

PLOTTED: 3/30/2026 4:11 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch–dpd–south_central_us\dms60086\24 FULTON PLAN_PROFILE.DWG

PLOTTED: 3/30/2026 4:11 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 FULTON PLAN_PROFILE.DWG



GRAPHIC SCALE

0 20 40

(IN FEET)

FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/2026

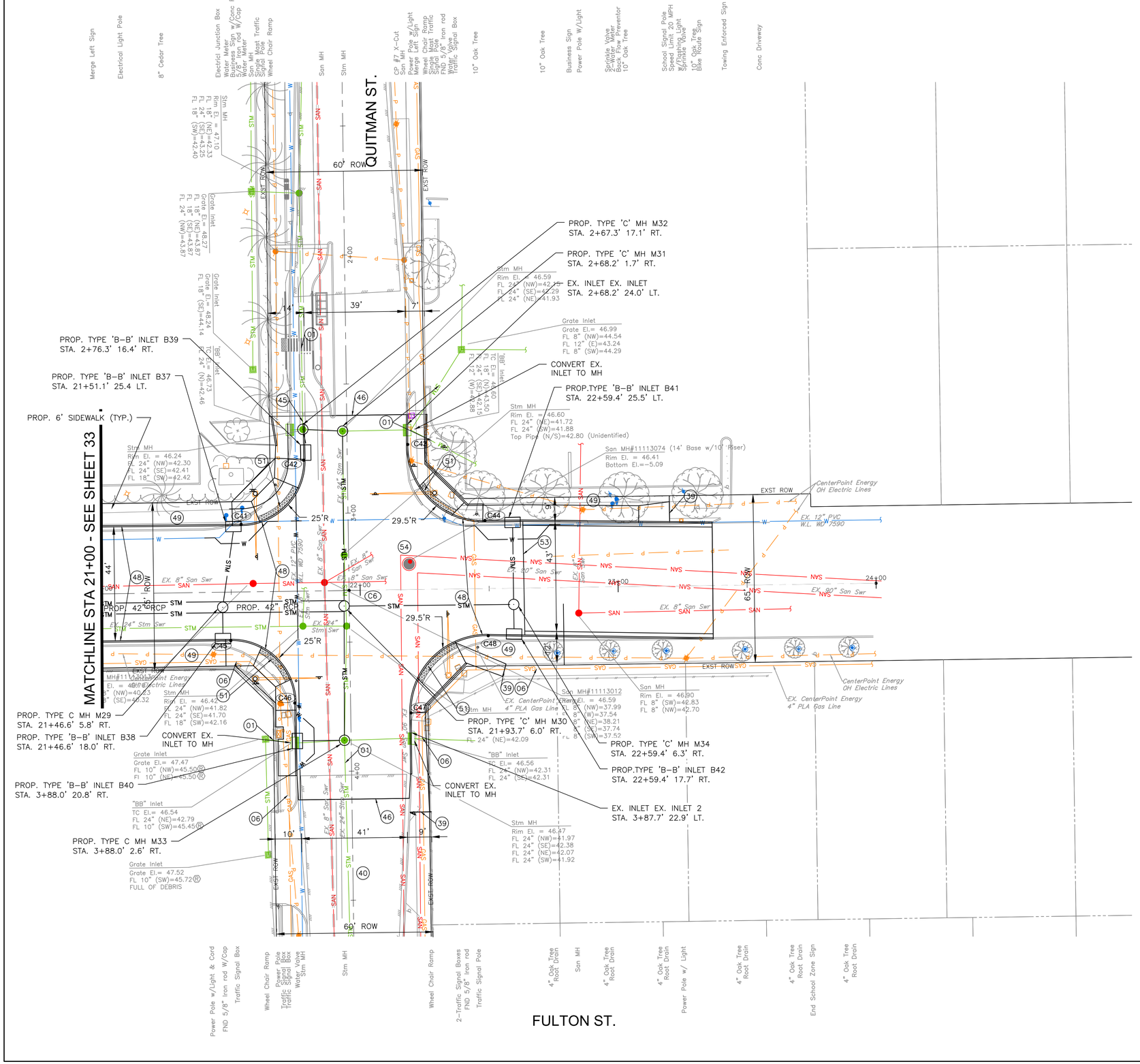
CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

FULTON STREET
DRAINAGE PROFILE
STA. 17+00 TO 21+00

WBS NUMBER	N-000818-0001-3
DRAWING SCALE	1"=20'
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.
SHEET NO.	34 OF 152



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

- D33 SEE SHEET X FOR DRIVEWAY DATA
- CXX SEE SHEET 57 FOR DRIVEWAY DATA
- 01 EXISTING STORM SEWER TO REMAIN IN PLACE
- 02 EXISTING INLET TO REMAIN IN PLACE
- 06 CRITICAL LOCATION. SEE COH SPEC SECTION 02317
- 30 ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE
- 35 EXISTING WATER MAIN TO REMAIN IN PLACE
- 36 EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT
- 37 EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER
- 38 MATCH EXISTING CURB GUTTER
- 39 MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS
- 40 PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION
- 41 END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS
- 44 CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX
- 45 CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON–SHRINK GROUT
- 46 MATCH EXISTING PAVEMENT
- 47 PROPOSED 6" CONCRETE CURB AND GUTTER
- 48 PROPOSED 6" CONCRETE CURB
- 49 PROPOSED CONCRETE SIDEWALK, 4–1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)
- 50 PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE
- 51 PROPOSED CURB RAMP
- 52 PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING
- 53 CONCRETE AND ASPHALT PAVEMENT TRANSITION
- 54 PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION
- 55 PROPOSED 24" RCP STORM SEWER (UNO)

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Date

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

Date

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

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

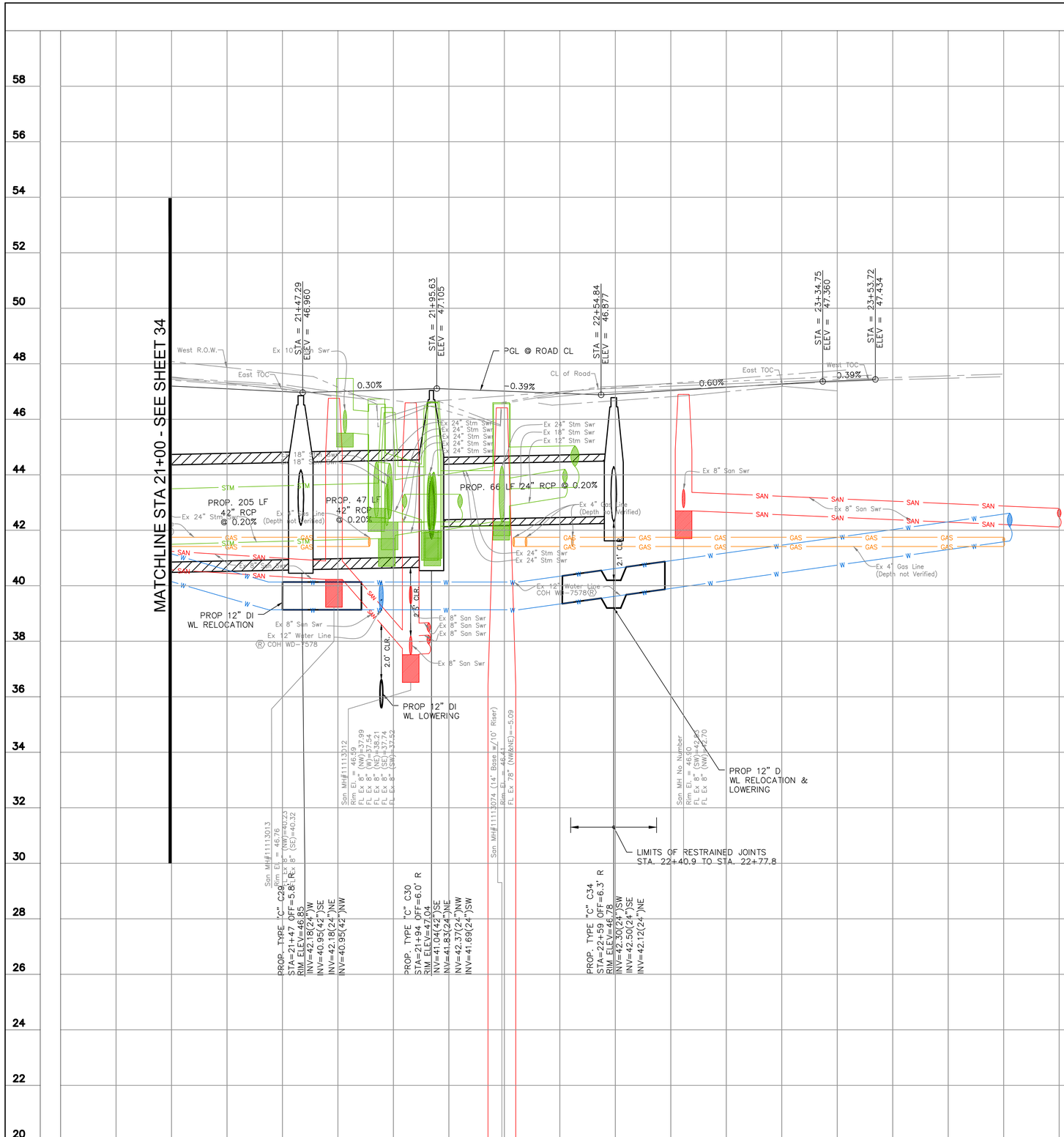
90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DRAINAGE AND PAVING PLAN STA. 21+00 TO END

WBS NUMBER	
N–000818–0001–3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 35 OF 152	

PLOTTED: 3/30/2026 4:12 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 FULTON PLAN_PROFILE.DWG



PLOTTED: 3/30/2026 4:12 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 FULTON PLAN_PROFILE.DWG

GRAPHIC SCALE

0 20 40

(IN FEET)

FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/2026

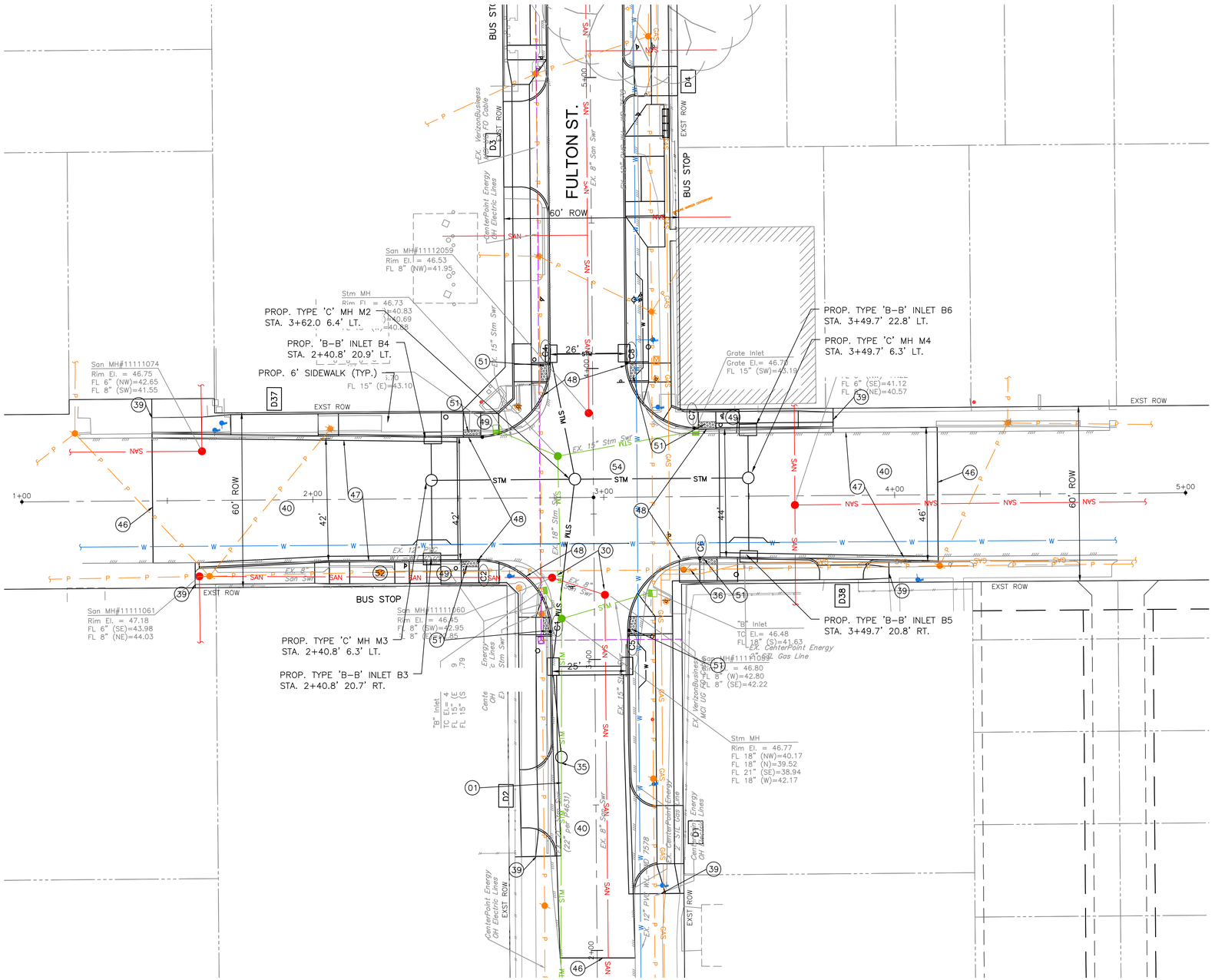
CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
DRAINAGE PROFILE
STA. 21+00 TO END

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 36 OF 152	

SEE SHEET 25 FOR FULTON STREET PLAN



NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

D33 SEE SHEET X FOR DRIVEWAY DATA

(01) EXISTING STORM SEWER TO REMAIN IN PLACE

(02) EXISTING INLET TO REMAIN IN PLACE

(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317

(30) ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE

(35) EXISTING WATER MAIN TO REMAIN IN PLACE

(36) EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT

(37) EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER

(38) MATCH EXISTING CURB GUTTER

(39) MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS

(40) PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(41) END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS

(44) CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX

(45) CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON-SHRINK GROUT

(46) MATCH EXISTING PAVEMENT

(47) PROPOSED 6" CONCRETE CURB AND GUTTER

(48) PROPOSED 6" CONCRETE CURB

(49) PROPOSED CONCRETE SIDEWALK, 4-1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)

(50) PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE

(51) PROPOSED CURB RAMP

(52) PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING

(53) CONCRETE AND ASPHALT PAVEMENT TRANSITION

(54) PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(55) PROPOSED 24" RCP STORM SEWER (UNO)

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
HOGAN STREET DRAINAGE PLAN
STA. 1+00 TO 5+00

WBS NUMBER	N-000818-0001-3
DRAWING SCALE	1"=20'
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.
SHEET NO.	37 OF 152

NO.	DATE	REVISION	APP.

PLOTTED: 3/30/2026 4:13 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG

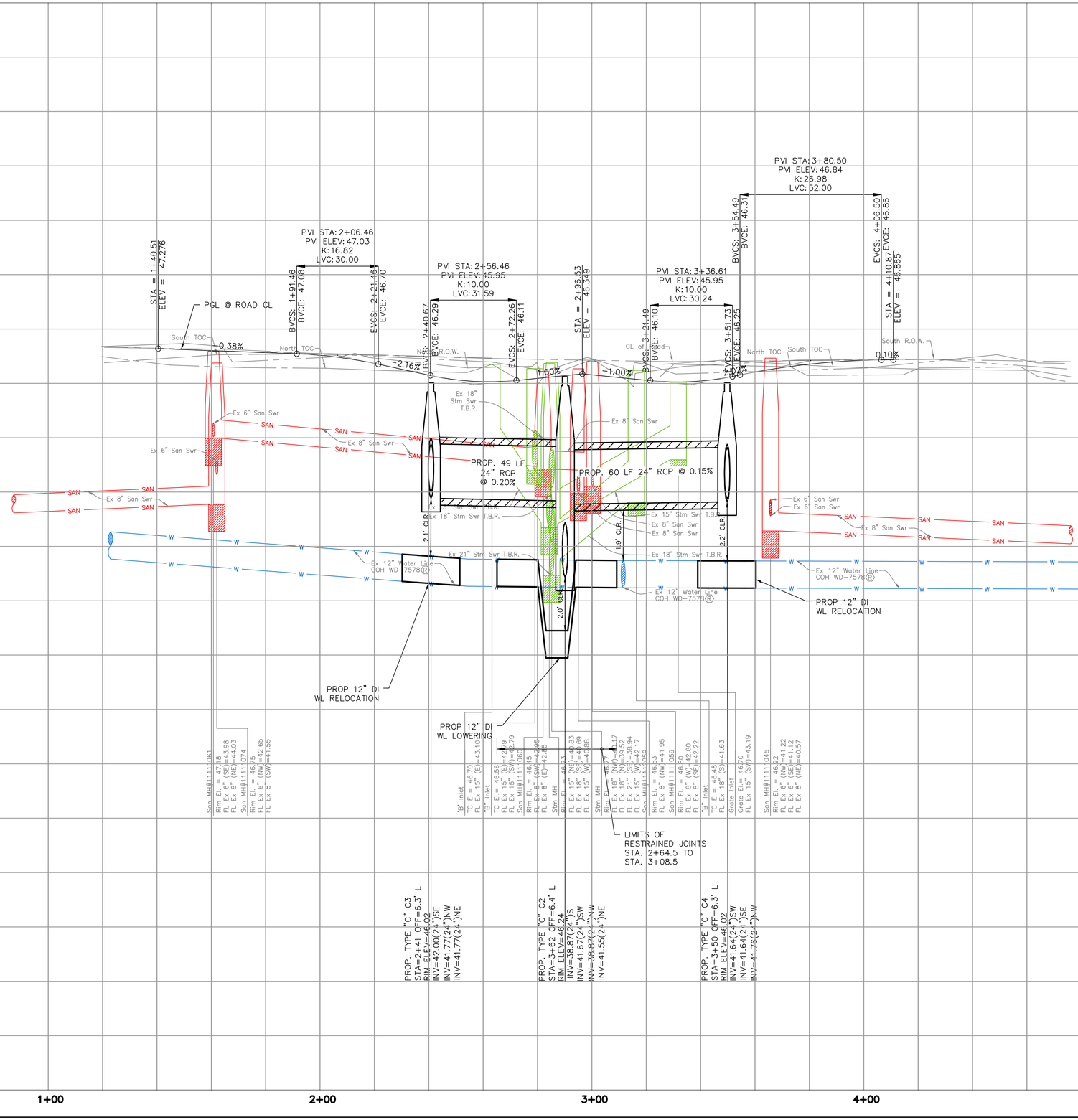
PLOTTED: 3/30/2026 4:14 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.



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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

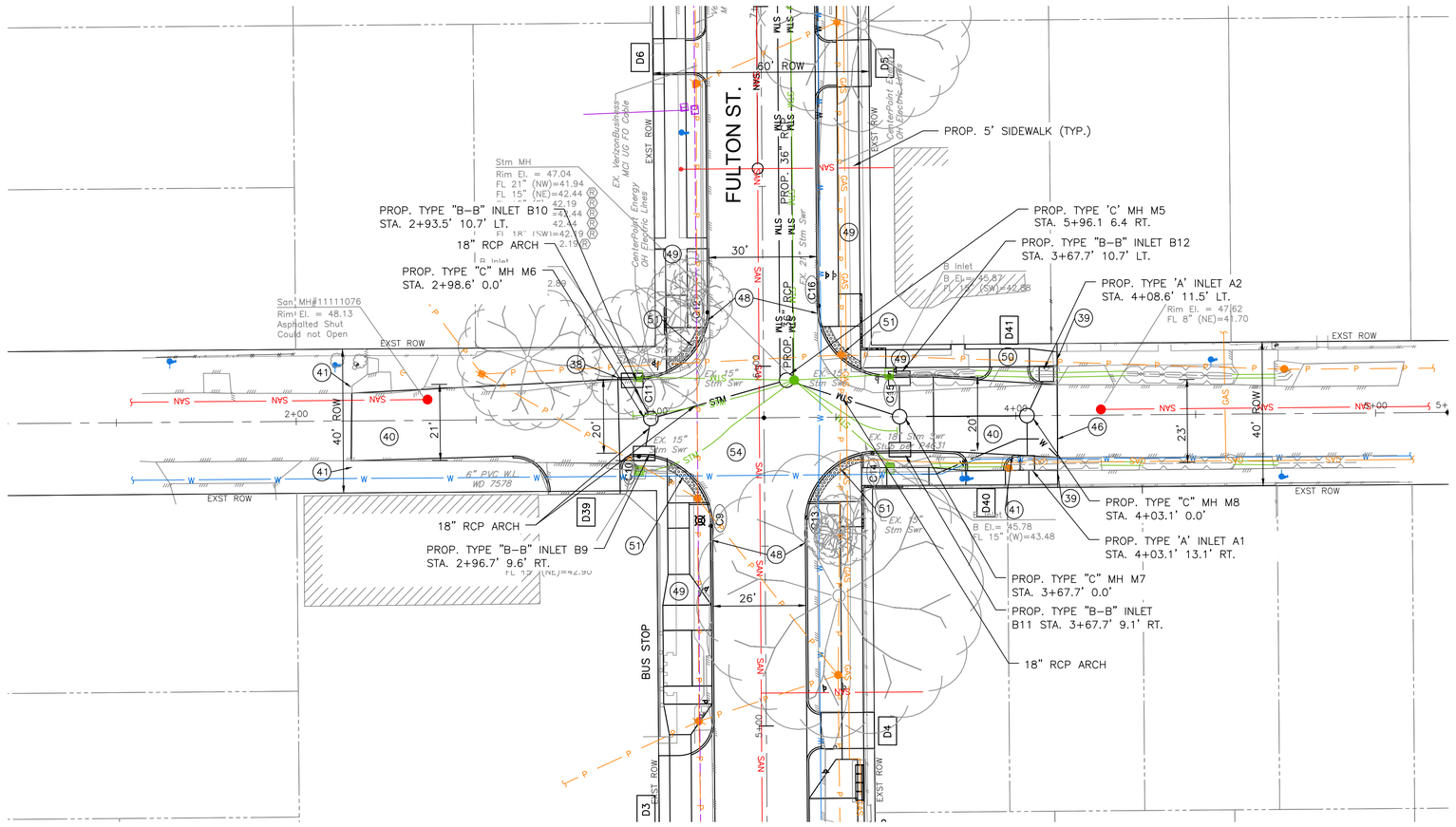
90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
HOGAN STREET
DRAINAGE PROFILE
STA. 1+00 TO 5+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 38 OF 152	

SEE SHEET 27 FOR FULTON STREET PLAN



NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

- D33 SEE SHEET X FOR DRIVEWAY DATA
- (01) EXISTING STORM SEWER TO REMAIN IN PLACE
- (02) EXISTING INLET TO REMAIN IN PLACE
- (06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317
- (30) ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE
- (35) EXISTING WATER MAIN TO REMAIN IN PLACE
- (36) EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT
- (37) EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER
- (38) MATCH EXISTING CURB GUTTER
- (39) MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS
- (40) PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION
- (41) END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS
- (44) CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX
- (45) CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON–SHRINK GROUT
- (46) MATCH EXISTING PAVEMENT
- (47) PROPOSED 6" CONCRETE CURB AND GUTTER
- (48) PROPOSED 6" CONCRETE CURB
- (49) PROPOSED CONCRETE SIDEWALK, 4–1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)
- (50) PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE
- (51) PROPOSED CURB RAMP
- (52) PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING
- (53) CONCRETE AND ASPHALT PAVEMENT TRANSITION
- (54) PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION
- (55) PROPOSED 24" RCP STORM SEWER (UNO)

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Date

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

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P–6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
GARGAN STREET
DRAINAGE PLAN
STA. 1+50 TO 4+50

WBS NUMBER	
N–000818–0001–3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 39 OF 152	

PLOTTED: 3/30/2026 4:14 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG

PLOTTED: 3/30/2026 4:14 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

PVI STA: 2+38.25
PVI ELEV: 48.18
K: 15.00
LVC: 55.42

PVI STA: 2+93.73
PVI ELEV: 45.94
K: 8.00
LVC: 40.25

PVI STA: 3+63.31
PVI ELEV: 45.97
K: 8.00
LVC: 35.13

PVI STA: 4+00.31
PVI ELEV: 47.23
K: 15.00
LVC: 58.00

STA = 2+03.30
ELEV = 48.298
BVCS: 2+10.54
BVCE: 48.27
EVCS: 2+65.95
EVCE: 47.06
BVCS: 2+73.60
BVCE: 46.75
EVCS: 3+13.86
EVCE: 46.14
STA = 3+30.00
ELEV = 46.306
BVCS: 3+45.74
BVCE: 46.15
EVCS: 3+80.87
EVCE: 46.58
EVCS: 4+19.32
EVCE: 47.39
STA = 4+25.84
ELEV = 47.447

CL of Road
0.13%
North TOC
South TOC
FGL @ ROAD CL
North R.O.W.
South R.O.W.
CL of Ditch (N)
CL of Ditch (S)
0.86%
5.39%
1.00%
-1.00%

Ex 15" Stm Swr
Ex 15" Stm Swr
Ex 15" Stm Swr
Ex 18" Stm Swr
Ex 12" Steel Pipe (E)
Ex 18" RCP (N)
Ex 15" RCP (N)
Ex 12" RCP (N)
Ex 12" RCP (S)
Ex 12" RCP (S)

PROP. 39 LF
18" RCP ARCH
@ 0.20%
PROP. 33 LF
18" RCP ARCH
@ 0.20%
PROP. 35 LF
24" RCP
@ 0.50%

Ex 8" San Swr
Ex 8" San Swr
Ex 8" San Swr
Ex 6" Water Line
COH WD-7578®
Ex 12" Water Line
COH WD-7578®
Ex 21" Stm Swr
0.8' CLR
2.0' CLR
2.4' CLR
Ex 6" Water Line
®COH WD-7578

PROP 6" DI
WL RELOCATION
LIMITS OF RESTRAINED JOINTS
STA. 3+73.6 TO STA. 4+18.6

San MH#1111 076
Asphalted Shut
Did not open
Rim El.= 48.13
FL Ex 8" (SW)=42.28 Per GIMS

'B' Inlet
TC El.= 45.89
FL Ex 18" (NE)=42.89
Modify 'B' Inlet
Grate El.= 45.75
FL Ex 15" (N)=42.90

PROP. TYPE "C" C6
STA=2+99 OFF=0.0' R
RIM ELEV=46.14
INV=42.21(28")S
INV=42.21(28")NE
INV=42.21(28")NW

Strm MH
Rim El.= 47.04
FL Ex 21" (NW)=41.94
FL Ex 15" (N)=42.44 (R)
FL Ex 15" (NE)=42.44 (R)
FL Ex 15" (S)=42.44 (R)
FL Ex 18" (SW)=42.19 (R)
FL Ex 15" (W)=42.44 (R)

PROP. TYPE "C" C5
STA=3+96 OFF=6.4' R
RIM ELEV=46.28
INV=42.13(28")SW
INV=40.92(36")NW
INV=42.13(28")E

'B' Inlet
Grate El.= 45.78
FL Ex 15" (W)=43.48
'B' Inlet
Grate El.= 45.87
FL Ex 15" (SW)=42.98

PROP. TYPE "C" C7
STA=3+68 OFF=0.0' L
RIM ELEV=46.23
INV=42.20(28")W
INV=41.90(24")SE
INV=41.90(24")NE
INV=41.90(24")NW

PROP. TYPE "C" C8
STA=4+03 OFF=0.0' R
RIM ELEV=47.31
INV=42.37(24")SE
INV=42.37(24")N
INV=42.08(24")SW

San MH#1111 044
Rim El.= 47.62
FL Ex 8" (NE)=41.72

1+00 50 2+00 50 3+00 50 4+00 50

NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

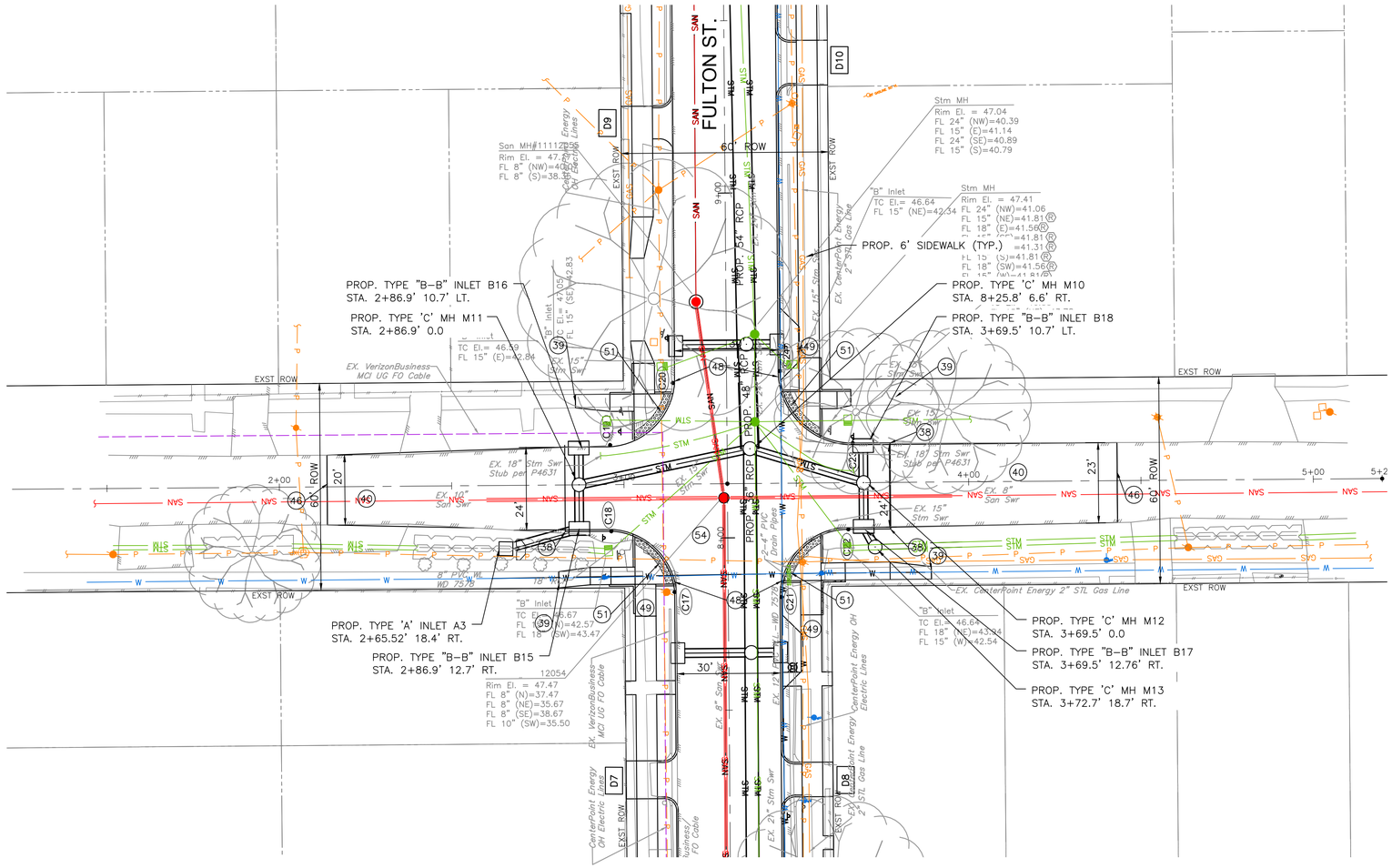
SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
GARGAN STREET
DRAINAGE PROFILE
STA. 1+50 TO 4+50

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 40 OF 152	

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/30/2026 4:15 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

D33 SEE SHEET X FOR DRIVEWAY DATA

(01) EXISTING STORM SEWER TO REMAIN IN PLACE

(02) EXISTING INLET TO REMAIN IN PLACE

(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317

(30) ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE

(35) EXISTING WATER MAIN TO REMAIN IN PLACE

(36) EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT

(37) EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER

(38) MATCH EXISTING CURB GUTTER

(39) MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS

(40) PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(41) END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS

(44) CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX

(45) CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON-SHRINK GROUT

(46) MATCH EXISTING PAVEMENT

(47) PROPOSED 6" CONCRETE CURB AND GUTTER

(48) PROPOSED 6" CONCRETE CURB

(49) PROPOSED CONCRETE SIDEWALK, 4-1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)

(50) PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE

(51) PROPOSED CURB RAMP

(52) PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING

(53) CONCRETE AND ASPHALT PAVEMENT TRANSITION

(54) PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(55) PROPOSED 24" RCP STORM SEWER (UNO)

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

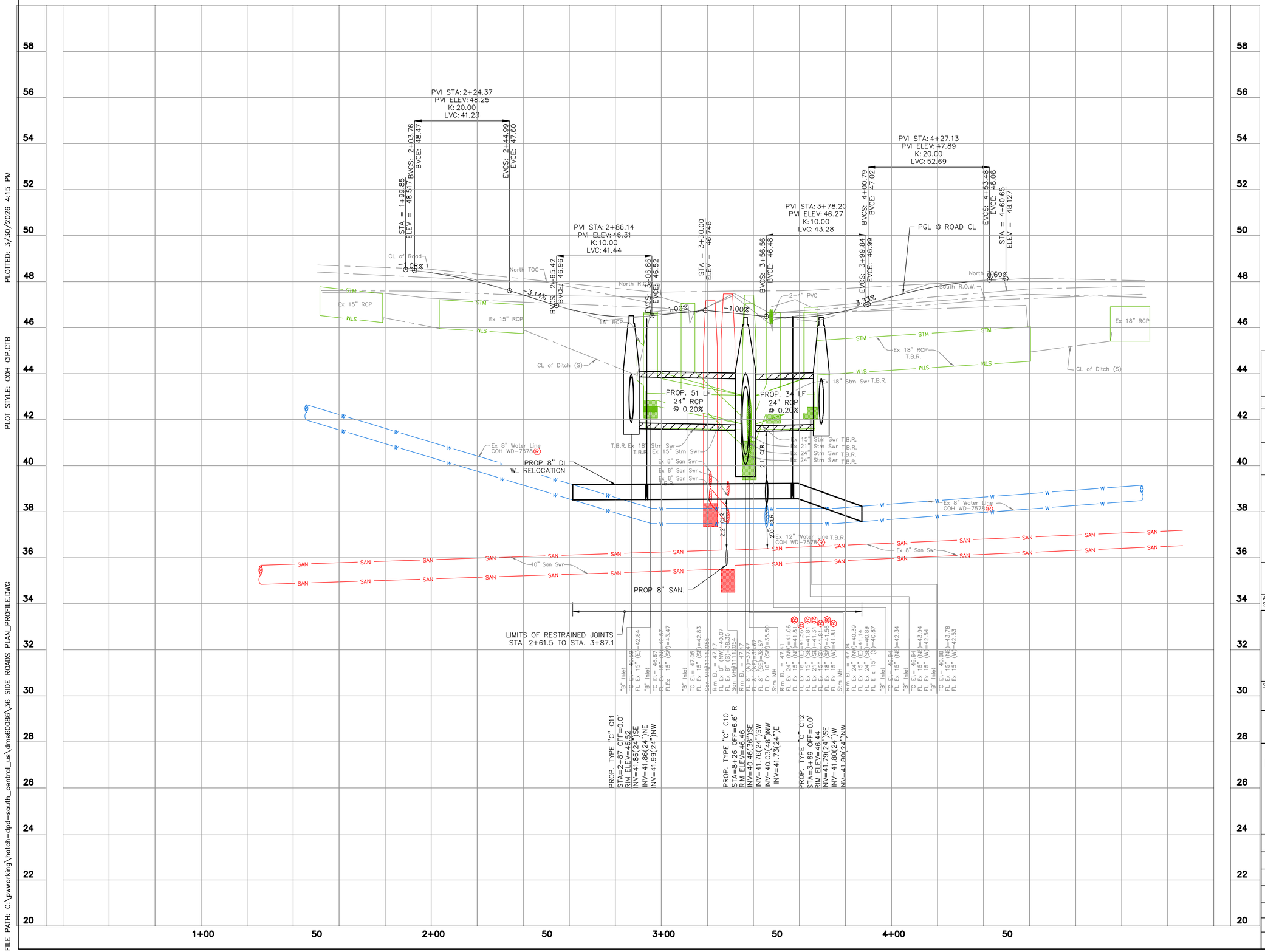
SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
JAMES STREET
DRAINAGE PLAN
STA. 1+50 TO 4+50

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 41 OF 152	



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

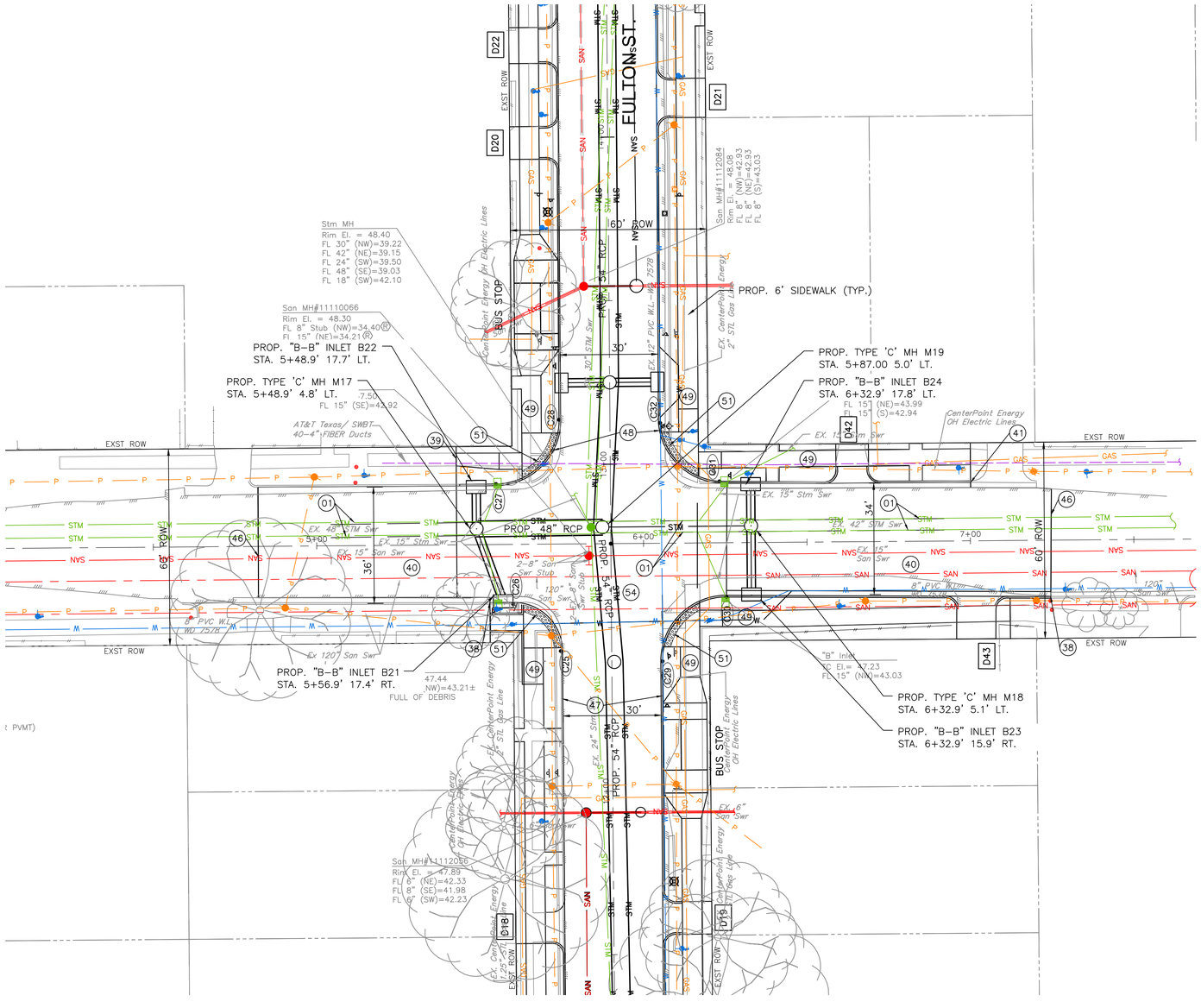
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
JAMES STREET
DRAINAGE PROFILE
STA. 1+50 TO 4+50

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 42 OF 152	

PLOTTED: 3/30/2026 4:15 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG

SEE SHEET 29 FOR FULTON STREET PLAN



PASCHALL ST.

GRAPHIC SCALE

0 20 40

(IN FEET)

FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

D33 SEE SHEET X FOR DRIVEWAY DATA

(01) EXISTING STORM SEWER TO REMAIN IN PLACE

(02) EXISTING INLET TO REMAIN IN PLACE

(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317

(30) ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE

(35) EXISTING WATER MAIN TO REMAIN IN PLACE

(36) EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT

(37) EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER

(38) MATCH EXISTING CURB GUTTER

(39) MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS

(40) PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(41) END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS

(44) CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX

(45) CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON-SHRINK GROUT

(46) MATCH EXISTING PAVEMENT

(47) PROPOSED 6" CONCRETE CURB AND GUTTER

(48) PROPOSED 6" CONCRETE CURB

(49) PROPOSED CONCRETE SIDEWALK, 4-1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)

(50) PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE

(51) PROPOSED CURB RAMP

(52) PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING

(53) CONCRETE AND ASPHALT PAVEMENT TRANSITION

(54) PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(55) PROPOSED 24" RCP STORM SEWER (UNO)

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
PACSHALL STREET
DRAINAGE PLAN
STA. 4+50 TO 7+50

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 43 OF 152	

NO.	DATE	REVISION	APP.

PLOTTED: 3/30/2026 4:16 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG

PLOTTED: 3/30/2026 4:16 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_centrol_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG

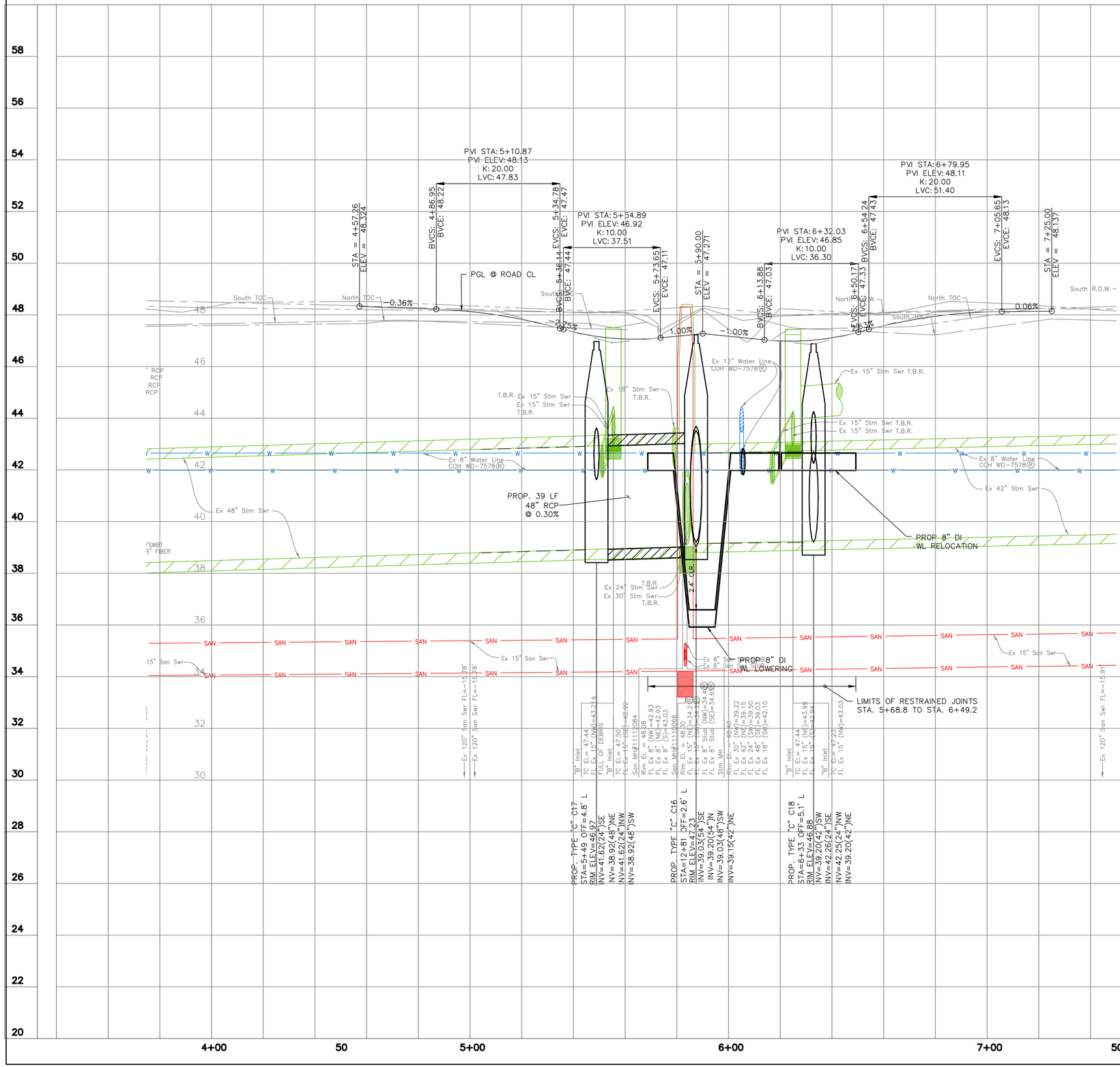
GRAPHIC SCALE

0 20 40

(IN FEET)

FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.



NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

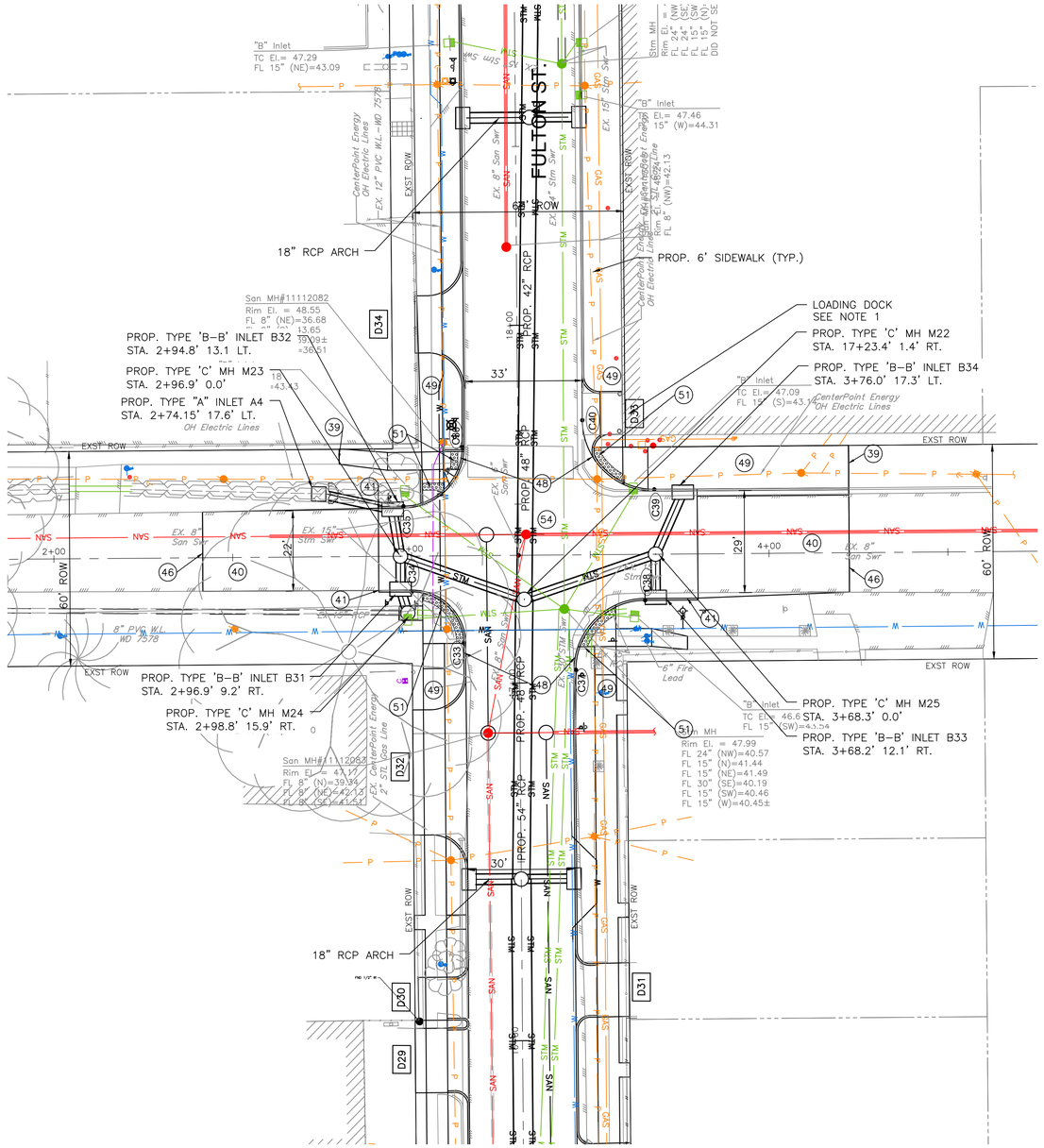
CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
PACSHALL STREET
DRAINAGE PROFILE
STA. 4+50 TO 7+50

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 44 OF 152	

SEE SHEET 33 FOR FULTON STREET PLAN



NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

D33 SEE SHEET X FOR DRIVEWAY DATA

(01) EXISTING STORM SEWER TO REMAIN IN PLACE

(02) EXISTING INLET TO REMAIN IN PLACE

(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317

(30) ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE

(35) EXISTING WATER MAIN TO REMAIN IN PLACE

(36) EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT

(37) EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER

(38) MATCH EXISTING CURB GUTTER

(39) MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS

(40) PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(41) END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS

(44) CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX

(45) CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON-SHRINK GROUT

(46) MATCH EXISTING PAVEMENT

(47) PROPOSED 6" CONCRETE CURB AND GUTTER

(48) PROPOSED 6" CONCRETE CURB

(49) PROPOSED CONCRETE SIDEWALK, 4-1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)

(50) PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE

(51) PROPOSED CURB RAMP

(52) PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING

(53) CONCRETE AND ASPHALT PAVEMENT TRANSITION

(54) PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(55) PROPOSED 24" RCP STORM SEWER (UNO)

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

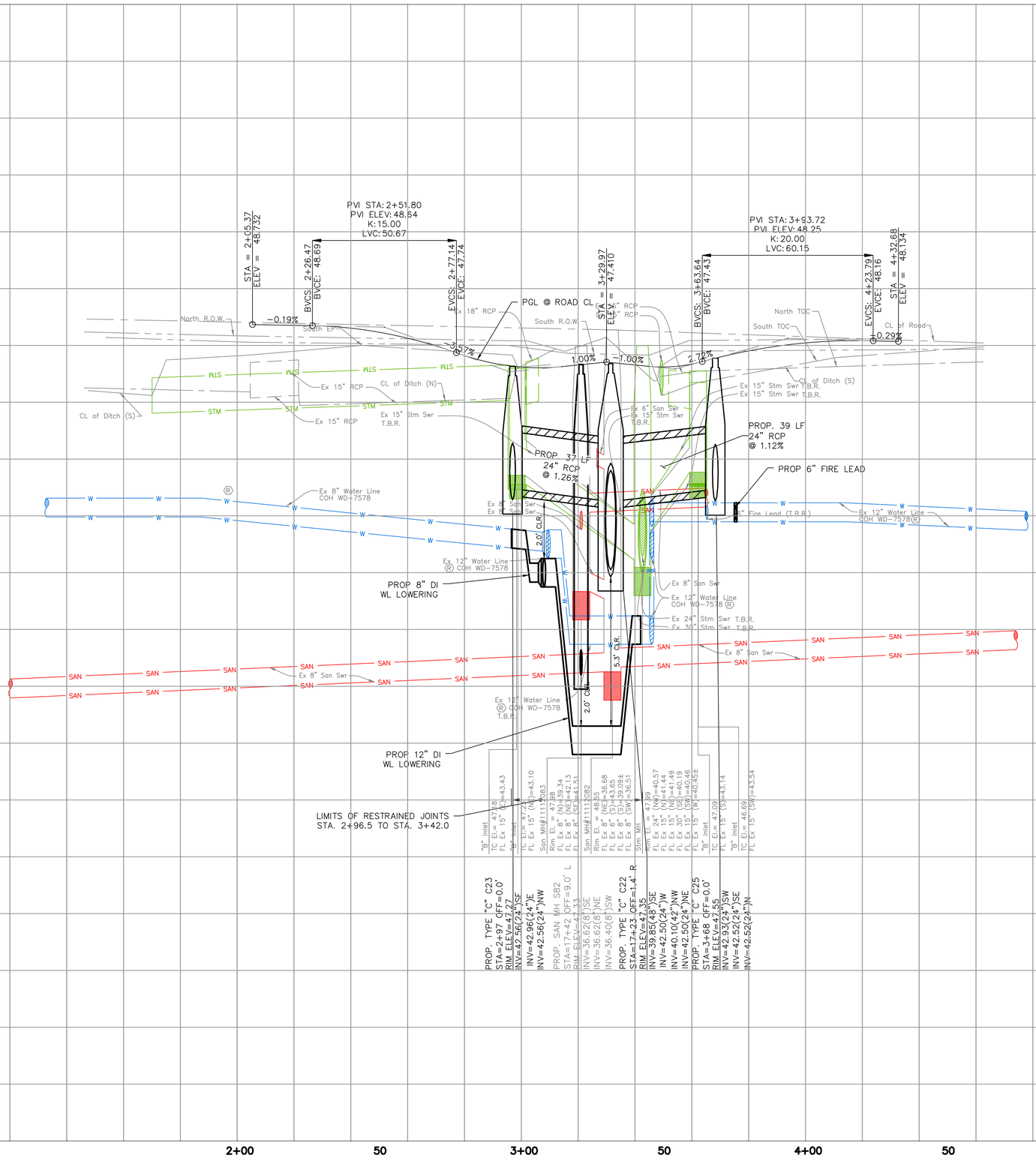
90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
HENRY STREET
DRAINAGE PLAN
STA. 2+00 TO 4+50

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 45 OF 152	

PLOTTED: 3/30/2026 4:16 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

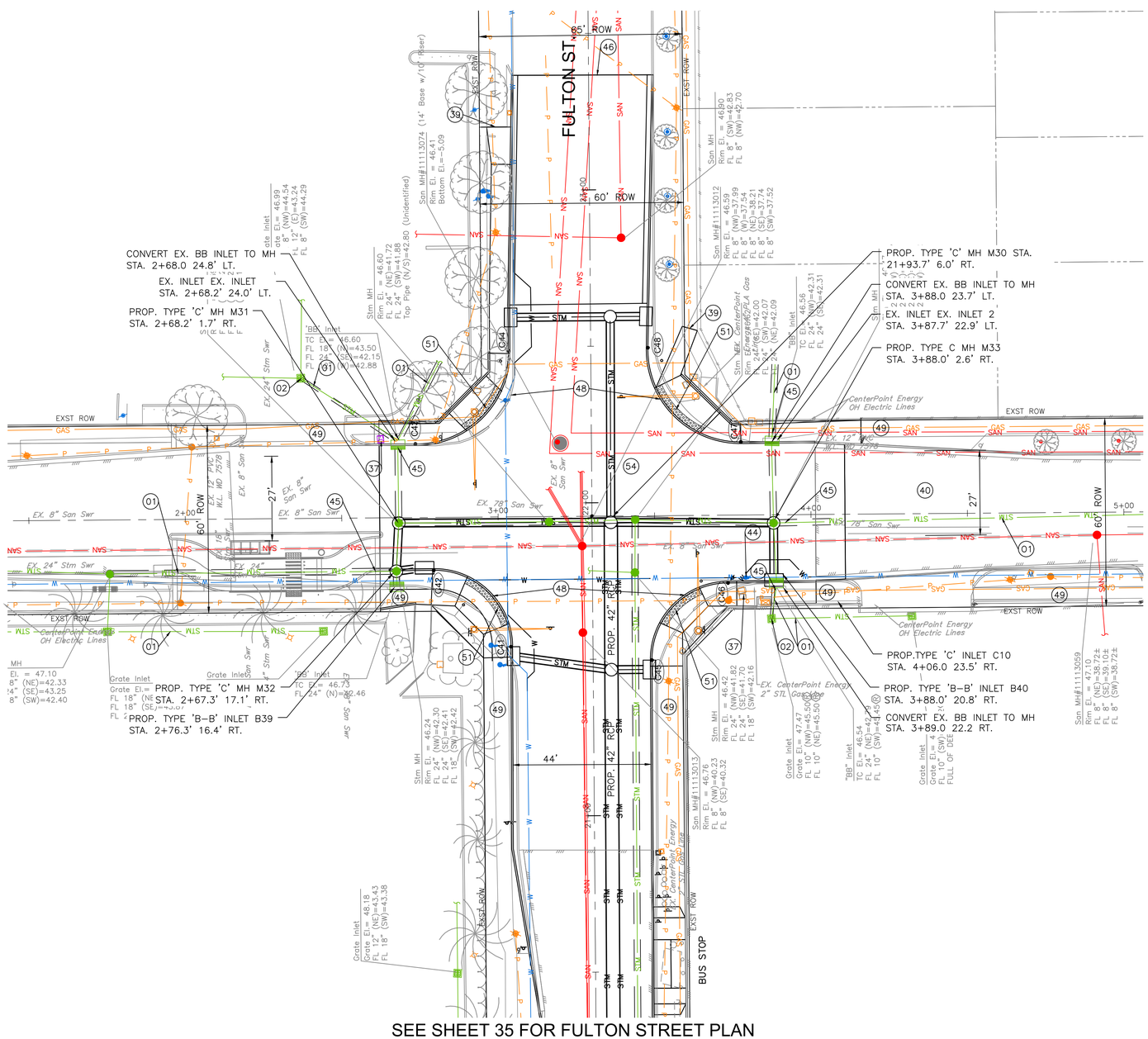
90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
HENRY STREET
DRAINAGE PROFILE
STA. 2+00 TO 4+50

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 46 OF 152	

PLOTTED: 3/30/2026 4:17 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

D33 SEE SHEET X FOR DRIVEWAY DATA

(01) EXISTING STORM SEWER TO REMAIN IN PLACE

(02) EXISTING INLET TO REMAIN IN PLACE

(06) CRITICAL LOCATION. SEE COH SPEC SECTION 02317

(30) ADJUST EXISTING FRAME AND COVER TO MATCH NEW GRADE

(35) EXISTING WATER MAIN TO REMAIN IN PLACE

(36) EXISTING CENTERPOINT GAS APPURTENANCES TO BE ADJUSTED TO FINISHED GRADE BY CENTERPOINT

(37) EXISTING TELEPHONE/COMMUNICATION MANHOLE/MANHOLE TOP TO BE ADJUSTED TO FINISHED GRADE BY UTILITY OWNER

(38) MATCH EXISTING CURB GUTTER

(39) MATCH EXISTING SIDEWALK IN LINES AND ELEVATIONS

(40) PROPOSED ASPHALT PAVEMENT WITH CRUSHED CONCRETE BASE AND LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(41) END CONCRETE CURB NOSE DOWN TO MATCH EXISTING PAVEMENT ELEVATIONS

(44) CONNECT PROPOSED STORM SEWER TO EXISTING MANHOLE OR JUNCTION BOX

(45) CONNECT EXISTING STORM SEWER TO PROPOSED TO PROPOSED MANHOLE. PROVIDE WATERTIGHT CONNECTION WITH NON-SHRINK GROUT

(46) MATCH EXISTING PAVEMENT

(47) PROPOSED 6" CONCRETE CURB AND GUTTER

(48) PROPOSED 6" CONCRETE CURB

(49) PROPOSED CONCRETE SIDEWALK, 4-1/2" THICK (SAFETY BUFFER AND FRONTAGE BUFFER TO BE GRASSED/ SODDED WHERE APPLICABE)

(50) PROPOSED CONCRETE DRIVEWAY, 7" THICK. SEE DRIVEWAY TABLE

(51) PROPOSED CURB RAMP

(52) PROPOSED 9" CONCRETE BUS STOP PAD AND LANDING

(53) CONCRETE AND ASPHALT PAVEMENT TRANSITION

(54) PROPOSED CONCRETE PAVEMENT WITH LIME STABILIZED SUBGRADE SEE TYPICAL PAVEMENT SECTION

(55) PROPOSED 24" RCP STORM SEWER (UNO)

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Date

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

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
QUITMAN STREET DRAINAGE PLAN
STA. 1+50 TO 5+00

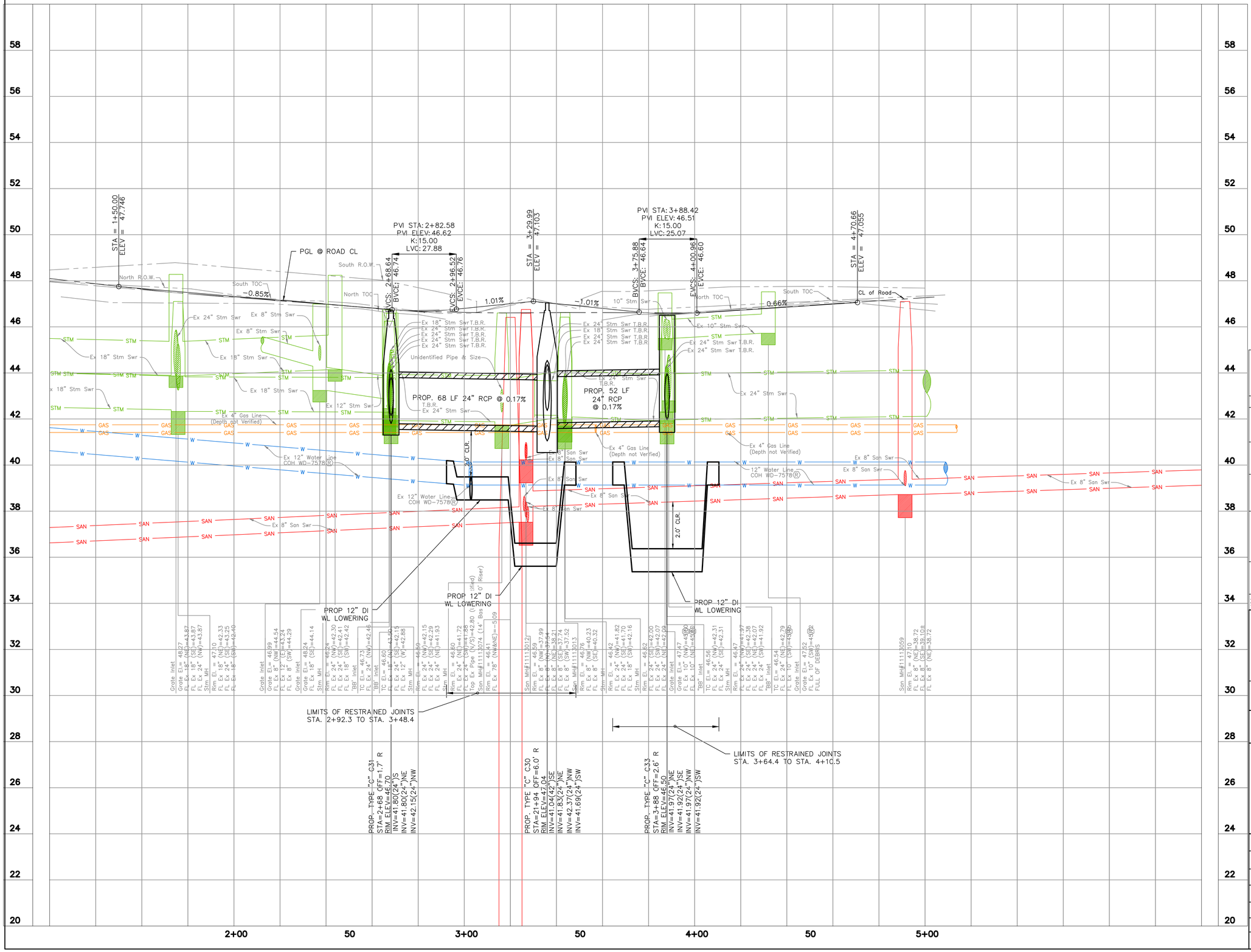
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 47 OF 152	

PLOTTED: 3/30/2026 4:17 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG

PLOTTED: 3/30/2026 4:18 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 SIDE ROADS PLAN_PROFILE.DWG



GRAPHIC SCALE

0 20 40

(IN FEET)

FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
QUITMAN STREET
DRAINAGE PROFILE
STA. 4+50 TO 6+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	

Fulton Street

Existing / Proposed

Sheet No.	Driveway No.	CL Station	Driveway Material	Width	Length A	Lt. Radius	Rt. Radius	Area (sf)	Elev. at ROW	Elev. at Gutter Line	Slope	CL Station	Driveway Material	Width	Length A	Lt. Radius	Rt. Radius	Area (sf)	Elev. at ROW	Elev. at Gutter Line	Slope	Elev. at S1	Sidewalk/ Bikepath Width	Elev. at S2	Slope at S3	Elev. at S3
19	D1	2+38 RT.	ASPHALT	21	17	N/A	N/A	308	47.03	46.63	2.62%	2+38 RT.	ASPHALT	20	18	10	10	209	47.02	46.34	6.7%	46.93	6	47.05	2.9%	47.02
19	D2	2+52 LT.	CONCRETE	20	15	4	4	100	46.86	46.17	7.08%	2+52 LT.	CONCRETE	20	11.86	10	10	152	46.87	46.11	10.7%	46.74	6	46.86	0.3%	46.87
19	D3	4+77 LT.	CONCRETE	37	15	N/A	N/A	578	46.98	46.7	1.88%	4+77 LT.	CONCRETE	30	15.5	10	10	225	46.98	46.77	10.7%	46.77	6	46.92	3.0%	46.98
21	D4	4+99 RT.	CONCRETE	11	15	N/A	N/A	50	47.12	46.84	1.21%	4+99 RT.	CONCRETE	10	15.8	4	4	38	47.12	46.08	8.3%	46.89	6	47.01	4.0%	47.12
21	D5	6+84 RT.	EARTH	10	12	N/A	N/A		47.1	46.66	7.73%	6+84 RT.	EARTH	11	15	4	4	79	47.1	46.35	9.6%	46.93	6	47.05	1.8%	47.1
21	D6	6+86 LT.	CONCRETE	10	14	3	2	73	47.36	46.13	12.31%	6+86 LT.	CONCRETE	11	14.8	4	4	72	47.35	46.36	12.4%	47.09	6	47.21	4.8%	47.35
21	D7	7+30 LT.	CONCRETE	9	13	2	4	69	47.28	46.35	8.66%	7+30 LT.	CONCRETE	11	15	4	4	67	47.28	46.41	12.4%	47.15	6	47.27	0.5%	47.28
21	D8	7+30 RT.	CONCRETE	9	11	4	4	54	47.05	46.13	10.56%	7+30 RT.	CONCRETE	11	15	4	4	67	47.04	46.6	7.6%	46.86	6	47.98	2.0%	47.04
23	D9	9+20 LT.	CONCRETE	11	15	N/A	N/A	103	47.18	46.72	9.13%	9+20 LT.	CONCRETE	12	15	4	4	78	47.18	46.41	10.1%	47	6	47.12	2.0%	47.18
23	D10	9+38 RT.	CONCRETE	12	12	3	4	62	47.08	46.32	6.68%	9+37 RT.	CONCRETE	12	15	4	4	79	47.08	46.5	6.2%	46.87	6	46.99	3.0%	47.08
23	D11	9+76 LT.	CONCRETE	8	14	3	2	76	47.54	46.44	3.08%	9+76 LT.	CONCRETE	12	15	4	4	78	47.6	46.69	12.4%	47.42	6	47.54	2.0%	No Survey
23	D12	9+81 RT.	CONCRETE	11	12	4	2	49	47.19	46.43	7.53%	9+81 RT.	CONCRETE	12	15	4	4	79	47.17	46.7	470.0%	46.99	6	47.11	2.0%	No Survey
23	D13	10+27 RT.	CONCRETE	10	14	3	3	80	47.56	46.85	5.30%	10+26 RT.	CONCRETE	12	15	4	4	67	47.33	46.84	5.1%	47.15	6	47.27	2.0%	No Survey
23	D14	10+58 LT.	CONCRETE	9	13	3	2	83	47.57	47	9.17%	10+58 LT.	CONCRETE	12	15	4	4	78	47.57	46.94	7.7%	47.39	6	47.51	2.0%	No Survey
23	D15	10+73 RT.	CONCRETE	11	12	3	2	50	47.65	47.23	2.73%	10+73 RT.	CONCRETE	9	15	4	4	61	47.7	46.98	8.9%	47.52	6	47.64	2.0%	No Survey
23	D16	11+15 LT.	CONCRETE	10	13	2	2	84	47.82	46.86	10.08%	11+15 LT.	CONCRETE	12	15	4	4	78	47.82	47.16	8.0%	47.64	6	47.76	2.0%	No Survey
23	D17	11+20 RT.	CONCRETE	9	14	4	3	67	47.76	47.22	9.86%	11+20 RT.	CONCRETE	12	15	4	4	79	47.8	47.18	7.3%	47.62	6	47.74	2.0%	No Survey
23	D18	11+59 LT.	CONCRETE	9	13	2	2	75	48.08	46.94	5.65%	11+59 LT.	CONCRETE	12	15	4	4	78	48.08	47.32	10.4%	47.94	6	48.06	0.9%	48.08
23	D19	11+61 RT.	CONCRETE	9	13	3	3	74	47.87	47.33	2.04%	11+61 RT.	CONCRETE	9	15	4	4	61	47.88	47.31	5.3%	47.63	6	47.75	4.1%	47.88
25	D20	13+98 LT.	CONCRETE	10	13	2	1	73	48.42	47.29	2.46%	13+98 LT.	CONCRETE	12	15	4	4	61	48.42	47.27	12.8%	48.03	6	48.15	9.0%	48.42
25	D21	14+12 RT.	CONCRETE	11	12	2	1	58	48.19	47.29	8.88%	14+12 RT.	CONCRETE	12	15	4	4	73	48.23	47.31	12.4%	48.05	6	48.17	2.0%	48.23
25	D22	14+28 LT.	CONCRETE	11	13	2	3	84	48.46	47.37	8.78%	14+28 LT.	CONCRETE	11	15	4	4	73	48.46	47.36	10.6%	48	6	48.12	11.5%	48.46
25	D23	14+66 LT.	CONCRETE	8	13	2	2	60	48.37	47.3	6.35%	14+66 LT.	CONCRETE	9	15	4	4	61	48.28	47.4	11.7%	48.11	6	48.23	2.0%	No Survey
25	D24	14+98 RT.	CONCRETE	10	12	2	2	60	48.18	47.41	6.56%	14+98 RT.	CONCRETE	10	15	2	4	64	48.19	47.32	11.5%	48.01	6	48.13	2.0%	No Survey
25	D25	15+13 RT.	CONCRETE	11	12	2	2	67	48.34	47.38	9.22%	15+14 RT.	CONCRETE	10	15	4	2	64	48.25	47.36	11.8%	48.07	6	48.19	2.0%	No Survey
25	D26	15+12 LT.	CONCRETE	12	13	N/A	N/A	93	48.31	47.4	7.52%	15+12 LT.	CONCRETE	11	15	4	4	73	48.28	47.36	12.4%	48.1	6	48.22	2.0%	No Survey
25	D27	15+61 LT.	CONCRETE	12	13	3	3	86	48.32	47.24	3.63%	15+61 LT.	CONCRETE	12	15	4	4	73	48.32	47.5	9.5%	48.07	6	48.19	4.4%	48.32
25	D28	15+65 RT.	CONCRETE	9	12	4	7	62	48.46	47.63	6.29%	15+65 RT.	CONCRETE	9	15	4	4	61	48.28	47.52	9.7%	48.1	6	48.23	2.0%	No Survey
25	D29	15+94 LT.	CONCRETE	18	13	6	3	140	48.33	47.15	8.54%	15+94 LT.	CONCRETE	17	15	4	2	106	48.32	47.33	10.1%	47.94	6	48.06	8.8%	48.32
25	D30	16+13 LT.	CONCRETE	9	13	2	2	71	48.34	47.06	5.37%	16+13 LT.	CONCRETE	11	15	2	4	70	48.34	47.21	11.3%	47.89	6	48.01	11.1%	48.01
25	D31	16+14 RT.	CONCRETE	15	13	N/A	N/A	103	48.05	47.55	3.70%	16+14 RT.	CONCRETE	15	15	4	4	91	48.05	47.2	11.3%	47.87	6	47.99	2.0%	48.05
25	D32	16+78 LT.	CONCRETE	41	15	N/A	N/A	403	48	47.54	6.47%	16+65 LT.	CONCRETE	35	15	10	10	244	48.03	46.94	11.2%	47.6	6	47.72	10.2%	48.03
27	D33	17+75 RT.	CONCRETE	12	12	N/A	N/A	129	47.9	47.23	6.43%	17+75 RT.	CONCRETE	12	16.5	5	5	74	47.91	47.18	12.1%	47.79	6	47.94	4.1%	47.91
27	D34	17+99 LT.	ASPHALT	62	7	N/A	N/A	433	48.45	47.82	2.82%	18+00 LT.	ASPHALT	16	20	10	10	131	48.45	47.22	11.1%	47.89	7	48.03	6.0%	48.45

Hogan Street

Existing / Proposed

Sheet No.	Driveway No.	CL Station	Driveway Material	Width	Length A	Lt. Radius	Rt. Radius	Area (sf)	Elev. at ROW	Elev. at Gutter Line	Slope	CL Station	Driveway Material	Width	Length A	Lt. Radius	Rt. Radius	Area (sf)	Elev. at ROW	Elev. at Gutter Line	Slope	Elev. at S1	Sidewalk/ Bikepath Width	Elev. at S2	Slope at S3	Elev. at S3
33	D37	2+52 LT.	CONCRETE	20	15	4	4	100	46.86	46.17	7.08%	2+52 LT.	CONCRETE	20	11.86	10	10	152	46.87	46.11	10.7%	46.74	6	46.86	0.3%	46.87
33	D38	3+80 RT.	CONCRETE	13	7.2	2	1	28	46.82	46.06	6.95%	3+81 RT.	CONCRETE	15	7	5	5	37	48.45	47.22	11.1%	47.89	7	48.03	6.0%	48.45

Gargan Street

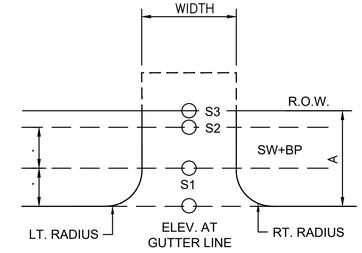
Existing / Proposed

Sheet No.	Driveway No.	CL Station	Driveway Material	Width	Length A	Lt. Radius	Rt. Radius	Area (sf)	Elev. at ROW	Elev. at Gutter Line	Slope	CL Station	Driveway Material	Width	Length A	Lt. Radius	Rt. Radius	Area (sf)	Elev. at ROW	Elev. at Gutter Line	Slope	Elev. at S1	Sidewalk/ Bikepath Width	Elev. at S2	Slope at S3	Elev. at S3
33	D39	2+80 RT.	CONCRETE	22	8	N/A	N/A	211	47.3	46.97	4.30%	2+80 RT.	CONCRETE	20	10	4	10	219	48.05	47.2	11.3%	47.87	6	47.99	2.0%	48.05
33	D40	3+88 RT.	CONCRETE	16	8.5	N/A	N/A	67	46.85	46.81	1.55%	3+91 RT.	CONCRETE	10	9	4	4	54	48.34	47.21	11.3%	47.89	6	48.01	11.1%	48.01
33	D41	4+00 LT.	CONCRETE	8	12	N/A	N/A	49	47.23	47.01	-1.73%	3+98 LT.	CONCRETE	10	10.5	4	4	49	48.34	47.21	11.3%	47.89	6	48.01	11.1%	48.01

Paschall Street

Existing / Proposed

Sheet No.	Driveway No.	CL Station	Driveway Material	Width	Length A	Lt. Radius	Rt. Radius	Area (sf)	Elev. at ROW	Elev. at Gutter Line	Slope	CL Station	Driveway Material	Width	Length A	Lt. Radius	Rt. Radius	Area (sf)	Elev. at ROW	Elev. at Gutter Line	Slope	Elev. at S1	Sidewalk/ Bikepath Width	Elev. at S2	Slope at S3	Elev. at S3
33	D42	6+64 LT.	CONCRETE	10	12	4	3	65	48.01	47.08	2.37%	5+64 LT.	CONCRETE	9	12	4	4	53	47.04	46.6	7.6%	46.86	6	47.98	2.0%	47.04
33	D43	7+02 RT.	CONCRETE	11	16	N/A	N/A	76	48.22	47.94	1.26%	7+02 RT.	CONCRETE	12	13	4	4	40	48.34	47.21	11.3%	47.89	6	48.01	11.1%	48.01



DRIVEWAY DETAIL

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

DRIVEWAY SCHEDULE

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 49 OF **152**	

NO.	DATE	REVISION	APP.

PLOTTED: 3/28/2026 7:28 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\56 DRIVEWAY SCHEDULES AND POINT TABLES.dwg

POINT TABLE			
ID	**Station**	**Offset**	**Top of Curb Elevation**
C1	STA.3+09.70	15.16' LT.	46.32'
C2	STA.3+34.20	39.68' LT.	46.95'
C3	STA.3+76.71	38.07' LT.	46.31'
C4	STA.4+01.79	14.99' LT.	46.43'
C5	STA.3+09.89	11.84' RT.	46.39'
C6	STA.3+34.39	36.34' RT.	46.27'
C7	STA.3+79.39	34.71' RT.	46.44'
C8	STA.4+01.80	11.72' RT.	46.49'
C9	STA.5+55.73	15.02' LT.	46.49'
C10	STA.5+75.23	34.84' LT.	46.52'
C11	STA.5+97.24	33.62' LT.	46.42'
C12	STA.6+15.12	15.46' LT.	46.58'
C13	STA.5+57.83	11.73' RT.	46.53'
C14	STA.5+75.66	30.01' RT.	46.55'
C15	STA.5+97.20	34.99' RT.	46.58'
C16	STA.6+16.70	15.49' RT.	46.64'
C17	STA.7+84.38	15.54' LT.	46.85'
C18	STA.8+02.18	33.78' LT.	46.66'
C19	STA.8+27.18	33.93' LT.	46.88'
C20	STA.8+45.04	15.62' LT.	46.69'
C21	STA.7+82.70	15.5' RT.	46.84'
C22	STA.8+02.20	35' RT.	46.55'
C23	STA.8+27.20	36.47' RT.	46.64'
C24	STA.8+48.24	15.47' RT.	46.66'
C25	STA.12+42.97	15.55' LT.	47.60'
C26	STA.12+57.46	30.02' LT.	47.23'
C27	STA.12+94.22	35.03' LT.	47.03'
C28	STA.13+13.71	15.56' LT.	47.38'
C29	STA.12+39.59	15.5' RT.	47.56'
C30	STA.12+59.09	35.22' RT.	47.19'
C31	STA.12+94.49	33.38' RT.	47.07'
C32	STA.13+12.48	15.34' RT.	47.39'
C33	STA.17+11.21	15.57' LT.	47.59'
C34	STA.17+25.67	30.03' LT.	47.33'
C35	STA.17+49.68	32.14' LT.	47.37'
C36	STA.17+66.08	15.6' LT.	47.74'
C37	STA.17+03.57	15.73' RT.	47.55'
C38	STA.17+22.83	35.24' RT.	47.28'
C39	STA.17+53.83	38.06' RT.	47.38'
C40	STA.17+73.33	18.07' RT.	47.19'
C41	STA.21+54.20	26.22' LT.	46.98'
C42	STA.21+78.80	50.72' LT.	46.55'
C43	STA.22+19.20	56.26' LT.	46.44'
C44	STA.22+48.70	26.33' LT.	46.89'
C45	STA.21+49.58	18.8' RT.	47.07'
C46	STA.21+74.04	43.3' RT.	46.55'
C47	STA.22+19.07	47.76' RT.	46.51'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

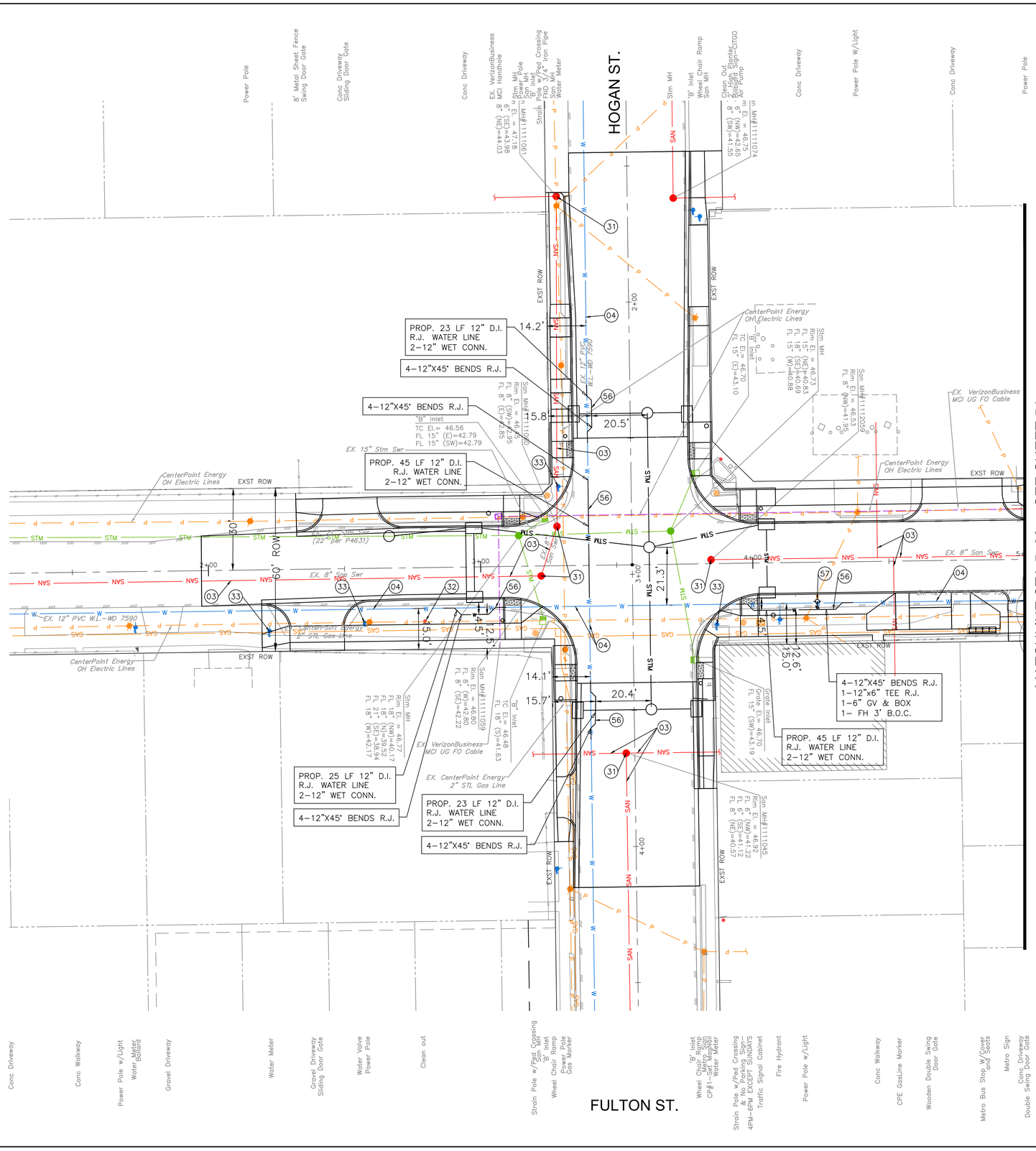
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

POINT TABLES

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 50 OF **152**

PLOTTED: 3/30/2026 11:19 AM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\56 DRIVEWAY SCHEDULES AND POINT TABLES.dwg

PLOT STYLE: COH CIP.CTB PLOTTED: 3/30/2026 2:39 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE

(04) EXISTING WATER MAIN TO REMAIN IN PLACE

(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE

(31) ADJUST EXISTING SANITARY MANHOLE RIM TO MATCH FINISHED GRADE

(32) ADJUST EXISTING CLEANOUT TOP TO MATCH FINISHED GRADE

(33) ADJUST EXISTING WATER METER TO MATCH FINISHED GRADE

(34) ADJUST EXISTING WATER VALVE ASSEMBLY (INCLUDING BOX IF PRESENT) TO MATCH FINISHED GRADE

(42) CONNECT EXISTING SANITARY SEWER TO PROPOSED MANHOLE WITH NEW SEWER STUB AND STANDARD RESILIENT CONNECTOR

(43) CONNECT PROPOSED SANITARY SEWER EXISTING MANHOLE WITH STANDARD RESILIENT CONNECTOR

(56) PROPOSED WATER MAIN RELOCATION

(57) PROPOSED FIRE HYDRANT

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PLAN STA. 1+00 TO 5+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 51 OF 152	

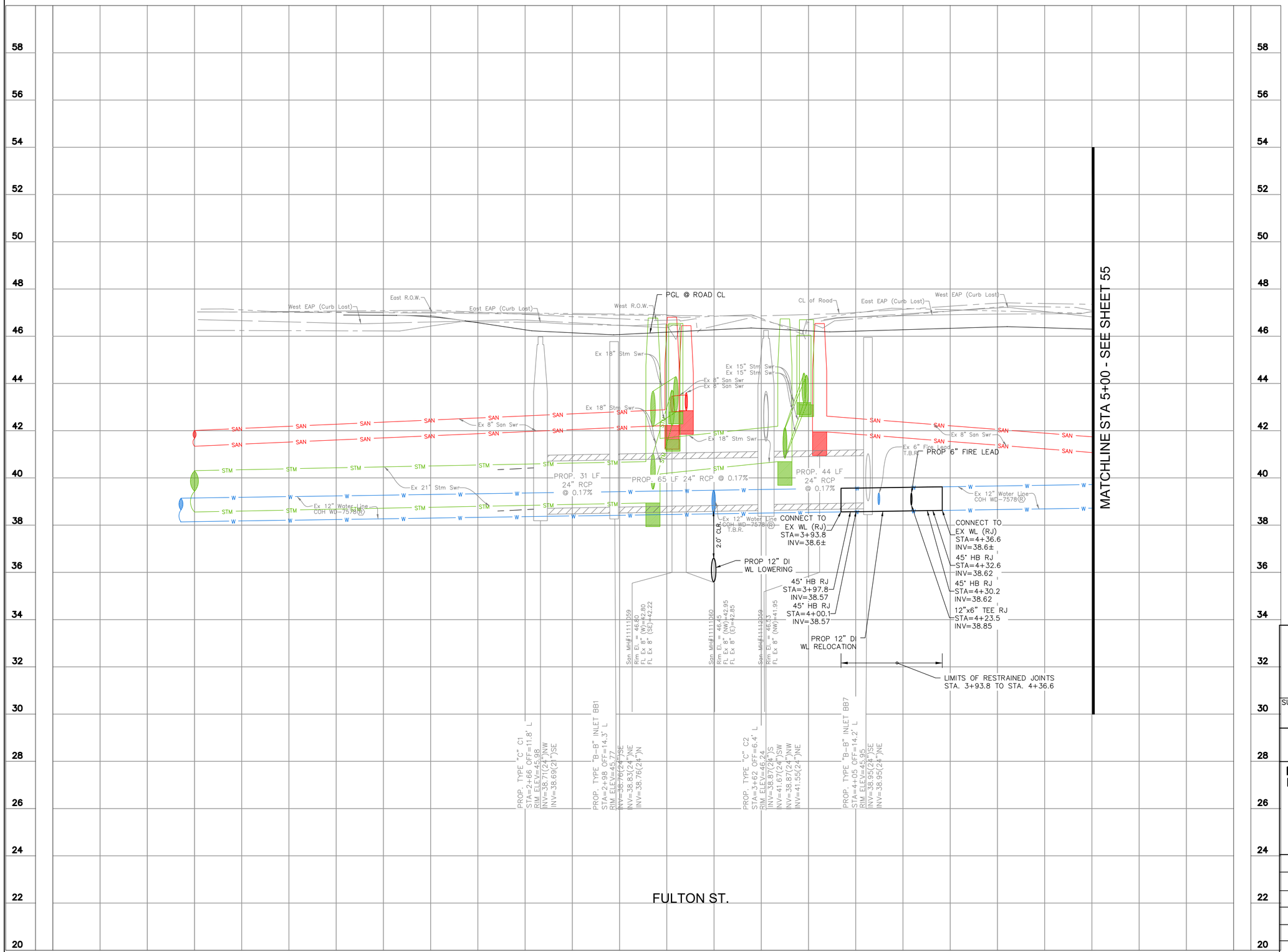
PLOTTED: 3/30/2026 2:40 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.



HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PROFILE STA. 1+00 TO 5+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 52 OF 152	

PLOT STYLE: COH CIP.CTB

PLOTTED: 3/30/2026 2:40 PM

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

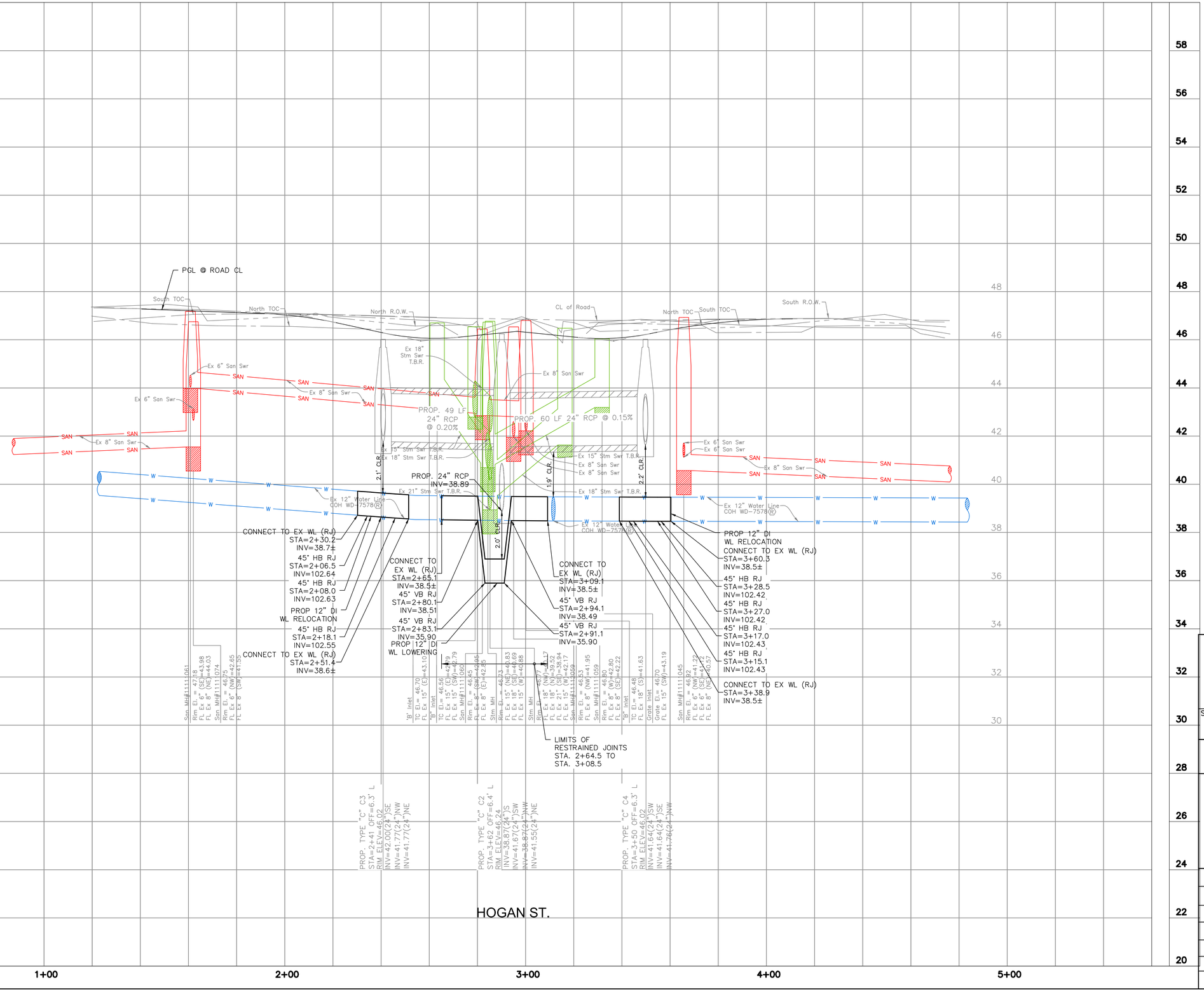
GRAPHIC SCALE

0 20 40

(IN FEET)

FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.



HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

90% PROGRESS
3/30/2026

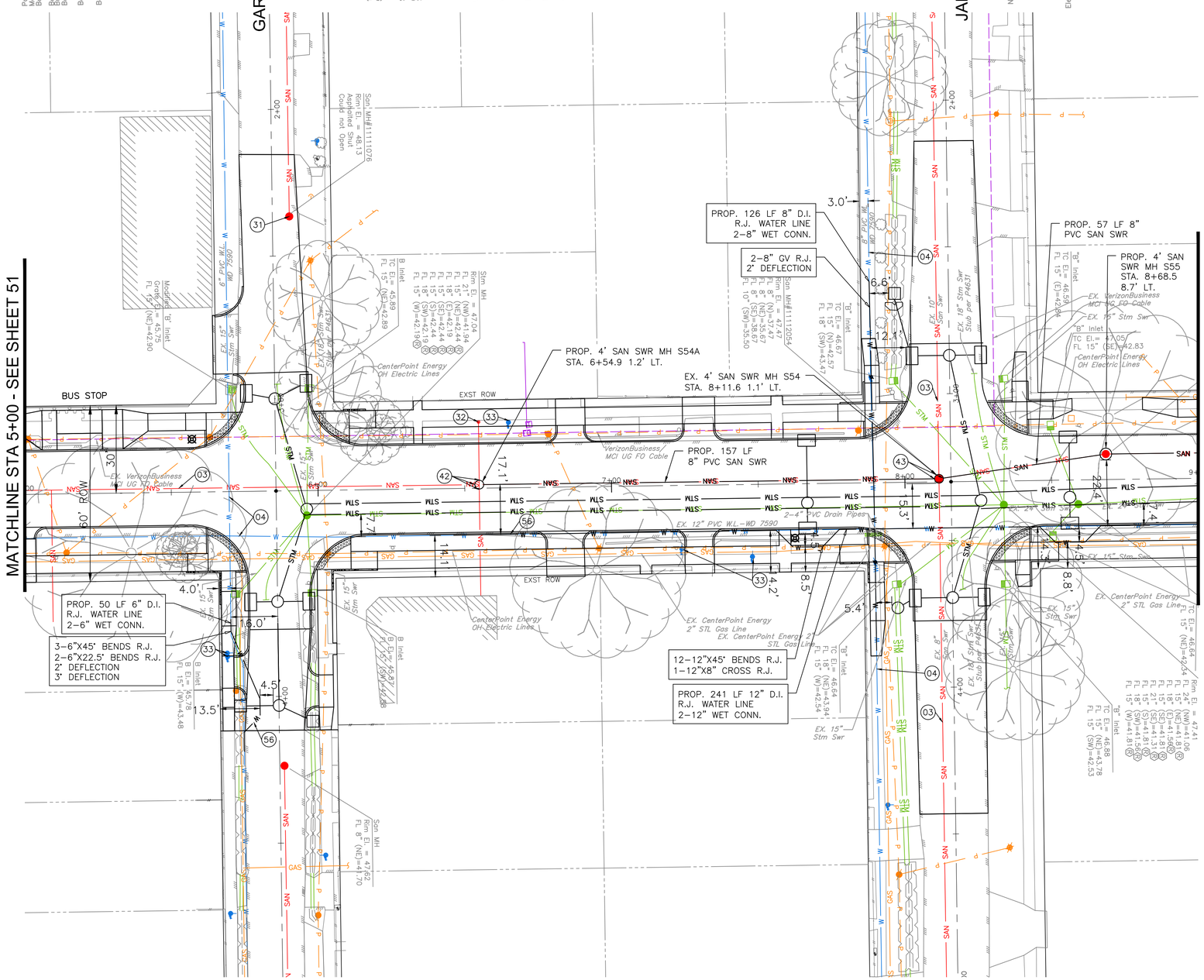
CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PROFILE HOGAN STREET

WBS NUMBER	N-000818-0001-3
DRAWING SCALE	1"=20'
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.
SHEET NO.	53 OF 152



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE

(04) EXISTING WATER MAIN TO REMAIN IN PLACE

(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE

(31) ADJUST EXISTING SANITARY MANHOLE RIM TO MATCH FINISHED GRADE

(32) ADJUST EXISTING CLEANOUT TOP TO MATCH FINISHED GRADE

(33) ADJUST EXISTING WATER METER TO MATCH FINISHED GRADE

(34) ADJUST EXISTING WATER VALVE ASSEMBLY (INCLUDING BOX IF PRESENT) TO MATCH FINISHED GRADE

(42) CONNECT EXISTING SANITARY SEWER TO PROPOSED MANHOLE WITH NEW SEWER STUB AND STANDARD RESILIENT CONNECTOR

(43) CONNECT PROPOSED SANITARY SEWER EXISTING MANHOLE WITH STANDARD RESILIENT CONNECTOR

(56) PROPOSED WATER MAIN RELOCATION

(57) PROPOSED FIRE HYDRANT

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PLAN STA. 5+00 TO 9+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 54 OF 152	

PLOT STYLE: COH CIP.CTB PLOTTED: 3/30/2026 2:40 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

PLOTTED: 3/30/2026 2:41 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

MATCHLINE STA 5+00 - SEE SHEET 52

MATCHLINE STA 9+00 - SEE SHEET 58

PGL @ ROAD CL

West EAP (Curb Lost)
East EAP (Curb Lost)
West TOC
East TOC
East R.O.W.
West R.O.W.
CL of Road
Ex 2-4" PVC

Ex 18" Stm Swr
Ex 15" Stm Swr
Ex 21" Stm Swr
Ex 24" Stm Swr
Ex 8" San Swr
Ex 10" San Swr
Ex 12" Water Line COH WD-7578
Ex 8" Water Line COH WD-7578

PROP. 171 LF 36" RCP @ 0.20%
PROP. 59 LF 36" RCP @ 0.20%
PROP. 30 LF 48" RCP @ 0.11%
PROP. 157 LF 8" PVC SAN @ 0.44%
PROP. 57 LF 8" PVC SAN @ 0.34%

CONNECT TO EX WL (RJ) STA=6+46.0 INV=38.3±
45° VB RJ STA=6+51.0 INV=38.27
45° VB RJ STA=6+52.4 INV=36.85
PROP 12" DI WL LOWERING
45° VB RJ STA=6+57.4 INV=36.85
45° VB RJ STA=6+58.8 INV=38.21
PROP 12" DI WL RELOCATION
45° HB RJ STA=7+55.9 INV=38.31
45° HB RJ STA=7+61.6 INV=38.31
45° HB RJ STA=7+71.5 INV=38.32
45° HB RJ STA=7+77.3 INV=38.33
12"x 8" CROSS RJ STA=7+89.3 INV=38.50
45° HB RJ STA=8+61.1 INV=38.00
45° HB RJ STA=8+51.1 INV=38.08
45° HB RJ STA=8+45.7 INV=38.11

LIMITS OF RESTRAINED JOINTS STA. 6+46 TO STA. 8+76.5

PROP. TYPE "C" C5 STA=5+96 OFF=6.4' R RIM ELEV=46.26 INV=42.13(28")SW INV=40.92(36")NW INV=42.13(28")E

PROP. SAN MH S54A STA=6+55 OFF=1.2' L RIM ELEV=46.50 INV=36.36(8")NW INV=39.87(8")SE

PROP. TYPE "C" C9 STA=7+67 OFF=6.5' R RIM ELEV=46.39 INV=41.75(24")SW INV=40.58(36")SE INV=41.75(24")NE INV=40.58(36")NW

CONNECT TO EX. SAN MH S54 STA=7+41.2 OFF=1.1' L RIM ELEV=46.60 INV=35.67(8")NW INV=35.67(8")SE

Sam Hill#111112054 Rim El. = 47.77 FL Ex 8" (N)=37.47 FL Ex 8" (S)=35.67 FL Ex 8" (SE)=35.67 FL Ex 10" (SW)=35.50

INV=35.67(8")NW INV=35.67(8")SE INV=35.50(10")SW INV=35.67(8")NE INV=38.67(8")SE TBR INV=37.47(8")NW TBR

PROP. TYPE "C" C10 STA=8+26 OFF=6.6' R RIM ELEV=46.46 INV=40.46(36")SE INV=41.76(24")SW INV=40.03(48")NW INV=41.73(24")E

PROP. TYPE "C" C14 STA=8+56 OFF=5.8' R RIM ELEV=46.27 INV=40.00(48")SE INV=41.81(24")SW INV=39.50(54")NW INV=41.81(24")NE

PROP. SAN MH S55 STA=8+69 OFF=8.7' L RIM ELEV=46.25 INV=35.86(8")NW INV=35.87(8")SE

2.4' CLR.
2.9' CLR.
1.9' CLR.
2.1' CLR.
2.0' CLR.
2.3' CLR.
2.8' CLR.

FULTON ST.

5+00 6+00 7+00 8+00 9+00

20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PROFILE STA. 5+00 TO 9+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 55 OF 152	

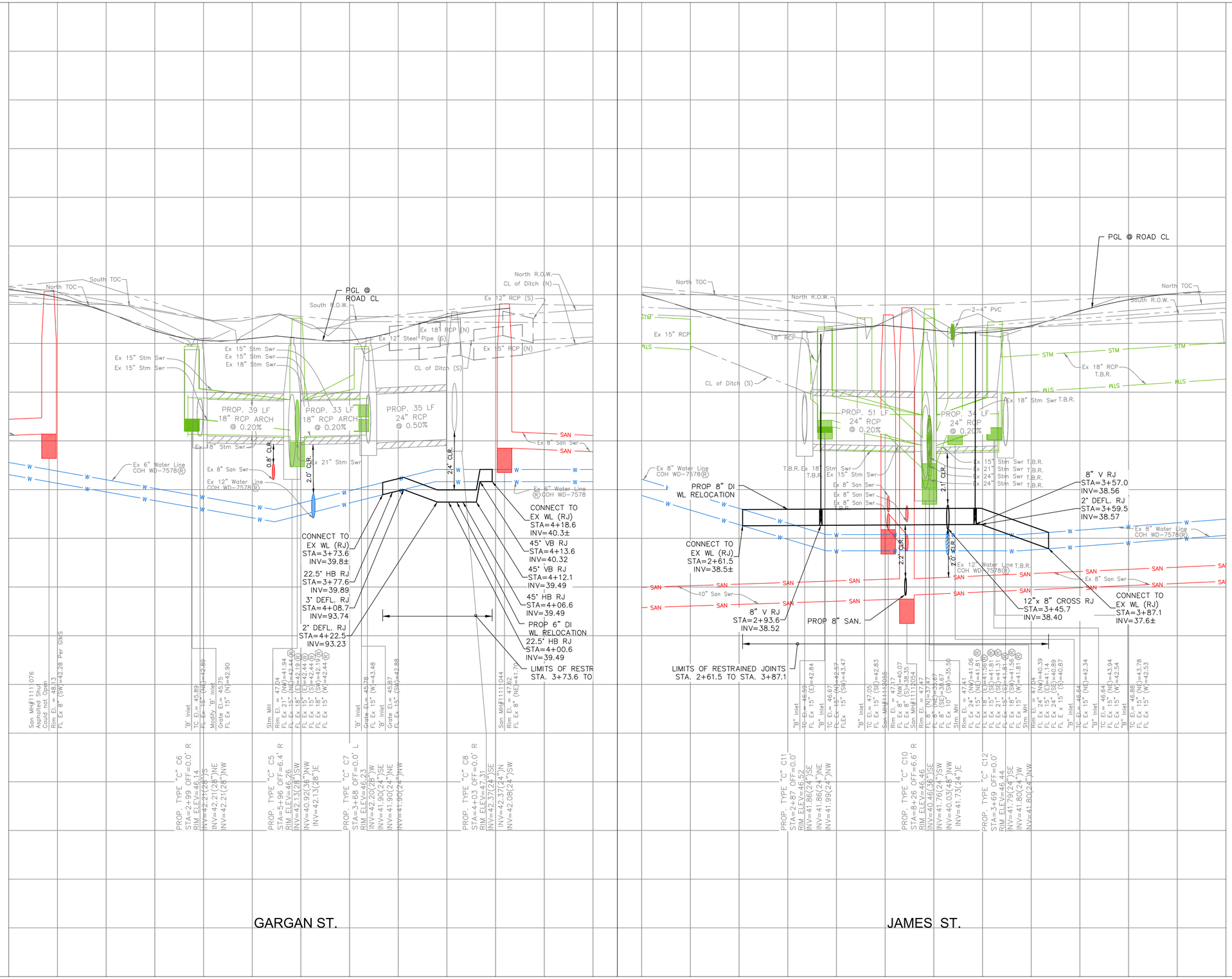
PLOTTED: 3/30/2026 2:41 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.



HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

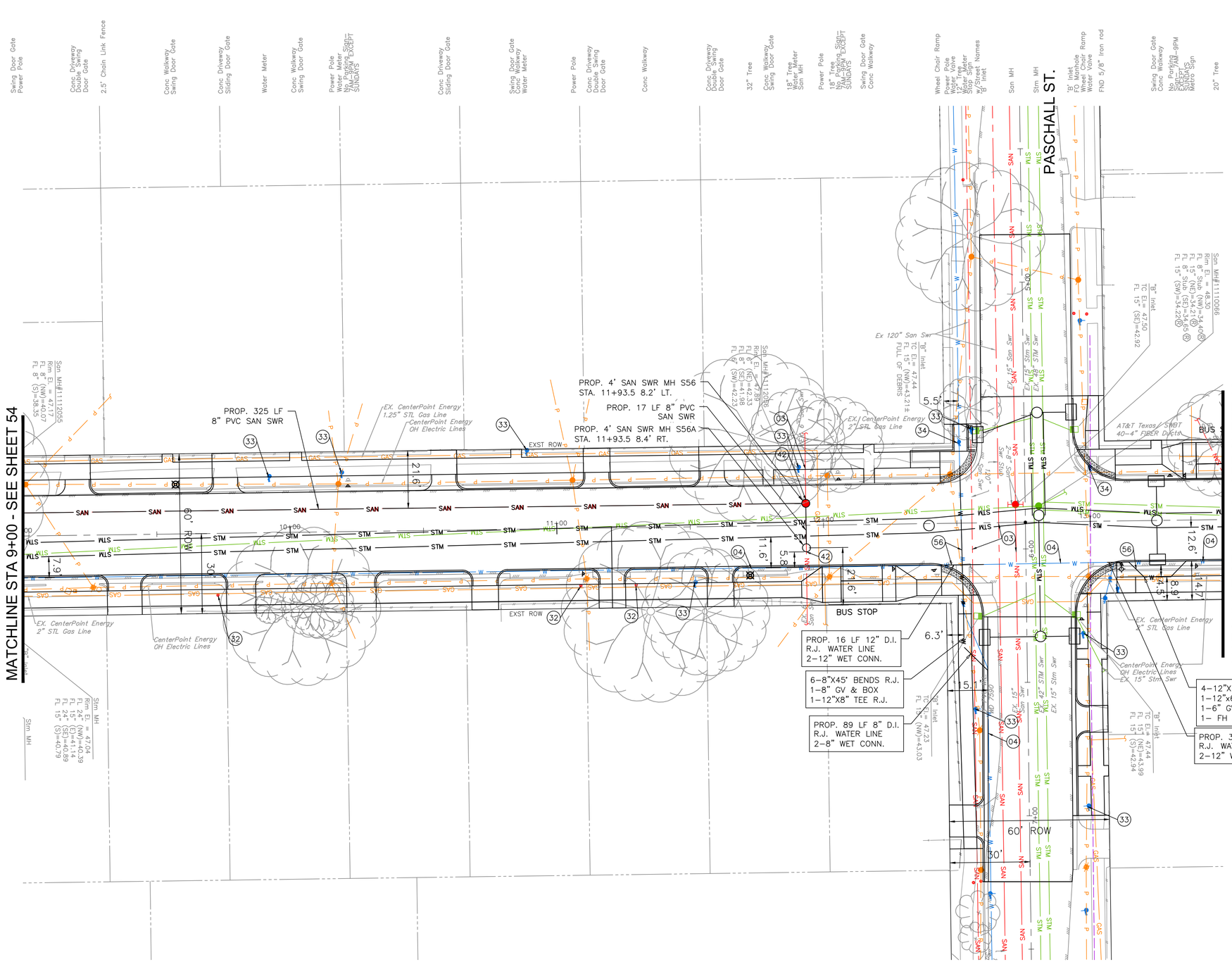
90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PROFILE GARGAN ST. AND JAMES ST.

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 56 OF 152	



GRAPHIC SCALE
0 20
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE

(04) EXISTING WATER MAIN TO REMAIN IN PLACE

(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE

(31) ADJUST EXISTING SANITARY MANHOLE RIM TO MATCH FINISHED GRADE

(32) ADJUST EXISTING CLEANOUT TOP TO MATCH FINISHED GRADE

(33) ADJUST EXISTING WATER METER TO MATCH FINISHED GRADE

(34) ADJUST EXISTING WATER VALVE ASSEMBLY (INCLUDING BOX IF PRESENT) TO MATCH FINISHED GRADE

(42) CONNECT EXISTING SANITARY SEWER TO PROPOSED MANHOLE WITH NEW SEWER STUB AND STANDARD RESILIENT CONNECTOR

(43) CONNECT PROPOSED SANITARY SEWER EXISTING MANHOLE WITH STANDARD RESILIENT CONNECTOR

(56) PROPOSED WATER MAIN RELOCATION

(57) PROPOSED FIRE HYDRANT

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PLAN STA. 9+00 TO 13+50

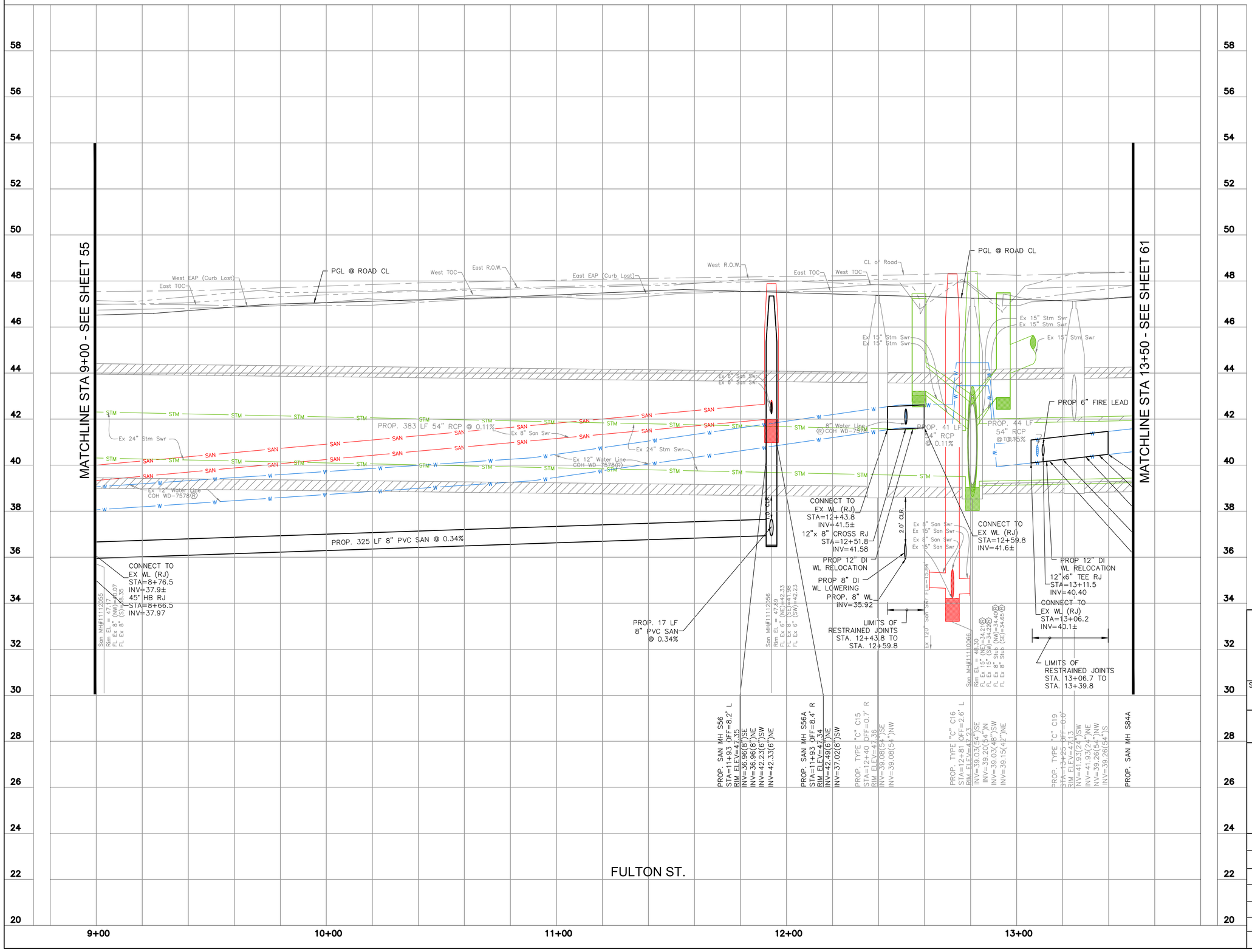
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 57 OF 152	

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/30/2026 2:42 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

PLOTTED: 3/30/2026 2:42 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.



HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PROFILE STA. 9+00 TO 13+50

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 58 OF 152	

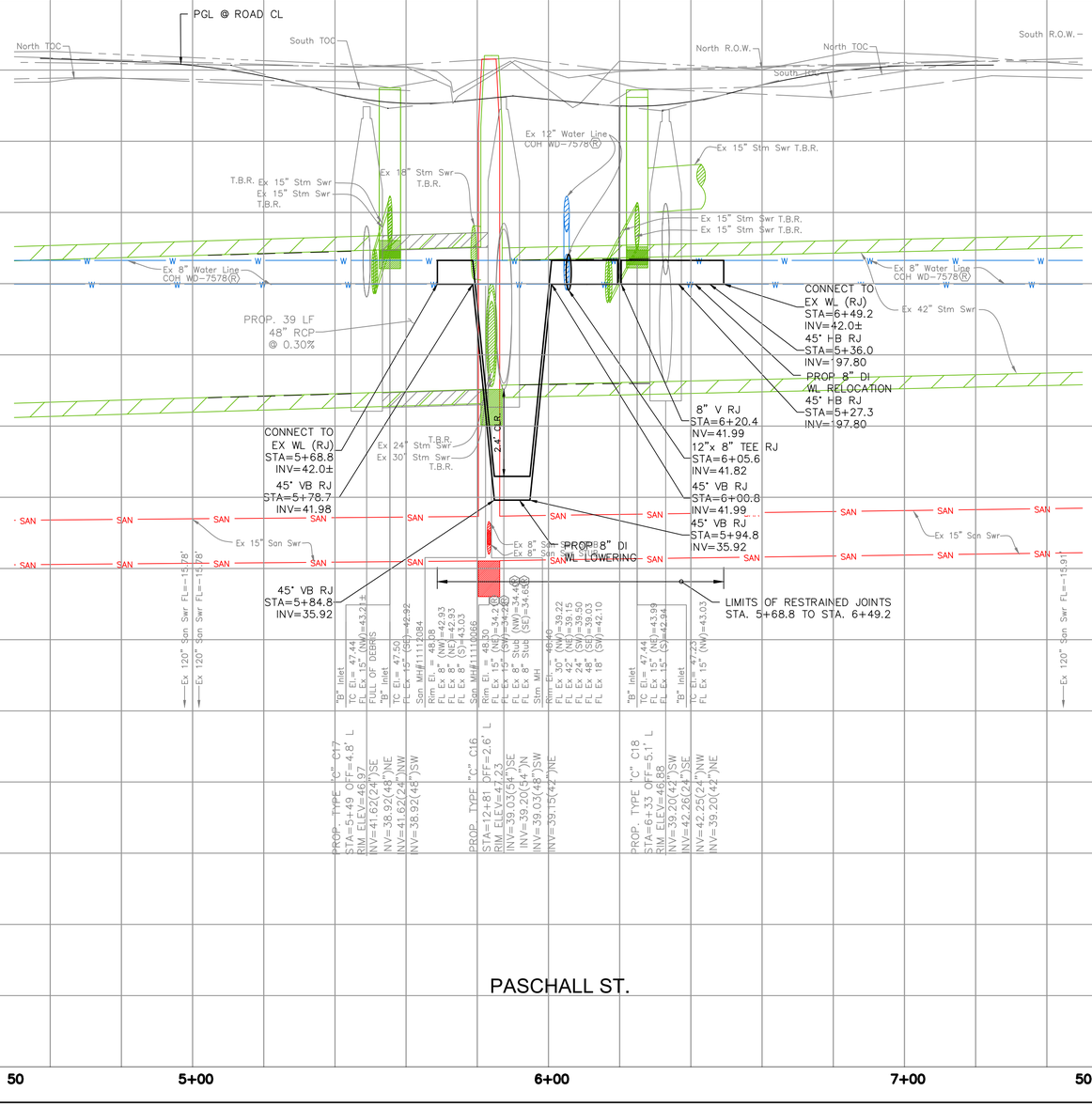
PLOTTED: 3/30/2026 2:43 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.



HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

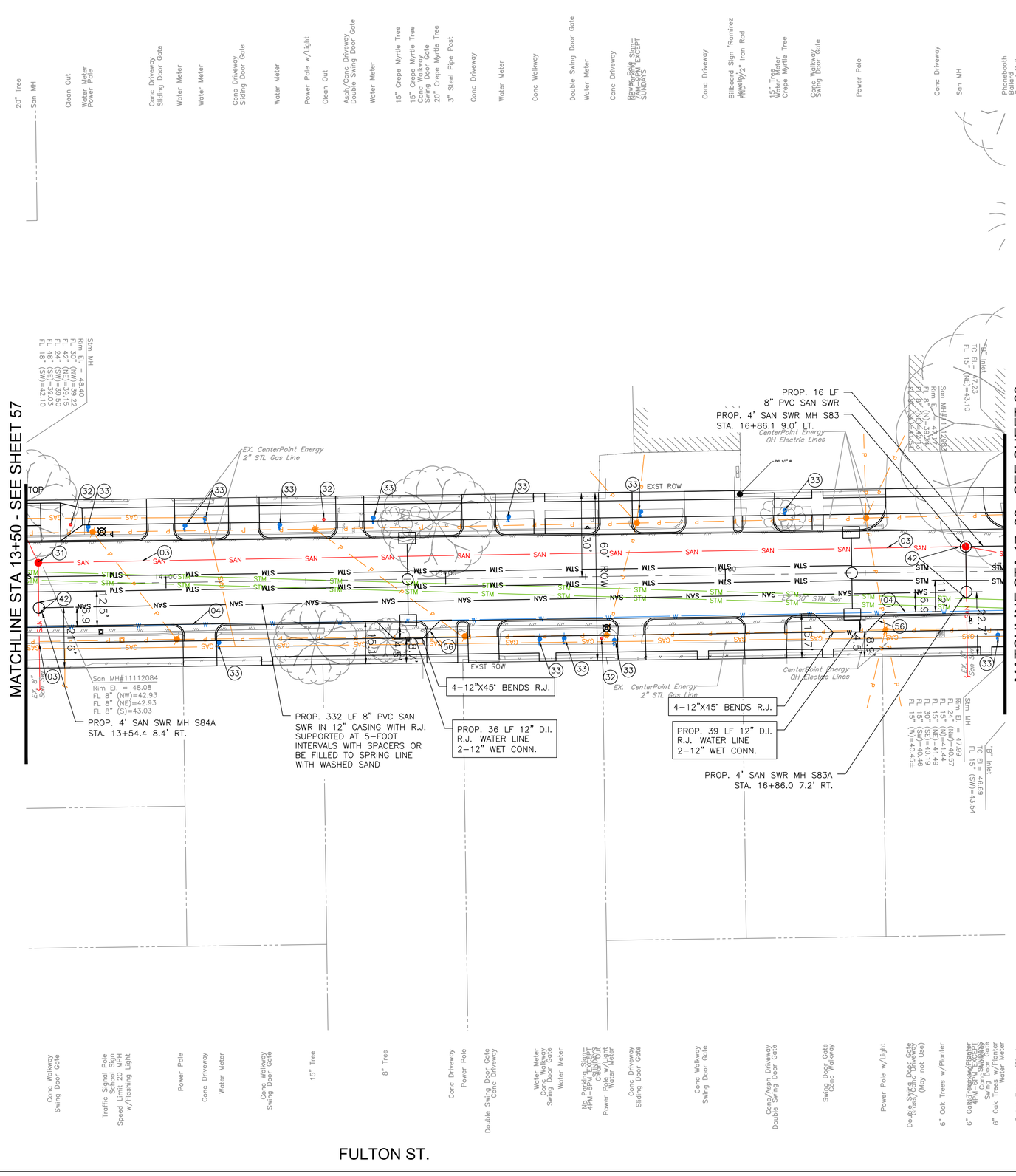
90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PROFILE PASCHALL STREET

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 59 OF 152	



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE

(04) EXISTING WATER MAIN TO REMAIN IN PLACE

(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE

(31) ADJUST EXISTING SANITARY MANHOLE RIM TO MATCH FINISHED GRADE

(32) ADJUST EXISTING CLEANOUT TOP TO MATCH FINISHED GRADE

(33) ADJUST EXISTING WATER METER TO MATCH FINISHED GRADE

(34) ADJUST EXISTING WATER VALVE ASSEMBLY (INCLUDING BOX IF PRESENT) TO MATCH FINISHED GRADE

(42) CONNECT EXISTING SANITARY SEWER TO PROPOSED MANHOLE WITH NEW SEWER STUB AND STANDARD RESILIENT CONNECTOR

(43) CONNECT PROPOSED SANITARY SEWER EXISTING MANHOLE WITH STANDARD RESILIENT CONNECTOR

(56) PROPOSED WATER MAIN RELOCATION

(57) PROPOSED FIRE HYDRANT

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PLAN STA. 13+50 TO 17+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 60 OF 152	

PLOT STYLE: COH CIP.CTB PLOTTED: 3/30/2026 2:43 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

PLOT STYLE: COH CIP.CTB

PLOTTED: 3/30/2026 2:43 PM

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

MATCHLINE STA 13+50 - SEE SHEET 58

MATCHLINE STA 17+00 - SEE SHEET 64

West EAP (Curb Lost)
East TOC
West TOC
East TOC
East R.O.W.
PGL @ ROAD CL
East EAP (Curb Lost)
West EAP (Curb Lost)
48

Ex 8" San Swr
Ex 8" San Swr
Ex 8" San Swr
PROP. 161 LF 54" RCP @ 0.15%
Ex 12" Water Line
COH WD-7578 ®
30" Stm Swr
PROP. 332 LF 8" PVC SAN @ 0.44%
" Stm Swr
PROP. 159 LF 54" RCP @ 0.15%
PROP. 78 LF
48" RCP
@ 0.15%
PROP 12" DI
WL RELOCATION
Ex. 8" SS
INV=42.73
Ex 8" San Swr
Ex 8" San Swr

CONNECT TO
EX WL (RJ)
STA=13+39.8
INV=40.5±
45° HB RJ
STA=13+35.8
INV=40.42
45° HB RJ
STA=13+30.0
INV=40.36
45° HB RJ
STA=13+20.0
INV=40.24
45° HB RJ
STA=13+14.2
INV=40.18

CONNECT TO
EX WL (RJ)
STA=14+70.9
INV=41.6±
PROP. 12" DI
WL RELOCATION
45° HB RJ
STA=14+74.9
INV=41.62
45° HB RJ
STA=14+81.4
INV=41.62

CONNECT TO
EX WL (RJ)
STA=15+01.9
INV=41.6±
45° HB RJ
STA=14+97.9
INV=41.62
45° HB RJ
STA=14+91.4
INV=41.62

LIMITS OF
RESTRAINED JOINTS
STA. 14+70.9 TO
STA. 15+01.9

CONNECT TO
EX WL (RJ)
STA=16+27.5
INV=41.6±
45° HB RJ
STA=16+31.5
INV=41.62
45° HB RJ
STA=16+38.3
INV=41.62
45° HB RJ
STA=16+50.3
INV=41.62
45° HB RJ
STA=16+57.1
INV=41.62
CONNECT TO
EX WL (RJ)
STA=16+61.1
INV=41.6±

LIMITS OF
RESTRAINED JOINTS
STA. 16+27.5 TO
STA. 16+61.1

Ex
Wat
COH WD

PROP
8" P
@ 0.5

PROP ROAD GRADE
Ex. Road Grade
EX 8"SAN
@ 1.83%
EX. 12" WL
1.8' CLR
PROP. 48" RCP
INV=39.38
PROP. 16 LF
8" PVC SAN
@ 0.5%

San MH#11112084
Rim El.= 48.46
FL Ex 8" (NW)=42.93
FL Ex 8" (NE)=42.93
FL Ex 8" (S)=43.09

STA=13+54 OFF=8.4' R
RIM ELEV=47.16
INV=43.19(8")NE
INV=41.46(8")NW

PROP. TYPE "C" C20
STA=14+86 OFF=0.0' L
RIM ELEV=47.64
INV=39.51(54")SE
INV=43.52(28")SW
INV=39.51(54")NW
INV=43.06(24")NE

PROP. TYPE "C" C21
STA=16+45 OFF=0.0' L
RIM ELEV=47.27
INV=43.15(28")SW
INV=39.74(54")SE
INV=42.76(24")NE
INV=39.74(48")NW

PROP. SAN MH S83
STA=16+86 OFF=9.0' L
RIM ELEV=47.08
INV=41.51(8")SE
INV=36.86(8")NW
INV=36.86(8")NE

PROP. SAN MH S83A
STA=16+86 OFF=7.2' R
RIM ELEV=47.12
INV=36.94(8")SW
INV=40.00(8")SE
INV=42.50(8")NE

San MH#11112083
Rim El.= 47.98
FL Ex 8" (NW)=39.34
FL Ex 8" (NE)=42.13
FL Ex 8" (SE)=41.51

PROP. SAN MH S83
STA=16+86 OFF=9.0' L
RIM ELEV=47.08
INV=41.51(8")SE
INV=36.86(8")NW
INV=36.86(8")NE

PROP. SAN MH S83A
STA=16+86 OFF=7.2' R
RIM ELEV=47.12
INV=36.94(8")SW
INV=40.00(8")SE
INV=42.50(8")NE

FULTON ST.

FULTON ST.
STA 16+86

14+00 15+00 16+00 17+00

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/2026

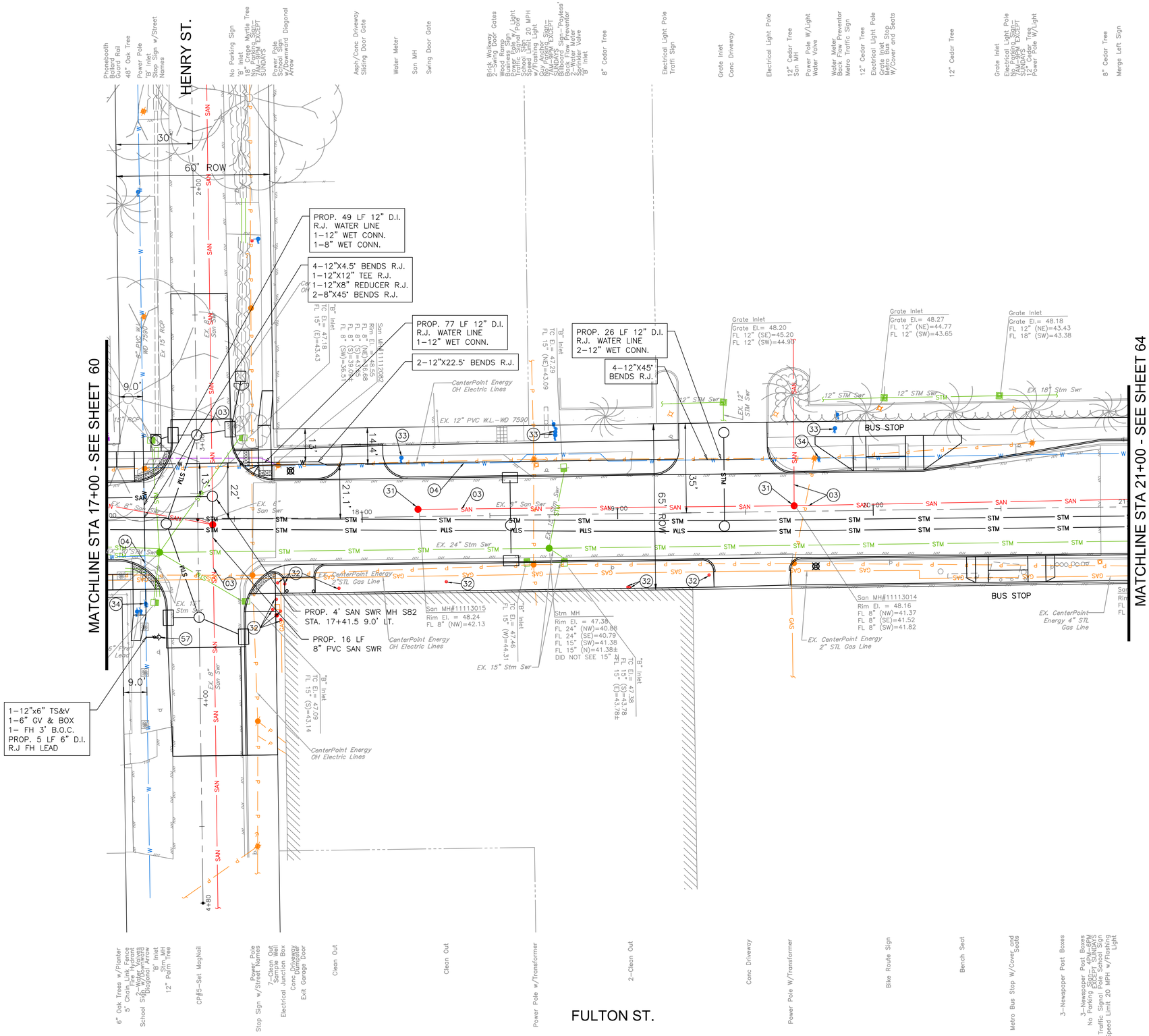
SURVEYED BY:
AMANI ENGINEERING, INC.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PROFILE
STA. 13+50 TO 17+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 61 OF 152	



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE

(04) EXISTING WATER MAIN TO REMAIN IN PLACE

(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE

(31) ADJUST EXISTING SANITARY MANHOLE RIM TO MATCH FINISHED GRADE

(32) ADJUST EXISTING CLEANOUT TOP TO MATCH FINISHED GRADE

(33) ADJUST EXISTING WATER METER TO MATCH FINISHED GRADE

(34) ADJUST EXISTING WATER VALVE ASSEMBLY (INCLUDING BOX IF PRESENT) TO MATCH FINISHED GRADE

(42) CONNECT EXISTING SANITARY SEWER TO PROPOSED MANHOLE WITH NEW SEWER STUB AND STANDARD RESILIENT CONNECTOR

(43) CONNECT PROPOSED SANITARY SEWER EXISTING MANHOLE WITH STANDARD RESILIENT CONNECTOR

(56) PROPOSED WATER MAIN RELOCATION

(57) PROPOSED FIRE HYDRANT

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/2026

SURVEYED BY:
AMANI ENGINEERING, INC.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PLAN STA. 17+00 TO 21+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 62 OF 152	

PLOT STYLE: COH CIP.CTB PLOTTED: 3/30/2026 2:44 PM

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

PLOTTED: 3/30/2026 2:44 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

MATCHLINE STA 17+00 - SEE SHEET 61

MATCHLINE STA 21+00 - SEE SHEET 66

Ex 18" RCP
Ex 15" RCP
CL of Road
West EAP
West EAP (Curb Lost)
East TOC
West R.O.W.
PGL @ ROAD CL
East R.O.W.
West TOC
Ex 15" RCP
Ex 15" Stm Swr
Ex 15" Stm Swr
Ex 6" San Swr
Ex 15" Stm Swr
Ex 15" Stm Swr
Ex 12" Stm Swr
Ex 12" Stm Swr
Ex 12" Stm Swr
Ex 8" Stm Swr
Ex 15" Stm Swr
Ex 15" Stm Swr
Ex 12" Water Line COH WD-7578®
PROP. 84 LF 42" RCP @ 0.20%
Ex 8
Ex 24" Stm Swr
Ex 24" Stm Swr
PROP. 135 LF 42" RCP @ 0.20%
Ex 12" Water Line COH WD-7578®
PROP. 205 LF 42" RCP @ 0.20%
Ex 12" Water Line COH WD-7578®
Ex 8" San Swr
Ex 4" Gas Line (Depth not Verified)
2.0' CLR.
2.2' CLR.
Ex 8" San Swr
Ex 8" San Swr
2.1' CLR.
CONNECT TO EX WL (RJ) STA=17+91.5 INV=41.4±
22.5° HB RJ
1" VERT. ROTATE
STA=17+86.5
INV=41.26
22.5° HB RJ
STA=17+83.2
INV=41.08
PROP 12" DI WL LOWERING
3" DEFL. RJ
STA=17+53.0
INV=39.50
12"x 12" TEE RJ
STA=17+14.8
INV=39.50
PROP. 55 LF 8" PVC SAN @ 0.44%
PROP. 12" WL INV=33.70
San MH#1111315715
Rim El. = 48.24
FL Ex 8" (NW)=42.13
LIMITS OF RESTRAINED JOINTS STA. 17+14.8 TO STA. 17+91.5
CONNECT TO EX WL (RJ) STA=19+29.7 INV=43.0±
45° VB RJ
STA=19+34.7
INV=43.00
45° VB RJ
STA=19+37.8
INV=39.90
CONNECT TO EX WL (RJ) STA=19+53.9 INV=43.0±
45° VB RJ
STA=19+48.9
INV=43.00
45° VB RJ
STA=19+45.8
INV=39.90
PROP 12" DI WL LOWERING
LIMITS OF RESTRAINED JOINTS STA. 19+29.7 TO STA. 19+53.9
San MH#1111313014
Rim El. = 48.16
FL Ex 8" (NW)=41.37
FL Ex 8" (SE)=41.52
FL Ex 8" (SW)=41.82
PROP. TYPE "C" C22
STA=17+23.7 OFF=1.4' R
RIM ELEV=47.75
INV=38.85(48")SE
INV=42.50(24")W
INV=40.10(42")NW
INV=42.50(24")NE
San MH#1111312262
PROP. SAN MH S82
STA=17+42 OFF=9.0' L
RIM ELEV=47.33
INV=36.62(8")SE
INV=36.62(8")NE
INV=36.40(8")SW
PROP. TYPE "C" C26
STA=18+58 OFF=3.9' R
RIM ELEV=47.18
INV=40.37(42")SE
INV=43.13(28")SW
INV=40.37(42")NW
INV=42.58(24")NE
PROP. TYPE "C" C27
STA=19+42 OFF=5.4' R
RIM ELEV=47.49
INV=40.54(42")SE
INV=43.08(24")SW
INV=40.54(42")NW
FULTON ST.
58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20
17+00 18+00 19+00 20+00 21+00

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/2026

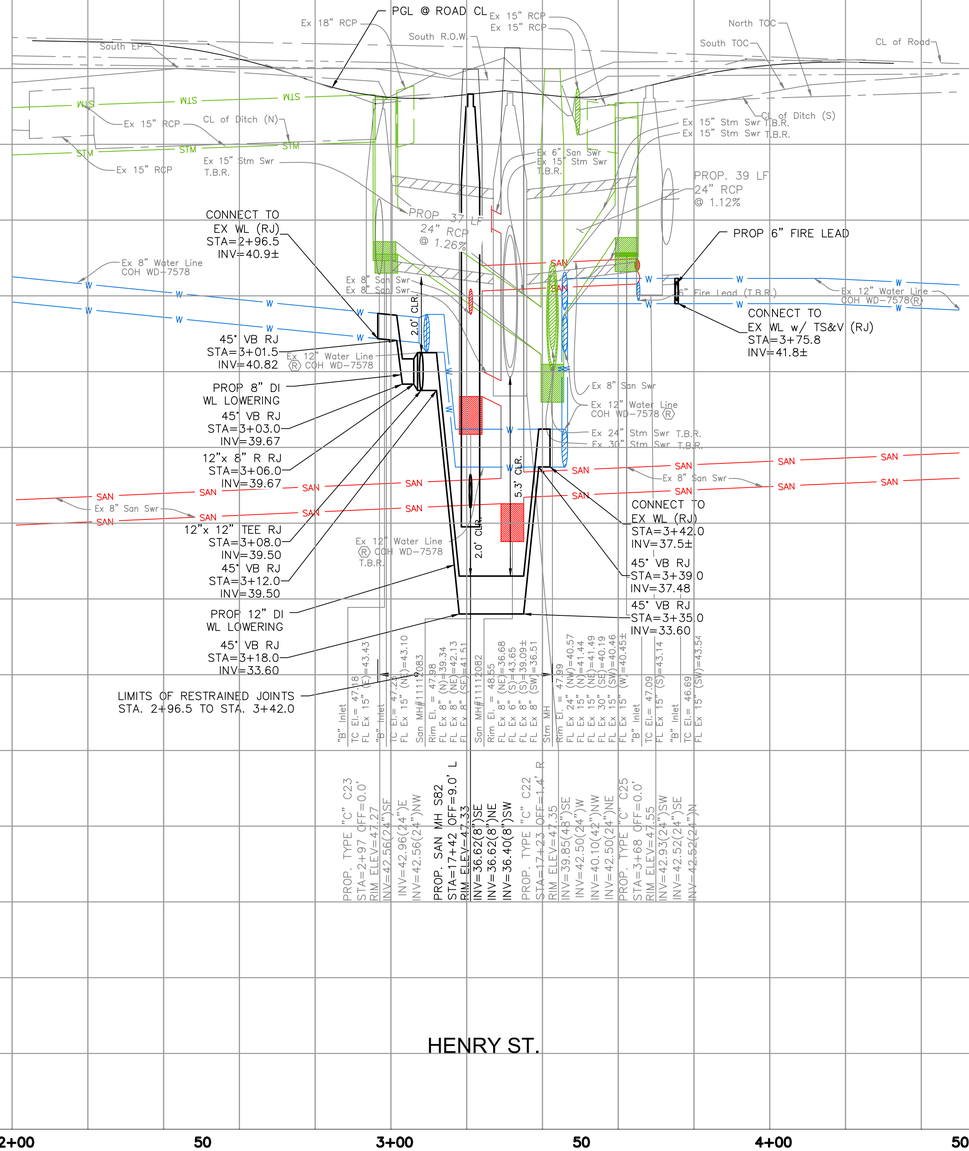
SURVEYED BY:
AMANI ENGINEERING, INC.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PROFILE STA. 17+00 TO 21+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 63 OF 152	



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

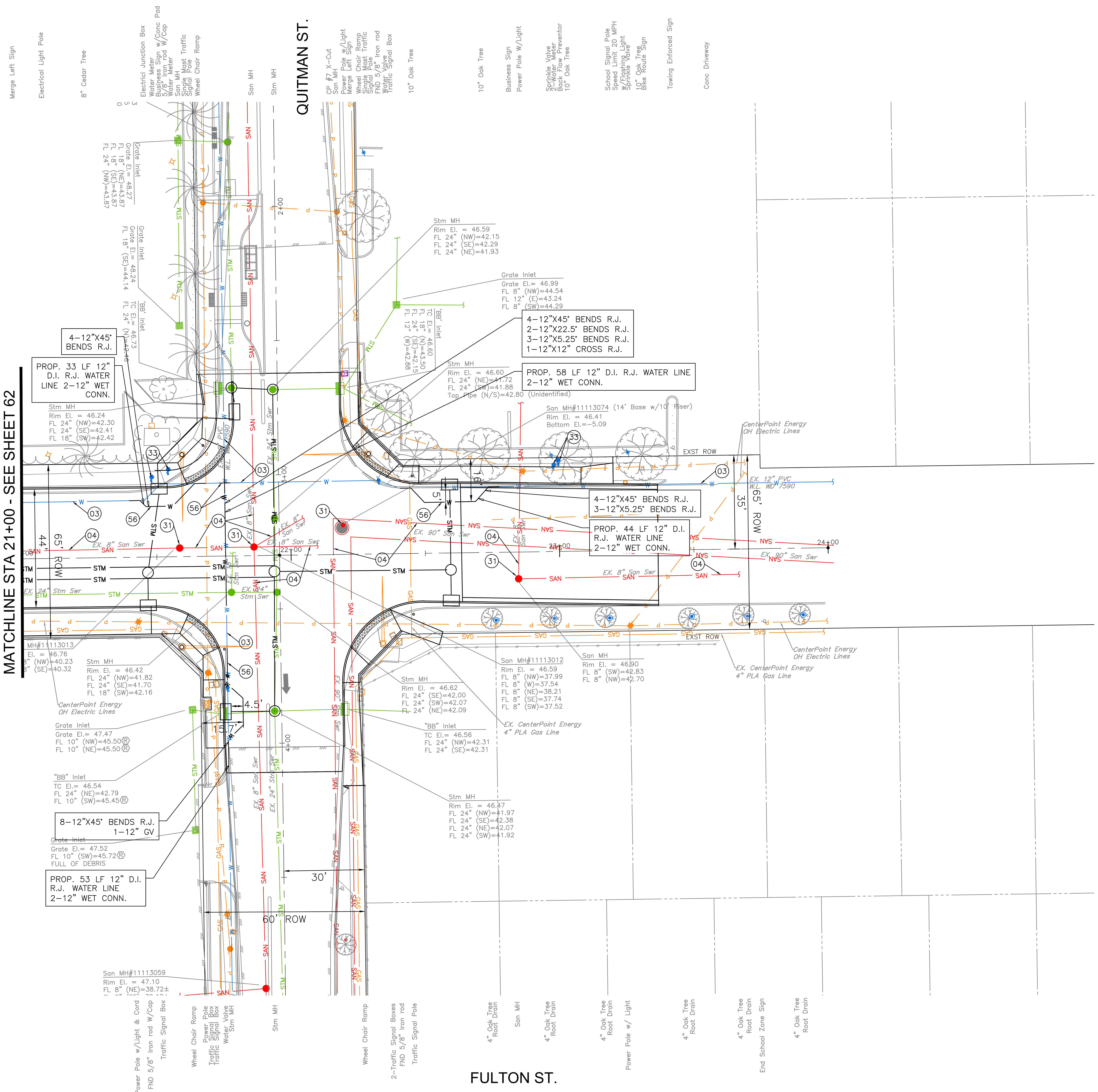
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PROFILE HENRY STREET

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 64 OF 152	

PLOTTED: 3/30/2026 2:44 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg
PLOT STYLE: COH CIP.CTB
PLOTTED: 3/30/2026 2:45 PM



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

NOTE:

- REFER TO SANITARY AND WATER PLAN
- REFER TO TREE PLANTING AND PROTECTION PLANS
- REFER TO ELECTRICAL PLANS AND TRAFFIC SIGNALIZATION
- PLANS ALL PROPOSED STORM SEWER PIPE SHALL BE 24" RCP UNLESS OTHERWISE NOTED
- REFER TO SIGNING AND PAVEMENT MARKING PLANS

KEY NOTE:

(03) EXISTING SANITARY SEWER TO REMAIN IN PLACE

(04) EXISTING WATER MAIN TO REMAIN IN PLACE

(05) EXISTING FIRE HYDRANT TO REMAIN IN PLACE

(31) ADJUST EXISTING SANITARY MANHOLE RIM TO MATCH FINISHED GRADE

(32) ADJUST EXISTING CLEANOUT TOP TO MATCH FINISHED GRADE

(33) ADJUST EXISTING WATER METER TO MATCH FINISHED GRADE

(34) ADJUST EXISTING WATER VALVE ASSEMBLY (INCLUDING BOX IF PRESENT) TO MATCH FINISHED GRADE

(42) CONNECT EXISTING SANITARY SEWER TO PROPOSED MANHOLE WITH NEW SEWER STUB AND STANDARD RESILIENT CONNECTOR

(43) CONNECT PROPOSED SANITARY SEWER EXISTING MANHOLE WITH STANDARD RESILIENT CONNECTOR

(56) PROPOSED WATER MAIN RELOCATION

(57) PROPOSED FIRE HYDRANT

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

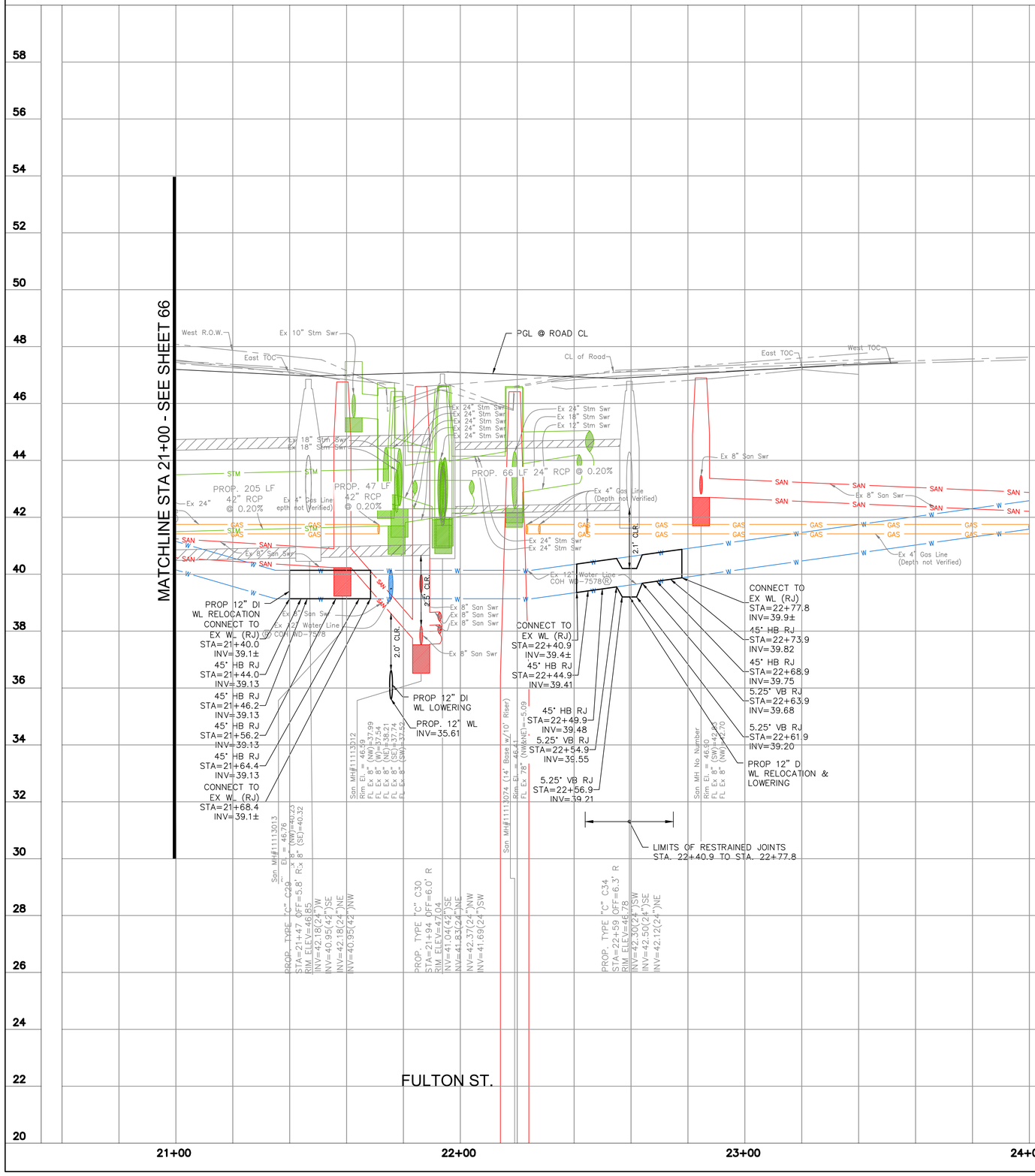
90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PLAN
STA. 21+00 TO END

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"=20'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 65 OF 152



GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY AND WATER PROFILE STA. 21+00 TO END

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 66 OF 152	

PLOTTED: 3/30/2026 2:45 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

PLOTTED: 3/30/2026 2:45 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\59 SANITARY SEWER AND WATER PLAN AND PROFILE.dwg

GRAPHIC SCALE
0 20 40
(IN FEET)
FULL SIZE: H. 1"=20', V. 1"=2'
HALF SIZE: H. 1"=40', V. 1"=4'

NO.	DATE	REVISION	APP.

PGL @ ROAD CL
North R.O.W.
South R.O.W.
South TOC
North TOC
CL of Road
Ex 24" Stm Swr
Ex 8" Stm Swr
Ex 18" Stm Swr
Ex 12" Stm Swr
Ex 4" Gas Line (Depth not Verified)
Ex 12" Water Line COH WD-7578(R)
Ex 8" San Swr
Ex 6" San Swr
Ex 2" San Swr
12" Water Line COH WD-7578(R)
10" Stm Swr
Ex 10" Stm Swr
Ex 24" Stm Swr T.B.R.
Ex 18" Stm Swr T.B.R.
Unidentified Pipe & Size
PROP. 68 LF 24" RCP @ 0.17%
PROP. 52 LF 24" RCP @ 0.17%
2.0' CLR.
CONNECT TO EX WL (RJ) STA=2+92.3 INV=39.2±
22.5° VB RJ STA=2+95.3 INV=39.17
22.5° VB RJ STA=2+96.8 INV=38.49
12"x 12" TEE RJ STA=3+02.8 INV=38.49
PROP 12" DI WL LOWERING
45° VB RJ STA=3+21.7 INV=38.50
45° VB RJ STA=3+21.9 INV=35.61
PROP 12" DI WL LOWERING
45° VB RJ STA=3+39.9 INV=35.61
45° VB RJ STA=3+43.4 INV=39.13
CONNECT TO EX WL (RJ) STA=3+48.4 INV=39.1±
LIMITS OF RESTRAINED JOINTS STA. 2+92.3 TO STA. 3+48.4
CONNECT TO EX WL (RJ) STA=3+64.4 INV=39.1±
45° VB RJ STA=3+69.4 INV=39.13
45° VB RJ STA=3+72.9 INV=35.37
CONNECT TO EX WL (RJ) STA=4+10.5 INV=39.1±
45° VB RJ STA=4+05.5 INV=39.13
45° VB RJ STA=4+03.2 INV=35.37
45° HB RJ STA=3+98.2 INV=35.37
45° HB RJ STA=3+93.1 INV=35.37
PROP 12" DI WL LOWERING
45° HB RJ STA=3+83.0 INV=35.37
45° HB RJ STA=3+77.9 INV=35.37
LIMITS OF RESTRAINED JOINTS STA. 3+64.4 TO STA. 4+10.5
PROP. TYPE "C" C31 STA=2+68.6 OFF=1.7' R RIM ELEV=47.10 INV=41.80(24")S INV=41.80(24")NE INV=42.15(24")NW
PROP. TYPE "C" C30 STA=21+94 OFF=6.0' R RIM ELEV=47.04 INV=41.04(42")SE INV=41.83(24")NE INV=42.37(24")NW INV=41.69(24")SW
PROP. TYPE "C" C33 STA=3+88 OFF=2.6' R RIM ELEV=46.50 INV=41.97(24")NE INV=41.92(24")SE INV=41.97(24")NW INV=41.92(24")SW
QUITMAN ST.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.

90% PROGRESS
3/30/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

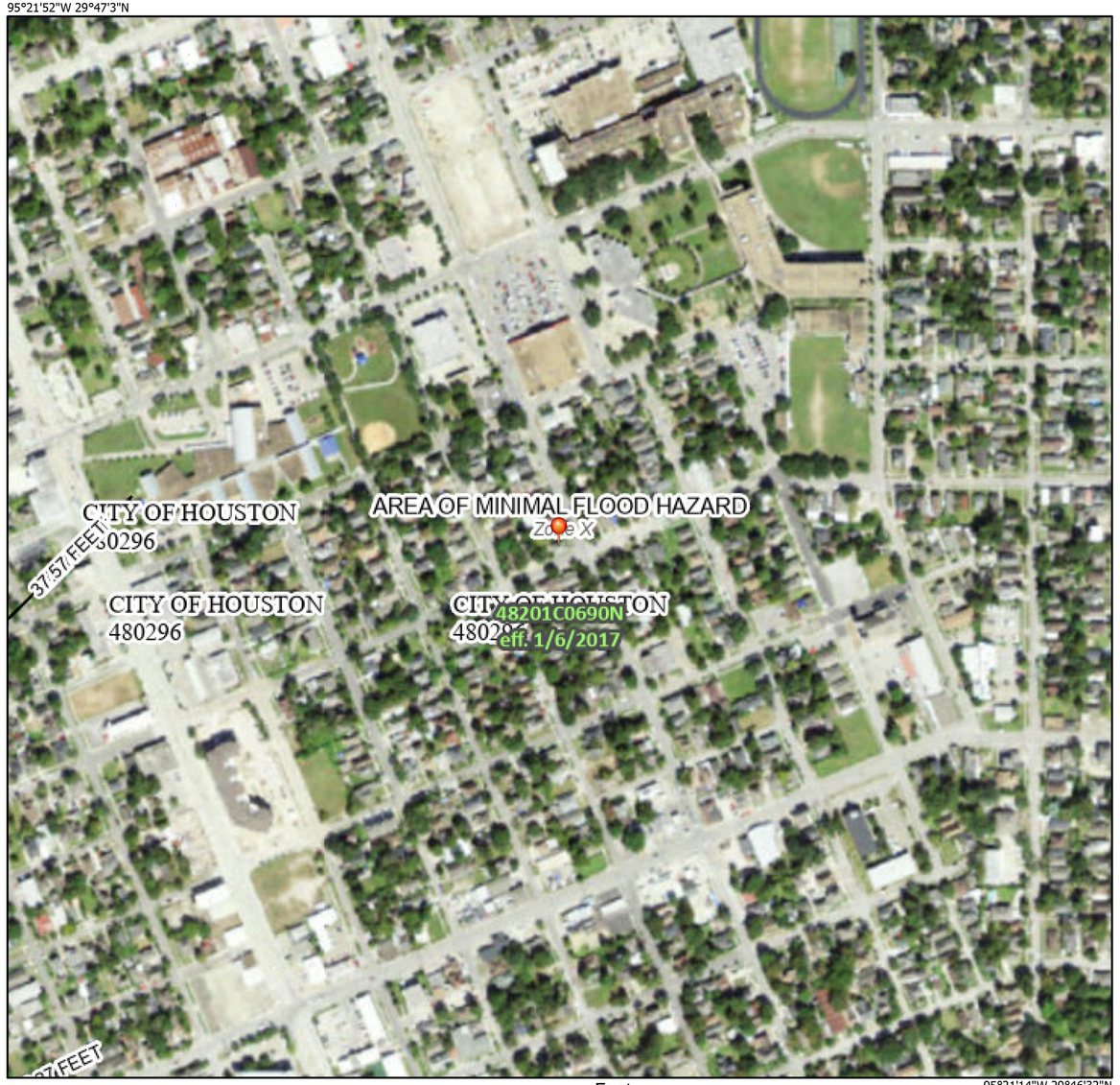
SANITARY AND WATER PROFILE QUITMAN ST.

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 67 OF 152	

National Flood Hazard Layer FIRMette

FEMA

95°21'52"W 29°47'3"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

95°21'14"W 29°46'32"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/11/2023 at 10:24 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

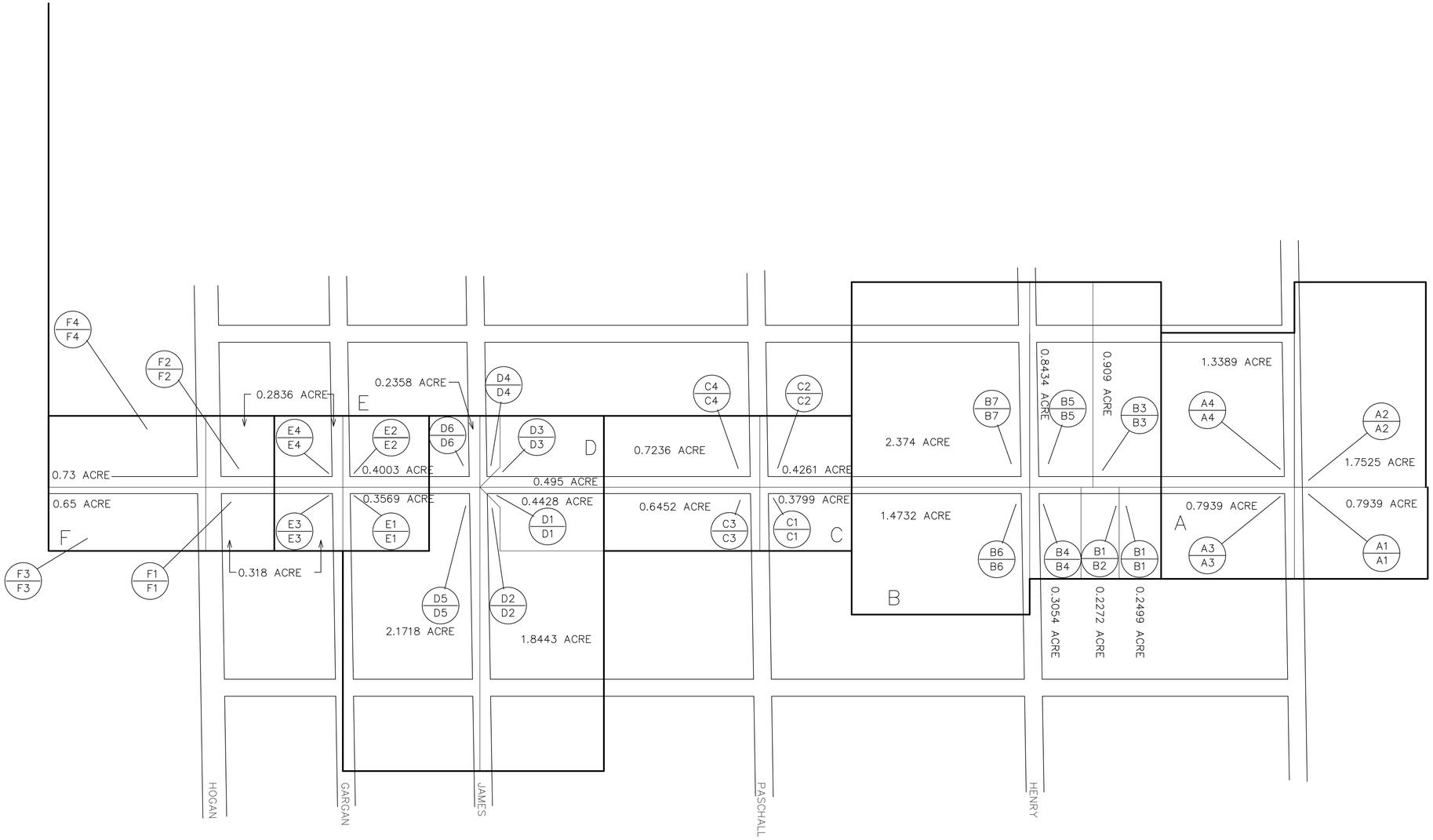
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

FIRM MAP

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 68 OF 152	

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 1:32 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\72 FIRM MAP.dwg



NO.	DATE	REVISION	APP.

EJES
INCORPORATED
6161 SAVOY DRIVE.
SUITE 830
HOUSTON, TEXAS 77036
(P) 281-272-1612
(F) 281-272-1619
FIRM REG. F-2488

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW, MARK-UP, DRAFTING UNDER THE AUTHORITY OF TANITA GILBERT ALEXANDER LICENSE NO. 88719 DATED 3/20/2026. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

DRAINAGE MAP

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-00818-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 69 OF 155	

PLOTTED: 3/19/2026 4:07 PM

PLOT STYLE: COH.ctb

FILE PATH: N:\2-Projects\273-02 Fulton\4-Drawings\4.2-Sheets\Fulton Drainage Map.dwg

Fulton Street @ Hogan Intersection

Location	U/S Node	D/S Node	Area	Runoff Coefficient, C	Sum of C * A	Intensity, I	Sum of Flows	Time of Conc	Length	Diameter	Slope	Manning's n	Design Velocity	Design Capacity	U/S Flowline	D/S Flowline	Actual Velocity	U/S HGL	D/S HGL	Hydraulic Grade	Critical Elevation U/S	Critical Elevation D/S
	90% Plans	90% Plans	(Acres)			(In/Hr)	(CFS)	(Min)	(Ft)	(in)	(%)		(FPS)	(CFS)	(FT)	(FT)	(FPS)	(FT)	(FT)	(%)	(FT)	(FT)
3+03.41	B1	OUT	1.98	0.65	1.29	3.89	5.01	24.05	37.00	2.00	0.11	0.013	2.54	7.50	38.83	38.79	1.72	40.56	40.54	0.0490	47.14	
3+03.41	B2	B1	0.33	0.65	0.21	3.90	0.83	23.20	26.00	2.00	2.58	0.013	4.76	36.50	39.50	38.83	3.06	40.56	40.56	0.0010	46.75	47.14
HOGAN	B3	MH-M3	0.37	0.65	0.24	3.89	0.92	23.37	28.00	2.00	1.00	0.013	3.53	22.70	42.13	41.85	2.65	43.50	43.50	0.0020	47.17	47.00
HOGAN	B4	MH-M3	0.14	0.65	0.09	4.00	0.37	22.09	17.00	2.00	1.59	0.013	3.15	28.60	42.02	41.75	2.21	43.50	43.50	0.0000	46.82	47.00
HOGAN	B5	MH-M4	0.33	0.65	0.21	3.90	0.83	23.20	16.00	2.00	1.00	0.013	3.41	22.70	41.93	41.77	3.06	43.30	43.30	0.0010	46.90	47.00
HOGAN	B6	MH-M4	0.16	0.65	0.10	3.99	0.41	22.23	29.00	2.00	2.86	0.013	4.00	38.40	42.60	41.77	2.00	43.30	43.30	0.0000	46.64	47.00
4+15.00	B7	MH-M2	0.30	0.65	0.20	4.00	0.78	22.35	55.00	2.00	0.91	0.013	3.25	21.70	39.50	39.00	2.64	40.72	40.72	0.0010	47.06	47.00
4+15.00	B8	B7	0.16	0.65	0.10	3.99	0.41	22.23	26.00	2.00	1.92	0.013	3.48	31.50	40.00	39.50	2.00	40.72	40.72	0.0000	47.36	47.06
3+62.00	MH-M2	B1	1.29	0.65	0.84	4.00	3.36	23.75	59.00	2.00	0.29	0.013	3.30	12.20	39.00	38.83	1.16	40.72	40.56	0.0220	47.00	47.14
Hogan	MH-M3	MH-M2	0.51	0.65	0.33	3.99	1.32	23.50	47.00	2.00	0.53	0.013	3.14	16.60	41.75	41.50	2.98	43.50	43.50	0.0030	47.00	47.00
Hogan	MH-M4	MH-M2	0.48	0.65	0.31	3.99	1.26	23.28	63.00	2.00	0.75	0.013	3.49	19.60	41.77	41.30	2.95	43.30	43.30	0.0030	47.00	47.00
2+66.00	OUT		1.98	0.65	1.29	3.89	5.01	24.05														

Fulton Street (Grogan St. to Quitman St.)

Location	U/S Node	D/S Node	Area	Runoff Coefficient, C	Sum of C * A	Intensity, I	Sum of Flows	Time of Conc	Length	Diameter	Slope	Manning's n	Design Velocity	Design Capacity	U/S Flowline	D/S Flowline	Actual Velocity	U/S HGL	D/S HGL	Hydraulic Grade	Critical Elevation U/S	Critical Elevation D/S
	90% Plans	90% Plans	(Acres)			(In/Hr)	(CFS)	(Min)	(Ft)	(in)	(%)		(FPS)	(CFS)	(FT)	(FT)	(FPS)	(FT)	(FT)	(%)	(FT)	(FT)
GARGAN	A1	MH-M8	0.07	0.65	0.05	4.08	0.19	21.27	12.00	2.00	2.50	0.013	3.01	35.90	42.67	42.37	1.26	44.96	44.96	0.0000	46.85	47.00
12+30.00	A10	MH-M15	0.32	0.65	0.21	3.90	0.82	23.19	15.00	2.00	1.00	0.013	3.41	22.70	39.68	39.53	3.04	43.79	43.79	0.0010	47.00	48.00
GARGAN	A2	MH-M8	0.09	0.65	0.06	4.06	0.24	21.53	13.00	2.00	2.54	0.013	3.23	36.20	42.70	42.37	1.80	44.96	44.96	0.0000	47.08	47.00
5+42.00	A3	MH-M5A	0.16	0.65	0.10	3.99	0.41	22.23	21.00	2.00	1.48	0.013	3.18	27.60	41.79	41.48	2.00	44.96	44.96	0.0000	47.00	47.00
5+42.00	A4	MH-M5A	0.14	0.65	0.09	4.00	0.37	22.09	9.00	2.00	1.45	0.013	3.05	27.30	41.61	41.48	2.20	44.96	44.96	0.0000	47.00	47.00
6+25.00	A5	MH-M5B	0.16	0.65	0.10	3.99	0.42	22.24	21.00	2.00	1.52	0.013	3.22	28.00	41.68	41.36	2.01	44.73	44.73	0.0000	47.00	47.00
6+25.00	A6	MH-M5B	0.18	0.65	0.12	3.98	0.46	22.38	9.00	2.00	1.56	0.013	3.35	28.30	41.50	41.36	2.35	44.73	44.73	0.0000	47.00	47.00
8+55.00	A7	MH-M10B	0.25	0.65	0.16	3.94	0.63	22.82	21.00	2.00	1.00	0.013	3.16	22.70	40.18	39.97	2.51	44.22	44.22	0.0010	47.00	47.00
8+55.00	A8	MH-M10B	0.92	0.65	0.60	3.76	2.25	24.86	9.00	2.00	1.00	0.013	4.60	22.70	40.06	39.97	3.45	44.22	44.22	0.0100	47.00	47.00
12+30.00	A9	MH-M15	0.36	0.65	0.23	3.89	0.92	23.36	15.00	2.00	1.00	0.013	3.52	22.70	39.68	39.53	2.63	43.79	43.79	0.0020	47.00	48.00
GARGAN	B10	MH-M6	0.16	0.65	0.10	3.99	0.42	22.24	11.00	2.00	1.55	0.013	3.23	28.20	42.59	42.42	2.01	44.96	44.96	0.0000	46.82	47.00
GARGAN	B11	MH-M7	0.07	0.65	0.05	4.08	0.19	21.27	10.00	2.00	2.50	0.013	3.01	35.90	42.60	42.35	1.26	44.96	44.96	0.0000	46.85	47.00
GARGAN	B12	MH-M7	0.09	0.65	0.06	4.06	0.24	21.53	11.00	2.00	2.55	0.013	3.24	36.30	42.63	42.35	1.80	44.96	44.96	0.0000	47.08	47.00
7+67.00	B13	MH-M9	0.32	0.65	0.21	3.91	0.81	23.17	21.00	2.00	1.00	0.013	3.40	22.70	41.37	41.16	3.00	44.34	44.34	0.0010	47.29	47.00
7+67.00	B14	MH-M9	0.65	0.65	0.42	3.81	1.61	24.27	9.00	2.00	1.00	0.013	4.17	22.70	41.25	41.16	3.16	44.34	44.34	0.0050	47.17	47.00
James	B15	MH-M11	0.12	0.65	0.08	4.02	0.31	21.86	13.00	2.00	2.54	0.013	3.51	36.20	42.77	42.44	1.65	45.11	45.11	0.0000	46.95	47.00
James	B16	MH-M11	0.08	0.65	0.05	4.07	0.21	21.41	11.00	2.00	2.55	0.013	3.14	36.30	42.71	42.43	1.42	45.11	45.11	0.0000	46.95	47.00
James	B17	MH-M12	1.52	0.65	0.99	3.87	3.82	25.24	13.00	2.00	0.23	0.013	3.16	10.90	41.98	41.95	1.22	44.25	44.23	0.0280	46.74	47.00
James	B18	MH-M12	1.84	0.65	1.20	3.66	4.39	26.14	11.00	2.00	1.00	0.013	5.57	22.70	42.06	41.95	4.18	44.23	44.23	0.0370	46.91	47.00
9+35.00	B19	MH-M14	0.25	0.65	0.16	3.94	0.63	22.82	19.00	2.00	1.00	0.013	3.16	22.70	42.19	42.00	2.51	44.09	44.09	0.0010	47.49	47.00
9+35.00	B20	MH-M14	0.44	0.65	0.29	3.86	1.11	23.66	12.00	2.00	1.00	0.013	3.73	22.70	42.12	42.00	2.85	44.09	44.09	0.0020	47.01	47.00
Paschell	B21	MH-M17	0.36	0.65	0.23	3.89	0.92	23.36	23.00	2.00	1.00	0.013	3.52	22.70	41.86	41.63	2.63	43.29	43.29	0.0020	48.03	48.00
Paschell	B22	MH-M17	0.21	0.65	0.14	3.95	0.55	22.62	13.00	2.00	1.00	0.013	3.02	22.70	41.76	41.63	1.34	43.29	43.29	0.0010	48.17	48.00
Paschell	B23	MH-M18	0.32	0.65	0.21	3.90	0.82	23.19	25.00	2.00	1.00	0.013	3.41	22.70	42.59	42.34	3.04	44.06	44.06	0.0010	47.94	48.00
Paschell	B24	MH-M18	0.19	0.65	0.12	3.97	0.49	22.46	13.00	2.00	1.46	0.013	3.34	27.50	42.53	42.34	2.27	44.06	44.06	0.0000	48.05	48.00
13+63.00	B25	MH-M19	0.21	0.65	0.14	3.95	0.55	22.62	15.00	2.00	1.00	0.013	3.02	22.70	40.08	39.93	1.34	43.77	43.77	0.0010	48.36	48.00
13+63.00	B26	MH-M19	0.19	0.65	0.12	3.97	0.49	22.46	15.00	2.00	1.53	0.013	3.39	28.10	42.23	42.00	2.27	43.77	43.77	0.0000	47.92	48.00
15+28.00	B27	MH-M20	0.37	0.65	0.24	3.89	0.93	23.39	15.00	2.00	1.00	0.013	3.54	22.70	42.45	42.30	2.72	43.90	43.90	0.0020	48.43	48.00
15+28.00	B28	MH-M20	0.59	0.65	0.38	3.82	1.47	24.12	15.00	2.00	1.00	0.013	4.06	22.70	42.45	42.30	3.08	43.90	43.90	0.0040	48.35	48.00
16+36.00	B29	MH-M21	0.59	0.65	0.38	3.82	1.47	24.12	15.00	2.00	1.00	0.013	4.06	22.70	43.35	43.20	3.08	43.94	43.94	0.0040	48.25	48.00
16+36.00	B30	MH-M21	0.37	0.65	0.24	3.89	0.93	23.39	15.00	2.00	1.00	0.013	3.54	22.70	43.35	43.20	2.72	43.94	43.94	0.0020	47.86	48.00
Henry	B31	MH-M23	1.19	0.65	0.77	3.82	2.95	24.18	11.00	2.00	1.00	0.013	4.97	22.70	43.17	43.06	3.73	43.98	43.98	0.0170	47.94	48.00
Henry	B32	MH-M23	0.42	0.65	0.27	3.87	1.06	23.59	14.00	2.00	1.00	0.013	3.68	22.70	43.20	43.06	2.83	43.98	43.98	0.0020	47.91	48.00
Henry	B33	MH-M25	0.74	0.65	0.48	3.79	1.82	24.48	13.00	2.00	0.92	0.013	4.20	21.80	43.05	42.93	3.26	43.97	43.97	0.0060	48.00	48.00
Henry	B34	MH-M25	0.61	0.65	0.40	3.82	1.50	24.15	18.00	2.00	1.00	0.013	4.08	22.70	43.11	42.93	3.08	43.97	43.97	0.0040	47.47	48.00
18+58.00	B35	MH-M26	0.42	0.65	0.27	3.87	1.06	23.59	20.00	2.00	0.95	0.013	3.62	22.10	42.39	42.20	2.83	44.08	44.08	0.0020	48.24	48.00
18+58.00	B36	MH-M26	0.23	0.65	0.15	3.95	0.58	22.70	17.00	2.00	1.00	0.013	3.08	22.70	42.37	42.20	2.46	44.08	44.08	0.0010	47.99	48.00
19+06.00	B37	MH-M27	0.91	0.65	0.59	3.77	2.23	10.00	20.00	2.00	0.50	0.013	3.59	16.10	43.30	43.20	3.45	44.11	44.11	0.0100	48.66	48.00
19+06.00	B38	MH-M27	0.25	0.65	0.16	3.94	0.64	22.83	14.00	2.00	1.36	0.013	3.52	26.50	43.21	43.02	2.43	44.11	44.11	0.0010	47.70	48.00
21+53.00	B39	MH-M30	0.40	0.65	0.26	3.88	1.01	23.52	32.00	2.00	0.59	0.013	3.02	17.50	42.49	42.30	2.79	45.73	45.73	0.0020	47.41	48.00
21+53.00	B40	MH-M30	0.24	0.65	0.16	3.94	0.61	22.77	12.00	2.00	1.00	0.013	3.12	22.70	42.42	42.30	2.36	45.73	45.73	0.0010	47.58	48.00
Quitman	B41	MH-M32	1.23	0.65	0.80	3.89	3.10	24.87	22.00	2.00	1.50	0.013	5.83	27.80	42.13	41.80	3.79	45.77	45.77	0.0190	46.84	48.00
Quitman	B42	MH-M35	0.56	0.65	0.36	3.99	1.44	23.64	23.00	2.00	1.52	0.013	4.67	28.00	42.27	41.92	3.03	45.94	45.93	0.0040	46.63	48.00
22+59.00	B43	MH-M36	0.53	0.65	0.34	3.84	1.31	23.93	32.00	2.00	1.50	0.013	4.52	27.80	42.78	42.30	2.97	46.00	46.00	0.0030	47.00	48.00
22+59.00	B44	MH-M36	0.24	0.65	0.16	3.94	0.61	22.77	12.00	2.00	1.00	0.013	3.12	22.70	42.42	42.30	2.36	46.00	46.00	0.0010	47.18	48.00
GARGAN	B9	MH-M6	0.16	0.65	0.10	3.99	0.41	22.23	10.00	2.00	1.50	0.013	3.19	27.80	42.57	42.42	2.00	44.96	44.96	0.0000	46.05	47.00
Quitman	C1	MH-M33	0.27	0.65	0.18	3.93	0.68	22.93	5.00	2.00	1.40	0.013	3.63	26.90	42.40	42.33	2.35	45.82	45.82	0.0010	47.49	48.00
Quitman	C2	MH-M35	0.56	0.65	0.36	3.99	1.43	23.56	19.00	2.00	0.95	0.013	3.95	22.10	42.10	41.92	3.08	45.94	45.93	0.0040	47.49	48.00
8+26.00	MH-M10	MH-M10B	6.98	0.65	4.54	3.82	17.33	26.37	98.00	4.50	0.12	0.013	3.34	21.40	39.97	39.85	2.45	44.22	44.20	0.0670	47.00	47.00
8+55.00	MH-M10B	MH-M14	6.98	0.65	4.54	3.82	17.33	26.66	59.00	3.00	0.10	0.013	3.61	69.10	40.03	39.97	1.12	44.20	44.09	0.0080	47.00	47.00
James	MH-M11	MH-M10	0.20	0.65	0.13	3.99	0.51	21.92	51.00	2.00	1.75	0.013	3.60	30.00	41.89	41.00	0.16	45.11	44.22	0.0010	47.00	47.00
JAMES	MH-M12	MH-M10	3.36	0.65	2.18	3.99	8.72	26.17	38.00	2.00	0.16	0.013	3.27	9.00	41.85	41.79	2.78	44.23	44.22	0.1470	47.00	47.00
JAMES	MH-M13	B17	1.09	0.65	0.71	3.99	2.82	25.22	8.00	2.00	1.25	0.013	5.31	25.40	42.09	41.99	3.68	44.25	44.25	0.0150	47.00	46.74
9+53.00	MH-M14	MH-M15	7.67	0.65	4.99	3.82	19.04	27.11	287.00	4.50	0.11	0.013	3.57	65.90	39.85	39.53	1.22	44.09	43.79	0.0090	47.00	48.00
12+39.52	MH-M15	MH-M16	8.35	0.65	5.43	3.82	20.74	28.45	42.00	4.50	0.10	0.013	3.46	60.90	39.52	39.48	1.33	43.79	43.75	0.0110	48.00	48.00
Paschell	MH-M16	MH-M17	20.63	0.65	13.41	3.82	153.78	29.32	41.00	4.00	0.27	0.013	12.24	74.70	39.03	38.92	12.24	43.75	43.29	1.1360	48.00	48.00
Paschell	MH-M17	OUT	21.20	0.65	13.78	3.82	155.21	29.38	43.00	4.00	0.30	0.013	12.35	79.30	38.92	38.79	12.35	43.29	42.79	1.1580	48.00	
Paschell	MH-M18	MH-M16	0.51	0.65	0.33	3.99	82.74	23.31	46.00	3.50	1.85	0.013	14.89	137.40	40.00	39.15	9.90	44.06	43.75	0.6710	48.00	48.00
13+25.00	MH-M19	MH-M16	11.76	0.65	7.64	3.82	50.36	29.15	44.00	4.50	0.09	0.013	4.19	59.50	39.26	39.22	3.17	43.77	43.75	0.0650	48.00	48.00
15+28.00	MH-M20	MH-M19	11.36	0.65	7.38	3.82	49.36	28.43	203.00	4.50	0.12	0.013	4.72	69.30	39.51	39.26	3.10	43.90	43.77	0.0620	48.00	48.00
15+27.90	MH-M21	MH-M20	10.40	0.65	6.76	3.82	46.97	28.00	108.00	4.50	0.09	0.013	4.16	60.10	39.61	39.51	2.97	43.94	43.90	0.0570	48.00	48.00
17+23.36	MH-M22	MH-M21	9.44	0.65	6.14	3.82	44.58	27.66	88.00	4.00	0.11	0.013	4.36	48.60	40.25	40.15	3.62	43.96	43.94	0.0960	48.00	48.00

NO.	DATE	REVISION	APP.

EJES INCORPORATED
6161 SAVOY DRIVE.
SUITE 830
HOUSTON, TEXAS 77036
(P) 281-272-1612
(F) 281-272-1619
FIRM REG. F-2488

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW, MARK-UP, DRAFTING UNDER THE AUTHORITY OF TANITA GILBERT ALEXANDER LICENSE NO. 88719 DATED 3/20/2026. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

STORM SEWER COMPUTATIONS 2-YEAR

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-00818-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 70 OF 155	

PLOTTED: 3/19/2026 4:07 PM
PLOT STYLE: COH.ctb
FILE PATH: N:\2-Projects\273-02 Fulton\4-Drawings\4.2-Sheets\Fulton Drainage Map.dwg

Fulton Street (Grogan St. to Quitman St.)

Location	U/S Node	D/S Node	Area	Runoff Coefficient, C	Sum of C * A	Intensity, I	Sum of Flows	Time of Conc	Length	Diameter	Slope	Manning's n	Design Velocity	Design Capacity	U/S Flowline	D/S Flowline	Actual Velocity	U/S HGL	D/S HGL	Hydraulic Grade	Critical Elevation U/S	Critical Elevation D/S
	90% Plans	90% Plans	(Acres)			(In/Hr)	(CFS)	(Min)	(Ft)	(in)	(%)		(FPS)	(CFS)	(FT)	(FT)	(FPS)	(FT)	(FT)	(%)	(FT)	(FT)
Henry	MH-M23	MH-M22	1.61	0.65	1.05	3.82	3.99	24.21	47.00	2.00	0.98	0.013	5.39	22.50	42.96	42.50	4.07	43.98	43.96	0.0310	48.00	48.00
Henry	MH-M24	B31	0.59	0.65	0.38	3.99	1.54	24.14	9.00	2.00	1.00	0.013	4.11	22.70	43.36	43.27	3.15	43.98	43.98	0.0050	48.00	47.94
Henry	MH-M25	MH-M22	1.34	0.65	0.87	3.88	3.39	24.53	44.00	2.00	0.98	0.013	5.13	22.50	42.93	42.50	3.88	43.97	43.96	0.0220	48.00	48.00
18+58.00	MH-M26	MH-M22	6.49	0.65	4.22	3.82	37.26	27.21	135.00	4.00	0.17	0.013	4.99	59.50	40.98	40.75	3.44	44.08	43.96	0.0670	48.00	48.00
19+06.00	MH-M27	MH-M26	5.84	0.65	3.80	3.82	35.65	27.05	48.00	3.50	0.19	0.013	5.05	43.80	41.07	40.98	3.95	44.11	44.08	0.1240	48.00	48.00
19+42.00	MH-M28	MH-M27	4.68	0.65	3.04	3.82	32.77	26.93	36.00	3.50	0.19	0.013	5.05	44.60	41.14	41.07	3.69	44.14	44.11	0.1050	48.00	48.00
19+42.00	MH-M29	MH-M28	4.68	0.65	3.04	3.82	32.77	26.80	37.00	3.50	0.16	0.013	4.68	40.70	43.45	43.39	4.68	45.57	44.14	0.1050	48.00	48.00
21+53.00	MH-M30	MH-M29	4.68	0.65	3.04	3.82	32.77	26.08	211.00	3.50	0.18	0.013	4.90	42.90	41.52	41.14	3.41	45.73	45.57	0.1050	48.00	48.00
21+94.00	MH-M31	MH-M30	4.04	0.65	2.63	3.82	31.18	25.94	41.00	3.50	0.17	0.013	4.74	41.70	41.59	41.52	3.24	45.76	45.73	0.0950	48.00	48.00
Quitman	MH-M32	MH-M31	2.16	0.65	1.40	3.82	16.39	25.64	68.00	2.50	0.16	0.013	3.84	16.60	41.80	41.69	3.34	45.77	45.76	0.1580	48.00	48.00
Quitman	MH-M33	MH-M32	0.94	0.65	0.61	3.99	13.45	25.60	16.00	2.00	0.81	0.013	6.93	20.50	42.33	42.20	6.11	45.82	45.77	0.3510	48.00	48.00
Quitman	MH-M34	B41	0.88	0.65	0.57	3.88	2.21	24.85	5.00	2.00	1.00	0.013	4.57	22.70	42.39	42.34	3.44	45.77	45.77	0.0090	48.00	46.84
Quitman	MH-M35	MH-M31	1.11	0.65	0.72	3.99	13.01	23.72	52.00	2.00	0.60	0.013	6.09	17.50	42.14	41.83	6.03	45.93	45.76	0.3280	48.00	48.00
22+79.00	MH-M36	MH-M31	0.76	0.65	0.49	3.99	1.98	24.05	66.00	2.00	0.36	0.013	3.09	13.70	42.40	42.16	0.63	46.00	45.76	0.0080	48.00	48.00
5+96.00	MH-M5	MH-M5B	0.94	0.65	0.61	3.82	2.33	22.63	54.00	2.00	0.43	0.013	3.43	14.80	40.80	40.57	0.74	44.96	44.73	0.0110	47.00	47.00
5+42.00	MH-M5A	MH-M5	0.30	0.65	0.20	3.99	0.78	22.34	54.00	2.00	0.81	0.013	3.13	20.50	41.24	40.80	2.63	44.96	44.96	0.0010	47.00	47.00
6+25.00	MH-M5B	MH-M9	1.28	0.65	0.83	3.82	3.17	22.89	142.00	2.00	0.30	0.013	3.28	12.40	40.57	40.15	1.01	44.73	44.34	0.0200	47.00	47.00
GARGAN	MH-M6	MH-M5	0.32	0.65	0.21	3.99	0.83	22.30	39.00	2.00	1.03	0.013	3.45	23.00	42.40	42.00	2.30	44.96	44.96	0.0010	47.00	47.00
GARGAN	MH-M7	MH-M5	0.32	0.65	0.21	3.99	0.83	21.75	38.00	2.00	0.79	0.013	3.15	20.20	41.90	41.60	2.31	44.96	44.96	0.0010	47.00	47.00
GARGAN	MH-M8	MH-M7	0.16	0.65	0.10	3.99	0.42	21.60	30.00	2.00	1.50	0.013	3.20	27.80	42.35	41.90	2.01	44.96	44.96	0.0000	47.00	47.00
7+67.00	MH-M9	MH-M10	2.25	0.65	1.46	3.82	5.58	24.31	59.00	3.00	0.20	0.013	3.25	30.20	40.15	40.03	0.79	44.34	44.22	0.0070	47.00	47.00
James	PS1	MH-M13	1.09	0.65	0.71	3.74	2.64	25.15	20.00	1.25	1.00	0.013	5.00	6.50	42.29	42.09	4.09	44.29	44.25	0.1660	47.00	47.00
Quitman	PS2	MH-M34	0.88	0.65	0.57	3.77	2.15	24.77	28.00	1.50	1.89	0.013	5.87	14.50	42.92	42.39	3.64	45.78	45.77	0.0410	48.00	48.00
Quitman	PS3	MH-M33	0.67	0.65	0.44	3.45	1.50	24.32	92.00	2.00	0.03	0.013	1.19	4.10	42.33	42.30	0.48	45.85	45.82	0.0040	48.00	48.00
Quitman	PS4	B42	0.40	0.65	0.26	3.88	1.00	23.50	28.00	2.00	0.86	0.013	3.43	21.00	42.55	42.31	2.61	45.94	45.94	0.0020	48.00	46.63
Quitman	PS5	C2	0.40	0.65	0.26	3.88	1.00	23.50	10.00	2.00	0.40	0.013	2.62	14.40	42.00	41.96	2.61	45.94	45.94	0.0020	48.00	47.49
Henry	PS6	MH-M24	0.59	0.65	0.38	3.82	1.47	24.12	5.00	1.50	0.80	0.013	3.87	9.40	43.40	43.36	3.29	43.98	43.98	0.0200	47.00	48.00
Paschell	OUT		21.20	0.65	13.78	3.82	155.21	29.38														

NO.	DATE	REVISION	APP.

EJES INCORPORATED
6161 SAVOY DRIVE.
SUITE 830
HOUSTON, TEXAS 77036
(P) 281-272-1612
(F) 281-272-1619
FIRM REG. F-2488

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW, MARK-UP, DRAFTING UNDER THE AUTHORITY OF TANITA GILBERT ALEXANDER LICENSE NO. 88719 DATED 3/20/2026. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

STORM SEWER COMPUTATIONS 2-YEAR

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-00818-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 71 OF 155	

PLOTTED: 3/19/2026 4:07 PM
PLOT STYLE: COH.ctb
FILE PATH: N:\2-Projects\273-02 Fulton\4-Drawings\4.2-Sheets\Fulton Drainage Map.dwg

Fulton Street @ Hogan Intersection

Location	U/S Node	D/S Node	Area	Runoff Coefficient, C	Sum of C * A	Intensity, I	Sum of Flows	Time of Conc	Length	Diameter	Slope	Manning's n	Design Velocity	Design Capacity	U/S Flowline	D/S Flowline	Actual Velocity	U/S HGL	D/S HGL	Hydraulic Grade	Critical Elevation U/S	Critiical Elevation D/S
	90% Plans	90% Plans	(Acres)			(In/Hr)	(CFS)	(Min)	(Ft)	(in)	(%)		(FPS)	(CFS)	(FT)	(FT)	(FPS)	(FT)	(FT)	(%)	(FT)	(FT)
3+03.41	B1	OUT	1.98	0.65	1.29	8.08	10.41	24.05	37.00	2.00	0.11	0.013	3.31	7.50	38.83	38.79	3.31	40.87	40.79	0.2100	47.14	
3+03.41	B2	B1	0.33	0.65	0.21	8.11	1.71	23.20	26.00	2.00	2.58	0.013	2.36	10.00	39.50	38.83	0.55	40.92	40.87	0.0060	46.75	47.14
HOGAN	B3	MH-M3	0.37	0.65	0.24	8.08	1.92	23.37	28.00	2.00	1.00	0.013	4.39	22.70	42.13	41.85	3.32	43.75	43.74	0.0070	47.17	47.00
HOGAN	B4	MH-M3	0.14	0.65	0.09	8.31	0.77	22.09	17.00	2.00	1.59	0.013	3.34	22.70	42.02	41.75	2.54	43.74	43.74	0.0010	46.82	47.00
HOGAN	B5	MH-M4	0.33	0.65	0.21	8.11	1.71	23.20	16.00	2.00	1.00	0.013	4.25	22.70	41.93	41.77	3.13	43.76	43.76	0.0060	46.90	47.00
HOGAN	B6	MH-M4	0.16	0.65	0.10	8.28	0.86	22.23	29.00	2.00	2.86	0.013	4.99	38.40	42.60	41.77	2.68	43.76	43.76	0.0010	46.64	47.00
4+15.00	B7	MH-M2	0.30	0.65	0.20	8.06	1.58	22.35	55.00	2.00	0.91	0.013	1.77	6.90	39.50	39.00	0.50	40.92	40.88	0.0050	47.06	47.00
4+15.00	B8	B7	0.16	0.65	0.10	8.06	0.83	22.23	26.00	2.00	1.92	0.013	1.78	9.00	40.00	39.50	0.27	40.96	40.92	0.0010	47.36	47.06
3+62.00	MH-M2	B1	1.29	0.65	0.84	8.06	6.77	23.75	59.00	2.00	0.29	0.013	2.61	7.20	39.00	38.83	2.15	40.88	40.87	0.0890	47.00	47.14
Hogan	MH-M3	MH-M2	0.51	0.65	0.33	8.06	2.66	23.50	47.00	2.00	0.53	0.013	2.67	9.90	41.75	41.50	0.85	43.74	43.66	0.0140	47.00	47.00
Hogan	MH-M4	MH-M2	0.48	0.65	0.31	8.06	2.54	23.28	63.00	2.00	0.75	0.013	2.63	9.90	41.77	41.30	0.81	43.76	43.65	0.0120	47.00	47.00
2+66.00	OUT		1.98	0.65	1.29	8.08	10.41	24.05														

Fulton Street (Grogan St. to Quitman St.)

Location	U/S Node	D/S Node	Area	Runoff Coefficient, C	Sum of C * A	Intensity, I	Sum of Flows	Time of Conc	Length	Diameter	Slope	Manning's n	Design Velocity	Design Capacity	U/S Flowline	D/S Flowline	Actual Velocity	U/S HGL	D/S HGL	Hydraulic Grade	Critical Elevation U/S	Critiical Elevation D/S
	90% Plans	90% Plans	(Acres)			(In/Hr)	(CFS)	(Min)	(Ft)	(in)	(%)		(FPS)	(CFS)	(FT)	(FT)	(FPS)	(FT)	(FT)	(%)	(FT)	(FT)
GARGAN	A1	MH-M8	0.07	0.65	0.05	8.46	0.39	21.27	12.00	2.00	2.50	0.013	3.75	35.90	42.67	42.37	2.33	45.68	45.68	0.0000	46.85	47.00
12+30.00	A10	MH-M15	0.32	0.65	0.21	8.11	1.70	23.19	15.00	2.00	1.00	0.013	4.23	22.70	39.68	39.53	3.19	44.60	44.60	0.0060	47.00	48.00
GARGAN	A2	MH-M8	0.09	0.65	0.06	8.41	0.49	21.53	13.00	2.00	2.54	0.013	4.04	36.20	42.70	42.37	2.25	45.68	45.68	0.0000	47.08	47.00
5+42.00	A3	MH-M5A	0.16	0.65	0.10	8.28	0.86	22.23	21.00	2.00	1.48	0.013	3.96	27.60	41.79	41.48	2.68	45.68	45.68	0.0010	47.00	47.00
5+42.00	A4	MH-M5A	0.14	0.65	0.09	8.31	0.77	22.09	9.00	2.00	1.45	0.013	3.80	27.30	41.61	41.48	2.53	45.68	45.68	0.0010	47.00	47.00
6+25.00	A5	MH-M5B	0.16	0.65	0.10	8.28	0.86	22.24	21.00	2.00	1.52	0.013	4.01	28.00	41.68	41.36	2.70	45.47	45.47	0.0010	47.00	47.00
6+25.00	A6	MH-M5B	0.18	0.65	0.12	8.25	0.96	22.38	9.00	2.00	1.56	0.013	4.17	28.30	41.50	41.36	2.70	45.47	45.47	0.0020	47.00	47.00
8+55.00	A7	MH-M10B	0.25	0.65	0.16	8.17	1.31	22.82	21.00	2.00	1.00	0.013	3.92	22.70	40.18	39.97	2.98	45.07	45.07	0.0030	47.00	47.00
8+55.00	A8	MH-M10B	0.92	0.65	0.60	7.84	4.70	24.86	9.00	2.00	1.00	0.013	5.68	22.70	40.06	39.97	4.27	45.07	45.07	0.0430	47.00	47.00
12+30.00	A9	MH-M15	0.36	0.65	0.23	8.08	1.90	23.36	15.00	2.00	1.00	0.013	4.38	22.70	39.68	39.53	3.30	44.60	44.60	0.0070	47.00	48.00
GARGAN	B10	MH-M6	0.16	0.65	0.10	8.28	0.86	22.24	11.00	2.00	1.55	0.013	4.03	28.20	42.59	42.42	2.70	45.68	45.68	0.0010	46.82	47.00
GARGAN	B11	MH-M7	0.07	0.65	0.05	8.46	0.39	21.27	10.00	2.00	2.50	0.013	3.75	35.90	42.60	42.35	2.33	45.68	45.68	0.0000	46.85	47.00
GARGAN	B12	MH-M7	0.09	0.65	0.06	8.41	0.49	21.53	11.00	2.00	2.55	0.013	4.04	36.30	42.63	42.35	2.25	45.68	45.68	0.0000	47.08	47.00
7+67.00	B13	MH-M9	0.32	0.65	0.21	8.35	1.73	23.17	21.00	2.00	1.00	0.013	4.25	22.70	41.37	41.16	3.21	45.17	45.17	0.0060	47.29	47.00
7+67.00	B14	MH-M9	0.65	0.65	0.42	7.93	3.35	24.27	9.00	2.00	1.00	0.013	5.16	22.70	41.25	41.16	3.86	45.17	45.17	0.0220	47.17	47.00
James	B15	MH-M11	0.12	0.65	0.08	8.35	0.64	21.86	13.00	2.00	2.54	0.013	4.38	36.20	42.77	42.44	2.43	45.07	45.07	0.0010	46.95	47.00
James	B16	MH-M11	0.08	0.65	0.05	8.43	0.44	21.41	11.00	2.00	2.55	0.013	3.91	36.30	42.71	42.43	2.13	45.07	45.07	0.0000	46.95	47.00
James	B17	MH-M12	1.52	0.65	0.99	8.04	7.94	25.24	13.00	2.00	0.23	0.013	3.78	10.90	41.98	41.95	2.53	45.32	45.31	0.1220	46.74	47.00
James	B18	MH-M12	1.84	0.65	1.20	7.84	9.40	26.14	11.00	2.00	1.00	0.013	6.87	22.70	42.06	41.95	5.34	45.33	45.31	0.1710	46.91	47.00
9+35.00	B19	MH-M14	0.25	0.65	0.16	8.17	1.31	22.82	19.00	2.00	1.00	0.013	3.92	22.70	42.19	42.00	2.98	44.81	44.81	0.0030	47.49	47.00
9+35.00	B20	MH-M14	0.44	0.65	0.29	8.03	2.31	23.66	12.00	2.00	1.00	0.013	4.63	22.70	42.12	42.00	3.48	44.81	44.81	0.0100	47.01	47.00
Paschell	B21	MH-M17	0.36	0.65	0.23	8.08	1.90	23.36	23.00	2.00	1.00	0.013	4.38	22.70	41.86	41.63	3.30	43.72	43.72	0.0070	48.03	48.00
Paschell	B22	MH-M17	0.21	0.65	0.14	8.21	1.14	22.62	13.00	2.00	1.00	0.013	3.76	22.70	41.76	41.63	2.83	43.72	43.72	0.0030	48.17	48.00
Paschell	B23	MH-M18	0.32	0.65	0.21	8.11	1.70	23.19	25.00	2.00	1.00	0.013	4.23	22.70	42.59	42.34	3.19	44.90	44.90	0.0060	47.94	48.00
Paschell	B24	MH-M18	0.19	0.65	0.12	8.24	1.02	22.46	13.00	2.00	1.46	0.013	4.15	27.50	42.53	42.34	2.80	44.90	44.90	0.0020	48.05	48.00
13+63.00	B25	MH-M19	0.21	0.65	0.14	8.21	1.14	22.62	15.00	2.00	1.00	0.013	3.76	22.70	40.08	39.93	2.83	44.66	44.66	0.0030	48.36	48.00
13+63.00	B26	MH-M19	0.19	0.65	0.12	8.24	1.02	22.46	15.00	2.00	1.53	0.013	4.22	28.10	42.23	42.00	2.80	44.66	44.66	0.0020	47.92	48.00
15+28.00	B27	MH-M20	0.37	0.65	0.24	8.08	1.93	23.39	15.00	2.00	1.00	0.013	4.40	22.70	42.45	42.30	3.31	44.99	44.99	0.0070	48.43	48.00
15+28.00	B28	MH-M20	0.59	0.65	0.38	7.95	3.07	24.12	15.00	2.00	1.00	0.013	5.03	22.70	42.45	42.30	3.77	44.99	44.99	0.0180	48.35	48.00
16+36.00	B29	MH-M21	0.59	0.65	0.38	7.95	3.07	24.12	15.00	2.00	1.00	0.013	5.03	22.70	43.35	43.20	3.77	45.15	45.14	0.0180	48.25	48.00
16+36.00	B30	MH-M21	0.37	0.65	0.24	8.08	1.93	23.39	15.00	2.00	1.00	0.013	4.40	22.70	43.35	43.20	3.31	45.15	45.14	0.0070	47.86	48.00
Henry	B31	MH-M23	1.19	0.65	0.77	7.95	6.13	24.18	11.00	2.00	1.00	0.013	6.12	22.70	43.17	43.06	4.63	45.42	45.41	0.0730	47.94	48.00
Henry	B32	MH-M23	0.42	0.65	0.27	8.04	2.20	23.59	14.00	2.00	1.00	0.013	4.57	22.70	43.20	43.06	3.36	45.42	45.41	0.0090	47.91	48.00
Henry	B33	MH-M25	0.74	0.65	0.48	7.90	3.78	24.48	13.00	2.00	0.92	0.013	5.19	21.80	43.05	42.93	4.00	45.40	45.39	0.0280	48.00	48.00
Henry	B34	MH-M25	0.61	0.65	0.40	7.95	3.13	24.15	18.00	2.00	1.00	0.013	5.06	22.70	43.11	42.93	3.79	45.40	45.39	0.0190	47.47	48.00
18+58.00	B35	MH-M26	0.42	0.65	0.27	8.04	2.20	23.59	20.00	2.00	0.95	0.013	4.49	22.10	42.39	42.20	3.36	45.39	45.39	0.0090	48.24	48.00
18+58.00	B36	MH-M26	0.23	0.65	0.15	8.20	1.21	22.70	17.00	2.00	1.00	0.013	3.83	22.70	42.37	42.20	2.90	45.39	45.39	0.0030	47.99	48.00
19+06.00	B37	MH-M27	0.91	0.65	0.59	7.84	4.63	10.00	20.00	2.00	0.50	0.013	4.41	16.10	43.30	43.20	4.25	45.52	45.51	0.0420	48.66	48.00
19+06.00	B38	MH-M27	0.25	0.65	0.16	8.17	1.33	22.83	14.00	2.00	1.36	0.013	4.38	26.50	43.21	43.02	3.03	45.51	45.51	0.0030	47.70	48.00
21+53.00	B39	MH-M30	0.40	0.65	0.26	8.05	2.10	23.52	32.00	2.00	0.59	0.013	3.75	17.50	42.49	42.30	3.40	46.40	46.40	0.0090	47.41	48.00
21+53.00	B40	MH-M30	0.24	0.65	0.16	8.18	1.27	22.77	12.00	2.00	1.00	0.013	3.88	22.70	42.42	42.30	2.95	46.40	46.40	0.0030	47.58	48.00
Quitman	B41	MH-M32	1.23	0.65	0.80	8.09	6.45	24.87	22.00	2.00	1.50	0.013	7.19	27.80	42.13	41.80	4.71	46.68	46.66	0.0810	46.84	48.00
Quitman	B42	MH-M35	0.56	0.65	0.36	8.28	2.99	23.64	23.00	2.00	1.52	0.013	5.80	28.00	42.27	41.92	3.74	46.52	46.52	0.0170	46.63	48.00
22+59.00	B43	MH-M36	0.53	0.65	0.34	7.99	2.73	23.93	32.00	2.00	1.50	0.013	5.62	27.80	42.78	42.30	3.65	46.69	46.69	0.0140	47.00	48.00
22+59.00	B44	MH-M36	0.24	0.65	0.16	8.18	1.27	22.77	12.00	2.00	1.00	0.013	3.88	22.70	42.42	42.30	2.95	46.69	46.69	0.0030	47.18	48.00
GARGAN	B9	MH-M6	0.16	0.65	0.10	8.28	0.86	22.23	10.00	2.00	1.50	0.013	3.98	27.80	42.57	42.42	2.68	45.68	45.68	0.0010	46.05	47.00
Quitman	C1	MH-M33	0.27	0.65	0.18	8.16	1.42	22.93	5.00	2.00	1.40	0.013	4.52	26.90	42.40	42.33	3.05	46.74	46.74	0.0040	47.49	48.00
Quitman	C2	MH-M35	0.56	0.65	0.36	8.28	2.97	23.56	19.00	2.00	0.95	0.013	4.89	22.10	42.10	41.92	3.73	46.52	46.52	0.0170	47.49	48.00
8+26.00	MH-M10	MH-M10B	6.98	0.65	4.54	7.95	36.06	26.37	98.00	4.50	0.12	0.013	5.10	21.40	39.97	39.85	5.10	45.07	44.89	0.2900	47.00	47.00
8+55.00	MH-M10B	MH-M14	6.98	0.65	4.54	7.95	36.06	26.66	59.00	3.00	0.10	0.013	4.38	69.10	40.03	39.97	2.27	44.89	44.81	0.0330	47.00	47.00
James	MH-M11	MH-M10	0.20	0.65	0.13	8.28	1.07	21.92	51.00	2.00	1.75	0.013			41.89	41.00					47.00	47.00
JAMES	MH-M12	MH-M10	3.36	0.65	2.18	8.28	18.11	26.17	38.00	2.00	0.16	0.013	5.76	9.00	41.85	41.79	5.76	45.31	45.07	0.6350	47.00	47.00
JAMES	MH-M13	B17	1.09	0.65	0.71	8.28	5.84	25.22	8.00	2.00	1.25	0.013	6.55	25.40	42.09	41.99	4.56	45.33	45.32	0.0660	47.00	46.74
9+53.00	MH-M14	MH-M15	7.67	0.65	4.99	7.95	39.62	27.11	287.00	4.50	0.11	0.013	4.32	65.90	39.85	39.53	2.49	44.81	44.60	0.0400	47.00	48.00
12+39.52	MH-M15	MH-M16	8.35	0.65	5.43	7.95	43.16	28.45	42.00	4.50	0.10	0.013	4.13	60.90	39.52	39.48	2.71	44.60	44.58	0.0480	48.00	48.00
Paschell	MH-M16	MH-M17	20.63	0.65	13.41	7.95	209.15	29.32	41.00	4.00	0.27	0.013	16.64	74.70	39.03	38.92	16.64	44.58	43.72	2.1020	48.00	48.00
Paschell	MH-M17	OUT	21.20	0.65	13.78	7.95	212.12	29.38	43.00	4.00	0.30	0.013	16.88	79.30	38.92	38.79	16.88	43.72	42.79	2.1620	48.00	
Paschell	MH-M18	MH-M16	0.51	0.65	0.33	8.28	84.17	23.31	46.00	3.50	1.85	0.013			40.00	39.15					48.00	48.00
13+25.00	MH-M19	MH-M16	11.76	0.65	7.64	7.95	81.93	29.15	44.00	4.50	0.09	0.013	5.15	59.50	39.26	39.22	5.15	44.66	44.58	0.1720	48.00	48.00
15+28.00	MH-M20	MH-M19	11.36	0.65	7.38	7.95	79.85	28.43	203.00	4.50	0.12	0.013	5.02	69.30	39.51	39.26	5.02	44.99	44.66	0.1630	48.00	48.00
15+27.90	MH-M21	MH-M20	10.40	0.65	6.76	7.95	74.88	28.00	108.00	4.50	0.09	0.013	4.71	60.10	39.61	39.51	4.71	45.14	44.99	0.1440	48.00	48.00
17+23.36	MH-M22	MH-M21	9.44	0.65	6.14	7.95	69.91	27.66	88.00	4.00	0.11	0.013			40.25	40.15					48.00	48.00

NO.	DATE	REVISION	APP.

EJES INCORPORATED
6161 SAVOY DRIVE,
SUITE 830
HOUSTON, TEXAS 77036
(P) 281-272-1612
(F) 281-272-1619
FIRM REG. F-2488

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW, MARK-UP, DRAFTING UNDER THE AUTHORITY OF TANITA GILBERT ALEXANDER LICENSE NO. 88719 DATED 3/20/2026. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

STORM SEWER COMPUTATIONS 100-YEAR

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-00818-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 72 OF 155	

PLOTTED: 3/19/2026 4:07 PM
PLOT STYLE: COH.ctb
FILE PATH: N:\2-Projects\273-02 Fulton\4-Drawings\4.2-Sheets\Fulton Drainage Map.dwg

Fulton Street (Grogan St. to Quitman St.)

Location	U/S Node	D/S Node	Area	Runoff Coefficient, C	Sum of C * A	Intensity, I	Sum of Flows	Time of Conc	Length	Diameter	Slope	Manning's n	Design Velocity	Design Capacity	U/S Flowline	D/S Flowline	Actual Velocity	U/S HGL	D/S HGL	Hydraulic Grade	Critical Elevation U/S	Critiical Elevation D/S
	90% Plans	90% Plans	(Acres)			(In/Hr)	(CFS)	(Min)	(Ft)	(in)	(%)		(FPS)	(CFS)	(FT)	(FT)	(FPS)	(FT)	(FT)	(%)	(FT)	(FT)
Henry	MH-M23	MH-M22	1.61	0.65	1.05	7.95	8.31	24.21	47.00	2.00	0.98	0.013	6.59	22.50	42.96	42.50	5.11	45.41	45.35	0.1340	48.00	48.00
Henry	MH-M24	B31	0.59	0.65	0.38	8.28	3.19	24.14	9.00	2.00	1.00	0.013	5.09	22.70	43.36	43.27	3.81	45.42	45.42	0.0200	48.00	47.94
Henry	MH-M25	MH-M22	1.34	0.65	0.87	8.06	7.03	24.53	44.00	2.00	0.98	0.013	6.30	22.50	42.93	42.50	4.84	45.39	45.35	0.0960	48.00	48.00
18+58.00	MH-M26	MH-M22	6.49	0.65	4.22	7.95	54.66	27.21	135.00	4.00	0.17	0.013	5.35	59.50	40.98	40.75	4.35	45.39	45.35	0.1440	48.00	48.00
19+06.00	MH-M27	MH-M26	5.84	0.65	3.80	7.95	51.31	27.05	48.00	3.50	0.19	0.013	5.33	43.80	41.07	40.98	5.33	45.51	45.39	0.2580	48.00	48.00
19+42.00	MH-M28	MH-M27	4.68	0.65	3.04	7.95	45.32	26.93	36.00	3.50	0.19	0.013	5.25	44.60	41.14	41.07	4.71	45.58	45.51	0.2010	48.00	48.00
19+42.00	MH-M29	MH-M28	4.68	0.65	3.04	7.95	45.32	26.80	37.00	3.50	0.16	0.013	4.71	40.70	43.45	43.39	4.71	45.97	45.58	0.2010	48.00	48.00
21+53.00	MH-M30	MH-M29	4.68	0.65	3.04	7.95	45.32	26.08	211.00	3.50	0.18	0.013	5.01	42.90	41.52	41.14	4.71	46.40	45.97	0.2010	48.00	48.00
21+94.00	MH-M31	MH-M30	4.04	0.65	2.63	7.95	42.01	25.94	41.00	3.50	0.17	0.013	4.93	41.70	41.59	41.52	4.37	46.47	46.40	0.1730	48.00	48.00
Quitman	MH-M32	MH-M31	2.16	0.65	1.40	7.95	22.20	25.64	68.00	2.50	0.16	0.013	4.52	16.60	41.80	41.69	4.52	46.66	46.47	0.2910	48.00	48.00
Quitman	MH-M33	MH-M32	0.94	0.65	0.61	8.28	16.07	25.60	16.00	2.00	0.81	0.013	7.19	20.50	42.33	42.20	6.61	46.74	46.66	0.5000	48.00	48.00
Quitman	MH-M34	B41	0.88	0.65	0.57	8.06	4.59	24.85	5.00	2.00	1.00	0.013	5.65	22.70	42.39	42.34	4.24	46.68	46.68	0.0410	48.00	46.84
Quitman	MH-M35	MH-M31	1.11	0.65	0.72	8.28	16.10	23.72	52.00	2.00	0.60	0.013	6.31	17.50	42.14	41.83	5.12	46.52	46.47	0.5020	48.00	48.00
22+79.00	MH-M36	MH-M31	0.76	0.65	0.49	8.28	4.11	24.05	66.00	2.00	0.36	0.013	3.80	13.70	42.40	42.16	1.31	46.69	46.47	0.0330	48.00	48.00
5+96.00	MH-M5	MH-M5B	0.94	0.65	0.61	7.95	4.86	22.63	54.00	2.00	0.43	0.013	4.21	14.80	40.80	40.57	1.55	45.67	45.47	0.0460	47.00	47.00
5+42.00	MH-M5A	MH-M5	0.30	0.65	0.20	8.28	1.62	22.34	54.00	2.00	0.81	0.013	3.88	20.50	41.24	40.80	3.16	45.68	45.67	0.0050	47.00	47.00
6+25.00	MH-M5B	MH-M9	1.28	0.65	0.83	7.95	6.61	22.89	142.00	2.00	0.30	0.013	3.99	12.40	40.57	40.15	2.10	45.47	45.17	0.0850	47.00	47.00
GARGAN	MH-M6	MH-M5	0.32	0.65	0.21	8.28	1.72	22.30	39.00	2.00	1.03	0.013	4.28	23.00	42.40	42.00	3.14	45.68	45.67	0.0060	47.00	47.00
GARGAN	MH-M7	MH-M5	0.32	0.65	0.21	8.28	1.72	21.75	38.00	2.00	0.79	0.013	3.91	20.20	41.90	41.60	3.14	45.68	45.67	0.0060	47.00	47.00
GARGAN	MH-M8	MH-M7	0.16	0.65	0.10	8.28	0.86	21.60	30.00	2.00	1.50	0.013	3.99	27.80	42.35	41.90	2.70	45.68	45.68	0.0010	47.00	47.00
7+67.00	MH-M9	MH-M10	2.25	0.65	1.46	7.95	11.61	24.31	59.00	3.00	0.20	0.013	3.97	30.20	40.15	40.03	1.64	45.17	45.07	0.0300	47.00	47.00
James	PS1	MH-M13	1.09	0.65	0.71	7.79	5.50	25.15	20.00	1.25	1.00	0.013	5.91	6.50	42.29	42.09	5.49	45.47	45.33	0.7180	47.00	47.00
Quitman	PS2	MH-M34	0.88	0.65	0.57	7.85	4.47	24.77	28.00	1.50	1.89	0.013	7.21	14.50	42.92	42.39	4.58	46.73	46.68	0.1800	48.00	48.00
Quitman	PS3	MH-M33	0.67	0.65	0.44	7.92	3.45	24.32	92.00	2.00	0.03	0.013	1.46	4.10	42.33	42.30	1.10	46.75	46.74	0.0230	48.00	48.00
Quitman	PS4	B42	0.40	0.65	0.26	8.06	2.08	23.50	28.00	2.00	0.86	0.013	4.25	21.00	42.55	42.31	1.93	46.52	46.52	0.0080	48.00	46.63
Quitman	PS5	C2	0.40	0.65	0.26	8.06	2.08	23.50	10.00	2.00	0.40	0.013	3.25	14.40	42.00	41.96	1.93	46.52	46.52	0.0080	48.00	47.49
Henry	PS6	MH-M24	0.59	0.65	0.38	7.95	3.07	24.12	5.00	1.50	0.80	0.013	4.76	9.40	43.40	43.36	4.05	45.43	45.42	0.0850	47.00	48.00
Paschell	OUT		21.20	0.65	13.78	7.95	212.12	29.38														

NO.	DATE	REVISION	APP.

PLOTTED: 3/19/2026 4:07 PM

PLOT STYLE: COH.ctb

FILE PATH: N:\2-Projects\273-02 Fulton\4-Drawings\4.2-Sheets\Fulton Drainage Map.dwg

EJES INCORPORATED
6161 SAVOY DRIVE.
SUITE 830
HOUSTON, TEXAS 77036
(P) 281-272-1612
(F) 281-272-1619
FIRM REG. F-2488

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW, MARK-UP, DRAFTING UNDER THE AUTHORITY OF TANITA GILBERT ALEXANDER LICENSE NO. 88719 DATED 3/20/2026. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

STORM SEWER COMPUTATIONS 100-YEAR

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-00818-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 73 OF 155	

PLOT STYLE: COH CIP.CTB PLOTTED: 3/30/2026 3:06 PM

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\76 SIGNING_PAVEMENT MARKING.dwg

GRAPHIC SCALE
0 40 80
(IN FEET)
FULL SIZE: H. 1"=40'
HALF SIZE: H. 1"=80'

NO.	DATE	REVISION	APP.

HOGAN ST.
GARGAN STREET
JAMES STREET
FULTON ST.
FULTON STREET

① METRO SIGN TO BE REINSTALLED
② FULTON ST 1800 / HOGAN ST 1000 D3-1 36X9; STOP R1-1 36X36
③ R7-2(5)R 12X18; TOW-AWAY ZONE R7-201P 12X6
④ METRO SIGN TO BE REMOVED AND REINSTALLED
⑤ R7-2(5)L 12X18; TOW-AWAY ZONE R7-201P 12X6
⑥ METRO SIGN TO BE REMOVED AND REINSTALLED
⑦ BIKE ROUTE D11-1 24X18; M6-3 12X9
⑧ METRO SIGN TO BE REINSTALLED
⑨ R7-2(5)DBL 12X18; TOW-AWAY ZONE R7-201P 12X6
⑩ FULTON ST 1800 / GARGAN ST 1100 D3-1 36X9; STOP R1-1 36X36
⑪ NO THRU TRUCKS R5-2(2) 24X30
⑫ FULTON ST 1800 / GARGAN ST 1100 D3-1 36X9; STOP R1-1 36X36
⑬ R7-2(5)DBL 12X18; TOW-AWAY ZONE R7-201P 12X6
⑭ R7-2(5)DBL 12X18; TOW-AWAY ZONE R7-201P 12X6
⑮ FULTON ST 1800 / JAMES ST 1100 D3-1 36X9; STOP R1-1 36X36
⑯ NO THRU TRUCKS R5-2(2) 24X30
⑰ FULTON ST 2000 / JAMES ST 1100 D3-1 36X9; STOP R1-1 36X36
⑱ R7-2(5)DBL 12X18; TOW-AWAY ZONE R7-201P 12X6
⑲ R7-2(5)DBL 12X18; TOW-AWAY ZONE R7-201P 12X6
⑳ R7-2(5)DBL 12X18; TOW-AWAY ZONE R7-201P 12X6
㉑ S1-1(FYG) 36X36; AHEAD S16-9P(FYG) 24X12

D3-1 R7-2(5)R R7-201P TO BE REMOVED AND REINSTALLED
R7-2(5)DBL R7-201P D11-1 M6-3 TO BE REMOVED
D3-1 R1-1 TO BE REMOVED
R5-2(2) TO BE REMOVED
D3-1 R1-1 TO BE REMOVED
R7-2(5)DBL R7-201P TO BE REMOVED
R7-2 (5) R7-201P TO BE REMOVED
R7-2(5)DBL R7-201P TO BE REMOVED
R7-2(5)L R7-201P TO BE REMOVED AND REINSTALLED
R7-2(5)DBL R7-201P TO BE REMOVED
D3-1 R1-1 TO BE REMOVED
R7-2(5)DBL R7-201P TO BE REMOVED
R7-2(5)DBL R7-201P TO BE REMOVED
S1-1(FYG) S16-9P(FYG) TO BE REMOVED

WS12 WS24 HIGH VISIBILITY HIGH VISIBILITY CROSSWALK METRO SIGN TO BE SALVAGED BUS STOP

MATCHLINE STA. 12+00 - SEE SHEET 75

NOTE:
(XX) SEE SHEET 75 FOR SUMMARY OF SMALL SIGNS

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SIGNAGE AND PAVEMENT MARKING PLAN 1 OF 2

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"=50'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 74 OF 152

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/30/2026 3:06 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\76 SIGNING_PAVEMENT MARKING.dwg

GRAPHIC SCALE
0 40 80
(IN FEET)
FULL SIZE: H. 1"=40'
HALF SIZE: H. 1"=80'

NO.	DATE	REVISION	APP.

MATCHLINE STA. 12+00 - SEE SHEET 71

PASCHALL ST.
PASCHALL STREET

FULTON ST.

HENRY ST.
HENRY STREET

QUITMAN ST.
QUITMAN STREET

FULTON STREET

(22) R7-2(5)DBL 12X18; R7-201P 12X6
(23) METRO SIGN TO BE REINSTALLED
(24) R7-2(5)DBL 12X18; R7-201P 12X6
(25) FULTON ST 2100 D3-1; PASCHALL ST 1000 36X9; STOP R1-1 36X36
(26) FULTON ST 2100 D3-1; PASCHALL ST 1100 36X9; STOP R1-1 36X36
(27) R7-2(5)DBL 12X18; R7-201P 12X6
(28) METRO SIGN TO BE REINSTALLED
(29) R7-2(5)DBL 12X18; R7-201P 12X6
(30) END SCHOOL ZONE SPEED LIMIT 30; S5-2aTP(FYG) 24X10; R2-1 30X36
(31) SCHOOL SPEED LIMIT 20 WHEN FLASHING; S5-1 36X36
(33) R7-2(5)DBL 12X18; R7-201P 12X6
(34) S1-1(FYG) 36X36; SW16-7P(FYG) 24X12
(35) FULTON ST 2100 D3-1; HENRY ST 1000 36X9; STOP R1-1 36X36
(36) R7-2(1)L 12X18; R7-201P 12X6
(38) S1-1(FYG) 36X36; SW16-7P(FYG) 24X12
(39) FULTON ST 2100 D3-1; HENRY ST 1100 36X9; STOP R1-1 36X36
(40) SCHOOL SPEED LIMIT 20 WHEN FLASHING; S5-1 36X36
(41) R7-2(5)DBL 12X18; R7-201P 12X6
(42) LANE AHEAD D11-1 24X18; R7-2(5)DBL 12X18; R7-201P 12X6
(43) METRO SIGN TO BE REINSTALLED
(44) BIKE ROUTE D11-1 24X18; M6-6L 12X9
(45) R7-2(5)L 12X18; R7-201P 12X6
(46) METRO SIGN TO BE REINSTALLED
(47) R7-2(5)R 12X18; R7-201P 12X6
(48) SCHOOL SPEED LIMIT 20 WHEN FLASHING; S5-1 36X36
(49) W4-2 36X36

R7-2(5)DBL R7-201P TO BE REMOVED
D3-1 R1-1 TO BE REMOVED
METRO SIGN TO BE SALVAGED
METRO SIGN TO BE REINSTALLED
R7-2(1)L R7-201P TO BE REMOVED
S5-2aTP(FYG) R2-1 TO BE REMOVED
S5-1 TO BE REMOVED
S5-1 TO BE RESET AND REMAIN
S5-1 TO REMAIN
D3-1 R1-1 TO BE REMOVED
D11-1 R7-2(5)DBL R7-201P TO BE REMOVED
D11-1 TO BE REMOVED
W4-2 TO BE REMOVED
R7-2(5)L R7-201P TO BE REMOVED
R7-2(5)R R7-201P TO BE REMOVED
D3-1 TO BE REMOVED AND REPLACED ON NEW POLE
D3-1 SIGN EXISTING TO REMAIN
EXISTING METRO SIGN TO BE REMAIN
D3-1 R7-2(1)L R7-201P TO BE REMOVED AND REPLACED ON NEW POLE

BIKE CROSSING
HIGH VISIBILITY CROSSWALK
BUS STOP
WS12
WS24

NOTE:
(XX) SEE SHEET 75 FOR SUMMARY OF SMALL SIGNS

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SIGNAGE AND PAVEMENT MARKING PLAN 2 OF 2

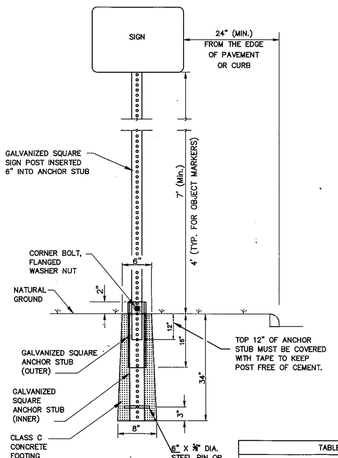
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=40'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 75 OF 152	

PLOT STYLE: COH CTB.CTB
PLOTTED: 3/29/2026 1:23 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\23 SIGNING AND MARKING NOTES AND DETAILS.dwg

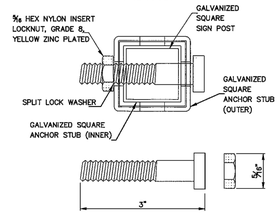
GENERAL NOTES

1. THE EXISTING SIGNS LOCATED ON PUBLIC CONSTRUCTION SITE ARE THE PROPERTY OF THE CITY OF HOUSTON. THROUGHOUT THE PERIOD OF THE CONTRACT, THE CONTRACTOR SHALL PROTECT THESE SIGNS SUCH THAT THEY ARE NOT DAMAGED IN THE COURSE OF CONSTRUCTION ACTIVITY. SUCH PROTECTION SHALL INCLUDE THE PERIOD AFTER SIGNS ARE REMOVED FROM INSTALLATION AND STORED BY THE CONTRACTOR OR DELIVERED TO THE TRAFFIC OPERATIONS CENTER (2200 PATTERSON). THE GENERAL TRAFFIC SUPERINTENDENT (832-395-6728/6756) MUST BE NOTIFIED 48 HOURS IN ADVANCE PRIOR TO DELIVERY.
2. AFTER SIGNS ARE REMOVED FROM INSTALLATION AND ARE BEING STORED BY THE CONTRACTOR, THE CONTRACTOR SHALL CONTACT THE TRAFFIC OPERATIONS DIVISION OF THE PUBLIC WORKS AND ENGINEERING DEPARTMENT (832-395-6728/6756) AND ARRANGE FOR A CONVENIENT TIME TO DELIVER ONLY CITY SIGNS AND POSTS IDENTIFIED BY TRAFFIC OPERATIONS DIVISION TO 2200 PATTERSON.
3. PRIOR TO THE START OF CONSTRUCTION, ALL EXISTING SIGNS WITHIN THE AREA OF CONSTRUCTION WILL BE INVENTORIED AND DOCUMENTED JOINTLY BY THE CITY INSPECTOR AND THE CONTRACTOR. THIS DOCUMENT WILL BE JOINTLY SIGNED BY BOTH PARTIES REFLECTING THE SIGN TYPE, SIGN SIZE, SIGN CONDITION, SIGN LOCATION, REFLECTIVITY ADEQUACY, ETC. THE CONTRACTOR IS HELD ACCOUNTABLE FOR THESE SIGNS THROUGHOUT THE PROJECT AND AT THE PROJECTS COMPLETION.
4. ALL GROUND MOUNTED STOP SIGNS, WARNING SIGNS, AND OTHER REGULATORY SIGNS SHALL USE AT A MINIMUM HIGH INTENSITY PRISMATIC REFLECTIVE SHEETING.
5. ALL OVERHEAD SIGNS SHALL USE DIAMOND GRADE REFLECTIVE SHEETING.
6. ALL OTHER SIGNS SHALL USE SUPER ENGINEER GRADE SHEETING.
7. ALL BLANKS TO BE INSTALLED SHALL BE OF THE 3000, 5000 OR 6000 SERIES ALUMINUM WITH A YEILD STRENGTH OF 3003-H14 ALLOY.
8. "T" DENOTES THICKNESS OF SIGN BLANKS.
9. ALL HOLES SHALL BE ¾" DIAMETER DRILLED OR PUNCHED AS SHOWN ON EACH BLANK DETAIL AND SHALL BE FREE OF BURRS AND / OR ROUGH EDGES.
10. SIGN BLANK CORNERS TO BE ROUNDED AS SHOWN ON EACH DETAIL ON SHEET 01509-03.
11. ALL SIGN BLANK ARE TO BE ETCHED, DEGREASED, AND HAVE AN ALODINE FINISH PRIOR TO APPLICATION OF LEGENDS.
12. ALL DETAILS ARE NOT TO SCALE.
13. ALL SIGNS SHALL BE MANUFACTURED AND INSTALLED IN CONFORMANCE TO THE LATEST TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) AND STANDARD HIGHWAY SIGNS LATEST EDITION.
14. REINSTALLATION OF PREVIOUSLY EXISTING SIGNS, WHERE REQUIRED PER PLANS, SHALL BE AT THE CONTRACTOR'S EXPENSE.

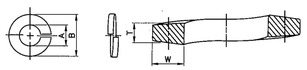
TYPICAL GROUND SIGN INSTALLATION
PERFORATED SQUARE METAL TUBING



CORNER BOLT



⅝" SPLIT LOCK WASHER, HIGH ALLOY MECHANICAL DEPOSITED YELLOW SINK



NOMINAL WASHER SIZE	A INSIDE DIAMETER MIN	A INSIDE DIAMETER MAX	B OUTSIDE DIAMETER MAX	T MEAN SECTION (Thickness)	W SECTION WIDTH
⅝"	0.322	0.314	0.583	0.078	0.125

DIMENSIONS: ASME B18.21.1
MATERIAL: ALLOY STEEL PER ASME B18.211
FINISH: MECHANICAL ZINC PER ASME B695, CLASS 5, TYPE 2 (YELLOW)

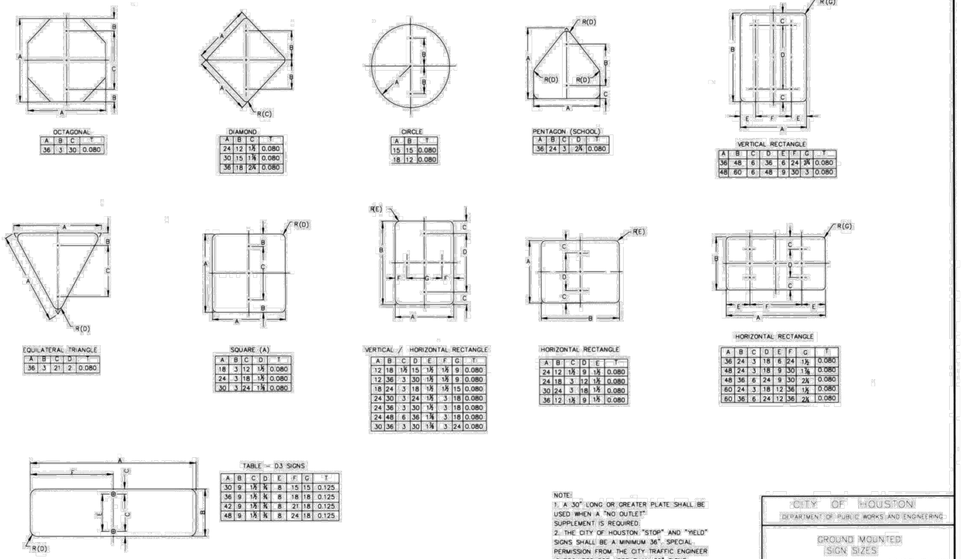
TABLE A	
GALVANIZED SQUARE SIGN POST (PERFORATED)	1-3/4" x 1-3/4" (14 GAUGE)
GALVANIZED SQUARE ANCHOR STUB (PERFORATED) (INNER)	2" x 2" x 36" (14 GAUGE)
GALVANIZED SQUARE ANCHOR STUB (PERFORATED) (OUTER)	2¼" x 2¼" x 18" (14 GAUGE)

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

GENERAL NOTES AND GROUND SIGN MOUNTING

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER
APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: SEP-2016
DWG NO: 01509-01



OCTAGONAL A	B	C	T
36	3	30	0.080

DIAMOND A	B	C	T
24	12	1⅝	0.080
30	15	1⅝	0.080
36	18	2¼	0.080

CIRCLE A	T
15	0.080
18	0.080

PENTAGON (SCHOOL) A	B	C	T
36	24	3	2¼ 0.080

VERTICAL RECTANGLE A	B	C	D	E	F	G	T
36	48	6	36	6	24	2¼	0.080
48	60	6	48	9	30	3	0.080

EQUILATERAL TRIANGLE A	B	C	D	T
36	3	21	2	0.080

SQUARE (A) A	B	C	D	T
18	3	12	1⅝	0.080
24	3	18	1⅝	0.080
30	3	24	1⅝	0.080

VERTICAL / HORIZONTAL RECTANGLE A	B	C	D	E	F	G	T
12	18	1⅝	15	1⅝	9	1⅝	0.080
12	36	3	30	1⅝	9	1⅝	0.080
18	24	3	18	1⅝	15	1⅝	0.080
24	30	3	24	1⅝	3	18	0.080
24	36	3	30	1⅝	3	18	0.080
24	48	6	36	1⅝	3	18	0.080
30	36	3	30	1⅝	3	24	0.080

HORIZONTAL RECTANGLE A	B	C	D	E	T
24	12	1⅝	9	1⅝	0.080
24	18	3	12	1⅝	0.080
30	24	3	18	1⅝	0.080
36	12	1⅝	9	1⅝	0.080

HORIZONTAL RECTANGLE A	B	C	D	E	F	G	T
36	24	3	18	6	24	1⅝	0.080
48	24	3	18	9	30	1⅝	0.080
48	36	6	24	9	30	2¼	0.080
60	24	3	18	12	36	1⅝	0.080
60	36	6	24	12	36	2¼	0.080

TABLE - D3 SIGNS A	B	C	D	E	F	G	T
30	9	1⅝	⅝	8	15	15	0.125
36	9	1⅝	⅝	8	18	18	0.125
42	9	1⅝	⅝	8	21	18	0.125
48	9	1⅝	⅝	8	24	18	0.125

NOTE:
1. A 30" LONG OR GREATER PLATE SHALL BE USED WHEN A "NO OUTLET" SUPPLEMENT IS REQUIRED.
2. THE CITY OF HOUSTON "STOP" AND "YIELD" SIGNS SHALL BE A MINIMUM 36". SPECIAL PERMISSION FROM THE CITY TRAFFIC ENGINEER IS REQUIRED FOR LESS THAN 36" SIGNS.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

GROUND MOUNTED SIGN SIZES

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER
APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JAN-01-2012
DWG NO: 01509-03

NO.	DATE	REVISION	APP.

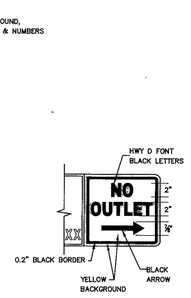
9" D3 – STREET NAME SIGN

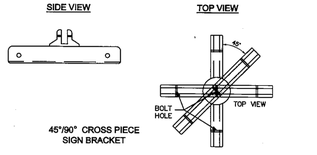
D3 W/ NO OUTLET SIGNAGE

D3 – STREET NAME SIGN

HEIGHT	SEE SIGN SIZES
LENGTH	30" MIN. * 48" MAX.** 1" INCREMENTS OF LENGTH
THICKNESS	0.125"
SUBSTRATE	ALUMINUM ALLOY, 5052-H38 (ASTM B-209)
SIGN FACE MATERIALS	GREEN FILM OVER HIGH INTESITY GRADE VIP SHEETING
LEGENDS AND SYMBOLS	SERIES D (USUAL) SERIES C OR B FOR MAXIMUM LENGTH SIGN BLANK
COLOR	LETTERS -WHITE REFLECTIVE BORDER -WHITE REFLECTIVE BACKGROUND -GREEN REFLECTIVE

NOTES:
- TYPICAL SIGN PLATE SHOULD BE 42".
- SIGN PLATE LONGER THAN 48" MUST BE APPROVED BY THE CITY ENGINEER.
- ALL DIMENSIONS ARE IN INCHES.





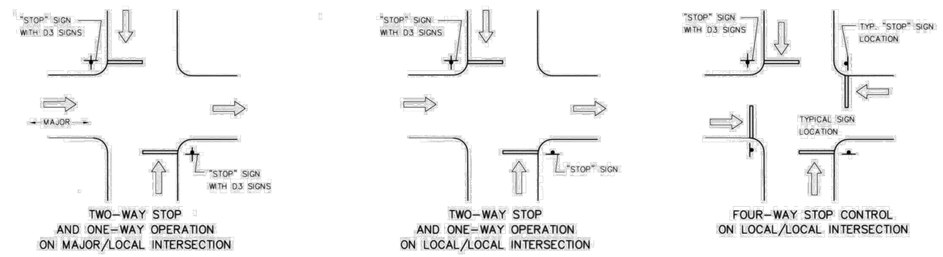
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

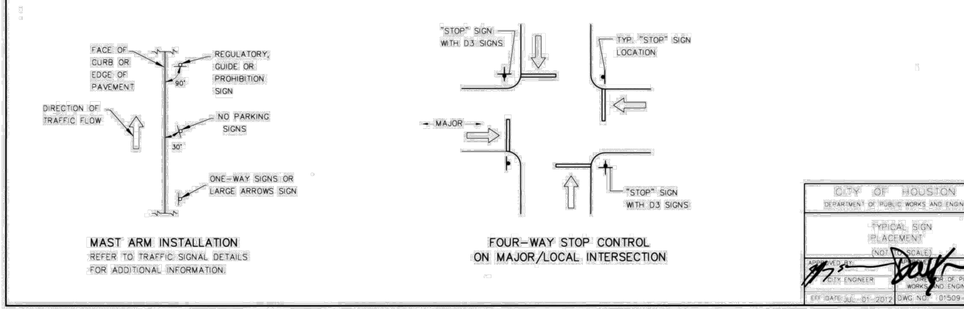
STREET NAME SIGN AND SIGN MOUNTING

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER
APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: SEP-2016
DWG NO: 01509-02

TYPICAL SIGN PLACEMENT





CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

TYPICAL SIGN PLACEMENT

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER
APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2012
DWG NO: 01509-04

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

STANDARD SIGNING NOTES AND DETAILS

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 76 OF **152**	

PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE (COH)	SIGN TEXT	DIMENSIONS	SQUARE POST	SIGNAL MOUNT	ROUND POST (PERMISSION NEEDED FROM CITY TRAFFIC ENGINEER)	NUMBER OF POSTS (1 OR 2)	SIGN AREA SQ. FT. ____ (FOR INFORMATION ONLY, NOT INTENDED FOR BID)	SIGN POST SIZE (TABLE A)
71	1	CUSTOM	METRO (SALVAGE AND REINSTALL)	N/A	X			1		
71	2	R1-1	STOP	36X36	X			1		
		D3-1	STREET NAME (1 LINE) (FULTON ST, 1900)	36X9						
		D3-1	STREET NAME (1 LINE) (HOGAN ST, 1000)	36X9						
71	3	R7-2(5)R	NO PARKING 7AM-9PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
71	4	R1-1	STOP	36X36	X			1		
		D3-1	STREET NAME (1 LINE) (FULTON ST, 1900)	36X9						
		D3-1	STREET NAME (1 LINE) (HOGAN ST, 1100)	36X9						
71	5	CUSTOM	METRO (SALVAGE AND REINSTALL)	N/A	X			1		
71	6	CUSTOM	METRO (SALVAGE AND REINSTALL)	N/A	X			1		
71	7	R7-2(5)DBL	NO PARKING 7AM-9PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
		D11-1	BIKE ROUTE	24X18						
		M6-3	BICYCLE ROUTE (THRU ARROW)	12X9						
71	8	CUSTOM	METRO (SALVAGE AND REINSTALL)	N/A	X			1		
71	9	R7-2(5)DBL	NO PARKING 4PM-6PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
71	10	R1-1	STOP	36X36	X			1		
		D3-1	STREET NAME (1 LINE) (FULTON ST, 1900)	36X9						
		D3-1	STREET NAME (1 LINE) (GARGAN ST, 1100)	36X9						
71	11	R5-2 (2)	NO THRU TRUCKS (TEXT)	24X30	X			1		
71	12	R1-1	STOP	36X36	X			1		
		D3-1	STREET NAME (1 LINE) (FULTON ST, 1900)	36X9						
		D3-1	STREET NAME (1 LINE) (GARGAN ST, 1100)	36X9						
71	13	R7-2(5)DBL	NO PARKING 4PM-6PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
71	14	R7-2(5)DBL	NO PARKING 4PM-6PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
71	15	R1-1	STOP	36X36	X			1		
		D3-1	STREET NAME (1 LINE) (FULTON ST, 1900)	36X9						
		D3-1	STREET NAME (1 LINE) (JAMES ST, 1000)	36X9						
71	16	R5-2 (2)	NO THRU TRUCKS (TEXT)	24X30	X			1		
71	17	R1-1	STOP	36X36	X			1		
		D3-1	STREET NAME (1 LINE) (FULTON ST, 2000)	36X9						
		D3-1	STREET NAME (1 LINE) (JAMES ST, 1100)	36X9						
71	18	R7-2(5)DBL	NO PARKING 7AM-9PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
71	19	R7-2(5)DBL	NO PARKING 4PM-6PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
71	20	R7-2(5)DBL	NO PARKING 7AM-9PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
71	21	S1-1 (FYG)	SCHOOL	36X36	X			1		
		S16-9P (FYG)	AHEAD (PLAQUE)	24X12						

PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE (COH)	SIGN TEXT	DIMENSIONS	SQUARE POST	SIGNAL MOUNT	ROUND POST (PERMISSION NEEDED FROM CITY TRAFFIC ENGINEER)	NUMBER OF POSTS (1 OR 2)	SIGN AREA SQ. FT. ____ (FOR INFORMATION ONLY, NOT INTENDED FOR BID)	SIGN POST SIZE (TABLE A)
72	22	R7-2(5)DBL	NO PARKING 7AM-9PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
72	23	CUSTOM	METRO (SALVAGE AND REINSTALL)	N/A	X			1		
72	24	R7-2(5)DBL	NO PARKING 4PM-6PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
72	25	R1-1	STOP	36X36	X			1		

HATCH
750 TOWN & COUNTRY BLVD
SUITE 1100
HOUSTON, TX 77024
P: 832-930-7070
TX FIRM NUMBER: F-11912

SURVEYED BY:
HAMAT ENGINEERING, INC.
FB NUMBER: P-6184

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

90% PROGRESS
3/30/26

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SUMMARY OF SMALL SIGNS
1 OF 2

WBS NUMBER	N-000818-0001-3
DRAWING SCALE	N.T.S.
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.
SHEET NO.	77 OF 152

NO.	DATE	REVISION	APP.

		D3-1	STREET NAME (1 LINE) (PASCHALL ST, 1000)	36X9						
72	26	R1-1	STOP	36X36	X			1		
		D3-1	STREET NAME (1 LINE) (FULTON ST, 2100)	36X9						
		D3-1	STREET NAME (1 LINE) (PASCHALL ST, 1100)	36X9						
72	27	R7-2(5)DBL	NO PARKING 7AM-9PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
72	28	CUSTOM	METRO (SALVAGE AND REINSTALL)	N/A	X			1		
72	29	R7-2(5)DBL	NO PARKING 4PM-6PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
72	30	S5-2aTP (FYG)	END SCHOOL ZONE (PLAQUE)	24X10	X			1		
		R2-1	SPEED LIMIT 30	30X36						
72	31	S5-1	SCHOOL SPEED LIMIT 20 WHEN FLASHING	36X36	X			1		
72	32	R7-2(5)DBL	NO PARKING 7AM-9PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
72	33	R7-2(5)DBL	NO PARKING 4PM-6PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
72	34	S1-1 (FYG)	SCHOOL	36X36	X			1		
		SW16-7P (FYG)	DIAGONAL ARROW (PLAQUE)	24X12						
72	35	R1-1	STOP	36X36	X			1		
		D3-1	STREET NAME (1 LINE) (FULTON ST, 2100)	36X9						
		D3-1	STREET NAME (1 LINE) (HENRY ST, 1000)	36X9						
72	36	R7-2(1)L	NO PARKING ARROW	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
72	37	R7-2(5)DBL	NO PARKING 7AM-9PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
72	38	S1-1 (FYG)	SCHOOL	36X36	X			1		
		SW16-7P (FYG)	DIAGONAL ARROW (PLAQUE)	24X12						
72	39	R1-1	STOP	36X36	X			1		
		D3-1	STREET NAME (1 LINE) (FULTON ST, 2200)	36X9						
		D3-1	STREET NAME (1 LINE) (HENRY ST, 1100)	36X9						
72	40	S5-1	SCHOOL SPEED LIMIT 20 WHEN FLASHING	36X36	X			1		
72	41	R7-2(5)DBL	NO PARKING 7AM-9PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
72	42	R7-2(5)DBL	NO PARKING 4PM-6PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
		D11-1	BIKE LANE AHEAD	12X9						
72	43	CUSTOM	METRO (SALVAGE AND REINSTALL)	N/A	X			1		
72	44	D11-1	BIKE ROUTE	24X18	X			1		
		M6-6L	THRU AND LEFT ARROW	12X9						
72	45	R7-2(5)L	NO PARKING 7AM-9PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
72	46	CUSTOM	METRO (SALVAGE AND REINSTALL)	N/A	X			1		
72	47	R7-2(5)R	NO PARKING 4PM-6PM EXCEPT SUNDAYS	12X18	X			1		
		R7-201P	TOW AWAY ZONE (PLAQUE)	12X6						
72	48	S5-1	SCHOOL SPEED LIMIT 20 WHEN FLASHING	36X36	X			1		
72	49	W4-2	LANE ENDS	36X36	X			1		

HATCH
750 TOWN & COUNTRY BLVD
SUITE 600
HOUSTON, TX 77024
P: 832-930-7070
TX FIRM NUMBER: F-10912

SURVEYED BY:
HAMAN ENGINEERING, INC.
FB NUMBER: P-6184

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

90% PROGRESS
3/30/26

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SUMMARY OF SMALL SIGNS
2 OF 2

WBS NUMBER	N-000818-0001-3
DRAWING SCALE	N.T.S.
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.

NO.	DATE	REVISION	APP.

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 1:23 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 PAVEMENT MARKING DETAILS.dwg

NO.	DATE	REVISION	APP.

GENERAL PAVEMENT MARKING NOTES:

1. PRIOR TO START OF CONSTRUCTION, ALL EXISTING PAVEMENT MARKINGS WITHIN THE AREA OF CONSTRUCTION SHALL BE INVENTORIED AND DOCUMENTED JOINTLY BY THE CITY INSPECTOR AND THE CONTRACTOR. THIS DOCUMENT WILL BE JOINTLY SIGNED BY BOTH PARTIES REFLECTING ALL EXISTING PAVEMENT MARKINGS AND LANE CONFIGURATIONS WILL BE DUPLICATED AGAIN. THIS REVIEW CAN BE DONE IN CONJUNCTION WITH SIGN INVENTORY. THE CONTRACTOR IS HELD ACCOUNTABLE FOR EXISTING AND TEMPORARY CONSTRUCTION PAVEMENT MARKINGS THROUGHOUT THE PROJECT AND AT THE PROJECT'S COMPLETION.
2. ALL PAVEMENT MARKINGS SHALL CONFORM TO CITY OF HOUSTON STANDARDS AND SPECIFICATIONS AND GENERAL GUIDELINES OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
3. THE PERMANENT PAVEMENT MARKINGS MAY BE MODIFIED AS DIRECTED BY THE CITY TRAFFIC ENGINEER.
4. THE DESIGN SPEED FOR THE ROAD IS: ____. THE POSTED SPEED LIMIT IS: ____.
5. ALL LANE DIMENSIONS ARE FROM CENTER OF LANE LINE, CENTER OF DOUBLE LANE LINE, FACE OF CURB, OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
6. THE PAVEMENT MARKING DRAWINGS ARE SCHEMATIC ONLY. THE CONTRACTOR SHALL FOLLOW ALL DIMENSIONS, DETAILS, AND STANDARDS WHEN INSTALLING PAVEMENT MARKINGS AND SYMBOLS.
7. THE FINAL LONGITUDINAL STRIPINGS SHALL BE 90 MIL (0.090") THICK HOT-SPRAYED THERMOPLASTIC PLACED OVER THE TEMPORARY STRIPING WITHIN 14 TO 30 CALENDAR DAYS AFTER COMPLETION OF THE FINAL PAVEMENT SURFACE, OR AS DIRECTED BY THE CITY TRAFFIC ENGINEER. ALL OTHER PAVEMENT MARKINGS SHALL BE APPLIED AT THE SAME TIME. TEMPORARY STRIPING SHALL BE WATER BASED PAINT.
8. ALL FINAL TRANSVERSE MARKINGS SHALL BE 90 MIL (0.090") HOT-SPRAYED THERMOPLASTIC. ALL PAVEMENT ARROWS AND LEGENDS SHALL ALSO BE 90 MIL (0.090") HOT-SPRAYED THERMOPLASTIC. PREFORMED THERMOPLASTIC APPLICATIONS MAY BE USED IF ONLY APPROVED BY THE CITY TRAFFIC ENGINEER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT AND INSTALLATION OF PAVEMENT MARKINGS OF FINAL SURFACE COURSE FOLLOWING CONTROL POINTS THAT HAVE BEEN SET NO MORE THAN 50 FEET APART ALONG THE LINES TO BE IMPLEMENTED. IN TANGENT SECTIONS OF A ROAD WHERE THE PAVEMENT MARKING PATTERN DOES NOT CHANGE, CONTROL POINTS CAN BE SET AT 200 FEET SPACING. THE LAYOUT AND INSPECTION OF ALL PAVEMENT MARKINGS SHALL BE APPROVED BY CITY OF HOUSTON REPRESENTATIVE PRIOR TO THE APPLICATION OF MATERIALS.
10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE FINAL SURFACE COURSE IS PLACED SO THAT THE STRIPING IS OFFSET NO MORE THAN ONE FOOT CLEAR OF THE CONSTRUCTION JOINT, UNLESS OTHERWISE DIRECTED BY THE CITY TRAFFIC ENGINEER.
11. ALL RAISED PAVEMENT MARKERS (RPMS) SHALL BE INSTALLED SO THAT THE REFLECTIVE FACE OF EACH MARKER IS FACING THE DIRECTION OF TRAFFIC AND IS PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW. TYPE C PAVEMENT MARKERS SHALL BE INSTALLED SO THAT THE CLEAR FACE OF EACH MARKER IS FACING THE APPROACHING TRAFFIC FLOW AND PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW.
12. ALL REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED IN ACCORDANCE TO CITY OF HOUSTON STANDARD SPECIFICATION 02762. APPLYING OVER EXISTING PAVEMENT MARKINGS DOES NOT CONSTITUTE AS APPROVED OBLITERATION METHOD.
13. THE ENGINEER OF RECORD SHALL BE REQUIRED TO PRODUCE AS-BUILT OF PAVEMENT MARKING PLANS WITHIN 30 DAYS AFTER COMPLETION OF PAVEMENT MARKING IMPLEMENTATION.
14. BLUE RPMS MAY BE PLACED ADJACENT TO FIRE HYDRANTS WITH THE APPROVAL OF THE CITY TRAFFIC ENGINEER.
15. FOR ALL CONSTRUCTION, ALL PAVEMENT MARKINGS AND SIGNING SHALL BE INSTALLED AND SHALL BE PAID BY THE PROJECT OWNER/DEVELOPER.
16. FINAL INSPECTION AND ACCEPTANCE OF PAVEMENT MARKINGS SHALL BE PERFORMED BY TRAFFIC OPERATIONS DIVISION REPRESENTATIVE (713-803-3054).

Description and Application of Pavement Marking Lines

Line Series	Color	Description	Width Inches	Typical Applications
WB	White	Broken (10' stripe w/ 30' gap)	4"	- Lane lines between travel lanes in the same direction where changing of lanes is permitted.
WS	White	Solid	4" 6" 12" 24" 24" 12", 24"	- Edge lines to delineate the right edge of the roadway. - Left edge of bicycle lane and lane lines between travel lanes in the same direction where changing of lanes is discouraged. - Perpendicular crosswalk lines. - Stop bars at intersections (signalized and unsignalized). - Hatching at high visibility crosswalks. - Diagonal hatching used in gores between same direction of travel lanes.
WG	White	Guide (2' stripe w/6' gap)	6" 6"	- Guide lines through intersections. - Taper lines for turn lanes.
YS	Yellow	Solid	4" 12", 24"	- Edge lines to delineate the left edge of a divided roadway, a one-way road, or ramp. - Diagonal hatching used in gores between opposing direction of travel lanes.
YDS	Yellow	Double Solid	4" - (4") - 4" (gap)	- Centerline that separates opposing travel lanes and delineation of median islands.
YDB	Yellow	Double Broken	4" - (4") - 4" (gap)	- Defines the edges of center reversible lanes that are used as TWLTLs during intermittent periods.
YB	Yellow	Broken (10' stripe w/ 30' gap)	4"	- Separates travel lanes in opposite directions where passing is permitted in both directions of travel.
YSB	Yellow	Solid & Broken Broken (10' stripe w/ 30' gap)	4" - (4") - 4" (gap)	- Separates travel lanes in opposite directions where passing is permitted in one direction and prohibited in the opposite direction. - Used for edge of two-way left-turn lanes (TWLTL).

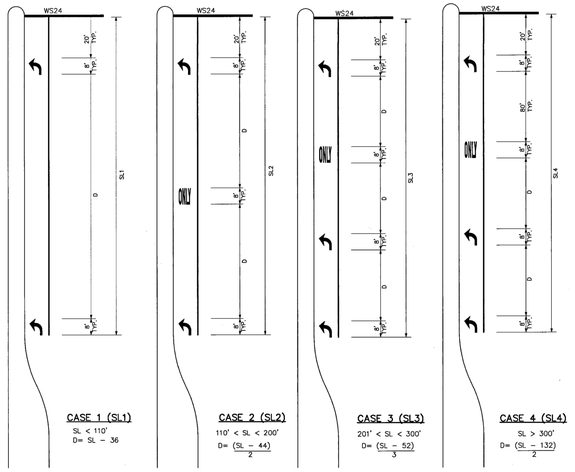
Description and Application of Reflective Raised Pavement Markers (RRPM)

RRPM Types	Color	COH Stand. Spec. Sec. 02764 Equivalent	Description
C	Clear	Type I-C	- Approach face that reflects white light, and the other side does not reflect.
R	Clear & Red	Type II-C-R	- Approach face that reflects white light, and the other side reflects red light.
A	Amber & Amber	Type II-A-A	- Approach face and the other side both reflect amber light.

Line Style Designation : YSB4 - A40/A40

- Color
- Pattern
- Width of stripe
- RPM spacing
- RPM type
- RPM spacing
- RPM Type

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
GENERAL NOTES AND LEGENDS
(NOT TO SCALE)
APPROVED BY: CITY ENGINEER — DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2012 | DWG NO: 01510-01



CASE 1 (SL1)
SL < 110'
D= SL − 36

CASE 2 (SL2)
110' < SL < 200'
D= (SL − 44) / 2

CASE 3 (SL3)
201' < SL < 300'
D= (SL − 52) / 3

CASE 4 (SL4)
SL > 300'
D= (SL − 132) / 2

KEY (FOR TURN LANES ONLY):

SL = STORAGE LENGTH (FEET)

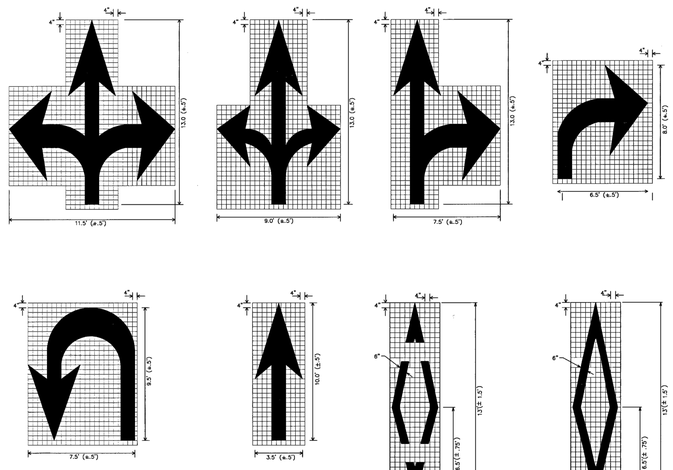
D = DISTANCE BETWEEN ARROWS AND/OR WORDS (FEET)

GENERAL NOTES:

1. ALL CASES AND DETAILS ALSO APPLY TO RIGHT-TURN LANES.
2. FOR DUAL-TURN LANES, DIMENSIONS SHALL BE THE SAME FOR EACH LANE.
3. SL DIMENSION IS FROM BACK OF STOP LINE TO END OF TURN LANE. NOTE: DO NOT INCLUDE TAPER LENGTH.
4. PAVEMENT ARROWS AND "ONLY" LEGEND MARKINGS ARE TYPICALLY USED AT ALL SIGNALIZED INTERSECTIONS AND AT ALL UNSIGNALIZED INTERSECTIONS THAT HAVE TURN LANES.
5. MINIMUM SL= 100'. SL MAY BE LESS THAN 100 FEET ONLY BY APPROVAL OF THE CITY TRAFFIC ENGINEER.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
LEFT/RIGHT-TURN "ONLY" AND ARROW SPACING
(NOT TO SCALE)
APPROVED BY: CITY ENGINEER — DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2012 | DWG NO: 01510-02

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
STANDARD PAVEMENT MARKING (WORDS)
(NOT TO SCALE)
APPROVED BY: CITY ENGINEER — DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2012 | DWG NO: 01510-03



NOTES FOR PAVEMENT MARKINGS "SYMBOLS" AND "ARROWS":

1. MINIMUM 8 FOOT WHITE MARKINGS SHALL BE USED, UNLESS OTHERWISE NOTED. IF MESSAGE CONSISTS OF MORE THAN ONE WORD, IT SHOULD BE PLACED WITH FIRST WORD NEAREST THE DRIVER.
2. THESE DETAILS ARE STANDARD SIZE FOR NORMAL INSTALLATION; SIZES MAY BE REDUCED APPROXIMATELY ONE-THIRD DEPENDING ON CONDITIONS. SPECIAL PERMISSION NEEDED BY CITY TRAFFIC ENGINEER FOR REDUCTION BELOW ONE-THIRD OF STANDARD SIZES.
3. THE LONGITUDINAL SPACE BETWEEN MARKINGS SHOULD BE 30 FEET.
4. MARKINGS CONSIDERED APPROPRIATE FOR USE WHEN WARRANTED INCLUDE THE FOLLOWING:
   A. REGULATORY
      STOP
      RIGHT (LEFT) TURN ONLY
      SYMBOL ARROWS
   B. WARNING
      STOP AHEAD
      SIGNAL AHEAD
      SCHOOL
      SCHOOL X-ING
      PED X-ING
      R X R (SEE SHEET 01510-08 DETAILS)
      OTHER WORDS OR SYMBOLS MAY BE NECESSARY UNDER CERTAIN CONDITIONS. SPECIAL PERMISSION NEEDED BY CITY TRAFFIC ENGINEER FOR SPECIAL CONDITIONS.
5. UNCONTROLLED USE OF PAVEMENT MARKINGS CAN RESULT IN DRIVER CONFUSION. WORD AND SYMBOL MARKINGS SHOULD BE NO MORE THAN THREE LINES.
6. THE WORD "STOP" SHALL NOT BE USED ON THE PAVEMENT UNLESS ACCOMPANIED BY A STOP LINE AND STOP SIGN. THE WORD "STOP" SHALL NOT BE PLACED ON THE PAVEMENT IN ADVANCE TO A STOP LINE, UNLESS EVERY VEHICLE IS REQUIRED TO STOP AT ALL TIMES (ALL-WAY STOP).
7. PAVEMENT MARKINGS SHOULD GENERALLY BE NO MORE THAN ONE LANE IN WIDTH, WITH SCHOOL MESSAGES BEING THE EXCEPTION. FOR DETAILS OF SCHOOL AND SCHOOL CROSSING PAVEMENT MARKINGS, REFER TO PART VII OF THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
8. SPACING BETWEEN STANDARD SIZE LETTERS SHOULD BE 4 INCHES (MIN). THE WIDTH OF NON-STANDARD SIZE LETTERS MAY VARY (DEPENDING ON THE WIDTH OF THE TRAVEL LANES. APPROVAL BY CITY TRAFFIC ENGINEER. SPECIAL PERMISSION NEEDED FOR NON-STANDARD SIZE "LETTER" AND/OR "ARROWS".
9. LANE-USE ARROW MARKINGS MAY BE USED TO CONVEY EITHER GUIDANCE OR MANDATORY MESSAGES. SINGLE TURN ARROWS USED TO CONVEY A MANDATORY MOVEMENT MUST BE ACCOMPANIED STANDARD SIGNS AND THE PAVEMENT MARKING WORD "ONLY".
10. PAVEMENT MARKINGS ARE TO BE LOCATED AS SPECIFIED IN THE DESIGN PLANS.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
STANDARD PAVEMENT MARKING - SYMBOLS
(NOT TO SCALE)
APPROVED BY: CITY ENGINEER — DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2012 | DWG NO: 01510-04

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

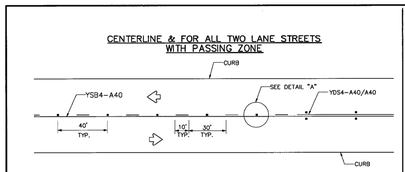
STANDARD PAVEMENT MARKINGS NOTES AND DETAILS 1 OF 2

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 79 OF 152	

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 1:23 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\24 PAVEMENT MARKING DETAILS.dwg

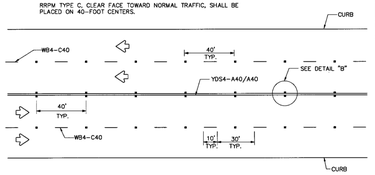
NO.	DATE	REVISION	APP.

CENTERLINE & FOR ALL TWO LANE STREETS WITH PASSING ZONE

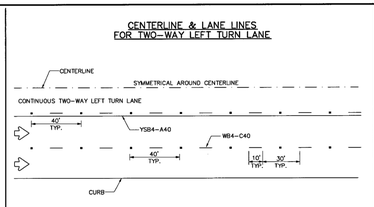


CENTERLINE & LANE LINES FOR FOUR LANE TWO-WAY STREETS

RRPM TYPE C, CLEAR FACE TOWARD NORMAL TRAFFIC, SHALL BE PLACED ON 40-FOOT CENTERS.

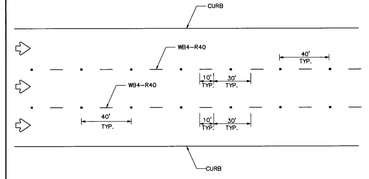


CENTERLINE & LANE LINES FOR TWO-WAY LEFT TURN LANE



LANE LINES FOR ONE-WAY MULTILANE STREET

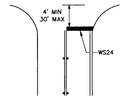
RRPM TYPE R SHALL HAVE CLEAR FACE TOWARD NORMAL TRAFFIC AND RED FACE TOWARD WRONG-WAY TRAFFIC.



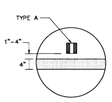
GENERAL NOTES:

1. EDGELINE ADJACENT TO CURB AND GUTTER IS NOT REQUIRED IN ALL CASES, HOWEVER SHALL BE PLACED AS DIRECTED BY CITY TRAFFIC ENGINEER.
2. THE TRAVELED WAY INCLUDES ONLY THAT PORTION OF THE ROADWAY USED FOR VEHICULAR TRAVEL AND NOT THE PARKING LANES, SIDEWALKS, BERMS AND SHOULDERS. THE TRAVELED WAYS SHALL BE MEASURED FROM THE INSIDE OF EDGELINE TO INSIDE OF EDGELINE OF A TWO LANE ROADWAY.
3. ALL RAISED PAVEMENT MARKERS PLACED IN BROKEN LINES SHALL BE PLACED IN LINE WITH AND MIDWAY BETWEEN THE STRIPES.
4. ON CONCRETE PAVEMENTS THE RAISED PAVEMENT MARKERS SHOULD BE PLACED TO ONE SIDE OF THE LONGITUDINAL JOINTS.
5. ALL PAVEMENT MARKING MATERIAL SHALL MEET THE REQUIRED MATERIAL SPECIFICATIONS AS SPECIFIED BY CITY OF HOUSTON STANDARD SPECIFICATIONS.

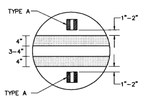
GUIDE FOR PLACEMENT OF STOP LINES & CENTERLINE



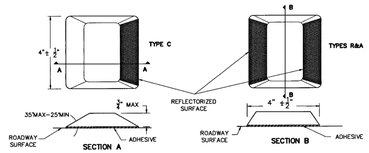
DETAIL "A"



DETAIL "B"

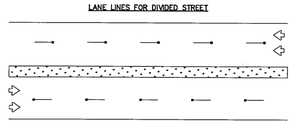


REFLECTIVE RAISED PAVEMENT MARKERS

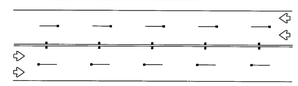


CITY OF HOUSTON	
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKERS FOR POSITION GUIDANCE	(NOT TO SCALE)
APPROVED BY: CITY ENGINEER	DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2012	DWG NO: 01510-05

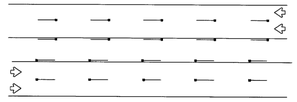
LANE LINES FOR DIVIDED STREET



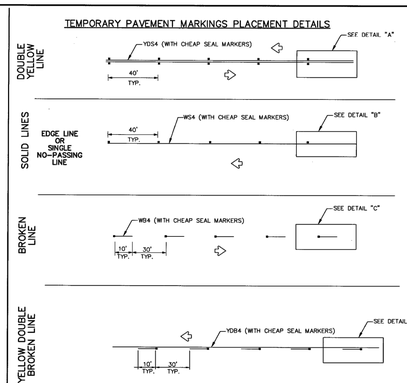
LANE & CENTER LINES FOR MULTILANE UNDIVIDED STREETS



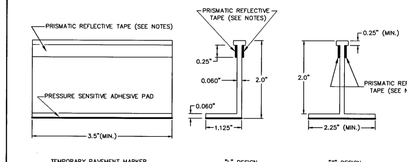
TWO-WAY LEFT TURN LANE



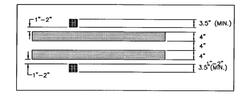
TEMPORARY PAVEMENT MARKINGS PLACEMENT DETAILS



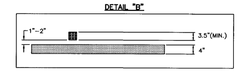
TEMPORARY CHIP SEAL MARKER DETAIL



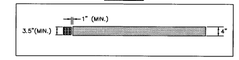
DETAIL "A"



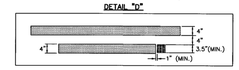
DETAIL "B"



DETAIL "C"



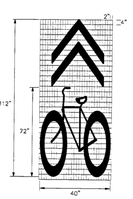
DETAIL "D"



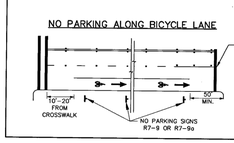
NOTES:

1. YELLOW MARKERS SHALL HAVE YELLOW BODIES AND YELLOW REFLECTIVE TAPE.
2. WHITE MARKERS SHALL HAVE WHITE BODIES AND WHITE REFLECTIVE TAPE.
3. ONE-WAY OR TWO-WAY REFLECTIVE SHALL BE USED AS NECESSARY FOR APPLICATION.
4. THE CLEAR PLASTIC COVER MAY VARY FROM ONE MANUFACTURER TO ANOTHER IF DEEMED NECESSARY BY SPECIFIC PROJECT.
5. ALL TEMPORARY PAVEMENT MARKERS SHALL BE PLACED WITH REFLECTIVE SIDE FACING ON COMING TRAFFIC.
6. ALL TEMPORARY STRIPING SHALL BE WATER BASED PAINT.

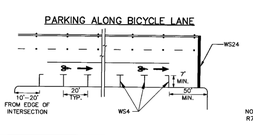
CITY OF HOUSTON	
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
REFLECTIVE CHIP SEAL MARKER USE FOR TEMPORARY MARKINGS	(NOT TO SCALE)
APPROVED BY: CITY ENGINEER	DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2012	DWG NO: 01510-06



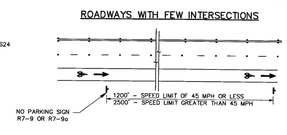
NO PARKING ALONG BICYCLE LANE

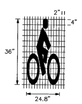


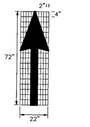
PARKING ALONG BICYCLE LANE

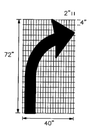


ROADWAYS WITH FEW INTERSECTIONS

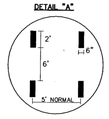








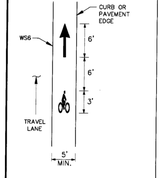
DETAIL "A"



NOTES:

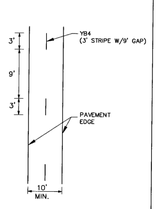
1. ALL PAVEMENT MARKINGS SHALL BE WHITE EXCEPT WHEN NOTED OTHERWISE ON PLANS.
2. PAVEMENT MARKINGS SHALL BE OF THE MATERIALS SPECIFIED AND SHALL BE IN CONFORMANCE WITH MATERIAL SPECIFICATIONS AS SPECIFIED BY CITY OF HOUSTON STANDARD SPECIFICATIONS.
3. EXACT SIGN PLACEMENT AND DETAILS ARE SHOWN ELSEWHERE IN THE PLANS.
4. ADDITIONAL REFERENCES: TMUTCD (TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL) GUIDE FOR THE DEVELOPMENT OF BICYCLES FACILITIES, AASHTO, 1991.
5. FOR PLACEMENT OF PAVEMENT ARROWS AND WORDS SEE TURN LANE LEFT/RIGHT) SPACING WORKSHEET.
6. SHARED LANE MARKING SHALL BE IMPLEMENTED ONLY ON ROADWAY SEGMENT BUT NOT WITHIN THE FUNCTIONAL LIMITS OF AN INTERSECTION.

ADJACENT TO TRAVEL LANE

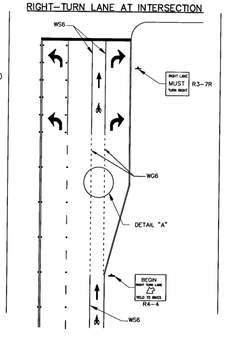


SHARED USE PATH

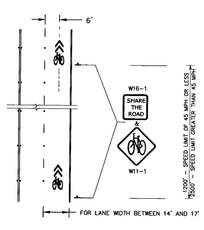
(SEPARATE FROM ROADWAY WITH NO MOTORIZED TRAFFIC)



RIGHT-TURN LANE AT INTERSECTION

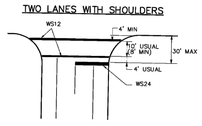


ROADWAY WITH SHARED LANE

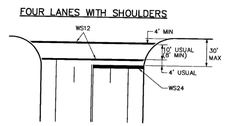


CITY OF HOUSTON	
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
BICYCLE LANE PAVEMENT MARKINGS	(NOT TO SCALE)
APPROVED BY: CITY ENGINEER	DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2012	DWG NO: 01510-09

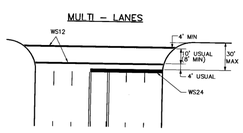
TWO LANES WITH SHOULDERS



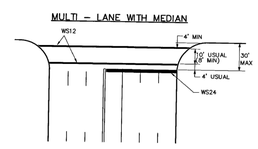
FOUR LANES WITH SHOULDERS



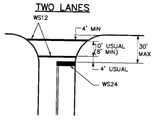
MULTI - LANES



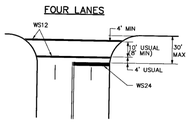
MULTI - LANE WITH MEDIAN



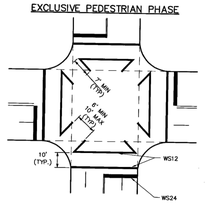
TWO LANES



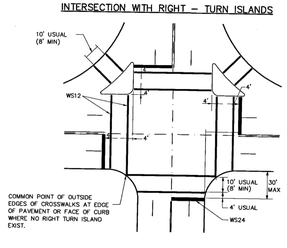
FOUR LANES



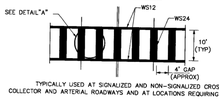
EXCLUSIVE PEDESTRIAN PHASE



INTERSECTION WITH RIGHT - TURN ISLANDS

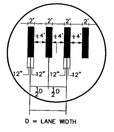


HIGH VISIBILITY CROSSWALK DETAIL



TYPICALLY USED AT SIGNALIZED AND NON-SIGNALIZED CROSSINGS ON COLLECTOR AND ARTERIAL ROADWAYS AND AT LOCATIONS REQUIRING EXTRA EMPHASIS.

DETAIL "A"



NOTES:

1. CROSSWALKS AND STOP LINES SHALL BE WHITE.
2. "D" IS EQUAL TO ONE HALF THE WIDTH OF TRAVEL LANE.

CITY OF HOUSTON	
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
TYPICAL CROSSWALK DETAILS	(NOT TO SCALE)
APPROVED BY: CITY ENGINEER	DIRECTOR OF PUBLIC WORKS AND ENGINEERING

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

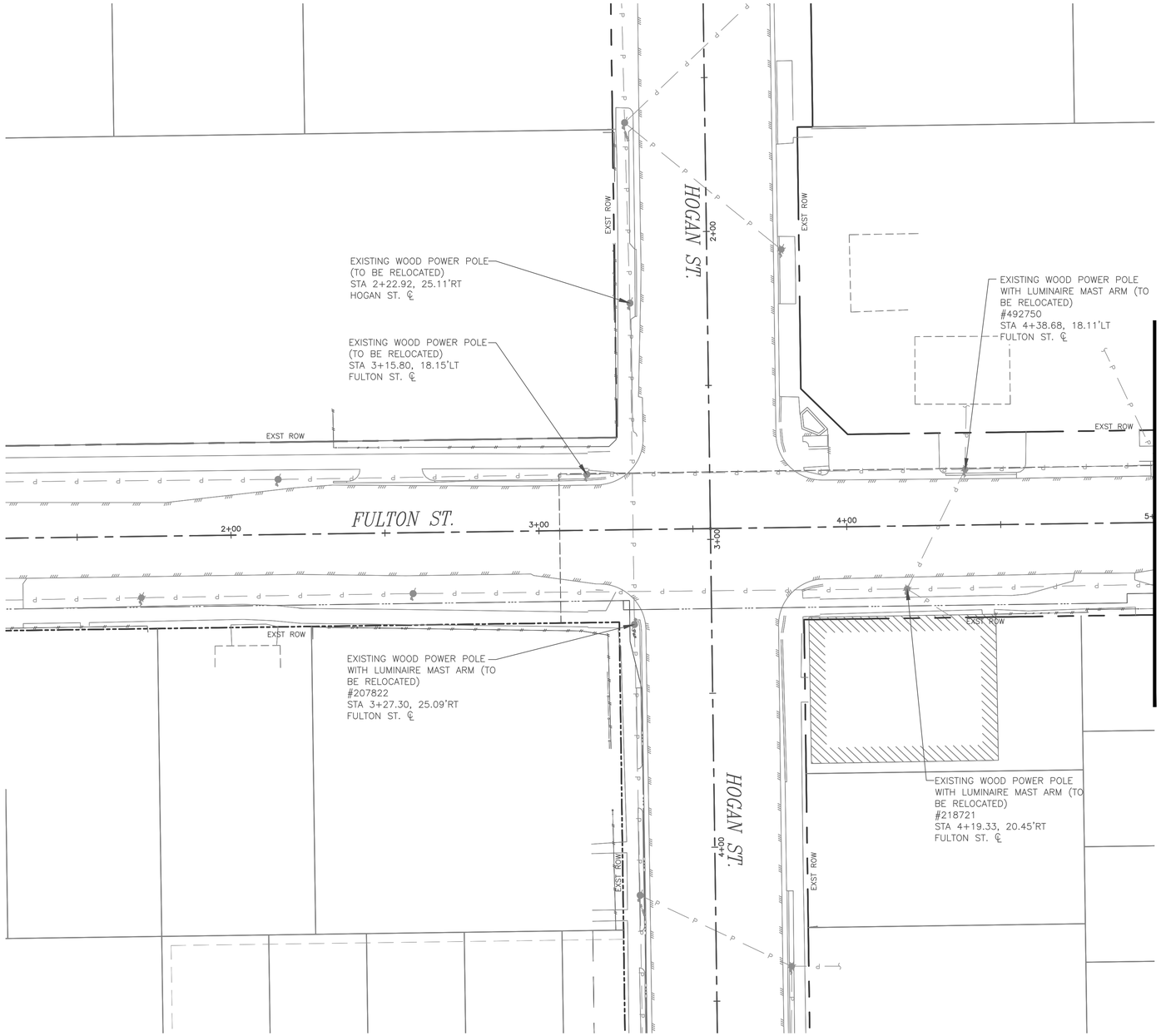
SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

STANDARD PAVEMENT MARKINGS NOTES AND DETAILS 2 OF 2

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 80 OF **152**	



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
ELECTRICAL DEMOLITION PLAN
PLAN SHEET 1
STA. 1+00 TO 5+00

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"=20'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 81 OF 152

FOR CITY OF HOUSTON USE ONLY

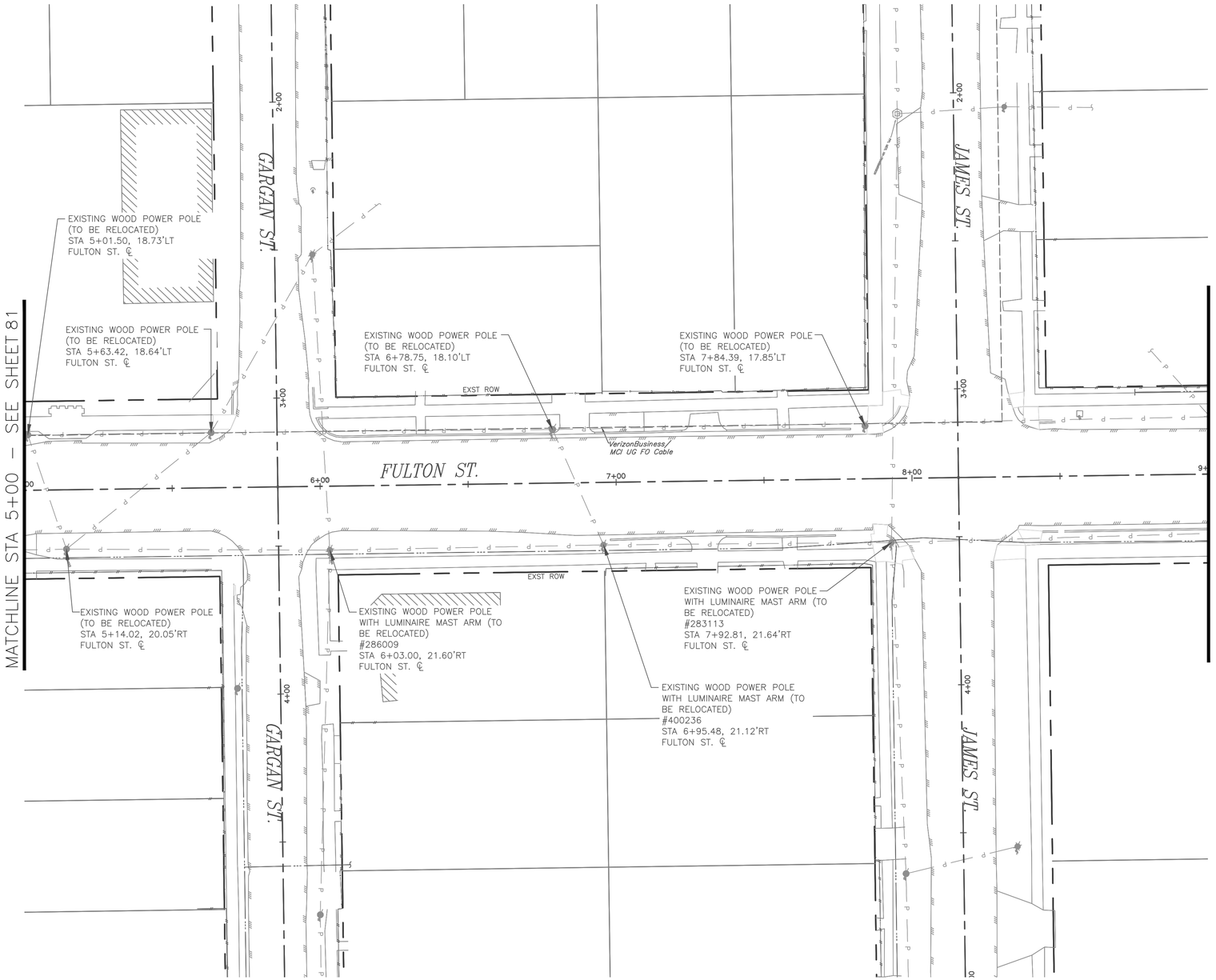
THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

P.E. HANS POURES
TEXAS PE No: 131630

DATE: 02/04/2026

PLOTTED: 2/4/2026 11:00 AM

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL DEMOLITION PLAN(SHEET 1).dwg



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
ELECTRICAL DEMOLITION PLAN
PLAN SHEET 2
STA. 5+00 TO 9+00

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"=20'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 82 OF 152

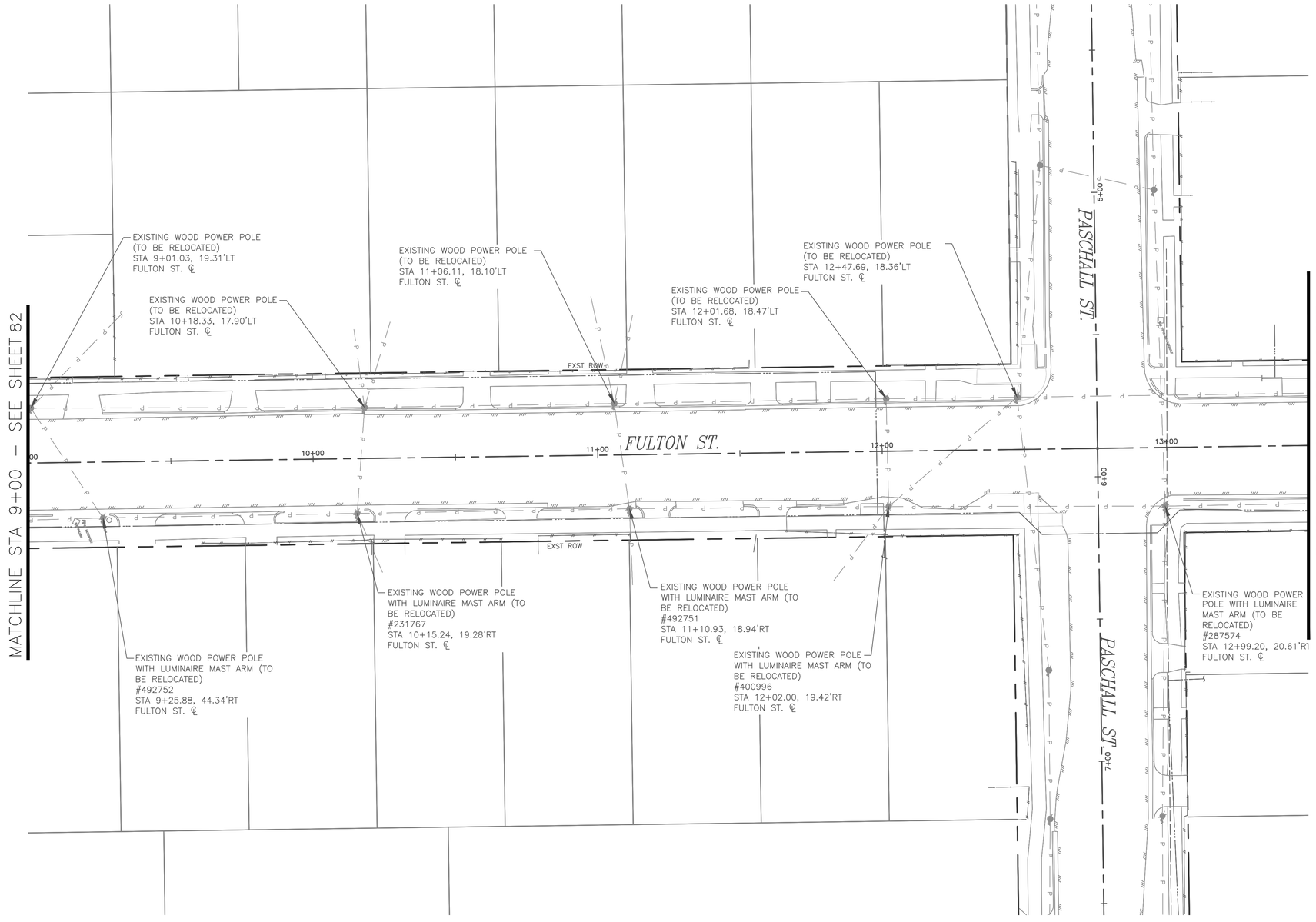
FOR CITY OF HOUSTON USE ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

P.E. HANS POURES
TEXAS PE No: 131630

DATE: 02/04/2026

FILE PATH: P:\Projects\0106 – City Of Houston\15010 – Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL DEMOLITION PLAN\SHEET 2.dwg
PLOTTED: 2/4/2026 11:00 AM



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

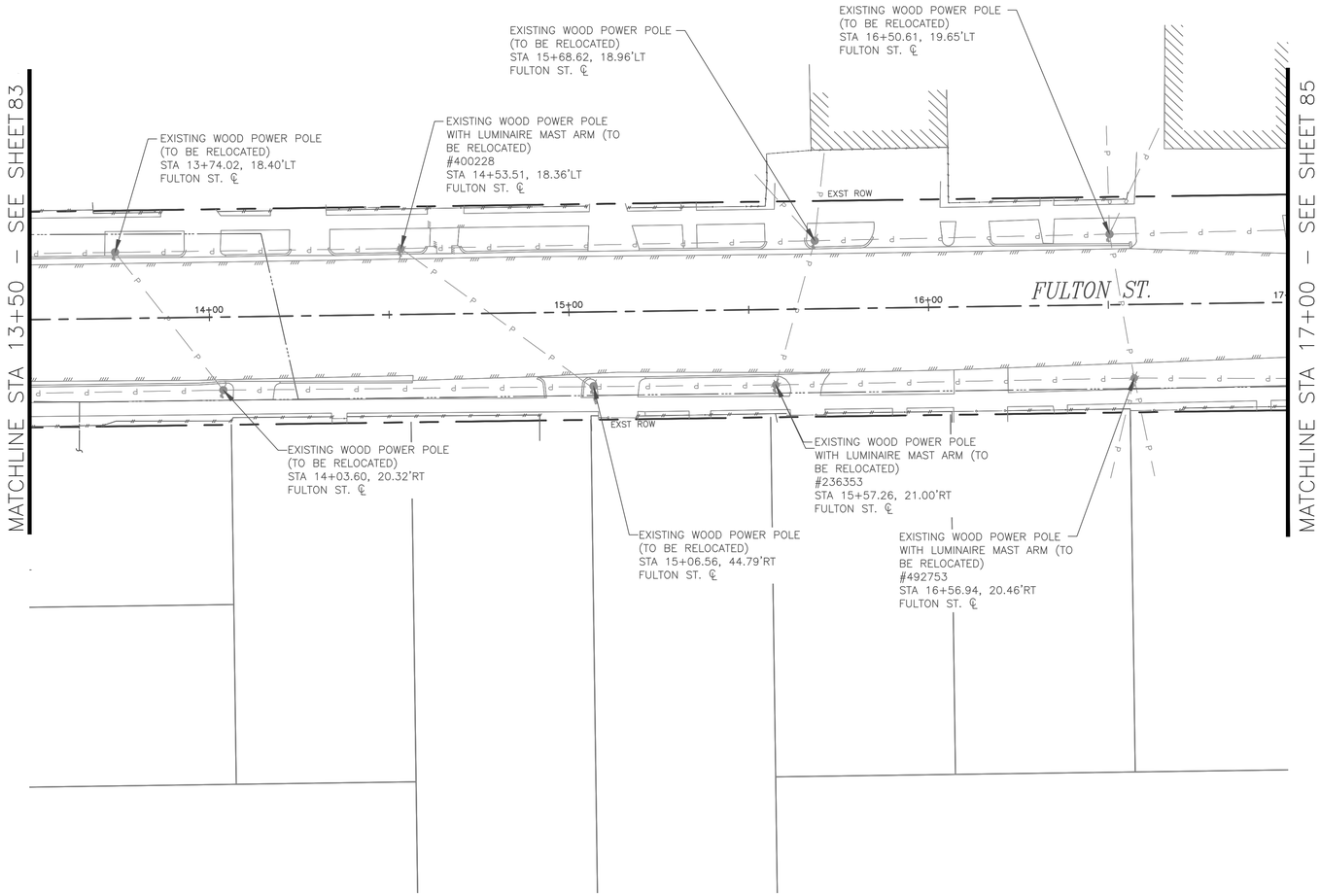
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
ELECTRICAL DEMOLITION PLAN
PLAN SHEET 3
STA. 9+00 TO 13+50

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-000818-0001-3	
DRAWING SCALE	
1"=20'	THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
CITY OF HOUSTON PM	P.E. HANS POURES TEXAS PE No: 131630
MICHELLE RANDON, P.E.	DATE: 02/04/2026
SHEET NO. 83 OF 152	

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL DEMOLITION PLAN SHEETS.dgn
PLOTTED: 2/4/2026 11:01 AM
USER: hpoures
PLOTSTYLE: 20H.ctb

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL DEMOLITION PLAN SHEET 4.dwg
PLOTTED: 2/4/2026 11:01 AM



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
ELECTRICAL DEMOLITION PLAN
PLAN SHEET 4
STA. 13+50 TO 17+00

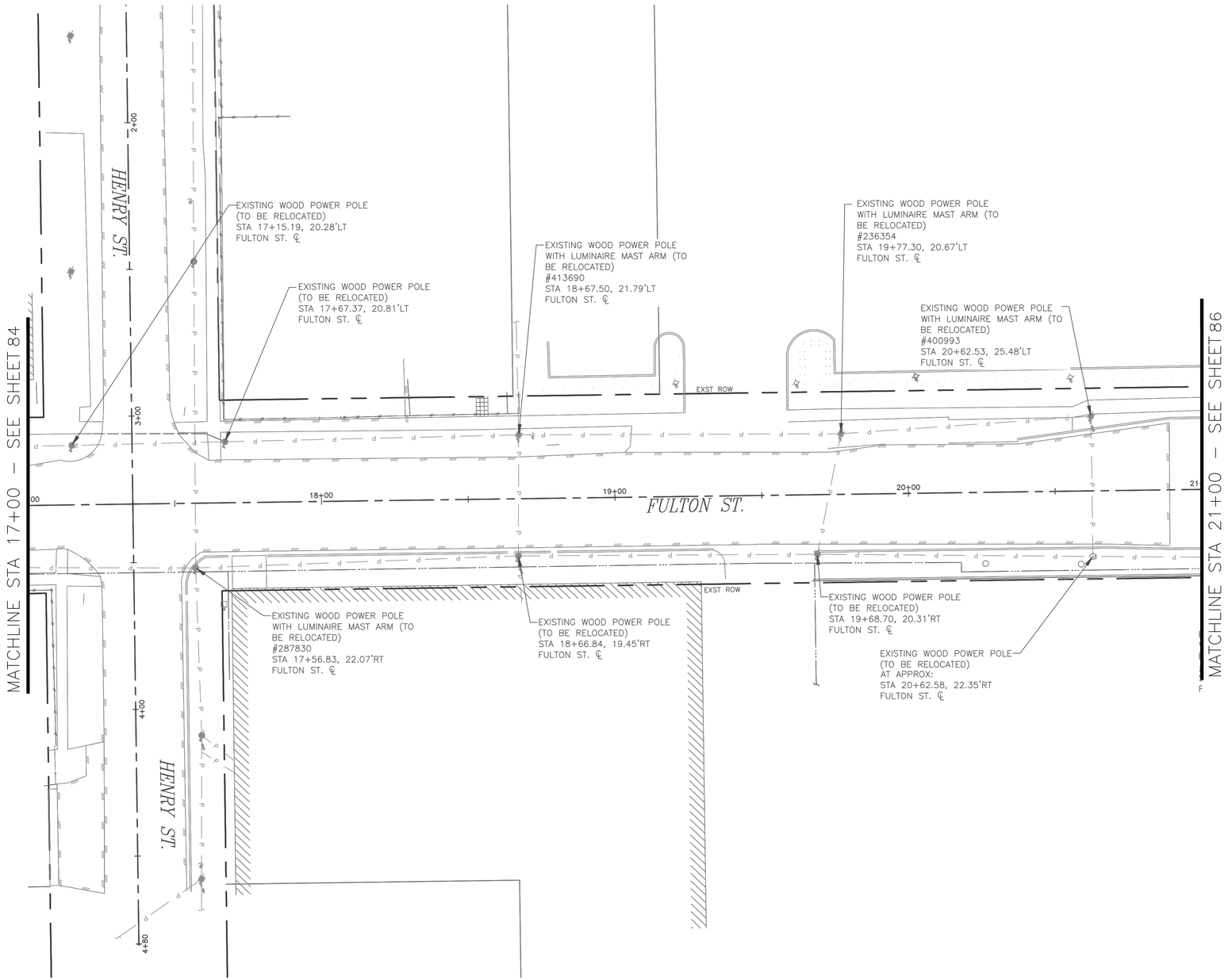
WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"=20'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 84 OF 152

FOR CITY OF HOUSTON USE ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

P.E. HANS POURES
TEXAS PE No: 131630

DATE: 02/04/2026



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
ELECTRICAL DEMOLITION PLAN
PLAN SHEET 5
STA. 17+00 TO 21+00

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"=20'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 85 OF 152

FOR CITY OF HOUSTON USE ONLY

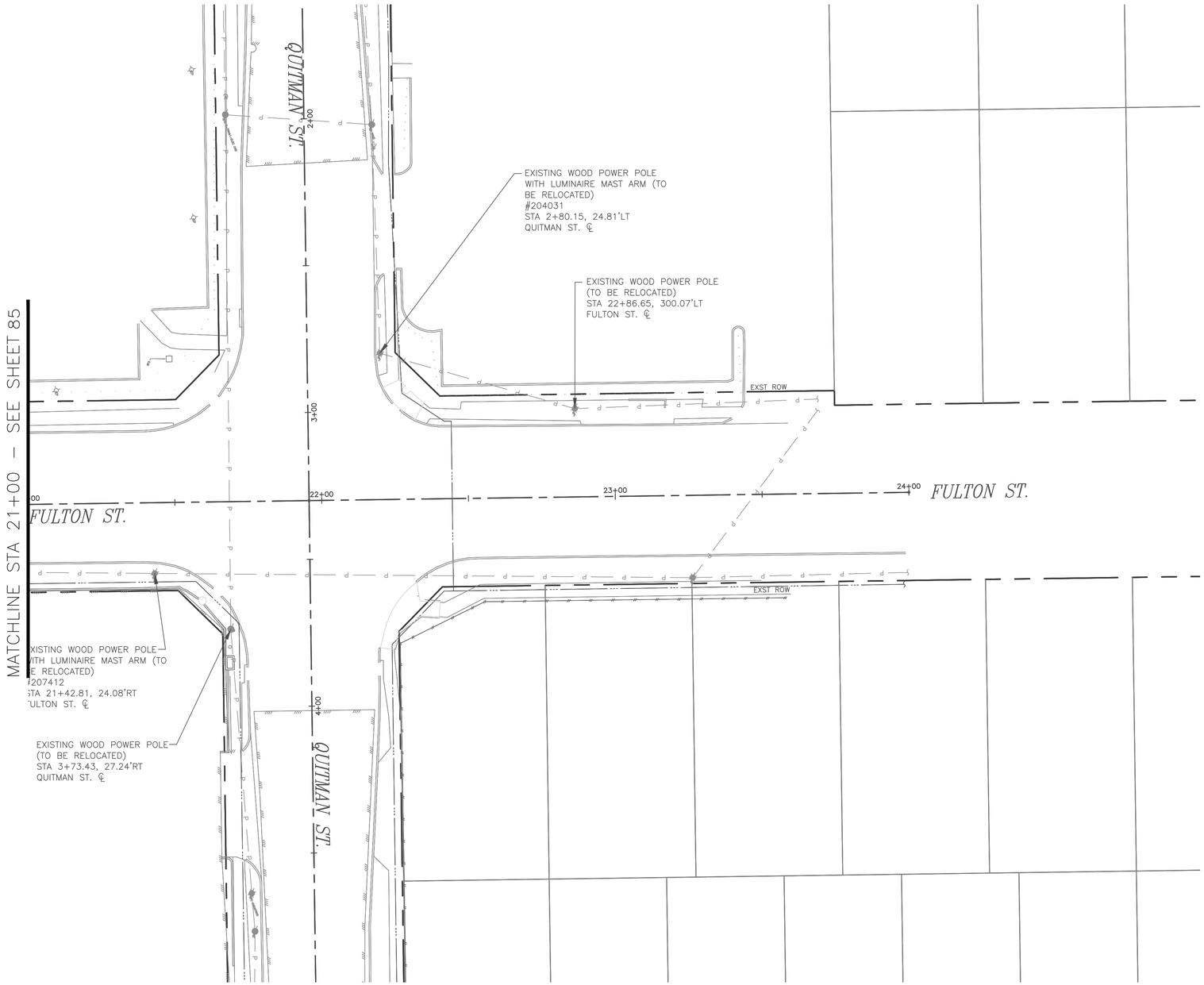
THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

P.E. HANS POURES
TEXAS PE No: 131630

DATE: 02/04/2026

PLOTTED: 2/4/2026 11:01 AM

FILE PATH: P:\Projects\0106 – City Of Houston\15010 – Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL DEMOLITION PLAN SHEET 5.dwg



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

ELECTRICAL DEMOLITION PLAN

PLAN SHEET 6

STA. 21+00 TO END

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"=20'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 86 OF 152

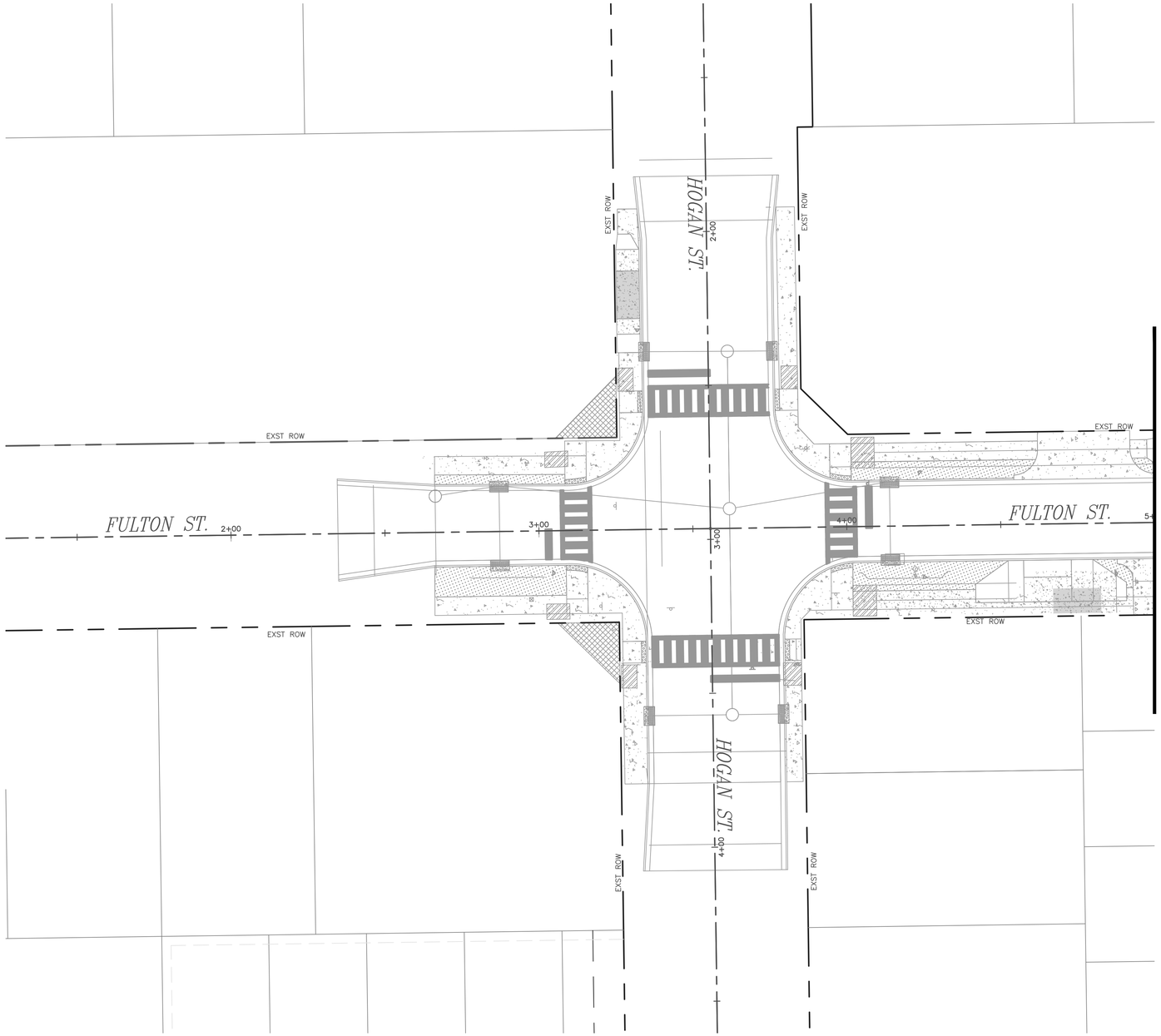
FOR CITY OF HOUSTON USE ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

P.E. HANS POURES
TEXAS PE No: 131630

DATE: 02/04/2026

PLOTTED: 2/4/2026 11:01 AM
FILE PATH: P:\Projects\0106 – City Of Houston\15010 – Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL DEMOLITION PLAN\SHEET 6\ELECTRICAL DEMOLITION PLAN SHEET 6.dwg, 0H.ctb



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
ELECTRICAL PLAN
STA. 1+00 TO 5+00

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 87 OF 152

FOR CITY OF HOUSTON USE ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

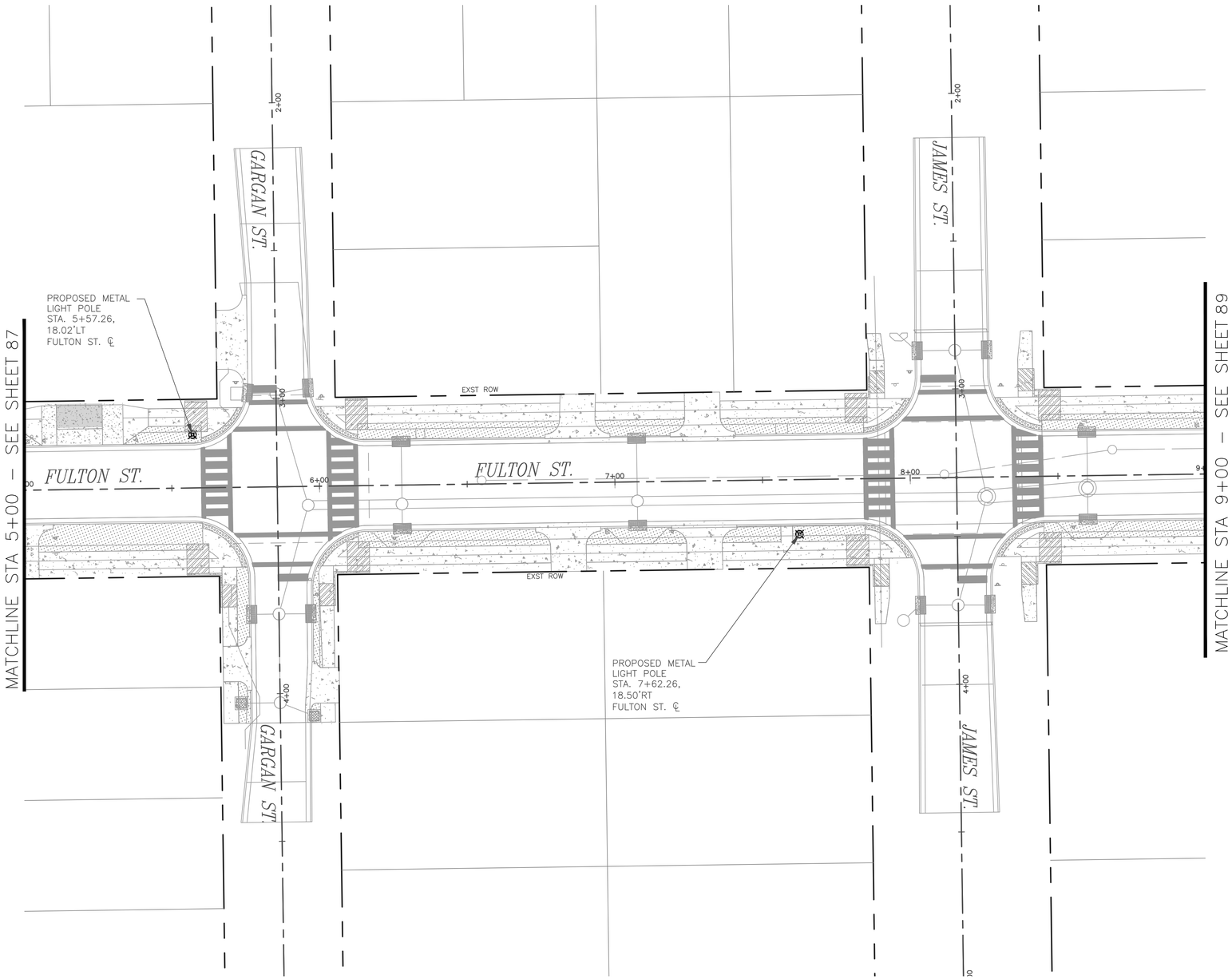
P.E. HANS POURES
TEXAS PE No: 131630

DATE: 02/04/2026

PLOTTED: 2/4/2026 12:34 PM

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL PROPOSED PLAN-PROFILE(1)_Dwg\FULTON_ELEC_PLAN_STA_1+00_TO_5+00_HOGAN_OH.ctb

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL PROPOSED PLANS\PSHEET(S)_Fulton_ElecPlan_OH.ctb
PLOTTED: 2/4/2026 12:34 PM



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
ELECTRICAL PLAN
STA. 5+00 TO 9+00

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 88 OF 152

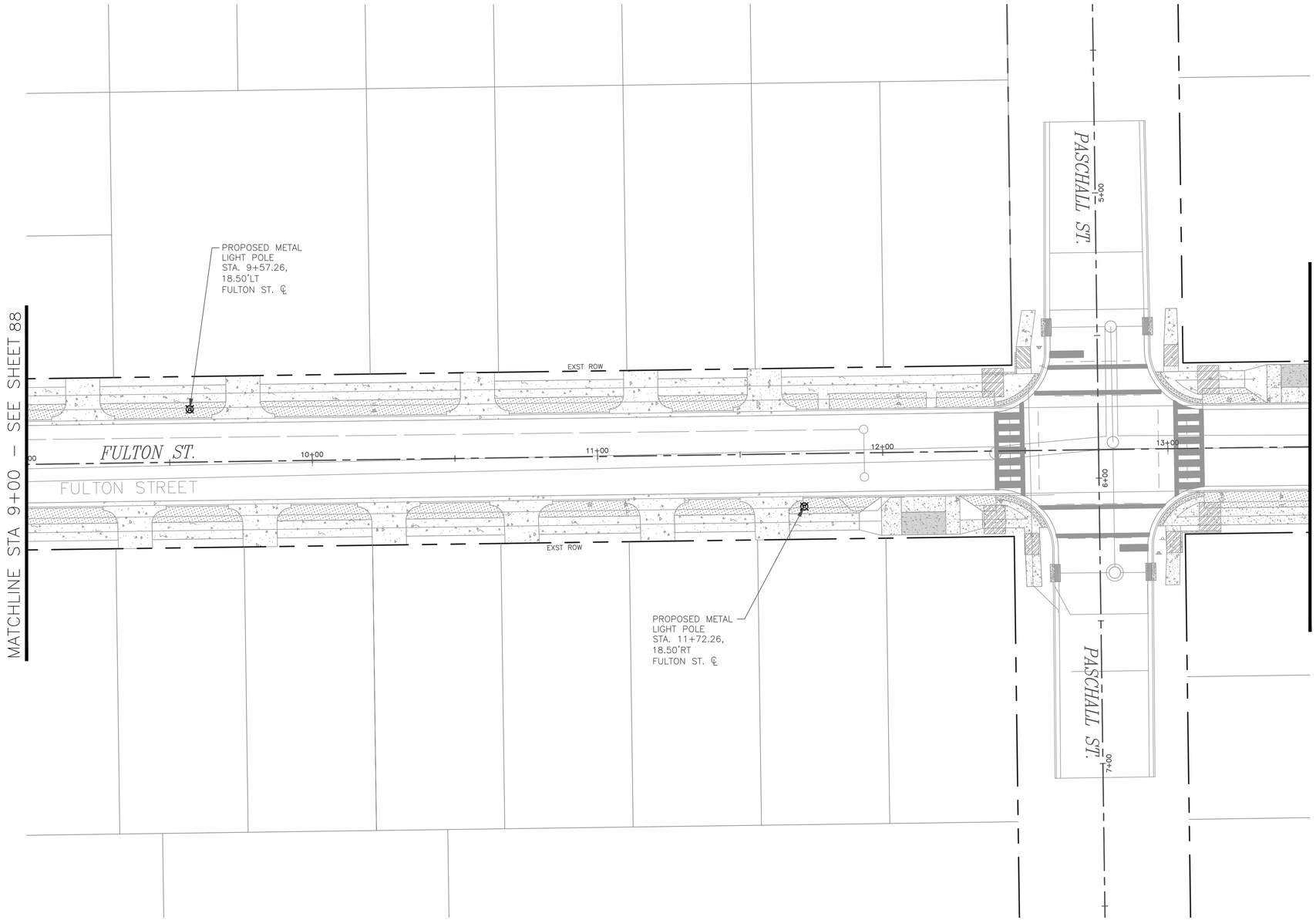
FOR CITY OF HOUSTON USE ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

P.E. HANS POURES
TEXAS PE No: 131630

DATE: 02/04/2026

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL PROPOSED PLANS\ELECTRICAL PROPOSED PLANS.dwg
PLOTTED: 2/4/2026 12:35 PM



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
ELECTRICAL PLAN
STA. 9+00 TO 13+50

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 89 OF 152

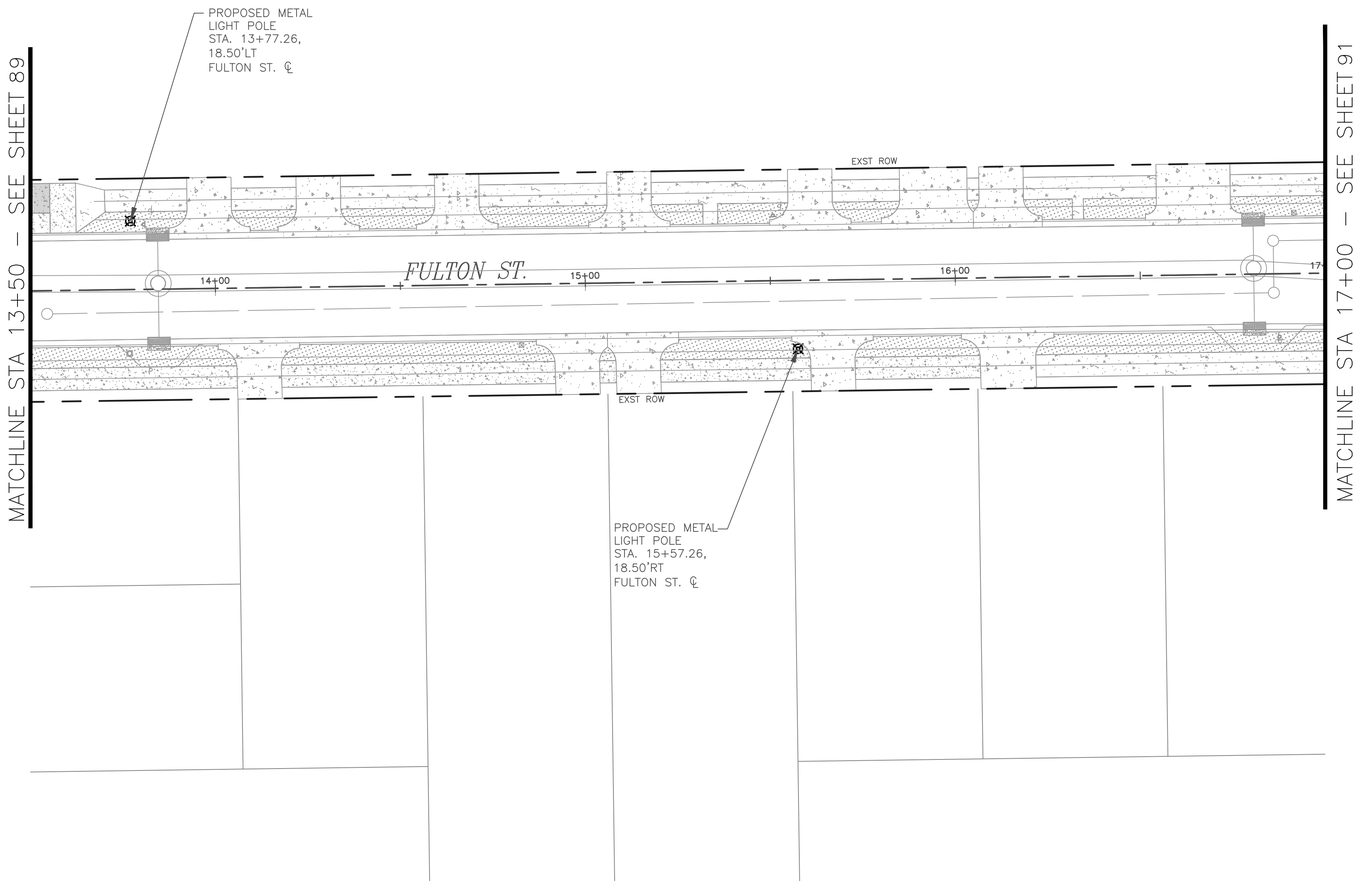
FOR CITY OF HOUSTON USE ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

P.E. HANS POURES
TEXAS PE No: 131630

DATE: 02/04/2026

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL PROPOSED PLAN\PSHEET(91).dwg
PLOTTED: 2/4/2026 12:35 PM



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
ELECTRICAL PLAN
STA. 13+50 TO 17+00

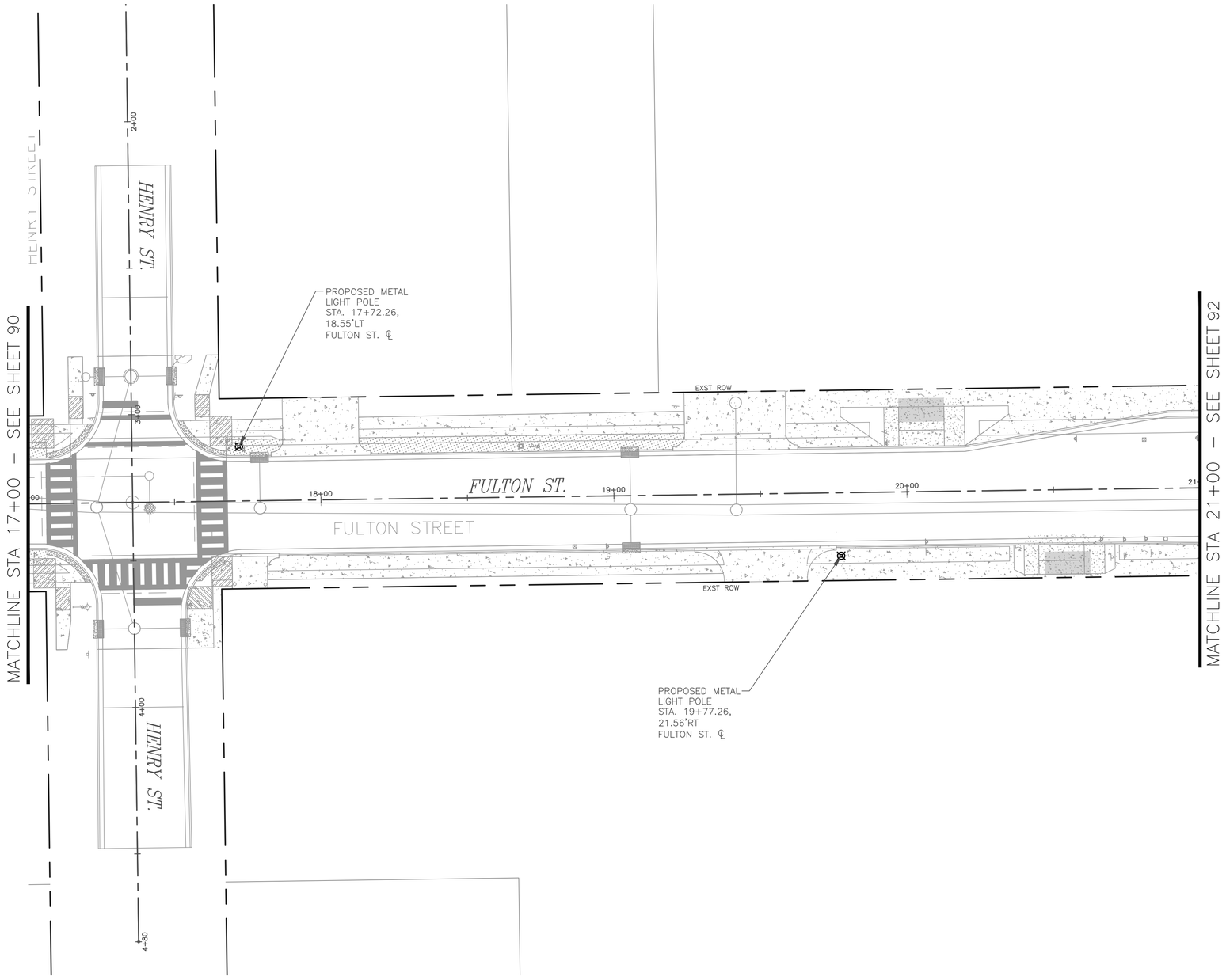
WBS NUMBER
N-000818-0001-3
DRAWING SCALE
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 90 OF 152

FOR CITY OF HOUSTON USE ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

P.E. HANS POURES
TEXAS PE No: 131630

DATE: 02/04/2026



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
ELECTRICAL PLAN
STA. 17+00 TO 21+00

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 91 OF 152

FOR CITY OF HOUSTON USE ONLY

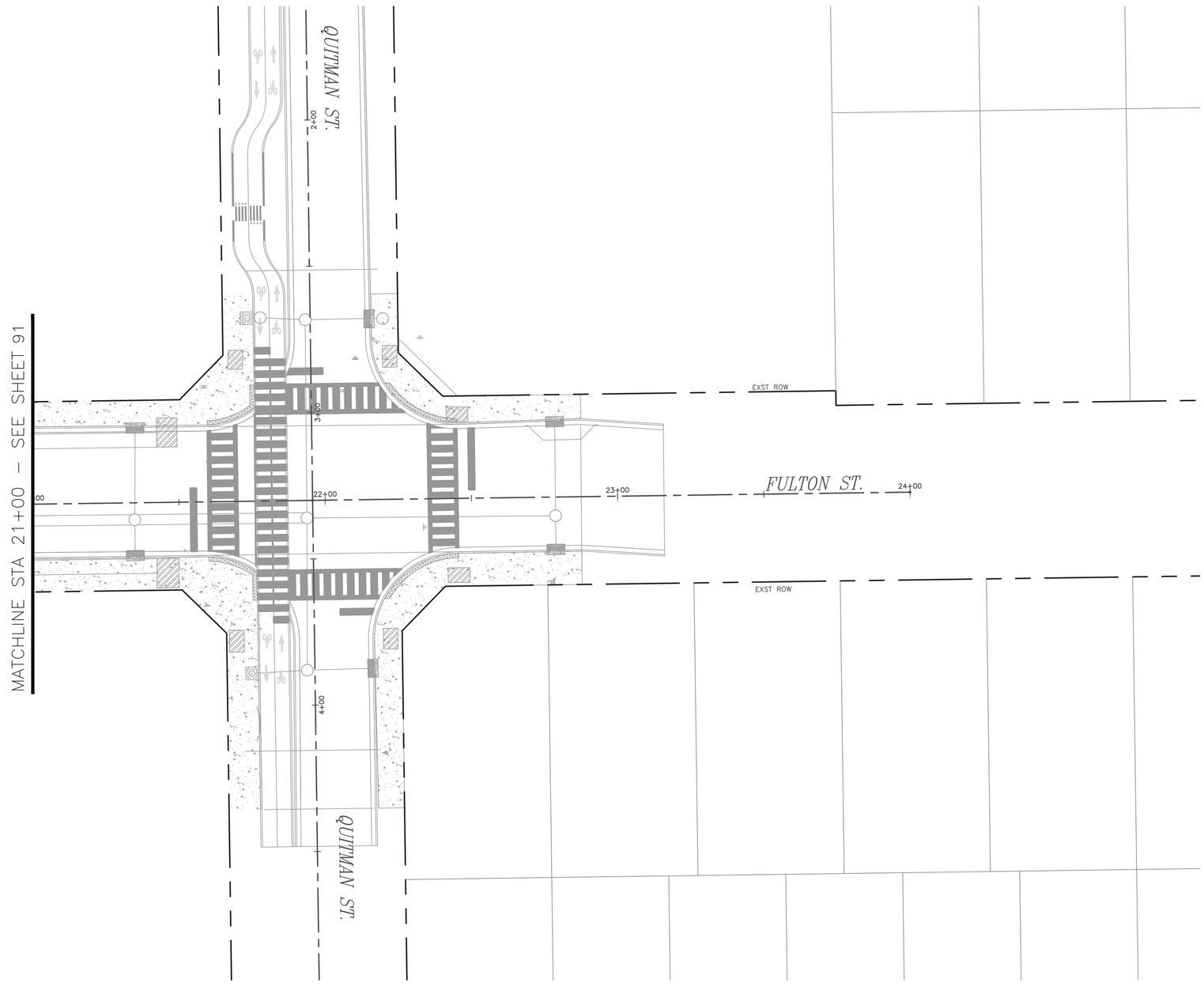
THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

P.E. HANS POURES
TEXAS PE No: 131630

DATE: 02/04/2026

PLOTTED: 2/4/2026 12:35 PM

FILE PATH: P:\Projects\0106 – City Of Houston\15010 – Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL PROPOSED PLAN PSHEET(91).dwg
PSHEET(91).dwg
OH.ctb



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON STREET
ELECTRICAL PLAN
STA. 21+00 TO END

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 92 OF 152

FOR CITY OF HOUSTON USE ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

P.E. HANS POURES
TEXAS PE No: 131630

DATE: 02/04/2026

PLOTTED: 2/4/2026 12:35 PM

FILE PATH: P:\Projects\0106 – City Of Houston\15010 – Fulton Street Lighting\4.0 CAD\4.2 Electrical Drawings\ELECTRICAL PROPOSED PLAN SHEETS\91_Fulton_Lighting_Plan_Sht_Dwg_OH.ctb

TRAFFIC SIGNAL GENERAL NOTES:

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

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

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

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

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

6. THE CONTRACTOR SHALL CONTACT THE ENGINEER AND/OR THE APPROVED CITY OF HOUSTON REPRESENTATIVE TO ARRANGE FOR METER AND ELECTRICAL SERVICE CONNECTION FROM THE POWER COMPANY.

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

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

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

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

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

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

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

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

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

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

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

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

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

20. ONLY NEW CONDUIT AND CABLE SHALL BE INSTALLED.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

35. THE EMERGENCY VEHICLE PRE-EMPTION SENSOR CABLE SHALL BE OPTICOM DETECTOR CABLE MODEL NO. 138. THE CABLE SHALL NOT BE SPLICED.

36. ALL VEHICLE AND PEDESTRIAN INDICATIONS SHALL BE LED.

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

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

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

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

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

PRIVATE UTILITY NOTES
CAUTION: SBC CABLES

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

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

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

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

CAUTION: UNDERGROUND GAS FACILITIES

1. LOCATIONS OF CENTERPOINT ENERGY GAS MAIN LINES (TO INCLUDE UNIT GAS TRANSMISSION AND/OR INDUSTRIAL GAS SUPPLY CORPORATION WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. THE CONTRACTOR SHALL CONTACT LONE STAR NOTIFICATION CENTER AT (713) 223-4567 OR 1-800-669-8344 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO MAIN AND SERVICE LINES FIELD LOCATED.

2. WHEN CENTERPOINT ENERGY GAS PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 967-8037 (7:00 AM TO 4:30 PM) FOR STATUS OF LINE LOCATION REQUESTS BEFORE EXCAVATION BEGINS.

3. WHEN EXCAVATING WITHIN EIGHTEEN (18) INCHES OF THE INDICATED LOCATION OF CENTERPOINT ENERGY GAS FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NONMECHANIZED EXCAVATION PROCEDURES.

4. WHEN CENTERPOINT ENERGY GAS FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.

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

WARNING: OVERHEAD ELECTRICAL FACILITIES

1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW SECTION 752, HEALTH & SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED, CALL CENTERPOINT ENERGY ELECTRIC AT (713) 207-7777.

2. CONTRACTOR TO NOTIFY LONE STAR NOTIFICATION CENTER AT (713) 223-4567, 48 HOURS BEFORE STARTING WORK IN STREET RIGHT-OF-WAY OR EASEMENTS.

RESPONSIBILITIES:

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

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

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

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

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

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

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

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

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

TRAFFIC SIGNAL GENERAL NOTES

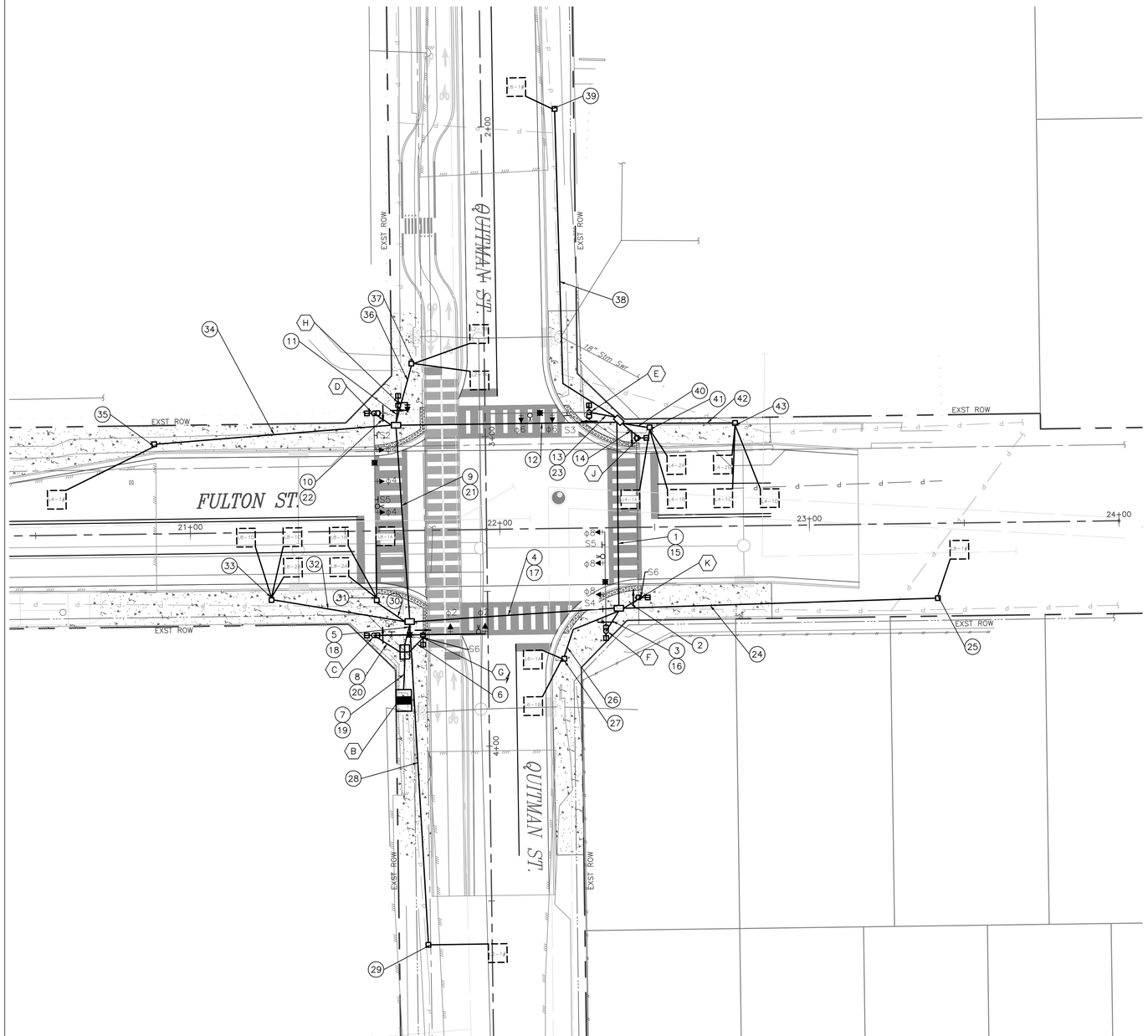
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 93 OF 152	

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

KARI HUI-SHAN CAI, P.E.
TEXAS PE No: 152599

DATE: 01/30/2026

PLOTTED: 2/13/2020 3:25 PM
PLOT STYLE: COH.ctb
FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\COH CP Title Block.dwg



PROPOSED TRAFFIC SIGNAL PHASING

ϕ2+ϕ6	ϕ4+ϕ8
ϕ2 PED, ϕ6B, ϕ6, ϕ6 PED, ϕ2B, ϕ2	ϕ4 PED, ϕ4, ϕ8, ϕ8 PED

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

POSTED SPEED LIMITS:
FULTON ST: 30 MPH
QUITMAN ST: 30 MPH

R10-12
30X24

S5

S6

S1=STREET NAME "FULTON ST", BLOCK NUMBERS 2300 AND 2200
S2=STREET NAME "QUITMAN ST", BLOCK NUMBERS 1000 AND 1100
S3=STREET NAME "FULTON ST", BLOCK NUMBERS 2200 AND 2300
S4=STREET NAME "QUITMAN ST", BLOCK NUMBERS 1100 AND 1000

PROPOSED TRAFFIC BICYCLE HEAD WITH BACKPLATE

PROPOSED PRE-FORMED LOOP DETECTOR

(K) PROPOSED POLE IDENTIFICATION

(#) PROPOSED RUN NUMBER

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

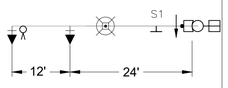
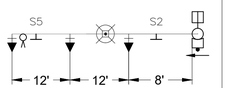
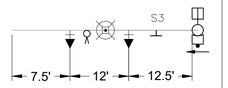
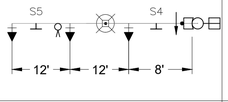
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON ST. AT QUITMAN ST.
PROPOSED TRAFFIC SIGNAL PLAN

WBS NUMBER	N-000818-0001-3
DRAWING SCALE	1"=20'
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.
SHEET NO.	94 OF 152

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
KEVIN L. OSKVIG, P.E.
TEXAS P.E. No. 112919
DATE: 01/30/2026

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\02 Proposed Traffic Signal Plan\FULTON ST AT QUITMAN St.dwg
PLOTTED: 1/29/2026 4:29 PM

PROPOSED TRAFFIC SIGNAL POLE SCHEDULE

POLE NUMBER	POLE TYPE	MAST ARM		SIGNALS		LUMINAIRE TYPE	PED PB TYPE/SIGN	REMARKS	LOCATION	STANDARDS
		SIGNAL	LUMINAIRE	MOUNTING	FACE					
(C) 	1	36'	15'	2 – ASTROBRAC' 1 – SIDE OF POLE	2–H3 1–CDP	115 WATT LED COBRA HEAD LUMINAIRE 1/PHOTOCELL	POLARA NAVIGATOR R10–3E(R)	SIGNS: S1 – STREET NAME	BY ENGINEER IN FIELD AT APPROX: POLE C: 3+63.71, 60.06'RT QUITMAN ST. CONST ℄	01554–08 01554–11 16742–01 02465–01 02582–01 02582–02 02582–03 02893–01
(D) 	1	32'	15'	3 – ASTROBRAC' 1 – SIDE OF POLE	3–H3 1–CDP	115 WATT LED COBRA HEAD LUMINAIRE 1/PHOTOCELL	POLARA NAVIGATOR R10–3E(L)	SIGNS: S5 – R10–12 S2 – STREET NAME	BY ENGINEER IN FIELD AT APPROX: POLE D: 21+59.84, 60.31'LT FULTON ST. CONST ℄	01554–08 01554–11 16742–01 02465–01 02582–01 02582–02 02582–03 02893–01
(E) 	1	32'	15'	2 – ASTROBRAC' 1 – SIDE OF POLE	2–H3 1–CDP	115 WATT LED COBRA HEAD LUMINAIRE 1/PHOTOCELL	POLARA NAVIGATOR R10–3E(L)	SIGNS: S3 – STREET NAME	BY ENGINEER IN FIELD AT APPROX: POLE E: 2+92.63, 57.52' LT QUITMAN ST. CONST ℄	01554–08 01554–11 16742–01 02465–01 02582–01 02582–02 02582–03 02893–01
(F) 	1	32'	15'	3 – ASTROBRAC' 1 – SIDE OF POLE	3–H3 1–CDP	115 WATT LED COBRA HEAD LUMINAIRE 1/PHOTOCELL	POLARA NAVIGATOR R10–3E(R)	SIGNS: S5 – R10–12 S4 – STREET NAME	BY ENGINEER IN FIELD AT APPROX: POLE F: 22+33.85, 57.05'RT FULTON ST. CONST ℄	01554–08 01554–11 16742–01 02465–01 02582–01 02582–02 02582–03 02893–01
(G)	PED POLE 15'	–	–	2– SIDE OF POLE	1–CDP 1–B3	–	POLARA NAVIGATOR R10–3E(L)	S6–R10–10b	BY ENGINEER IN FIELD AT APPROX: POLE G: 3+64.61, 20.99'RT QUITMAN ST. CONST ℄	01554–08 02465–02 02582–01 02582–04 02893–01
(H)	PED POLE 15'	–	–	2– SIDE OF POLE	1–CDP 1–B3	–	POLARA NAVIGATOR R10–3E(R)	S6–R10–10b	BY ENGINEER IN FIELD AT APPROX: POLE H: 2+88.63, 27.99'RT QUITMAN ST. CONST ℄	01554–08 02465–02 02582–01 02582–04 02893–01
(J)	PED POLE 15'	–	–	1– SIDE OF POLE	1–CDP	–	POLARA NAVIGATOR R10–3E(R)	–	BY ENGINEER IN FIELD AT APPROX: POLE J: 22+45.49, 28.85'LT FULTON ST. CONST ℄	01554–08 02465–02 02582–01 02582–04 02893–01
(K)	PED POLE 15'	–	–	1– SIDE OF POLE	1–CDP	–	POLARA NAVIGATOR R10–3E(L)	–	BY ENGINEER IN FIELD AT APPROX: POLE K: 22+45.26, 22.66'RT FULTON ST. CONST ℄	01554–08 02465–02 02582–01 02582–04 02893–01

NOTES:
1. ALL SIGNAL HEADS WILL BE 12" WITH LOUVERED BACK PLATES AND YELLOW HOUSING.

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P–6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

FULTON ST. AT QUITMAN ST.
TRAFFIC SIGNAL SCHEDULE
(SHEET 1 OF 2)

WBS NUMBER	N–000818–0001–3
DRAWING SCALE	N.T.S.
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.
SHEET NO. 95 OF 152	

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

KARI HUI-SHAN CAI, P.E.
TEXAS PE No: 152599

DATE: 01/30/2026

FILE PATH: P:\Projects\0106 – City Of Houston\15010 – Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\03 Traffic Signal Schedule – Fulton St (1).dwg PLOTTED: 2/4/2026 10:25 AM

TRAFFIC SIGNAL CONTROLLER

CABINET	TYPE	CONTROLLER	AUX. CONTROL	REMARKS	LOCATION	STANDARDS
(A)	–	–	–	–	–	–
(B)	TYPE 340 ITS	2070L WITH GPS SERIAL COMMUNICATIONS MODULE	–	–	BY ENGINEER IN FIELD AT APPROX: 3+84.88, 48.56'RT (CENTER OF CABINET) QUITMAN ST. CONST ℄	16730-03

STOP LINE AND LOOP DETECTOR LOCATIONS		
ITEM BY DIRECTION	STATION OF APPROACH EDGE FULTON ST	OFFSET
NORTHBOUND		
STOPLINE @ GUTTER	STA. 21+55.98	16.79' LT
STOPLINE @ CENTERLINE	STA. 21+55.98	4.70' LT
NORTHBOUND (THRU LANE)		
PHASE 8 CALL LOOP		
L8-2A SENSOR (6'X6')	STA. 21+50.98	CENTERED IN LANE
L8-2B SENSOR (6'X6')	STA. 21+50.98	CENTERED IN LANE
PHASE 8 DOWNSTREAM LOOPS		
L8-1# (6'X6')	STA. 23+51.31	CENTERED IN LANE
NORTHBOUND (LEFT TURN/THRU LANE)		
PHASE 8 PRESENCE LOOPS		
L8-1A (6'X6')	STA. 21+65.98	CENTERED IN LANE
L8-1B (6'X6')	STA. 21+50.98	CENTERED IN LANE
L8-1C (6'X6')	STA. 21+35.98	CENTERED IN LANE
L8-1D (6'X6')	STA. 21+20.98	CENTERED IN LANE
SOUTHBOUND		
STOPLINE @ GUTTER	STA. 22+50.18	20.93' RT
STOPLINE @ CENTERLINE	STA. 22+50.18	2.96' RT
SOUTHBOUND (THRU LANE)		
PHASE 4 CALL LOOP		
L4-2A SENSOR (6'X6')	STA. 22+54.30	CENTERED IN LANE
L4-2B SENSOR (6'X6')	STA. 22+69.30	CENTERED IN LANE
PHASE 4 DOWNSTREAM LOOPS		
L4-1# (6'X6')	STA. 20+60.02	CENTERED IN LANE
SOUTHBOUND (LEFT TURN/THRU LANE)		
PHASE 4 PRESENCE LOOPS		
L4-1A (6'X6')	STA. 22+39.30	CENTERED IN LANE
L4-1B (6'X6')	STA. 22+54.30	CENTERED IN LANE
L4-1C (6'X6')	STA. 22+69.30	CENTERED IN LANE
L4-1D (6'X6')	STA. 22+84.30	CENTERED IN LANE

STOP LINE AND LOOP DETECTOR LOCATIONS		
ITEM BY DIRECTION	STATION OF APPROACH EDGE QUITMAN ST	OFFSET
EASTBOUND		
STOPLINE @ GUTTER	STA. 2+85.86	7.64' LT
STOPLINE @ CENTERLINE	STA. 2+85.86	4.01' LT
EASTBOUND (THRU LANE)		
PHASE 2 CALL LOOP		
L2-1A SENSOR (6'X6')	STA. 2+84.86	CENTERED IN LANE
L2-2B SENSOR (6'X6')	STA. 2+69.86	CENTERED IN LANE
PHASE 6 DOWNSTREAM LOOPS		
L2-1# (6'X6')	STA. 4+63.86	CENTERED IN LANE
WESTBOUND		
STOPLINE @ GUTTER	STA. 3+68.25	11.09' RT
STOPLINE @ CENTERLINE	STA. 3+68.25	8.99' RT
WESTBOUND (THRU LANE)		
PHASE 6 CALL LOOP		
L6-1A SENSOR (6'X6')	STA. 3+69.25	CENTERED IN LANE
L6-2B SENSOR (6'X6')	STA. 3+84.25	CENTERED IN LANE
PHASE 6 DOWNSTREAM LOOPS		
L6-1# (6'X6')	STA. 1+90.01	CENTERED IN LANE

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

FULTON ST. AT QUITMAN ST.
TRAFFIC SIGNAL SCHEDULE
(SHEET 2 OF 2)

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 96 OF 152

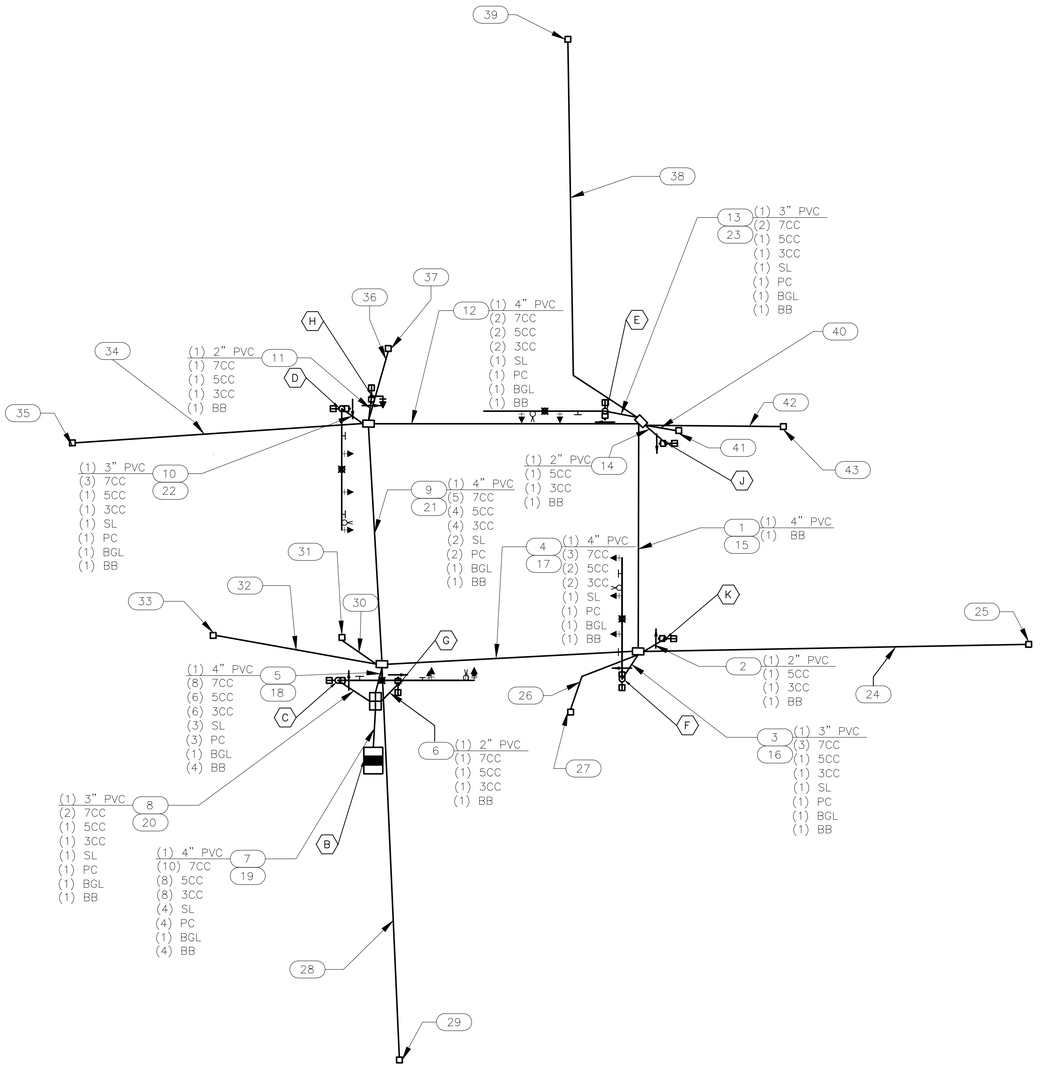
THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

[redacted] P.E.
TEXAS PE No. 142519

DATE: 01/30/2026

PLOTTED: 1/29/2026 9:31 AM

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\04 Traffic Signal Schedule Fulton St 2of2 (Exhibit).dwg



0' 10' 20' 40'

SCALE: 1"=20'

HIGH VOLTAGE CIRCUIT

(X)Y"C =NUMBER, SIZE, AND TYPE OF CONDUIT
(X) =NUMBER OF CABLES (SIGNAL)
CC =#14 AWG SOLID CONDUCTOR CABLE
BB =BARE BOND #8 AWG SOLID
BG =BARE GROUND #8 AWG SOLID
BGL =BARE GROUND LIGHTING #12 AWG THHN
SP =SIGNAL POWER (SEE NOTES)
SL =STREET LIGHTING (2-#10 AWG THHN)
PC =PHOTO CELL (2-#10 AWG THHN)

NOTES:
SP1 SHALL CONSIST OF: 6-#4 AWG THHN
2 - WHITE
1 - BLACK
1 - RED
2 - GREEN

SP2 SHALL CONSIST OF: 3-#4 AWG THHN WIRE WITH GROUND

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON ST. AT QUITMAN ST.
CABLE SCHEMATIC
(SHEET 1 OF 2)

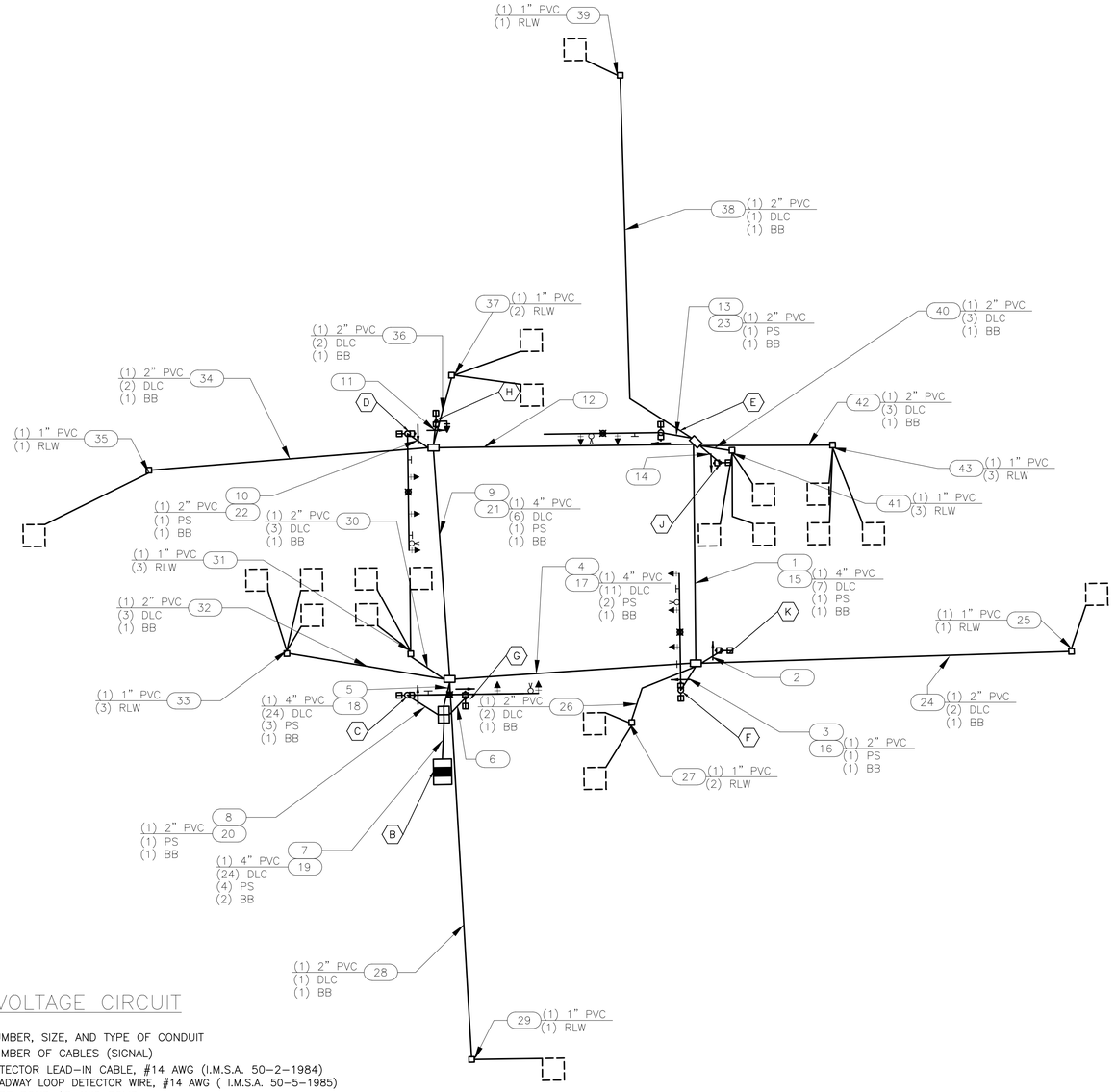
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 97 OF 152	

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

KEITH L. OSBORN, JR., P.E.
TBPE FIRM #: 12519

DATE: 01/30/2026

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\05 Cable Schematic Sheet Fulton (1).dwg
PLOTTED: 1/30/2026 10:08 AM



LOW VOLTAGE CIRCUIT

(X)Y"C =NUMBER, SIZE, AND TYPE OF CONDUIT
(X) =NUMBER OF CABLES (SIGNAL)
DLC =DETECTOR LEAD-IN CABLE, #14 AWG (I.M.S.A. 50-2-1984)
RLW =ROADWAY LOOP DETECTOR WIRE, #14 AWG (I.M.S.A. 50-5-1985)
BB =BARE BOND #8 AWG SOLID
PS = PRE-EMPTION SENSOR, OPTICOM, #20 3CC SHIELDED CABLE (3M MODEL 138)

0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET
FULTON ST. AT QUITMAN ST.
CABLE SCHEMATIC (SHEET 2 OF 2)

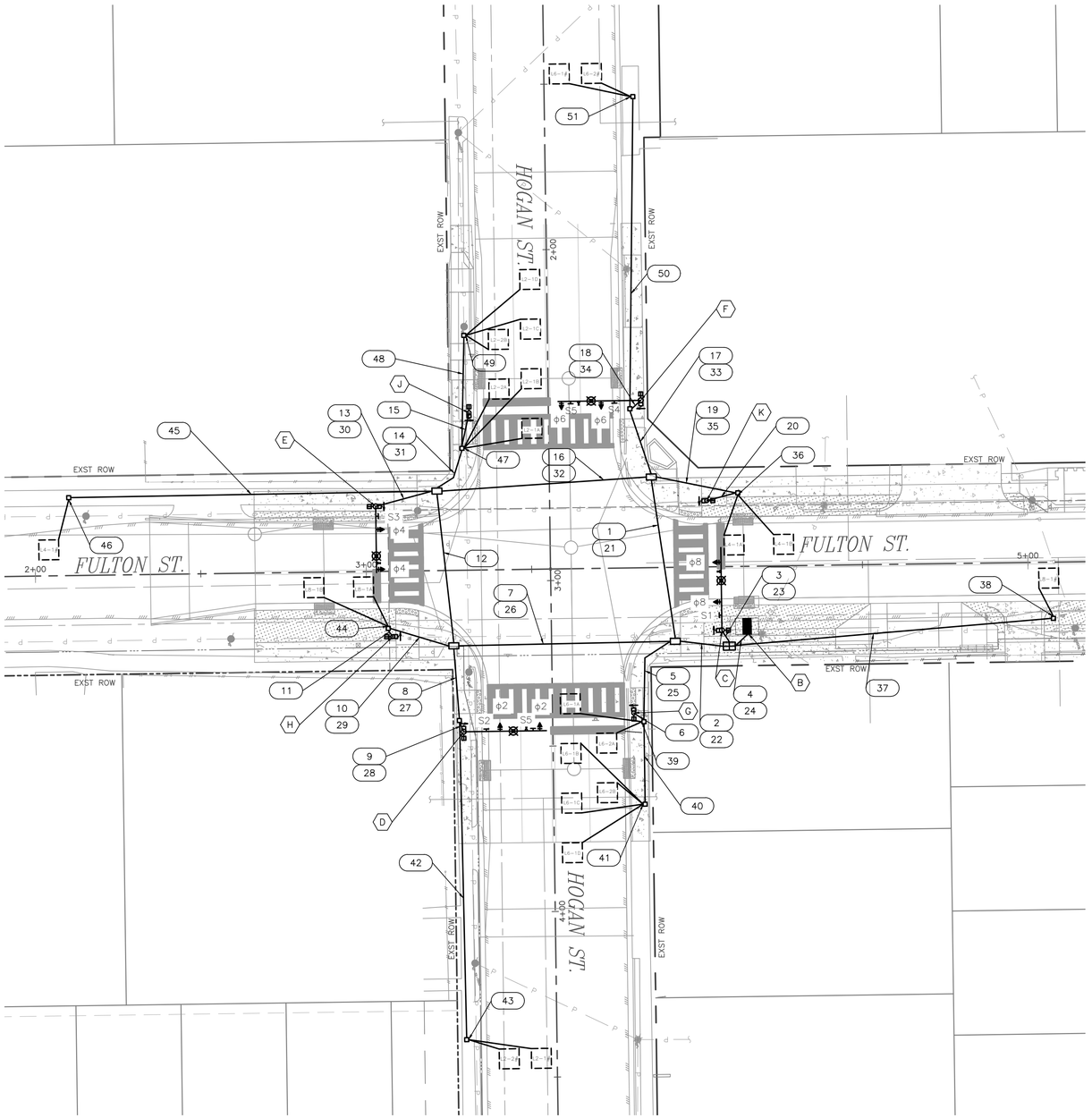
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 98 OF 152	

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

KATHLEEN OSTA, P.E.
TEXAS P.E. No. 132519

DATE: 01/30/2026

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\06 Cable Schematic Sheet Full (2).dwg
PLOTTED: 1/30/2026 10:09 AM



PROPOSED TRAFFIC SIGNAL PHASING

φ2+φ6	φ4+φ8
φ6, φ2 PED, φ6 PED, φ2	φ4 PED, φ4, φ8, φ8 PED

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

POSTED SPEED LIMITS:
FULTON ST: 30 MPH
HOGAN ST: 30 MPH

R10-12
30X24

S5

S1=STREET NAME "HOGAN ST", BLOCK NUMBERS 1000 AND 1100
S2=STREET NAME "FULTON ST", BLOCK NUMBERS 1900 AND 1800
S3=STREET NAME "HOGAN ST", BLOCK NUMBERS 1100 AND 1000
S4=STREET NAME "FULTON ST", BLOCK NUMBERS 1800 AND 1900

PROPOSED TRAFFIC BICYCLE HEAD WITH BACKPLATE

PROPOSED PRE-FORMED LOOP DETECTOR

(X) PROPOSED POLE IDENTIFICATION

(#) PROPOSED RUN NUMBER

NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

FULTON STREET AT HOGAN STREET

PROPOSED TRAFFIC SIGNAL PLAN

WBS NUMBER	N-000818-0001-3
DRAWING SCALE	1"=20'
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.
SHEET NO.	99 OF 152

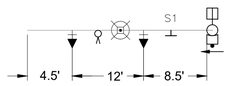
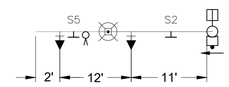
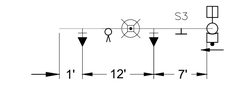
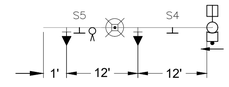
THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

KARI HUI-SHAN CAI, P.E.
TEXAS PE No: 152599

DATE: 01/30/2026

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\07 Proposed Traffic Signal Plan\PLOTFIXTURE.SCR
PLOTTED: 2/3/2026 3:17 PM
Fulton & Hogan St.dwg

PROPOSED TRAFFIC SIGNAL POLE SCHEDULE

POLE NUMBER	POLE TYPE	MAST ARM		SIGNALS		LUMINAIRE TYPE	PED PB TYPE/SIGN	REMARKS	LOCATION	STANDARDS
		SIGNAL	LUMINAIRE	MOUNTING	FACE					
(C) 	1	25'	15'	2 – ASTROBRAC' 1 – SIDE OF POLE	2–H3 1–CDP	115 WATT LED COBRA HEAD LUMINAIRE W/PHOTOCELL	POLARA NAVIGATOR R10–3E(L)	SIGNS: S1 – STREET NAME	BY ENGINEER IN FIELD AT APPROX: POLE C: 4+07.26, 19.22'RT FULTON ST. CONST ℄	01554–08 01554–11 16742–01 02465–01 02582–01 02582–02 02582–03 02893–01
(D) 	1	25'	15'	3 – ASTROBRAC' 1 – SIDE OF POLE	2–H3 1–CDP	115 WATT LED COBRA HEAD LUMINAIRE W/PHOTOCELL	POLARA NAVIGATOR R10–3E(L)	SIGNS: S5 – R10–12 S2 – STREET NAME	BY ENGINEER IN FIELD AT APPROX: POLE D: 3+45.32, 26.90'RT HOGAN ST. CONST ℄	01554–08 01554–11 16742–01 02465–01 02582–01 02582–02 02582–03 02893–01
(E) 	1	20'	15'	2 – ASTROBRAC' 1 – SIDE OF POLE	2–H3 1–CDP	115 WATT LED COBRA HEAD LUMINAIRE W/PHOTOCELL	POLARA NAVIGATOR R10–3E(L)	SIGNS: S3 – STREET NAME	BY ENGINEER IN FIELD AT APPROX: POLE E: 3+03.13, 19.62' LT FULTON ST. CONST ℄	01554–08 01554–11 16742–01 02465–01 02582–01 02582–02 02582–03 02893–01
(F) 	1	25'	15'	2 – ASTROBRAC' 1 – SIDE OF POLE	2–H3 1–CDP	115 WATT LED COBRA HEAD LUMINAIRE W/PHOTOCELL	POLARA NAVIGATOR R10–3E(L)	SIGNS: S5 – R10–12 S4 – STREET NAME	BY ENGINEER IN FIELD AT APPROX: POLE F: 2+45.91, 27.97'LT HOGAN ST. CONST ℄	01554–08 01554–11 16742–01 02465–01 02582–01 02582–02 02582–03 02893–01
(G)(H)(J)(K)	PED POLE 15'	–	–	1– SIDE OF POLE	1–CDP	–	POLARA NAVIGATOR R10–3E(R)	–	BY ENGINEER IN FIELD AT APPROX: POLE G: 3+40.30, 24.57'LT HOGAN ST. CONST ℄ POLE H: 3+07.72, 19.78'RT FULTON ST. CONST ℄ POLE J: 2+48.95, 23.98'RT HOGAN ST. CONST ℄ POLE K: 4+03.22, 19.99'LT FULTON ST. CONST ℄	01554–08 02465–01 02582–01 02582–04 02893–01

NOTES:
1. ALL SIGNAL HEADS WILL BE 12" WITH LOUVERED BACK PLATES AND YELLOW HOUSING.

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P–6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

FULTON STREET AT HOGAN STREET TRAFFIC SIGNAL POLE SCHEDULE (SHEET 1 OF 2)

WBS NUMBER	
N–000818–0001–3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 100 OF 152	

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

KARI HUI-SHAN CAI, P.E.
TEXAS PE No: 152599

DATE: 01/30/2026

FILE PATH: P:\Projects\0106 – City Of Houston\15010 – Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\08 Traffic Signal Pole Schedule.dwg PLOTTED: 2/3/2026 9:33 AM

TRAFFIC SIGNAL CONTROLLER

CABINET	TYPE	CONTROLLER	AUX. CONTROL	REMARKS	LOCATION	STANDARDS
(A)	–	–	–	–	–	–
(B)	TYPE 340 ITS	2070L WITH GPS SERIAL COMMUNICATIONS MODULE	–	–	BY ENGINEER IN FIELD AT APPROX: 4+14.86, 18.12'RT (CENTER OF CABINET) FULTON ST. CONST ℄	16730-03

STOP LINE AND LOOP DETECTOR LOCATIONS		
ITEM BY DIRECTION	STATION OF APPROACH EDGE HOGAN ST	OFFSET
EASTBOUND		
STOPLINE @ GUTTER	STA. 4+45.92	19.51' RT
STOPLINE @ CENTERLINE	STA. 4+45.92	0.50' LT
EASTBOUND (THRU LANE)		
PHASE 2 CALL LOOP		
L2-2A SENSOR (6'X6')	STA. 2+44.92	CENTERED IN LANE
L2-2B SENSOR (6'X6')	STA. 2+29.92	CENTERED IN LANE
PHASE 2 DOWNSTREAM LOOPS		
L2-1# (6'X6')	STA. 4+47.30	CENTERED IN LANE
L2-2# (6'X6')	STA. 4+47.30	CENTERED IN LANE
EASTBOUND (LEFT TURN/THRU LANE)		
PHASE 2 PRESENCE LOOPS		
L2-1A (6'X6')	STA. 2+56.92	CENTERED IN LANE
L2-1B (6'X6')	STA. 2+41.92	CENTERED IN LANE
L2-1C (6'X6')	STA. 2+26.92	CENTERED IN LANE
L2-1D (6'X6')	STA. 2+11.92	CENTERED IN LANE
WESTBOUND		
STOPLINE @ GUTTER	STA. 3+45.32	21.69' LT
STOPLINE @ CENTERLINE	STA. 3+45.32	0.49' RT
WESTBOUND (THRU LANE)		
PHASE 6 CALL LOOP		
L6-2A SENSOR (6'X6')	STA. 3+46.32	CENTERED IN LANE
L6-2B SENSOR (6'X6')	STA. 3+61.32	CENTERED IN LANE
PHASE 6 DOWNSTREAM LOOPS		
L6-1# (6'X6')	STA. 1+43.95	CENTERED IN LANE
L6-2# (6'X6')	STA. 1+43.95	CENTERED IN LANE
WESTBOUND (LEFT TURN/THRU LANE)		
PHASE 6 PRESENCE LOOPS		
L6-1A (6'X6')	STA. 3+34.30	CENTERED IN LANE
L6-1B (6'X6')	STA. 3+49.30	CENTERED IN LANE
L6-1C (6'X6')	STA. 3+64.30	CENTERED IN LANE
L6-1D (6'X6')	STA. 3+79.30	CENTERED IN LANE

STOP LINE AND LOOP DETECTOR LOCATIONS		
ITEM BY DIRECTION	STATION OF APPROACH EDGE FULTON ST	OFFSET
NORTHBOUND		
STOPLINE @ GUTTER	STA. 3+03.13	9.29' RT
STOPLINE @ CENTERLINE	STA. 3+03.13	0.48' LT
NORTHBOUND (THRU LANE)		
PHASE 8 CALL LOOP		
L8-1A SENSOR (6'X6')	STA. 3+02.13	CENTERED IN LANE
L8-1B SENSOR (6'X6')	STA. 2+87.13	CENTERED IN LANE
PHASE 8 DOWNSTREAM LOOPS		
L8-1# (6'X6')	STA. 5+09.21	CENTERED IN LANE
SOUTHBOUND		
STOPLINE @ GUTTER	STA. 4+07.27	12.98' LT
STOPLINE @ CENTERLINE	STA. 4+07.27	0.52' RT
SOUTHBOUND (THRU LANE)		
PHASE 4 CALL LOOP		
L4-1A SENSOR (6'X6')	STA. 4+08.25	CENTERED IN LANE
L4-2B SENSOR (6'X6')	STS. 4+23.25	CENTERED IN LANE
PHASE 4 DOWNSTREAM LOOPS		
L4-1# (6'X6')	STA. 2+01.16	CENTERED IN LANE

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

FULTON ST. AT HOGAN ST.
TRAFFIC SIGNAL CONTROLLER
(SHEET 2 OF 2)

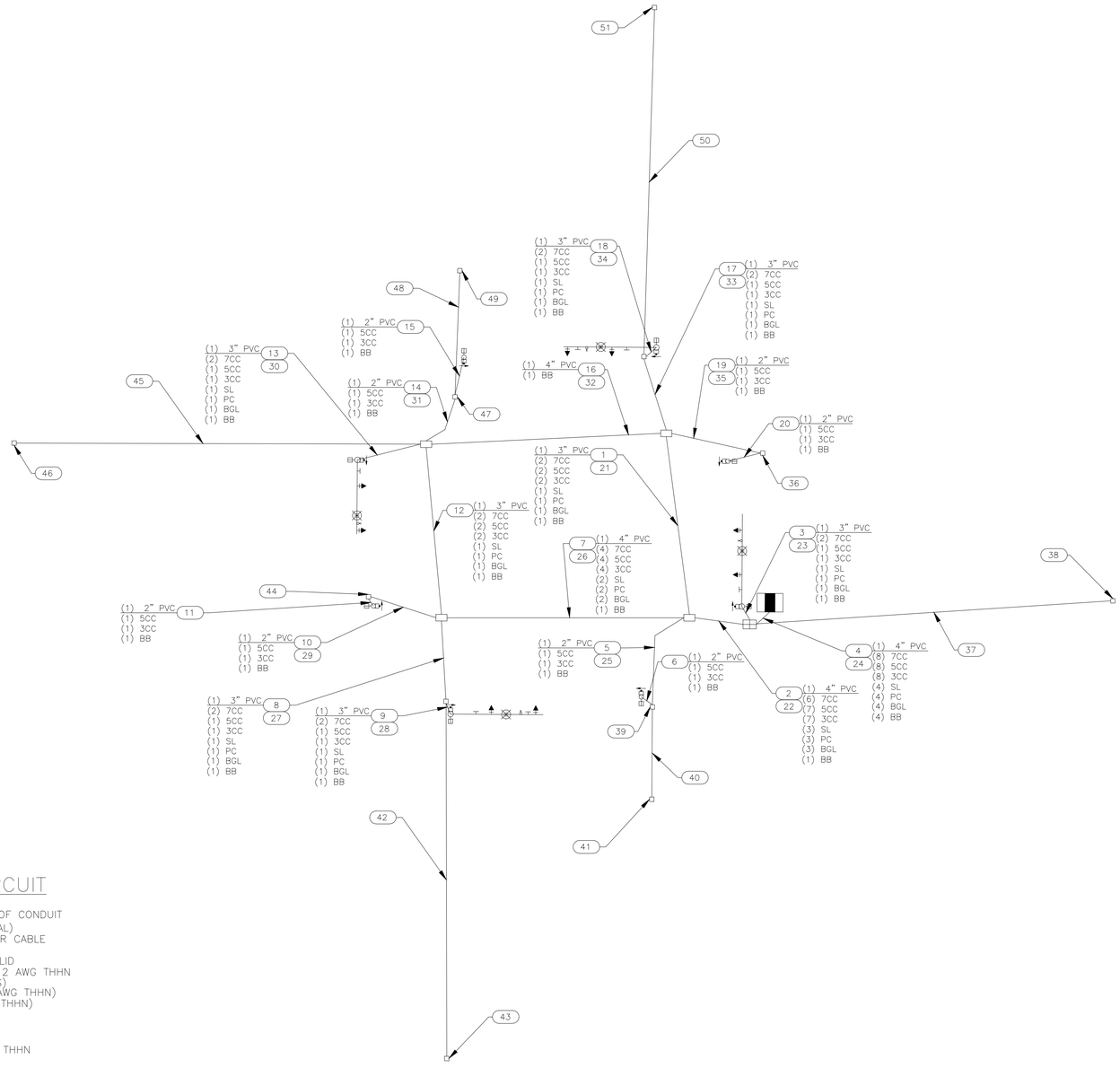
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 101 OF 152	

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

KARI HUI-SHAN CAI, P.E.
TEXAS PE No: 152599

DATE: 01/30/2026

PLOTTED: 2/2/2026 4:10 PM
FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\Traffic Signal Controller Fulton ELOR 3709 Sign Sheet.dgn



HIGH VOLTAGE CIRCUIT

(X)Y"C	=NUMBER, SIZE, AND TYPE OF CONDUIT
(X)	=NUMBER OF CABLES (SIGNAL)
CC	=#14 AWG SOLID CONDUCTOR CABLE
BB	=BARE BOND #8 AWG SOLID
BG	=BARE GROUND #8 AWG SOLID
BGL	=BARE GROUND LIGHTING #12 AWG THHN
SP	=SIGNAL POWER (SEE NOTES)
SL	=STREET LIGHTING (2-#10 AWG THHN)
PC	=PHOTO CELL (2-#10 AWG THHN)

NOTES:
SP1 SHALL CONSIST OF: 6-#4 AWG THHN
2 - WHITE
1 - BLACK
1 - RED
2 - GREEN

SP2 SHALL CONSIST OF: 3-#4 AWG THHN WIRE WITH GROUND

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

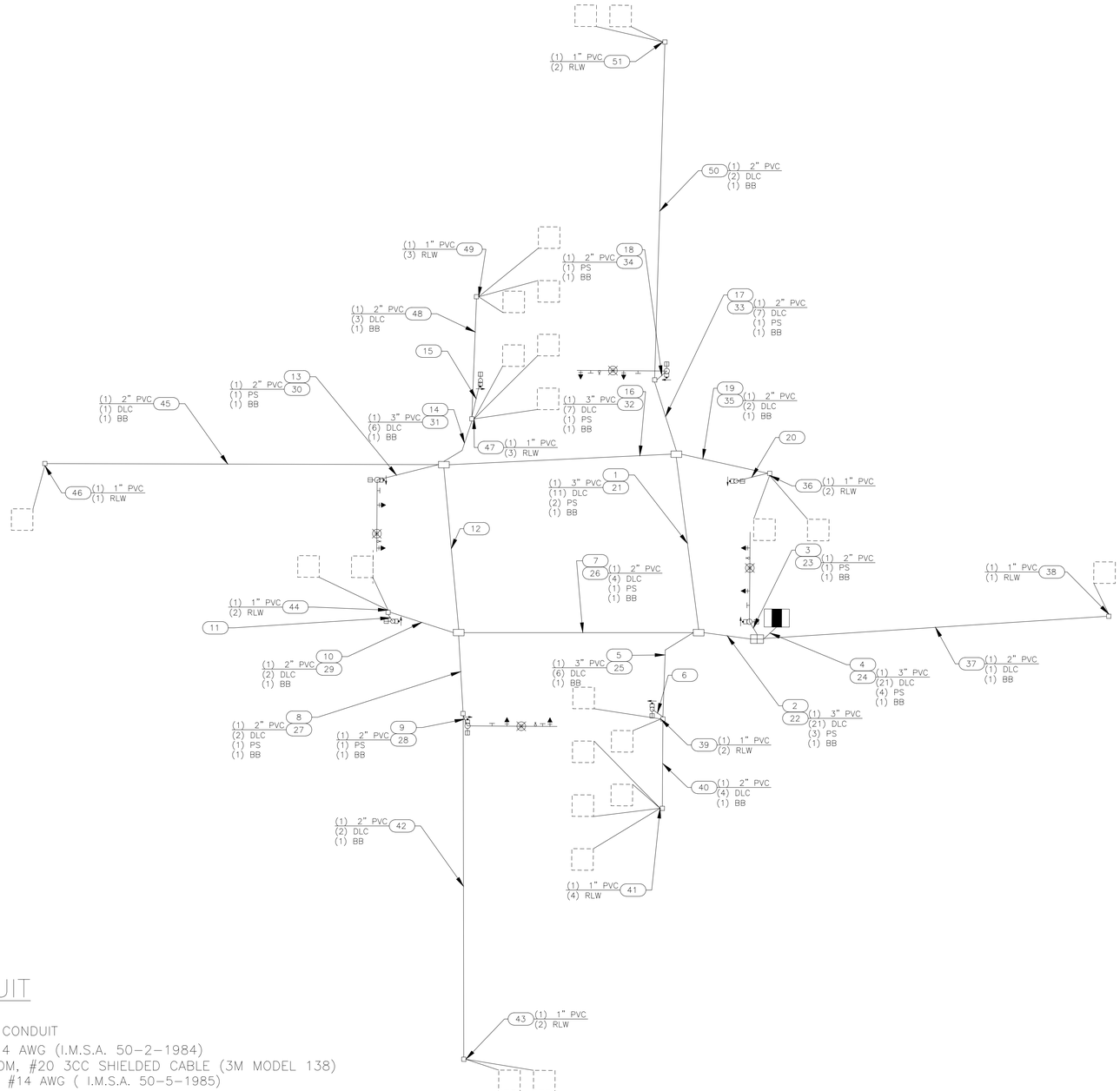
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

FULTON ST. AT HOGAN ST.

CABLE SCHEMATIC (SHEET 1 OF 2)

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-000818-0001-3	THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
DRAWING SCALE	KARI HUI-SHAN CAI, P.E. TEXAS PE No: 152599
	DATE: 01/30/2026
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 102 OF 152	

PLOT STYLE: COH.ctb
PLOTTED: 2/3/2026 10:35 AM
PATH: C:\Users\lmclean\OneDrive - Mbroh Engineering\Fulton St - Signal Design_High Volts.dwg



LOW VOLTAGE CIRCUIT

(X)Y"C =NUMBER, SIZE, AND TYPE OF CONDUIT
DLC =DETECTOR LEAD-IN CABLE, #14 AWG (I.M.S.A. 50-2-1984)
PS =PRE-EMPTION SENSOR, OPTICOM, #20 3CC SHIELDED CABLE (3M MODEL 138)
RLW =ROADWAY LOOP DETECTOR WIRE, #14 AWG (I.M.S.A. 50-5-1985)
BB =BARE BOND #8 AWG SOLID

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

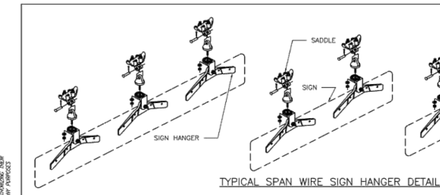
FULTON ST. AT HOGAN ST.

CABLE SCHEMATIC
(SHEET 2 OF 2)

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-000818-0001-3	THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
DRAWING SCALE	KARI HUI-SHAN CAI, P.E. TEXAS PE No: 152599
	DATE: 01/30/2026
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 103 OF 152	

PLOTTED: 2/3/2026 10:37 AM
PLOT STYLE: COH.ctb
PATH: C:\Users\lmclean\OneDrive - Mbroh Engineering\Fulton St - Signal Design_Low Volts.dwg

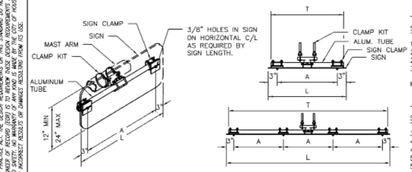
DocuSign Envelope ID: CB71C115-B716-4899-A5EE-0D2F2CC55AF6



TYPICAL SPAN WIRE SIGN HANGER DETAILS

NOTES:

1. CONTRACTOR SHALL USE PELCO PARTS OR AN APPROVED EQUAL.
2. CONTRACTOR SHALL FURNISH ALL HARDWARE FOR A COMPLETE INSTALLATION.
3. THE 90 DEGREE SPAN WIRE CLAMPS (SADDLES) ARE ATTACHED TO TETHERS (SWAY CABLES).
4. CONTRACTOR SHALL FURNISH ONE (1) ADJUSTABLE FREE SWINGING SIGN HANGER PER STREET NAME SIGN SMALLER THAN 3'-0". SIGNS 3'-0" TO 6'-0" REQUIRE TWO (2) HANGERS. SIGNS LARGER THAN 6'-0" REQUIRE THREE (3) HANGERS.
5. SEE SIGN MOUNTING SERIES FOR STREET NAME SIGN DETAILS.



SIGNS (1'-6" TO 3'-0" LONG)

SIGN LENGTH (L)	TUBE LENGTH (T)	A
1'-6"	16"	12"
2'-0"	22"	18"
2'-6"	28"	24"
3'-0"	34"	30"

MAXIMUM SIGN HEIGHT: 48"

SIGNS (3'-6" TO 8'-0" LONG)

SIGN LENGTH (L)	TUBE LENGTH (T)	A
3'-6"	40"	12"
4'-0"	46"	14"
4'-6"	52"	16"
5'-0"	58"	18"
5'-6"	64"	20"
6'-0"	70"	22"
6'-6"	76"	24"
7'-0"	82"	26"
7'-6"	88"	28"
8'-0"	94"	30"

MAXIMUM SIGN HEIGHT: 24"

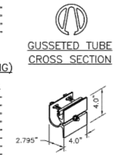
SIGNS (8'-6" TO 10'-0" LONG)

SIGN LENGTH (L)	TUBE LENGTH (T)	A	B
8'-6"	100"	19"	20"
9'-0"	106"	20"	22"
9'-6"	112"	21"	24"
10'-0"	118"	22"	26"

MAXIMUM SIGN HEIGHT: 16"

SIGN SQUARE FOOTAGE NOT TO EXCEED ROTATIONAL RESISTANCE CAPACITY DEFINED BY MOUNTING HARDWARE MANUFACTURER.

TYPICAL MAST ARM SIGN MOUNT DETAILS



SIGN CLAMP DETAIL

DISCLAIMER:
THIS STANDARD IS DEVISED BY THE EDIT DRAFTING PRACTICE AND, AS SUCH, REPRESENTS IN THE OPINION OF ITS AUTHOR A REASONABLE METHOD OF DESIGN AND DETAILING. ALL OF THE ENTITY CONSULTING ASSOCIATED WITH THIS DOC. INC. EXPRESSLY DISCLAIMS ANY AND ALL LIABILITY TO ANY PERSON OR ENTITY FOR ANY DAMAGES, LOSSES, OR EXPENSES ARISING OUT OF OR RESULTING FROM THE USE OF THIS DOCUMENT BY ANY PERSON OR ENTITY. ANY USER OF THIS DOCUMENT ASSUMES ALL RISK AND LIABILITY ARISING FROM SUCH USE AND AGREES TO INDEMNIFY AND HOLD HARMLESS THE CITY OF HOUSTON AND ITS CONSULTANTS AND AGENTS FROM ANY AND ALL CLAIMS, LIABILITIES, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING FROM SUCH USE. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE. HOUSTON PUBLIC WORKS STANDARD

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

OVERHEAD STREET NAME SIGN MOUNTING DETAILS

(SCALE: NOT TO SCALE)

APPROVED BY:

Developed by: Sakul Incaur — CITY ENGINEER
Developed by: Wang Nguyen — CITY TRAFFIC ENGINEER
Developed by: Carl Haddock — DIRECTOR OF HPW

EFF DATE: NOV-27-2023 DWG NO: 01554-11

DocuSign Envelope ID: CB71C115-B716-4899-A5EE-0D2F2CC55AF6

FOUNDATION DESIGN TABLE

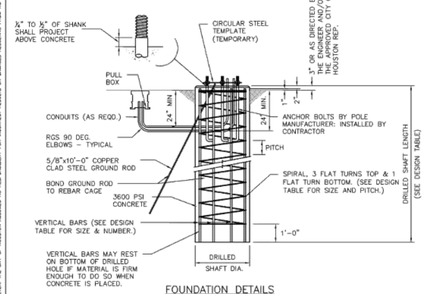
POLE MARK	DRILLED SHAFT DIA.	REINFORCING STEEL: VERT. BARS	REINFORCING STEEL: SPIRAL & PITCH	DRILLED SHAFT LENGTH FT.	BOLT CIRCLE DIA.	FOUNDATION DESIGN LOADS (1): MOMENT K-FT.	FOUNDATION DESIGN LOADS (1): SHEAR KIPS	FOUNDATION DESIGN LOADS (1): TORQUE K-FT.	TYPICAL APPLICATION
HOU 1	30"	8-#9 BAR	#3 BAR @9"	14'-0"	18"	72.2	3.4	51.9	MAST ARM ASSEMBLY (25'-35') IN COHESIVE SOILS
HOU 2	30"	8-#9 BAR	#3 BAR @9"	18'-0"	18"	89.9	4.0	98.0	MAST ARM ASSEMBLY (40'-55') IN COHESIVE SOILS. MAST ARM ASSEMBLY (25'-55') IN NON-COHESIVE SOILS

FOUNDATION DESIGN TABLE NOTES:

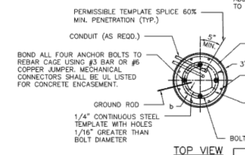
(1) FOUNDATION DESIGN LOADS ARE THE ALLOWABLE MOMENTS, SHEARS AND TORQUES AT THE TOP OF THE FOUNDATION.

(2) CONSTRUCT IN ACCORDANCE WITH CITY OF HOUSTON SPECIFICATION SECTION 02465, "DRILLED SHAFT FOUNDATIONS".

(3) FOUNDATION DESIGN IS BASED UPON AN UNDRAINED SHEAR STRENGTH OF 1500 PSF FOR COHESIVE SOILS AND A TEXAS CONE PENETROMETER MINIMUM OF 10 BLOWS/FOOT IN NON-COHESIVE SOILS. WHERE COHESIVE AND NON-COHESIVE LAYERS EXIST WITHIN THE SPECIFIED SHAFT LENGTH, THE NON-COHESIVE SOILS SHALL GOVERN. LOWER SOIL PARAMETERS WILL REQUIRE A SPECIAL DESIGN.



FOUNDATION DETAILS



TOP VIEW

NOTE:

1. b = MINIMUM STEEL TEMPLATE WIDTH EQUAL TO TWO TIMES ANCHOR BOLT DIAMETER.
2. STEEL TEMPLATE MAY BE OF CONTINUOUS WIDTH OR SEGMENTED WIDTH.
3. SEE FOUNDATION DESIGN TABLE FOR BOLT CIRCLE DIAMETER.
4. BOLTS SHOULD BE CHECKED FOR PLUMB AFTER CONCRETE IS POURED AND BEFORE INITIAL SET.

GENERAL NOTES:

1. DESIGN IS FOR CITY OF HOUSTON STANDARD TRAFFIC SIGNAL MAST ARM SUPPORT STRUCTURES BY VALMONT INDUSTRIES, INC.
2. DESIGN CONFORMS TO 2001 AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" AND INTERIM REVISIONS THERETO FOR A 90 MPH WIND ZONE WITH A 1.3 GUST FACTOR AND ACI "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-02).
3. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
4. CONCRETE SHALL BE 6 SACK, 3600 PSI.
5. ALL ANCHOR BOLTS SHALL BE GALVANIZED THE ENTIRE LENGTH OF BOLT. EXPOSED NUTS AND WASHERS SHALL ALSO BE GALVANIZED.

INSTALLATION PROCEDURE

THREADS OF ANCHOR BOLTS SHALL BE COATED WITH PIPE JOINT COMPOUND PRIOR TO INSTALLATION OF UPPER NUTS WHEN ERECTING POLE. AFTER POLE IS PLUMBED AND IN PERMANENT ALIGNMENT, THE EXPOSED THREADS OF PAINTED BOLTS SHALL BE CLEANED AND AN ADDITIONAL COATING OF ZINC-RICH PAINT APPLIED TO SEAL THE BOLT THREAD-NUT JOINT.

DISCLAIMER:
THIS STANDARD IS DEVISED BY THE EDIT DRAFTING PRACTICE AND, AS SUCH, REPRESENTS IN THE OPINION OF ITS AUTHOR A REASONABLE METHOD OF DESIGN AND DETAILING. ALL OF THE ENTITY CONSULTING ASSOCIATED WITH THIS DOC. INC. EXPRESSLY DISCLAIMS ANY AND ALL LIABILITY TO ANY PERSON OR ENTITY FOR ANY DAMAGES, LOSSES, OR EXPENSES ARISING OUT OF OR RESULTING FROM THE USE OF THIS DOCUMENT BY ANY PERSON OR ENTITY. ANY USER OF THIS DOCUMENT ASSUMES ALL RISK AND LIABILITY ARISING FROM SUCH USE AND AGREES TO INDEMNIFY AND HOLD HARMLESS THE CITY OF HOUSTON AND ITS CONSULTANTS AND AGENTS FROM ANY AND ALL CLAIMS, LIABILITIES, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING FROM SUCH USE. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE. HOUSTON PUBLIC WORKS STANDARD

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

DRILLED SHAFT FOUNDATIONS

(SCALE: NOT TO SCALE)

APPROVED BY:

Developed by: Sakul Incaur — CITY ENGINEER
Developed by: Wang Nguyen — CITY TRAFFIC ENGINEER
Developed by: Carl Haddock — DIRECTOR OF HPW

EFF DATE: NOV-27-2023 DWG NO: 02465-01

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

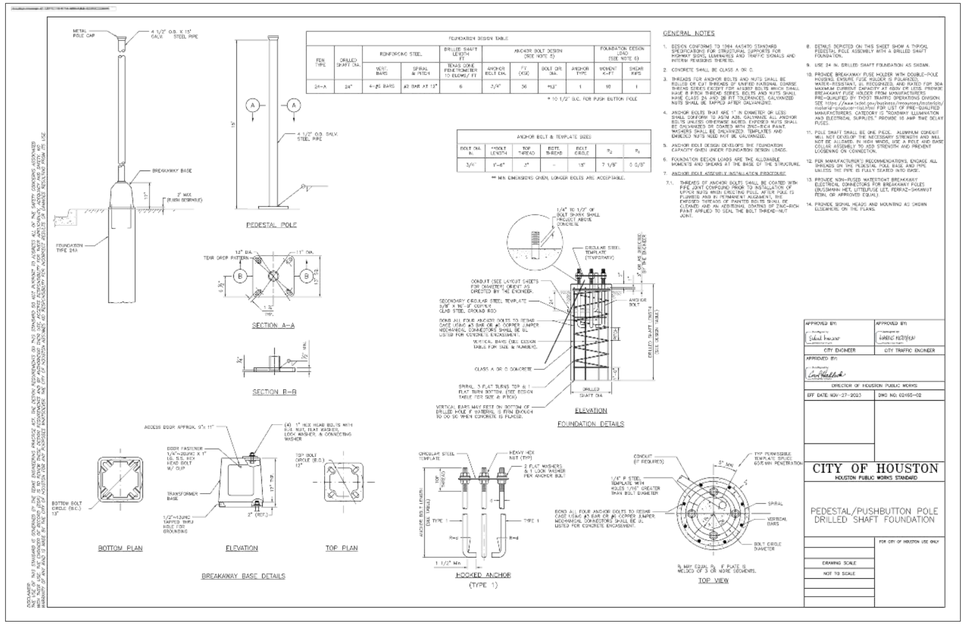
Signature valid for six months.

Date

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

Signature valid for six months.

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



FOUNDATION DESIGN TABLE

POLE TYPE	DRILLED SHAFT DIA.	REINFORCING STEEL: VERT. BARS	REINFORCING STEEL: SPIRAL & PITCH	ANCHOR BOLT DESIGNATION (SEE NOTE 5)	ANCHOR BOLT DIA.	BOLT CIR. DIA.	ANCHOR TYPE	FOUNDATION DESIGN LOAD (SEE NOTE 11): MOMENT K-FT	FOUNDATION DESIGN LOAD (SEE NOTE 11): SHEAR KIPS
24-A	24"	4-#6 BARS	#3 BAR AT 12"	6	2 3/4"	36	HOOK	1	10

* TO 1 1/2" O.C. FOR PUSH BUTTON POLE

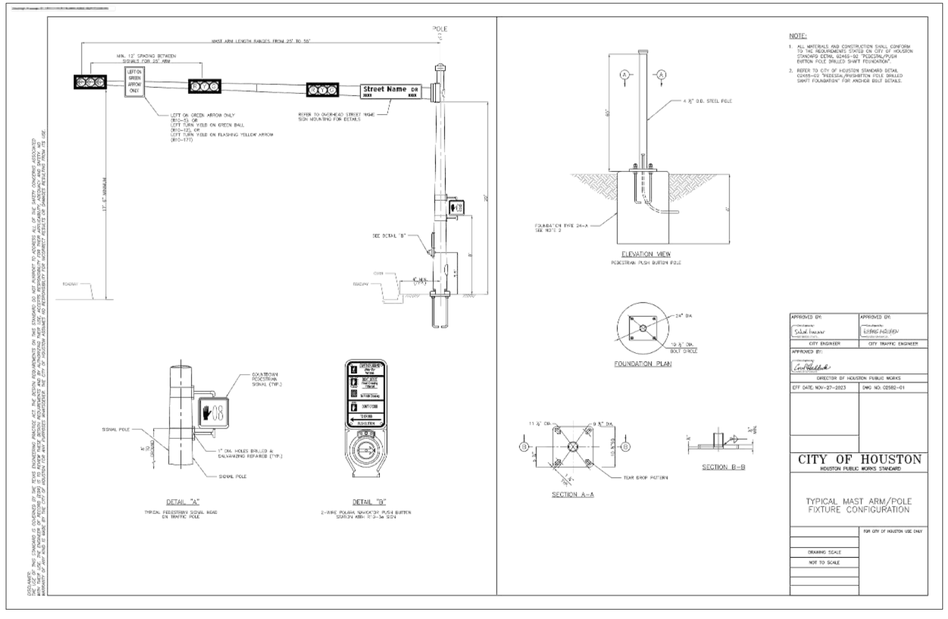
ANCHOR BOLT & TEMPLATE SIZE

BOLT DIA. A	HOOK LENGTH	NUT WIDTH	WASHER THICK.	WASHER DIAM.	B_1	B_2
3/4"	9"-6"	2"	-	1.5"	7 1/8"	0 5/8"

** MIN. EMBEDDING GRADE, LONGER BOLTS ARE ACCEPTABLE

GENERAL NOTES

1. BASIS CONFORMS TO 1994 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS AND INTERIM REVISIONS THERETO.
2. CONCRETE SHALL BE CLASS A SK 3.
3. THREADS FOR ANCHOR BOLTS AND NUTS SHALL BE 8 PITCH, THREAD SERIES, CLASS 2A. ALL OTHER BOLT THREAD SERIES EXCEPT FOR ANCHOR BOLTS WHICH SHALL HAVE 8 PITCH THREAD SERIES, BOLTS AND NUTS SHALL BE CLASS 2A. ALL NUTS SHALL BE CLASS 2B. WASHER NUTS SHALL BE TAPPED AFTER GALVANIZING.
4. ANCHOR BOLTS THAT ARE 1" IN DIAMETER OR LESS SHALL CONFORM TO ASTM A36, GALVANIZED. ALL ANCHOR BOLTS UNLESS OTHERWISE NOTED. EXPOSED NUTS SHALL BE HEAVY HEX NUTS AND WASHERS. NUTS AND WASHERS SHALL BE GALVANIZED. TEMPLATES AND EMBEDDED NUTS NEED NOT BE GALVANIZED.
5. ANCHOR BOLT DESIGN DEVELOPED FOR FOUNDATION CAPACITY SHOWN UNDER FOUNDATION DESIGN LOADS.
6. FOUNDATION DESIGN LOADS ARE THE ALLOWABLE MOMENTS AND SHEARS AT THE BASE OF THE STRUCTURAL
7. ANCHOR BOLT ASSEMBLY & INSTALLATION PROCEDURE:
   7.1. THREADS OF ANCHOR BOLTS SHALL BE COATED WITH PIPE JOINT COMPOUND PRIOR TO INSTALLATION OF UPPER NUTS WHEN ERECTING POLE. AFTER POLE IS PLUMBED AND IN PERMANENT ALIGNMENT, THE EXPOSED THREADS OF PAINTED BOLTS SHALL BE CLEANED AND AN ADDITIONAL COATING OF ZINC-RICH PAINT APPLIED TO SEAL THE BOLT THREAD-NUT JOINT.
8. DETAILS DEPICTED ON THIS SHEET SHOW A THROUGH PEDESTAL POLE ASSEMBLY WITH A DRILLED SHAFT FOUNDATION.
9. USE 24 IN. DRILLED SHAFT FOUNDATION AS SHOWN.
10. PROVIDE BREAKAWAY FUSE HOLDER WITH DOUBLE-POLE HOLDING CLIPS. FUSE HOLDER IS POLARIZED. PROVIDE 30 AMP FUSE HOLDER FOR 250 AMP OR LESS. MAXIMUM CURRENT CAPACITY AT 600V FOR LESS. PROVIDE BREAKAWAY FUSE HOLDER FROM MANUFACTURER'S APPROVED LIST. SEE LIST AT THE FOLLOWING WEBSITE. SEE https://www.txdot.gov/business/resources/construction-material-producer-list.html FOR LIST OF PRE-QUALIFIED ELECTRICAL SUPPLIERS. FOR LIST OF PRE-QUALIFIED ELECTRICAL SUPPLIERS, REFERENCE ID #487 FOR TEST FUSES.
11. POLE SHAFT SHALL BE ONE PIECE. ALUMINUM CONDUIT WILL NOT DEVELOP THE NECESSARY STRENGTH AND WILL NOT BE ALLOWED. ALL CONDUIT SHALL BE GALVANIZED. COLLAR ASSEMBLY TO ADD STRENGTH AND PREVENT LOOSENING ON CONNECTION.
12. FOR MANUFACTURER'S RECOMMENDATIONS, ENGAGE ALL THREADS ON THE PEDESTAL POLE BASE AND TIPE UNLESS THE TYPE IS FULLY SLEEVED INTO BASE.
13. PROVIDE NON-METALLIC WATERTIGHT BREAKAWAY ELECTRICAL CONNECTIONS FOR BREAKAWAY POLES (BETWEEN ARM, LUMINAIRE, LEG, PERMA2-SHORSHT PENG, OR APPROVED EQUAL)
14. PROVIDE SERVICE HEADS AND MOUNTING AS SHOWN ELSEWHERE ON THE PLANS.



NOTE:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS STATED IN CITY OF HOUSTON STANDARD ITEMS, 6045-02 "POLE/PB/PUSH BUTTON POLE DRILLED SHAFT FOUNDATION"
2. REFER TO CITY OF HOUSTON STANDARD DETAIL 02465-02 "PEDESTAL/PUSHBUTTON POLE DRILLED SHAFT FOUNDATION" FOR ANCHOR BOLT DETAILS.

DISCLAIMER:
THIS STANDARD IS DEVISED BY THE EDIT DRAFTING PRACTICE AND, AS SUCH, REPRESENTS IN THE OPINION OF ITS AUTHOR A REASONABLE METHOD OF DESIGN AND DETAILING. ALL OF THE ENTITY CONSULTING ASSOCIATED WITH THIS DOC. INC. EXPRESSLY DISCLAIMS ANY AND ALL LIABILITY TO ANY PERSON OR ENTITY FOR ANY DAMAGES, LOSSES, OR EXPENSES ARISING OUT OF OR RESULTING FROM THE USE OF THIS DOCUMENT BY ANY PERSON OR ENTITY. ANY USER OF THIS DOCUMENT ASSUMES ALL RISK AND LIABILITY ARISING FROM SUCH USE AND AGREES TO INDEMNIFY AND HOLD HARMLESS THE CITY OF HOUSTON AND ITS CONSULTANTS AND AGENTS FROM ANY AND ALL CLAIMS, LIABILITIES, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING FROM SUCH USE. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE. HOUSTON PUBLIC WORKS STANDARD

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PEDESTAL/PUSHBUTTON POLE DRILLED SHAFT FOUNDATION

APPROVED BY:

Developed by: Sakul Incaur — CITY ENGINEER
Developed by: Wang Nguyen — CITY TRAFFIC ENGINEER
Developed by: Carl Haddock — DIRECTOR OF HOUSTON PUBLIC WORKS

EFF DATE NOV-27-2023 DWG NO: 02465-02

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE: NOT TO SCALE

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TYPICAL MAST ARM/POLE FIXTURE CONFIGURATION

APPROVED BY:

Developed by: Sakul Incaur — CITY ENGINEER
Developed by: Wang Nguyen — CITY TRAFFIC ENGINEER
Developed by: Carl Haddock — DIRECTOR OF HPW

EFF DATE: NOV-27-2023 DWG NO: 02552-01

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE: NOT TO SCALE

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

CITY OF HOUSTON STANDARD DETAILS TRAFFIC SIGNAL DETAIL 1 OF 3

WBS NUMBER	N-000818-0001-3
DRAWING SCALE	N.T.S.
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.
SHEET NO.	104 OF 152

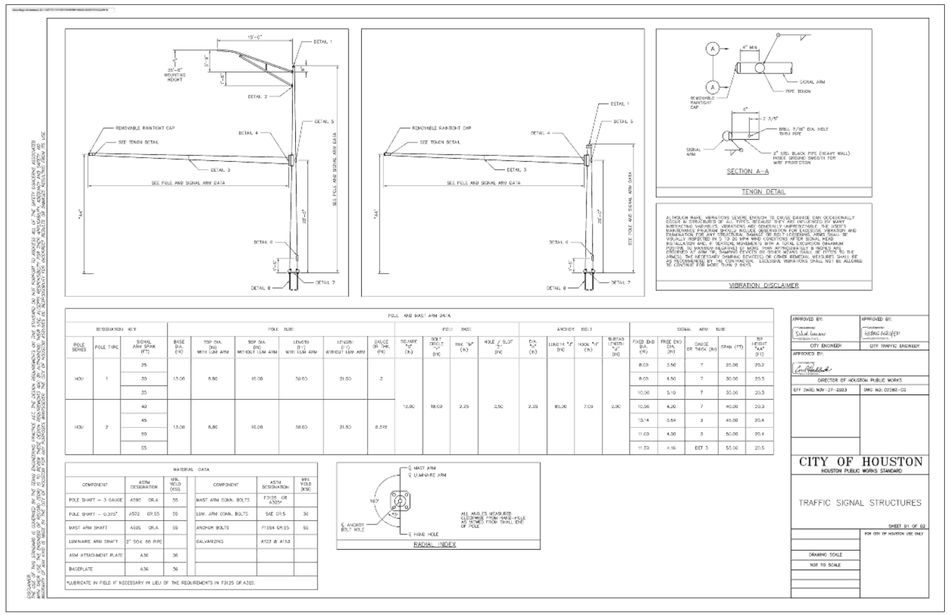
THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

KARI HUI-SHAN CAI, P.E.
TEXAS PE No: 152599

DATE: 01/30/2026

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\12 COH STANDARDS (1).dwg PLOT STYLE: COH.ctb PLOTTED: 2/4/2026 10:45 AM

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\13 COH STANDARDS (2).dwg PLOT STYLE: COH.ctb PLOTTED: 2/4/2026 10:47 AM



POLE AND MAST ARM DATA

DESIGNATION KEY			POLE SIZE						POLE BASE		ANCHOR BOLTS				SIGNAL ARM SIZE			
POLE SERIES	POLE TYPE	SIGNAL ARM SPAN (FT)	BASE O.D. (IN)	TOP DIA. (IN) WITH LUM ARM	TOP DIA. (IN) WITHOUT LUM ARM	LENGTH (FT)	LENGTH WITHOUT LUM ARM	GAUGE OR THK. (IN)	SQUARE "A" (IN)	BOLT CIRCLE "B" (IN)	RAD. "M" (IN)	HOLE Ø SLOT "C" (IN)	DIA. "D" (IN)	LUMPS "E" (IN)	HOOK "F" (IN)	BURIED LENGTH "G" (IN)	FIXED END DIA. (IN)	FREE END DIA. (IN)	GAUGE OR THICK. (IN)	SPAN (FT)	TIP LIFT "MX" (FT)
HSU	1	25	13.06	8.86	16.08	38.83	31.83	3	12.86	18.09	2.25	2.50	2.25	81.36	7.09	2.25	8.03	3.96	7	35.98	39.0
		35															8.03	4.90	7	30.98	35.5
		35															10.06	5.19	7	30.98	33.3
		40															10.06	4.26	7	40.28	33.3
HSU	2	45	13.06	8.86	16.08	38.83	31.83	0.239									13.74	3.84	3	45.58	39.4
		55															11.63	4.56	3	50.98	39.4
		55															11.93	4.16	EXT 3	55.50	39.5

MATERIAL DATA

COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)	COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)
POLE SHAFT - 3 GAUGE	A1011 GR.A	55	MAST ARM CONN. BOLTS	F1554 GR.105	105
POLE SHAFT - 0.239"	A572 GR.55	55	LUM. ARM CONN. BOLTS	SAE GR.5	92
MAST ARM SHAFT	A595 GR.A	55	ANCHOR BOLTS	F1554 GR.55	55
LUMINAIRE ARM SHAFT	2" SCH. 80 PIPE		GALVANIZING	A123 & A153	
ARM ATTACHMENT PLATE	A36	36			
BASEPLATE	A36	36			

*LUBRICATE IN FIELD IF NECESSARY IN LIEU OF THE REQUIREMENTS IN F1554 OF A325.

APPROVED BY: Suhail Hanover, CITY ENGINEER
APPROVED BY: Hiêng Nguyễn, CITY TRAFFIC ENGINEER
APPROVED BY: Carl Hubbuch, DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: NOV-27-2023 DWG NO: 02382-02

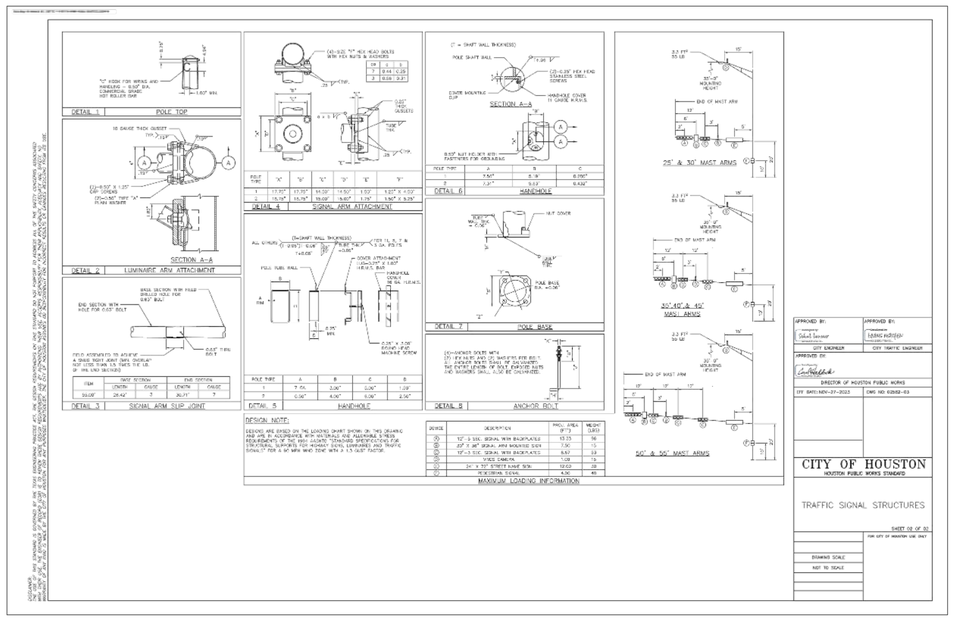
CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TRAFFIC SIGNAL STRUCTURES

SHEET 01 OF 03
FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NOT TO SCALE

DISCLAIMER
THIS STANDARD IS DRAWN UP IN THE STATE ENGINEERING PRACTICE ACT. THE SEALING REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH ITS USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE SEALING REQUIREMENTS AND BY AUTHORIZING THEIR USE ASSUMES RESPONSIBILITY FOR PROJECT DESIGN AND CONSTRUCTION SAFETY. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



DESIGN NOTE:
SIGNALS ARE BASED ON THE LOADING CHART SHOWN ON THIS DRAWING AND ARE IN ACCORDANCE WITH MATERIALS AND ALLOWABLE STRESS DESIGN (ASD) METHOD OF THE AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" FOR A 90 MPH WIND ZONE WITH A 1.3 (3.0)* FACTOR.

DEVICE	DESCRIPTION	PROJ. AREA (FT²)	WEIGHT (LBS)
☐	12" 3-SEC. SIGNAL WITH BACKPLATE	13.25	96
☐	20" 3" MAST SIGNAL ARM MOUNTED SIGN	7.50	15
☐	12"-3 SEC. SIGNAL WITH BACKPLATE	8.67	53
☐	VIDEO CAMERA	1.08	16
☐	24" X 30" STREET NAME SIGN	12.50	58
☐	PEDESTRIAN SIGNAL	4.50	40

MAXIMUM LOADING INFORMATION

APPROVED BY: Suhail Hanover, CITY ENGINEER
APPROVED BY: Hiêng Nguyễn, CITY TRAFFIC ENGINEER
APPROVED BY: Carl Hubbuch, DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: NOV-27-2023 DWG NO: 02382-03

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TRAFFIC SIGNAL STRUCTURES

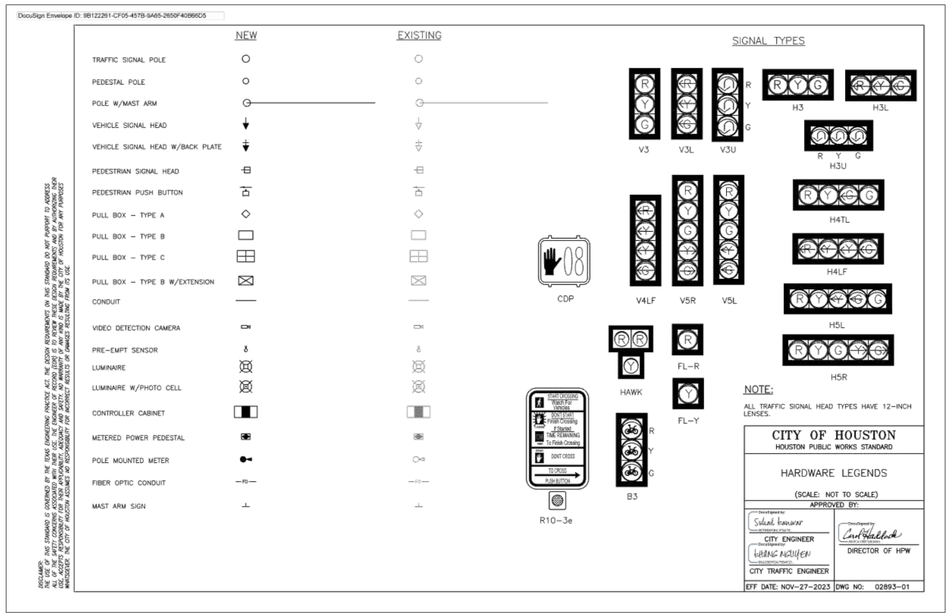
SHEET 02 OF 03
FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NOT TO SCALE

DISCLAIMER
THIS STANDARD IS DRAWN UP IN THE STATE ENGINEERING PRACTICE ACT. THE SEALING REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH ITS USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE SEALING REQUIREMENTS AND BY AUTHORIZING THEIR USE ASSUMES RESPONSIBILITY FOR PROJECT DESIGN AND CONSTRUCTION SAFETY. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

REVISION	DATE	APP.

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40866D5



NOTE:
ALL TRAFFIC SIGNAL HEAD TYPES HAVE 12-INCH LENSES.

APPROVED BY: Suhail Hanover, CITY ENGINEER
APPROVED BY: Hiêng Nguyễn, CITY TRAFFIC ENGINEER
APPROVED BY: Carl Hubbuch, DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: NOV-27-2023 DWG NO: 02893-01

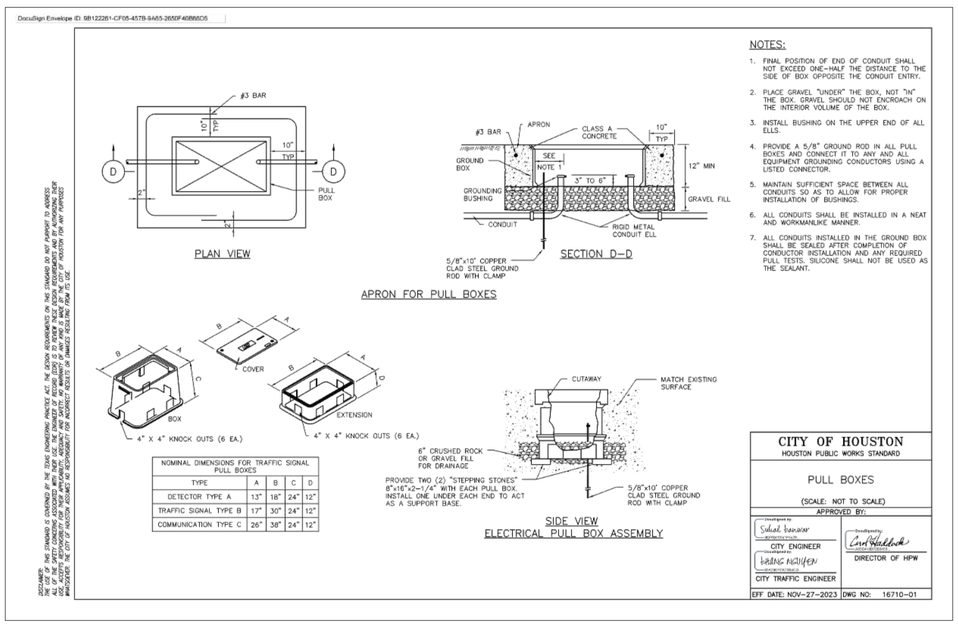
CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

HARDWARE LEGENDS

(SCALE: NOT TO SCALE)

DISCLAIMER
THIS STANDARD IS DRAWN UP IN THE STATE ENGINEERING PRACTICE ACT. THE SEALING REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH ITS USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE SEALING REQUIREMENTS AND BY AUTHORIZING THEIR USE ASSUMES RESPONSIBILITY FOR PROJECT DESIGN AND CONSTRUCTION SAFETY. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40866D5



NOTES:
1. FINAL POSITION OF END OF CONDUIT SHALL NOT EXCEED ONE-HALF THE DISTANCE TO THE SIDE OF BOX OPPOSITE THE CONDUIT ENTRY.
2. PLACE GRAVEL "UNDER" THE BOX, NOT "IN" THE BOX. GRAVEL SHOULD NOT ENCROACH ON THE INTERIOR VOLUME OF THE BOX.
3. INSTALL BUSHING ON THE UPPER END OF ALL ELLS.
4. PROVIDE A 5/8" GROUND ROD IN ALL PULL BOXES AND CONNECT IT TO ANY AND ALL EQUIPMENT GROUNDING CONDUCTORS USING A LISTED CONNECTOR.
5. MAINTAIN SUFFICIENT SPACE BETWEEN ALL CONDUITS SO AS TO ALLOW FOR PROPER INSTALLATION OF BUSHINGS.
6. ALL CONDUITS SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
7. ALL CONDUITS INSTALLED IN THE GROUND BOX SHALL BE SEALED AFTER COMPLETION OF CONDUCTOR INSTALLATION AND ANY REQUIRED PULL TESTS. SILICONE SHALL NOT BE USED AS THE SEALANT.

NOMINAL DIMENSIONS FOR TRAFFIC SIGNAL PULL BOXES				
TYPE	A	B	C	D
DETECTOR TYPE A	13"	18"	24"	12"
TRAFFIC SIGNAL TYPE B	17"	30"	24"	12"
COMMUNICATION TYPE C	26"	38"	24"	12"

APPROVED BY: Suhail Hanover, CITY ENGINEER
APPROVED BY: Hiêng Nguyễn, CITY TRAFFIC ENGINEER
APPROVED BY: Carl Hubbuch, DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: NOV-27-2023 DWG NO: 16710-01

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PULL BOXES

(SCALE: NOT TO SCALE)

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

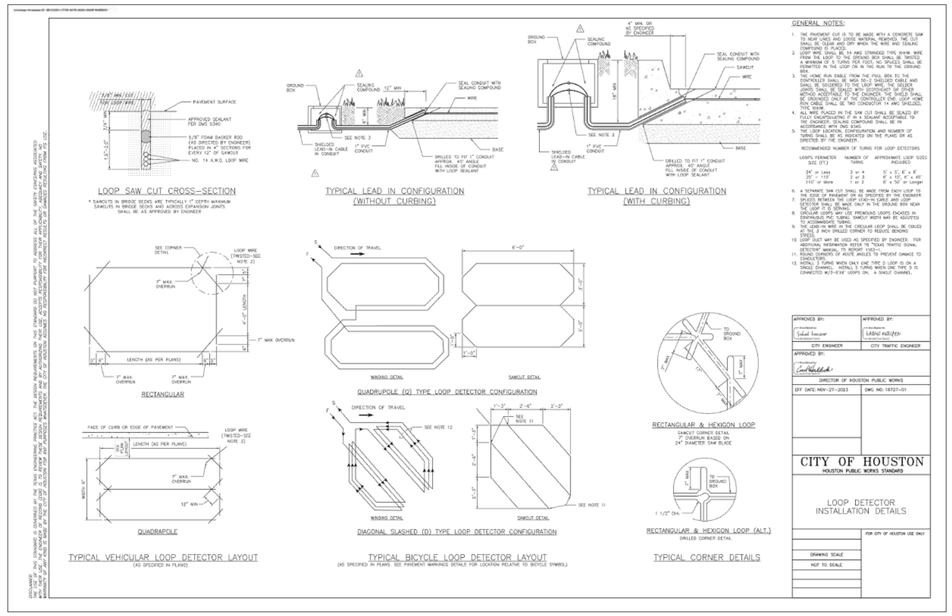
CITY OF HOUSTON STANDARD DETAILS
TRAFFIC SIGNAL DETAIL 2 OF 3

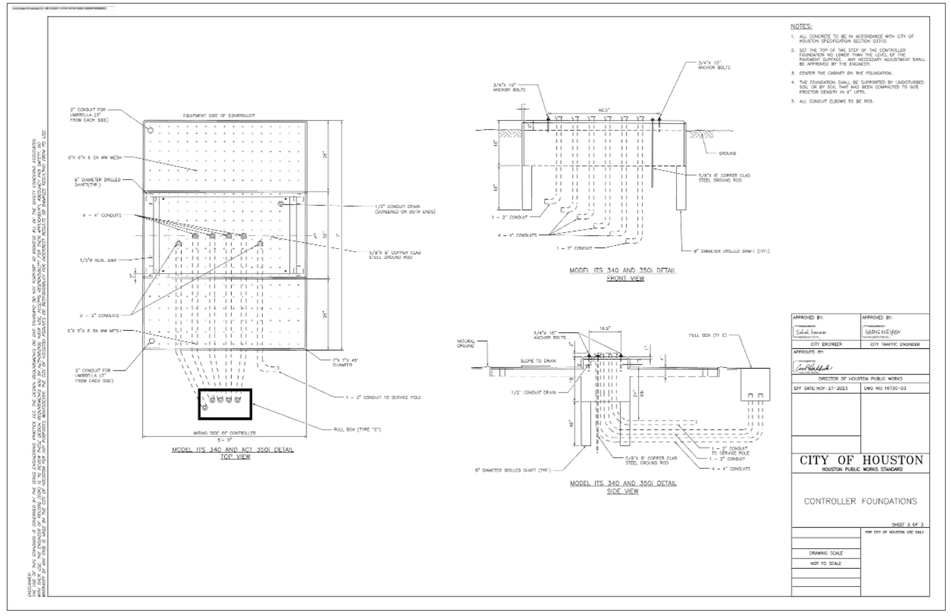
WBS NUMBER	N-000818-0001-3
DRAWING SCALE	N.T.S.
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.
SHEET NO.	105 OF 152

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

KARI HUI-SHAN CAI, P.E.
TEXAS PE No: 152599

DATE: 01/30/2026





NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

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

MBROH ENGINEERING
TBPE FIRM NO. 9439

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

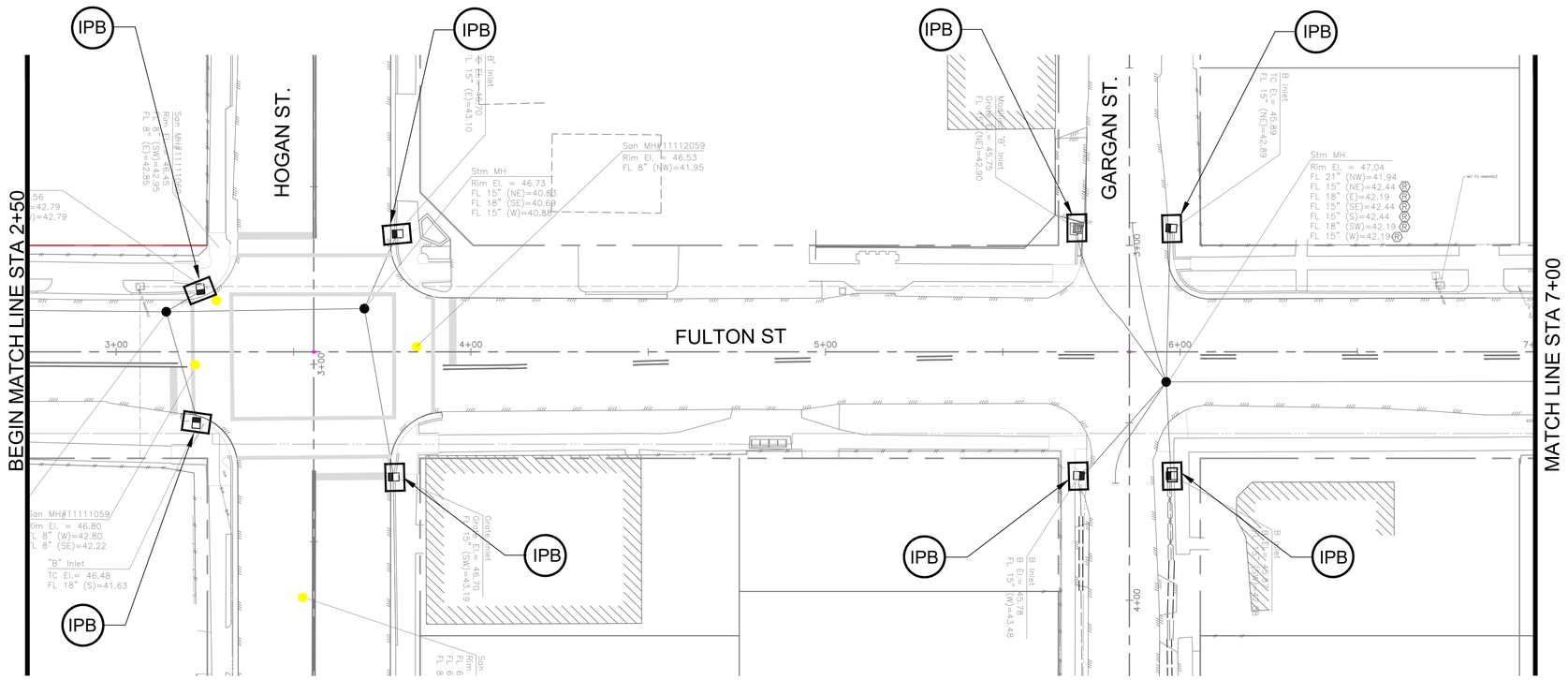
CITY OF HOUSTON STANDARD DETAILS
TRAFFIC SIGNAL DETAIL 3 OF 3

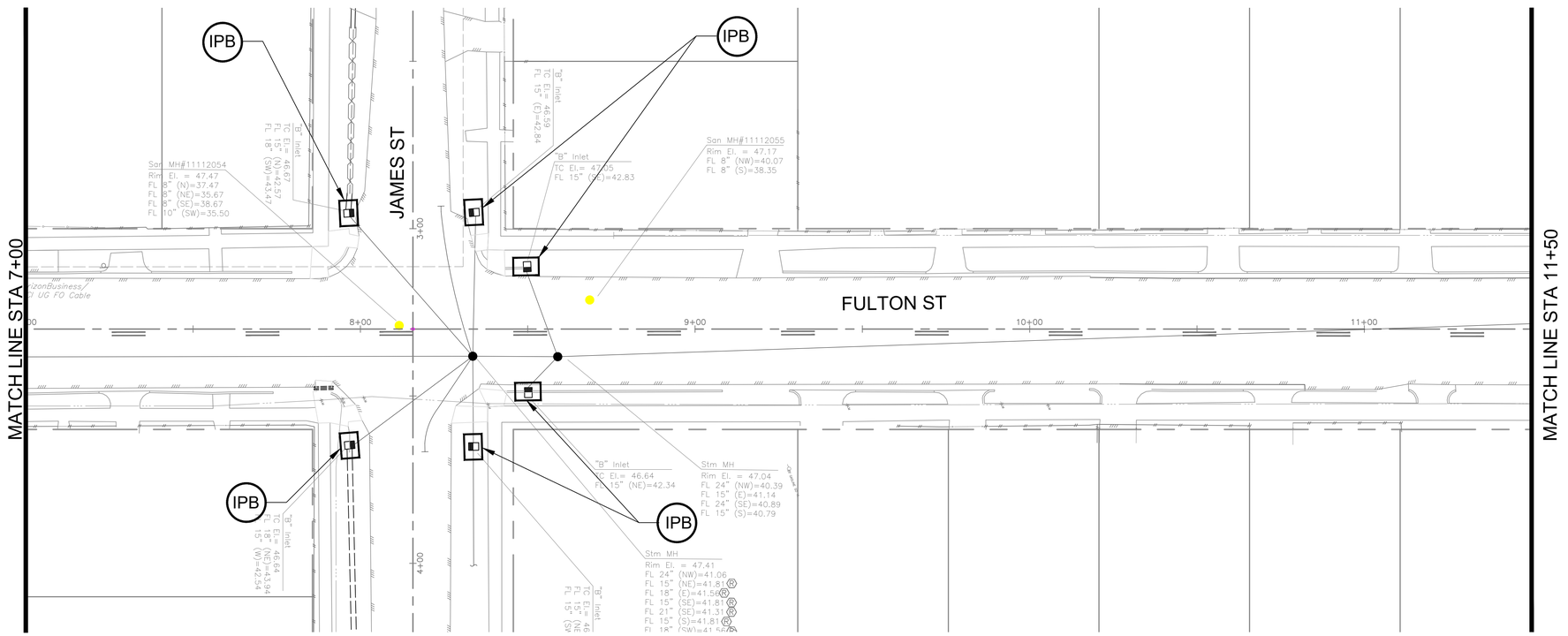
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 106 OF 152	

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
KARI HUI-SHAN CAI, P.E.
TEXAS PE No: 152599
DATE: 01/30/2026

DISCLAIMER:
THE INFORMATION CONTAINED ON THIS DRAWING OR DATA IS THE PROPERTY OF JACOBS ENGINEERING GROUP INC. AND/OR ITS SUBSIDIARIES. ANY USE OR DISCLOSURE OF THIS DRAWING OR DATA WITHOUT THE WRITTEN CONSENT OF JACOBS ENGINEERING GROUP INC. AND/OR ITS SUBSIDIARIES IS STRICTLY PROHIBITED. BY ACCEPTING THIS DRAWING OR DATA, THE RECIPIENT AGREES THAT NEITHER THIS DRAWING OR DATA NOR THE INFORMATION CONTAINED HEREIN WILL BE USED FOR ANY PURPOSE OTHER THAN THE PROJECT OR SPECIFIC AUTHORIZATION IN THE CONTRACT FOR THE PROJECT. THE RECIPIENT AGREES TO INDEMNIFY JACOBS ENGINEERING GROUP INC. AND/OR ITS SUBSIDIARIES FOR ANY AND ALL CLAIMS, LOSSES, COSTS, DAMAGES OF ANY NATURE WHATSOEVER, INCLUDING ATTORNEYS' FEES AND EXPENSES ARISING OUT OF OR RESULTING FROM THE UNAUTHORIZED USE OF THE DRAWING OR DATA. IF YOU HAVE RECEIVED THIS DRAWING OR DATA IN ERROR, PLEASE IMMEDIATELY NOTIFY JACOBS ENGINEERING GROUP INC. AND/OR ITS SUBSIDIARIES BY TELEPHONE AND RETURN THE ORIGINAL TO JACOBS ENGINEERING GROUP INC. AND/OR ITS SUBSIDIARIES AT THE ABOVE ADDRESS VIA THE U.S. POSTAL SERVICE. THANK YOU FOR YOUR COOPERATION.

FILE PATH: P:\Projects\0106 - City Of Houston\15010 - Fulton Street Lighting\4.0 CAD\4.5 Signal Drawings\14 COH STANDARDS (3).dwg PLOT STYLE: COH.ctb PLOTTED: 2/4/2026 10:50 AM





NOTE:

STORM WATER POLLUTION PLAN SHALL CONFORM TO SPECIFICATIONS AND DRAWINGS.

ALL DISTURBED AREAS THAT ARE NOT PAVED OR COVERED BY STRUCTURE SHALL BE SODDED OR HYDROMULCH SEEDED.

CONTRACTOR'S LAY DOWN/STORAGE AREA SHALL HAVE A STABILIZED CONSTRUCTION EXIT.

LEGEND

IPB — INLET PROTECTION BARRIER

SC — STABILIZED CONSTRUCTION ACCESS

NO.	DATE	REVISION	APP.

NOTICE:

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6170

FCM Engineers, P.C.
TX FIRM No.: F-13481

DESIGN ENGINEER NAME
FCM ENGINEERS, P.C.
ADDRESS:
3300 S. GESSNER ROAD
SUITE 249
TEL.No.:713-706-4412
Fax No.:713-706-4410

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE: NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: FRANK C. MBACHU
P.E. SERIAL No.: 108363
09/6/2023

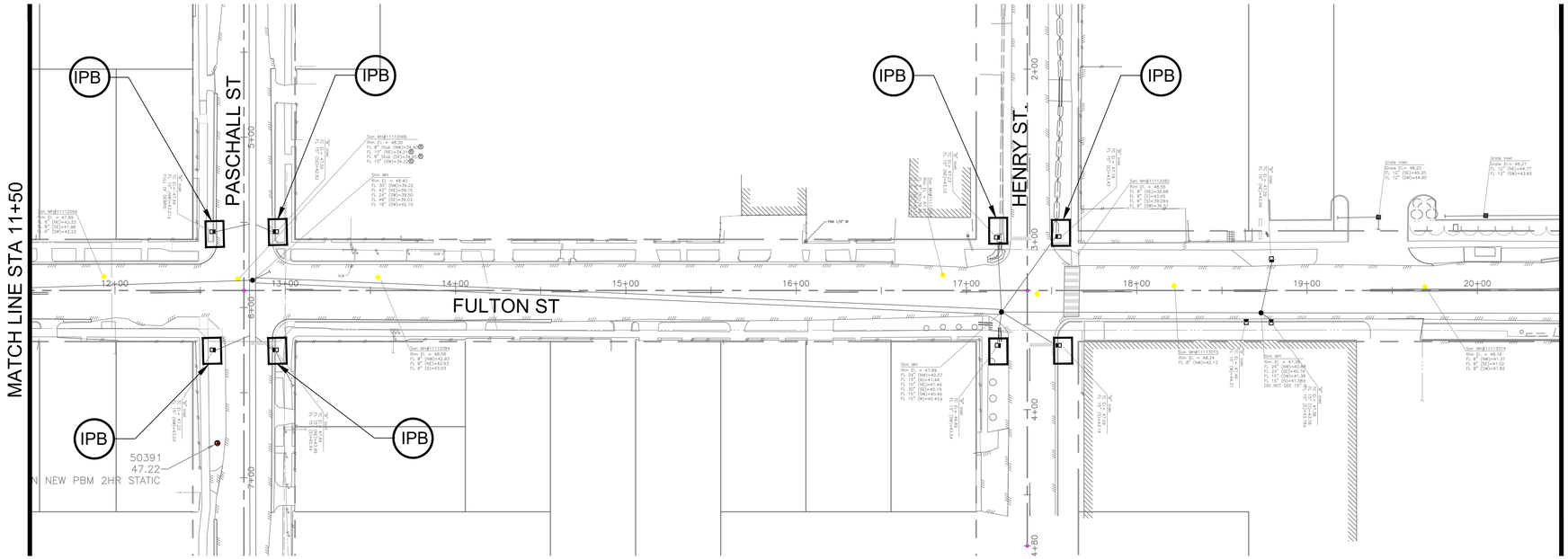
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

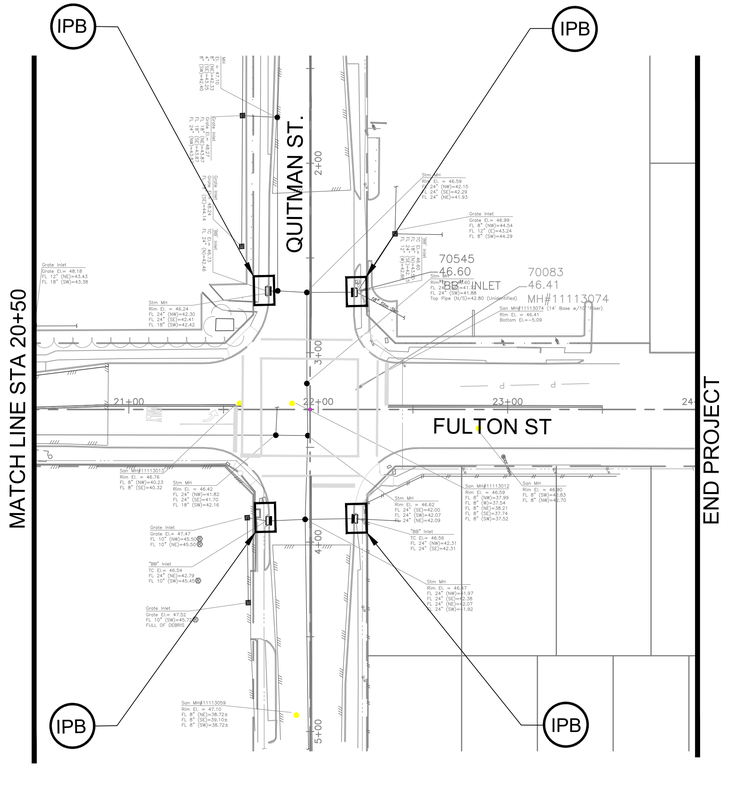
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

STORMWATER POLLUTION PREVENTION PLAN (SHEET 1 OF 2)

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 107 OF 152	

Y:\2017014 Fulton Street Reconstruction\CAD FILES\DESIGN FILES\Sw3p Design.dwg, 10/26/2023 11:03:02 AM





NOTE:

STORM WATER POLLUTION PLAN SHALL CONFORM TO SPECIFICATIONS AND DRAWINGS.

ALL DISTURBED AREAS THAT ARE NOT PAVED OR COVERED BY STRUCTURE SHALL BE SODDED OR HYDROMULCH SEEDED.

CONTRACTOR'S LAY DOWN/STORAGE AREA SHALL HAVE A STABILIZED CONSTRUCTION EXIT.

LEGEND

IPB — INLET PROTECTION BARRIER

SC — STABILIZED CONSTRUCTION ACCESS

NO.	DATE	REVISION	APP.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6170

FCM Engineers, P.C.
TX FIRM No.: F-13481

DESIGN ENGINEER NAME
FCM ENGINEERS, P.C.
ADDRESS:
3300 S. GESSNER ROAD
SUITE 249
TEL.No.:713-706-4412
Fax No.:713-706-4410

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE: NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: FRANK C. MBACHU
P.E. SERIAL No.: 108363
09/6/2023

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

STORMWATER POLLUTION PREVENTION PLAN (SHEET 2 OF 2)

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 108 OF 152	

Y:\2017014 Fulton Street Reconstruction\CAD FILES\DESIGN FILES\Sw3p Design.dwg, 10/26/2023 11:03:08 AM

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) LATEST EDITION WITIH REVISIONS DURING THE ENTIRE CONSTRUCTION PERIOD.
2. ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL CONFORM THE LATEST VERSION OF THE TMUTCD.
3. NO LANES SHALL BE CLOSED DURING THE HOURS OF 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM MONDAY THRU FRIDAY WITHOUT APPROVAL OF THE CITY TRAFFIC ENGINEER.
4. NO WORK SHALL BE PERFORMED IN RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN APPROVED NUMBER OF THROUGH LANES OF TRAFFIC IN EACH DIRECTION DURING CONSTRUCTION WORKING HOURS. TRAFFIC CONTROL PLANS SHALL INCLUDE ONE–WAY AND/OR DETOUR PLANS. CONTRACTOR SHALL MAINTAIN ADA COMPLIANT PEDESTRIAN ACCESS TO BUS STOPS AND ADEQUATE BUS ACCESS TO ALL THE BUS STOPS.
6. CONTRACTOR SHALL MAINTAIN TRAFFIC LANES AND DETOURS ACCORDING TO TRAFFIC CONTROL PLANS DURING WORKING HOURS.
7. CONTRACTOR SHALL COVER OPEN PAVEMENT EXCAVATIONS FOR MINOR UTILITY WORK WITH ANCHORED STEEL PLATES DURING NON–WORKING HOURS, AND OPEN LANES FOR NORMAL TRAFFIC FLOW WHEN FEASIBLE.
8. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT AN ALTERNATE SET OF TRAFFIC CONTROL PLANS TO THE CITY OF HOUSTON PROJECT MANAGER FOR APPROVAL TEN WORKING DAYS PRIOR TO IMPLEMENTATION. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLARS AND SHALL BE SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. OFFICE OF CITY ENGINEER, MOBILITY PERMITS SECTION REPRESENTATIVE APPROVAL IS REQUIRED TO ACCEPT THE PROPOSED CHANGES.
9. CONTRACTOR SHALL SECURE LANE/SIDEWALK/BICYCLE FACILITY CLOSURE PERMITS FROM OFFICE OF CITY ENGINEER (MOBILITY PERMIT SECTION AT https://geohub.houstontx.gov) BEFORE IMPLEMENTING THE TRAFFIC CONTROL PLAN. THE APPLICATION MUST BE SUBMITTED AT LEAST TEN DAYS PRIOR TO THE IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN AND/OR BEGINNING CONSTRUCTION WORK. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS, CONSTRUCTION SEQUENCING, AND CONSTRUCTION SCHEDULE WITH THE APPLICATION.
10. CONTRACTOR SHALL HAVE APPROVED TRAFFIC CONTROL PLAN AND PERMIT AT THE JOB SITE FOR INSPECTION AT ALL TIMES.
11. DURING PAVEMENT SURFACE RESTORATION PROJECTS; THE CONTRACTOR SHALL NOT OPEN CLOSED LANES UNTIL THE PAVEMENT SURFACE HAS CURED ENOUGH TO ALLOW VEHICULAR TRAFFIC ACCORDING TO CITY OF HOUSTON STANDARD SPECIFICATIONS.
12. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND COORDINATING ALL CONSTRUCTION ACTIVITIES WITH STAKE HOLDERS IN THE VICINITY INCLUDING EMERGENCY RESPONSE AGENCIES SUCH AS HOUSTON POLICE DEPARTMENT, HOUSTON FIRE DEPARTMENT, AND METROPOLITAN TRANSIT AUTHORITY.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ISSUING ALL WORK DIRECTIVES TO ALL SUB–CONTRACTORS, UTILITY COMPANIES, AND ALL OTHER ENTITIES PERFORMING CONSTRUCTION WORK ASSOCIATED WITH THE PROJECT.
14. NOTHING IN THESE NOTES OR PLANS SHALL RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT; INCLUDING SAFETY OF ALL MODES OF TRANSPORTATION, PERSONS, AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.
15. THE OFFICE OF CITY ENGINEER (MOBILITY PERMITS GROUP) PER THE DIRECTION OF THE CITY TRAFFIC ENGINEER HAVE THE RIGHT TO DEMAND THE INSTALLATION OF ADDITIONAL TRAFFIC CONTROL DEVICES OR MODIFICATIONS OF THESE PLANS AND NOTES, AS DEEMED NECESSARY TO PROMOTE THE SAFE AND ORDERLY FLOW OF TRAFFIC, INCLUDING PEDESTRIANS AND BICYCLES, THROUGH THE CONSTRUCTION WORK ZONE. THE CONTRACTOR SHALL COMPLY WITH THESE ADDITIONAL REQUESTS OR MODIFICATIONS WITH DUE DILIGENCE.
16. ALL EXISTING TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE MAINTAINED IN VISIBLE LOCATIONS DURING CONSTRUCTION UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM CITY OF HOUSTON PROJECT MANAGER. THE CONTRACTOR SHALL RESTORE OR REPLACE (AT THE DISCRETION OF THE CITY TRAFFIC ENGINEER) ANY PAVEMENT MARKING OR SIGNING DAMAGE DURING CONSTRUCTION OPERATIONS, INCLUDING RAISED PAVEMENT MARKERS (RPMS).
17. WHEN ENTERING OR LEAVING ROADWAYS CARRYING PUBLIC TRAFFIC, THE CONTRACTOR'S EQUIPMENT, WHETHER EMPTY OR LOADED SHALL IN ALL CASES YIELD TO PUBLIC TRAFFIC WITH THE ASSISTANCE OF CONTRACTOR PROVIDED CERTIFIED FLAGGER/PEACE OFFICER.
18. ACCESS TO DRIVEWAYS ADJACENT TO THE CONSTRUCTION WORK ZONE SHALL BE MAINTAINED AT ALL TIMES AS MUCH AS POSSIBLE. ADDITIONAL CONES AND/OR DELINEATORS MAY BE REQUIRED TO DELINEATE THE DRIVEWAY ACCESS ROUTE THROUGH THE CONSTRUCTION WORK ZONE. A MINIMUM OF ONE TRAVEL LANE SHALL BE MAINTAINED ACROSS THE DRIVEWAYS, UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM CITY OF HOUSTON PROJECT MANAGER.
19. SPILLAGE RESULTING FROM HAULING OPERATIONS ALONG OR ACROSS ANY PUBLIC TRAVELED WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
20. THE CONTRACTOR SHALL SUBMIT AN APPLICATION FOR TEMPORARY PARKING RESTRICTIONS IF THERE ARE PARKING METERS LOCATED AT THE PROPOSED LANE CLOSURES FROM PARKING MANAGEMENT DIVISION (832–393–8690) AT LEAST TEN BUSINESS DAYS BEFORE IMPLEMENTATION OF LANE CLOSURES. IN ADDITION, TEMPORARY NO PARKING SIGNS SHALL BE POSTED 24 HOURS PRIOR TO COMMENCEMENT OF WORK.
21. ADDITIONAL OFF DUTY OFFICERS/FLAGGERS MAY BE REQUESTED TO DIRECT TRAFFIC WHEN LANES ARE BLOCKED AT THE DISCRETION OF THE CITY PROJECT MANAGER EVEN IF THEY ARE NOT SPECIFICALLY IDENTIFIED ON THE PROJECT PLANS.
22. THE CONTRACTOR SHALL REPLACE WITHIN 72 HOURS, ALL TRAFFIC SIGNAL LOOP DETECTORS DAMAGED DURING CONSTRUCTION.
23. IN GENERAL, A SOLAR POWERED FLASHING ARROW BOARD SHALL BE REQUIRED ON ALL MAJOR THOROUGHFARE LANES CLOSURES. EXCEPTIONS TO FLASHING ARROW BOARDS AND/OR IMPLEMENTATION ON RESIDENTIAL LANE CLOSURES SHALL BE APPROVED BY CITY TRAFFIC ENGINEER.
24. APPROVED TRAFFIC CONTROL PLAN SHALL BE IN PLACE BEFORE STARTING ANY EXCAVATION.
25. WATER FILLED BARRIERS CAN BE USED AS INSTRUCTED BY THE ENGINEER AND APPROVED BY THE CITY FOR PROJECTS WHERE SPACE IS LIMITED AND HEAVY EQUIPMENT TO PLACE CONCRETE BARRIERS IS NOT FEASIBLE. WATER FILLED BARRIERS SHALL NOT BE USED ON ROADWAYS WITH A POSTED SPEED LIMIT MORE THAN 45 MPH.
26. WATER FILLED BARRIERS MUST BE INSTALLED AND MAINTAINED PER THE MANUFACTURER'S REQUIREMENTS AND ROUTINELY INSPECTED FOR DEFECTS.
27. IF WATER FILLED BARRIER IS PROVIDED, USE ENVIRONMENTALLY SAFE ANTI–FREEZING AGENT IN THE WATER WHEN IT IS APPLICABLE PER MANUFACTURER SPECIFICATIONS AND RECOVER AGENT WHEN THE BARRIER IS DRAINED.
28. DISPOSE OF WATER AND AGENT PROPERLY. DO NOT DRAIN WATER FILLED BARRIER INTO OR ACROSS AN EXISTING TRAVEL LANE.
29. PROVIDE BARRIER UNITS THAT ARE CAPABLE OF BEING LIFTED AND MOVED WHEN FILLED IF DRAINING IS NOT POSSIBLE.
30. PROVIDE WATER FILLED BARRIER THAT ACTS AS ITS OWN FREE STANDING, NON–REDIRECTIVE END TREATMENT.
31. WHEN WATER FILLED BARRIERS ARE USED TO CHANNELIZE PEDESTRIANS, THEY MUST HAVE A CONTINUOUS DETECTABLE BOTTOM FOR USERS OF LONG CANES AND THE TOP OF THE UNIT SHALL NOT BE LESS THAN 32 INCHES IN HEIGHT.
32. ANY CLOSURE OF A PEDESTRIAN OR BICYCLE FACILITY SHALL REQUIRE THE SHORTEST DETOUR THAT MAINTAINS THE SAFETY OF PEDESTRIAN AND/OR BICYCLISTS.

A. PLASTIC DRUMS ON MERGING TAPER @ 30' C – C WITH CHEVRON SIGN @ 60' C – C AND WARNING LIGHTS FOR OVERNIGHT CLOSURE.

B. PLASTIC DRUMS ON DOWNSTREAM TAPER @ 30' C – C (RETURN TAPER AND BARRICADE ARE OPTIONAL AND DIVIDED ROADWAY SECTION)

C. PLASTIC DRUMS ON RADII @ 35' C –C.

D. PLASTIC DRUMS ON TANGENT @ 35' C – C WITH VERTICAL PANEL AT 70' C – C AND APPROVED WARNING LIGHT @ 70' C – C (FOR OVERNIGHT CLOSURE).

E. PLASTIC DRUMS IN FRONT OF CONSTRUCTION ZONE @ 20' C – C WITH VERTICAL PANEL AT 40' C – C AND APPROVED WARNING LIGHT @ 40' C – C (FOR OVERNIGHT CLOSURE).

F. CONCRETE TRAFFIC BARRIER (CTB) OR LOW PROFILE CONCRETE TRAFFIC BARRIER (LPCTB) WITH APPROVED REFLECTORS @ 10' C – C IF PAVEMENT DROP IS GREATER THAN 1 FOOT.

G. PLASTIC DRUMS W/GUARD RAIL MOUNTED.

H. SELF– RIGHTING VERTICAL PANEL SPACING.
– 4 LANES TO 2 LANES UNDIVIDED ROADWAY SECTION @ 20' C – C.
– 4 LANES DIVIDED ROADWAY TO ONE SIDE TWO WAY ROADWAY @ 20' C – C.
– LEFT LANE AND RIGHT LANE STORAGE BAYS @ 15' C – C.

I. SPACING SHOWN ON TRAFFIC CONTROL SHALL SUPERSEDE THE ABOVE SPACING.

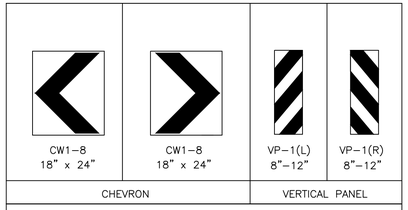
J. SPACING MAY BE ADJUSTED TO PROVIDE DRIVEWAYS, INTERSECTIONS AND /OR MEDIAN OPENINGS.

TABLE C3 – TYPICAL SIGN SPACING, TAPER LENGTHS, AND SUGGESTED SPACING OF CHANNELIZATION DEVICES

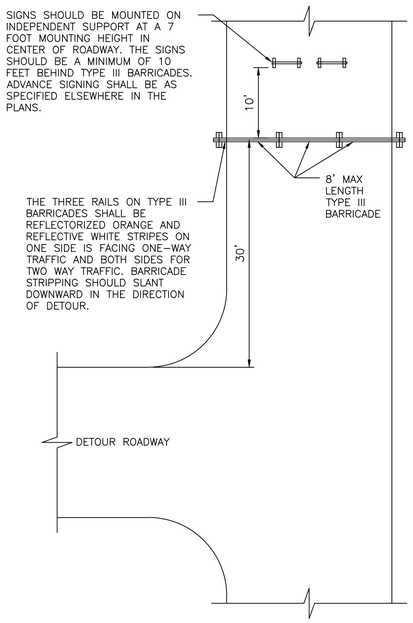
POSTED SPEED (MPH)	SIGN SPACING "X" (FEET)	MIN. DESIRABLE TAPER LENGTH "L"			SUGGESTED MAXIMUM SPACING OF DEVICE	
		10' OFFSET	11' OFFSET	12' OFFSET	ON A TAPER	ON A TANGENT
30	120'	150'	165'	180'	30'	60'–75'
35	160'	205'	225'	245'	35'	70'–90'
40	240'	265'	295'	320'	40'	80'–100'
45	320'	450'	495'	540'	45'	90'–110'
50	400'	500'	550'	600'	50'	100'–125'
55	500'	550'	605'	660'	55'	110'–140'

TABLE C4 – STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED

POSTED SPEED (MPH)	DISTANCE "D" (FEET)
30	200
35	250
40	305
45	360
50	425
55	495



CHANNELIZATION AND BARRICADES



PLAN VIEW
TYPE III BARRICADE (POST AND SKID)
TYPICAL APPLICATION

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

NEDU ENGINEERING SERVICES INC.
ENGINEERS, PROJECT MANAGERS,ESTIMATORS,INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P–6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

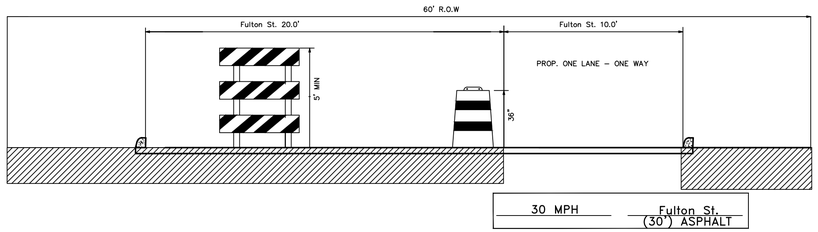
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

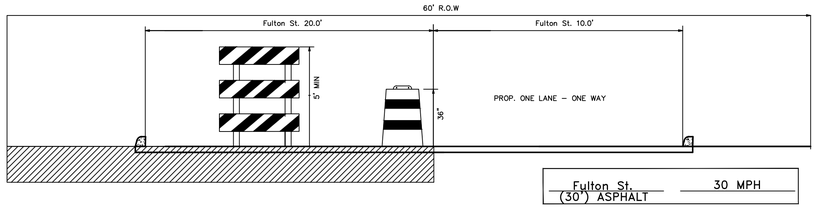
TRAFFIC CONTROL PLAN
GENERAL NOTES

WBS NUMBER
N–000818–0001–3
DRAWING SCALE
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 109 OF 152

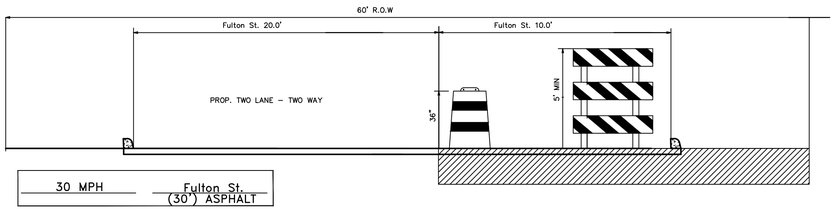
PLOT STYLE: NEDU–STB–BW.stb PLOTTED: 3/29/2026 10:14 AM
FILE PATH: C:\Nedu\Fulton St\01–Civil\Phase 1– Step 1.dwg



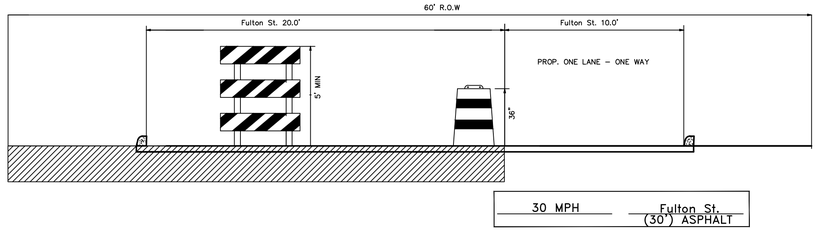
PHASE ONE – STEP 1



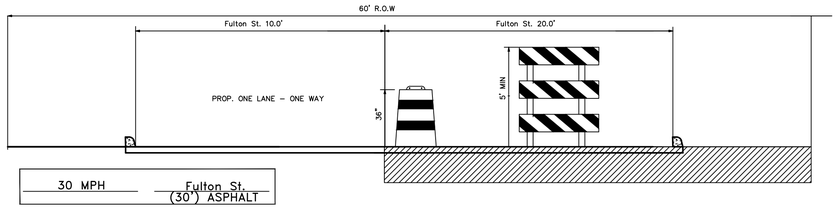
PHASE ONE – STEP 5



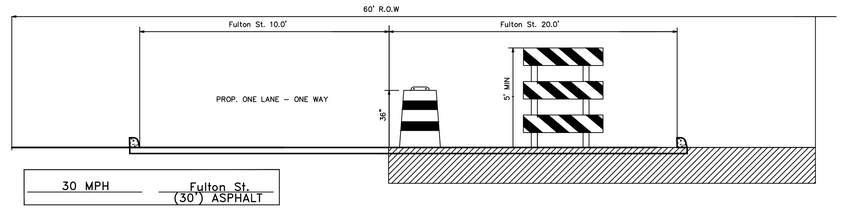
PHASE TWO – STEP 2



PHASE TWO – STEP 1



PHASE ONE – STEP 4



PHASE TWO – STEP 2

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
20	35
25	55
30	85
35	120
40	170

LEGEND (TYPICAL)

- PLASTIC DRUM
- OFF-DUTY UNIFORMED POLICE OFFICER OR FLAGGER
- TYPE III BARRICADE

TYPICAL SIGN SPACING AND TAPER LENGTHS.

Posted Speed (mph)	Sign Spacing "X"	Min. Desirable Taper Length "L" 10' Offset	11' Offset	12' Offset
30	120'	150'	165'	180'
35	160'	205'	225'	245'
40	240'	265'	295'	320'

* ENGINEER TO STRIKE THROUGH ALL SPEED LIMITS NOT APPLICABLE

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES INC.
ENGINEERS, PROJECT MANAGERS,ESTIMATORS,INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

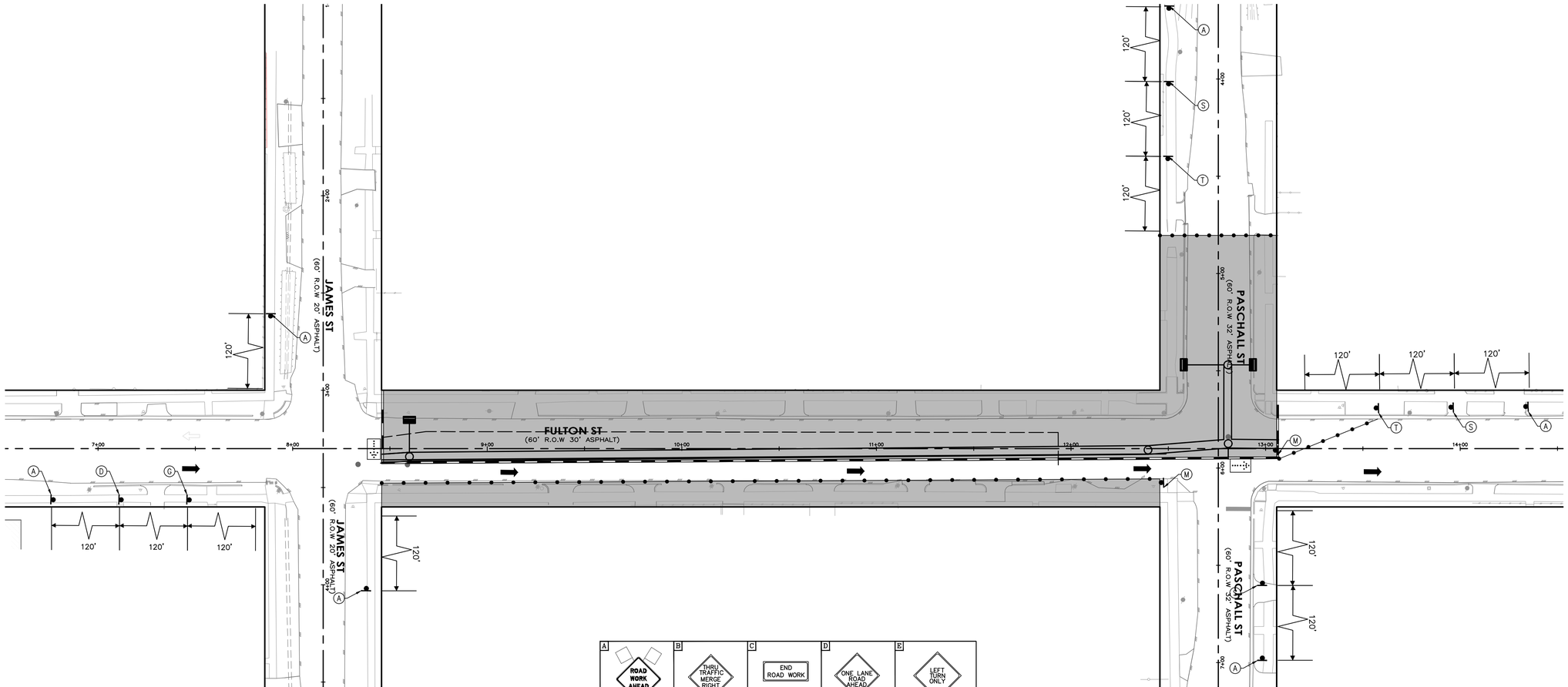
TRAFFIC CONTROL PLAN
CROSS SECTION

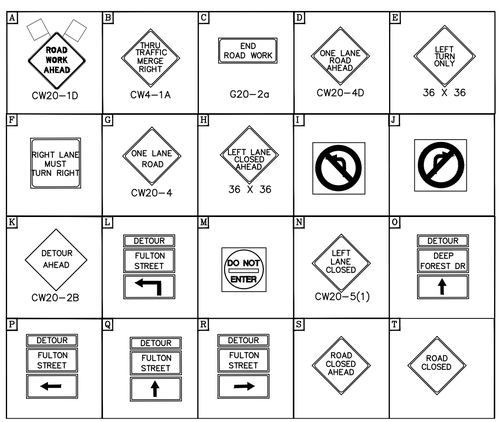
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 110 OF 152	

PLOTTED: 3/29/2026 10:14 AM
PLOT STYLE: NEDU-STB-BW.stb
FILE PATH: C:\Nedu\Fulton St\01-Civil\Phase 1- Step 1.dwg

PLOT STYLE: NEDU-STB-BW.stb PLOTTED: 3/29/2026 10:18 AM

FILE PATH: C:\Nedu\fulton St\01-Civil\Phase 1- Step 1.dwg





NOTES:

1.PRIOR TO CONSTRUCTION ACROSS DRIVEWAY, COORDINATE WITH CM. CONTRACTOR TO MAINTAIN ACCESS TO RESIDENTS AND BUSINESSES AT ALL TIMES.
2.MAINTAIN MINIMUM 11-FOOT LANE WIDTH AT ALL TIMES.
3.COORDINATE WITH METRO FOR TEMPORARY SIGNS IF NEEDED,METRO TEMP STOPS TO BE RELOCATED WITH THE TRAFFIC CONTROL SO THAT ACCESS TO METRO IS ALWAYS MAINTAINED.
4.REFER TO TCP STANDARD DETAILS FOR MORE INFORMATION.

LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES, INC.
ENGINEERS, PROJECT MANAGERS,ESTIMATORS,INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE- NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

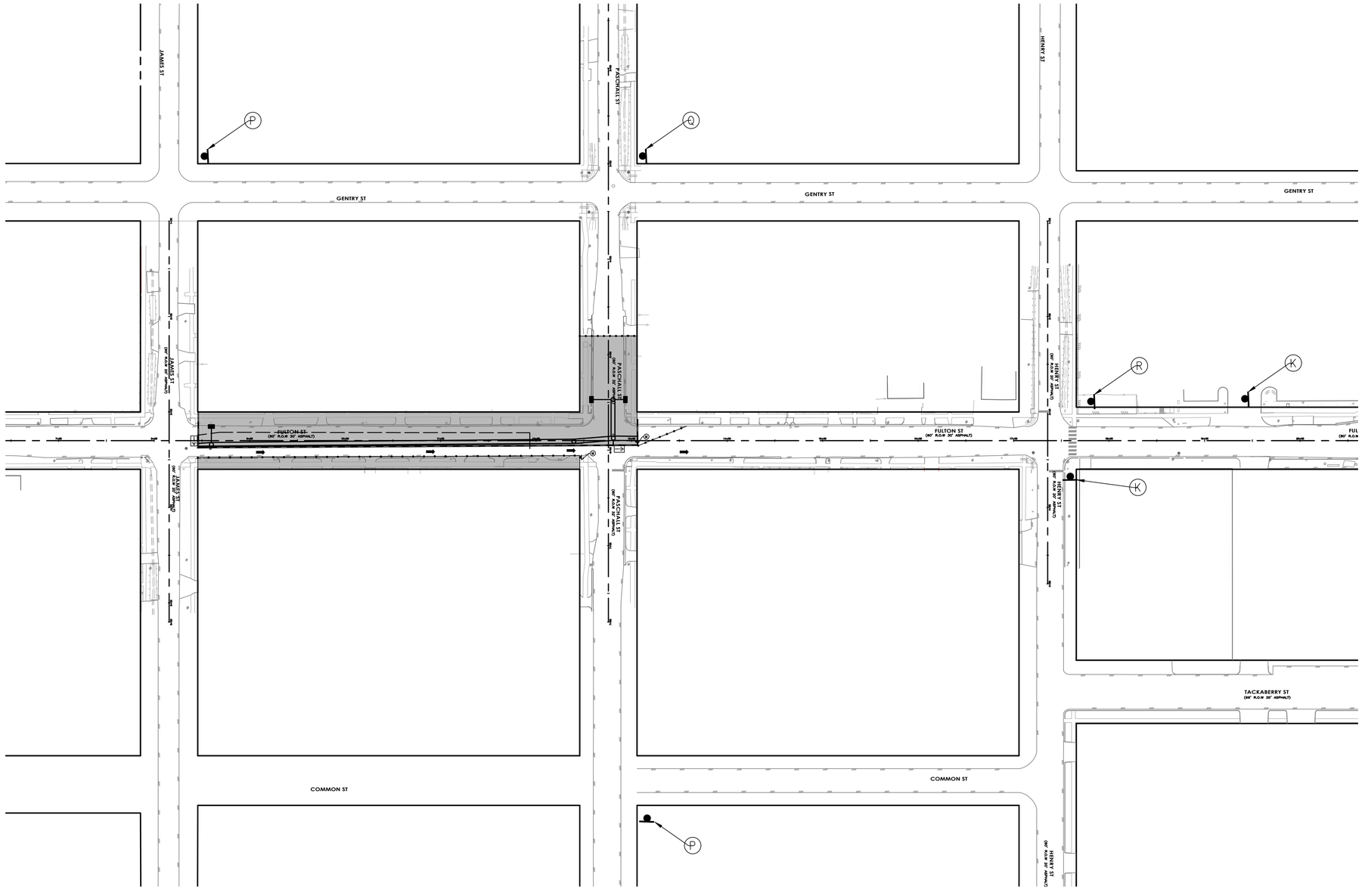
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

TRAFFIC CONTROL PLAN PHASE 1 STEP 1

SHEET 1 OF 2

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"= 30'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 111 OF 152	



LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES INC
ENGINEERS, PROJECT MANAGERS,ESTIMATORS,INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

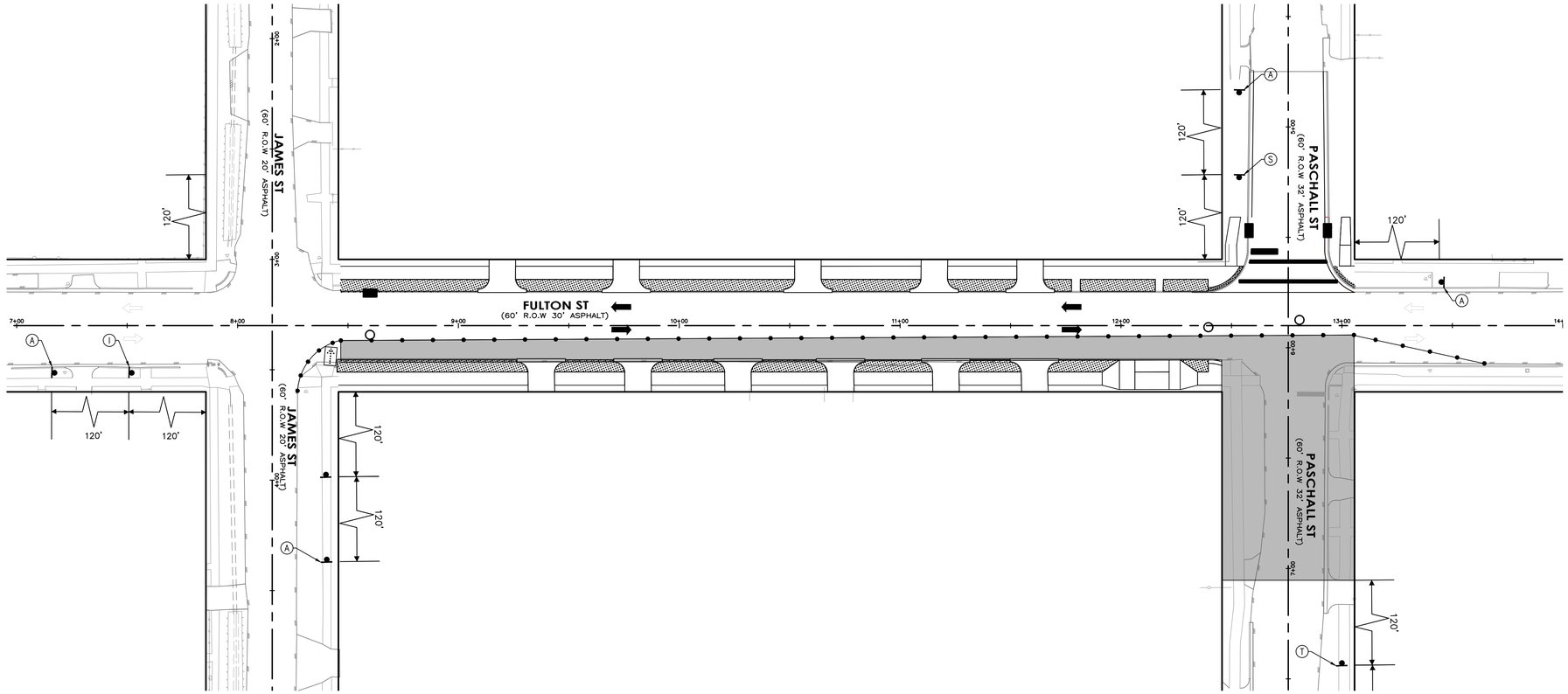
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

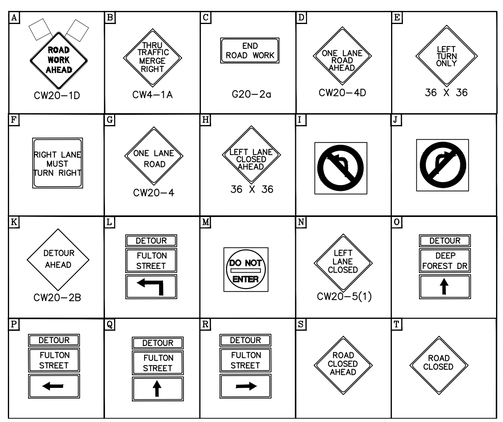
TRAFFIC CONTROL PLAN
PHASE 1 STEP 1-DETOUR

SHEET 2 OF 2

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 112 OF 152	

PLOTTED: 3/29/2026 10:19 AM
PLOT STYLE: NEDU-STB-BW.stb
FILE PATH: C:\Nedu\Fulton St\01-Civil\Phase 1- Step 1.dwg





NOTES:

1.PRIOR TO CONSTRUCTION ACROSS DRIVEWAY, COORDINATE WITH CM. CONTRACTOR TO MAINTAIN ACCESS TO RESIDENTS AND BUSINESSES AT ALL TIMES.
2.MAINTAIN MINIMUM 11-FOOT LANE WIDTH AT ALL TIMES.
3.COORDINATE WITH METRO FOR TEMPORARY SIGNS IF NEEDED,METRO TEMP STOPS TO BE RELOCATED WITH THE TRAFFIC CONTROL SO THAT ACCESS TO METRO IS ALWAYS MAINTAINED.
4.REFER TO TCP STANDARD DETAILS FOR MORE INFORMATION.

LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES, INC.
ENGINEERS, PROJECT MANAGERS,ESTIMATORS,INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

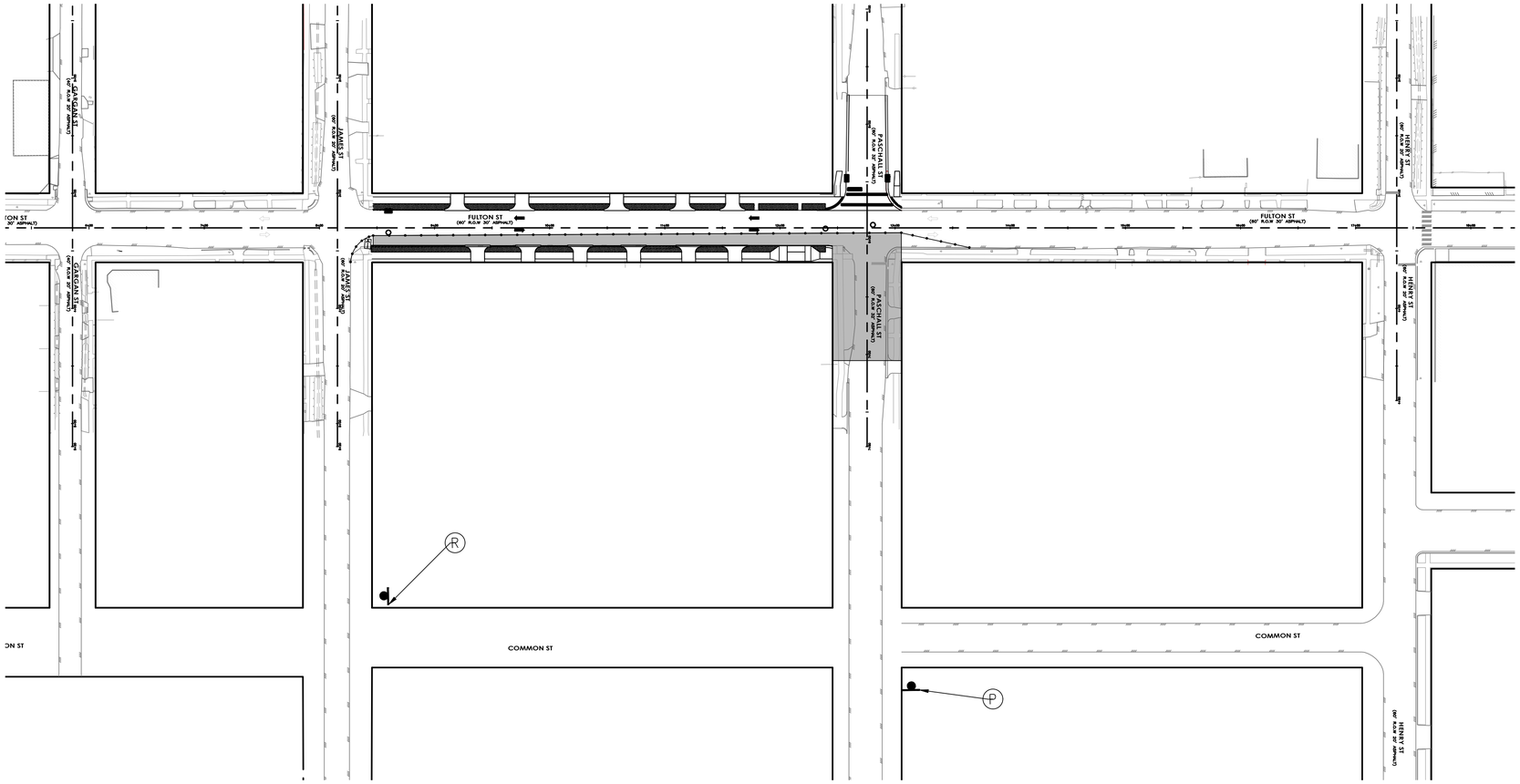
TRAFFIC CONTROL PLAN PHASE 1 STEP 2

SHEET 1 OF 2

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"= 30'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 113 OF 152	

PLOT STYLE: NEDU-STB-BW.stb PLOTTED: 3/29/2026 10:21 AM

FILE PATH: C:\Nedu\Fulton St\01-Civil\Phase 1- Step 2.dwg



LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES INC
ENGINEERS, PROJECT MANAGERS,ESTIMATORS,INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

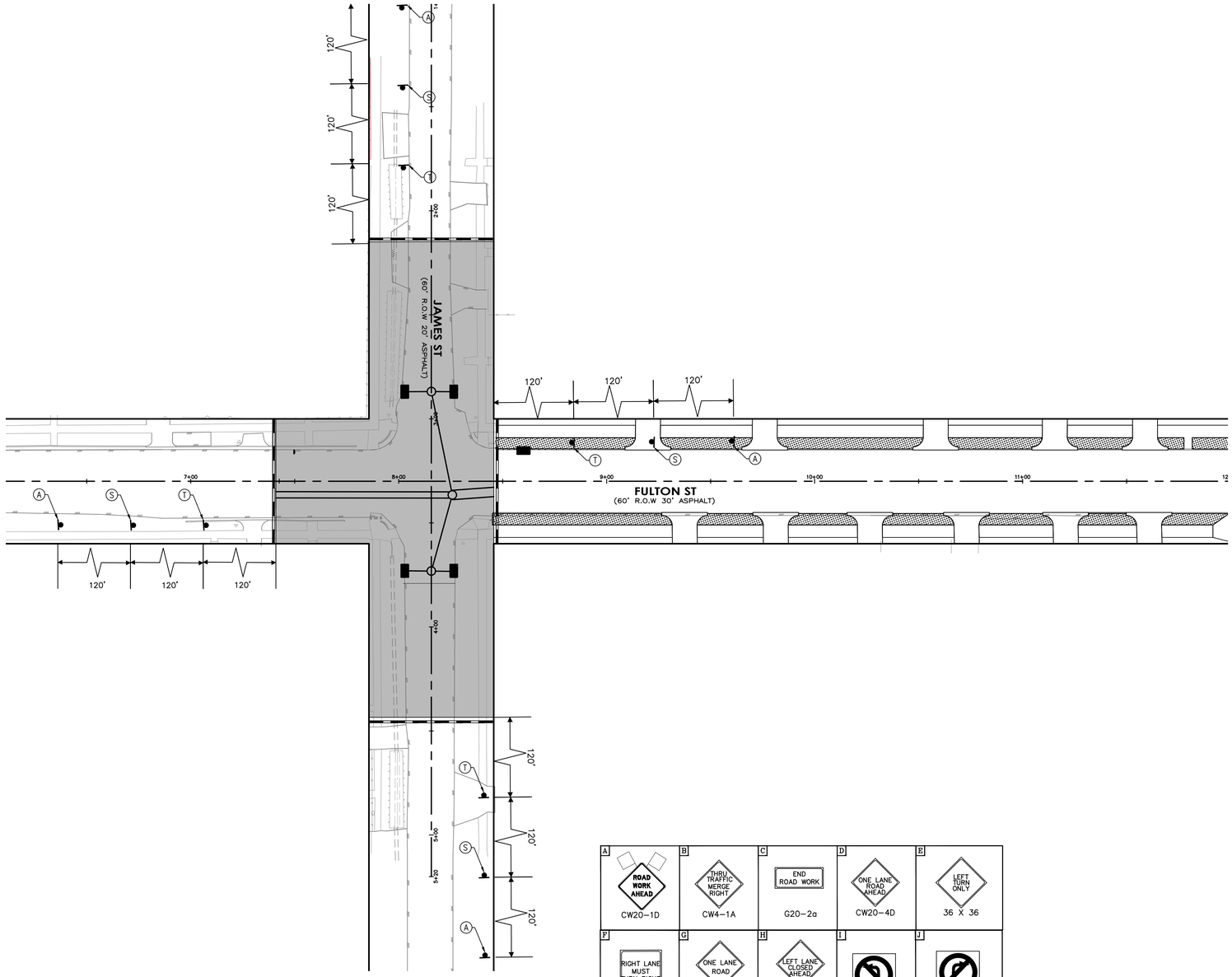
TRAFFIC CONTROL PLAN
PHASE 1 STEP 2-DETOUR

SHEET 2 OF 2

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"= 30'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 114 OF 152

PLOT STYLE: NEDU-STB-BW.stb PLOTTED: 3/29/2026 10:27 AM

FILE PATH: C:\Nedu\Fulton St\01-Civil\Phase 1- Step 2.dwg

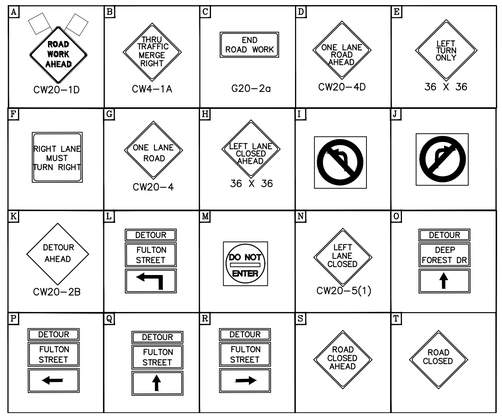


LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I–C
5. REMOVABLE PAV MRK (REFLECTOR) TY A–A
6. REMOVABLE PAV MRK (REFLECTOR) TY I–A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.



NOTES:

1.PRIOR TO CONSTRUCTION ACROSS DRIVEWAY, COORDINATE WITH CM. CONTRACTOR TO MAINTAIN ACCESS TO RESIDENTS AND BUSINESSES AT ALL TIMES.
2.MAINTAIN MINIMUM 11–FOOT LANE WIDTH AT ALL TIMES.
3.COORDINATE WITH METRO FOR TEMPORARY SIGNS IF NEEDED,METRO TEMP STOPS TO BE RELOCATED WITH THE TRAFFIC CONTROL SO THAT ACCESS TO METRO IS ALWAYS MAINTAINED.
4.REFER TO TCP STANDARD DETAILS FOR MORE INFORMATION.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

NEDU ENGINEERING SERVICES INC
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:
FB NUMBER: P–6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

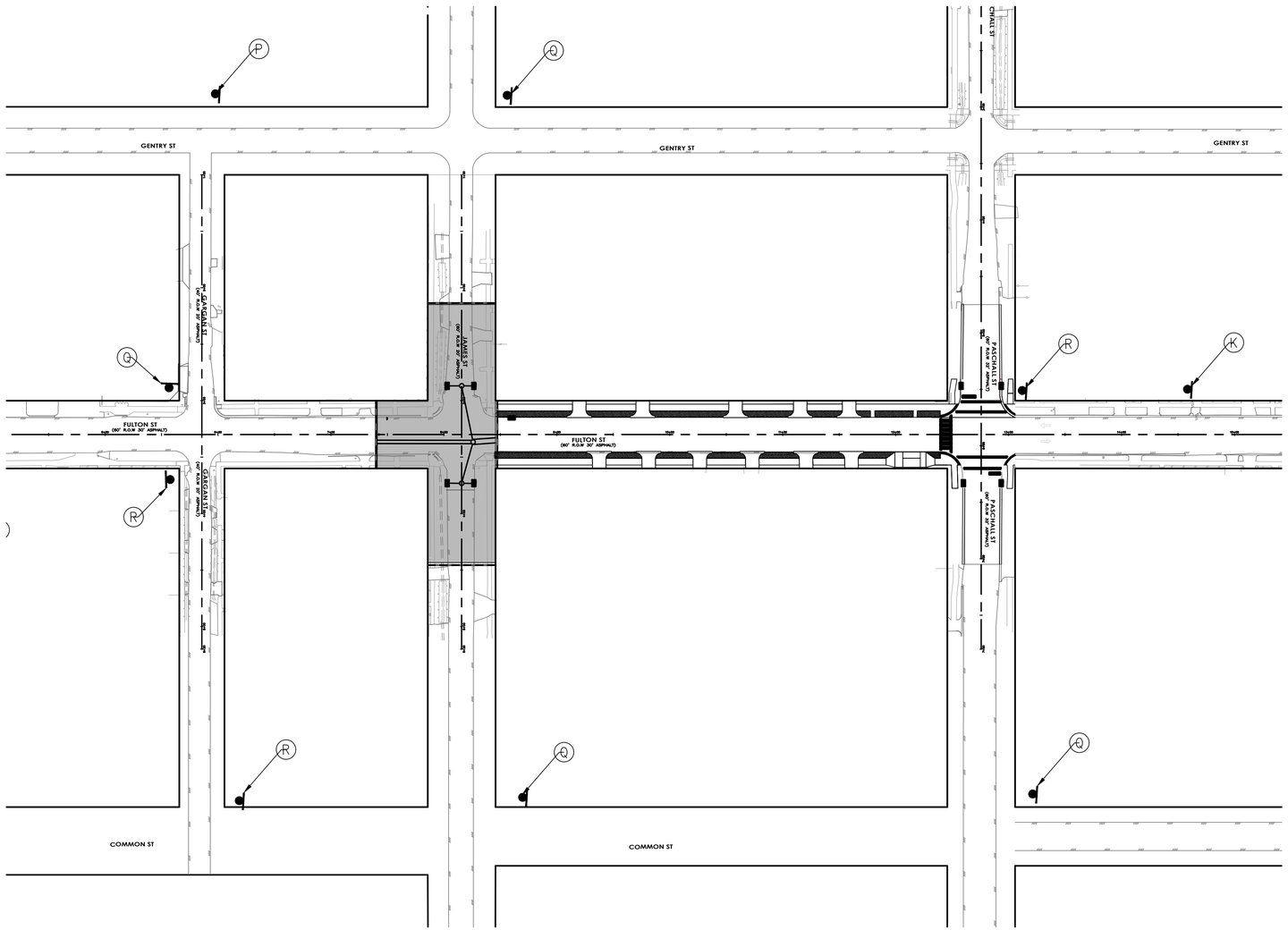
TRAFFIC CONTROL PLAN PHASE 1 STEP 3

SHEET 1 OF 2

WBS NUMBER	
N–000818–0001–3	
DRAWING SCALE	
1"= 30'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 115 OF 152	

PLOT STYLE: NEDU–STB–BW.stb PLOTTED: 3/29/2026 10:30 AM

FILE PATH: C:\Nedu\fulton St\01–Civil\fulton And James Intersection.dwg



LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.

N

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES, INC.
ENGINEERS, PROJECT MANAGERS, ESTIMATORS, INSPECTORS
6464 SAVOY, DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

SURVEYED BY:

FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

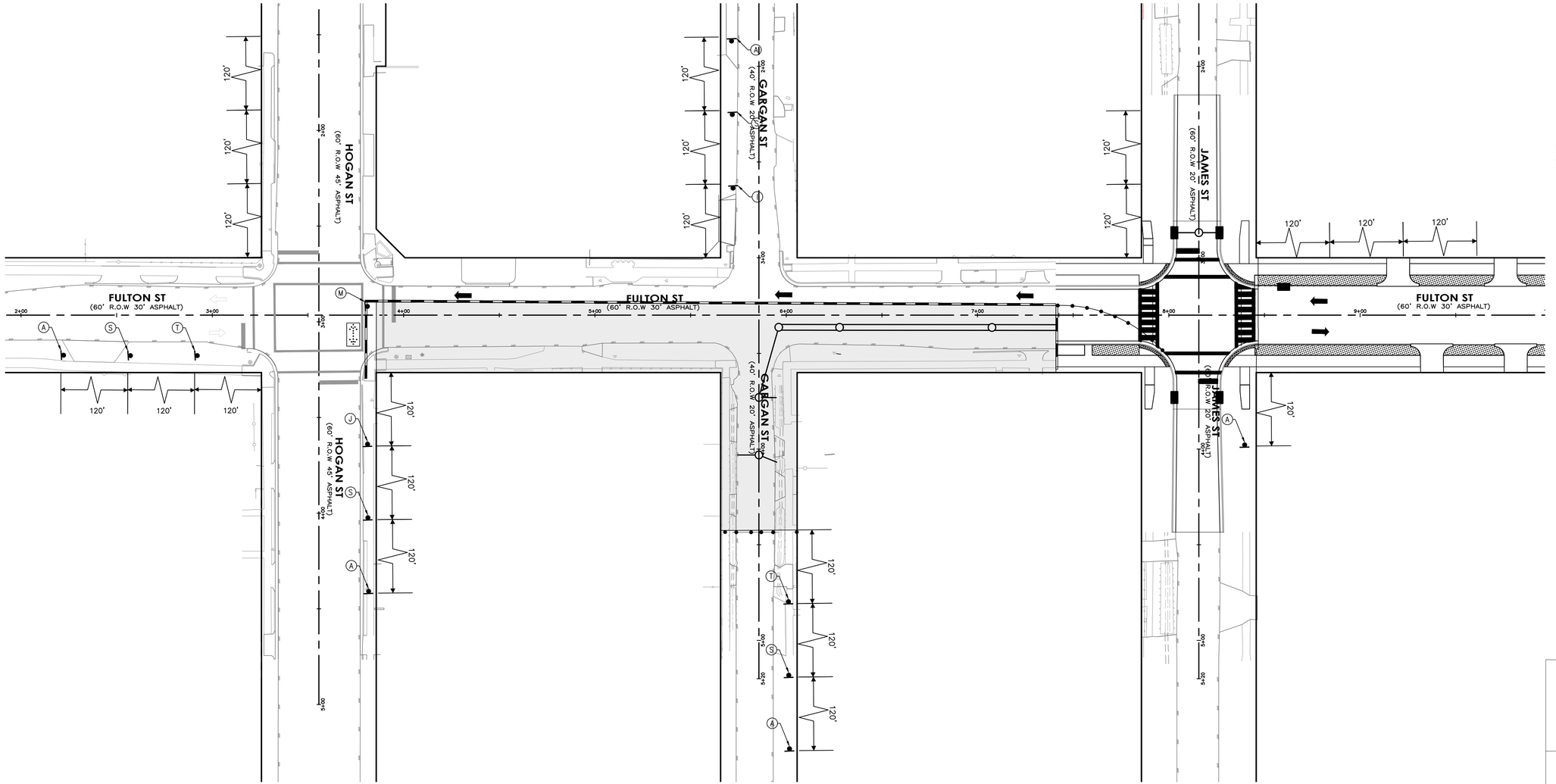
TRAFFIC CONTROL PLAN
PHASE 1 STEP 3-DETOUR

SHEET 2 OF 2

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"= 30'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 116 OF 152

PLOT STYLE: NEDU-STB-BW.stb PLOTTED: 3/29/2026 10:41 AM

FILE PATH: C:\Nedu\fulton ST\01-Civil\fulton And James Intersection.dwg

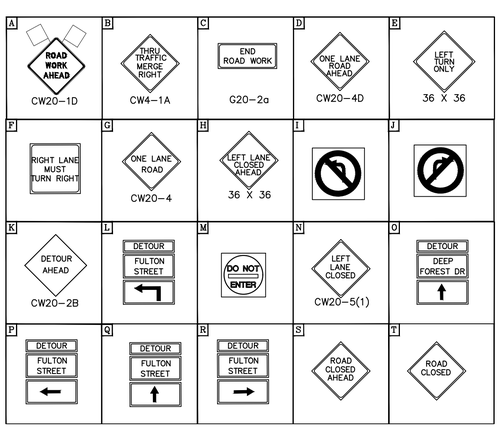


LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I–C
5. REMOVABLE PAV MRK (REFLECTOR) TY A–A
6. REMOVABLE PAV MRK (REFLECTOR) TY I–A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.



NOTES:

1.PRIOR TO CONSTRUCTION ACROSS DRIVEWAY, COORDINATE WITH CM. CONTRACTOR TO MAINTAIN ACCESS TO RESIDENTS AND BUSINESSES AT ALL TIMES.
2.MAINTAIN MINIMUM 11–FOOT LANE WIDTH AT ALL TIMES.
3.COORDINATE WITH METRO FOR TEMPORARY SIGNS IF NEEDED,METRO TEMP STOPS TO BE RELOCATED WITH THE TRAFFIC CONTROL SO THAT ACCESS TO METRO IS ALWAYS MAINTAINED.
4.REFER TO TCP STANDARD DETAILS FOR MORE INFORMATION.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

NEDU ENGINEERING SERVICES INC.
ENGINEERS, PROJECT MANAGERS ESTIMATORS INSPECTORS
6464 SAVOY, DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

SURVEYED BY:
FB NUMBER: P–6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

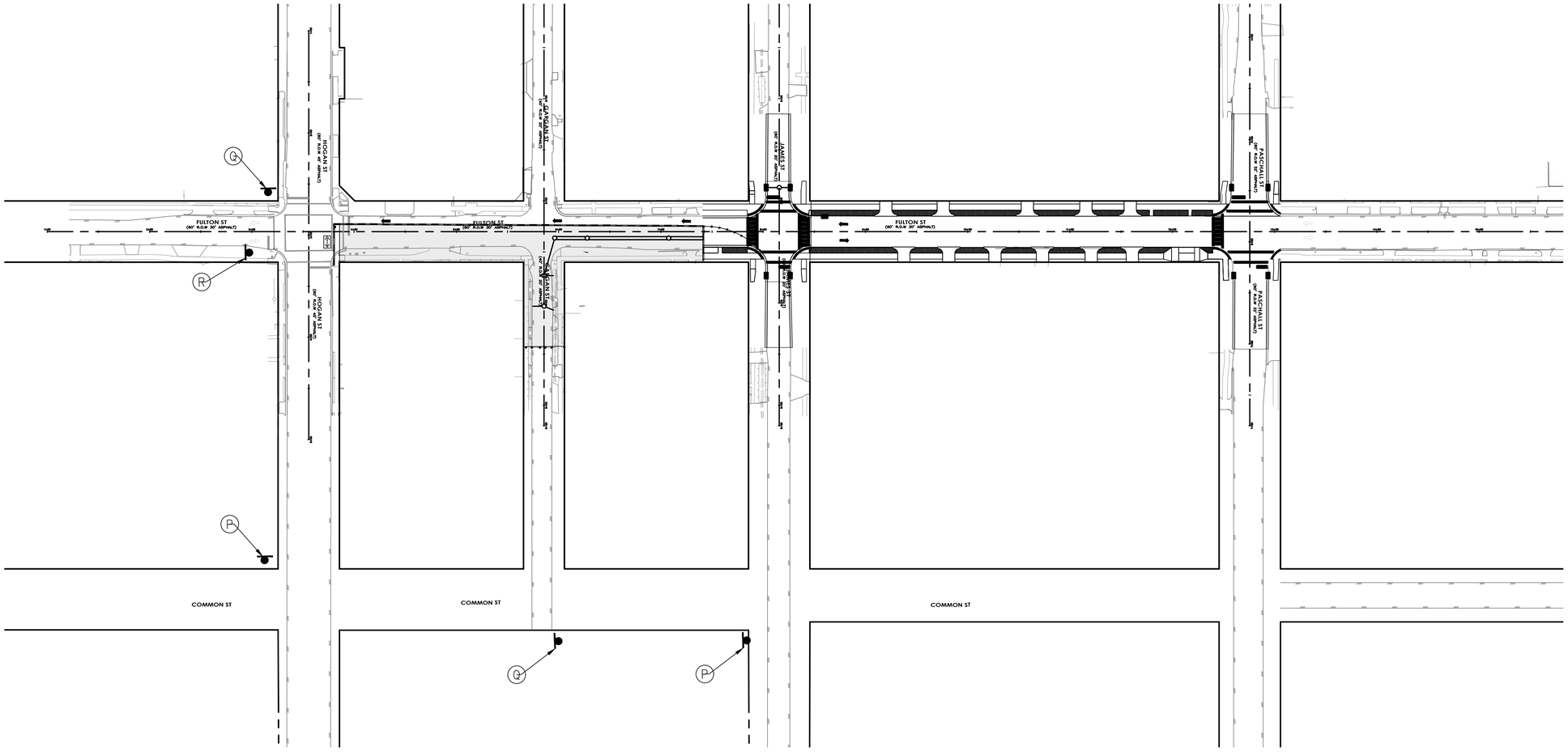
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

TRAFFIC CONTROL PLAN
PHASE 1 STEP 4

SHEET 1 OF 2

WBS NUMBER	
N–000818–0001–3	
DRAWING SCALE	
1"= 30'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 117 OF 152	

PLOTTED: 3/29/2026 10:48 AM
PLOT STYLE: NEDU–STB–BW.stb
FILE PATH: C:\Nedu\fulton ST\01–Civil\Phase1– Step 4.dwg



LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.

N

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES INC.
ENGINEERS, PROJECT MANAGERS & INSPECTORS
6464 SAVOY, DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:

FB NUMBER: P-6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

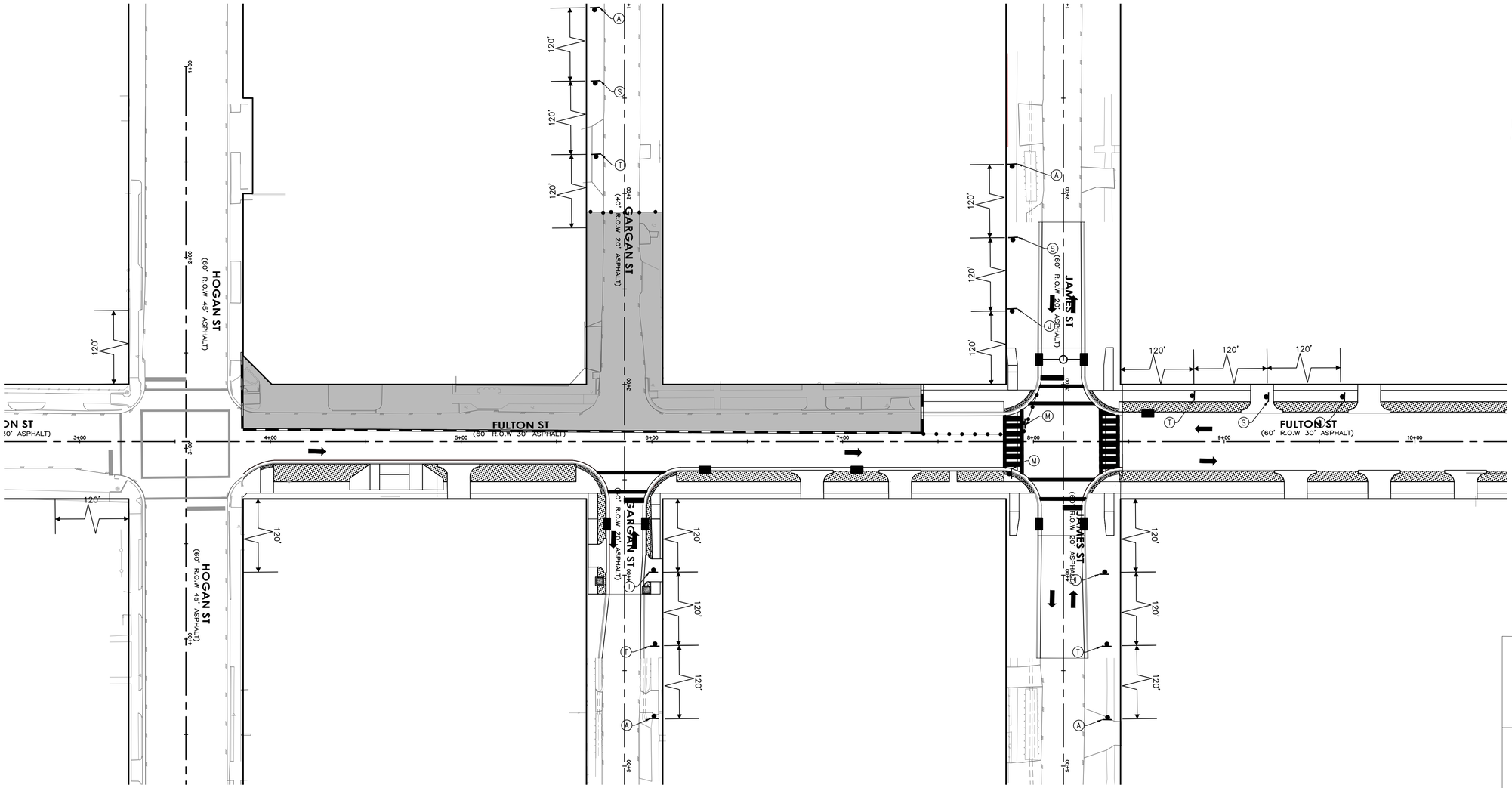
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

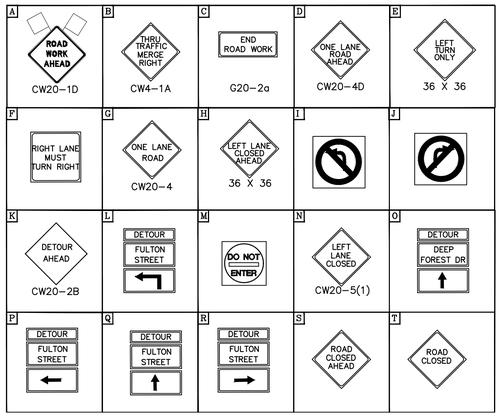
TRAFFIC CONTROL PLAN PHASE 1 STEP 4 -DETOUR

SHEET 2 OF 2

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"= 30'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 118 OF 152	

PLOTTED: 3/29/2026 10:54 AM
PLOT STYLE: NEDU-STB-BW.stb
FILE PATH: C:\Nedu\fulton ST\01-Civil\Phase1- Step 4.dwg





LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NOTES:

1.PRIOR TO CONSTRUCTION ACROSS DRIVEWAY, COORDINATE WITH CM. CONTRACTOR TO MAINTAIN ACCESS TO RESIDENTS AND BUSINESSES AT ALL TIMES.
2.MAINTAIN MINIMUM 11-FOOT LANE WIDTH AT ALL TIMES.
3.COORDINATE WITH METRO FOR TEMPORARY SIGNS IF NEEDED,METRO TEMP STOPS TO BE RELOCATED WITH THE TRAFFIC CONTROL SO THAT ACCESS TO METRO IS ALWAYS MAINTAINED.
4.REFER TO TCP STANDARD DETAILS FOR MORE INFORMATION.

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES INC
ENGINEERS, PROJECT MANAGERS, INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE: NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

SURVEYED BY:
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

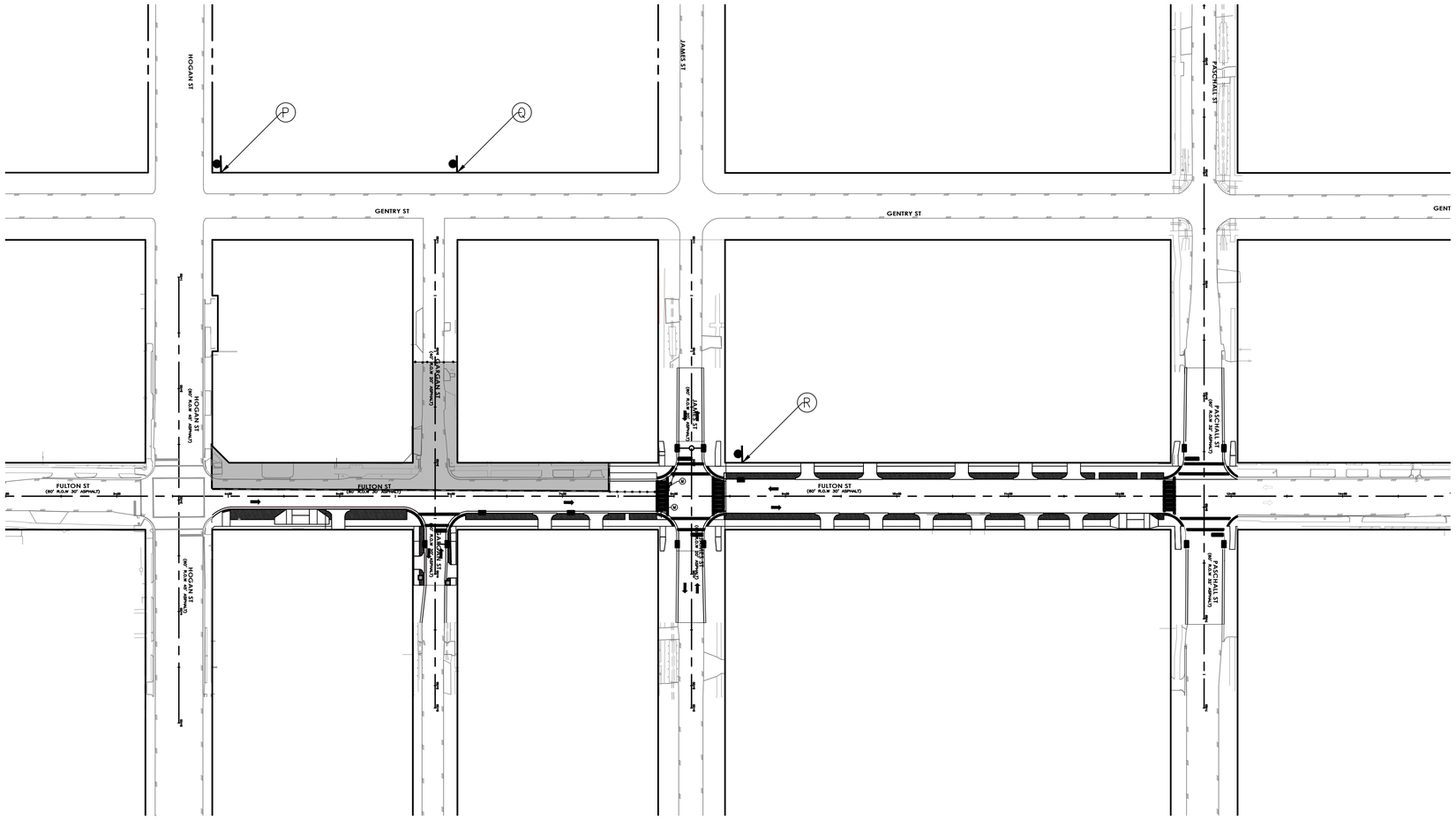
TRAFFIC CONTROL PLAN
PHASE 1 STEP 5

SHEET 1 OF 2

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"= 30'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 119 OF 152	

PLOT STYLE: NEDU-STB-BW.stb PLOTTED: 3/29/2026 10:56 AM

FILE PATH: C:\Nedu\fulton St\01-Civil\phase 1 Step5.dwg



LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES, INC.
ENGINEERS, PROJECT MANAGERS, ESTIMATORS, INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:

FB NUMBER: P-6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

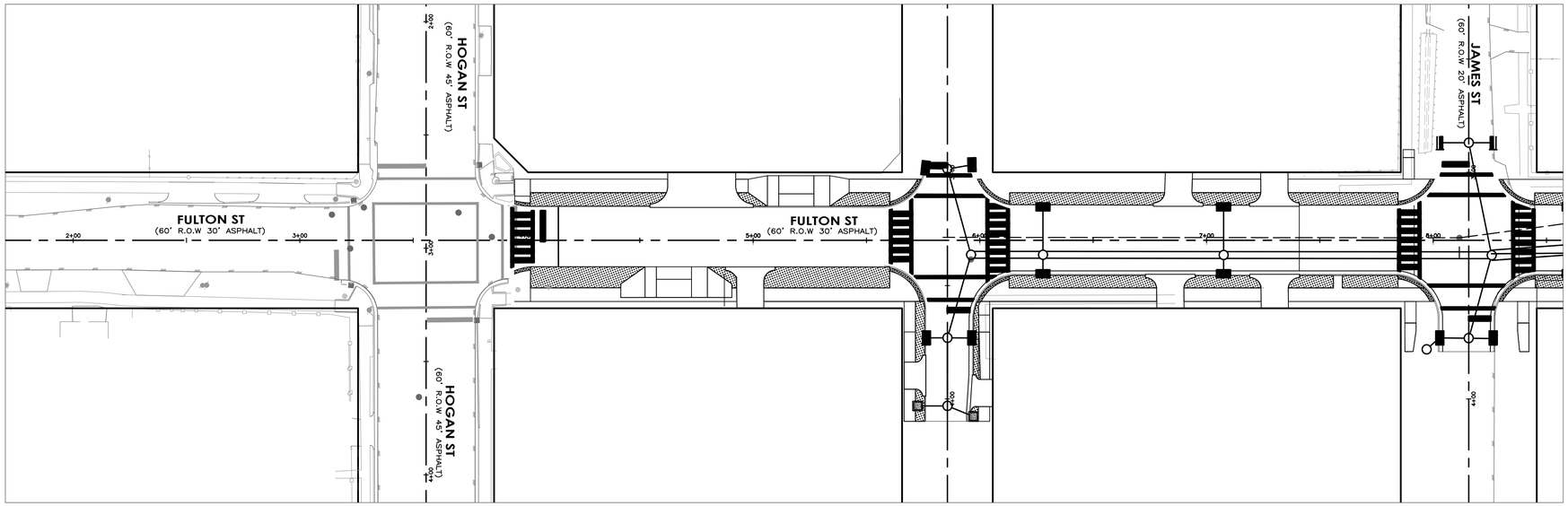
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

TRAFFIC CONTROL PLAN
PHASE 1 STEP 5-DETOUR

SHEET 2 OF 2

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"= 30'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 120 OF 152

PLOTTED: 3/29/2026 11:01 AM
PLOT STYLE: NEDU-STB-BW.stb
FILE PATH: C:\Nedu\fulton St\01-Civil\phase 1 Step5.dwg



LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES, INC.
ENGINEERS, PROJECT MANAGERS, ESTIMATORS, INSPECTORS
6464 SAVOY, DR. Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:

FB NUMBER: P-6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

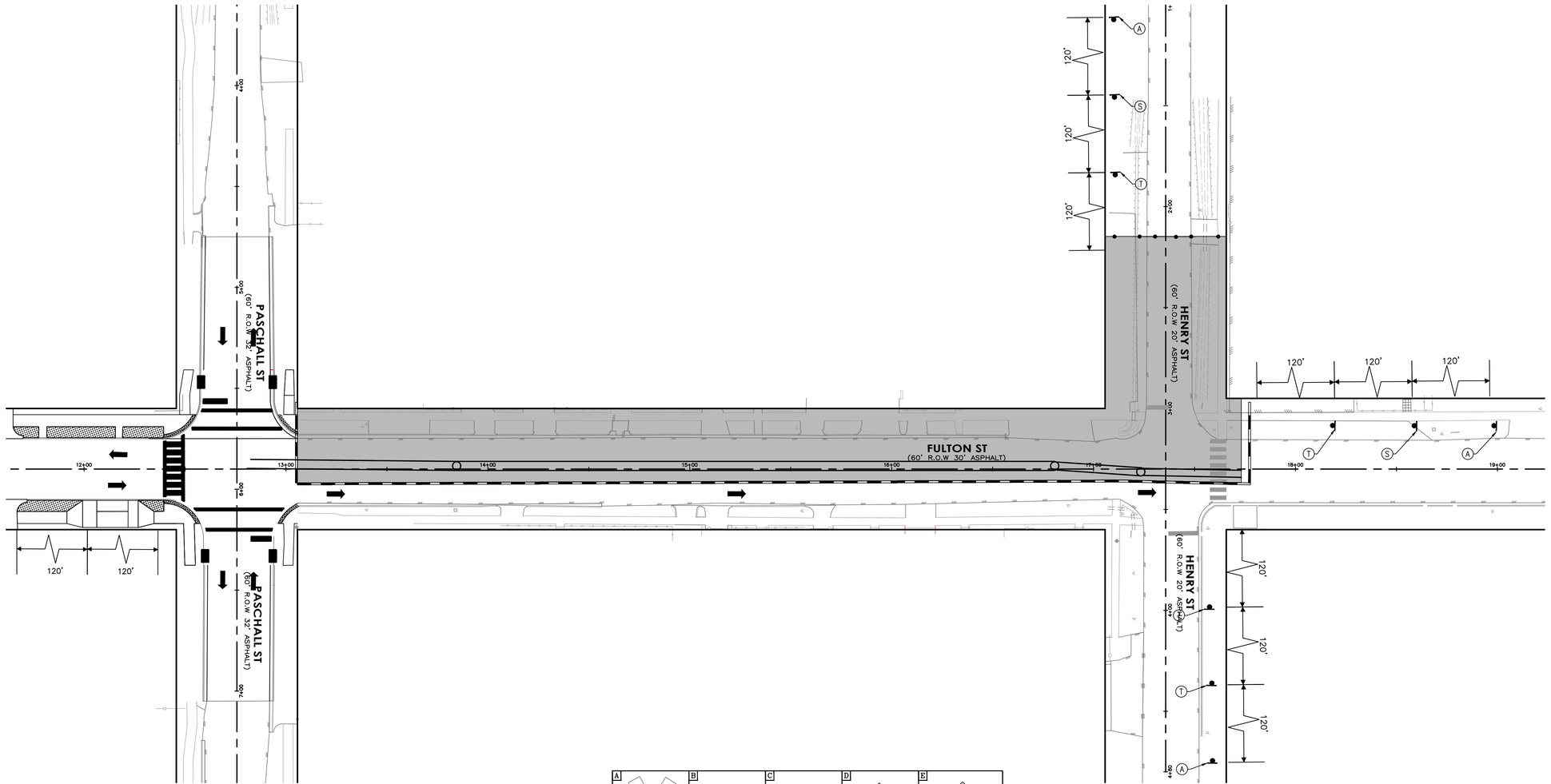
TRAFFIC CONTROL PLAN
HOGAN-FULTON INTERSECTION

SHEET 1 OF 1

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"= 30'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 121 OF 152	

PLOT STYLE: NEDU-STB-BW.stb PLOTTED: 3/29/2026 11:08 AM

FILE PATH: C:\Nedu\fulton St\01-Civil\hogan Intersection.dwg

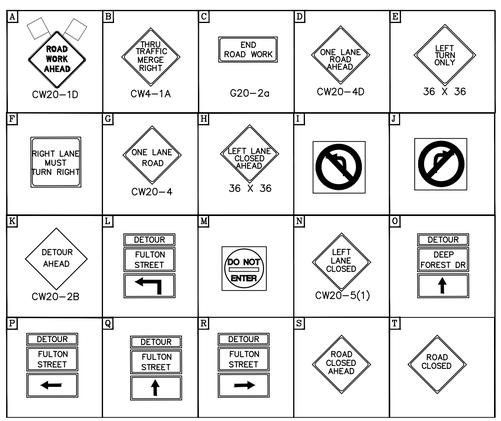


LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I–C
5. REMOVABLE PAV MRK (REFLECTOR) TY A–A
6. REMOVABLE PAV MRK (REFLECTOR) TY I–A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.



NOTES:

1.PRIOR TO CONSTRUCTION ACROSS DRIVEWAY, COORDINATE WITH CM. CONTRACTOR TO MAINTAIN ACCESS TO RESIDENTS AND BUSINESSES AT ALL TIMES.
2.MAINTAIN MINIMUM 11–FOOT LANE WIDTH AT ALL TIMES.
3.COORDINATE WITH METRO FOR TEMPORARY SIGNS IF NEEDED,METRO TEMP STOPS TO BE RELOCATED WITH THE TRAFFIC CONTROL SO THAT ACCESS TO METRO IS ALWAYS MAINTAINED.
4.REFER TO TCP STANDARD DETAILS FOR MORE INFORMATION.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

NEDU ENGINEERING SERVICES ,INC
ENGINEERS, PROJECT MANAGERS,ESTIMATORS,INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:
FB NUMBER: P–6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

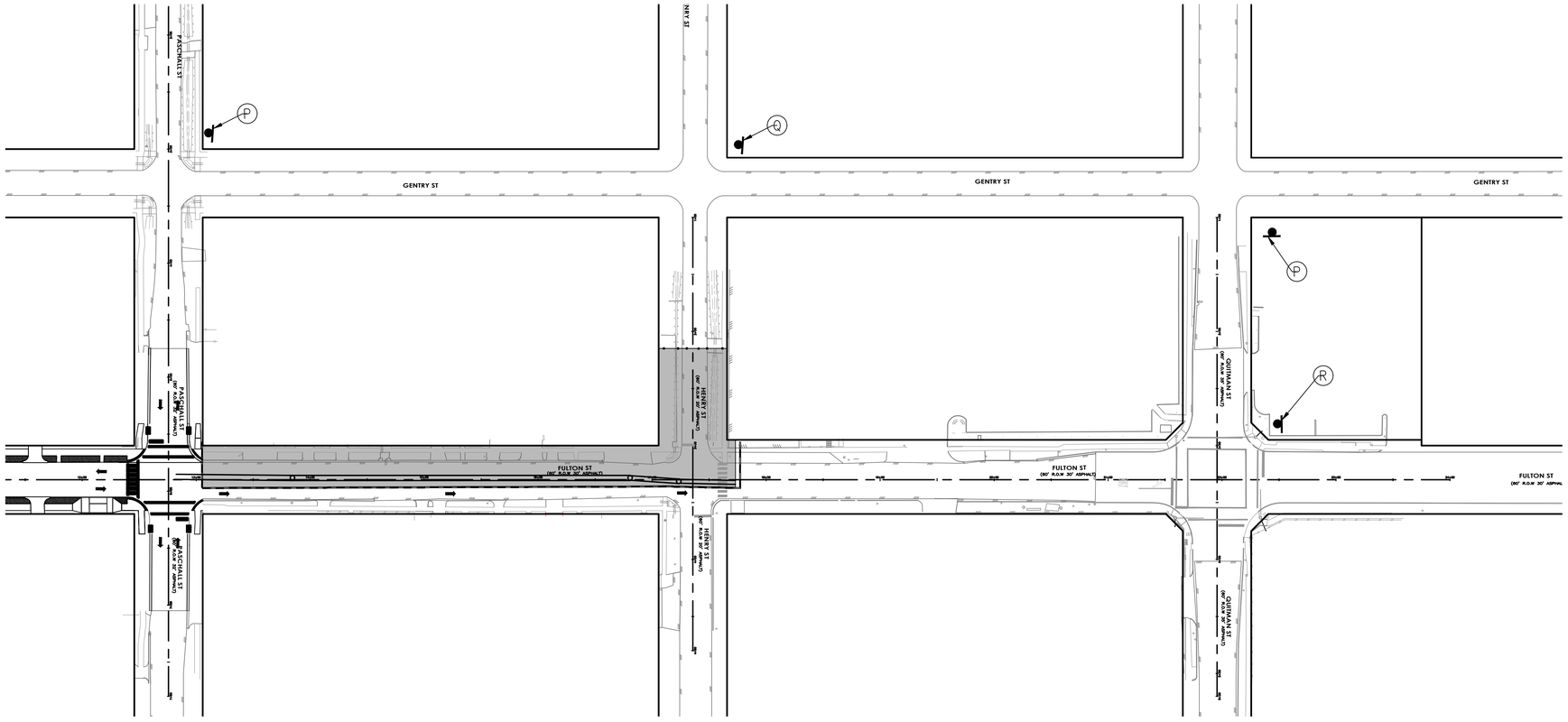
TRAFFIC CONTROL PLAN PHASE 2 STEP 1

SHEET 1 OF 2

WBS NUMBER	
N–000818–0001–3	
DRAWING SCALE	
1"= 30'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 122 OF 152	

PLOT STYLE: NEDU–STB–BW.stb PLOTTED: 3/29/2026 11:14 AM

FILE PATH: C:\Nedu\fulton ST\01–Civil\phase 2– Step 1.dwg



LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES ,INC.
ENGINEERS, PROJECT MANAGERS,ESTIMATORS,INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@Nedu.Engineers.com
www.NeduEngineers.com

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

SURVEYED BY:
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

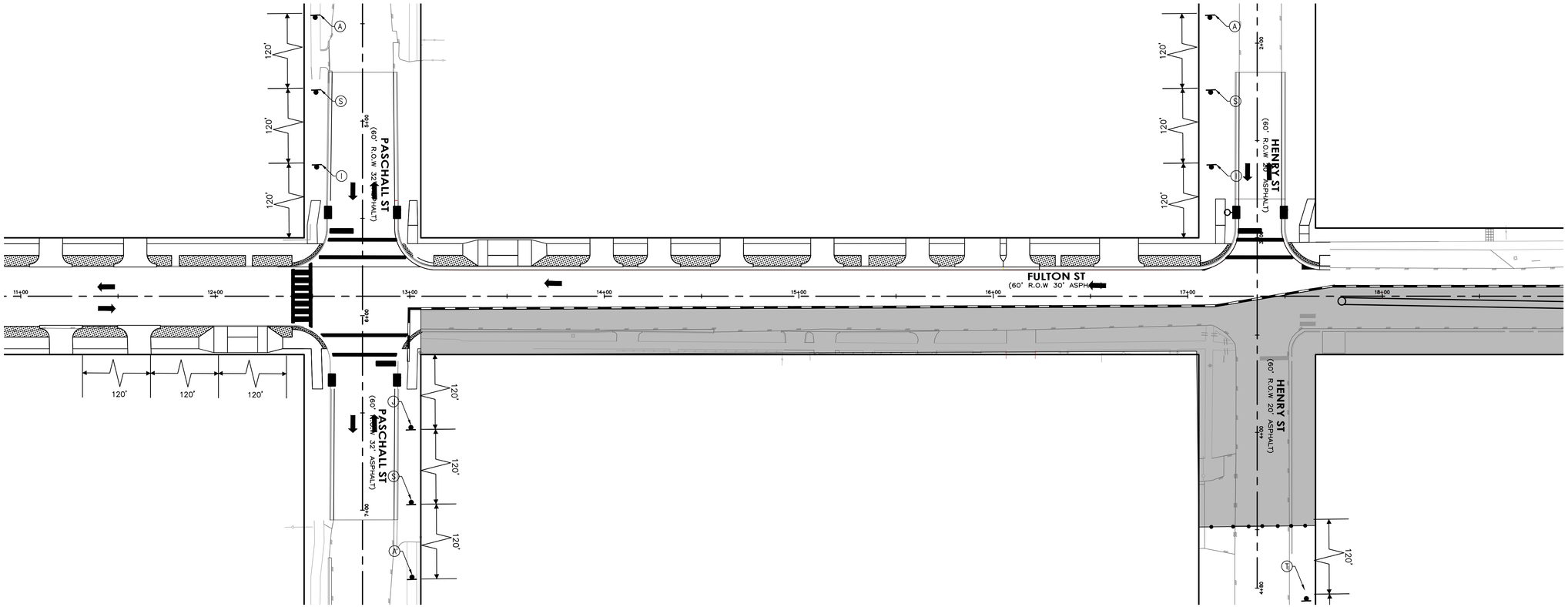
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

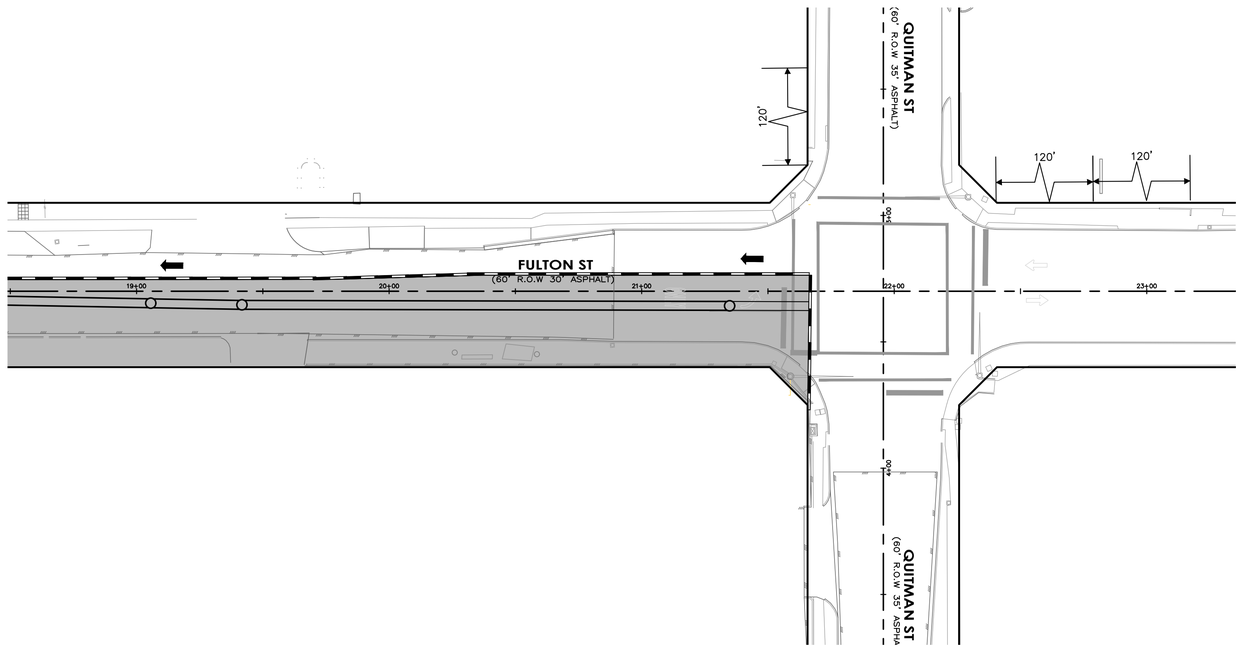
TRAFFIC CONTROL PLAN PHASE 1 STEP 2

SHEET 2 OF 2

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"= 30'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 123 OF 152	

PLOTTED: 3/29/2026 11:22 AM
PLOT STYLE: NEDU-STB-BW.stb
FILE PATH: C:\Nedu\fulton St\01-Civil\phase 2- Step 1.dwg





LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I–C
5. REMOVABLE PAV MRK (REFLECTOR) TY A–A
6. REMOVABLE PAV MRK (REFLECTOR) TY I–A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.

NOTES:

1.PRIOR TO CONSTRUCTION ACROSS DRIVEWAY, COORDINATE WITH CM. CONTRACTOR TO MAINTAIN ACCESS TO RESIDENTS AND BUSINESSES AT ALL TIMES.
2.MAINTAIN MINIMUM 11–FOOT LANE WIDTH AT ALL TIMES.
3.COORDINATE WITH METRO FOR TEMPORARY SIGNS IF NEEDED,METRO TEMP STOPS TO BE RELOCATED WITH THE TRAFFIC CONTROL SO THAT ACCESS TO METRO IS ALWAYS MAINTAINED.
4.REFER TO TCP STANDARD DETAILS FOR MORE INFORMATION.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

NEDU ENGINEERING SERVICES INC
ENGINEERS, PROJECT MANAGERS,INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:
FB NUMBER: P–6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

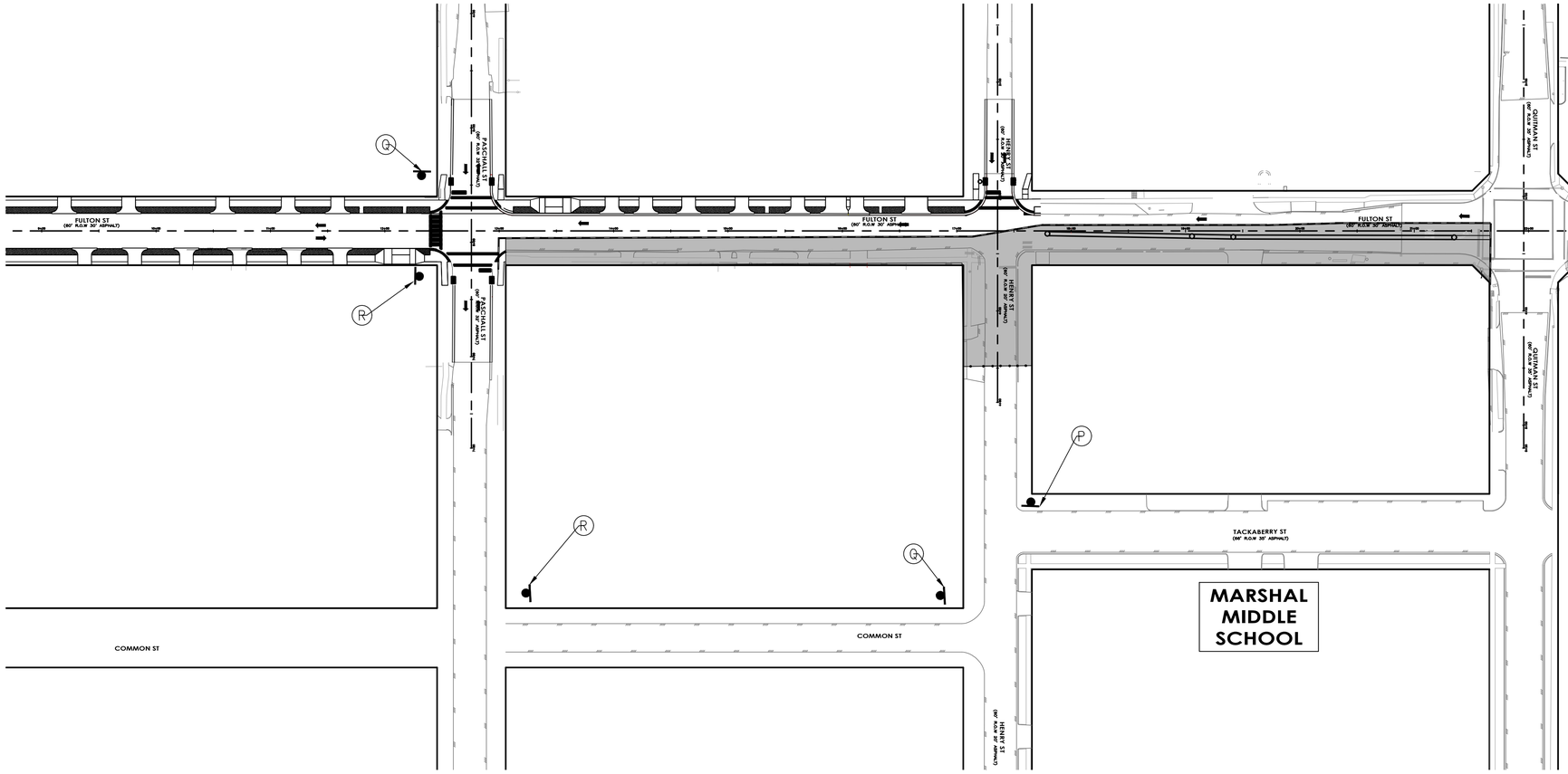
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

TRAFFIC CONTROL PLAN
PHASE 2 STEP 2

SHEET 1 OF 2

WBS NUMBER	
N–000818–0001–3	
DRAWING SCALE	
1"= 30'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 124 OF 152	

PLOTTED: 3/29/2026 11:26 AM
PLOT STYLE: NEDU–STB–BW.stb
FILE PATH: C:\Nedu\fulton ST\01–Civil\phase 2– Step 2.dwg



LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.

N

0' 25' 50'
SCALE IN FEET

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES, INC.
ENGINEERS, PROJECT MANAGERS, ESTIMATORS, INSPECTORS
6464 SAVOY, DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:
FB NUMBER: P-6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

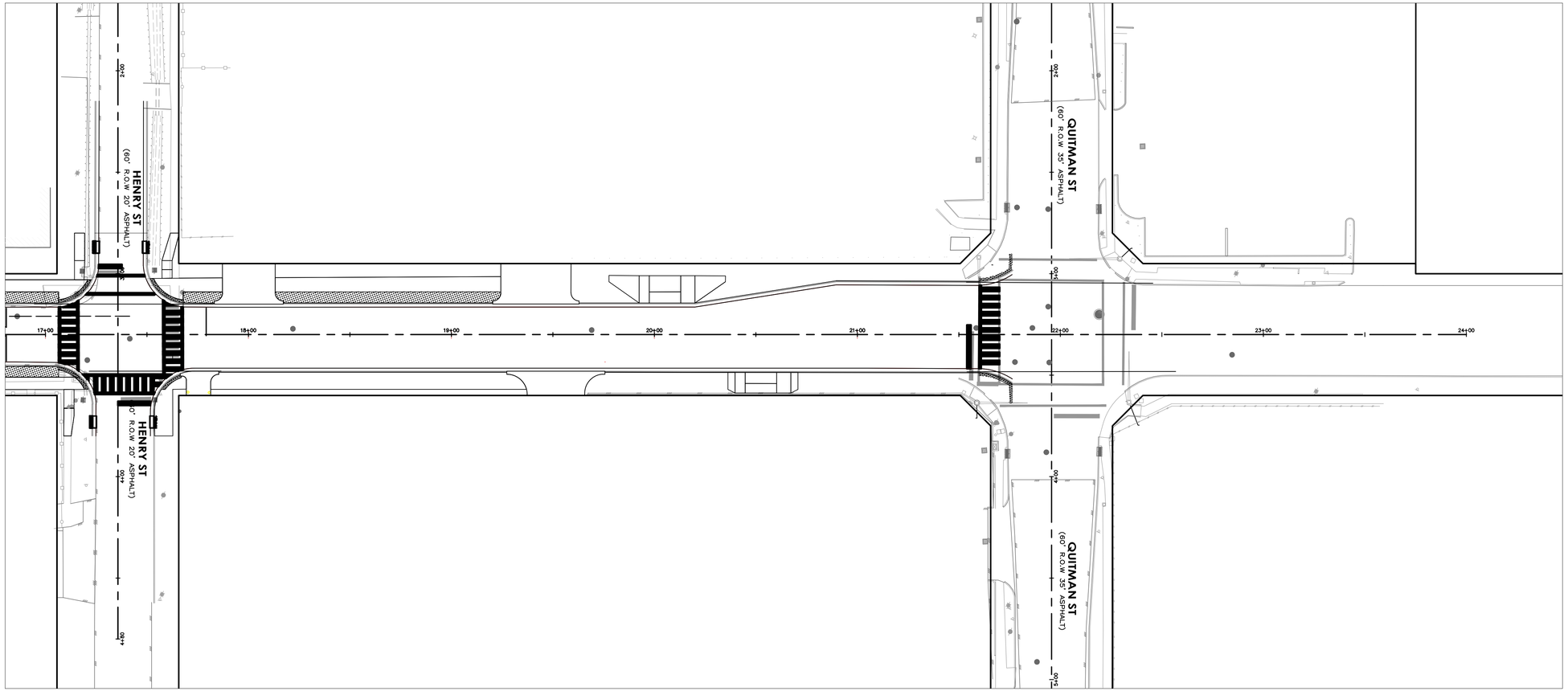
TRAFFIC CONTROL PLAN
PHASE 2 STEP 2 -DETOUR

SHEET 2 OF 2

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
1"= 30'	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 125 OF 152	

PLOT STYLE: NEDU-STB-BW.stb PLOTTED: 3/29/2026 11:32 AM

FILE PATH: C:\Nedu\fulton ST\01-Civil\phase 2- Step 2.dwg



LEGEND

- WORK ZONE
- TEMPORARY ASPHALT
- HIGH EARLY STRENGTH CONCRETE
- PROPOSED LANES UNDER TRAFFIC
- EXISTING LANES UNDER TRAFFIC
- TEMP GROUND MOUNTED SIGN
- DRUM
- VERTICAL PANEL
- TYPE III BARRICADE W/ ROAD CLOSED SIGN
- FLASHING ARROW
- TY I WITH TY II END TREATMENT LOW PROFILE CONC BARRIER WITH REFLECTORS

1. REMOVABLE PAV MRK BUTTONS TY W
2. REMOVABLE PAV MRK BUTTONS TY Y
3. REMOVABLE PAV MRK BUTTONS W STOP BAR
4. REMOVABLE PAV MRK (REFLECTOR) TY I-C
5. REMOVABLE PAV MRK (REFLECTOR) TY A-A
6. REMOVABLE PAV MRK (REFLECTOR) TY I-A
7. REMOVABLE PAV MRK BUTTONS TY W (DOT)
8. REMOVABLE PAV MRK BUTTONS TY Y (DOT)
9. REMOVABLE PAV MRK BUTTONS ARROW
10. REMOVABLE PAV MRK BUTTONS DBL ARROW
11. REMOVABLE PAV MRK BUTTONS TPL ARROW

NO.	DATE	REVISION	APP.

N

0' 25' 50'
SCALE IN FEET

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

NEDU ENGINEERING SERVICES, INC.
ENGINEERS, PROJECT MANAGERS,ESTIMATORS,INSPECTORS
6464 SAVOY DR, Suite 610
Houston, Texas 77036
info@NeduEngineers.com
www.NeduEngineers.com

SURVEYED BY:

FB NUMBER: P-6164

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: NKEMDI I. OHALETE
P.E. SERIAL No.: 79423
2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

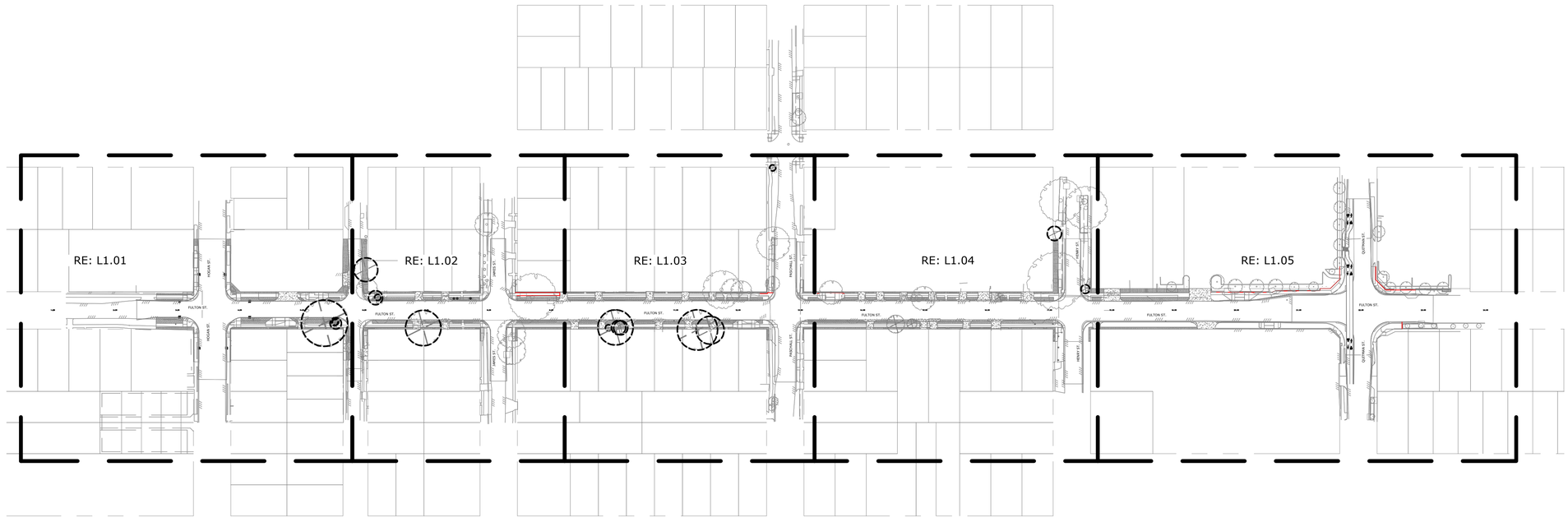
TRAFFIC CONTROL PLAN
QUITMAN-FULTON INTERSECTION

SHEET 1 OF 1

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
1"= 30'
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 126 OF 152

PLOT STYLE: NEDU-STB-BW.stb PLOTTED: 3/29/2026 11:36 AM

FILE PATH: C:\Nedu\fulton St\01-Civil\Quitman Intersection.dwg



N

NO.	DATE	REVISION	APP.

ASAKURA ROBINSON
2500 Summer Street, Suite 3228 Houston Texas 77007
P: 713.337.5830 www.asakurarobinson.com

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

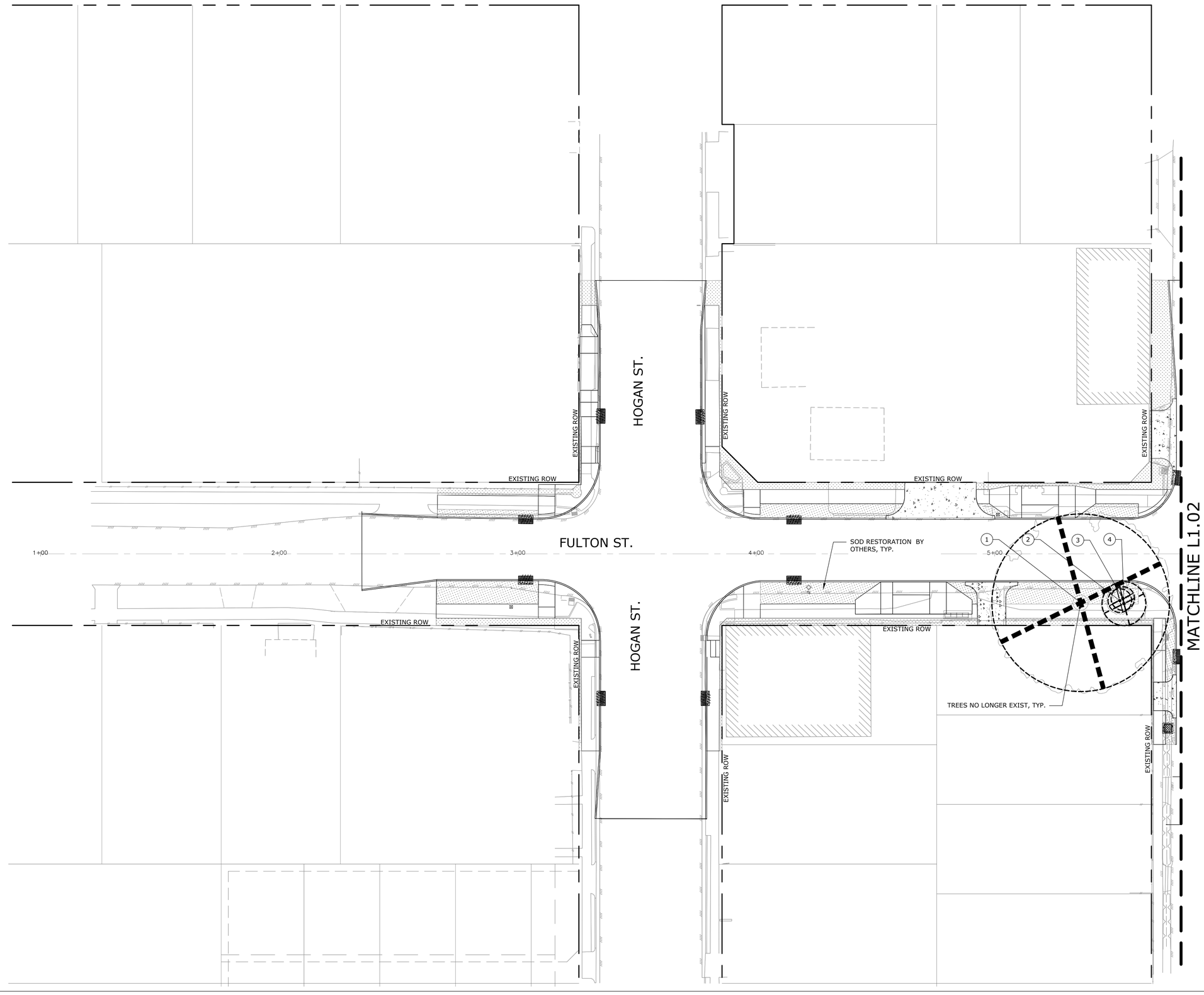
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

L1.00
TREE PROTECTION PLAN
KEY MAP

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 127 OF 152

PLOTTED: 3/20/2026 3:54 PM
PLOT STYLE: ----
FILE PATH: J:\HAT2501 Fulton Street Paving And Drainage Improvements\AR\03 CD\L1.00 TREE PROTECTION PLAN.dwg



N

LEGEND

- MATCHLINE
- TREE NUMBER
- EXISTING TREES TO REMAIN
- TREES NO LONGER EXIST
- EXISTING TREES TO BE REMOVED
- TREE PROTECTION FENCING RE: DETAIL 1/L1.07
- ROOT PRUNING WITH 6" WIDE, 2' DEEP TRENCH RE: DETAIL 2/L1.07
- ZERO CURB CUT, RE: DETAIL 3/L1.07

NO.	DATE	REVISION	APP.

ASAKURA ROBINSON
2500 Summer Street, Suite 3228 Houston Texas 77007
P: 713.337.5830 www.asakurarobinson.com

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

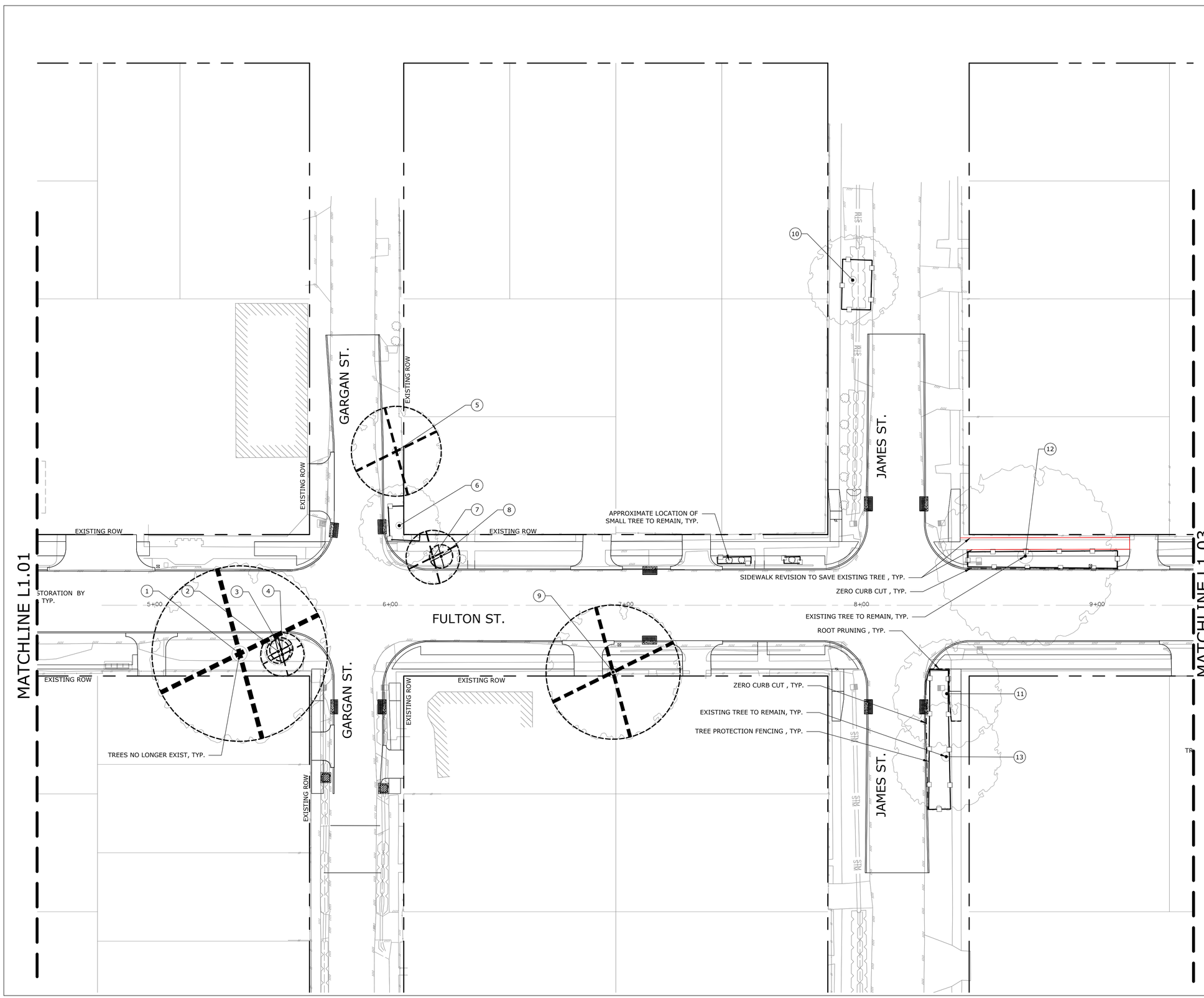
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

L1.01 TREE PROTECTION PLAN FULTON STREET STA 1+00 TO STA 5+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 128 OF 152	

PLOTTED: 3/20/2026 3:59 PM
PLOT STYLE: ----
FILE PATH: J:\HAT2501 Fulton Street Paving And Drainage Improvements\AR\03 CD\L1.00 TREE PROTECTION PLAN.dwg

PLOTTED: 3/20/2026 3:55 PM
PLOT STYLE: ----
FILE PATH: J:\HAT2501 Fulton Street Paving And Drainage Improvements\AR\03 CD\L1.00 TREE PROTECTION PLAN.dwg



N

LEGEND

- MATCHLINE
- # TREE NUMBER
- EXISTING TREES TO REMAIN
- TREES NO LONGER EXIST
- EXISTING TREES TO BE REMOVED
- TREE PROTECTION FENCING RE: DETAIL 1/L1.07
- ROOT PRUNING WITH 6" WIDE, 2' DEEP TRENCH RE: DETAIL 2/L1.07
- ZERO CURB CUT, RE: DETAIL 3/L1.07

NO.	DATE	REVISION	APP.

ASAKURA ROBINSON
2500 Summer Street, Suite 3228 Houston Texas 77007
P: 713.337.5830 www.asakurarobinson.com

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

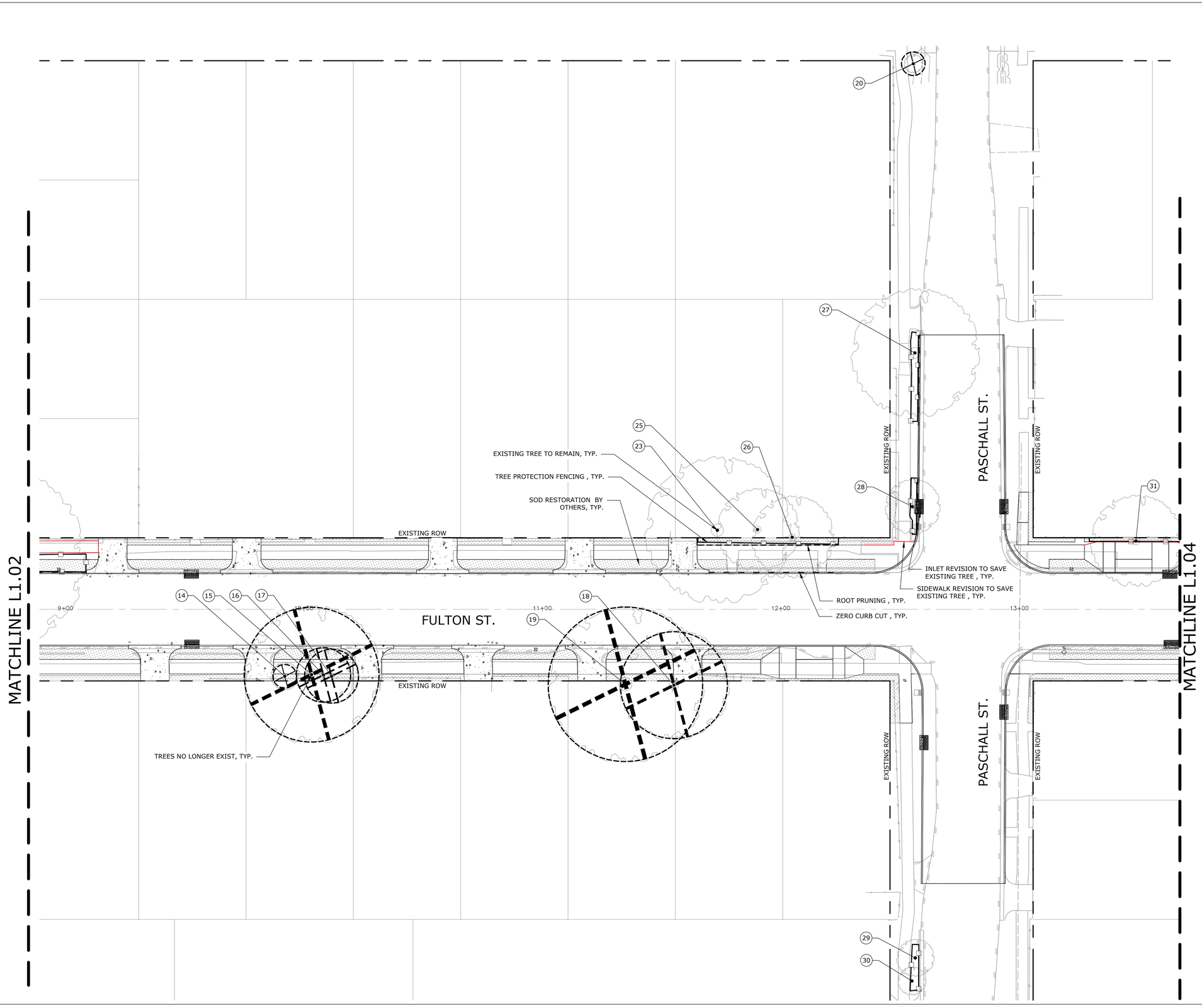
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

L1.02 TREE PROTECTION PLAN FULTON STREET STA 5+00 TO STA 9+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 129 OF 152	

PLOTTED: 3/20/2026 3:55 PM
PLOT STYLE: ----
FILE PATH: J:\HAT2501 Fulton Street Paving And Drainage Improvements\AR\03 CD\L1.00 TREE PROTECTION PLAN.dwg



LEGEND

- MATCHLINE
- TREE NUMBER
- EXISTING TREES TO REMAIN
- TREES NO LONGER EXIST
- EXISTING TREES TO BE REMOVED
- TREE PROTECTION FENCING RE: DETAIL 1/L1.07
- ROOT PRUNING WITH 6" WIDE, 2' DEEP TRENCH RE: DETAIL 2/L1.07
- ZERO CURB CUT, RE: DETAIL 3/L1.07

NO.	DATE	REVISION	APP.

ASAKURA ROBINSON
2500 Summer Street, Suite 3228 Houston Texas 77007
P: 713.337.5830 www.asakurarobinson.com

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

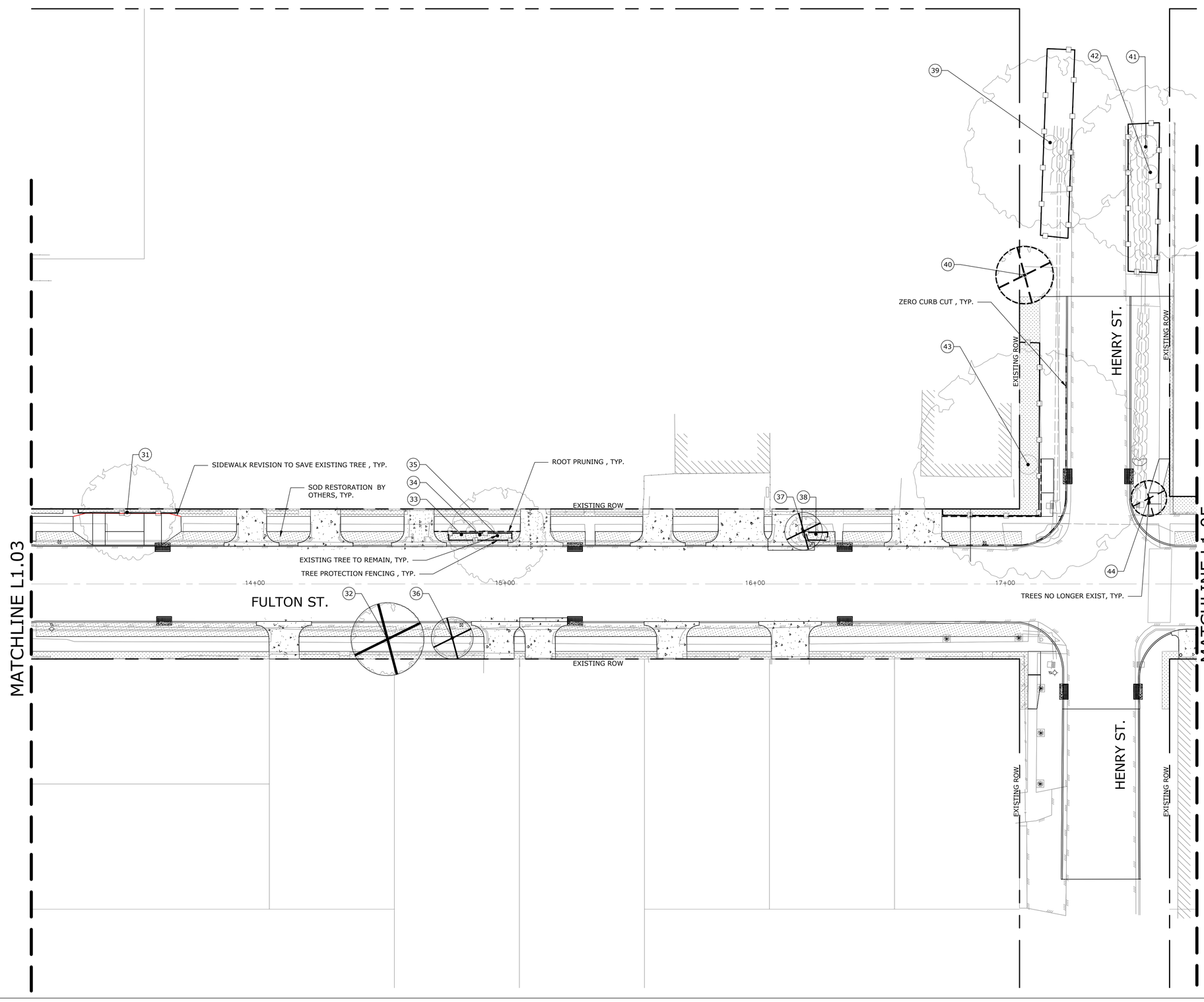
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

L1.03 TREE PROTECTION PLAN FULTON STREET STA 9+00 TO STA 13+50

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 130 OF 152	

PLOT STYLE: ----
PLOTTED: 3/20/2026 3:55 PM
FILE PATH: J:\HAT2501 Fulton Street Paving And Drainage Improvements\AR\03 CD\L1.00 TREE PROTECTION PLAN.dwg



N

LEGEND

- MATCHLINE
- TREE NUMBER
- EXISTING TREES TO REMAIN
- TREES NO LONGER EXIST
- EXISTING TREES TO BE REMOVED
- TREE PROTECTION FENCING RE: DETAIL 1/L1.07
- ROOT PRUNING WITH 6" WIDE, 2' DEEP TRENCH RE: DETAIL 2/L1.07
- ZERO CURB CUT, RE: DETAIL 3/L1.07

NO.	DATE	REVISION	APP.

ASAKURA ROBINSON
2500 Summer Street, Suite 3228 Houston Texas 77007
P: 713.337.5830 www.asakurarobinson.com

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

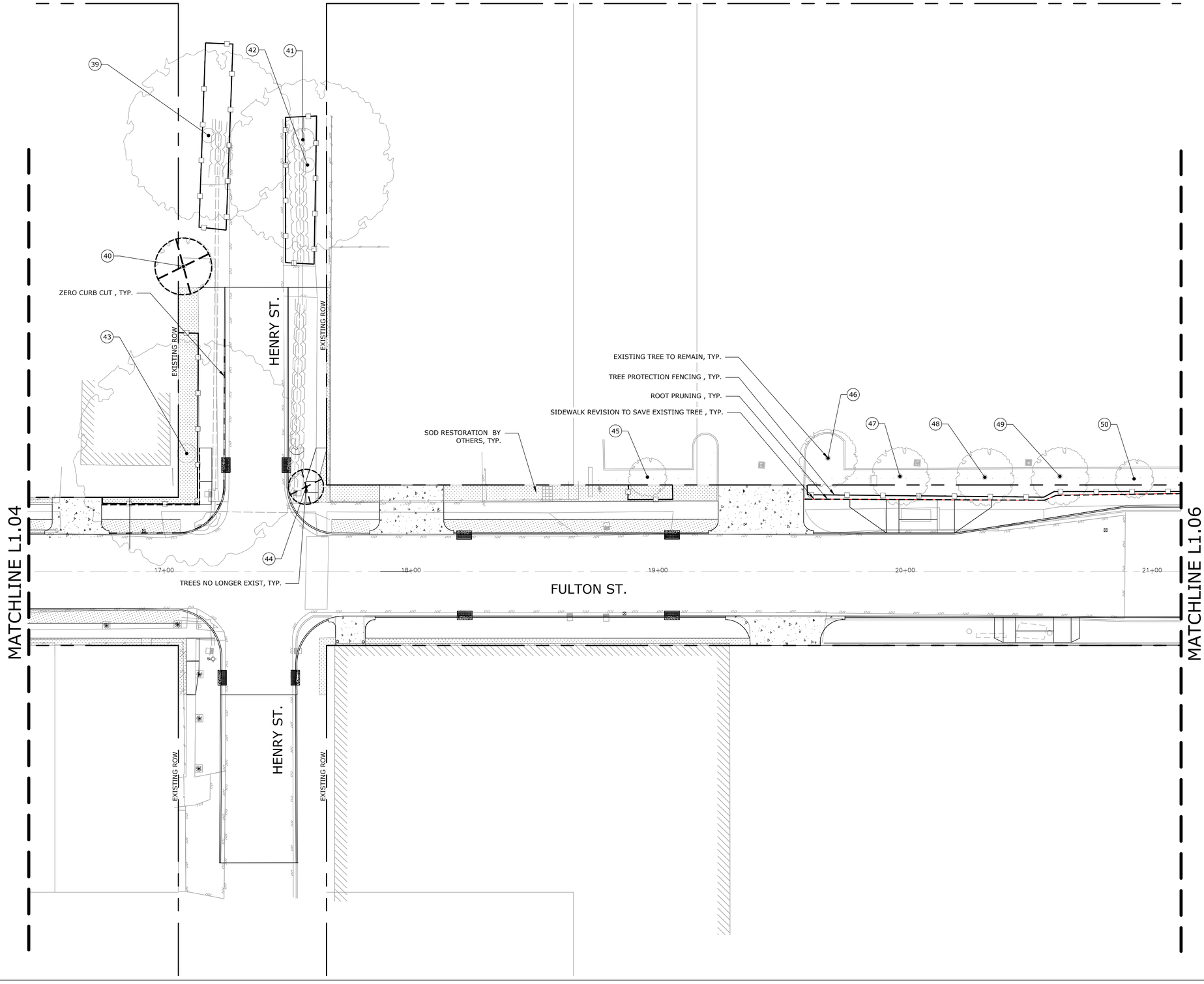
SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

L1.04 TREE PROTECTION PLAN FULTON STREET STA 13+50 TO STA 17+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 131 OF 152	



LEGEND

- MATCHLINE
- # TREE NUMBER
- EXISTING TREES TO REMAIN
- TREES NO LONGER EXIST
- EXISTING TREES TO BE REMOVED
- TREE PROTECTION FENCING RE: DETAIL 1/L1.07
- ROOT PRUNING WITH 6" WIDE, 2' DEEP TRENCH RE: DETAIL 2/L1.07
- ZERO CURB CUT, RE: DETAIL 3/L1.07

NO.	DATE	REVISION	APP.

ASAKURA ROBINSON
2500 Summer Street, Suite 3228 Houston Texas 77007
P: 713.337.5830 www.asakurarobinson.com

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

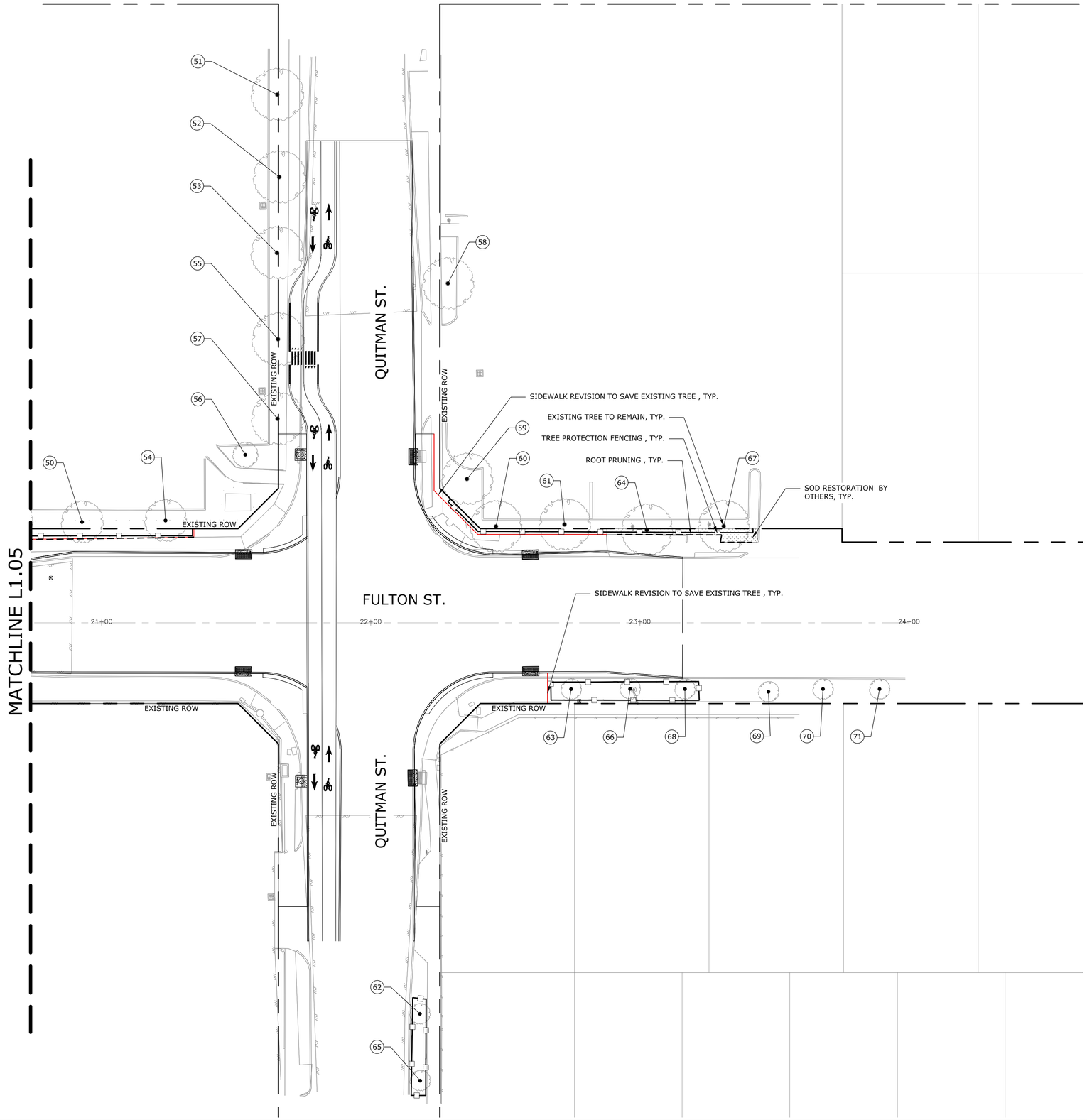
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

L1.05 TREE PROTECTION PLAN FULTON STREET STA 17+00 TO STA 21+00

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 132 OF 152	

PLOTTED: 3/20/2026 3:55 PM
PLOT STYLE: ----
FILE PATH: J:\HAT2501 Fulton Street Paving And Drainage Improvements\AR\03 CD\L1.00 TREE PROTECTION PLAN.dwg



APP. | REVISION | NO. | DATE

ASAKURA ROBINSON
2500 Summer Street, Suite 3228 Houston Texas 77007
P: 713.337.5830 www.asakurarobinson.com

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

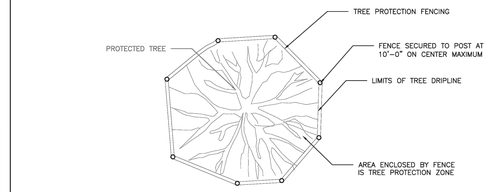
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

L1.06 TREE PROTECTION PLAN FULTON STREET STA 21+00 TO END

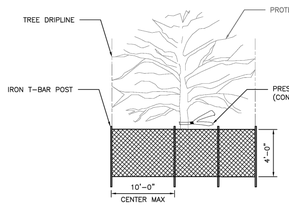
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 133 OF 152	

PLOTTED: 3/20/2026 3:56 PM
PLOT STYLE: ----
FILE PATH: J:\HAT2501 Fulton Street Paving And Drainage Improvements\ARY\03 CD\L1.00 TREE PROTECTION PLAN.dwg

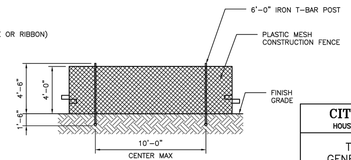
DocuSign Envelope ID: CB71C116-B716-4899-A5EE-0D2F2CC55AF6



PLAN VIEW
TREE PROTECTION FENCING DETAIL



FRONT VIEW
TREE PROTECTION FENCING DETAIL



DETAIL B-4
PROTECTIVE PLASTIC MESH FENCE

NOTES:

FENCE LOCATION MAY BE ADJUSTED TO ACTUAL SITE CONDITIONS.

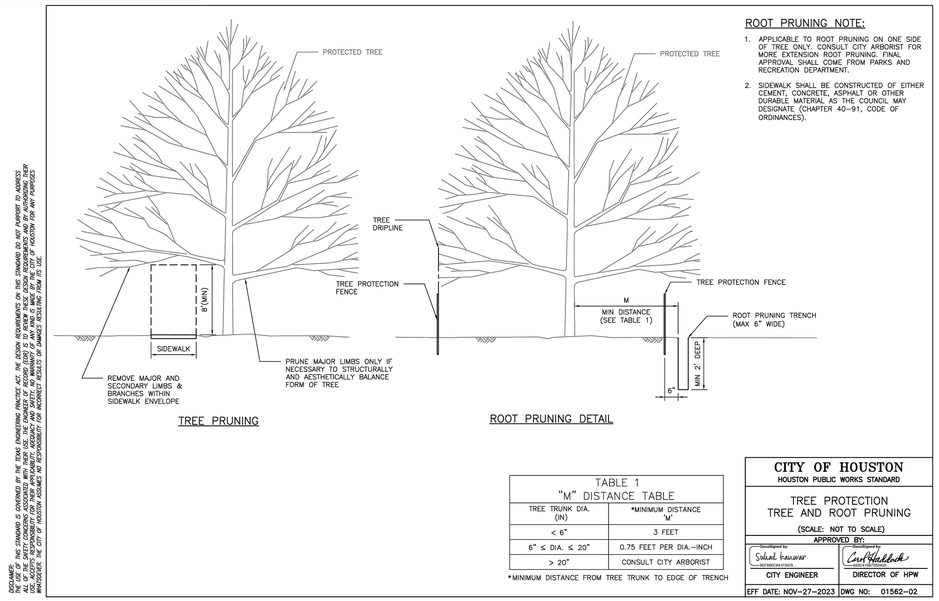
DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH ITS USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BE AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPROPRIATE, ACCURATE AND SAFETY. NO WARRANTY OF ANY KIND, IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TREE PROTECTION GENERAL REQUIREMENTS	
(SCALE: NOT TO SCALE)	
APPROVED BY:	
Developed by: Sukul Kanwar CITY ENGINEER	Developed by: Carl Hallbeck DIRECTOR OF HPW
EFF DATE: NOV-27-2023	DWG NO: 01562-01

1 TREE PROTECTION FENCING DETAIL

SCALE: NTS

DocuSign Envelope ID: CB71C116-B716-4899-A5EE-0D2F2CC55AF6



TREE PRUNING

ROOT PRUNING DETAIL

ROOT PRUNING NOTE:

1. APPLICABLE TO ROOT PRUNING ON ONE SIDE OF TREE ONLY. CONSULT CITY ARBORIST FOR MORE EXTENSION ROOT PRUNING. FINAL APPROVAL SHALL COME FROM PARKS AND RECREATION DEPARTMENT.
2. SIDEWALK SHALL BE CONSTRUCTED OF EITHER CEMENT, CONCRETE, ASPHALT OR OTHER DURABLE MATERIAL AS THE COUNCIL MAY DESIGNATE (CHAPTER 40-91, CODE OF ORDINANCES).

TABLE 1
"M" DISTANCE TABLE

TREE TRUNK DIA. (IN)	*MINIMUM DISTANCE "M"
< 6"	3 FEET
6" ≤ DIA. ≤ 20"	0.75 FEET PER DIA.-INCH
> 20"	CONSULT CITY ARBORIST

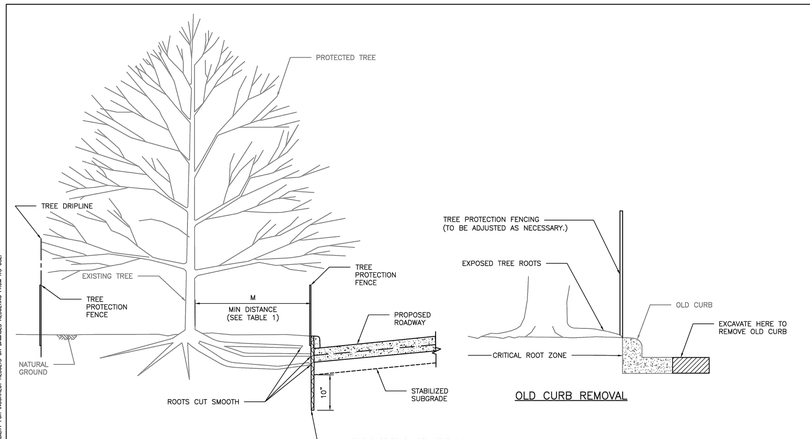
*MINIMUM DISTANCE FROM TREE TRUNK TO EDGE OF TRENCH

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TREE PROTECTION TREE AND ROOT PRUNING	
(SCALE: NOT TO SCALE)	
APPROVED BY:	
Developed by: Sukul Kanwar CITY ENGINEER	Developed by: Carl Hallbeck DIRECTOR OF HPW
EFF DATE: NOV-27-2023	DWG NO: 01562-02

2 TREE AND ROOT PRUNING DETAIL @ SIDEWALK

SCALE: NTS

DocuSign Envelope ID: CB71C116-B716-4899-A5EE-0D2F2CC55AF6



ZERO CURB CUT DETAIL

OLD CURB REMOVAL

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH ITS USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BE AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPROPRIATE, ACCURATE AND SAFETY. NO WARRANTY OF ANY KIND, IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

TABLE 1
"M" DISTANCE TABLE

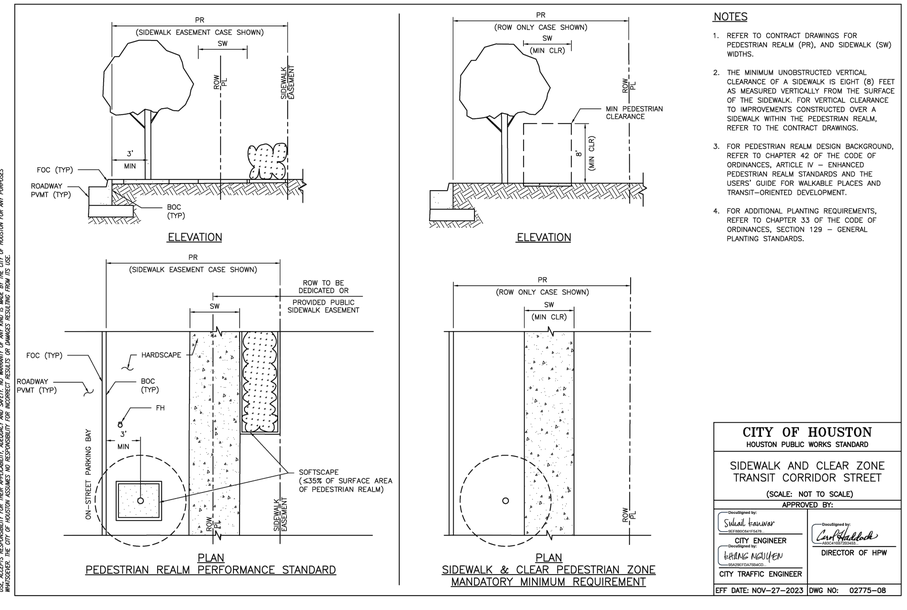
TREE TRUNK DIA. (IN)	*MINIMUM DISTANCE "M"
< 6"	3 FEET
6" ≤ DIA. ≤ 20"	0.75 FEET PER DIA.-INCH
> 20"	CONSULT CITY ARBORIST

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TREE PROTECTION ZERO CURB CUT	
(SCALE: NOT TO SCALE)	
APPROVED BY:	
Developed by: Sukul Kanwar CITY ENGINEER	Developed by: Carl Hallbeck DIRECTOR OF HPW
EFF DATE: NOV-27-2023	DWG NO: 01562-04

3 TREE PROTECTION ZERO CURB CUT

SCALE: NTS

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5



ELEVATION

ELEVATION

PLAN
PEDESTRIAN REALM PERFORMANCE STANDARD

PLAN
SIDEWALK & CLEAR PEDESTRIAN ZONE
MANDATORY MINIMUM REQUIREMENT

NOTES

1. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR), AND SIDEWALK (SW) WIDTHS.
2. THE MINIMUM UNOBSTRUCTED VERTICAL CLEARANCE OF A SIDEWALK IS EIGHT (8) FEET AS MEASURED VERTICALLY FROM THE SURFACE OF THE SIDEWALK. FOR VERTICAL CLEARANCE TO IMPROVEMENTS CONSTRUCTED OVER A SIDEWALK WITHIN THE PEDESTRIAN REALM, REFER TO THE CONTRACT DRAWINGS.
3. FOR PEDESTRIAN REALM DESIGN BACKGROUND, REFER TO CHAPTER 42 OF THE CODE OF ORDINANCES, ARTICLE IV – ENHANCED PEDESTRIAN REALM STANDARDS AND THE USERS' GUIDE FOR WALKABLE PLACES AND TRANSIT-ORIENTED DEVELOPMENT.
4. FOR ADDITIONAL PLANTING REQUIREMENTS, REFER TO CHAPTER 33 OF THE CODE OF ORDINANCES, SECTION 129 – GENERAL PLANTING STANDARDS.

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH ITS USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BE AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPROPRIATE, ACCURATE AND SAFETY. NO WARRANTY OF ANY KIND, IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
SIDEWALK AND CLEAR ZONE TRANSIT CORRIDOR STREET	
(SCALE: NOT TO SCALE)	
APPROVED BY:	
Developed by: Sukul Kanwar CITY ENGINEER	Developed by: Carl Hallbeck DIRECTOR OF HPW
Developed by: Hiang Nguyen CITY TRAFFIC ENGINEER	
EFF DATE: NOV-27-2023	DWG NO: 02775-08

4 SIDEWALKS AND CLEAR ZONE

SCALE: NTS

NO.	DATE	REVISION	APP.

ASAKURA ROBINSON
2500 Summer Street, Suite 3228 Houston Texas 77007
P: 713.337.5830 www.asakurarobinson.com

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

L1.07
TREE PROTECTION DETAILS

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 134 OF 152	

PLOTTED: 3/20/2026 3:56 PM
PLOT STYLE: ----
FILE PATH: J:\HAT2501 Fulton Street Paving And Drainage Improvements\AR\03 CD\L1.00 TREE PROTECTION PLAN.dwg

Tree ID	Species	DBH (inches)	Preserved or Removed?	Comments	Mitigation Inches
1	N/A			Tree no longer exists	
2	N/A			Tree no longer exists	
3	N/A			Tree no longer exists	
4	N/A			Tree no longer exists	
5	N/A			Tree no longer exists	
6	Crape Myrtle	18	P		
7	N/A			Tree no longer exists	
8	N/A			Tree no longer exists	
9	N/A			Tree no longer exists	
10	Crape Myrtle	20	P		
11	Ash	24	P		
12	Chinese Tallow	40	P		
13	Sycamore	24			
14	N/A			Tree no longer exists	
15	N/A			Tree no longer exists	
16	N/A			Tree no longer exists	
17	N/A			Tree no longer exists	
18	N/A			Tree no longer exists	
19	N/A			Tree no longer exists	
20	N/A			Tree no longer exists	
21	Peach	6	P	Out of construction limit	
22	Magnolia	12	P	Out of construction limit	
23	Sweetgum	32	P		
24	Cedar	2	P	Out of construction limit	
25	Cedar	18	P		
26	Cedar	18	P		
27	Oak	28	P		
28	Oak	12	P		
29	Crape Myrtle	20	P	Out of construction limit	
30	Crape Myrtle	15	P	Out of construction limit	
31	Elm	20	P		
32	Crape Myrtle	15	**R**		
33	Crape Myrtle	15	P		
34	Crape Myrtle	15	P		
35	Crape Myrtle	20	P		
36	Crape Myrtle	8	**R**		
37	Crape Myrtle	15	**R**		
38	Crape Myrtle	12	P		
39	Oak	36	P	Out of construction limit	
40	N/A			Tree no longer exists	
41	Oak	12	P	Out of construction limit	
42	Oak	36	P	Out of construction limit	
43	Oak	48	P		
44	N/A			Tree no longer exists	
45	Cypress	8	P		
46	Cypress	12	P		
47	Cypress	12	P		
48	Cypress	12	P		
49	Cypress	12	P		
50	Cypress	8	P		
51	Cypress	10	P	Out of construction limit	
52	Cypress	10	P	Out of construction limit	
53	Cypress	10	P	Out of construction limit	
54	Cypress	8	P		
55	Cypress	10	P	Out of construction limit	
56	Crape Myrtle	12	P	Out of construction limit	
57	Cypress	10	P	Out of construction limit	
58	Oak	10	P	Out of construction limit	
59	Oak	10	P	Out of construction limit	
60	Oak	10	P		
61	Oak	10	P		
62	Oak	4	P	Out of construction limit	
63	Oak	4	P		
64	Oak	10	P		
65	Oak	4	P	Out of construction limit	
66	Oak	4	P		
67	Oak	10	P		
68	Oak	4	P		
69	Oak	4	P	Out of construction limit	
70	Oak	4	P	Out of construction limit	
71	Oak	4	P	Out of construction limit	
Total Mitigation					0

TREE PROTECTION NOTES :

1. IT IS CRUCIAL THAT TREE PROTECTION FENCES MUST BE ERECTED PRIOR TO THE BEGINNING OF ANY SITE DEMOLITION.
2. THE TREE PROTECTION FENCE SHALL BE T-POSTS AT 8'-0" O.C. W/ 4' HT. BRIGHT ORANGE, LIGHT WEIGHT, REUSABLE MESH SAFETY FENCING MADE OF HIGH DENSITY POLYETHYLENE WITH 1 1/2" X 3" SIZE MESH OR SIMILAR MATERIAL.
3. PROTECTION FENCE SHALL BE PLACED AROUND CRITICAL ROOT ZONE OF ALL TREES TO REMAIN.
4. UNDER NO CIRCUMSTANCES, SHOULD A CONTRACTOR DRIVE OR PARK MACHINERY ON TREE ROOTS OR UNDER THE DRIPLINE.
5. AVOID DISTURBING ROOTS IN CRITICAL ROOT ZONE. IF ROOT CUTTING IS NECESSARY OR ANY ROOTS ARE DAMAGED, THEY SHALL BE CUT CLEANLY WITH THE APPROPRIATE PRUNING SHEARS OR PRUNING SAWS A FEW INCHES ON THE SIDE CLOSER TO THE TRUNK. ANY EXPOSED OR PRUNED TREE ROOTS MUST BE COVERED IMMEDIATELY WITH DIRT AND MULCH TO PREVENT ROOTS FROM DRYING OUT.
6. NO STORAGE OR CONCRETE DUMPING IS PERMITTED ON TREE ROOTS AND/OR UNDER DRIPLINE.
7. NO BUILDING MATERIALS ARE TO BE STACKED OR STOCKPILED WITHIN THE DRIPLINE OR WITHIN 6 FEET OF ANY TREE TO BE PRESERVED, WHICHEVER DISTANCE IS GREATER.
8. TOPSOIL SHALL NOT BE STOCKPILED WITHIN THE DRIP LINE OR WITHIN 6 FEET OF ANY TREE TO BE PRESERVED, WHICHEVER DISTANCE IS GREATER.
9. ANY UNDERSTORY CLEARING WITHIN SIX FEET OF EXISTING TREE TRUNKS SHOULD BE DONE BY HAND.
10. CONTRACTORS ARE REQUIRED TO HIRE A CERTIFIED ARBORIST TO MONITOR AND ASSIST WITH FIELD LAYOUT (EXACT LOCATIONS OF FENCING, ROOT PRUNING, AND ZERO CURB CUTBACK) OF THE TREE PRESERVATION PROGRAM DURING DEMOLITION AND CONSTRUCTION TO ENSURE TREE PROTECTION PROCEDURES AND TECHNIQUES ARE PRACTICED AS SPECIFIED TO ADDRESS CONCERNS AND CONDITIONS WHICH OCCUR IN THE FIELD. AT A MINIMUM, THE INDIVIDUAL RESPONSIBLE FOR MONITORING AND FIELD LAYOUT OF THE TREE PROTECTION SHALL HAVE A MINIMUM OF 5 YEARS OF EXPERIENCE AS A CONSULTANT, AND SHALL NOT BE AFFILIATED WITH A TREE CARE CONTRACTOR IN THE HARRIS COUNTY AREA. QUALIFICATIONS OF THE SELECTED CERTIFIED ARBORIST SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT.
11. LIMB AND CANOPY TRIMMING TO BE REQUIRED TO KEEP CLEAR PEDESTRIAN ZONE. REFER TO DETAIL 4/L1.07.
12. ALL CONTRACTORS ASSOCIATED WITH UTILITY, ROADWAY, AND SIDEWALK WORK ARE RESPONSIBLE FOR ENSURING TREE PROTECTION PLANS ARE FOLLOWED DURING THE ENTIRE DURATION OF THE PROJECT. CONTRACTORS ARE RESPONSIBLE FOR COORDINATING BETWEEN ONE ANOTHER TO MEET ALL TREE PROTECTION MEASURES. CONTRACTORS SHALL ASSUME RESPONSIBILITY FOR ANY IMPROPER TREATMENT AND PROTECTION TO ALL TREES WITHIN THE PROJECT LIMIT.

NO.	DATE	REVISION	APP.

ASAKURA ROBINSON
2500 Summer Street, Suite 3228 Houston Texas 77007
P: 713.337.5830 www.asakurarobinson.com

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

VERIFICATION OF PRIVATE UTILITY LINES

Date

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

Signature valid for six months.

Date

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

Signature valid for six months.

Date

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

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

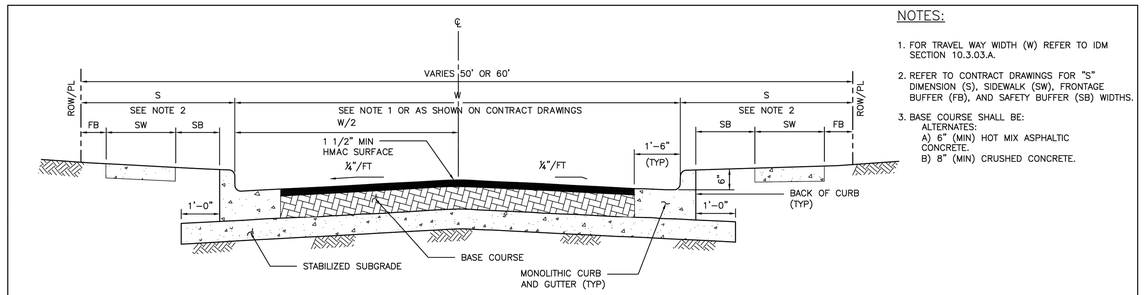
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

L1.08
TREE PROTECTION NOTES AND TREE MITIGATION TABLE

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 135 OF 152

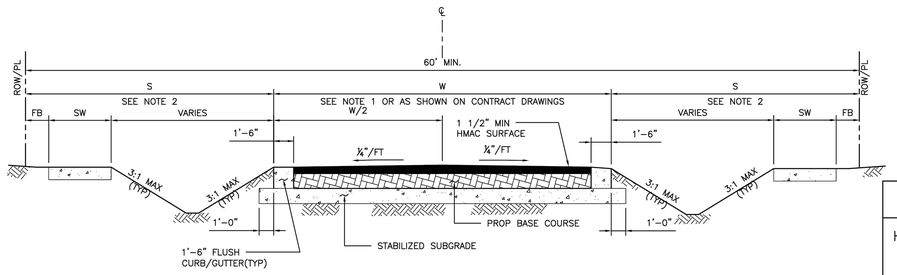
PLOTTED: 3/20/2026 3:53 PM
PLOT STYLE: ----
FILE PATH: J:\HAT2501 Fulton Street Paving And Drainage Improvements\AR\03 CD\L1.00 TREE PROTECTION PLAN.dwg

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5



HMAC PAVEMENT – CURB & GUTTER SECTION

(NOT APPLICABLE TO ETJ OF CITY OF HOUSTON)



HMAC PAVEMENT – DITCH SECTION

(NOT APPLICABLE TO ETJ OF CITY OF HOUSTON)

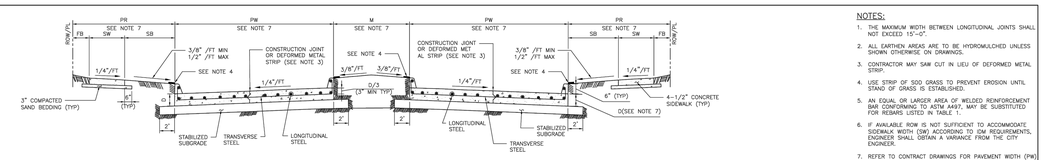
NOTES:

1. FOR TRAVEL WAY WIDTH (W) REFER TO IDM SECTION 10.3.03.A.
2. REFER TO CONTRACT DRAWINGS FOR "S" DIMENSION (S), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.
3. BASE COURSE SHALL BE:
   ALTERNATES:
   A) 6" (MIN) HOT MIX ASPHALTIC CONCRETE.
   B) 8" (MIN) CRUSHED CONCRETE.

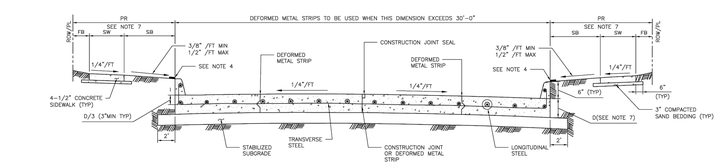
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
HOT MIX ASPHALTIC CONCRETE PAVEMENT DETAILS (SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by: Sulaf Kanawi — CITY ENGINEER	DocuSigned by: Carl Haddock — DIRECTOR OF HPW
DocuSigned by: Hung Nguyen — CITY TRAFFIC ENGINEER	
EFF DATE: NOV-27-2023	DWG NO: 02741-01

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY, OR ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5



TYPICAL DOUBLE ROADWAY SECTION FOR CONCRETE PAVEMENT WITH CURBS



TYPICAL SINGLE ROADWAY SECTION FOR CONCRETE PAVEMENT WITH CURBS

NOTES:

1. THE MAXIMUM WIDTH BETWEEN LONGITUDINAL JOINTS SHALL NOT EXCEED 15'-0".
2. ALL EARTHEN AREAS ARE TO BE HYDROMULCHED UNLESS SHOWN OTHERWISE ON DRAWINGS.
3. CONTRACTOR MAY SAW CUT IN LIEU OF DEFORMED METAL STRIP.
4. USE STRIP OF SOD GRASS TO PREVENT EROSION UNTIL STAND OF GRASS IS ESTABLISHED.
5. AN EQUAL OR LARGER AREA OF WELDED REINFORCEMENT BAR CONFORMING TO ASTM A497, MAY BE SUBSTITUTED FOR REBARS LISTED IN TABLE 1.
6. IF AVAILABLE ROW IS NOT SUFFICIENT TO ACCOMMODATE SIDEWALK WIDTH (SW) ACCORDING TO IDM REQUIREMENTS, ENGINEER SHALL OBTAIN A VARIANCE FROM THE CITY ENGINEER.
7. REFER TO CONTRACT DRAWINGS FOR PAVEMENT WIDTH (PW) AND PAVEMENT THICKNESS (D), MEDIAN (M), PEDESTRIAN REALM (PR), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.

TABLE 1

REINFORCING STEEL BAR SIZES AND SPACINGS FOR VARIOUS PAVEMENT THICKNESSES (D) WITH: MAXIMUM TRANSVERSE CONTROL JOINT SPACING = 20'-0"
MAXIMUM EXPANSION JOINT SPACING = 80'-0"
f'c' = 4,000 PSI/28 DAYS AND FY = 60,000 PSI

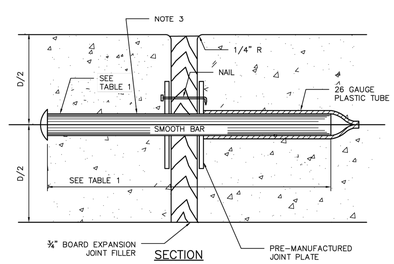
PAVEMENT THICKNESS 'D' (IN)	PAVEMENT WIDTH 'PW' (FT)	LONGITUDINAL STEEL									TRAVERSE STEEL		
		#4 BARS			#5 BARS			#6 BARS			#4 BARS	#5 BARS	#6 BARS
		NUMBER OF BARS	SPACING (IN)	END BAR SPACING (IN)	NUMBER OF BARS	SPACING (IN)	END BAR SPACING (IN)	NUMBER OF BARS	SPACING (IN)	END BAR SPACING (IN)	SPACING (IN)	SPACING (IN)	SPACING (IN)
6	28	17	20.50	4.00	–	–	–	–	–	–	36	–	–
7	25	17	18.25	4.00	–	–	–	–	–	–	36	–	–
7	35	24	18.00	3.00	–	–	–	–	–	–	36	–	–
7	36	25	17.75	3.00	–	–	–	–	–	–	36	–	–
7	37	25	18.25	3.00	–	–	–	–	–	–	36	–	–
7	41	28	18.00	3.00	–	–	–	–	–	–	36	–	–
7	45	31	17.75	3.75	–	–	–	–	–	–	36	–	–
8	25	20	15.50	2.75	13	24.50	3.0	–	–	–	36	36	–
8	34	27	15.50	2.50	17	25.00	4.0	–	–	–	36	36	–
8	35	27	16.00	2.00	18	24.25	4.0	–	–	–	36	36	–
8	36	28	15.75	3.25	18	25.00	3.0	–	–	–	30	36	–
8	44	24	15.75	4.00	22	24.75	4.0	–	–	–	30	36	–
8	45	35	15.75	2.25	23	24.25	3.0	–	–	–	30	36	–
9	25	22	14.00	3.00	14	22.50	4.0	–	–	–	36	36	–
9	34	31	13.50	2.00	19	22.25	3.5	–	–	–	30	36	–
9	35	31	13.75	3.75	20	21.75	3.5	–	–	–	30	36	–
9	36	32	13.75	3.00	21	21.25	3.5	–	–	–	30	36	–
9	44	39	13.75	2.75	25	21.75	3.0	–	–	–	24	36	–
9	45	39	14.00	4.00	26	21.25	4.5	–	–	–	24	36	–
10	25	24	12.75	3.50	17	18.25	4.0	–	–	–	36	36	36
10	34	33	12.50	4.00	21	20.00	4.0	–	–	–	30	36	36
10	35	34	12.50	3.75	23	18.75	4.0	–	–	–	30	36	36
10	36	35	12.50	3.50	24	18.50	3.0	–	–	–	30	36	36
10	44	44	12.00	4.00	29	18.50	4.5	–	–	–	24	36	36
10	45	44	12.50	3.00	29	19.00	3.0	–	–	–	24	36	36
11	25	27	11.25	3.00	17	16.25	4.0	12	26.75	3	36	36	36
11	34	36	11.50	2.75	24	17.50	2.5	17	25.00	4	24	36	36
11	35	37	11.50	3.00	24	18.00	3.0	17	25.75	4	24	36	36
11	36	40	11.00	2.00	25	17.75	3.0	17	26.50	4	24	36	36
11	44	48	11.125	2.50	30	18.00	3.0	21	26.00	4	24	36	36
11	45	49	11.125	3.00	31	17.75	4.0	22	25.50	3	24	36	36
12	25	–	–	–	19	16.25	4.0	13	24.50	3	36	36	36
12	34	–	–	–	26	16.00	4.0	18	23.50	4	24	36	36
12	35	–	–	–	26	16.50	4.0	19	23.00	3	24	36	36
12	36	–	–	–	27	16.25	4.5	20	22.25	4.5	24	36	36
12	44	–	–	–	33	16.25	4.0	24	22.50	5	24	30	36
12	45	–	–	–	35	15.75	3.5	25	22.25	3	24	30	36

MINIMUM LAP LENGTH (LL):
A. # 4 BARS ; L = 22 INCHES
B. # 5 BARS ; L = 27 INCHES
C. # 6 BARS ; L = 32 INCHES

APPROVED BY:	APPROVED BY:
DocuSigned by: Sulaf Kanawi — CITY ENGINEER	DocuSigned by: Hung Nguyen — CITY TRAFFIC ENGINEER
APPROVED BY: DocuSigned by: Carl Haddock — DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02751-01

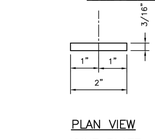
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
CONCRETE PAVEMENT DETAILS	
	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
NOT TO SCALE	

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5



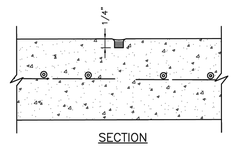
SECTION

DOWEL TYPE EXPANSION JOINT



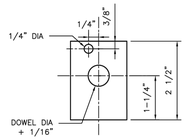
PLAN VIEW

JOINT PLATE



SECTION

CONTROL JOINT

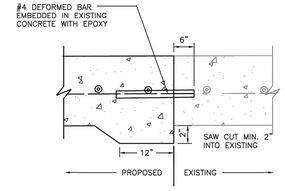


ELEVATION VIEW

JOINT PLATE

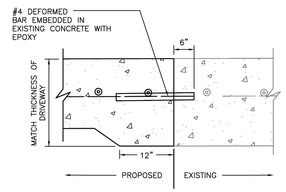
TABLE 1

PAVEMENT THICKNESS (IN)	DOWEL SIZES AND SPACINGS		
	DIAMETER (IN)	LENGTH (IN)	SPACING (IN)
4 1/2	1/2	18	12
5	1/2	18	12
6	3/4	18	12
7	1	18	12



SECTION

SIDEWALK TO EXISTING SIDEWALK



SECTION

SIDEWALK TO EXISTING DRIVEWAY

NOTES:

1. STEEL TO MEET ASTM STANDARD SPECIFICATIONS FOR CONCRETE REINFORCING BARS.
2. EXPANSION JOINT TO BE PLACED AT THE END OF EACH CURB RADIUS AND SPACED AT A MAXIMUM DISTANCE OF 3 FEET MAXIMUM SPACING FOR CONTROL JOINTS SHALL BE 5 FEET.
3. CENTER DOWEL HORIZONTALLY ON JOINT.
4. CENTER DOWEL VERTICALLY IN CONCRETE AS NEEDED TO MAINTAIN A 2 INCH MINIMUM COVER.

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
SIDEWALK EXPANSION AND CONSTRUCTION JOINT DETAILS (SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by: Sulaf Kanawi — CITY ENGINEER	DocuSigned by: Carl Haddock — DIRECTOR OF HPW
DocuSigned by: Hung Nguyen — CITY TRAFFIC ENGINEER	
EFF DATE: NOV-27-2023	DWG NO: 02752-02

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-8164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

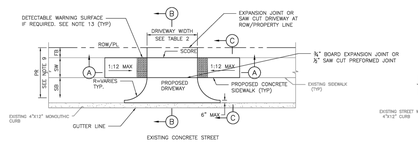
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

PAVING DETAILS SHEET 1 OF 4

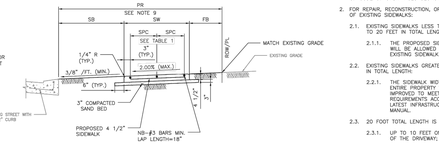
WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 136 OF 152	

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 1:32 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg

DocuSign Envelope ID: 9B122261-CF05-4578-9465-2650F4089605



PLAN VIEW
DRIVEWAY



SECTION C–C
TYPICAL SIDEWALK SECTION

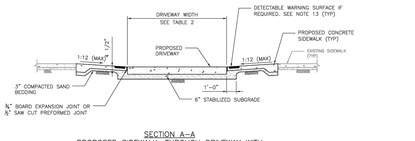
NOTES:

1. REPAIR, RECONSTRUCTION OR REPLACEMENT OF SIDEWALKS SHALL MEET PERMITTING REQUIREMENTS OF CODE OF ORDINANCES SECTION 40-552.
2. FOR REPAIR, RECONSTRUCTION, OR REPLACEMENT OF EXISTING SIDEWALKS:
   - 2.1. EXISTING SIDEWALKS LESS THAN OR EQUAL TO 20 FEET IN TOTAL LENGTH:
     - 2.1.1. THE PROPOSED SIDEWALK WIDTH WILL BE ALLOWED TO MATCH THE EXISTING SIDEWALK.
   - 2.2. EXISTING SIDEWALKS GREATER THAN 20 FEET IN TOTAL LENGTH:
     - 2.2.1. THE SIDEWALK WIDTH FOR THE ENTIRE PROPERTY WIDTH SHALL BE IMPROVED TO MEET WIDTH REQUIREMENTS ACCORDING TO THE LATEST INFRASTRUCTURE DESIGN MANUAL.
   - 2.3. 20 FOOT TOTAL LENGTH IS DEFINED AS:
     - 2.3.1. UP TO 10 FEET ON BOTH SIDES OF THE DRIVEWAY; OR
     - 2.3.2. UP TO 20 FEET WHEN SIDEWALK AFFECTED IS LOCATED ONLY ON ONE SIDE OF THE DRIVEWAY.
3. IF AVAILABLE ROW IS NOT SUFFICIENT TO ACCOMMODATE SIDEWALK WIDTH (SW) ACCORDING TO TABLE 2, DESIGN ENGINEER SHALL OBTAIN A VARIANCE FROM THE CITY ENGINEER.
4. DRIVEWAYS SHALL BE 6" THICK FOR SINGLE FAMILY OR DUPLEXES.
5. DRIVEWAYS AND SIDEWALKS SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE AND INCLUDE 5 1/2 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
6. THE OUTER DOWEL BARS ARE TO BE LOCATED 12" FROM END OF PROPOSED EDGE OF DRIVEWAY RETURN. EXTEND DOWEL 9" INCHES INTO PROPOSED DRIVEWAY AND BEND REMAINING BAR TO EXTEND TO RADIUS RETURN BOTH SIDES.
7. TROWEL GROOVE SEALANT SHALL BE LOW MODULUS SILICONE OR POLYURETHANE SEALANT.
8. ALL JOINTS ALONG THE SIDEWALK SHALL BE CONSTRUCTED ACCORDING TO DRAWING 02752-02 AND SPECIFICATION 02752.
9. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.
10. CEMENT STABILIZED SAND 1.5 SACKS OF CEMENT PER TON OF DRY SAND.
11. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
12. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.
13. DETECTABLE WARNING SURFACES:
    - 13.1. SIDEWALK SHALL HAVE A DETECTABLE WARNING SURFACE WHERE:
      - 13.1.1. SIDEWALK INTERSECTS TYPE C DRIVEWAYS (COMMERCIAL DRIVEWAYS) THAT ARE STOP, YIELD OR TRAFFIC SIGNAL CONTROLLED; OR
      - 13.1.2. SIDEWALK SLOPE IS GREATER THAN 1:20 AND INTERSECTS A TYPE C DRIVEWAY (COMMERCIAL DRIVEWAY)
    - 13.2. DETECTABLE WARNING SURFACES ARE OPTIONAL WHERE SIDEWALKS INTERSECT TYPE A DRIVEWAYS (SINGLE FAMILY RESIDENTIAL HOUSES OR DUPLEXES) OR TYPE B DRIVEWAYS (SHARED ACCESS/SHARED DRIVEWAYS).
    - 13.3. REFER TO STANDARD DETAILS 02775-06 TO 02775-07 FOR DETECTABLE WARNING SURFACE STANDARDS.

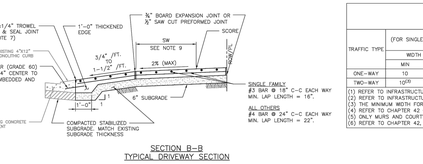
TABLE 1

REINFORCING STEEL INFORMATION
FOR 4 ½ " THICK SIDEWALKS
EXPANSION JOINT SPACING = 40 FT
$f_c' = 3,000$ PSI AND $f_y = 60,000$ PSI
REFER TO CONTRACT DRAWINGS FOR SIDEWALKS WIDER THAN 6 FEET.

SIDEWALK THICKNESS (IN)	SIDEWALK WIDTH (FT)	LONGITUDINAL STEEL			TRANSVERSE STEEL #3 BARS SPACING (IN)
		#3 BARS			
		NO. OF BARS "NB"	SPACING "SPC" (IN)	END BAR SPACING (IN.)	
4.5	5	3	27	3	48
4.5	6	4	22	3	48



SECTION A–A
PROPOSED SIDEWALK THROUGH DRIVEWAY WITH EXCESSIVE GRADES



SECTION B–B
TYPICAL DRIVEWAY SECTION

TABLE 2

DRIVEWAY DESIGN CRITERIA (1)(2)

TRAFFIC TYPE	TYPE A DRIVEWAY (FOR SINGLE FAMILY RESIDENTIAL HOUSES OR DUPLEXES)				TYPE B DRIVEWAY (SHARED ACCESS/SHARED DRIVEWAY)				TYPE C DRIVEWAY (COMMERCIAL DRIVEWAY)			
	WIDTH (FT)		RADIUS (FT)		WIDTH (FT)		RADIUS (FT)		WIDTH (FT)		RADIUS (FT)	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
ONE-WAY	10	12	4	10	12(5)	16(5)	4(5)	10(5)	15	20	10	20
TWO-WAY	10(5)	24(4)	4	10	18(5)	24	4	10	24	35	10	20

(1) REFER TO INFRASTRUCTURE DESIGN MANUAL ARTICLE 15.2.07.C.1.F FOR DRIVEWAYS THAT REQUIRE A VEHICLE SWEPT PATH ANALYSIS.
(2) REFER TO INFRASTRUCTURE DESIGN MANUAL ARTICLES 15.2.07.C.1.C(1) AND 15.2.07.C.1.C(2) FOR TYPE 1 PAE AND TYPE 2 PAE REQUIREMENTS.
(3) THE MINIMUM WIDTH FOR JOINT ACCESS DRIVEWAY IS 12 FT.
(4) REFER TO CHAPTER 42 OF THE CODE OF ORDINANCES FOR DRIVEWAY WIDTHS FOR NARROW LOTS.
(5) ONLY MURS AND COURTYARD STYLE DEVELOPMENTS ON CORNER LOTS CAN HAVE ONE-WAY DRIVEWAYS.
(6) REFER TO CHAPTER 42, SECTION 42-146 OF THE CODE OF ORDINANCES FOR EXCEPTIONS TO THE MINIMUM DRIVEWAY WIDTH FOR SHARED DRIVEWAYS.

APPROVED BY:	APPROVED BY:
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY:	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02754-01A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

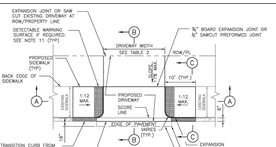
DRIVEWAY DETAIL WITH 4"x12" CURB FOR LOCAL RESIDENTIAL STREETS

FOR CITY OF HOUSTON USE ONLY

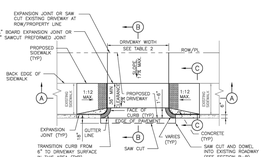
DRAWING SCALE
NOT TO SCALE

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT AND THE DISCLAIMERS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. IT IS THE RESPONSIBILITY OF THE USER OF THIS STANDARD TO ESTABLISH APPROPRIATE SAFETY AND HEALTH PRACTICES AND TO DETERMINE THE APPLICABILITY OF REGULATORY LIMITATIONS BEFORE USE. NEITHER THE CITY OF HOUSTON NOR ANY PERSON ACTING ON BEHALF OF THE CITY OF HOUSTON MAKES ANY WARRANTY OF ANY KIND IN THIS STANDARD AND NEITHER ASSUMES NOR ACCEPTS ANY RESPONSIBILITY FOR ANY PERSON'S USE OF OR RELIANCE ON THIS STANDARD. BY UTILIZING THIS STANDARD, USER AGREES TO INDEMNIFY THE CITY OF HOUSTON AGAINST ANY LIABILITY, CLAIM OR DEMAND FOR PERSONAL INJURY OR PROPERTY DAMAGE ARISING FROM USER'S USE OF THIS STANDARD, INCLUDING ANY LIABILITY, CLAIM OR DEMAND BASED IN WHOLE OR IN PART ON THE NEGLIGENCE OF THE CITY OF HOUSTON, ITS OFFICERS, AGENTS OR EMPLOYEES, IN PART OR IN WHOLE, TO THE FULLEST EXTENT PERMITTED BY LAW.

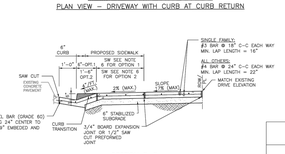
DocuSign Envelope ID: 9B122261-CF05-4578-9465-2650F4089605



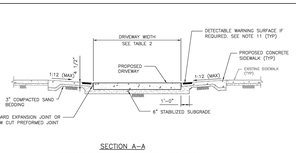
OPTION 1 – CURB LEVEL SIDEWALK
PLAN VIEW – DRIVEWAY WITHOUT CURB AT CURB RETURN



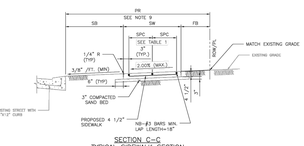
OPTION 2 – CURB LEVEL SIDEWALK
PLAN VIEW – DRIVEWAY WITH CURB AT CURB RETURN



SECTION B–B
TYPICAL DRIVEWAY SECTION THROUGH DRIVEWAY



SECTION A–A
PROPOSED SIDEWALK THROUGH DRIVEWAY



SECTION C–C
TYPICAL SIDEWALK SECTION

NOTES:

1. REPAIR, RECONSTRUCTION OR REPLACEMENT OF SIDEWALKS SHALL MEET PERMITTING REQUIREMENTS OF CODE OF ORDINANCES SECTION 40-552.
2. FOR REPAIR, RECONSTRUCTION, OR REPLACEMENT OF EXISTING SIDEWALKS:
   - 2.1. EXISTING SIDEWALKS LESS THAN OR EQUAL TO 20 FEET IN TOTAL LENGTH:
     - 2.1.1. THE PROPOSED SIDEWALK WIDTH WILL BE ALLOWED TO MATCH THE EXISTING SIDEWALK.
   - 2.2. EXISTING SIDEWALKS GREATER THAN 20 FEET IN TOTAL LENGTH:
     - 2.2.1. THE SIDEWALK WIDTH FOR THE ENTIRE PROPERTY WIDTH SHALL BE IMPROVED TO MEET WIDTH REQUIREMENTS ACCORDING TO THE LATEST INFRASTRUCTURE DESIGN MANUAL.
   - 2.3. 20 FOOT TOTAL LENGTH IS DEFINED AS:
     - 2.3.1. UP TO 10 FEET ON BOTH SIDES OF THE DRIVEWAY; OR
     - 2.3.2. UP TO 20 FEET WHEN SIDEWALK AFFECTED IS LOCATED ONLY ON ONE SIDE OF THE DRIVEWAY.
3. PROPOSED SIDEWALKS THAT DO NOT FALL WITHIN THE ROW SHALL BE WITHIN A PUBLIC ACCESS EASEMENT DESIGNED ACCORDING TO SW REQUIREMENTS AND CONSTRUCTED ACCORDING TO THE CONTRACT DRAWINGS.
4. DRIVEWAY WIDTH VARIES TO MATCH EXISTING DRIVE.
5. DRIVEWAY DETAIL TO PROVIDE FOR SIDEWALK TRANSITION FROM EXISTING BACK OF CURB TO PROPOSED DRIVEWAY EDGE.
6. DRIVEWAY WITH WIDTH >5' @ 2% CROSS SLOPE QUALIFIES AS PASSING SPACE (SEE OPTION 1 AND OPTION 2 FLARE).
7. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
8. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.
9. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.
10. DRIVEWAYS SHALL BE MINIMUM 6" THICK FOR SINGLE FAMILY AND DUPLEXES. DRIVEWAYS SHALL BE MINIMUM 7" THICK FOR ALL OTHERS (I.E. COMMERCIAL, INDUSTRIAL, ETC.)
11. DETECTABLE WARNING SURFACES:
    - 11.1. SIDEWALK SHALL HAVE A DETECTABLE WARNING SURFACE WHERE:
      - 11.1.1. SIDEWALK INTERSECTS TYPE C DRIVEWAYS (COMMERCIAL DRIVEWAYS) THAT ARE STOP, YIELD OR TRAFFIC SIGNAL CONTROLLED; OR
      - 11.1.2. SIDEWALK SLOPE IS GREATER THAN 1:20 AND INTERSECTS A TYPE C DRIVEWAY (COMMERCIAL DRIVEWAY)
    - 11.2. DETECTABLE WARNING SURFACES ARE OPTIONAL WHERE SIDEWALKS INTERSECT TYPE A DRIVEWAYS (SINGLE FAMILY RESIDENTIAL HOUSES OR DUPLEXES) OR TYPE B DRIVEWAYS (SHARED ACCESS/SHARED DRIVEWAYS).
    - 11.3. REFER TO STANDARD DETAILS 02775-06 TO 02775-07 FOR DETECTABLE WARNING SURFACE STANDARDS.

TABLE 1

REINFORCING STEEL INFORMATION
FOR 4 ½ " THICK SIDEWALKS
EXPANSION JOINT SPACING = 40 FT
$f_c' = 3,000$ PSI AND $f_y = 60,000$ PSI
REFER TO CONTRACT DRAWINGS FOR SIDEWALKS WIDER THAN 6 FEET.

SIDEWALK THICKNESS (IN)	SIDEWALK WIDTH (FT)	LONGITUDINAL STEEL			TRANSVERSE STEEL #3 BARS SPACING (IN)
		#3 BARS			
		NO. OF BARS "NB"	SPACING "SPC" (IN)	END BAR SPACING (IN.)	
4.5	5	3	27	3	48
4.5	6	4	22	3	48

TABLE 2

DRIVEWAY DESIGN CRITERIA (1)(2)

TRAFFIC TYPE	TYPE A DRIVEWAY (FOR SINGLE FAMILY RESIDENTIAL HOUSES OR DUPLEXES)				TYPE B DRIVEWAY (SHARED ACCESS/SHARED DRIVEWAY)				TYPE C DRIVEWAY (COMMERCIAL DRIVEWAY)			
	WIDTH (FT)		RADIUS (FT)		WIDTH (FT)		RADIUS (FT)		WIDTH (FT)		RADIUS (FT)	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
ONE-WAY	10	12	4	10	12(5)	16(5)	4(5)	10(5)	15	20	10	20
TWO-WAY	10(5)	24(4)	4	10	18(5)	24	4	10	24	35	10	20

(1) REFER TO INFRASTRUCTURE DESIGN MANUAL ARTICLE 15.2.07.C.1.F FOR DRIVEWAYS THAT REQUIRE A VEHICLE SWEPT PATH ANALYSIS.
(2) REFER TO INFRASTRUCTURE DESIGN MANUAL ARTICLES 15.2.07.C.1.C(1) AND 15.2.07.C.1.C(2) FOR TYPE 1 PAE AND TYPE 2 PAE REQUIREMENTS.
(3) THE MINIMUM WIDTH FOR JOINT ACCESS DRIVEWAY IS 12 FT.
(4) REFER TO CHAPTER 42 OF THE CODE OF ORDINANCES FOR DRIVEWAY WIDTHS FOR NARROW LOTS.
(5) ONLY MURS AND COURTYARD STYLE DEVELOPMENTS ON CORNER LOTS CAN HAVE ONE-WAY DRIVEWAYS.
(6) REFER TO CHAPTER 42, SECTION 42-146 OF THE CODE OF ORDINANCES FOR EXCEPTIONS TO THE MINIMUM DRIVEWAY WIDTH FOR SHARED DRIVEWAYS.

APPROVED BY:	APPROVED BY:
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY:	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02754-03

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PROPOSED SIDEWALK THROUGH DRIVEWAY WITH EXCESSIVE ELEVATION DIFFERENCE

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NOT TO SCALE

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT AND THE DISCLAIMERS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. IT IS THE RESPONSIBILITY OF THE USER OF THIS STANDARD TO ESTABLISH APPROPRIATE SAFETY AND HEALTH PRACTICES AND TO DETERMINE THE APPLICABILITY OF REGULATORY LIMITATIONS BEFORE USE. NEITHER THE CITY OF HOUSTON NOR ANY PERSON ACTING ON BEHALF OF THE CITY OF HOUSTON MAKES ANY WARRANTY OF ANY KIND IN THIS STANDARD AND NEITHER ASSUMES NOR ACCEPTS ANY RESPONSIBILITY FOR ANY PERSON'S USE OF OR RELIANCE ON THIS STANDARD. BY UTILIZING THIS STANDARD, USER AGREES TO INDEMNIFY THE CITY OF HOUSTON AGAINST ANY LIABILITY, CLAIM OR DEMAND FOR PERSONAL INJURY OR PROPERTY DAMAGE ARISING FROM USER'S USE OF THIS STANDARD, INCLUDING ANY LIABILITY, CLAIM OR DEMAND BASED IN WHOLE OR IN PART ON THE NEGLIGENCE OF THE CITY OF HOUSTON, ITS OFFICERS, AGENTS OR EMPLOYEES, IN PART OR IN WHOLE, TO THE FULLEST EXTENT PERMITTED BY LAW.

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-8164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

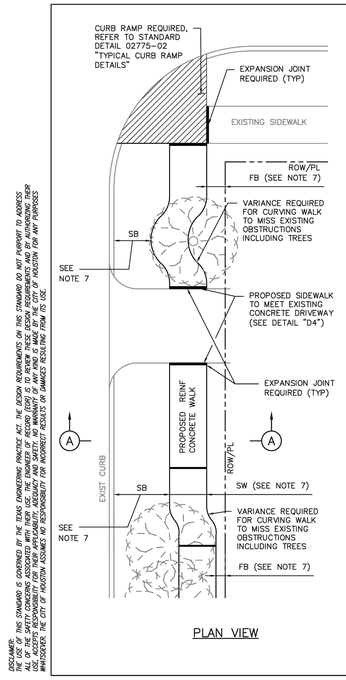
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

PAVING DETAILS 2 OF 4

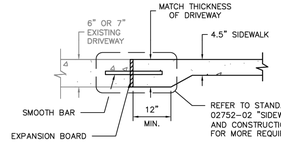
WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 137 OF **152**

PLOTTED: 3/29/2026 1:33 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5



PLAN VIEW

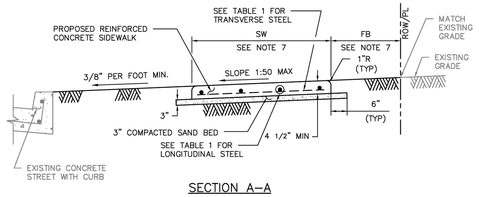


DETAIL D4
DRIVEWAY/SIDEWALK HEADER

TABLE 1

REINFORCING STEEL INFORMATION
FOR 4 ½ " THICK SIDEWALKS
EXPANSION JOINT SPACING = 40 FT
fc' = 3,500 PSI AND fy = 60,000 PSI
REFER TO CONTRACT DRAWINGS FOR SIDEWALKS WIDER THAN 6 FEET.

SIDEWALK THICKNESS (IN)	SIDEWALK WIDTH (FT)	LONGITUDINAL STEEL #3 BARS			TRANSVERSE STEEL #3 BARS SPACING (IN)
		NO. OF BARS	SPACING (IN)	END BAR SPACING (IN)	
4.5	5	3	27	3	48
4.5	6	4	22	3	48



SECTION A–A

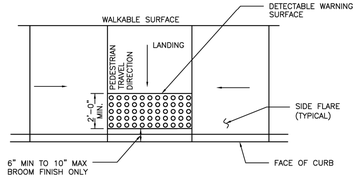
NOTES:

1. 6X6 – W2.9XW2.9 WELDED WIRE FABRIC MAY BE USED IN LIEU OF THE REINFORCING STEEL GIVEN IN TABLE 1.
2. REINFORCED CONCRETE SIDEWALKS THRU DRIVEWAYS OPENINGS SHALL BE EITHER 6" THICK OR 7" THICK AS SPECIFIED ON 6" STABILIZED SUBGRADE. FOR THE REINFORCING STEEL REQUIREMENTS, SEE CITY OF HOUSTON STANDARD DETAILS 02754-01A, 02754-01B, 02754-03, AND 02754-04.
3. MAXIMUM SPACING FOR EXPANSION JOINTS SHALL BE 40 FEET.
4. CONTRACTOR SHALL CONSTRUCT SIDEWALK IN A MANNER NOT TO BLOCK THE NATURAL DRAINAGE FROM ADJACENT PROPERTY.
5. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
6. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON UNLESS NOTED OTHERWISE.
7. REFER TO CONTRACT DRAWINGS FOR SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.

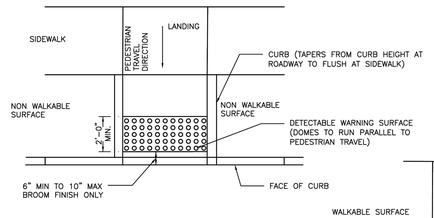
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TYPICAL SIDEWALK LAYOUT AND DETAILS FOR STREETS WITH CURBS (SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by: Suhail Kanwar CITY ENGINEER	DocuSigned by: Carl Hubbuch DIRECTOR OF HPW
DocuSigned by: KHANG NGUYEN CITY TRAFFIC ENGINEER	
EFF DATE: NOV-27-2023	DWG NO: 02775-01

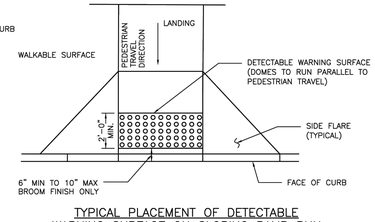
DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ASSUMES RESPONSIBILITY FOR ADDRESSING THE SAFETY CONCERNS ASSOCIATED WITH SUCH USE. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR ANY DESIGNS RESULTING FROM ITS USE. WHOEVER, THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5



TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE





TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN

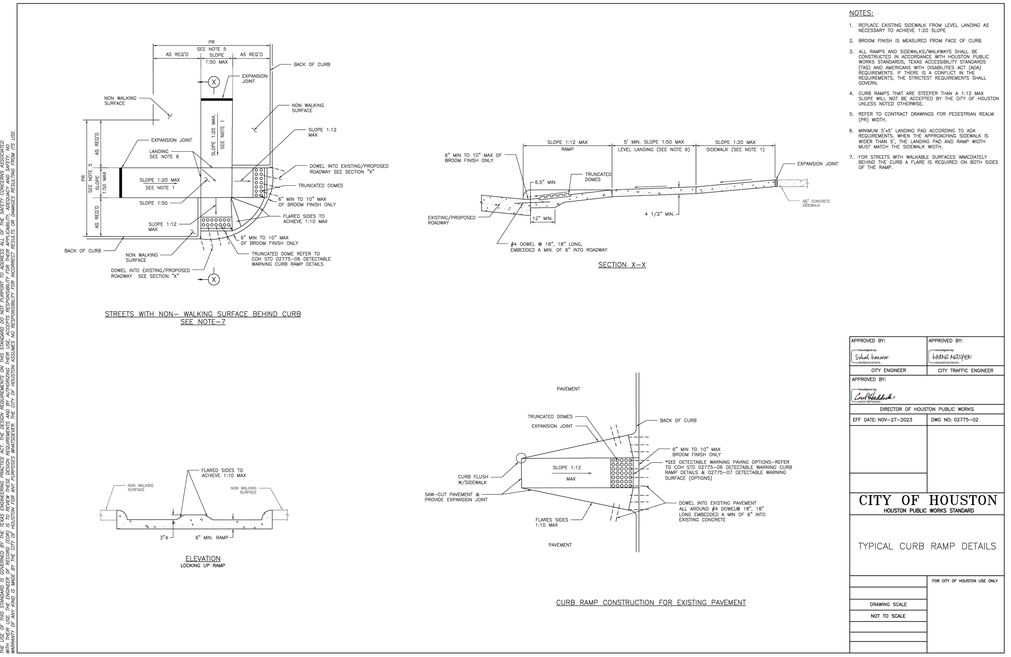
GENERAL NOTES FOR DETECTABLE WARNINGS:

1. DETECTABLE WARNING SURFACES MUST BE FULLY ADA COMPLIANT.
2. ALL NEW CURB RAMPS MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSISTS OF RAISED TRUNCATED DOMES, THE SURFACE MUST CONTRAST VISUALLY WITH ADJOINING SURFACE, INCLUDING SIDE FLARES. FURNISH DARK BROWN OR DARK RED DETECTABLE WARNING SURFACE ADJACENT TO UNCOLORED CONCRETE, UNLESS SPECIFIED ELSEWHERE IN THE PLANS.
3. DETECTABLE WARNING SURFACES MUST MAINTAIN A SLIP RESISTANCE WITH FA-VALUE OF EQUAL TO OR GREATER THAN 0.8.
4. DETECTABLE WARNING SURFACES MUST MAINTAIN A WATER ABSORPTION RATE OF LESS THAN 1%, DETECTABLE WARNING SHALL NOT ALLOW WATER TO ACCUMULATE.
5. DETECTABLE WARNINGS INSTALLED INTO FRESH CONCRETE SHALL BE WITHOUT VOIDS AND UTILIZING AN ACCEPTABLE ANCHORING SYSTEM.
6. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.
7. DETECTABLE WARNING SURFACES SHALL BE A MINIMUM OF 24" IN DEPTH IN THE DIRECTION OF PEDESTRIAN TRAVEL, AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR LANDING WHERE THE PEDESTRIAN ACCESS ROUTE ENTERS THE STREET.
8. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6" MIN TO 10" MAX FROM THE DETECTABLE WARNING SURFACES MAY BE CURVED ALONG THE CORNER RADIUS.
9. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
10. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
DETECTABLE WARNING CURB RAMP DETAILS (SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by: Suhail Kanwar CITY ENGINEER	DocuSigned by: Carl Hubbuch DIRECTOR OF HPW
DocuSigned by: KHANG NGUYEN CITY TRAFFIC ENGINEER	
EFF DATE: NOV-27-2023	DWG NO: 02775-06

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ASSUMES RESPONSIBILITY FOR ADDRESSING THE SAFETY CONCERNS ASSOCIATED WITH SUCH USE. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR ANY DESIGNS RESULTING FROM ITS USE. WHOEVER, THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5



STREETS WITH NON– WALKING SURFACE BEHIND CURB
SEE NOTE–7

SECTION X–X

NOTES:

1. REPLACE EXISTING SIDEWALK FROM LEVEL LANDING AS NECESSARY TO ACHIEVE 1:20 SLOPE
2. BROOM FINISH IS MEASURED FROM FACE OF CURB.
3. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
4. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON UNLESS NOTED OTHERWISE.
5. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR) WIDTH.
6. MINIMUM 5'x5' LANDING PAD ACCORDING TO ADA REQUIREMENTS. WHEN THE APPROACHING SIDEWALK IS WIDER THAN 5', THE LANDING PAD AND RAMP WIDTH MUST MATCH THE SIDEWALK WIDTH.
7. FOR STREETS WITH WALKABLE SURFACES IMMEDIATELY BEHIND THE CURB A FLARE IS REQUIRED ON BOTH SIDES OF THE RAMP.

ELEVATION
LOOKING UP RAMP

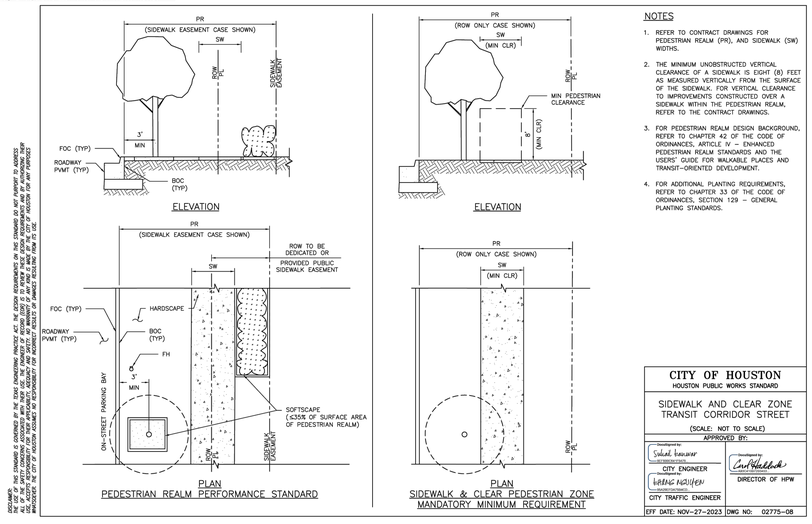
CURB RAMP CONSTRUCTION FOR EXISTING PAVEMENT

APPROVED BY:	APPROVED BY:
DocuSigned by: Suhail Kanwar CITY ENGINEER	DocuSigned by: KHANG NGUYEN CITY TRAFFIC ENGINEER
APPROVED BY: DocuSigned by: Carl Hubbuch DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV–27–2023	DWG NO. 02775–02

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	FOR CITY OF HOUSTON USE ONLY
TYPICAL CURB RAMP DETAILS	
DRAWING SCALE	
NOT TO SCALE	

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ASSUMES RESPONSIBILITY FOR ADDRESSING THE SAFETY CONCERNS ASSOCIATED WITH SUCH USE. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR ANY DESIGNS RESULTING FROM ITS USE. WHOEVER, THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5



NOTES

1. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR), AND SIDEWALK (SW) WIDTHS.
2. THE MINIMUM UNOBSTRUCTED VERTICAL CLEARANCE OF A SIDEWALK IS EIGHT (8) FEET AS MEASURED VERTICALLY FROM THE SURFACE OF THE SIDEWALK. FOR VERTICAL CLEARANCE TO IMPROVEMENTS CONSTRUCTED OVER A SIDEWALK WITHIN THE PEDESTRIAN REALM, REFER TO THE CONTRACT DRAWINGS.
3. FOR PEDESTRIAN REALM DESIGN BACKGROUND, REFER TO CHAPTER 42 OF THE CODE OF ORDINANCES, ARTICLE IV – ENHANCED PEDESTRIAN REALM STANDARDS AND THE USERS' GUIDE FOR WALKABLE PLACES AND TRANSIT-ORIENTED DEVELOPMENT.
4. FOR ADDITIONAL PLANTING REQUIREMENTS, REFER TO CHAPTER 33 OF THE CODE OF ORDINANCES, SECTION 129 – GENERAL PLANTING STANDARDS.

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
SIDEWALK AND CLEAR ZONE TRANSIT CORRIDOR STREET (SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by: Suhail Kanwar CITY ENGINEER	DocuSigned by: Carl Hubbuch DIRECTOR OF HPW
DocuSigned by: KHANG NGUYEN CITY TRAFFIC ENGINEER	
EFF DATE: NOV–27–2023	DWG NO: 02775–08

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P–6164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

PAVING DETAILS
3 OF 4

WBS NUMBER	
N–000818–0001–3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 138 OF **152**	

NO.	DATE	REVISION	APP.

PLOT STYLE: COH CIP.CTB PLOTTED: 3/29/2026 1:33 PM

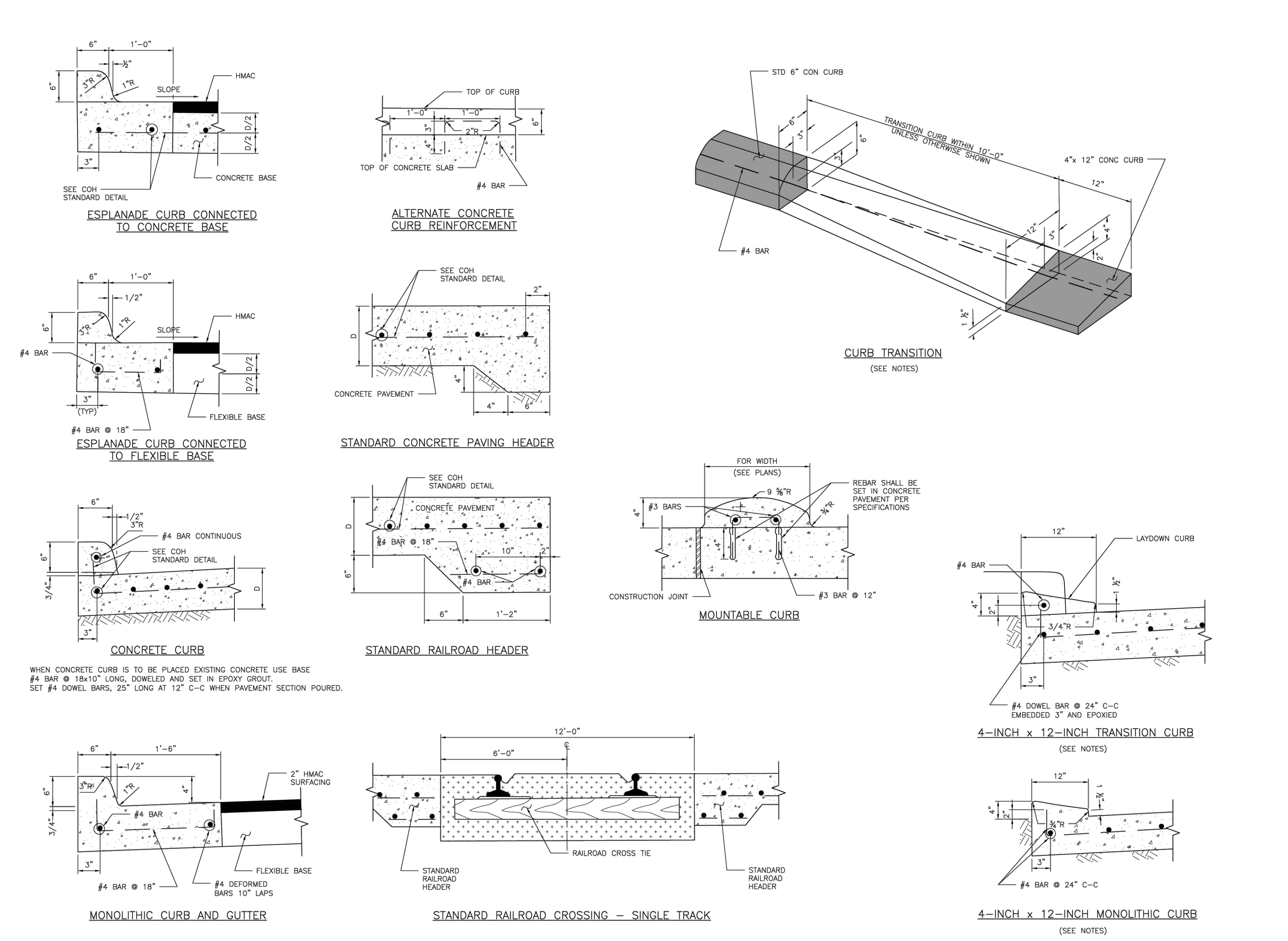
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg

PLOTTED: 3/29/2026 1:33 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5



DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

4"x12" MONOLITHIC AND TRANSITION CURB NOTES:

1. 6–INCH CONCRETE CURB TO BE CONSTRUCTED ON ALL ESPLANADES, ISLANDS, NON–RESIDENTIAL STREETS, AND RESIDENTIAL STREETS.
2. TRANSITIONS FROM 6– INCH CONCRETE CURB TO 4–INCH x 12–INCH CONCRETE CURB TO BE ACCOMPLISHED WITHIN 10 FEET, UNLESS OTHERWISE SHOWN. IF THIS 10–FEET TRANSITION CURB IS NOT POURED MONOLITHICALLY WITH THE PAVEMENT, THEN REINFORCING STEEL AS SHOWN IN "4–INCH x 12–INCH TRANSITION CURB" IS TO BE INSTALLED.

APPROVED BY:	APPROVED BY:
Suhail Kanwar	Khang Nguyen
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Carol Haddock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV–27–2023	DWG NO: 02771–01

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

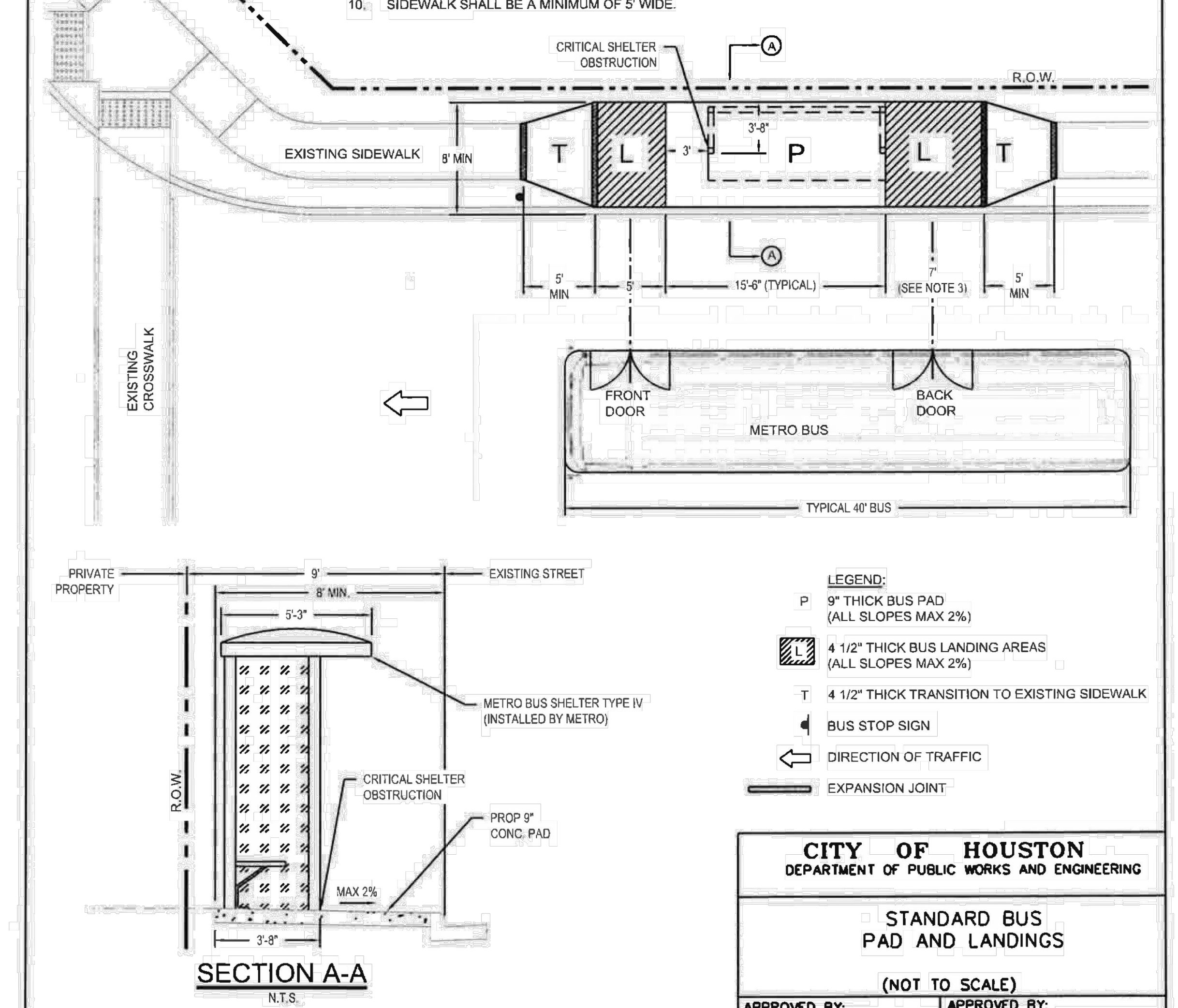
CURB, CURB AND GUTTER AND HEADER DETAILS

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NOT TO SCALE

NOTES:

1. THE SIDEWALK TRANSITION (T) FROM THE LANDING (L) TO EXISTING SIDEWALK SHOULD NOT HAVE A LONGITUDINAL SLOPE GREATER THAN 5% AND CROSS SLOPE GREATER THAN 2% EXCEPT TO MATCH EXISTING CROSS SLOPE. THE TRANSITION (T) SHOULD BE MINIMUM 5' LONG, OR WILL BE LENGTHENED TO MITIGATE EXCESSIVE SLOPE. FOLLOW GUIDELINES COMPLIANT WITH AMERICANS WITH DISABILITIES ACT - ADA AND TEXAS ACCESSIBILITY STANDARDS - TAS.
2. 5'L X 8'W LANDING (L) IS REQUIRED FOR FRONT DOOR WHEELCHAIR ACCESS COMPLIANT WITH ADA AND TAS.
3. 7'L X 8'W LANDING (L) IS RECOMMENDED TO CAPTURE ALL THREE TYPES OF 40' BUS BACK DOORS.
4. SHOW EXISTING PRIVATE & PUBLIC UTILITIES. ADJUST VALVES AND PULLBOXES IF NEEDED. AVOID UTILITY CONFLICTS. IDENTIFY & PROTECT EXISTING GAS PIPELINES OR VALVES WITHIN THE WORK AREA.
5. CONTRACTOR TO AVOID DAMAGE TO ANY PRIVATE PROPERTY AND/OR TREES.
6. CONTRACTOR TO INSTALL EXPANSION & CONTROL JOINTS AS PER CITY OF HOUSTON SIDEWALK EXPANSION & CONSTRUCTION JOINT DETAILS DWG NO: 02752-02.
7. CONTRACTOR TO CONTACT METRO AT (713) 615-XXXX ONCE PAD (P) AND LANDING (L) IS COMPLETELY IN-PLACE.
8. REFER TO CITY OF HOUSTON "CONCRETE SIDEWALK DETAILS FOR STREETS WITH CURBS" DWG NO. 02775-01 FOR SIDEWALK DETAILS. THE DRIVEWAY/SIDEWALK HEADER DETAIL PER CITY OF HOUSTON DWG NO: 02775-01 WILL BE USED TO CONNECT THE LANDING (L) (4 1/2" THICK) TO THE PAD (P) (9" THICK).
9. LOCATION OF BUS PAD (P) LONGITUDINALLY ALONG THE ROADWAY WILL NEED TO ACCOUNT FOR THE CRITICAL SHELTER OBSTRUCTION TO LINE OF SIGHT AS IDENTIFIED.
10. SIDEWALK SHALL BE A MINIMUM OF 5' WIDE.



LEGEND:

- P — 9" THICK BUS PAD (ALL SLOPES MAX 2%)
- L — 4 1/2" THICK BUS LANDING AREAS (ALL SLOPES MAX 2%)
- T — 4 1/2" THICK TRANSITION TO EXISTING SIDEWALK
- BUS STOP SIGN
- DIRECTION OF TRAFFIC
- EXPANSION JOINT

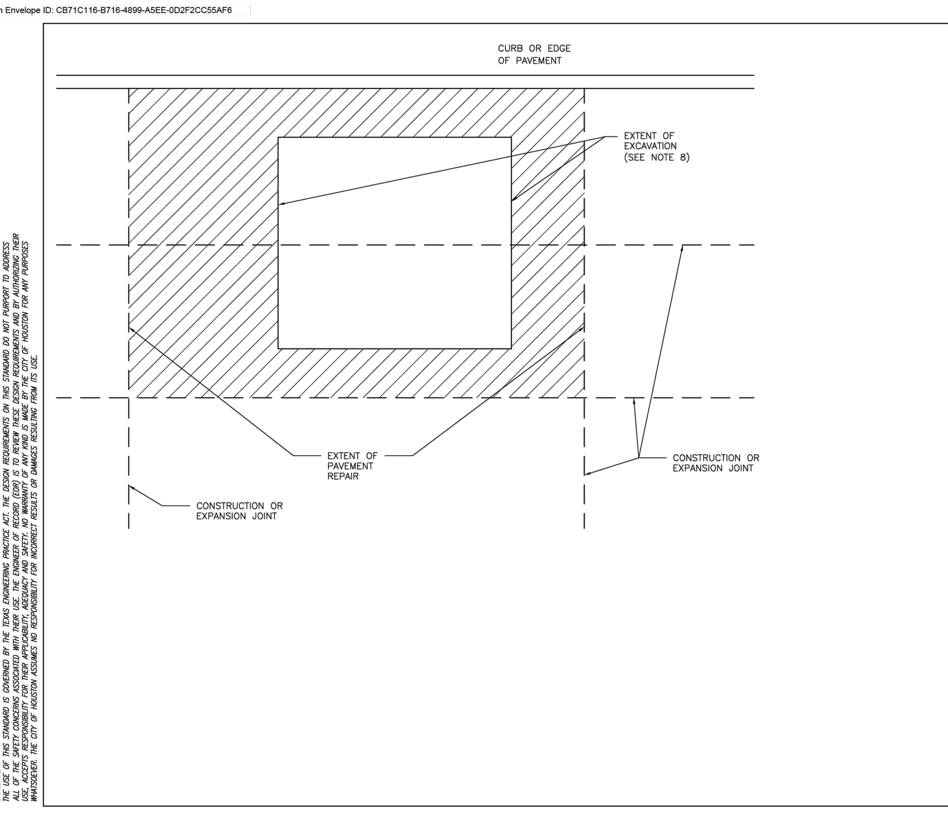
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

STANDARD BUS PAD AND LANDINGS

(NOT TO SCALE)

APPROVED BY:	APPROVED BY:
CITY ENGINEER	DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JAN–04–2017	DWG NO: 10.06–15

DocuSign Envelope ID: CB71C116-B716-4899-A5EE-0D2F2CC55AF6



NOTES:

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

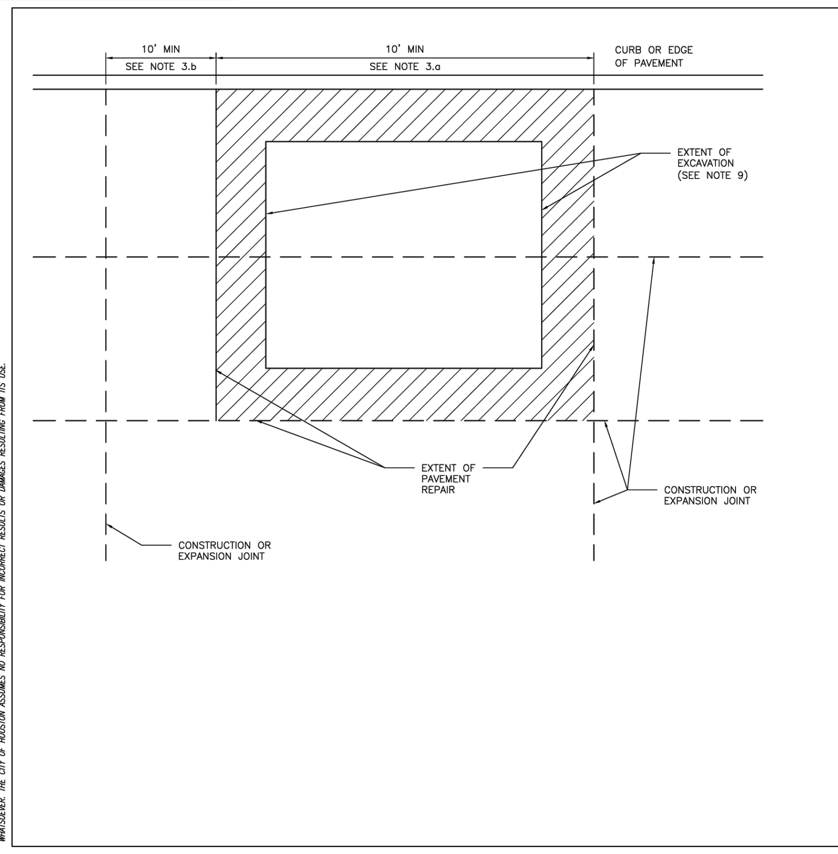
CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STREET CUT FOR CONCRETE PAVEMENT REPLACEMENT/RESTORATION AGE OF PAVEMENT ≤ 5YRS
(SCALE: NOT TO SCALE)

APPROVED BY:

Suhail Kanwar — CITY ENGINEER	Carol Haddock — DIRECTOR OF HPW
Khang Nguyen — CITY TRAFFIC ENGINEER	
EFF DATE: NOV–27–2023	DWG NO: 02951–01

DocuSign Envelope ID: CB71C116-B716-4899-A5EE-0D2F2CC55AF6



NOTES:

1. EXTENT OF PAVEMENT REPAIR SHALL BE PERPENDICULAR AND PARALLEL TO TRAVEL WAY.
2. WIDTH: REPLACE PANEL WIDTH TO NEAREST CONSTRUCTION OR EXPANSION JOINT BEYOND EDGE OF EXCAVATION.
3. LENGTH:
   a. MINIMUM LENGTH OF PAVEMENT REPAIR ALONG TRAVEL WAY IS 10' FROM THE NEAREST JOINT.
   b. IF EXTENT OF PAVEMENT REPAIR IS LESS THAN 10' FROM EXISTING CONSTRUCTION OR EXPANSION JOINT, EXTEND PAVEMENT REPAIR TO EXISTING JOINT.
4. SAW CUT AND EXPOSE 15" OF REINFORCING STEEL AROUND EDGE OF PANEL REPLACEMENT. PROVIDE HORIZONTAL DOWELS (PER SPECIFICATION SECTION 02951–PAVEMENT REPAIR AND RESTORATION) IF REINFORCING IS BROKEN OFF OR DOES NOT EXIST.
5. REPLACE CURB WHEN ADJACENT LANE IS REPLACED.
6. MAINTAIN EXPANSION JOINTS AT EXISTING LOCATIONS UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
7. SPECIALTY PAVEMENTS (IE: BRICK PAVERS) TO BE REPLACED WITH MATCHING PAVEMENT IN ALL CASES.
8. REPLACE PAVEMENT MARKINGS IN ACCORDANCE WITH CITY OF HOUSTON STANDARD SPECIFICATIONS 02764–RAISED PAVEMENT MARKERS AND 02767–THERMOPLASTIC PAVEMENT MARKINGS.
9. EXTENT OF EXCAVATION INCLUDES 18" OVERCUT AS SHOWN ON STANDARD DETAIL 02951–04 PAVEMENT REPAIR DETAIL FOR STREET CUTS (FLEX–BASE PAVEMENT & CONCRETE PAVEMENT).

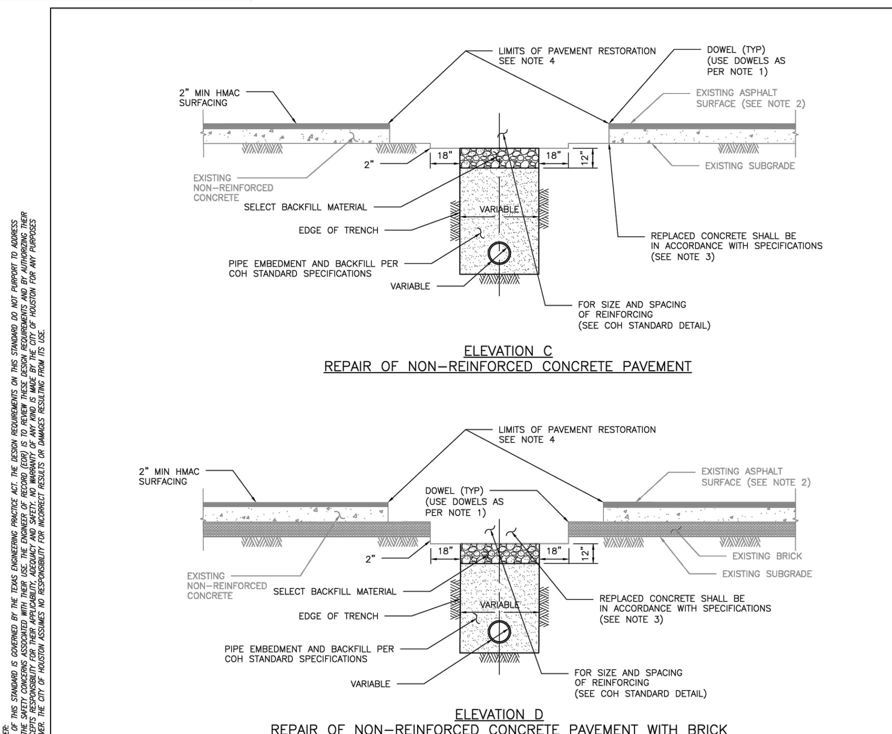
CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STREET CUT FOR CONCRETE PAVEMENT REPLACEMENT/RESTORATION AGE OF PAVEMENT > 5YRS
(SCALE: NOT TO SCALE)

APPROVED BY:

Suhail Kanwar — CITY ENGINEER	Carol Haddock — DIRECTOR OF HPW
Khang Nguyen — CITY TRAFFIC ENGINEER	
EFF DATE: NOV–27–2023	DWG NO: 02951–02

DocuSign Envelope ID: CB71C116-B716-4899-A5EE-0D2F2CC55AF6



NOTES:

1. EXPOSE 15" OF REINFORCING STEEL AT PROPOSED SAWED JOINT. IF NO REINFORCING STEEL EXISTS, USE HORIZONTAL DOWELS. HORIZONTAL DOWELS SHALL BE #6 BAR, 24" LONG, 24" C–C, DRILLED AND EMBEDDED 8" INTO THE CENTER OF THE EXISTING SLAB. WITH "PO ROC" OR EQUAL.
2. IF REINFORCED CONCRETE IS OVERLAYED REPLACE WITH SAME THICKNESS OF HMAC SURFACING.
3. REFER TO STANDARD DETAIL 02751–01 FOR REINFORCING STEEL REQUIREMENT
4. REFER TO STANDARD DETAILS 02951–01 THROUGH 03 FOR PAVEMENT RESTORATION LIMITS.

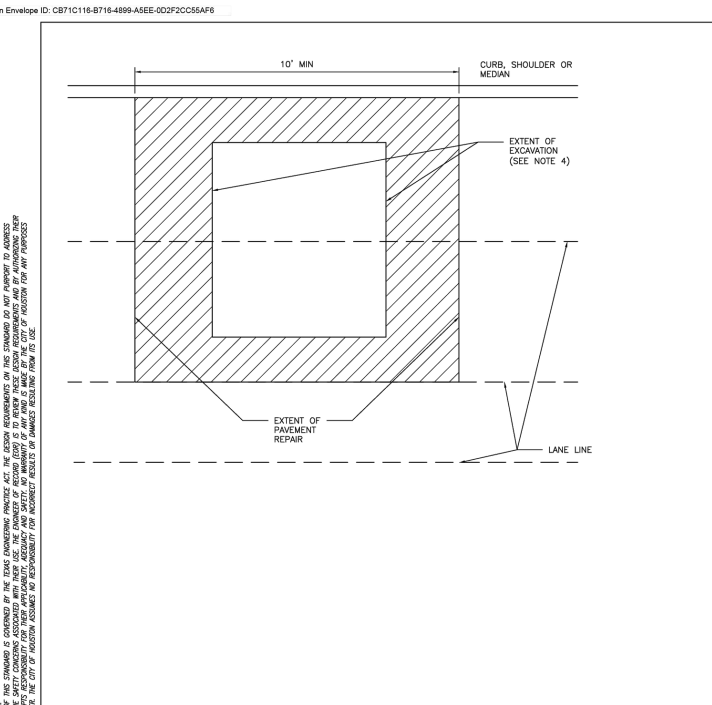
CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PAVEMENT REPAIR DETAIL FOR STREET CUTS (NON–REINFORCED CONCRETE & BRICK PAVEMENT)
(SCALE: NOT TO SCALE)

APPROVED BY:

Suhail Kanwar — CITY ENGINEER	Carol Haddock — DIRECTOR OF HPW
Khang Nguyen — CITY TRAFFIC ENGINEER	
EFF DATE: NOV–27–2023	DWG NO: 02951–05

DocuSign Envelope ID: CB71C116-B716-4899-A5EE-0D2F2CC55AF6



NOTES:

1. EXTENT OF PAVEMENT REPAIR SHALL BE PERPENDICULAR AND PARALLEL TO TRAVEL WAY.
2. FLEXIBLE BASE: REPLACE BASE TO SAME THICKNESS PLUS TWO INCHES (2") FOR EXTENT OF EXCAVATION. USE APPROVED BASE MATERIAL TYPE.*
3. SURFACE COURSE:
   3.1. WIDTH: SURFACE MILL AND OVERLAY FULL WIDTH OF LANE(S) TO NEAREST LANE DIVIDER BEYOND EDGE OF EXCAVATION.
   3.2. LENGTH: MINIMUM LENGTH OF SURFACE MILL ALONG TRAVEL WAY IS 10'.
   3.3. REPLACE PAVEMENT MARKINGS IN ACCORDANCE WITH CITY OF HOUSTON STANDARD SPECIFICATIONS 02764–RAISED PAVEMENT MARKERS AND 02767–THERMOPLASTIC PAVEMENT MARKINGS.
4. EXTENT OF EXCAVATION INCLUDES 18" OVER CUT AS SHOWN ON STANDARD DETAIL 02951–04 PAVEMENT REPAIR DETAIL FOR STREET CUTS (FLEX–BASE PAVEMENT AND CONCRETE PAVEMENT).
5. ADDITIONAL REQUIREMENTS FOR ASPHALT OVERLAY ON CONCRETE PAVEMENT:
   5.1. REPLACE CONCRETE FOR EXTENT OF EXCAVATION. REPLACE TO SAME THICKNESS PLUS TWO INCHES (2").
   5.2. WIDTH:
   5.2.1. IF EXCAVATION EXTENDS MORE THAN HALF OF A LANE, REPLACE ENTIRE LANE OF CONCRETE. OTHERWISE USE STANDARD DETAIL 02951–04 THROUGH 05.
   5.3. SAW CUT AND EXPOSE 15" OF REINFORCING STEEL AROUND EDGE OF CONCRETE REPLACEMENT. IF NO REINFORCING STEEL EXISTS, USE HORIZONTAL DOWELS PER CITY OF HOUSTON STANDARD SPECIFICATION SECTION 02951–PAVEMENT REPAIR AND RESTORATION.
   5.4. REPLACE CURB WHEN ADJACENT LANE IS REPLACED.
   5.5. MAINTAIN CONCRETE EXPANSION JOINTS AT EXISTING LOCATIONS UNLESS OTHERWISE APPROVED BY CITY ENGINEER.

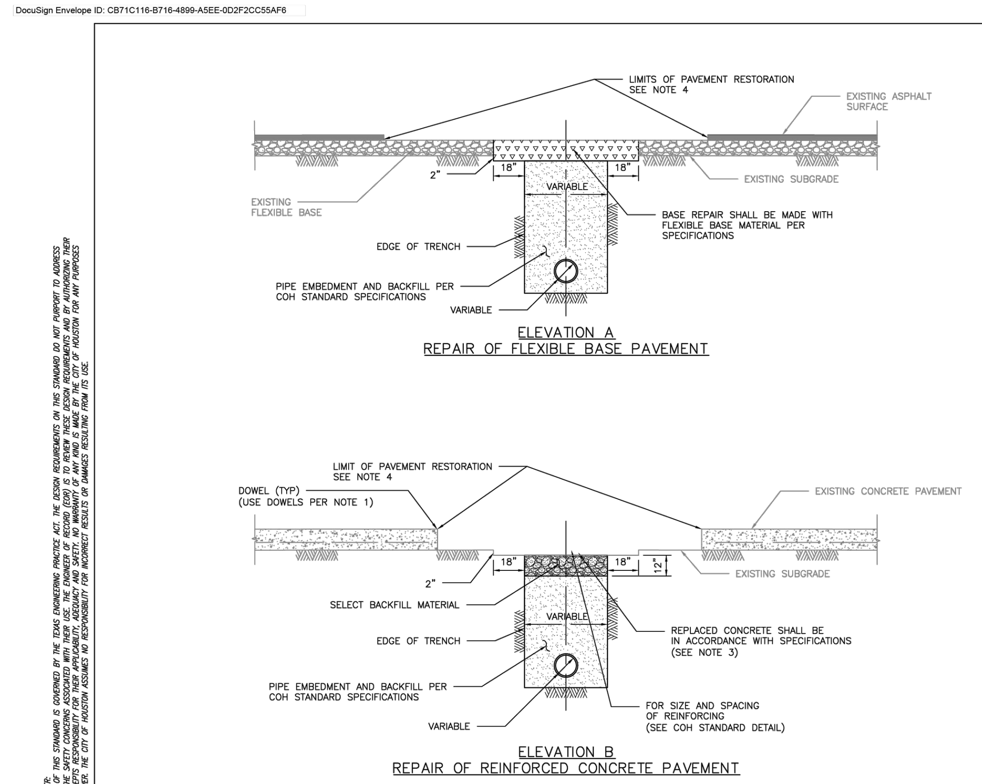
CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STREET CUT FOR ASPHALT PAVEMENT REPLACEMENT/RESTORATION FOR PAVEMENT OF ALL AGES
(SCALE: NOT TO SCALE)

APPROVED BY:

Suhail Kanwar — CITY ENGINEER	Carol Haddock — DIRECTOR OF HPW
Khang Nguyen — CITY TRAFFIC ENGINEER	
EFF DATE: NOV–27–2023	DWG NO: 02951–03

DocuSign Envelope ID: CB71C116-B716-4899-A5EE-0D2F2CC55AF6



NOTES:

1. EXPOSE 15" OF REINFORCING STEEL AT PROPOSED SAWED JOINT. IF NO REINFORCING STEEL EXISTS, USE HORIZONTAL DOWELS. HORIZONTAL DOWELS SHALL BE #6 BAR, 24" LONG, 24" C–C, DRILLED AND EMBEDDED 8" INTO THE CENTER OF THE EXISTING SLAB. WITH "PO ROC" OR EQUAL.
2. IF REINFORCED CONCRETE IS OVERLAYED WITH ASPHALT, REPLACE WITH 2" MIN HMAC SURFACING.
3. REFER TO STANDARD DETAIL 02751–01 FOR REINFORCING STEEL REQUIREMENTS.
4. REFER TO STANDARD DETAIL 02951–01 THROUGH 03 FOR PAVEMENT RESTORATION LIMITS.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PAVEMENT REPAIR DETAIL FOR STREET CUTS (FLEX–BASE PAVEMENT & CONCRETE PAVEMENT)
(SCALE: NOT TO SCALE)

APPROVED BY:

Suhail Kanwar — CITY ENGINEER	Carol Haddock — DIRECTOR OF HPW
Khang Nguyen — CITY TRAFFIC ENGINEER	
EFF DATE: NOV–27–2023	DWG NO: 02951–04

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P–6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

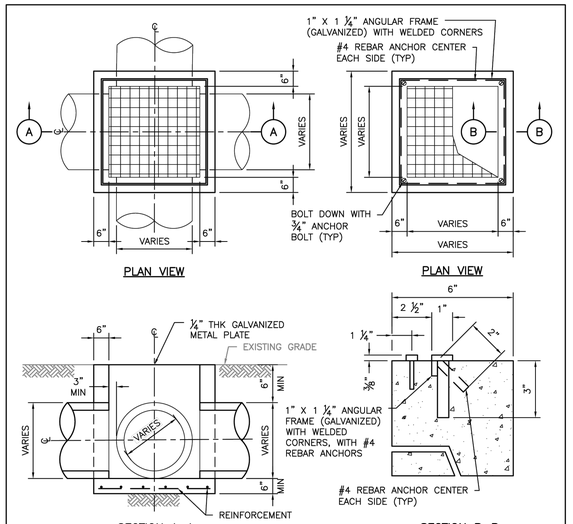
PAVING DETAILS 4 OF 4

WBS NUMBER
N–000818–0001–3

DRAWING SCALE
N.T.S.

CITY OF HOUSTON PM
MICHELLE RANDON, P.E.

SHEET NO. 139 OF 152



NOTES:

1. DETAIL TO BE USED WHERE STORM SEWER SIZE IS 24" DIA OR LESS.
2. FOR SEWER GREATER THAN 24" DIA USE TYPE C MANHOLE.

NOTES TO SPECIFIER:

1. WALL TO BE 6" CONCRETE.
2. NOT TO BE USED IN STREET. FOR AREA BETWEEN CURB AND PROPERTY LINE ONLY.

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STORM SEWER JUNCTION BOX WITH LID OR GRATE TOP FOR MAXIMUM OF 24" DIA STORM SEWER

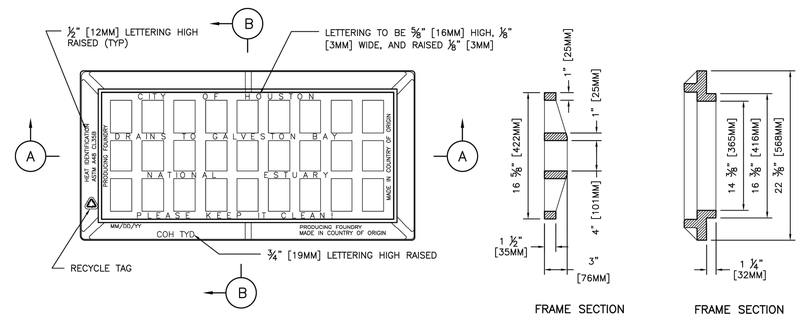
(SCALE: NOT TO SCALE)

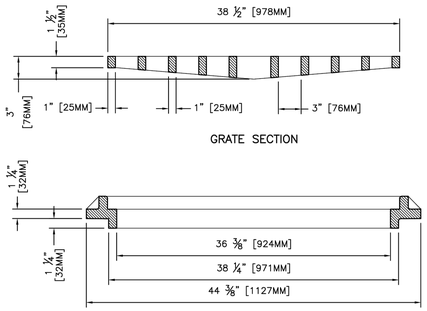
APPROVED BY:

Signed by:	Signed by:
1BDB0203F2F840C...	EC4E507D0F454EB...
CITY ENGINEER	DIRECTOR OF HPW

EFF DATE: MAR–02–2026 | DWG NO: 02081–06

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.





SECTION A–A

NOTES:

1. APPROXIMATE WEIGHTS:

   GRATE – 125 LBS (57KGS)
   FRAME – 108 LBS (49KGS)
   UNIT – 233 LBS (106KGS)

2. MATERIAL– GRAY IRON ASTM A48 CL35B.
3. CASTING MUST BE MANUFACTURED AND PROOF TESTED IN ACCORDANCE WITH AASHTO M306.
4. OPEN AREA OF GRATE:
   324 SQ. IN. [2090 SQ. CM.].
5. IDENTIFICATION MARKINGS MUST COMPLY WITH CITY SPECIFICATIONS. MARKINGS NOT SHOWN ON THIS DETAIL MUST BE PLACED ON THE CASTING:

   A. PROVIDE ALL FRAME MARKINGS ON THE TOP SIDE OF THE FRAME.
   B. PROVIDE GRATE AND COVER MARKINGS ON EITHER TOP OR BOTTOM OF CASTING.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STORM SEWER TYPE "D" INLET GRATE AND FRAME

(SCALE: NOT TO SCALE)

APPROVED BY:

Signed by:	Signed by:
1BDB0203F2F840C...	EC4E507D0F454EB...
CITY ENGINEER	DIRECTOR OF HPW

EFF DATE: MAR–02–2026 | DWG NO: 02090–06

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P–6164

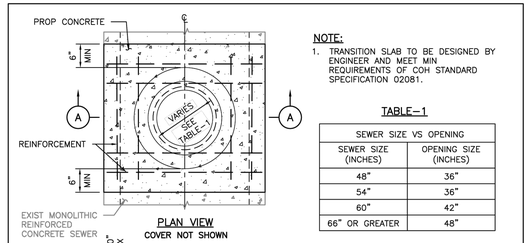
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

STORM SEWER DETAILS
1 OF 5

WBS NUMBER
N–000818–0001–3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 140 OF **152**

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 1:33 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg



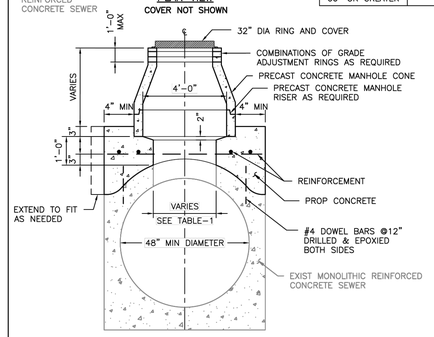
PLAN VIEW
COVER NOT SHOWN

NOTE:

1. TRANSITION SLAB TO BE DESIGNED BY ENGINEER AND MEET MIN REQUIREMENTS OF COH STANDARD SPECIFICATION 02081.

TABLE-1

SEWER SIZE VS OPENING	
SEWER SIZE (INCHES)	OPENING SIZE (INCHES)
48"	36"
54"	36"
60"	42"
66" OR GREATER	48"



ELEVATION A-A

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

APPROVED BY:

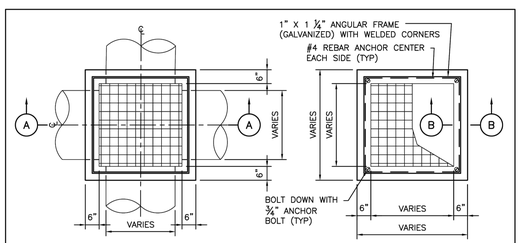
CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STORM SEWER MANHOLE FOR EXISTING MONOLITHIC REINFORCED CONCRETE 48" DIA AND GREATER

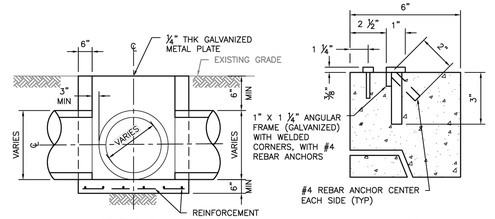
(SCALE: NOT TO SCALE)

EFF DATE: MAR-02-2026 | DWG NO: 02082-17



PLAN VIEW

PLAN VIEW



SECTION A-A
JUNCTION BOX DETAIL

SECTION B-B
LID FRAME DETAIL

NOTES:

1. DETAIL TO BE USED WHERE STORM SEWER SIZE IS 24" DIA OR LESS.
2. FOR SEWER GREATER THAN 24" DIA USE TYPE C MANHOLE.

NOTES TO SPECIFIER:

1. WALL TO BE 6" CONCRETE.
2. NOT TO BE USED IN STREET. FOR AREA BETWEEN CURB AND PROPERTY LINE ONLY.

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

APPROVED BY:

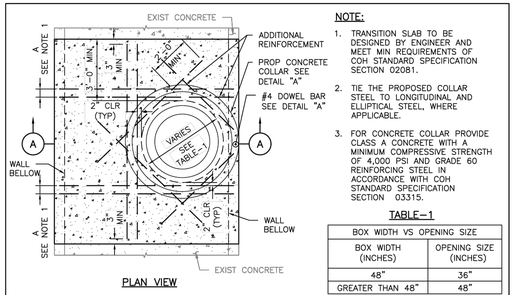
CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STORM SEWER JUNCTION BOX WITH LID OR GRATE TOP FOR MAXIMUM OF 24" DIA STORM SEWER

(SCALE: NOT TO SCALE)

EFF DATE: MAR-02-2026 | DWG NO: 02081-06



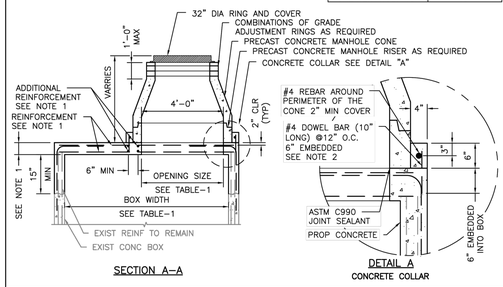
PLAN VIEW

NOTE:

1. TRANSITION SLAB TO BE DESIGNED BY ENGINEER AND MEET MIN REQUIREMENTS OF COH STANDARD SPECIFICATION SECTION 02081.
2. TIE THE PROPOSED COLLAR STEEL TO LONGITUDINAL AND ELLIPTICAL STEEL, WHERE APPLICABLE.
3. FOR CONCRETE COLLAR PROVIDE CLASS A CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AND GRADE 60 REINFORCING STEEL IN ACCORDANCE WITH COH STANDARD SPECIFICATION SECTION 03315.

TABLE-1

BOX WIDTH VS OPENING SIZE	
BOX WIDTH (INCHES)	OPENING SIZE (INCHES)
48"	36"
GREATER THAN 48"	48"



SECTION A-A

DETAIL A
CONCRETE COLLAR

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

APPROVED BY:

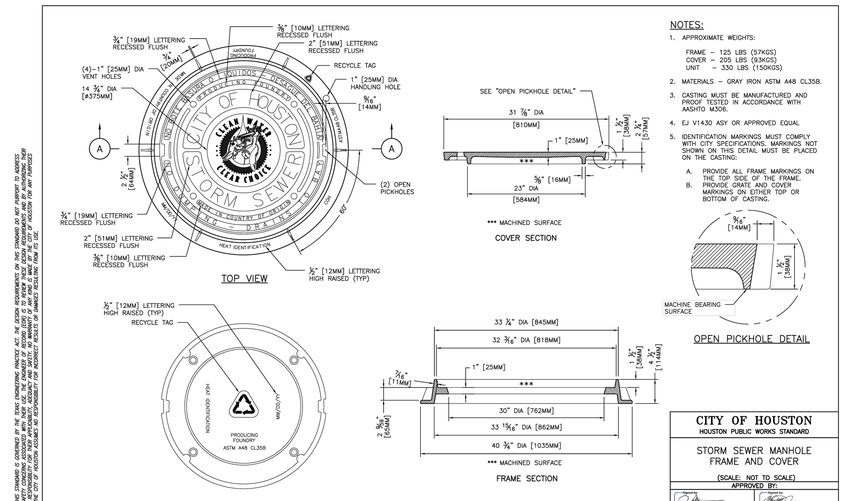
CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PROPOSED MANHOLE ON EXISTING BOX STORM SEWER

(SCALE: NOT TO SCALE)

EFF DATE: MAR-02-2026 | DWG NO: 02082-16



TOP VIEW

COVER SECTION

OPEN PICKHOLE DETAIL

BOTTOM VIEW OF COVER

FRAME SECTION

SECTION A-A

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

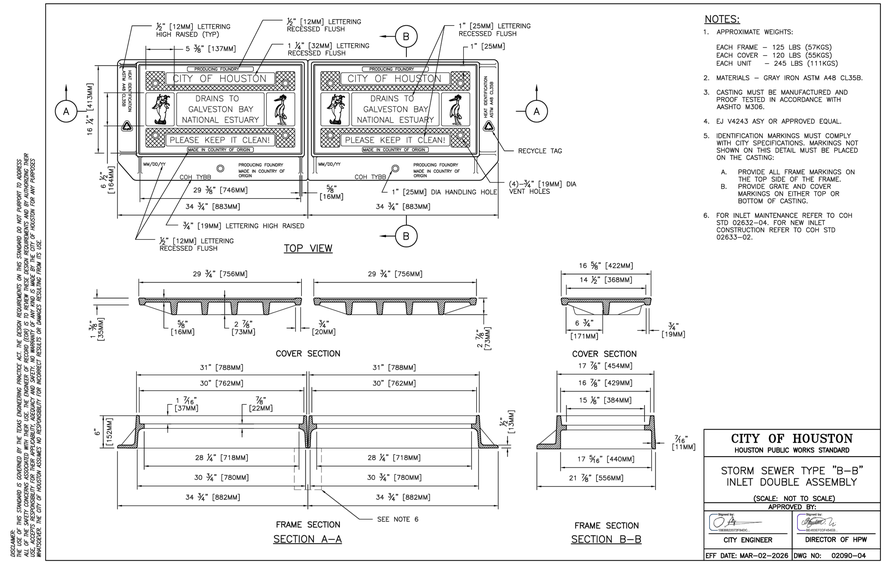
STORM SEWER MANHOLE FRAME AND COVER

(SCALE: NOT TO SCALE)

APPROVED BY:

CITY ENGINEER | DIRECTOR OF HPW

EFF DATE: MAR-02-2026 | DWG NO: 02090-02



TOP VIEW

COVER SECTION

COVER SECTION

FRAME SECTION
SECTION A-A

FRAME SECTION
SECTION B-B

NOTES:

1. APPROXIMATE WEIGHTS:

   FRAME - 125 LBS (57KGS)
   COVER - 205 LBS (93KGS)
   UNIT - 330 LBS (150KGS)

2. MATERIALS - GRAY IRON ASTM A48 CL35B.
3. CASTING MUST BE MANUFACTURED AND PROOF TESTED IN ACCORDANCE WITH AASHTO M306.
4. EJ V1430 ASY OR APPROVED EQUAL.
5. IDENTIFICATION MARKINGS MUST COMPLY WITH CITY SPECIFICATIONS. MARKINGS NOT SHOWN ON THIS DETAIL MUST BE PLACED ON THE CASTING:
   A. PROVIDE ALL FRAME MARKINGS ON THE TOP SIDE OF THE FRAME.
   B. PROVIDE GRATE AND COVER MARKINGS ON EITHER TOP OR BOTTOM OF CASTING.

NOTES:

1. APPROXIMATE WEIGHTS:

   EACH FRAME - 125 LBS (57KGS)
   EACH COVER - 120 LBS (55KGS)
   EACH UNIT - 245 LBS (111KGS)

2. MATERIALS - GRAY IRON ASTM A48 CL35B.
3. CASTING MUST BE MANUFACTURED AND PROOF TESTED IN ACCORDANCE WITH AASHTO M306.
4. EJ V4243 ASY OR APPROVED EQUAL.
5. IDENTIFICATION MARKINGS MUST COMPLY WITH CITY SPECIFICATIONS. MARKINGS NOT SHOWN ON THIS DETAIL MUST BE PLACED ON THE CASTING:
   A. PROVIDE ALL FRAME MARKINGS ON THE TOP SIDE OF THE FRAME.
   B. PROVIDE GRATE AND COVER MARKINGS ON EITHER TOP OR BOTTOM OF CASTING.
6. FOR INLET MAINTENANCE REFER TO COH STD 02632-04. FOR NEW INLET CONSTRUCTION REFER TO COH STD 02633-02.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STORM SEWER TYPE "B-B" INLET DOUBLE ASSEMBLY

(SCALE: NOT TO SCALE)

APPROVED BY:

CITY ENGINEER | DIRECTOR OF HPW

EFF DATE: MAR-02-2026 | DWG NO: 02090-04

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

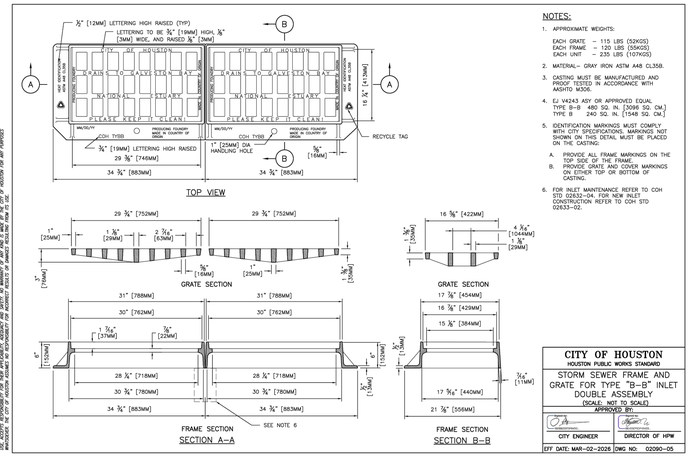
STORM SEWER DETAILS 2 OF 5

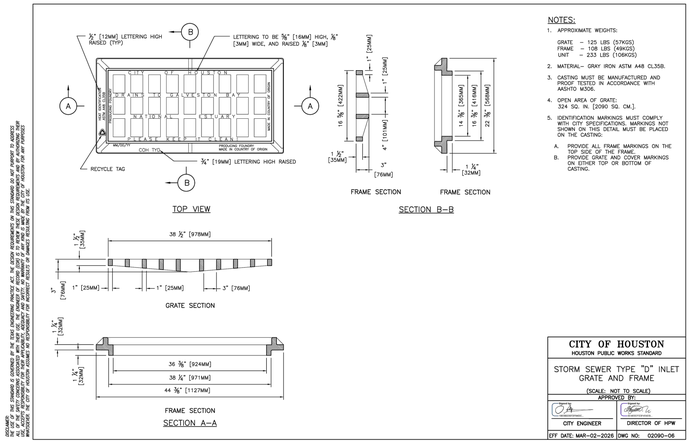
WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 141 OF **152**

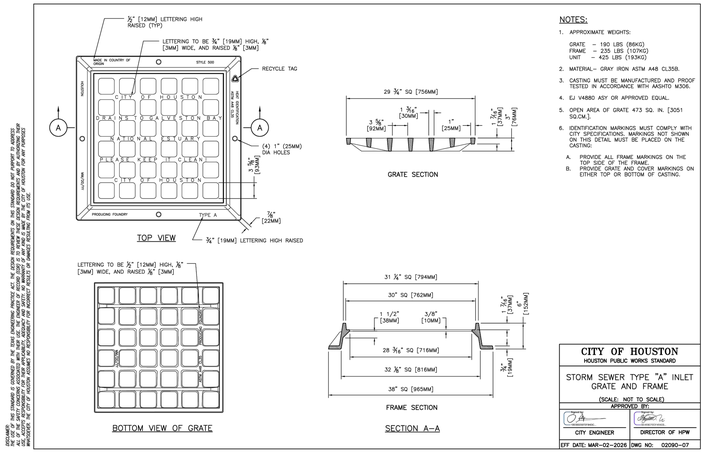
PLOTTED: 3/29/2026 1:34 PM

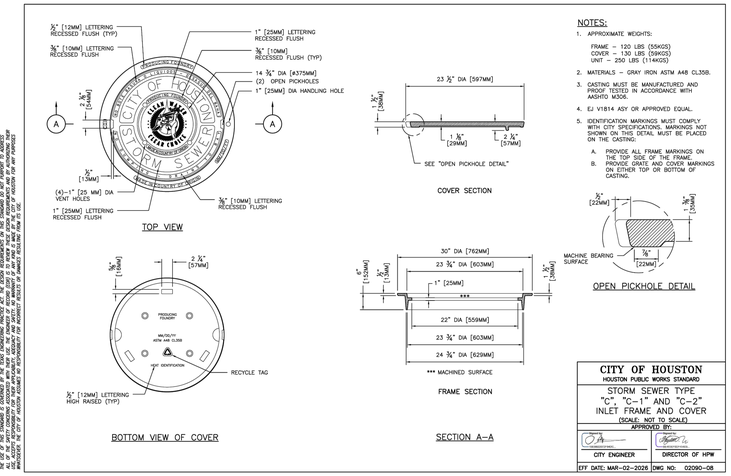
PLOT STYLE: COH CIP.CTB

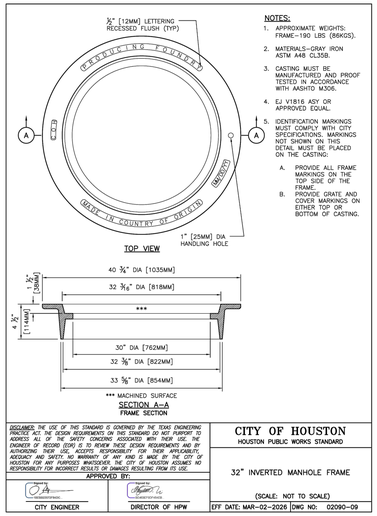
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg

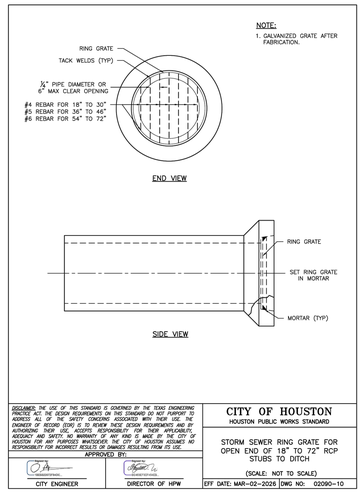


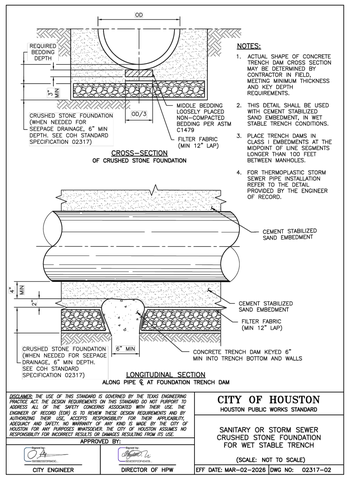












DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832–930–7670
TX FIRM NUMBER: F–10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P–6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

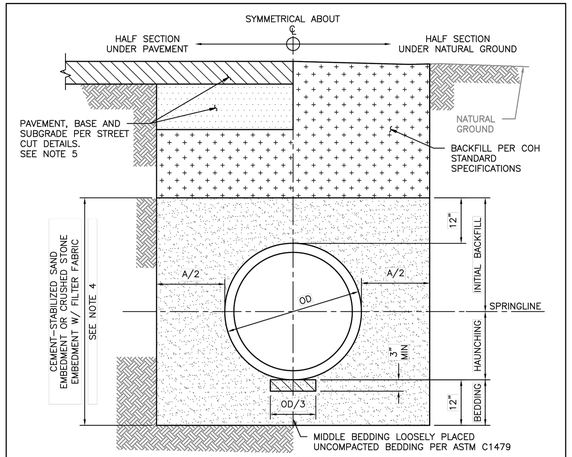
STORM SEWER DETAILS 3 OF 5

WBS NUMBER
N–000818–0001–3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 142 OF **152**

PLOTTED: 3/29/2026 1:34 PM

PLOT STYLE: COH CIP.CTB

FILE PATH: C:\pwworking\hatch–dpd–south_central_us\dms60086\36 STANDARD DETAILS.dwg



TYPICAL CROSS-SECTION

NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS PER COH STANDARD. SEE COH STANDARD SPECIFICATION FOR REQUIREMENTS IN OTHER CONDITIONS.
2. MIN TRENCH WIDTH SHALL BE PIPE OD PLUS AN ALLOWANCE "A" FOR THE NOMINAL PIPE SIZE:

NOMINAL PIPE SIZE	"A"
30" OR LESS	24"
36" TO 42"	36"
GREATER THAN 42"	48"

3. MAX TRENCH WIDTH SHALL BE NOT GREATER THAN MIN TRENCH WIDTH PLUS 24 INCHES, UNLESS OTHERWISE NOTED.
4. ALTERNATIVE EMBEDMENT BACKFILL MATERIALS FOR FORCE MAINS MAY BE ALLOWED. SEE COH STANDARD SPECIFICATIONS.
5. REFER TO THE COH STD DETAILS 02951-01 THROUGH 05 FOR STREET CUT REQUIREMENTS.
6. FOR THERMOPLASTIC STORM SEWER PIPE INSTALLATION REFER TO COH STD DETAIL 02317-10G.

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

APPROVED BY:

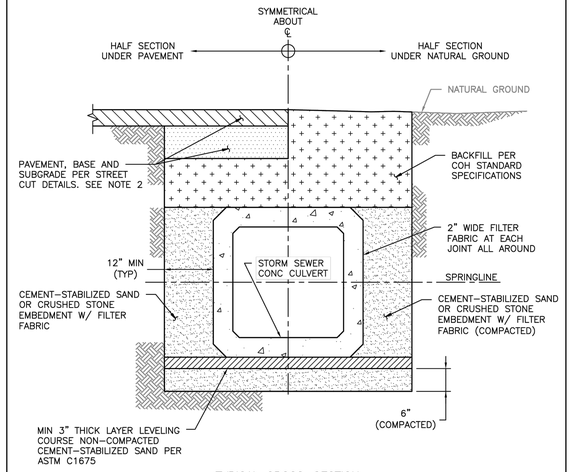
CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

SANITARY OR STORM SEWER BEDDING AND BACKFILL FOR DRY STABLE TRENCH

(SCALE: NOT TO SCALE)

EFF DATE: MAR-02-2026 | DWG NO: 02317-03



TYPICAL CROSS-SECTION

NOTES:

1. WHERE MULTIPLE BOX SEWER ARE USED IN THE SAME TRENCH, MIN OUTSIDE TO OUTSIDE BOX SEWER SEPARATION SHALL BE 6".
2. REFER TO COH STANDARD DETAILS 02951-01 THROUGH 05 FOR STREET CUT REQUIREMENTS.

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

APPROVED BY:

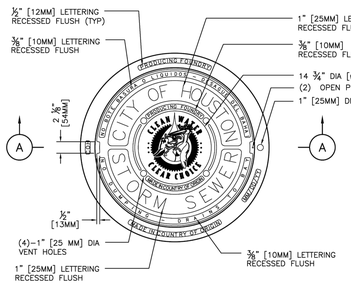
CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

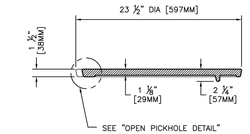
PRECAST CONCRETE BOX STORM SEWER BEDDING AND BACKFILL FOR DRY STABLE TRENCH

(SCALE: NOT TO SCALE)

EFF DATE: MAR-02-2026 | DWG NO: 02317-05



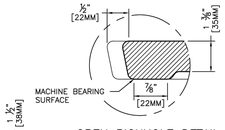
TOP VIEW



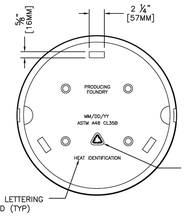
COVER SECTION

NOTES:

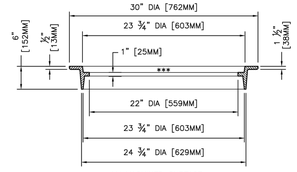
1. APPROXIMATE WEIGHTS:
   FRAME – 120 LBS (55KGS)
   COVER – 130 LBS (59KGS)
   UNIT – 250 LBS (114KGS)
2. MATERIALS – GRAY IRON ASTM A48 CL35B.
3. CASTING MUST BE MANUFACTURED AND PROOF TESTED IN ACCORDANCE WITH AASHTO M306.
4. EJ V1814 ASY OR APPROVED EQUAL.
5. IDENTIFICATION MARKINGS MUST COMPLY WITH CITY SPECIFICATIONS. MARKINGS NOT SHOWN ON THIS DETAIL MUST BE PLACED ON THE CASTING:
   A. PROVIDE ALL FRAME MARKINGS ON THE TOP SIDE OF THE FRAME.
   B. PROVIDE GRATE AND COVER MARKINGS ON EITHER TOP OR BOTTOM OF CASTING.



OPEN PICKHOLE DETAIL



BOTTOM VIEW OF COVER



*** MACHINED SURFACE

FRAME SECTION

SECTION A–A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STORM SEWER TYPE "C", "C-1" AND "C-2" INLET FRAME AND COVER

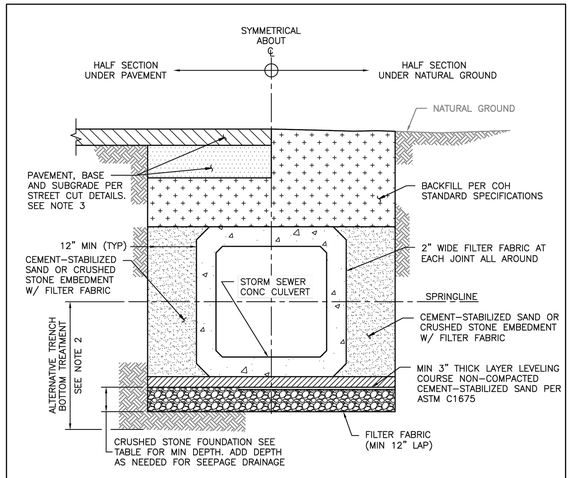
(SCALE: NOT TO SCALE)

APPROVED BY:

CITY ENGINEER | DIRECTOR OF HPW

EFF DATE: MAR-02-2026 | DWG NO: 02090-08

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



TYPICAL CROSS-SECTION

NOTES:

1. WHERE MULTIPLE BOX SEWERS ARE USED IN THE SAME TRENCH, MIN OUTSIDE TO OUTSIDE BOX SEWER SEPARATION SHALL BE 6".
2. ALTERNATIVE TRENCH BOTTOM TREATMENT MAY BE USED AS APPROVED BY THE CITY ENGINEERS AND AS PAID FOR IN THE PROPOSAL.
3. REFER TO COH STANDARD DETAILS 02951-01 THROUGH 05 FOR STREET CUT REQUIREMENTS.

TABLE

CULVERT SIZE (FT)	FOUNDATION DEPTH (INCHES)
3' X 2' TO 6' X 6'	12"
6' X 6' AND LARGER	18"

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

APPROVED BY:

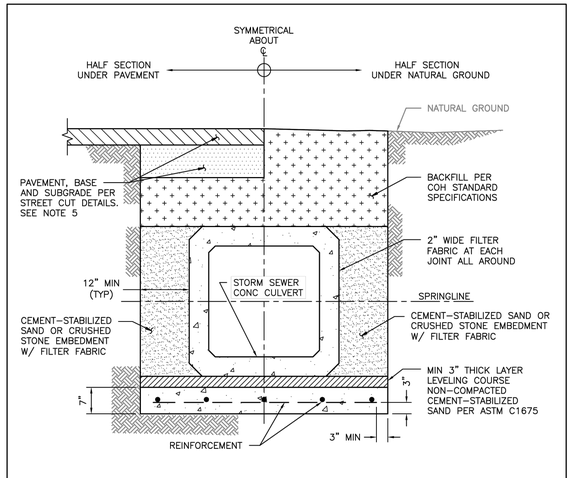
CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PRECAST CONCRETE BOX STORM SEWER BEDDING AND BACKFILL FOR WET STABLE TRENCH

(SCALE: NOT TO SCALE)

EFF DATE: MAR-02-2026 | DWG NO: 02317-06



TYPICAL CROSS-SECTION

NOTES:

1. WHERE MULTIPLE BOX SEWER ARE USED IN THE SAME TRENCH, MIN OUTSIDE TO OUTSIDE BOX SEWER SEPARATION SHALL BE 6".
2. REINFORCED CONCRETE SLAB PIPE BEDDING TO BE PLACED IN DRY TRENCH ONLY.
3. CONCRETE IN SLAB TO REACH MIN COMPRESSIVE STRENGTH OF 1,000 PSI BASED ON MAX DESIGN BEFORE PIPE IS LAID.
4. PRECAST SEAL SLAB MAY BE USED AS APPROVED BY CITY ENGINEER.
5. REFER TO COH STANDARD DETAILS 02951-01 THROUGH 05 FOR STREET CUT REQUIREMENTS.

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

APPROVED BY:

CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PRECAST CONCRETE BOX STORM SEWER BEDDING AND BACKFILL WITH SEAL SLAB

(SCALE: NOT TO SCALE)

EFF DATE: MAR-02-2026 | DWG NO: 02317-07

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-8164

90% PROGRESS
3/30/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

STORM SEWER DETAILS 4 OF 5

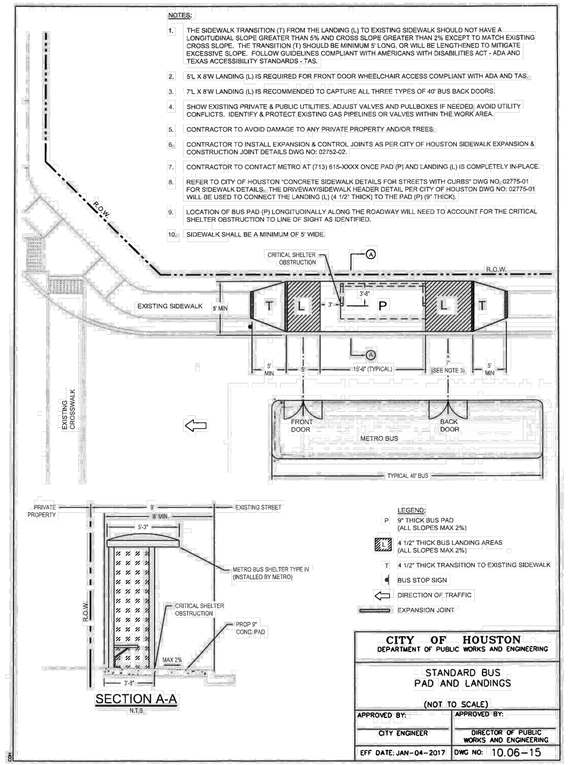
WBS NUMBER	N-000818-0001-3
DRAWING SCALE	N.T.S.
CITY OF HOUSTON PM	MICHELLE RANDON, P.E.
SHEET NO.	143 OF 152

PLOTTED: 3/29/2026 1:34 PM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 1:34 PM

NOTES:

1. THE SIDEWALK TRANSITION (T) FROM THE LANDING (L) TO EXISTING SIDEWALK SHOULD NOT HAVE A LONGITUDINAL SLOPE GREATER THAN 5% AND CROSS SLOPE GREATER THAN 2% EXCEPT TO MATCH EXISTING CROSS SLOPE. THE TRANSITION (T) SHOULD BE MINIMUM 5' LONG, OR WILL BE LENGTHENED TO MITIGATE EXCESSIVE SLOPE. FOLLOW GUIDELINES COMPLIANT WITH AMERICANS WITH DISABILITIES ACT - ADA AND TEXAS ACCESSIBILITY STANDARDS - TAS.
2. 5'L X 8'W LANDING (L) IS REQUIRED FOR FRONT DOOR WHEELCHAIR ACCESS COMPLIANT WITH ADA AND TAS.
3. 7'L X 8'W LANDING (L) IS RECOMMENDED TO CAPTURE ALL THREE TYPES OF 40' BUS BACK DOORS.
4. SHOW EXISTING PRIVATE & PUBLIC UTILITIES. ADJUST VALVES AND PULLBOXES IF NEEDED. AVOID UTILITY CONFLICTS. IDENTIFY & PROTECT EXISTING GAS PIPELINES OR VALVES WITHIN THE WORK AREA.
5. CONTRACTOR TO AVOID DAMAGE TO ANY PRIVATE PROPERTY AND/OR TREES.
6. CONTRACTOR TO INSTALL EXPANSION & CONTROL JOINTS AS PER CITY OF HOUSTON SIDEWALK EXPANSION & CONSTRUCTION JOINT DETAILS DWG NO: 02752-02.
7. CONTRACTOR TO CONTACT METRO AT (713) 615-XXXX ONCE PAD (P) AND LANDING (L) IS COMPLETELY IN-PLACE.
8. REFER TO CITY OF HOUSTON "CONCRETE SIDEWALK DETAILS FOR STREETS WITH CURBS" DWG NO.:02775-01 FOR SIDEWALK DETAILS. THE DRIVEWAY/SIDEWALK HEADER DETAIL PER CITY OF HOUSTON DWG NO: 02775-01 WILL BE USED TO CONNECT THE LANDING (L) (4 1/2" THICK) TO THE PAD (P) (9" THICK).
9. LOCATION OF BUS PAD (P) LONGITUDINALLY ALONG THE ROADWAY WILL NEED TO ACCOUNT FOR THE CRITICAL SHELTER OBSTRUCTION TO LINE OF SIGHT AS IDENTIFIED.
10. SIDEWALK SHALL BE A MINIMUM OF 5' WIDE.



SECTION A-A
N.T.S.

LEGEND:
- P: 9" THICK BUS PAD (ALL SLOPES MAX 2%)
- 4 1/2" THICK BUS LANDING AREAS (ALL SLOPES MAX 2%)
- T: 4 1/2" THICK TRANSITION TO EXISTING SIDEWALK
- BUS STOP SIGN
- DIRECTION OF TRAFFIC
- EXPANSION JOINT

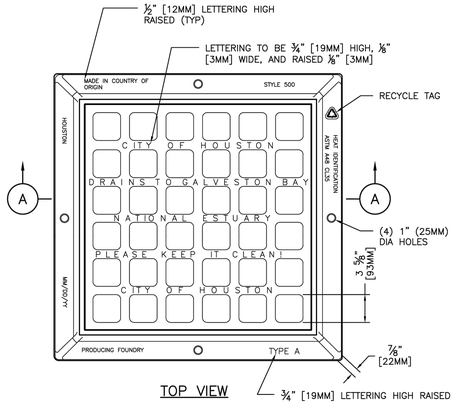
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

STANDARD BUS PAD AND LANDINGS

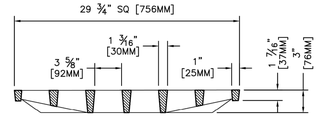
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JAN-04-2017	DWG NO: 10.06-15

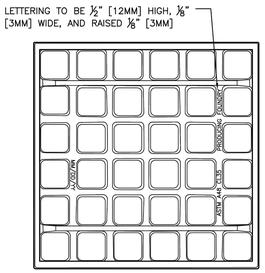
DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



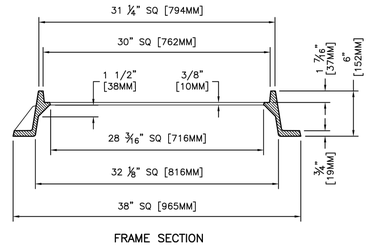
TOP VIEW



GRATE SECTION



BOTTOM VIEW OF GRATE



FRAME SECTION

SECTION A–A

NOTES:

1. APPROXIMATE WEIGHTS:

   GRATE – 190 LBS (86KG)
   FRAME – 235 LBS (107KG)
   UNIT – 425 LBS (193KG)

2. MATERIAL– GRAY IRON ASTM A48 CL35B.
3. CASTING MUST BE MANUFACTURED AND PROOF TESTED IN ACCORDANCE WITH AASHTO M306.
4. EJ V4880 ASY OR APPROVED EQUAL.
5. OPEN AREA OF GRATE 473 SQ. IN. [3051 SQ.CM.].
6. IDENTIFICATION MARKINGS MUST COMPLY WITH CITY SPECIFICATIONS. MARKINGS NOT SHOWN ON THIS DETAIL MUST BE PLACED ON THE CASTING:
   A. PROVIDE ALL FRAME MARKINGS ON THE TOP SIDE OF THE FRAME.
   B. PROVIDE GRATE AND COVER MARKINGS ON EITHER TOP OR BOTTOM OF CASTING.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STORM SEWER TYPE "A" INLET GRATE AND FRAME

(SCALE: NOT TO SCALE)

APPROVED BY:

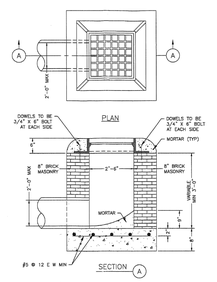
Signed by: 1BDB0020075F4ADC... CITY ENGINEER	Signed by: DC4852F703F4345B... DIRECTOR OF HPW

EFF DATE: MAR-02-2026 | DWG NO: 02090-07

NO.	DATE	REVISION	APP.

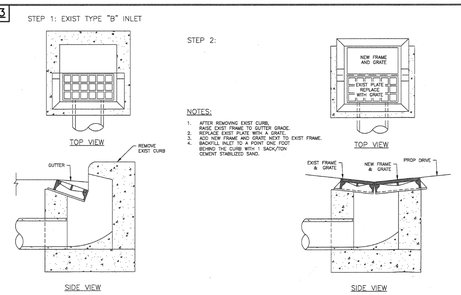
02632-01

COH IS PHASING OUT BRICK. NEW DETAILS TO BE POSTED END OF 2019



STORM SEWER TYPE "A" GRATE INLET
NTS

02632-03



STORM SEWER TYPE "B" INLET RELOCATION
NTS

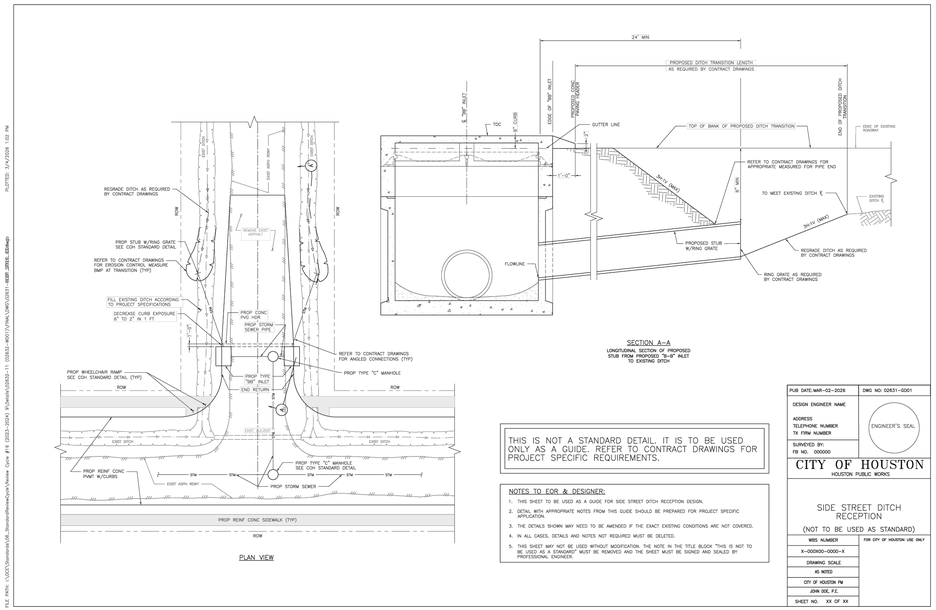
FIRM INFORMATION | ENGINEER'S SEAL

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

STORM SEWER
02632-01 AND 03

APPROVED BY: CITY ENGINEER	APPROVED BY: DEPUTY DIRECTOR
APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING	
EFFECTIVE DATE: JUL-01-2019	FOR CITY OF HOUSTON USE ONLY

SHEET NO. XX OF XX



SECTION A–A
LONGITUDINAL SECTION OF PROPOSED STUB FROM PROPOSED "B-B" INLET TO EXISTING DITCH

PLAN VIEW

THIS IS NOT A STANDARD DETAIL. IT IS TO BE USED ONLY AS A GUIDE. REFER TO CONTRACT DRAWINGS FOR PROJECT SPECIFIC REQUIREMENTS.

NOTES TO EOR & DESIGNER:
1. THIS SHEET TO BE USED AS A GUIDE FOR SIDE STREET DITCH RECEPTION DESIGN.
2. DETAIL WITH APPROPRIATE NOTES FROM THIS GUIDE SHOULD BE PREPARED FOR PROJECT SPECIFIC APPLICATION.
3. THE DETAILS SHOWN MAY NEED TO BE AMENDED IF THE EXACT EXISTING CONDITIONS ARE NOT COVERED.
4. IN ALL CASES, DETAILS AND NOTES NOT REQUIRED MUST BE DELETED.
5. THIS SHEET MAY NOT BE USED WITHOUT MODIFICATION. THE NOTE IN THE TITLE BLOCK "THIS IS NOT TO BE USED AS A STANDARD" MUST BE REMOVED AND THE SHEET MUST BE SIGNED AND SEALED BY PROFESSIONAL ENGINEER.

PUB DATE: MAR-02-2026	DWG NO: 02631-0001
DESIGN ENGINEER NAME	ENGINEER'S SEAL
ADDRESS	
TELEPHONIC NUMBER	
TX FIRM NUMBER	
SURVEYED BY: FB NO. 000000	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SIDE STREET DITCH RECEPTION

(NOT TO BE USED AS STANDARD)

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
X-000900-0000-6	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
JOHN DOE, P.E.	
SHEET NO. XX OF XX	

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

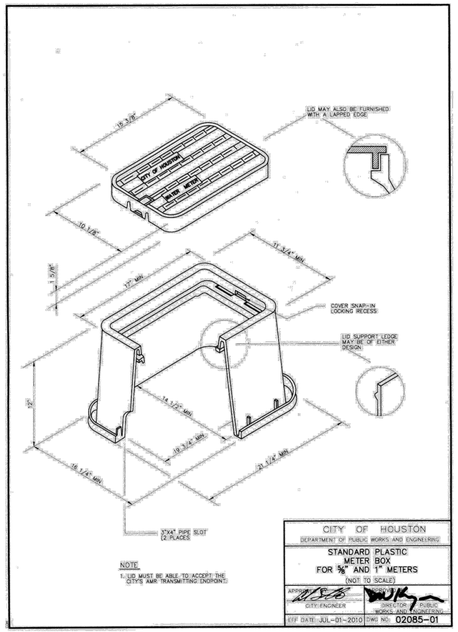
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

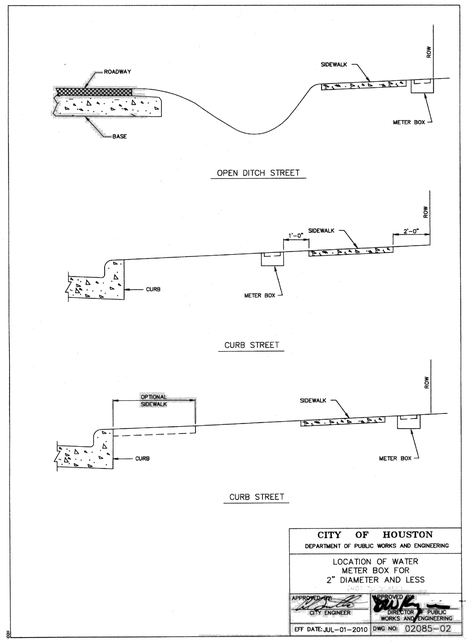
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

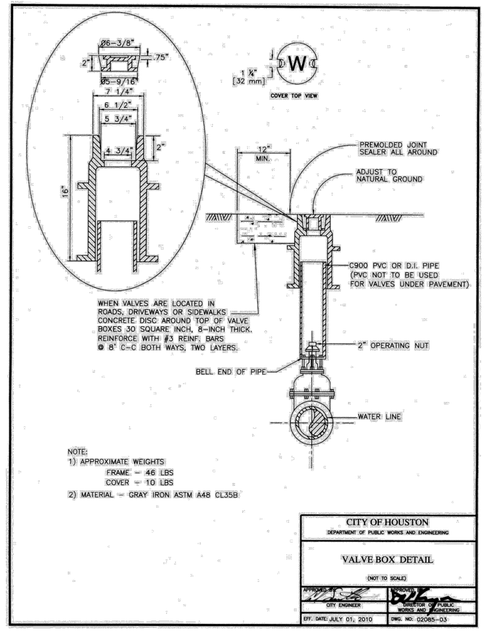
STORM SEWER DETAILS 5 OF 5

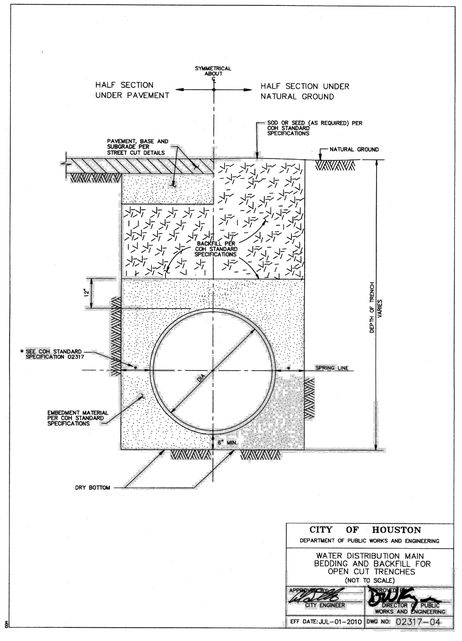
WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 144 OF **152**

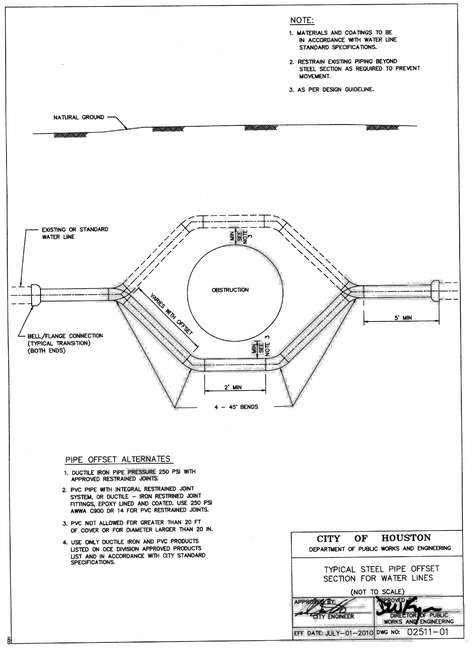
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg
Missing or invalid reference
File: ..\dms36388\02632_04_05.pdf
Sheet: 1











NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

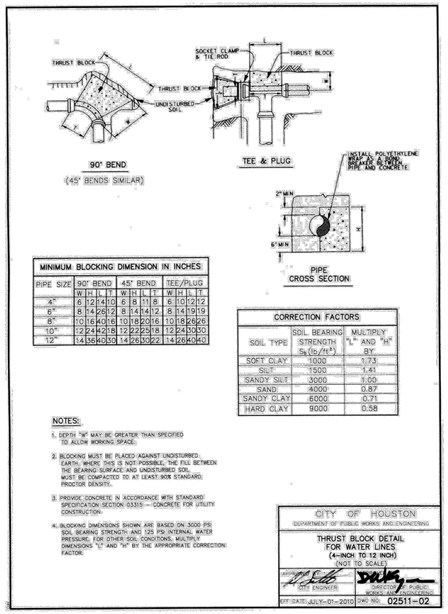
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

WATER DETAILS 1 OF 2

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 145 OF **152**	

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 3:40 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg



MINIMUM BLOCKING DIMENSION IN INCHES												
PIPE SIZE	90° BEND			45° BEND			TEE/PLUG		
	W	H	L	T	W	H	L	T	W	H	L	T
4"	6	12	14	10	6	8	11	8	6	10	12	12
6"	8	14	26	12	8	14	14	12	8	14	19	19
8"	10	16	40	16	10	18	20	16	10	18	26	26
10"	12	24	42	18	12	22	25	18	12	24	30	30
12"	14	36	40	30	14	26	30	22	14	26	40	40

CORRECTION FACTORS		
SOIL TYPE	SOIL BEARING STRENGTH S_B(lb/ft²)	MULTIPLY "L" AND "H" BY
SOFT CLAY	1000	1.73
SILT	1500	1.41
SANDY SILT	3000	1.00
SAND	4000	0.87
SANDY CLAY	6000	0.71
HARD CLAY	9000	0.58

NOTES:

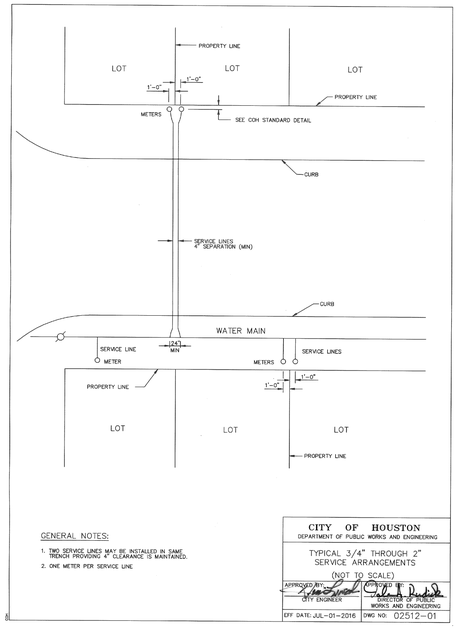
1. DEPTH "H" MAY BE GREATER THAN SPECIFIED TO ALLOW WORKING SPACE.
2. BLOCKING MUST BE PLACED AGAINST UNDISTURBED EARTH. WHERE THIS IS NOT POSSIBLE, THE FILL BETWEEN THE BEARING SURFACE AND UNDISTURBED SOIL MUST BE COMPACTED TO AT LEAST 90% STANDARD PROCTOR DENSITY.
3. PROVIDE CONCRETE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 03315 — CONCRETE FOR UTILITY CONSTRUCTION.
4. BLOCKING DIMENSIONS SHOWN ARE BASED ON 3000 PSI SOIL BEARING STRENGTH AND 125 PSI INTERNAL WATER PRESSURE. FOR OTHER SOIL CONDITIONS, MULTIPLY DIMENSIONS "L" AND "H" BY THE APPROPRIATE CORRECTION FACTOR.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

THRUST BLOCK DETAIL FOR WATER LINES (4-INCH TO 12 INCH)

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR, PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010	DWG NO: 02511-02



GENERAL NOTES:

1. TWO SERVICE LINES MAY BE INSTALLED IN SAME TRENCH PROVIDING 4" CLEARANCE IS MAINTAINED.
2. ONE METER PER SERVICE LINE

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

TYPICAL 3/4" THROUGH 2" SERVICE ARRANGEMENTS

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2016	DWG NO: 02512-01

PIPE TAPPING SCHEDULE				
WATER MAIN TYPE AND DIAMETER	SERVICE SIZE			
	3/4"	1"	1 1/2"	2"
4" CAST IRON OR DUCTILE IRON	DSS, WSSS	DSS, WSSS	DSS, WSSS	DSS, WSSS
4" ASBESTOS (EXISTING) CEMENT	WSSS	WSSS	DSS, WSSS	DSS, WSSS
4" PVC (AWWA-C900)	DSS, WSSS	DSS, WSSS	DSS, WSSS	DSS, WSSS
6" AND 8" CAST IRON OR DUCTILE IRON	DSS, WSSS	DSS, WSSS	DSS, WSSS	DSS, WSSS
6" AND 8" ASBESTOS (EXISTING) CEMENT	DSS, WSSS	DSS, WSSS	DSS, WSSS	DSS, WSSS
6" AND 8" CAST IRON OR DUCTILE IRON	DSS, WSSS	DSS, WSSS	DSS, WSSS	DSS, WSSS
6" AND 8" PVC (AWWA-C900)	DSS, WSSS	DSS, WSSS	DSS, WSSS	DSS, WSSS
12" CAST IRON OR DUCTILE IRON	DSS, WSSS	DSS, WSSS	DSS, WSSS	DSS, WSSS
12" ASBESTOS (EXISTING) CEMENT	DSS, WSSS	DSS, WSSS	DSS, WSSS	DSS, WSSS
12" PVC (AWWA C900)	DSS, WSSS	DSS, WSSS	DSS, WSSS	DSS, WSSS
16" AND UP CAST IRON OR DUCTILE IRON	DWSSS	DWSSS	DWSSS	DWSSS
16" AND UP ASBESTOS (EXISTING) CEMENT	DWSSS	DWSSS	DWSSS	DWSSS
16" AND UP PVC (AWWA C900)	DWSSS	DWSSS	DWSSS	DWSSS

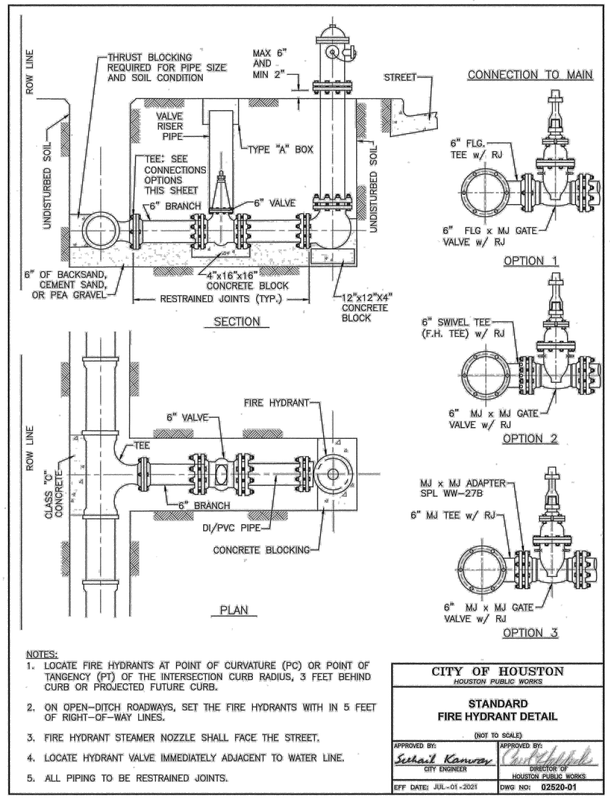
DSS — DUAL STRAP SADDLES
WSSS — WIDE BAND STRAP SADDLES
DWSSS — DUAL WIDE BAND STRAP SADDLES

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

SERVICE TAPS

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2010	DWG NO: 02512-02



NOTES:

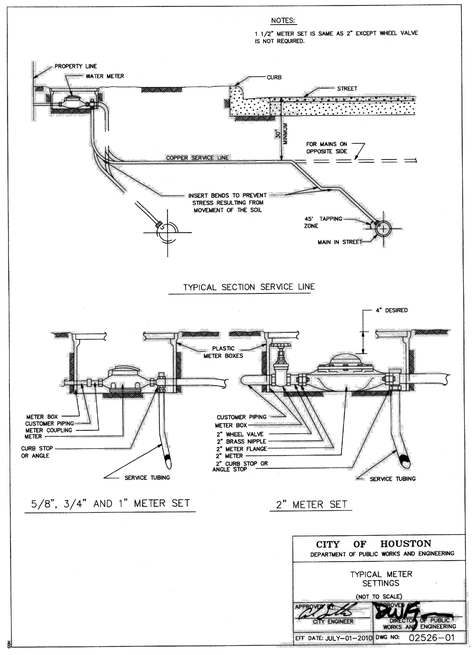
1. LOCATE FIRE HYDRANTS AT POINT OF CURVATURE (PC) OR POINT OF TANGENCY (PT) OF THE INTERSECTION CURB RADIUS, 3 FEET BEHIND CURB OR PROJECTED FUTURE CURB.
2. ON OPEN-DITCH ROADWAYS, SET THE FIRE HYDRANTS WITH IN 5 FEET OF RIGHT-OF-WAY LINES.
3. FIRE HYDRANT STEAMER NOZZLE SHALL FACE THE STREET.
4. LOCATE HYDRANT VALVE IMMEDIATELY ADJACENT TO WATER LINE.
5. ALL PIPING TO BE RESTRAINED JOINTS.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

STANDARD FIRE HYDRANT DETAIL

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: JUL-01-2021	DWG NO: 02520-01



CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

TYPICAL METER SETTINGS

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010	DWG NO: 02526-01

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

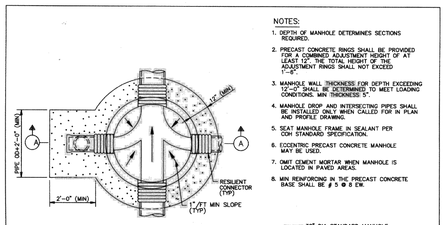
WATER DETAILS 2 OF 2

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 146 OF **152**

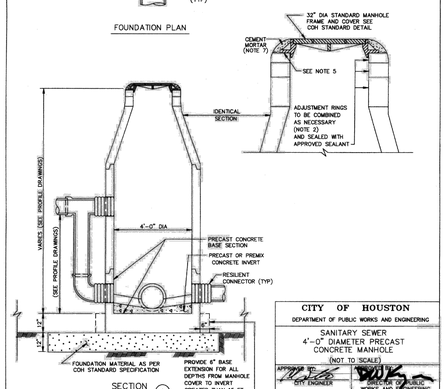
PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 1:35 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg

PLOT STYLE: COH CIP.CTB PLOTTED: 3/29/2026 1:35 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg

NOTES:
1. DEPTH OF MANHOLE DETERMINES SECTIONS REQUIRED.
2. PRECAST CONCRETE RINGS SHALL BE PROVIDED FOR A COMBINED ADJUSTMENT HEIGHT OF AT LEAST 12", THE TOTAL HEIGHT OF THE ADJUSTMENT RINGS SHALL NOT EXCEED 1'-6".
3. MANHOLE WALL THICKNESS FOR DEPTH EXCEEDING 12'-0" SHALL BE DETERMINED TO MEET LOADING CONDITIONS. MIN THICKNESS 5".
4. MANHOLE DROP AND INTERSECTING PIPES SHALL BE INSTALLED ONLY WHEN CALLED FOR IN PLAN AND PROFILE DRAWING.
5. SEAT MANHOLE FRAME IN SEALANT PER COH STANDARD SPECIFICATION.
6. ECCENTRIC PRECAST CONCRETE MANHOLE MAY BE USED.
7. OMIT CEMENT MORTAR WHEN MANHOLE IS LOCATED IN PAVED AREAS.
8. MIN REINFORCING IN THE PRECAST CONCRETE BASE SHALL BE #5 @ 8 EW.



FOUNDATION PLAN



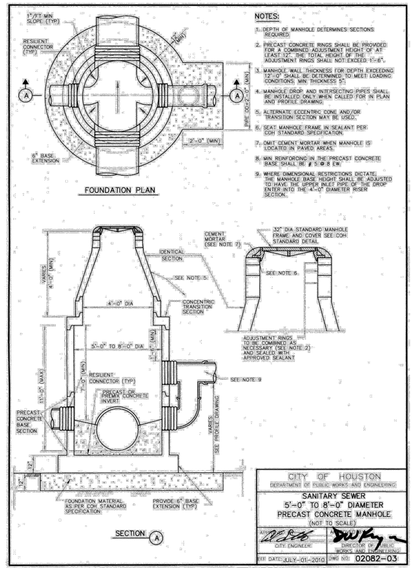
SECTION (A)

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

APPROVED BY: CITY ENGINEER | DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010 | DWG NO. 02082-02

NOTES:
1. DEPTH OF MANHOLE DETERMINES SECTIONS REQUIRED.
2. PRECAST CONCRETE RINGS SHALL BE PROVIDED FOR A COMBINED ADJUSTMENT HEIGHT OF AT LEAST 12", THE TOTAL HEIGHT OF THE ADJUSTMENT RINGS SHALL NOT EXCEED 1'-6".
3. MANHOLE WALL THICKNESS FOR DEPTH EXCEEDING 12'-0" SHALL BE DETERMINED TO MEET LOADING CONDITIONS. MIN THICKNESS 5".
4. MANHOLE DROP AND INTERSECTING PIPES SHALL BE INSTALLED ONLY WHEN CALLED FOR IN PLAN AND PROFILE DRAWING.
5. ALTERNATE ECCENTRIC CONE AND/OR TRANSITION SECTION MAY BE USED.
6. SEAT MANHOLE FRAME IN SEALANT PER COH STANDARD SPECIFICATION.
7. OMIT CEMENT MORTAR WHEN MANHOLE IS LOCATED IN PAVED AREAS.
8. MIN REINFORCING IN THE PRECAST CONCRETE BASE SHALL BE #5 @ 8 EW.
9. WHERE DIMENSIONAL RESTRICTIONS DICTATE, THE MANHOLE BASE HEIGHT SHALL BE ADJUSTED TO HAVE THE UPPER INLET PIPE OF THE DROP EXTEND THE 4'-0" DIAMETER RISER SECTION.

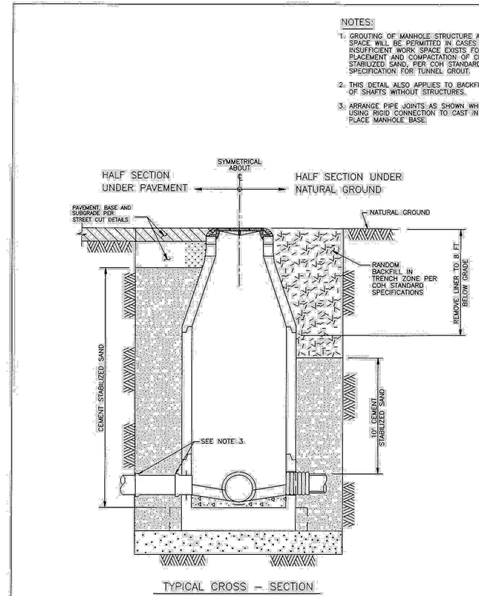


CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

SANITARY SEWER
5'-0" TO 8'-0" DIAMETER PRECAST CONCRETE MANHOLE
(NOT TO SCALE)

CITY ENGINEER | DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010 | DWG NO. 02082-03

NOTES:
1. GROUTING OF MANHOLE STRUCTURE ANNULAR SPACE WILL BE PERMITTED IN CASES WHERE INSUFFICIENT WORK SPACE EXISTS FOR PLACEMENT AND COMPACTATION OF CEMENT STABILIZED SAND, PER COH STANDARD SPECIFICATION FOR TUNNEL GROUT.
2. THIS DETAIL ALSO APPLIES TO BACKFILL OF SHAFTS WITHOUT STRUCTURES.
3. ARRANGE PIPE JOINTS AS SHOWN WHEN USING RIGID CONNECTION TO CAST IN PLACE MANHOLE BASE.



TYPICAL CROSS - SECTION

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

SANITARY SEWER
BACKFILL OF SHAFTS
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER | APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF. DATE: OCT-01-2002 | DWG NO: 02317-08

HALF SECTION UNDER PAVEMENT
SYMMETRICAL ABOUT
HALF SECTION UNDER NATURAL GROUND
PAVEMENT, BASE AND SUBGRADE PER STREET CUT DETAILS
NATURAL GROUND
RANDOM BACKFILL IN TRENCH ZONE PER COH STANDARD SPECIFICATIONS
TRENCH ZONE PER COH STANDARD SPECIFICATIONS
FILTER FABRIC (MIN LAP 12")
CEMENT-STABILIZED SAND OR CRUSHED STONE EMBEDMENT
INITIAL BACKFILL
SPRING LINE
HAUNCHING
BEDDING

TYPICAL CROSS-SECTION

DIRECTION OF PIPE LAYING
TRENCH ZONE BACKFILL
FOLD FABRIC FOR 12" AGAINST CONCRETE ON ALL SIDES
CONCRETE TRENCH DAM KEYED MIN 6" INTO TRENCH BOTTOM AND WALLS
CRUSHED STONE EMBEDMENT

LONGITUDINAL SECTION ALONG PIPE ℄
AT EMBEDMENT TRENCH DAM

NOTES:
1. MIN TRENCH WIDTH SHALL BE PIPE OD PLUS AN ALLOWANCE "A" FOR THE NOMINAL PIPE SIZE:

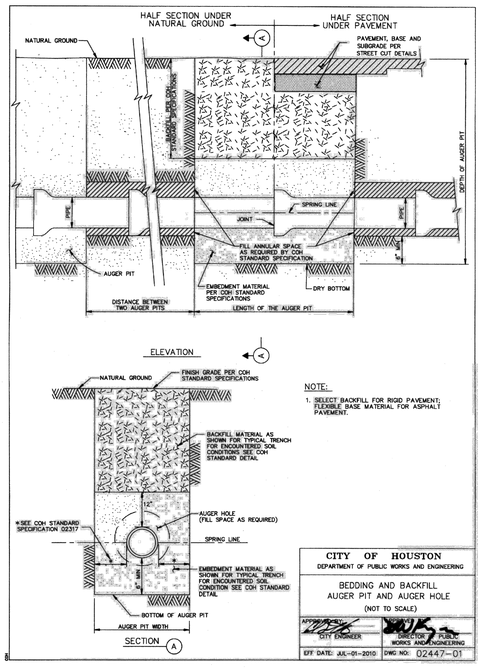
NOMINAL PIPE SIZE	"A"
18" TO 30"	24"
OVER 30"	36"

2. MAX TRENCH WIDTH SHALL BE NOT GREATER THAN MIN TRENCH WIDTH PLUS 24 INCHES, UNLESS OTHERWISE NOTED.
3. TRENCH DAM MAY BE FORMED OR UNFORMED ACTUAL SHAPE OF CONCRETE TRENCH DAM CROSS SECTION SHALL BE DETERMINED BY CONTRACTOR IN FIELD, MEETING MINIMUM THICKNESS AND KEY DEPTH REQUIREMENTS.
4. TRENCH DAM SHALL BE PLACED AT LEAST 5 FT AWAY FROM ANY PIPELINE STRUCTURE.SEE SPECIFICATIONS FOR OTHER REQUIREMENTS.
5. PLACE TRENCH DAMS IN CLASS I EMBEDMENTS AT THE MIDPOINT OF LINE SEGMENTS LONGER THAN 700 FEET BETWEEN MANHOLES.
6. CEMENT-STABILIZED SAND IS PREFERRED FOR EMBEDMENT, BUT CRUSHED STONE MAY BE USED ONLY WHEN SPECIFIED ON THE PLANS.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

APPROVED BY: CITY ENGINEER | DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF. DATE: JUL-01-2016 | DWG NO.: 02317-01



NOTE:
1. SELECT BACKFILL FOR RIGID PAVEMENT; FLEXIBLE BASE MATERIAL FOR ASPHALT PAVEMENT.

*SEE COH STANDARD SPECIFICATION 02317

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

BEDDING AND BACKFILL AUGER PIT AND AUGER HOLE
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER | DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2010 | DWG NO.: 02447-01

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-8164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

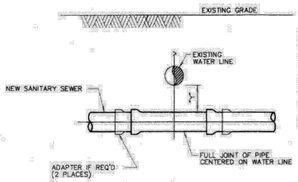
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY SEWER DETAILS 1 OF 3

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 147 OF **152**	

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 1:35 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg

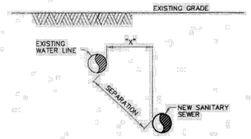
NO.	DATE	REVISION	APP.



INSTALLATION REQUIREMENTS

1. IF "Y" IS GREATER THAN 1' AND "Y" IS LESS THAN 3', USE MINIMUM 18 FT JOINT OF PRESSURE-RATED PIPE PER COH STANDARD DRAWING.
2. IF "Y" IS GREATER THAN 3' AND "Y" IS LESS THAN 9', USE GRAVITY SEWER PIPE IN CEMENT-STABILIZED SAND EMBEDMENT.
3. IF "Y" IS GREATER THAN 9', USE STANDARD EMBEDMENT AND NORMAL JOINT SPACING.

NEW SANITARY SEWER CROSSING EXISTING WATER LINE



INSTALLATION REQUIREMENTS

1. IF SEPARATION IS LESS THAN 9', USE PRESSURE-RATED PIPE. MH TO MH, "X" MUST BE AT LEAST 4 FT. VERTICAL SEPARATION MUST BE AT LEAST 2 FT.
2. IF SEPARATION IS 9' OR GREATER, USE STANDARD PIPE AND EMBEDMENT.

NEW SANITARY SEWER PARALLEL TO EXISTING WATER LINE

NOTES:

1. SANITARY SEWER MUST BE BELOW WATER LINE WHEREVER POSSIBLE. WHEN WATERLINE IS BELOW THE SANITARY SEWER PROVIDE MINIMUM 2 FT SEPARATION AND INSTALL PIPE IN ACCORDANCE TO CHAPTER 7 TABLE 7.3 OF COH DESIGN MANUAL.
2. WHEN PRESSURE-RATED PIPE IS REQUIRED, PROVIDE PIPE WITH MINIMUM 150 psi PRESSURE RATING.
3. ADAPTERS MUST BE FACTORY-MOLDED OR FABRICATED, WITH RING STIFFNES AT LEAST EQUAL TO THE ADJOINING SANITARY SEWER PIPE, AND USING RESILIENT GASKET OR SEAL MATERIAL. FLEXIBLE RUBBER "BOOT" TYPE ADAPTERS WILL NOT BE ACCEPTED.
4. INSTALL FORCE MAINS SAME AS FOR GRAVITY SEWER, USING SPECIFIED PRESSURE PIPE.
5. "Y" MUST ALWAYS BE GREATER THAN OR EQUAL TO 1 FT FOR PRESSURE RATED SS AND 2 FT FOR NON-PRESSURE RATED SS.
6. "X" MUST BE GREATER THAN OR EQUAL TO 4 FT.
7. ALTERNATIVES MAY BE SHOWN ON THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS.
8. SEPARATION REQUIREMENTS SHOWN HERE DO NOT APPLY TO SERVICE CONNECTIONS – REFER TO PLUMBING CODE FOR APPLICABLE REQUIREMENTS.

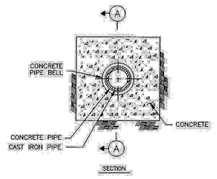
INSTALLING SANITARY SEWERS CROSSING OR PARALLEL TO WATER LINES

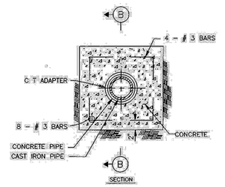
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

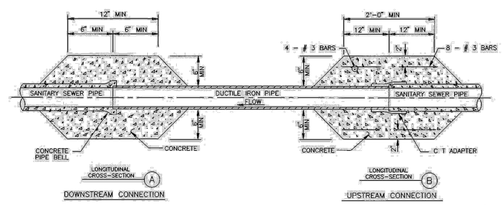
SANITARY SEWER
INSTALLING SANITARY SEWERS
CROSSING OR PARALLEL TO WATER LINES
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER | APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002 | DWG NO: 02531-05

NOTE:
1. THE CONTRACTOR SHALL CENTER A MINIMUM OF 18 FOOT JOINT OF DUCTILE IRON PIPE OR C900 PVC PIPE ACROSS THE CENTER OF THE PROPOSED STORM SEWER.



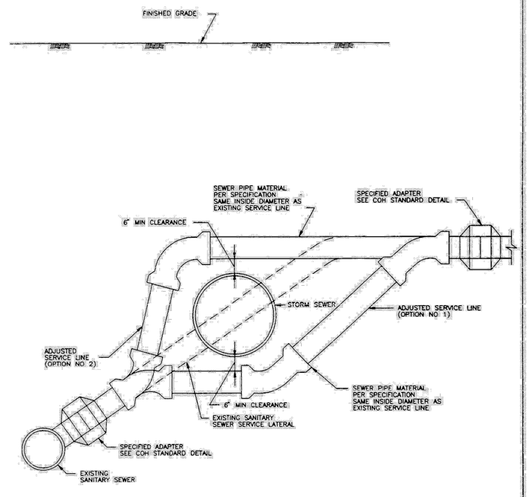




CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER
DUCTILE IRON PIPE
STORM SEWER CROSSING
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER | APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002 | DWG NO: 02531-03



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

SANITARY SEWER
SERVICE LINE RECONNECTION
FOR STORM SEWER CONFLICTS
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER | APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002 | DWG NO: 02534-03

HATCH
750 TOWN & COUNTRY BLVD
SUITE 850
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

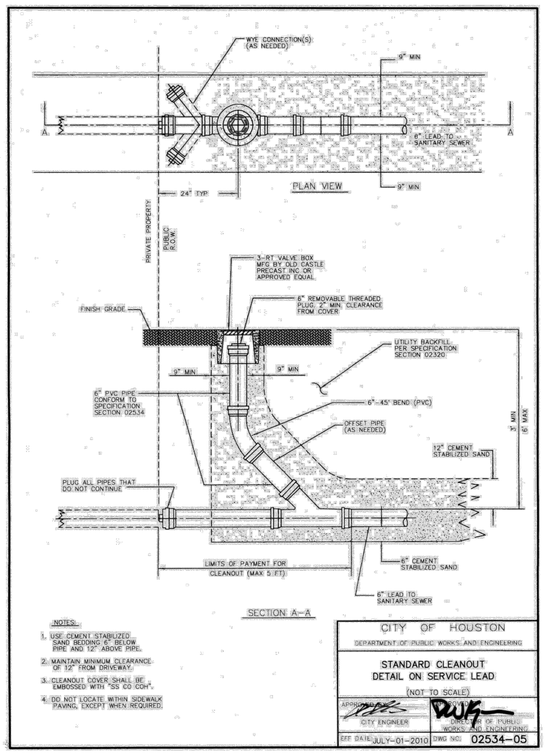
FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY SEWER DETAILS 2 OF 3

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 148 OF **152**

PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 1:36 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg

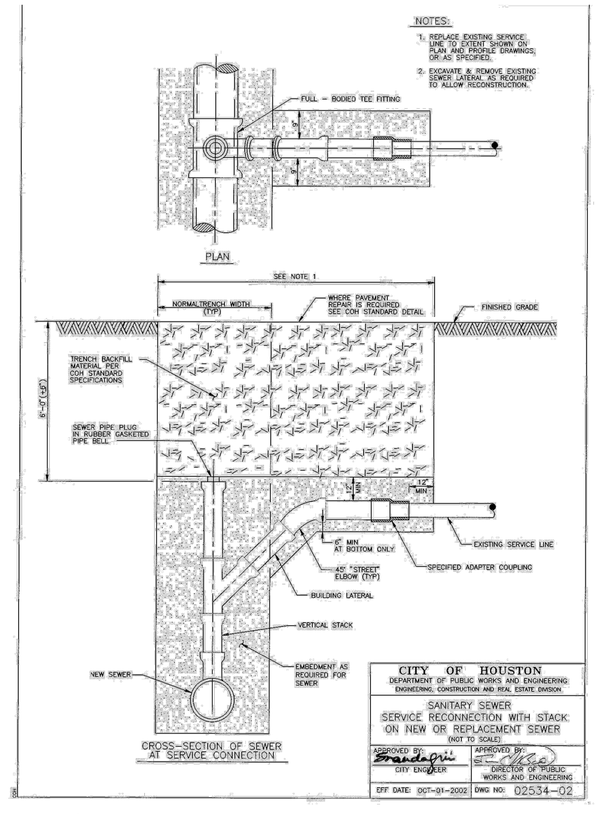
NO.	DATE	REVISION	APP.



CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

STANDARD CLEANOUT DETAIL ON SERVICE LEAD
(NOT TO SCALE)

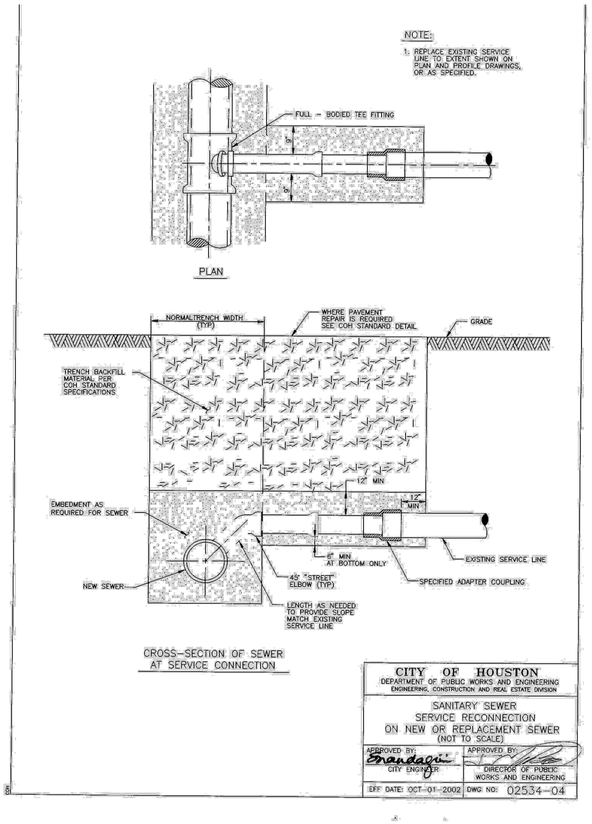
APPROVED BY: CITY ENGINEER | APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010 | DWG NO: 02534-05



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

SANITARY SEWER
SERVICE RECONNECTION WITH STACK ON NEW OR REPLACEMENT SEWER
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER | APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002 | DWG NO: 02534-02



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

SANITARY SEWER
SERVICE RECONNECTION ON NEW OR REPLACEMENT SEWER
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER | APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002 | DWG NO: 02534-04

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

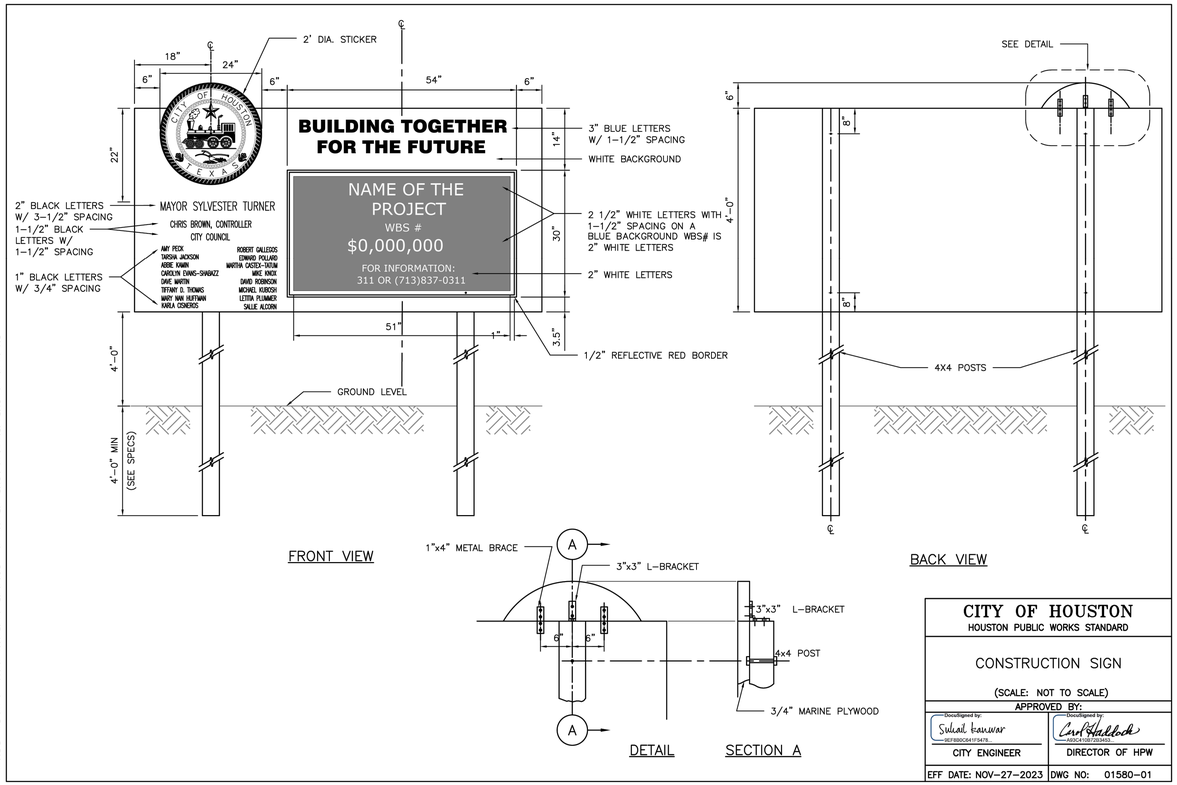
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

SANITARY SEWER DETAILS 3 OF 3

WBS NUMBER	
N-000818-0001-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
MICHELLE RANDON, P.E.	
SHEET NO. 149 OF **152**	

DocuSign Envelope ID: CB71C116-B716-4899-A5EE-0D2F2CC55AF6



DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORING THEIR SEALED CONSTRUCTION PLANS ASSUMES RESPONSIBILITY FOR THE DESIGN REQUIREMENTS AND ANY HAZARDS THAT MAY EXPOSE CONTRACTORS, THE PUBLIC AND CITY OF HOUSTON PERSONNEL TO RISK OF INJURY. THE EOR IS RESPONSIBLE FOR PERFORMING AN ENGINEERING ANALYSIS OF THE PROPOSED DESIGN AND SPECIFYING ALTERNATIVE DESIGN REQUIREMENTS AS NECESSARY TO PROTECT THE PUBLIC IN THE WORK ZONE. THE EOR SHALL SUBMIT ALL DESIGN DEVIATIONS TO THE CITY OF HOUSTON FOR REVIEW AND APPROVAL. WHETHER OR NOT THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

CONSTRUCTION SIGN

(SCALE: NOT TO SCALE)

APPROVED BY:

CITY ENGINEER	DIRECTOR OF HPW
DocuSigned by: Sukail Kanwar	DocuSigned by: Carl Haddock
EFF DATE: NOV-27-2023	DWG NO: 01580-01

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6184

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

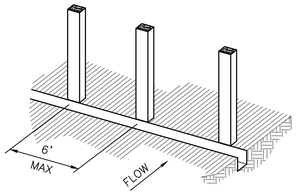
PROJECT SIGN DETAIL

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 150 OF **152**

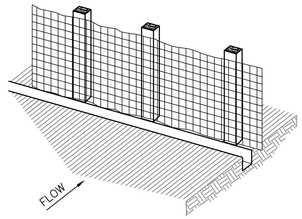
PLOT STYLE: COH CIP.CTB
PLOTTED: 3/29/2026 1:36 PM
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\36 STANDARD DETAILS.dwg

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

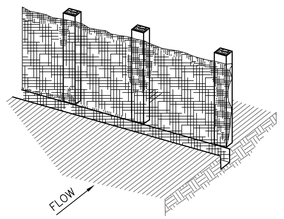
1. SET POSTS AND EXCAVATE 4"x4" TRENCH UPSLOPE ALONG LINE OF POSTS (SEE NOTE 1).



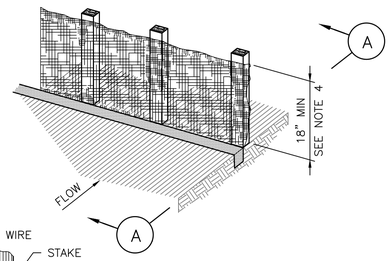
2. SECURE WIRE REINFORCING TO POSTS (SEE NOTE 2).

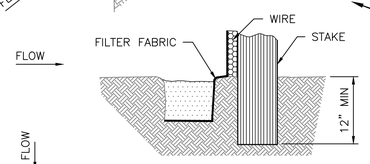


3. ATTACH FILTER MATERIAL TO WIRE REINFORCING AND EXTEND IT INTO THE TRENCH (SEE NOTE 3).

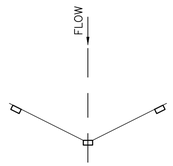


4. BACKFILL AND COMPACT THE EXCAVATED SOIL.

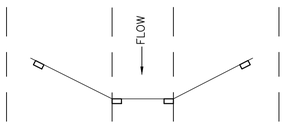




SECTION A–A
EXTENSION OF FABRIC INTO TRENCH

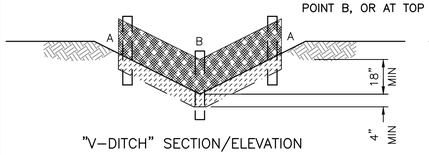


PLAN VIEW

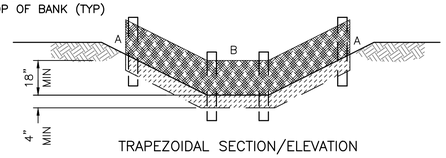


PLAN VIEW

POINTS A SHOULD BE HIGHER THAN POINT B, OR AT TOP OF BANK (TYP)



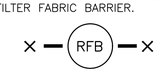
"V–DITCH" SECTION/ELEVATION



TRAPEZOIDAL SECTION/ELEVATION

CONSTRUCTION NOTES:

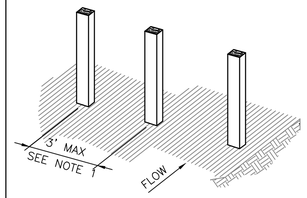
1. SET 2 INCH BY 2 INCH WOODEN STAKES SPACED A MAX OF 6 FEET APART AND EMBEDDED A MIN OF 12 INCHES.
2. WOVEN WIRE REINFORCING TO BE FASTENED SECURELY TO BARRIER POSTS WITH STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE REINFORCING, WITH TIES SPACED EVERY 24 INCHES AT TOP AND MIDSECTION.
4. MINIMUM HEIGHT OF FILTER SHOULD BE 18 INCHES AND A MAXIMUM OF 36 INCHES ABOVE NATURAL GROUND.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
6. SEE COH STANDARD SPECIFICATION 01570 FOR FILTER FABRIC BARRIER.



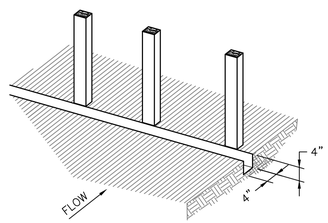
SYMBOL

REINFORCED FILTER FABRIC BARRIER

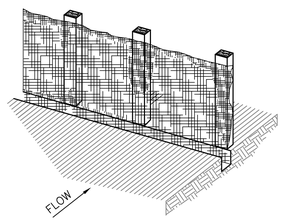
1. SET POSTS AT REQUIRED SPACING.



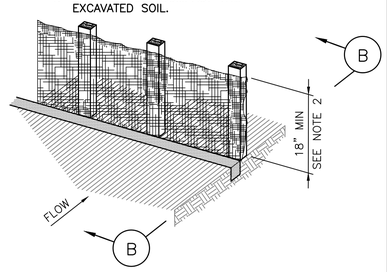
2. EXCAVATE A 4"x4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.

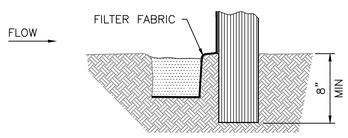


3. ATTACH FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.

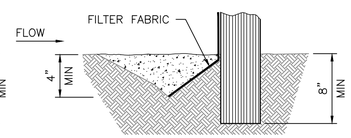


4. BACKFILL AND COMPACT THE EXCAVATED SOIL.





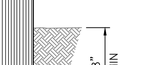
SECTION B–B
EXTENSION OF FABRIC INTO TRENCH



SECTION B–B
ALTERNATE
V–TRENCH EXTENSION OF FABRIC INTO TRENCH

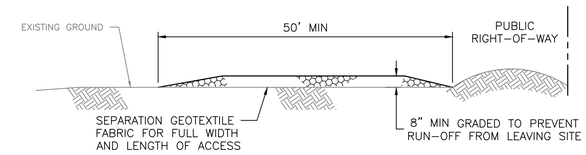
CONSTRUCTION NOTES:

1. 2 INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES. IF PREASSEMBLED BARRIER WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAX.
2. ATTACH FILTER FABRIC TO WOODEN STAKES. FILTER FABRIC BARRIER SHALL HAVE A MIN HEIGHT OF 18 INCHES AND MAX HEIGHT OF 36 INCHES ABOVE NATURAL GROUND.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
4. SEE COH STANDARD SPECIFICATION 01570 FOR FILTER FABRIC BARRIER.

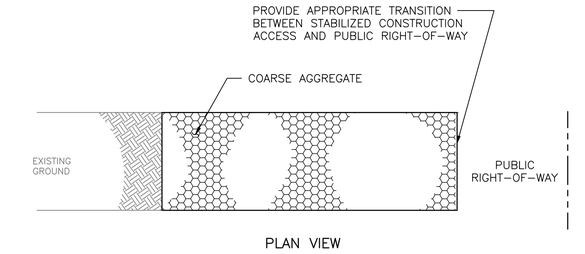


SYMBOL

FILTER FABRIC BARRIER



PROFILE



PLAN VIEW

CONSTRUCTION NOTES:

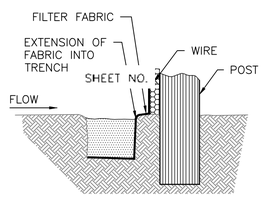
1. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN 50 FEET.
2. THICKNESS SHALL BE NOT LESS THAN 8 INCHES.
3. WIDTH SHALL BE NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
4. STABILIZATION FOR OTHER AREAS SHALL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION ACCESS, UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
5. STABILIZED AREA MAY BE WIDENED OR LENGTHENED TO ACCOMODATE A WASHING AREA. AN OUTLET SEDIMENT TRAP MUST BE PROVIDED FOR THE WASHING AREA.
6. COH STANDARD SPECIFICATION 01575 FOR STABILIZED CONSTRUCTION ACCESS.
7. STABILIZED CONSTRUCTION ACCESS SHALL BE MAINTAINED FREE OF SEDIMENT FOR THE DURATION OF THE PROJECT.

SYMBOL

STABILIZED CONSTRUCTION ACCESS

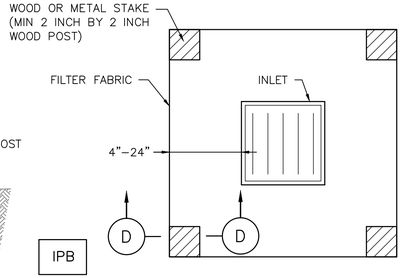
CONSTRUCTION NOTES:

1. SEE CONSTRUCTION NOTES FOR RFB.



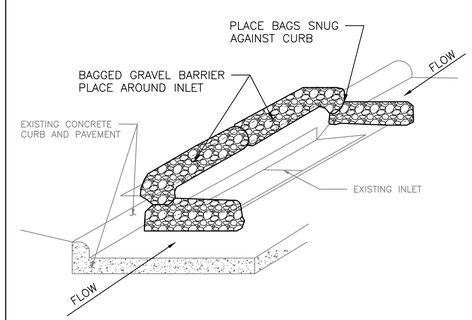
SECTION D–D

SYMBOL

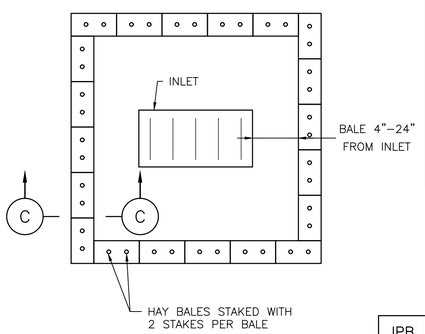


PLAN VIEW

SILT FENCE INLET PROTECTION BARRIER

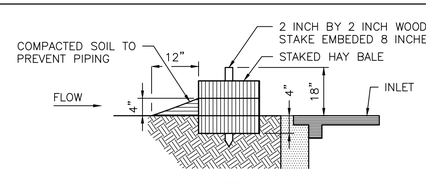


INLET PROTECTION BARRIER
(FOR STAGE II INLETS)
BAGGED GRAVEL BARRIER



PLAN VIEW

SYMBOL



SECTION C–C

HAY BALE INLET PROTECTION BARRIER

APPROVED BY:	APPROVED BY:
Signed by: 1BEBB22072F84DC...	Signed by: BE463EF0DF454EB...
CITY ENGINEER	DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: MAR–02–2026	DWG NO: 01570–01

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STORMWATER POLLUTION PREVENTION PLAN DETAILS

	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
NOT TO SCALE	
SHEET NO. 151 OF 152	

PLOTTED: 3/29/2026 11:33 AM
PLOT STYLE: COH CIP.CTB
FILE PATH: C:\pwworking\hatch-dpd-south_central_us\dms60086\60 BORING LOGS.dwg

LOG OF BORING NO. B-1

Sheet 1 of 1

Geotech Engineering and Testing
17407 US Highway 59
Houston, Texas 77396
Phone: 713-699-4000 Fax: 713-699-9200

PROJECT: Limited Phase I ESA for Fulton Street Reconstruction
LOCATION: City of Houston, Texas
PROJECT NO.: 25-551E STATION NO.:
DATE: 9-15-25 COMPLETION DEPTH: 20.0 ft.

ELEVATION: Existing Grade

DEPTH, ft	SPT N-VALUE or RQD, %	POCKET PEN., tsf	SYMBOL	DESCRIPTION	NATURAL MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %	PASSING #200 SIEVE, %	SHRINKAGE LIMIT, %	SUCTION, pF	DRY UNIT WEIGHT, pcf	PERCENT COMPACTION	PASSING #4 (4.75 mm), %	UNDRAINED SHEAR STRENGTH, tsf
0				ASPHALT PAVEMENT (3" in thickness)											▲ HAND PENETROMETER ■ TORVANE ● UNCONFINED COMPRESSION ○ UNCONSOLIDATED-UNDRAINED TRIAXIAL
				BASE COURSE (4" in thickness)											
				LEAN CLAY (CL), brown, light brown, gray, calcareous nodules, sand seams and layers											
5	35														
	94			SANDY SILT (ML), gray, light gray, gravels											
10	493														
	572			FAT CLAY (CH), reddish brown, brownish yellow											
15	529														
20															
25															

0.5 1.0 1.5 2.0 2.5

WATER OBSERVATIONS:
NO FREE WATER ENCOUNTERED DURING DRILLING

DRY AUGER: 0 TO 20 ft.
WET ROTARY: ___ TO ___ ft.

DRILLED BY: EDS(T)
LOGGED BY: Steve

GEOTECH ENGINEERING & TESTING PLATE A-1

LOG OF BORING NO. B-2

Sheet 1 of 1

Geotech Engineering and Testing
17407 US Highway 59
Houston, Texas 77396
Phone: 713-699-4000 Fax: 713-699-9200

PROJECT: Limited Phase I ESA for Fulton Street Reconstruction
LOCATION: City of Houston, Texas
PROJECT NO.: 25-551E STATION NO.:
DATE: 9-15-25 COMPLETION DEPTH: 20.0 ft.

ELEVATION: Existing Grade

DEPTH, ft	SPT N-VALUE or RQD, %	POCKET PEN., tsf	SYMBOL	DESCRIPTION	NATURAL MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %	PASSING #200 SIEVE, %	SHRINKAGE LIMIT, %	SUCTION, pF	DRY UNIT WEIGHT, pcf	PERCENT COMPACTION	PASSING #4 (4.75 mm), %	UNDRAINED SHEAR STRENGTH, tsf
0				ASPHALT PAVEMENT (3" in thickness)											▲ HAND PENETROMETER ■ TORVANE ● UNCONFINED COMPRESSION ○ UNCONSOLIDATED-UNDRAINED TRIAXIAL
				BASE COURSE (4" in thickness)											
				LEAN CLAY (CL), brown, light brown, gray, calcareous nodules, sand seams and layers											
5	135														
	249														
10	280														
	398			FAT CLAY (CH), reddish brown, brownish yellow											
15	302														
20															
25															

0.5 1.0 1.5 2.0 2.5

WATER OBSERVATIONS:
NO FREE WATER ENCOUNTERED DURING DRILLING

DRY AUGER: 0 TO 20 ft.
WET ROTARY: ___ TO ___ ft.

DRILLED BY: EDS(T)
LOGGED BY: Steve

GEOTECH ENGINEERING & TESTING PLATE A-2

LOG OF BORING NO. B-3

Sheet 1 of 1

Geotech Engineering and Testing
17407 US Highway 59
Houston, Texas 77396
Phone: 713-699-4000 Fax: 713-699-9200

PROJECT: Limited Phase I ESA for Fulton Street Reconstruction
LOCATION: City of Houston, Texas
PROJECT NO.: 25-551E STATION NO.:
DATE: 9-15-25 COMPLETION DEPTH: 20.0 ft.

ELEVATION: Existing Grade

DEPTH, ft	SPT N-VALUE or RQD, %	POCKET PEN., tsf	SYMBOL	DESCRIPTION	NATURAL MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %	PASSING #200 SIEVE, %	SHRINKAGE LIMIT, %	SUCTION, pF	DRY UNIT WEIGHT, pcf	PERCENT COMPACTION	PASSING #4 (4.75 mm), %	UNDRAINED SHEAR STRENGTH, tsf
0				ASPHALT PAVEMENT (3" in thickness)											▲ HAND PENETROMETER ■ TORVANE ● UNCONFINED COMPRESSION ○ UNCONSOLIDATED-UNDRAINED TRIAXIAL
				BASE COURSE (4" in thickness)											
				LEAN CLAY (CL), brown, light brown, gray, calcareous nodules, sand seams and layers											
5	124														
	135			SANDY SILT (ML), gray, light gray, gravels											
10	152														
	305			FAT CLAY (CH), reddish brown, brownish yellow											
15	278														
20															
25															

0.5 1.0 1.5 2.0 2.5

WATER OBSERVATIONS:
NO FREE WATER ENCOUNTERED DURING DRILLING

DRY AUGER: 0 TO 20 ft.
WET ROTARY: ___ TO ___ ft.

DRILLED BY: EDS(T)
LOGGED BY: Steve

GEOTECH ENGINEERING & TESTING PLATE A-3

LOG OF BORING NO. B-4

Sheet 1 of 1

Geotech Engineering and Testing
17407 US Highway 59
Houston, Texas 77396
Phone: 713-699-4000 Fax: 713-699-9200

PROJECT: Limited Phase I ESA for Fulton Street Reconstruction
LOCATION: City of Houston, Texas
PROJECT NO.: 25-551E STATION NO.:
DATE: 9-15-25 COMPLETION DEPTH: 20.0 ft.

ELEVATION: Existing Grade

DEPTH, ft	SPT N-VALUE or RQD, %	POCKET PEN., tsf	SYMBOL	DESCRIPTION	NATURAL MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %	PASSING #200 SIEVE, %	SHRINKAGE LIMIT, %	SUCTION, pF	DRY UNIT WEIGHT, pcf	PERCENT COMPACTION	PASSING #4 (4.75 mm), %	UNDRAINED SHEAR STRENGTH, tsf
0				ASPHALT PAVEMENT (3" in thickness)											▲ HAND PENETROMETER ■ TORVANE ● UNCONFINED COMPRESSION ○ UNCONSOLIDATED-UNDRAINED TRIAXIAL
				BASE COURSE (4" in thickness)											
				LEAN CLAY (CL), brown, light brown, gray, calcareous nodules, sand seams and layers											
5	37														
	106			SANDY SILT (ML), gray, light gray, gravels											
10	133														
	140			FAT CLAY (CH), reddish brown, brownish yellow											
15															
20															
25															

0.5 1.0 1.5 2.0 2.5

WATER OBSERVATIONS:
NO FREE WATER ENCOUNTERED DURING DRILLING

DRY AUGER: 0 TO 20 ft.
WET ROTARY: ___ TO ___ ft.

DRILLED BY: EDS(T)
LOGGED BY: Steve

GEOTECH ENGINEERING & TESTING PLATE A-4

LOG OF BORING NO. B-5

Sheet 1 of 1

Geotech Engineering and Testing
17407 US Highway 59
Houston, Texas 77396
Phone: 713-699-4000 Fax: 713-699-9200

PROJECT: Limited Phase I ESA for Fulton Street Reconstruction
LOCATION: City of Houston, Texas
PROJECT NO.: 25-551E STATION NO.:
DATE: 9-15-25 COMPLETION DEPTH: 20.0 ft.

ELEVATION: Existing Grade

DEPTH, ft	SPT N-VALUE or RQD, %	POCKET PEN., tsf	SYMBOL	DESCRIPTION	NATURAL MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %	PASSING #200 SIEVE, %	SHRINKAGE LIMIT, %	SUCTION, pF	DRY UNIT WEIGHT, pcf	PERCENT COMPACTION	PASSING #4 (4.75 mm), %	UNDRAINED SHEAR STRENGTH, tsf
0				ASPHALT PAVEMENT (3" in thickness)											▲ HAND PENETROMETER ■ TORVANE ● UNCONFINED COMPRESSION ○ UNCONSOLIDATED-UNDRAINED TRIAXIAL
				BASE COURSE (4" in thickness)											
				LEAN CLAY (CL), brown, light brown, gray, calcareous nodules, sand seams and layers											
5	24														
	726			SANDY SILT (ML), gray, light gray, gravels											
10	752														
	525			FAT CLAY (CH), reddish brown, brownish yellow											
15	398														
20															
25															

0.5 1.0 1.5 2.0 2.5

WATER OBSERVATIONS:
NO FREE WATER ENCOUNTERED DURING DRILLING

DRY AUGER: 0 TO 20 ft.
WET ROTARY: ___ TO ___ ft.

DRILLED BY: EDS(T)
LOGGED BY: Steve

GEOTECH ENGINEERING & TESTING PLATE A-5

LOG OF BORING NO. B-6

Sheet 1 of 1

Geotech Engineering and Testing
17407 US Highway 59
Houston, Texas 77396
Phone: 713-699-4000 Fax: 713-699-9200

PROJECT: Limited Phase I ESA for Fulton Street Reconstruction
LOCATION: City of Houston, Texas
PROJECT NO.: 25-551E STATION NO.:
DATE: 9-15-25 COMPLETION DEPTH: 20.0 ft.

ELEVATION: Existing Grade

DEPTH, ft	SPT N-VALUE or RQD, %	POCKET PEN., tsf	SYMBOL	DESCRIPTION	NATURAL MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %	PASSING #200 SIEVE, %	SHRINKAGE LIMIT, %	SUCTION, pF	DRY UNIT WEIGHT, pcf	PERCENT COMPACTION	PASSING #4 (4.75 mm), %	UNDRAINED SHEAR STRENGTH, tsf
0				ASPHALT PAVEMENT (3" in thickness)											▲ HAND PENETROMETER ■ TORVANE ● UNCONFINED COMPRESSION ○ UNCONSOLIDATED-UNDRAINED TRIAXIAL
				BASE COURSE (4" in thickness)											
				LEAN CLAY (CL), brown, light brown, gray, calcareous nodules, sand seams and layers											
5	35														
	94			SANDY SILT (ML), gray, light gray, gravels											
10	493														
	572			FAT CLAY (CH), reddish brown, brownish yellow											
15	529														
20															
25															

0.5 1.0 1.5 2.0 2.5

WATER OBSERVATIONS:
NO FREE WATER ENCOUNTERED DURING DRILLING

DRY AUGER: 0 TO 20 ft.
WET ROTARY: ___ TO ___ ft.

DRILLED BY: EDS(T)
LOGGED BY: Steve

GEOTECH ENGINEERING & TESTING PLATE A-6

LOG OF BORING NO. B-7

Sheet 1 of 1

Geotech Engineering and Testing
17407 US Highway 59
Houston, Texas 77396
Phone: 713-699-4000 Fax: 713-699-9200

PROJECT: Limited Phase I ESA for Fulton Street Reconstruction
LOCATION: City of Houston, Texas
PROJECT NO.: 25-551E STATION NO.:
DATE: 9-15-25 COMPLETION DEPTH: 20.0 ft.

ELEVATION: Existing Grade

DEPTH, ft	SPT N-VALUE or RQD, %	POCKET PEN., tsf	SYMBOL	DESCRIPTION	NATURAL MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %	PASSING #200 SIEVE, %	SHRINKAGE LIMIT, %	SUCTION, pF	DRY UNIT WEIGHT, pcf	PERCENT COMPACTION	PASSING #4 (4.75 mm), %	UNDRAINED SHEAR STRENGTH, tsf
0				ASPHALT PAVEMENT (3" in thickness)											▲ HAND PENETROMETER ■ TORVANE ● UNCONFINED COMPRESSION ○ UNCONSOLIDATED-UNDRAINED TRIAXIAL
				BASE COURSE (4" in thickness)											
				LEAN CLAY (CL), brown, light brown, gray, calcareous nodules, sand seams and layers											
5	202														
	383														
10	406														
	387			FAT CLAY (CH), reddish brown, brownish yellow											
15															
20															
25															

0.5 1.0 1.5 2.0 2.5

WATER OBSERVATIONS:
NO FREE WATER ENCOUNTERED DURING DRILLING

DRY AUGER: 0 TO 20 ft.
WET ROTARY: ___ TO ___ ft.

DRILLED BY: EDS(T)
LOGGED BY: Steve

GEOTECH ENGINEERING & TESTING PLATE A-7

LOG OF BORING NO. B-8

Sheet 1 of 1

Geotech Engineering and Testing
17407 US Highway 59
Houston, Texas 77396
Phone: 713-699-4000 Fax: 713-699-9200

PROJECT: Limited Phase I ESA for Fulton Street Reconstruction
LOCATION: City of Houston, Texas
PROJECT NO.: 25-551E STATION NO.:
DATE: 9-15-25 COMPLETION DEPTH: 20.0 ft.

ELEVATION: Existing Grade

DEPTH, ft	SPT N-VALUE or RQD, %	POCKET PEN., tsf	SYMBOL	DESCRIPTION	NATURAL MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %	PASSING #200 SIEVE, %	SHRINKAGE LIMIT, %	SUCTION, pF	DRY UNIT WEIGHT, pcf	PERCENT COMPACTION	PASSING #4 (4.75 mm), %	UNDRAINED SHEAR STRENGTH, tsf
0				ASPHALT PAVEMENT (3" in thickness)											▲ HAND PENETROMETER ■ TORVANE ● UNCONFINED COMPRESSION ○ UNCONSOLIDATED-UNDRAINED TRIAXIAL
				BASE COURSE (4" in thickness)											
				LEAN CLAY (CL), brown, light brown, gray, calcareous nodules, sand seams and layers											
5	89														
	130														
10	478														
	493			FAT CLAY (CH), reddish brown, brownish yellow											
15	332														
20															
25															

0.5 1.0 1.5 2.0 2.5

WATER OBSERVATIONS:
NO FREE WATER ENCOUNTERED DURING DRILLING

DRY AUGER: 0 TO 20 ft.
WET ROTARY: ___ TO ___ ft.

DRILLED BY: EDS(T)
LOGGED BY: Steve

GEOTECH ENGINEERING & TESTING PLATE A-8

LOG OF BORING NO. B-9

Sheet 1 of 1

Geotech Engineering and Testing
17407 US Highway 59
Houston, Texas 77396
Phone: 713-699-4000 Fax: 713-699-9200

PROJECT: Limited Phase II ESA for Fulton Street Reconstruction
LOCATION: City of Houston, Texas
PROJECT NO.: 25-551E STATION NO.:
DATE: 9-15-25 COMPLETION DEPTH: 20.0 ft.

ELEVATION: Existing Grade

DEPTH, ft	SPT N-VALUE or RQD, %	POCKET PEN., tsf	SYMBOL	DESCRIPTION	NATURAL MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %	PASSING #200 SIEVE, %	SHRINKAGE LIMIT, %	SUCTION, pF	DRY UNIT WEIGHT, pcf	PERCENT COMPACTION	PASSING #4 (4.75 mm), %	UNDRAINED SHEAR STRENGTH, tsf
0				ASPHALT PAVEMENT (3" in thickness)											▲ HAND PENETROMETER ■ TORVANE ● UNCONFINED COMPRESSION ○ UNCONSOLIDATED-UNDRAINED TRIAXIAL
				BASE COURSE (4" in thickness)											
				LEAN CLAY (CL), brown, light brown, gray, calcareous nodules, sand seams and layers											
5	88														
	332														
10	439														
	449			FAT CLAY (CH), reddish brown, brownish yellow											
15	467														
20															
25															

0.5 1.0 1.5 2.0 2.5

WATER OBSERVATIONS:
NO FREE WATER ENCOUNTERED DURING DRILLING

DRY AUGER: 0 TO 20 ft.
WET ROTARY: ___ TO ___ ft.

DRILLED BY: EDS(T)
LOGGED BY: Steve

GEOTECH ENGINEERING & TESTING PLATE A-9

NO.	DATE	REVISION	APP.

HATCH
750 TOWN & COUNTRY BLVD
SUITE 650
HOUSTON, TX 77024
P: 832-930-7670
TX FIRM NUMBER: F-10912

90% PROGRESS
3/30/26

SURVEYED BY:
AMANI ENGINEERING, INC.
FB NUMBER: P-6164

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

FULTON STREET PAVING AND DRAINAGE IMPROVEMENTS FROM QUITMAN STREET TO HOGAN STREET

BORING LOGS

WBS NUMBER
N-000818-0001-3
DRAWING SCALE
N.T.S.
CITY OF HOUSTON PM
MICHELLE RANDON, P.E.
SHEET NO. 152 OF **152**