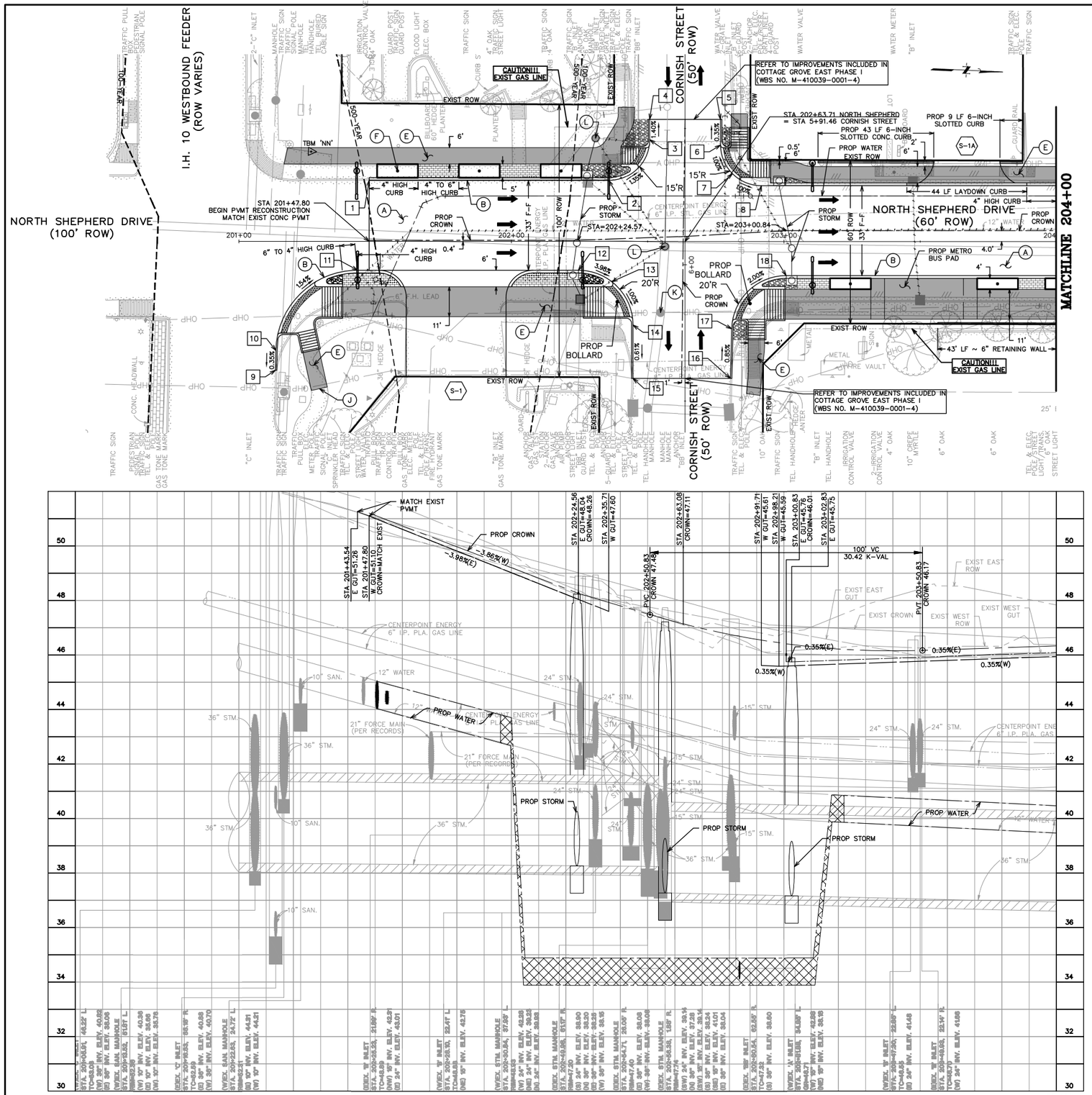


GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'NN',CP-306, "X" CUT IN CONC. (SEE RECOVERY SKETCH)
ELEV=52.43'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	201+47.80	22.41' LT	SEE PROFILE
2	202+35.71	22.41' LT	SEE PROFILE
3	202+50.71	37.41' LT	47.28
4	202+50.71	44.81' LT	47.18
5	202+76.71	44.81' LT	45.58
6	202+76.71	35.50' LT	45.61
7	202+81.09	24.87' LT	45.73
8	202+91.71	20.50' LT	SEE PROFILE
9	201+13.39	47.18' RT	51.95
10	201+13.54	39.95' RT	51.98
11	201+43.56	10.59' RT	SEE PROFILE
12	202+24.58	10.59' RT	SEE PROFILE
13	202+36.85	14.80' RT	47.51
14	202+44.58	30.59' RT	47.33
15	202+44.58	50.20' RT	47.21
16	202+80.35	50.20' RT	46.54
17	202+80.81	31.99' RT	46.39
18	203+00.81	12.50' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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 to 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. Number for Land Surveyors
4200 West Loop South, Suite 1100 Bellaire, TX 77401
713.777.5557

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

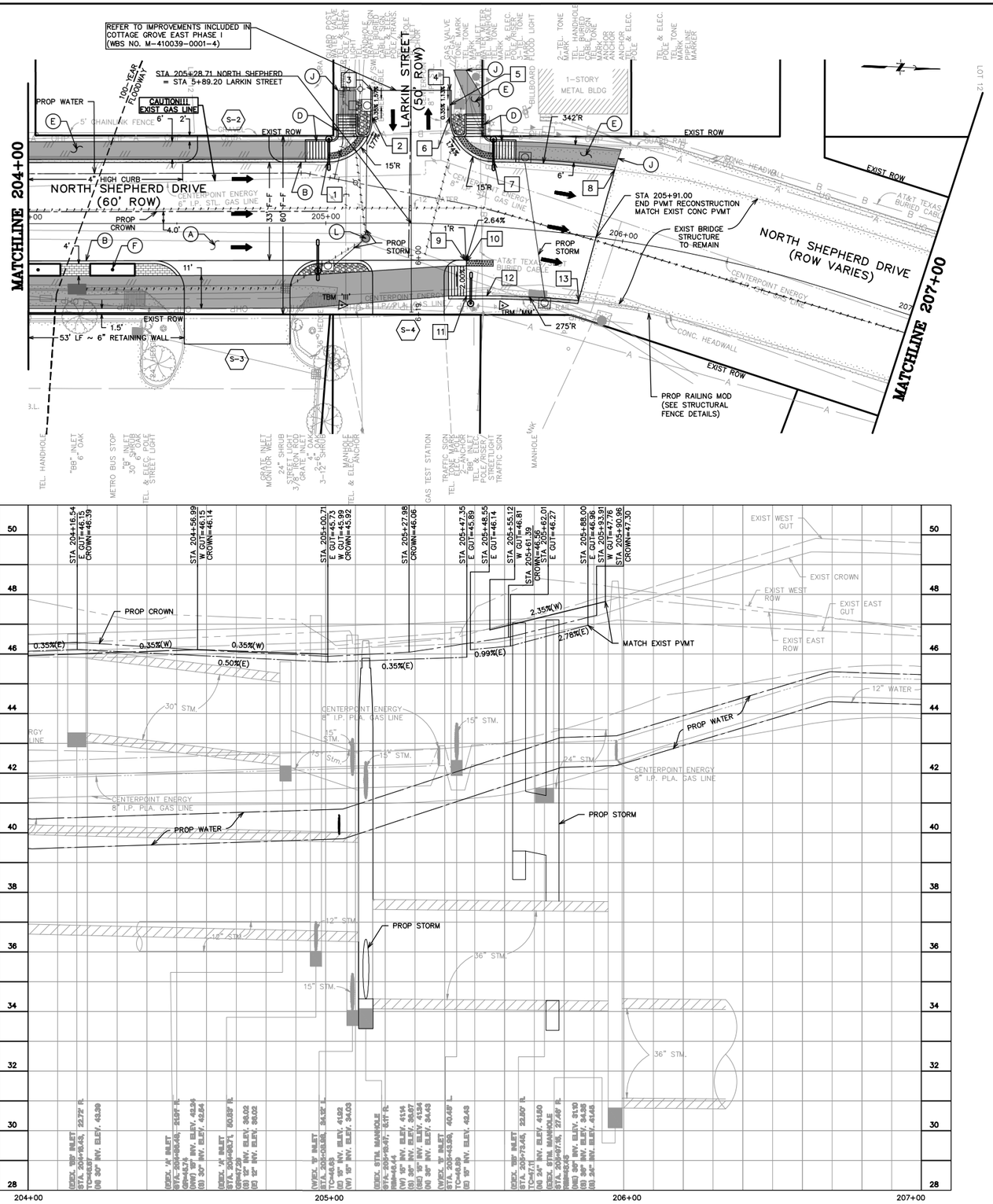
NORTH SHEPHERD DRIVE

BEGIN TO 204+00

SHEET 1 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 213 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd Southside.dwg PLOTTED: 9/25/2024 9:41 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'MM',CP-305, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=47.23'
TBM 'III',CP-336, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV=46.10'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
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(J) MATCH EXIST SIDEWALK
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(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	205+00.71	20.50' LT	SEE PROFILE
2	205+15.71	35.50' LT	45.58
3	205+15.71	44.50' LT	45.64
4	205+39.98	44.90' LT	46.44
5	205+40.16	39.98' RT	46.38
6	205+40.31	35.87' LT	46.40
7	205+55.12	21.69' LT	SEE PROFILE
8	205+93.91	23.32' LT	SEE PROFILE
9	205+47.35	11.81' RT	SEE PROFILE
10	205+47.89	12.28' RT	45.91
11	205+48.55	23.76' RT	SEE PROFILE
12	205+55.69	23.33' RT	SEE PROFILE
13	205+88.00	21.91' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification. Signature Valid for 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and F-10194020
4265 Kirby Drive Suite 315, Houston, TX 77098
713.777.5337

STATE OF TEXAS KRISTIN L. LANDRY 130074 LICENSED PROFESSIONAL ENGINEER 8/2/24

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

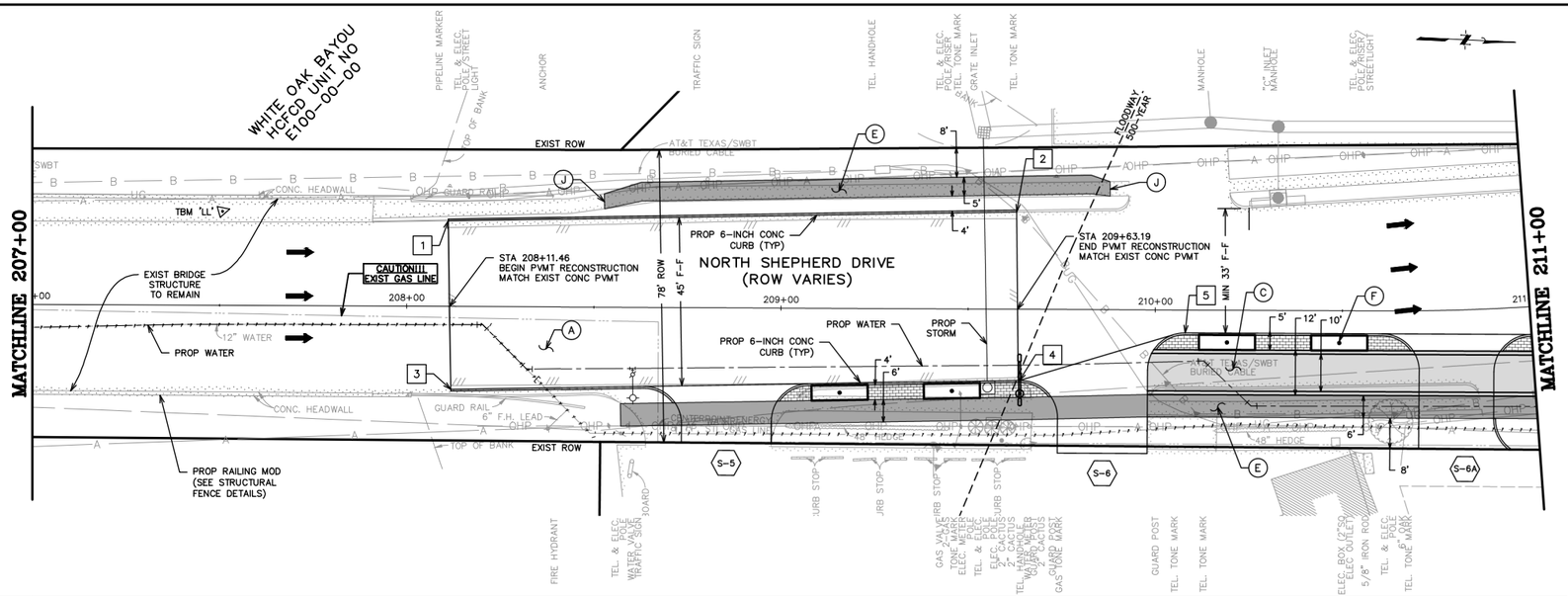
PLAN & PROFILE – PAVING

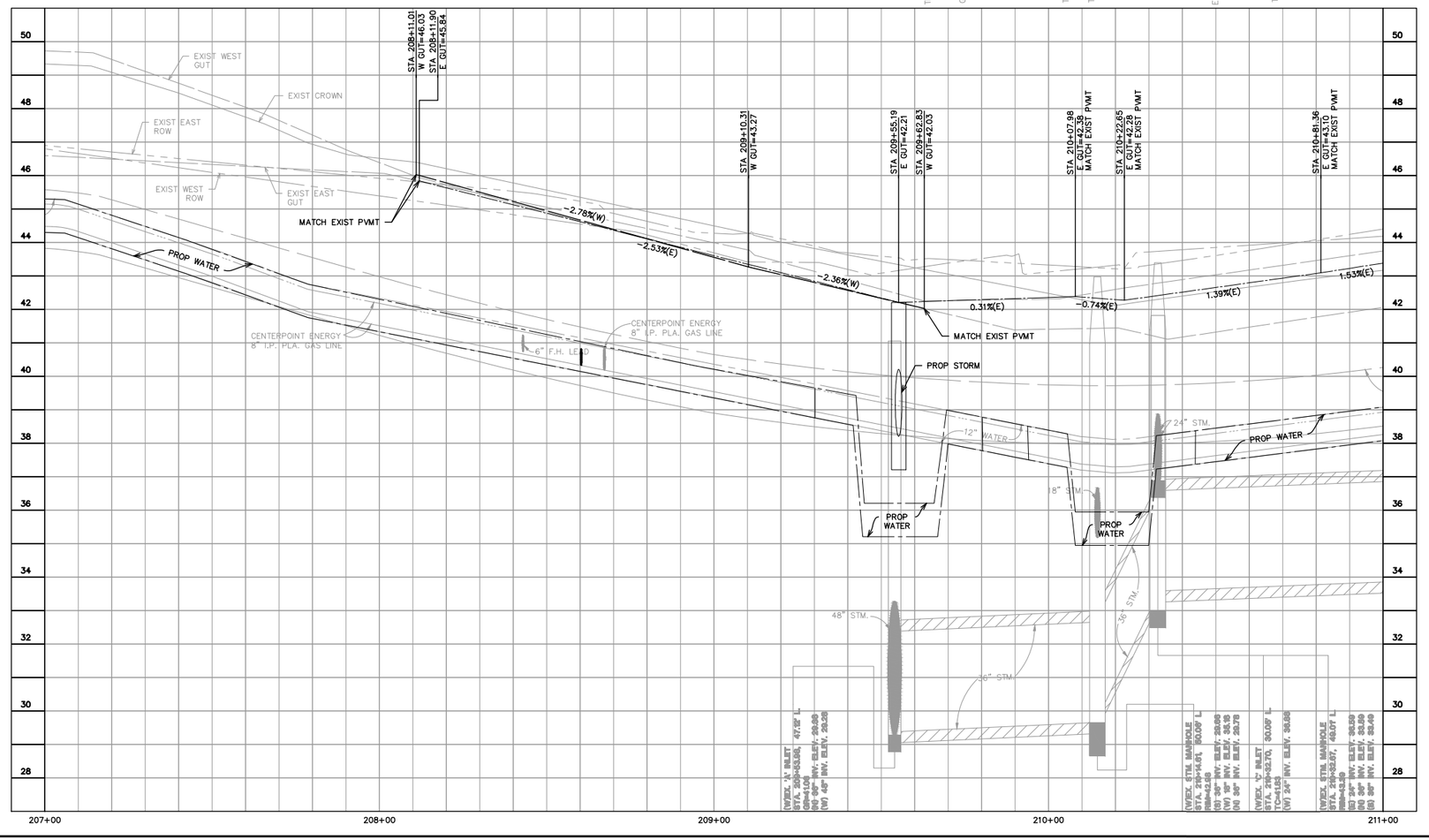
NORTH SHEPHERD DRIVE
204+00 TO 207+00

SHEET 2 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 214 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd Southside.dwg PLOTTED: 9/25/2024 9:42 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'LL',CP-304, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=48.77'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

No.	Station	Offset	Elevation
1	208+11.01	21.91' LT	SEE PROFILE
2	209+62.83	25.98' LT	SEE PROFILE
3	208+11.90	22.16' RT	SEE PROFILE
4	209+63.78	19.01' RT	SEE PROFILE
5	210+07.98	6.10' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification. Signature Valid for 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 Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and LSS6450
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

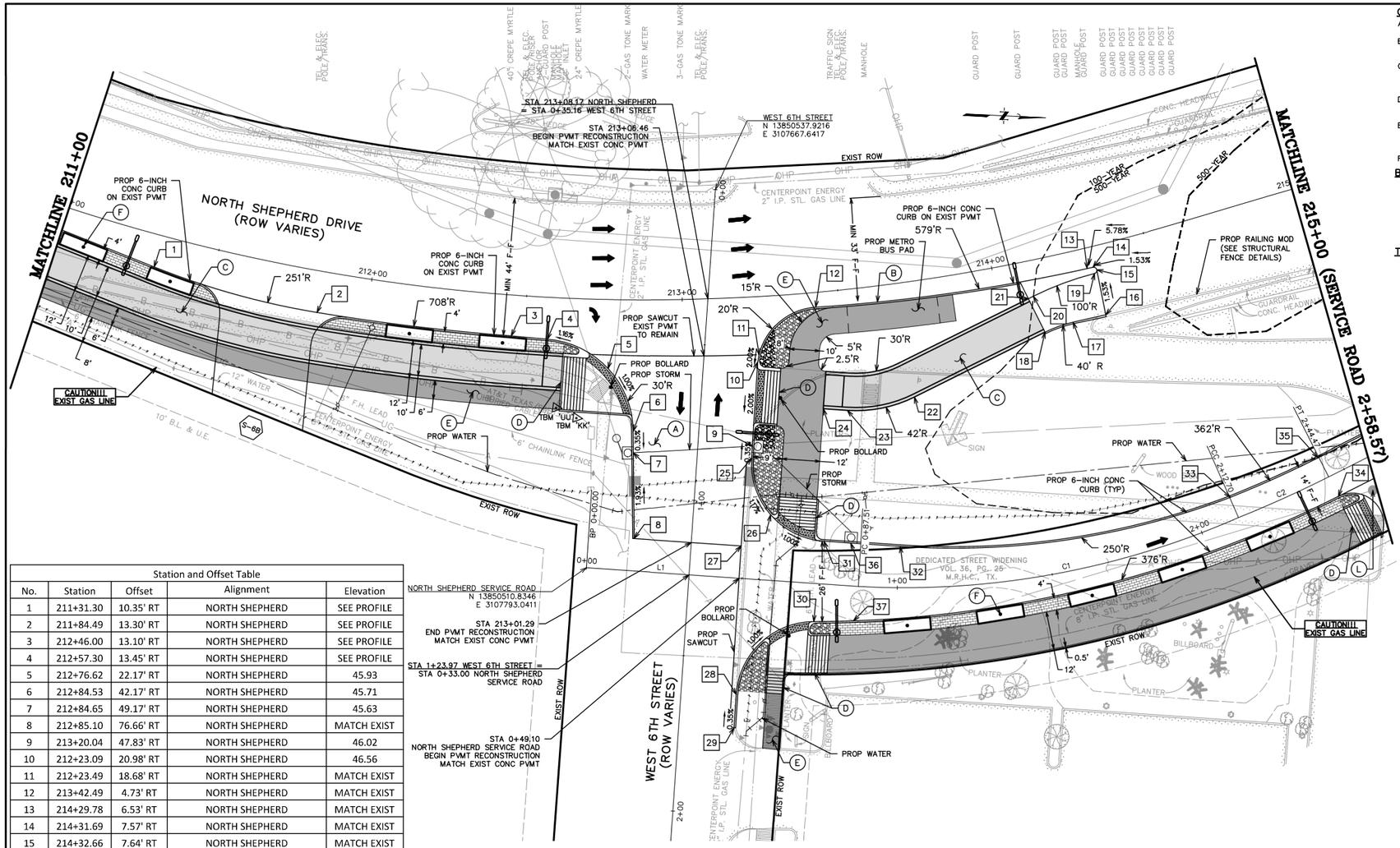
NORTH SHEPHERD DRIVE

207+00 TO 211+00

SHEET 3 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 215 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd Southside.dwg PLOTTED: 9/25/2024 9:42 AM HVF



Station and Offset Table				
No.	Station	Offset	Alignment	Elevation
1	211+31.30	10.35' RT	NORTH SHEPHERD	SEE PROFILE
2	211+84.49	13.30' RT	NORTH SHEPHERD	SEE PROFILE
3	212+46.00	13.10' RT	NORTH SHEPHERD	SEE PROFILE
4	212+57.30	13.45' RT	NORTH SHEPHERD	SEE PROFILE
5	212+76.62	22.17' RT	NORTH SHEPHERD	45.93
6	212+84.53	42.17' RT	NORTH SHEPHERD	45.71
7	212+84.65	49.17' RT	NORTH SHEPHERD	45.63
8	212+85.10	76.66' RT	NORTH SHEPHERD	MATCH EXIST
9	213+20.04	47.83' RT	NORTH SHEPHERD	46.02
10	212+23.09	20.98' RT	NORTH SHEPHERD	46.56
11	212+23.49	18.68' RT	NORTH SHEPHERD	MATCH EXIST
12	213+42.49	4.73' RT	NORTH SHEPHERD	MATCH EXIST
13	214+29.78	6.53' RT	NORTH SHEPHERD	MATCH EXIST
14	214+31.69	7.57' RT	NORTH SHEPHERD	MATCH EXIST
15	214+32.66	7.64' RT	NORTH SHEPHERD	MATCH EXIST
16	214+32.06	23.37' RT	NORTH SHEPHERD	MATCH EXIST
17	214+21.69	22.27' RT	NORTH SHEPHERD	MATCH EXIST
18	214+12.54	23.50' RT	NORTH SHEPHERD	MATCH EXIST
19	214+31.23	8.61' RT	NORTH SHEPHERD	MATCH EXIST
20	214+11.27	11.43' RT	NORTH SHEPHERD	MATCH EXIST
21	214+09.56	11.89' RT	NORTH SHEPHERD	MATCH EXIST
22	213+74.71	35.21' RT	NORTH SHEPHERD	
23	213+49.23	38.67' RT	NORTH SHEPHERD	
24	213+44.20	37.78' RT	NORTH SHEPHERD	
25	213+42.05	37.42' RT	NORTH SHEPHERD	46.04
26	0+50.47	21.05' LT	NORTH SHEPHERD SERVICE ROAD	46.27
27	0+49.07	10.42' LT	NORTH SHEPHERD SERVICE ROAD	46.26
28	0+50.73	37.27' RT	NORTH SHEPHERD SERVICE ROAD	MATCH EXIST
29	0+50.70	48.06' RT	NORTH SHEPHERD SERVICE ROAD	MATCH EXIST
30	0+73.98	12.25' RT	NORTH SHEPHERD SERVICE ROAD	SEE PROFILE
31	0+75.47	13.75' LT	NORTH SHEPHERD SERVICE ROAD	SEE PROFILE
32	1+00+90	13.27' RT	NORTH SHEPHERD SERVICE ROAD	SEE PROFILE
33	2+12.70	7.00' LT	NORTH SHEPHERD SERVICE ROAD	SEE PROFILE
34	2+44.48	7.00' RT	NORTH SHEPHERD SERVICE ROAD	SEE PROFILE
35	2+44.12	7.00' LT	NORTH SHEPHERD SERVICE ROAD	SEE PROFILE
36	0+84.08	13.75' LT	NORTH SHEPHERD SERVICE ROAD	SEE PROFILE
37	0+86.68	11.14' RT	NORTH SHEPHERD SERVICE ROAD	SEE PROFILE

LINE TABLE NORTH SHEPHERD SERVICE ROAD		
LINE	BEARING	DISTANCE
L1	N02° 43' 04"W	87.51'
L2	N33° 19' 40"W	88.24'
L3	N32° 48' 34"W	49.43'
L4	N14° 26' 52"W	6.35'
L5	N02° 56' 13"W	272.05'
L6	N04° 45' 15"W	138.08'
L7	S87° 08' 53"W	45.96'

CURVE TABLE NORTH SHEPHERD SERVICE ROAD				
CURVE	DELTA	RADIUS	LENGTH	CHORD
C1	026° 52' 14"	266.94	125.19'	N16° 54' 50"W ~ 124.05
C2	004° 56' 10"	368.70	31.76'	N30° 55' 43"W ~ 31.75
C3	005° 49' 37"	400.00	40.68'	N17° 21' 41"W ~ 40.66
C4	011° 30' 40"	2500.00	502.26'	N08° 41' 33"W ~ 501.42
C5	001° 49' 02"	1000.00	31.72'	N03° 50' 44"W ~ 31.71
C6	088° 05' 52"	20.00	30.75'	N48° 48' 11"W ~ 27.81

GENERAL NOTES

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B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035 FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'KK',CP-303, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV-46.83'

TBM 'UU',CP-313, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV-46.84'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and Arkansas 4350 West Cross Street, Suite 150 Rockwall, TX 75032 (512) 777-5350

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

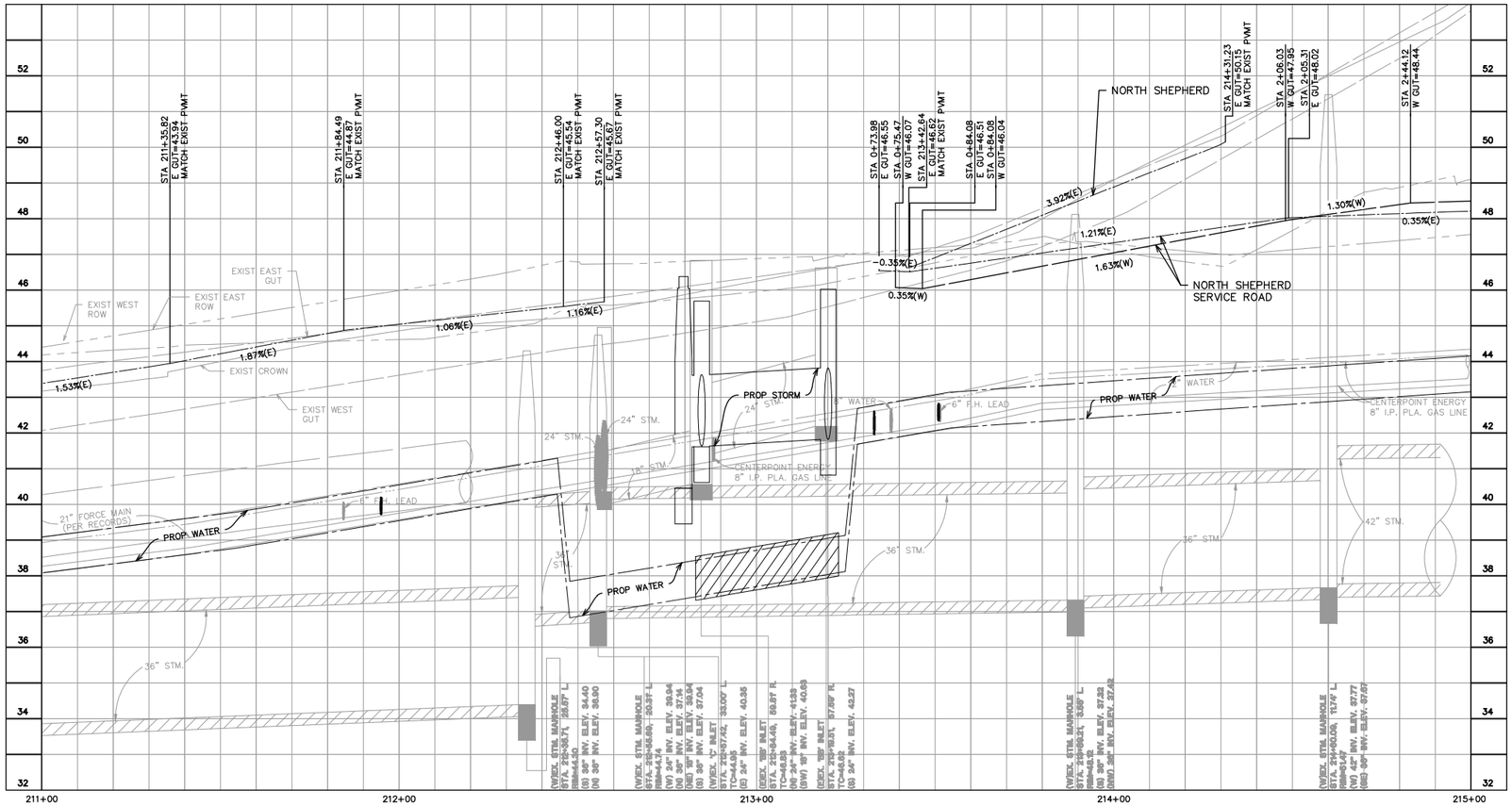
PLAN & PROFILE – PAVING

NORTH SHEPHERD DRIVE
211+00 TO 215+00 PLAN

SHEET 4 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 216 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd Southside.dwg PLOTTED: 9/25/2024 9:43 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'KK',CP-303, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV-46.83'

TBM 'UU',CP-313, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV-46.84'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers
and Land Surveyors Firm Registration No. 10193801
4200 West Lake Park Blvd, Suite 100 Weston, TX 75093
(713.777.5337)

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

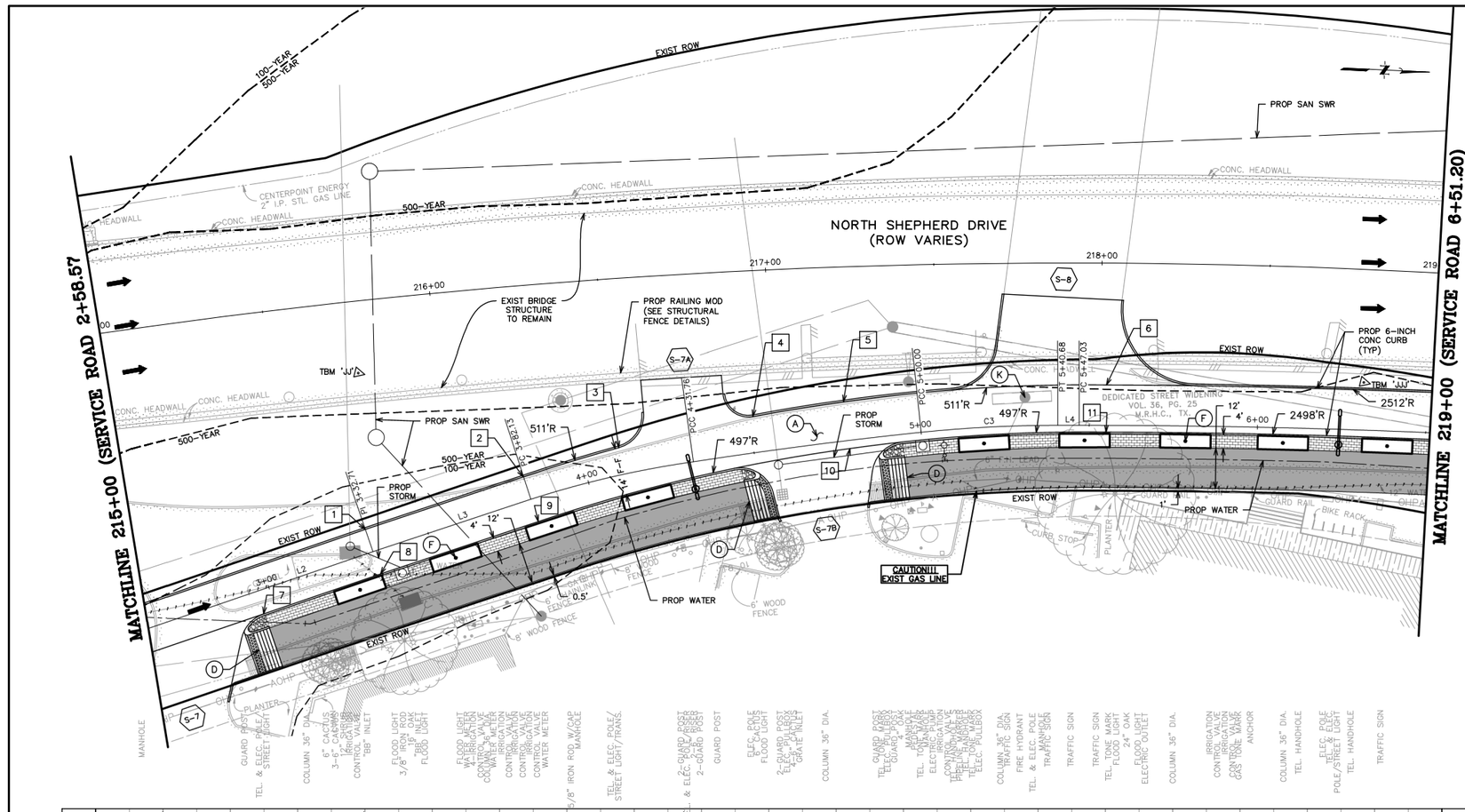
PLAN & PROFILE - PAVING

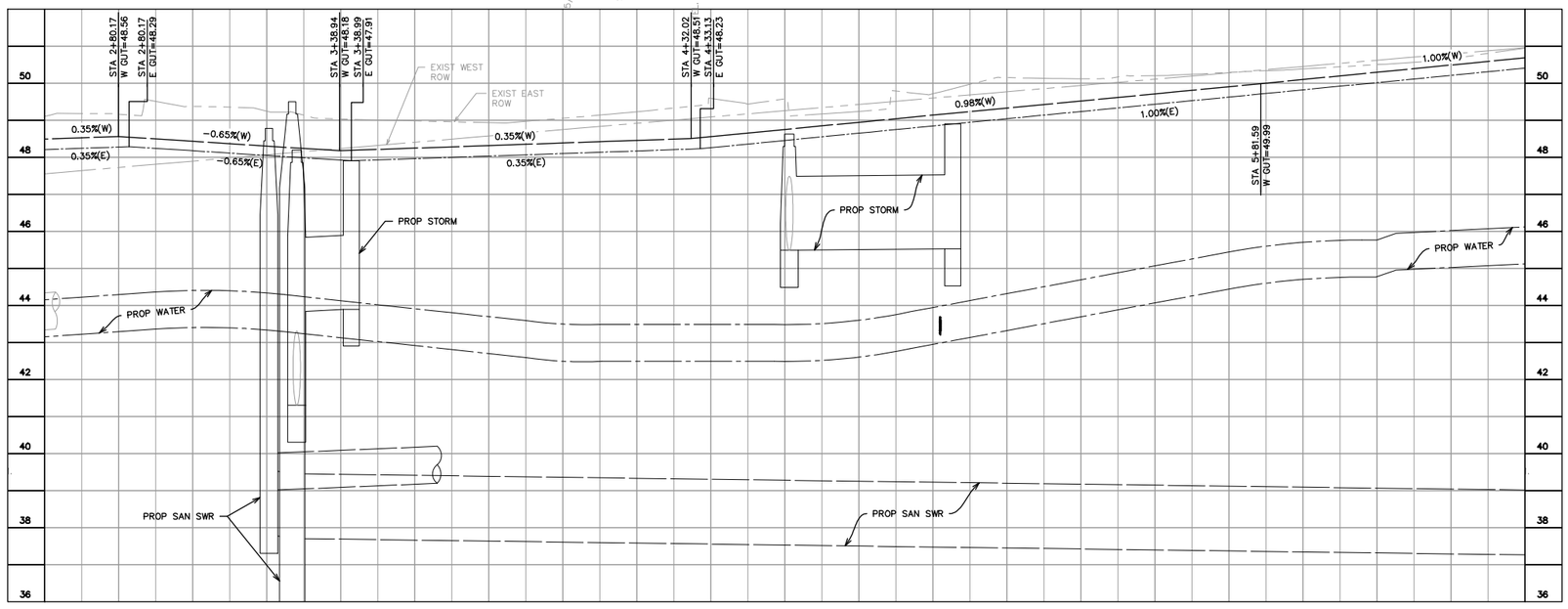
NORTH SHEPHERD DRIVE
211+00 TO 215+00 PROFILE

SHEET 5 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 217 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd Southside.dwg PLOTTED: 9/25/2024 9:44 AM HVF





GENERAL NOTES

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B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'JJJ',CP-337, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV-52.09'
TBM 'JJ',CP-302, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH) ELEV-49.03'

No.	Station	Offset	Elevation
1	3+32.71	7.00' LT	SEE PROFILE
2	3+82.09	7.00' LT	SEE PROFILE
3	4+10.98	8.02' LT	SEE PROFILE
4	4+51.11	10.70' LT	SEE PROFILE
5	4+78.18	11.56' LT	SEE PROFILE
6	5+55.10	12.00' LT	SEE PROFILE
7	2+95.95	7.00' RT	SEE PROFILE
8	3+32.77	7.00' RT	SEE PROFILE
9	3+82.19	7.00' RT	SEE PROFILE
10	4+78.42	2.44' RT	SEE PROFILE
11	5+55.04	2.00' RT	SEE PROFILE

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

CURVE TABLE NORTH SHEPHERD SERVICE ROAD				
CURVE	DELTA	RADIUS	LENGTH	CHORD
C1	026° 52' 14"	266.94	125.19'	N16° 54' 50"W ~ 124.05
C2	004° 56' 10"	368.70	31.76'	N30° 55' 43"W ~ 31.75
C3	005° 49' 37"	400.00	40.68'	N17° 21' 41"W ~ 40.66
C4	011° 30' 40"	2500.00	502.26'	N08° 41' 33"W ~ 501.42
C5	001° 49' 02"	1000.00	31.72'	N03° 50' 44"W ~ 31.71
C6	088° 05' 52"	20.00	30.75'	N48° 48' 11"W ~ 27.81

LINE TABLE NORTH SHEPHERD SERVICE ROAD		
LINE	BEARING	DISTANCE
L1	N02° 43' 04"W	87.51'
L2	N33° 19' 40"W	88.24'
L3	N32° 48' 34"W	49.43'
L4	N14° 26' 52"W	6.35'
L5	N02° 56' 13"W	272.05'
L6	N04° 45' 15"W	138.08'
L7	S87° 08' 53"W	45.96'

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
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- [X] STATION AND OFFSET (SEE THIS SHEET)
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KEYED NOTES

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0 5 10 20 40 60
SCALE: 1" = 20'

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Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and F-10044100
8303 West Loop South, Suite 100 Houston, TX 77063
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

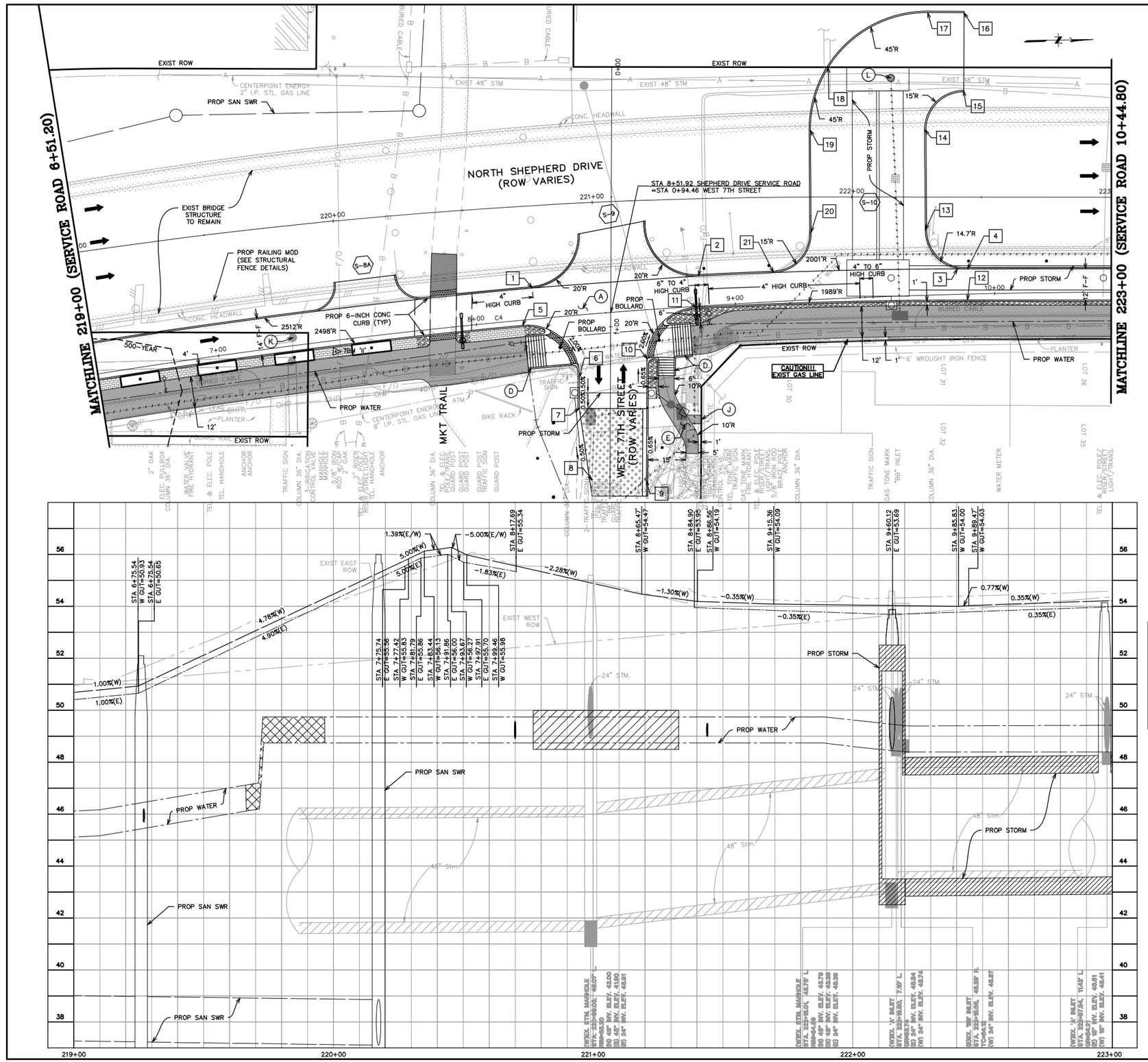
NORTH SHEPHERD DRIVE

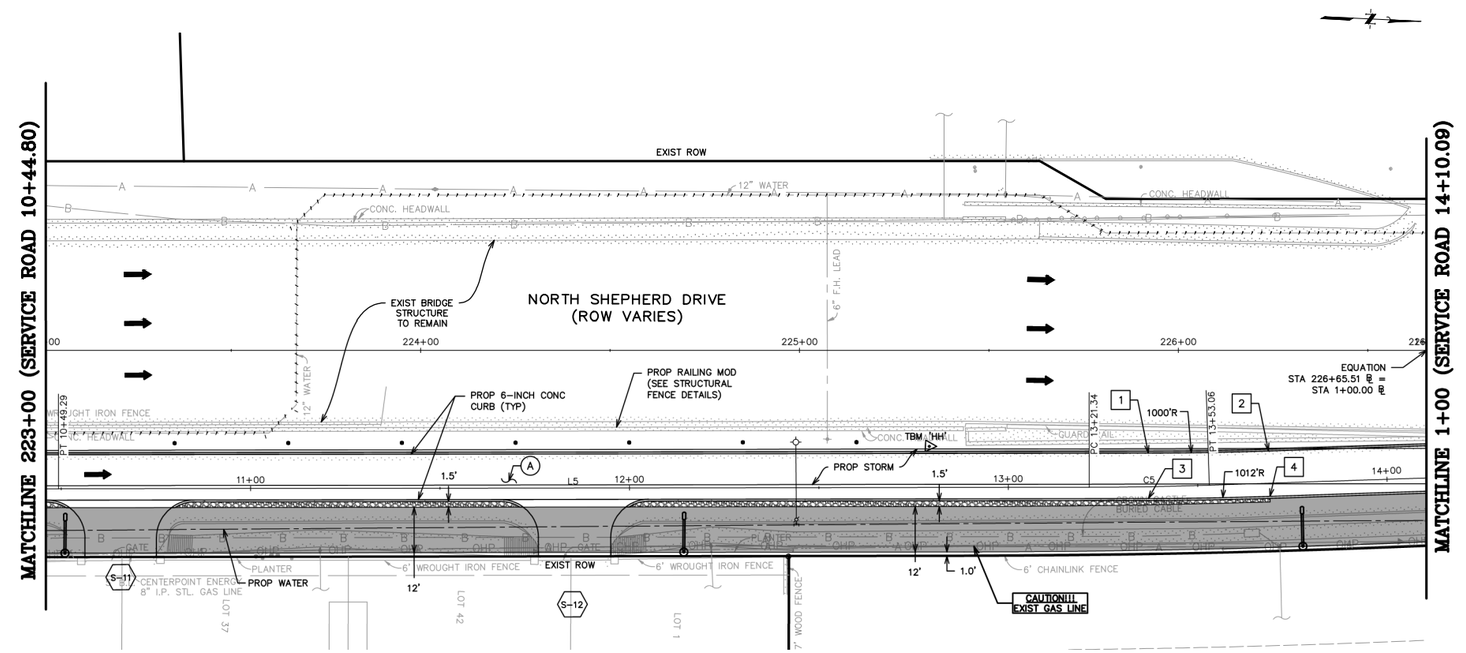
215+00 TO 219+00

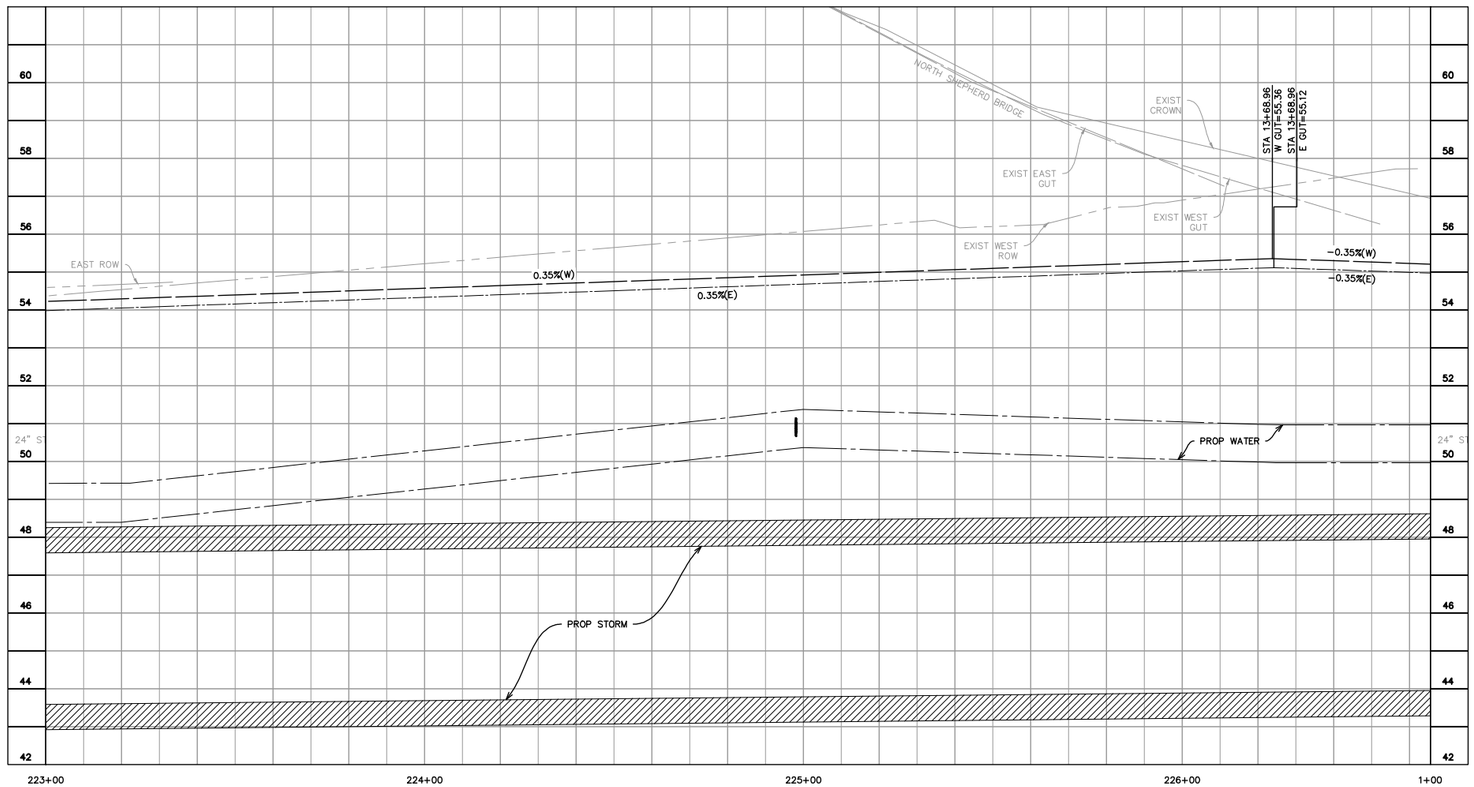
SHEET 6 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 218 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd Southside.dwg PLOTTED: 9/25/2024 9:45 AM HVF


MATCHLINE 219+00 (SERVICE ROAD 6+51.20)
MATCHLINE 223+00 (SERVICE ROAD 10+44.80)
NORTH SHEPHERD DRIVE (ROW VARIES)
STA 8+51.92 SHEPHERD DRIVE SERVICE ROAD =STA 0+94.46 WEST 7TH STREET
WEST 7TH STREET (ROW VARIES)
MKT TRAIL
EXIST ROW
EXIST BRIDGE STRUCTURE TO REMAIN
PROP RAILING MOD (SEE STRUCTURAL FENCE DETAILS)
PROP 6-INCH CONC CURB (TYP)
PROP BOLLARD
PROP WATER
PROP STORM
PROP SAN SWR
PROP SIDEWALK
PROP PLANTER
PROP TREE
PROP 10'x10' BOX
PROP 24" RCP
PROP 30" RCP
PROP 36" RCP
PROP 42" RCP
PROP 48" RCP
PROP 54" RCP
PROP 60" RCP
PROP 72" RCP
PROP 84" RCP
PROP 96" RCP
PROP 108" RCP
PROP 120" RCP
PROP 132" RCP
PROP 144" RCP
PROP 156" RCP
PROP 168" RCP
PROP 180" RCP
PROP 192" RCP
PROP 204" RCP
PROP





GENERAL NOTES

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TBM INFO

TBM 'HH',CP-300, 5/8-INCH IRON ROD WITH SINER. (SEE RECOVERY SKETCH)'
ELEV=55.83'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
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0 5 10 20 40 60
SCALE: 1" = 20'

No.	Station	Offset	Elevation
1	13+37.11	8.88' LT	SEE PROFILE
2	13+68.96	8.50' LT	SEE PROFILE
3	13+36.92	3.12' RT	SEE PROFILE
4	13+68.96	3.50' RT	SEE PROFILE

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4203 West Loop South, Suite 210 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
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PLAN & PROFILE – PAVING

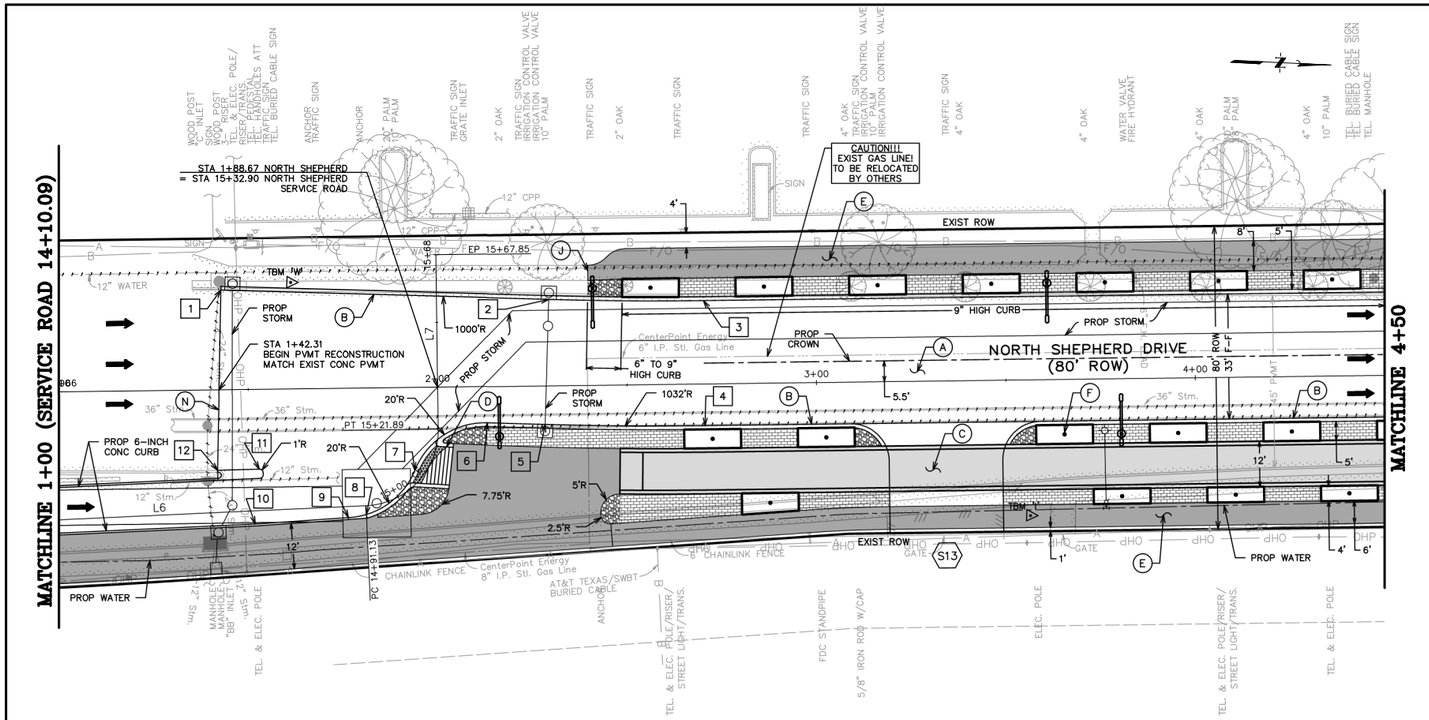
NORTH SHEPHERD DRIVE

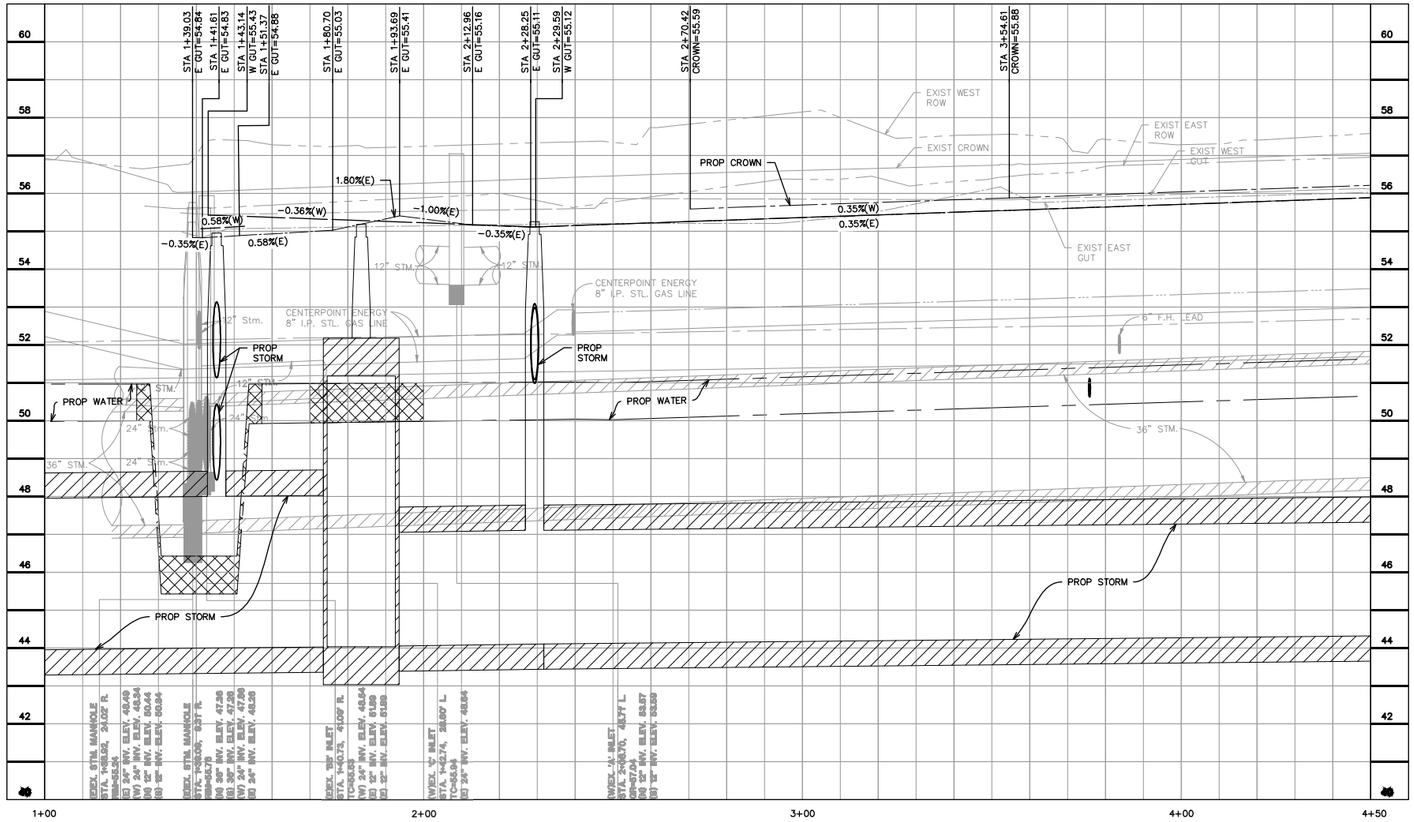
223+00 TO 1+00

SHEET 8 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 220 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd Southside.dwg PLOTTED: 9/25/2024 9:48 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'W',CP-108, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=56.12'

TBM 'I',CP-24, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=56.67'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

CURVE TABLE NORTH SHEPHERD SERVICE ROAD				
CURVE	DELTA	RADIUS	LENGTH	CHORD
C6	088° 05' 52"	20.00	30.75'	N48° 48' 11"W ~ 27.81

LINE TABLE NORTH SHEPHERD SERVICE ROAD		
LINE	BEARING	DISTANCE
L6	N04° 45' 15"W	138.08'
L7	S87° 08' 53"W	45.96'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	1+43.14	26.37' LT	SEE PROFILE
2	2+29.59	22.83' LT	SEE PROFILE
3	2+70.42	22.00' LT	SEE PROFILE
4	2+70.42	11.00' LT	SEE PROFILE
5	2+28.25	10.14' RT	SEE PROFILE
6	2+12.96	9.51' RT	SEE PROFILE
7	1+93.69	21.78' RT	55.413
8	1+80.70	33.31' RT	SEE PROFILE
9	1+75.97	34.06' RT	SEE PROFILE
10	1+51.37	35.48' RT	SEE PROFILE
11	1+52.64	20.99' RT	55.184
12	1+41.62	21.14' RT	55.34

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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 to 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and LSS6509
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

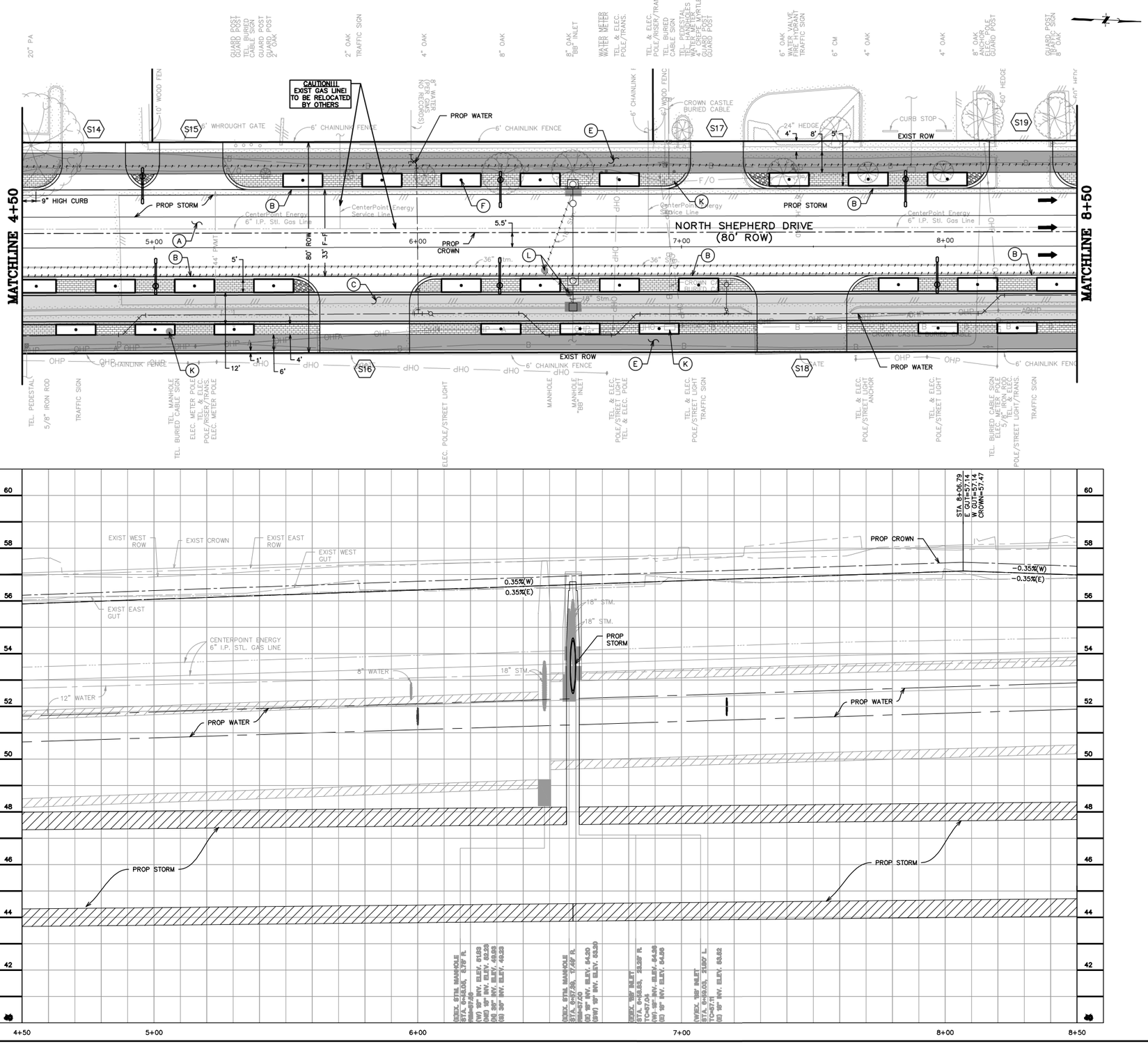
NORTH SHEPHERD DRIVE

1+00 TO 4+50

SHEET 9 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 221 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd.dwg PLOTTED: 9/25/2024 9:49 AM HVF



NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275–321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416–493

GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'I',CP–24, 5/8–INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=56.67'
TBM 'J',CP–25, 5/8–INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=58.37

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11–INCH REINFORCED CONC PAVEMENT
(B) PROP 12–INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24–INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTICE:

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification. Signature Valid for 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10046000
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P–6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

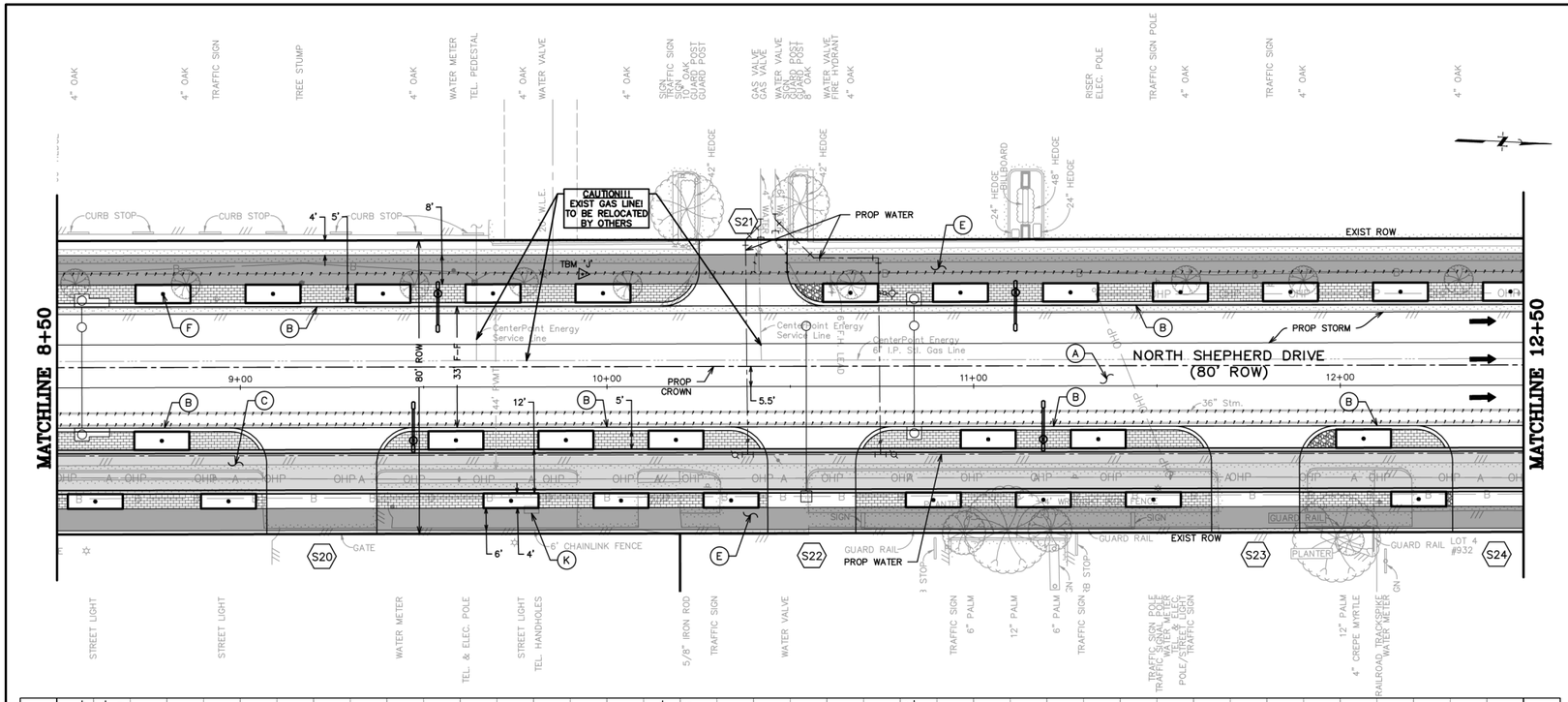
PLAN & PROFILE – PAVING

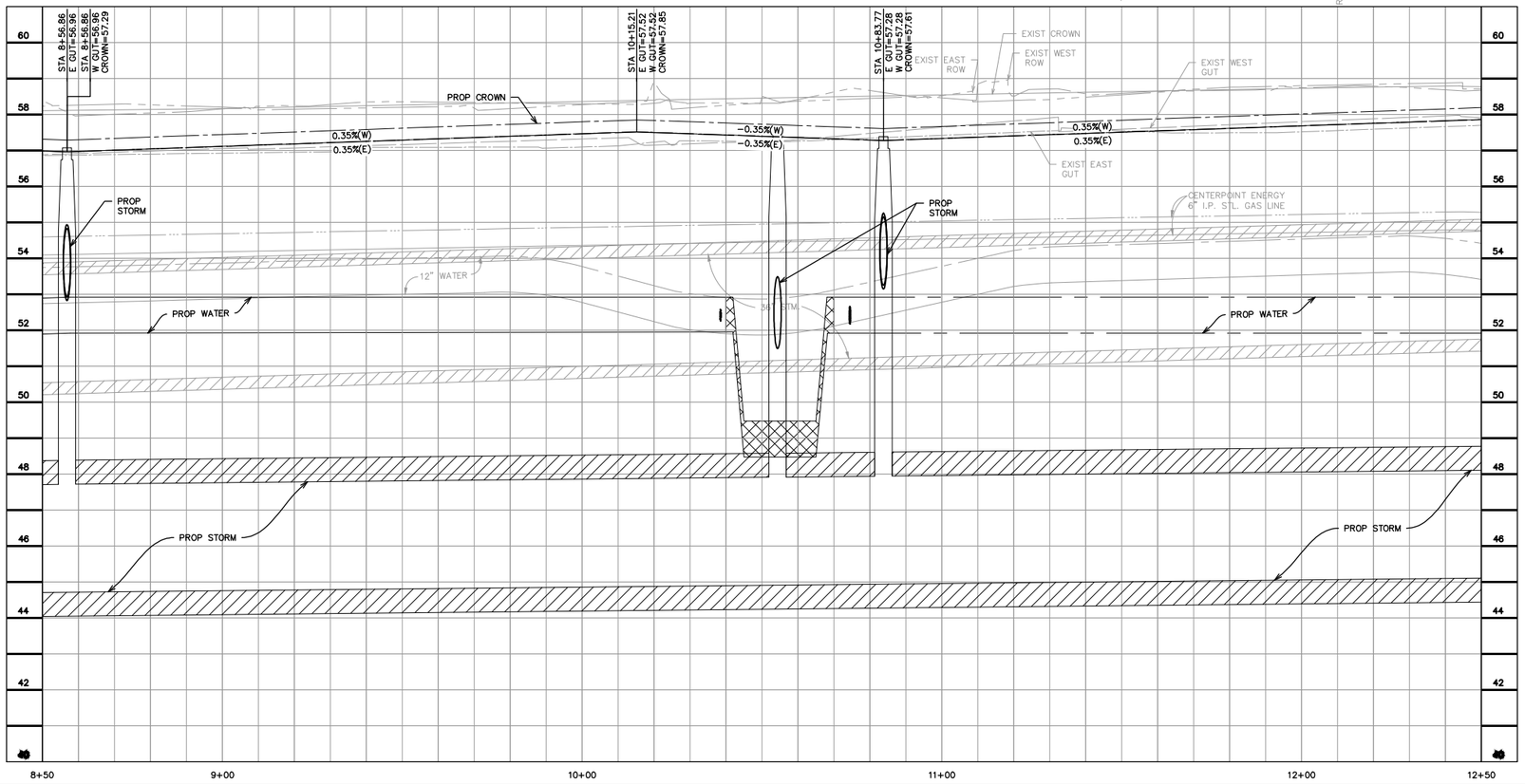
NORTH SHEPHERD DRIVE
4+50 TO 8+50

SHEET 10 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N–100041–0001–4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 222 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd.dwg PLOTTED: 9/25/2024 9:50 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'J',CP-25, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=58.37

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
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(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

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

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and LSS10020
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

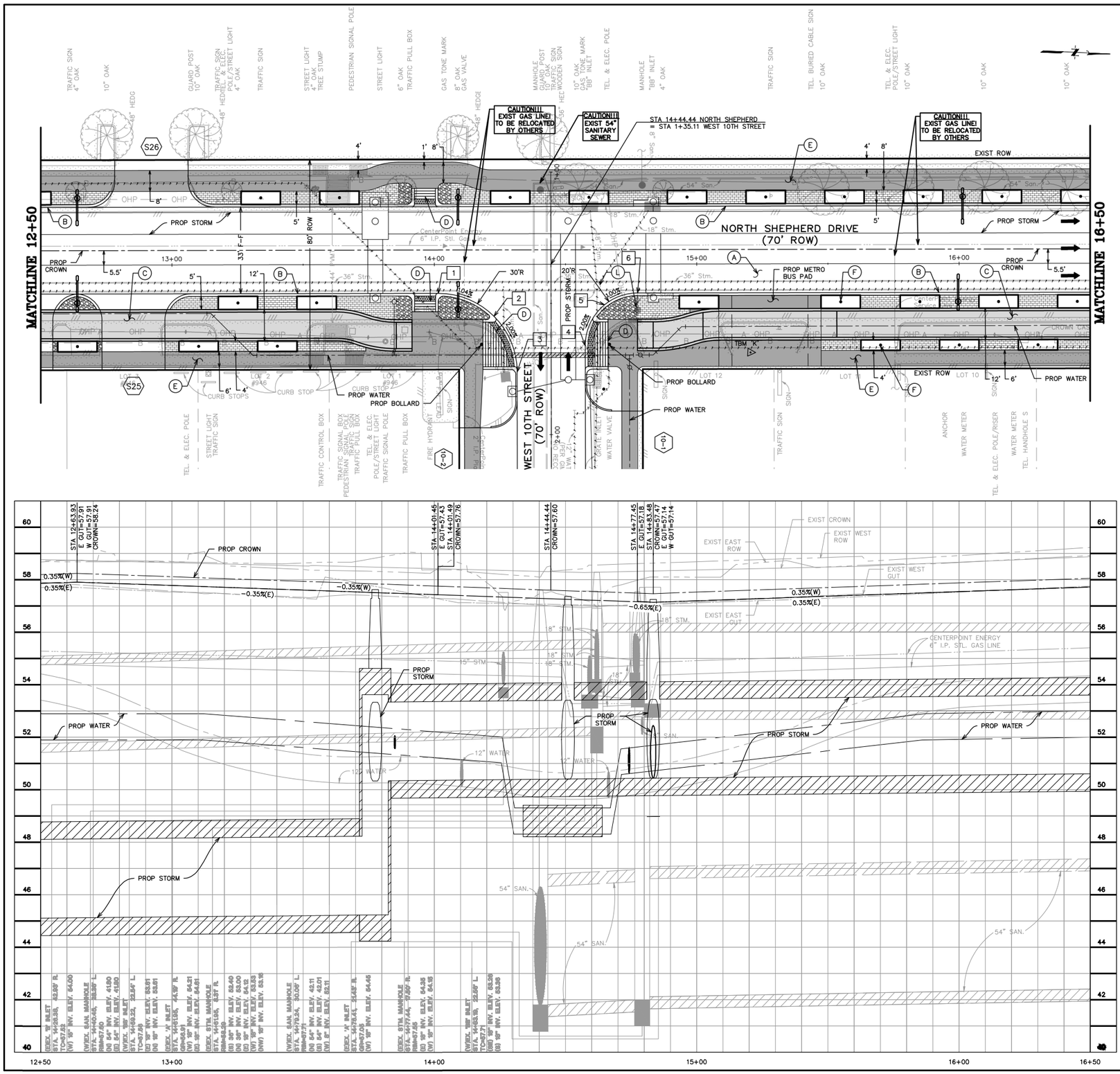
PLAN & PROFILE – PAVING

NORTH SHEPHERD DRIVE
8+50 TO 12+50

SHEET 11 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 223 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd.dwg PLOTTED: 9/25/2024 9:50 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.
G. PROPOSED METRO BUS STOPS ARE TO FOLLOW STANDARD DETAIL SUPPLIED ON SHEET 618. METRO BUS PAD TO BE LOCATED 70 FEET NORTH OF SHEPHERD AT WEST 10TH INTERSECTION.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'K',CP-26, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=58.16'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
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(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	14+01.45	11.00' RT	SEE PROFILE
2	14+22.66	19.79' RT	57.18
3	14+31.45	41.00' RT	56.71
4	14+57.45	31.02' RT	56.96
5	14+64.84	15.48' RT	57.32
6	14+77.45	11.00' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers
and Land Surveyors Reg. No. F-11294 and 10044100
5330 West Loop South, Suite 1100 Houston, TX 77056
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

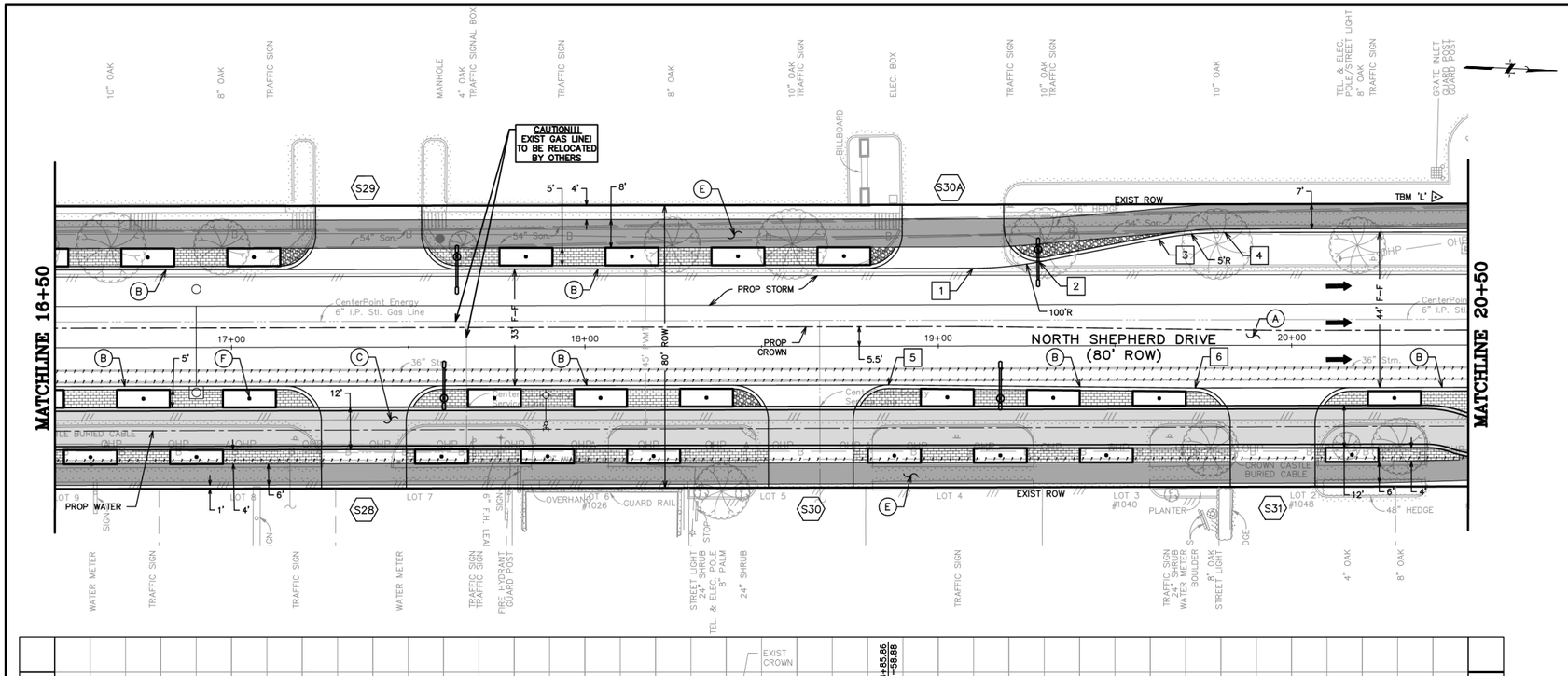
PLAN & PROFILE – PAVING

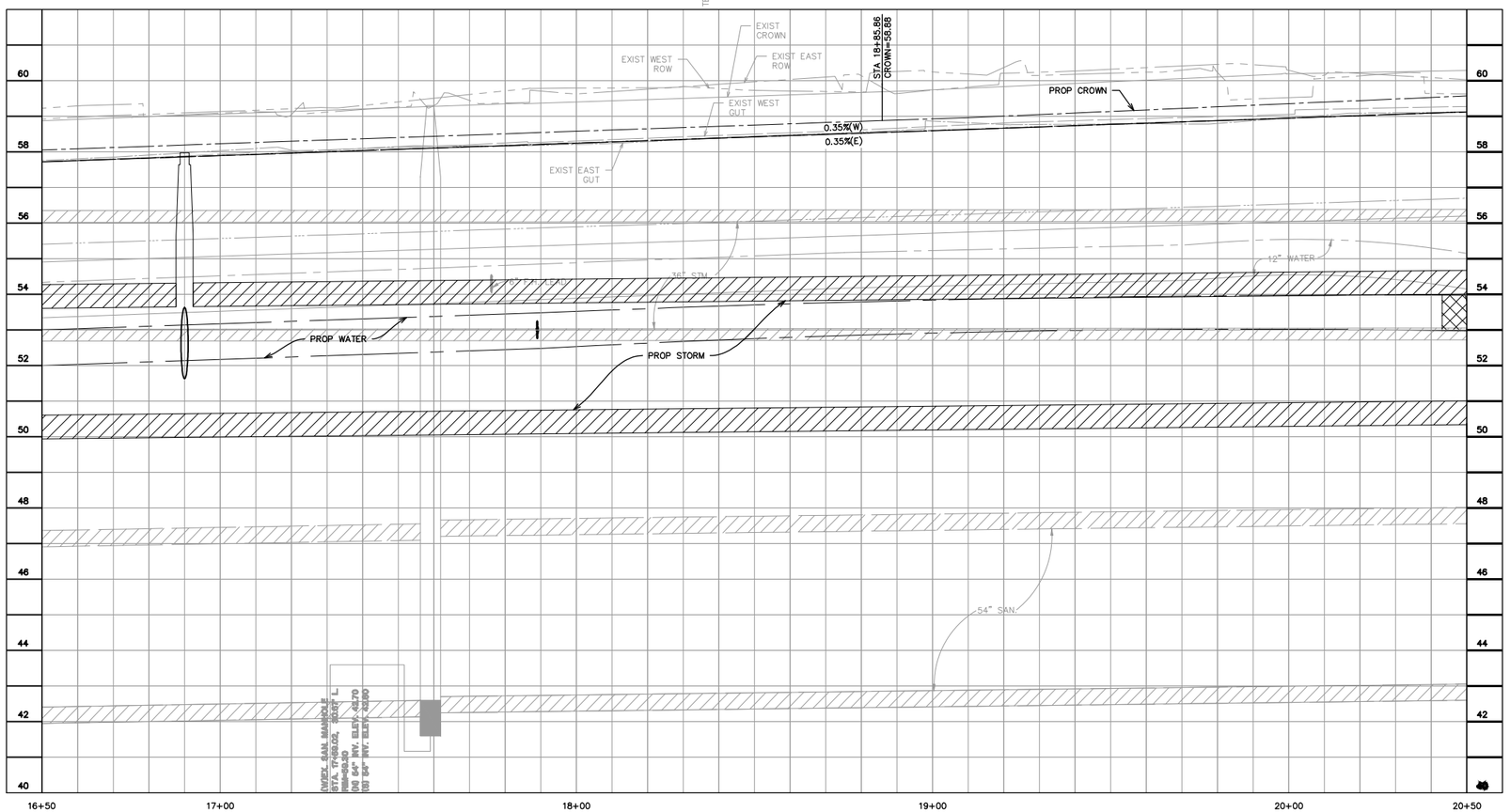
NORTH SHEPHERD DRIVE
12+50 TO 16+50

SHEET 12 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 224 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd.dwg PLOTTED: 10/22/2024 3:48 PM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'L',CP-27, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=60.54'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	19+09.81	22.00' LT	SEE PROFILE
2	19+28.56	23.77' LT	SEE PROFILE
3	19+62.37	30.23' LT	SEE PROFILE
4	19+81.12	32.00' LT	SEE PROFILE
5	18+85.86	11.00' RT	SEE PROFILE
6	19+72.67	12.00' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
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Signature Valid for six months.

Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and LSS10109
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

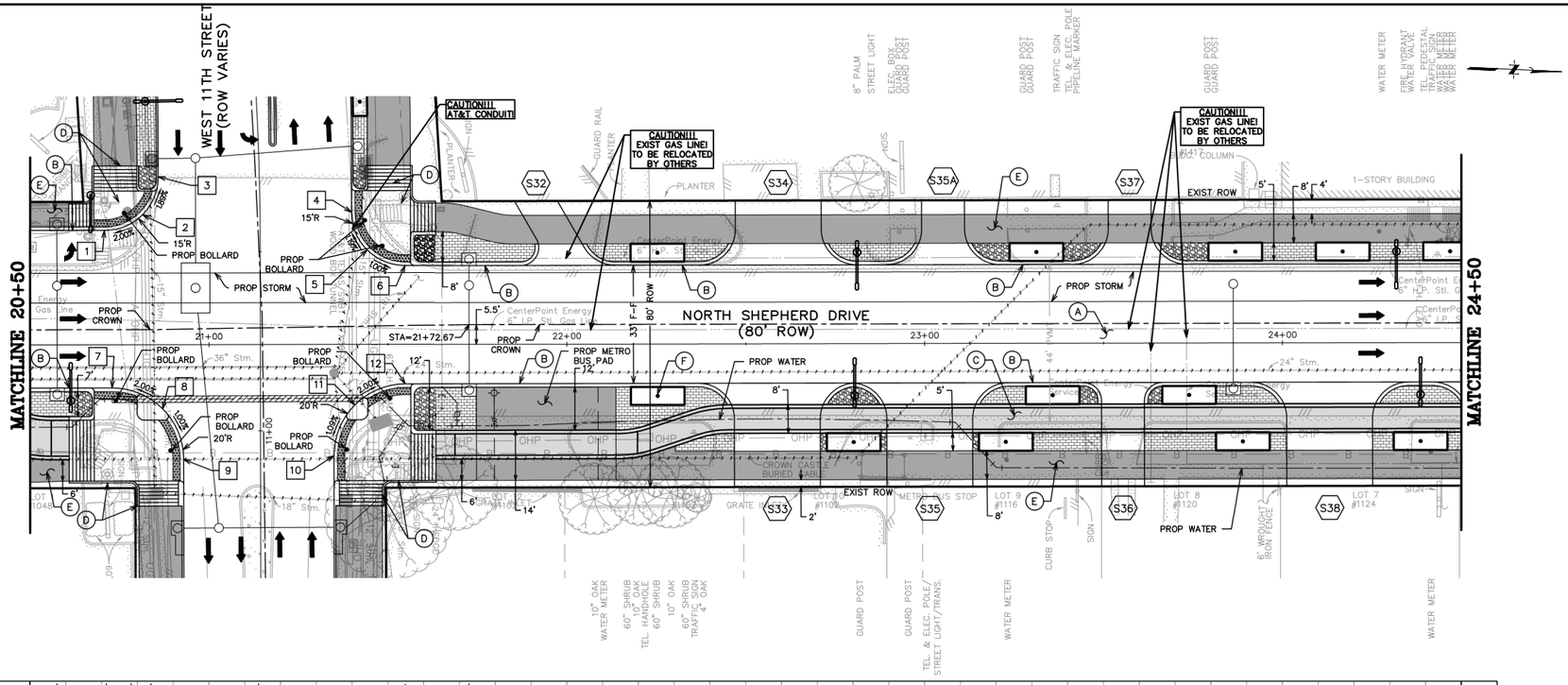
NORTH SHEPHERD DRIVE

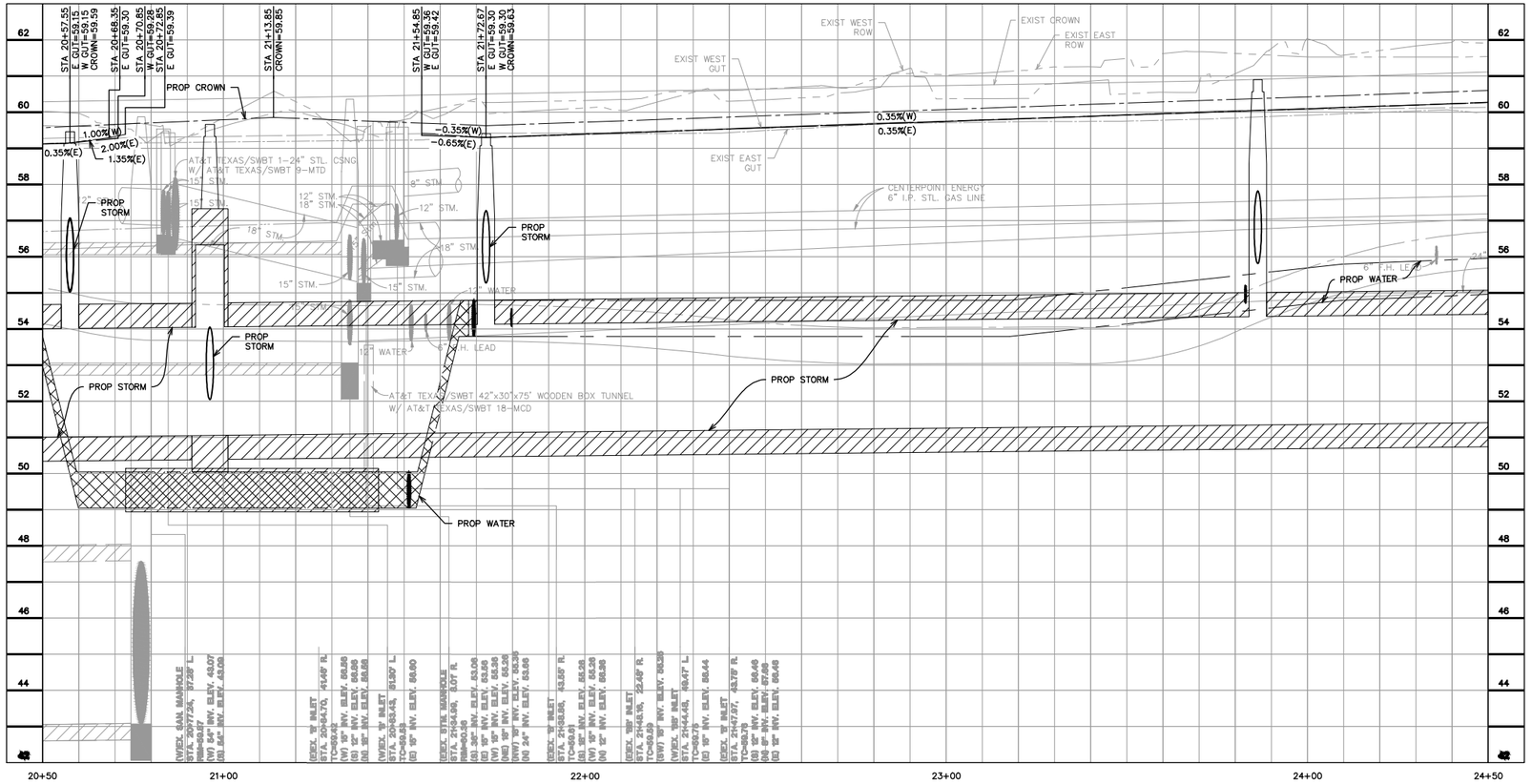
16+50 TO 20+50

SHEET 13 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 225 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd.dwg PLOTTED: 9/25/2024 9:51 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'L',CP-27, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=60.54'
TBM 'M',CP-28, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.50'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	20+70.85	32.00' LT	SEE PROFILE
2	20+81.46	36.39' LT	59.52
3	20+85.85	47.00' LT	59.29
4	21+39.85	37.00' LT	59.34
5	21+44.25	26.39' LT	59.48
6	21+54.85	22.00' LT	SEE PROFILE
7	20+72.85	12.00' RT	SEE PROFILE
8	20+86.99	17.86' RT	59.70
9	20+92.85	32.00' RT	59.54
10	21+34.85	31.00' RT	59.56
11	21+40.71	16.86' RT	59.73
12	21+54.85	11.00' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

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(This signature verifies existing underground facilities – not to be used for conflict verification.)
Signature Valid for six months.

Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and LSS10020
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

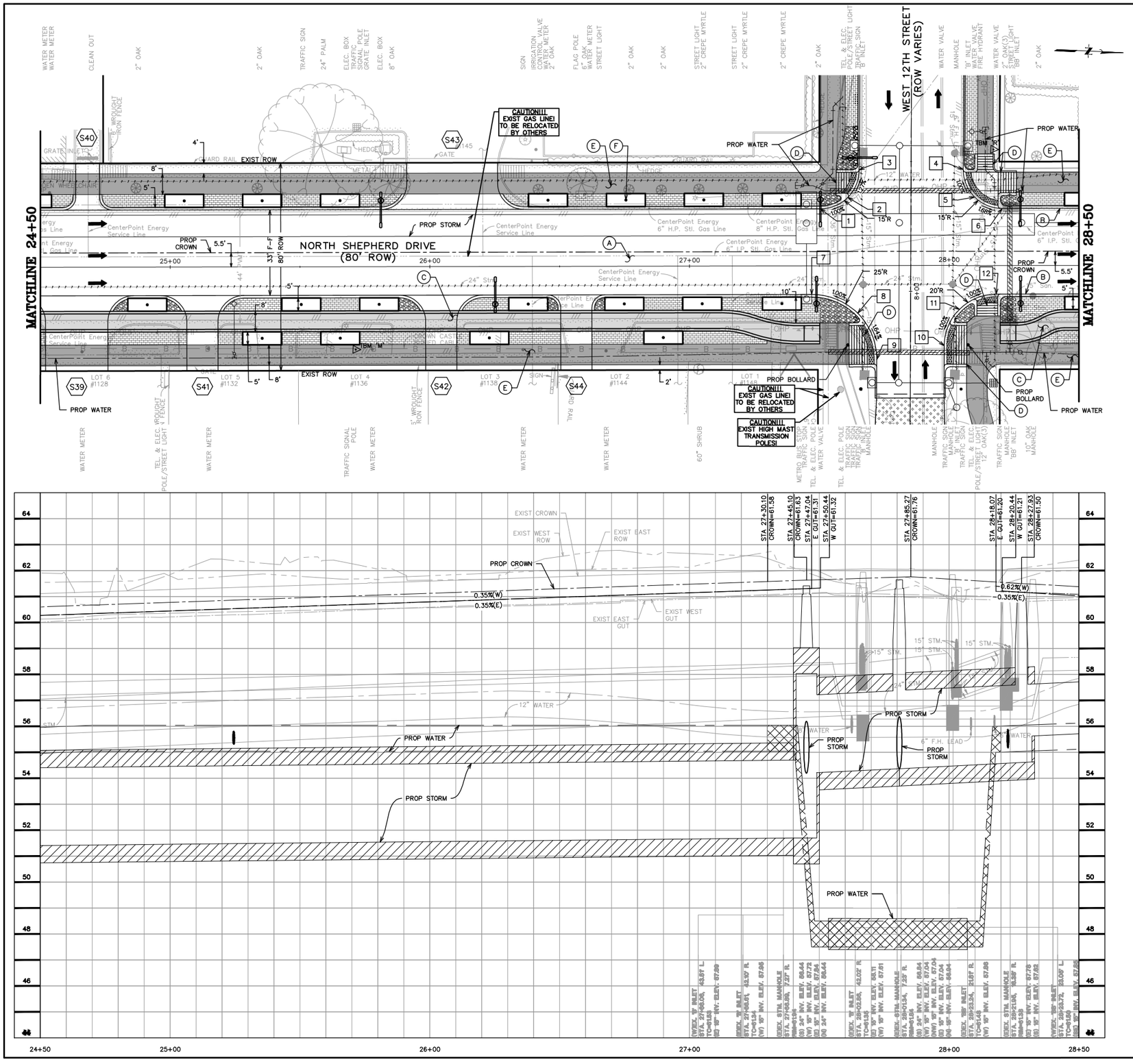
PLAN & PROFILE – PAVING

NORTH SHEPHERD DRIVE
20+50 TO 24+50

SHEET 14 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 226 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd.dwg PLOTTED: 9/25/2024 9:52 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'M',CP-28, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.50'
TBM 'R',CP-85, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.37'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	27+50.44	22.00' LT	SEE PROFILE
2	27+61.02	26.36' LT	61.44
3	27+65.44	36.92' LT	61.29
4	28+05.44	37.08' LT	61.29
5	28+09.81	26.42' LT	61.41
6	28+20.44	22.00' LT	SEE PROFILE
7	27+47.04	11.00' RT	SEE PROFILE
8	27+64.76	18.37' RT	61.50
9	27+72.04	36.14' RT	61.18
10	27+98.07	30.89' RT	61.20
11	28+03.96	16.82' RT	61.36
12	28+18.07	11.00' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

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(This signature verifies existing underground facilities - not to be used for conflict verification.)
Signature Valid for six months.

Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and 10066100
4265 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5959

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100007
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

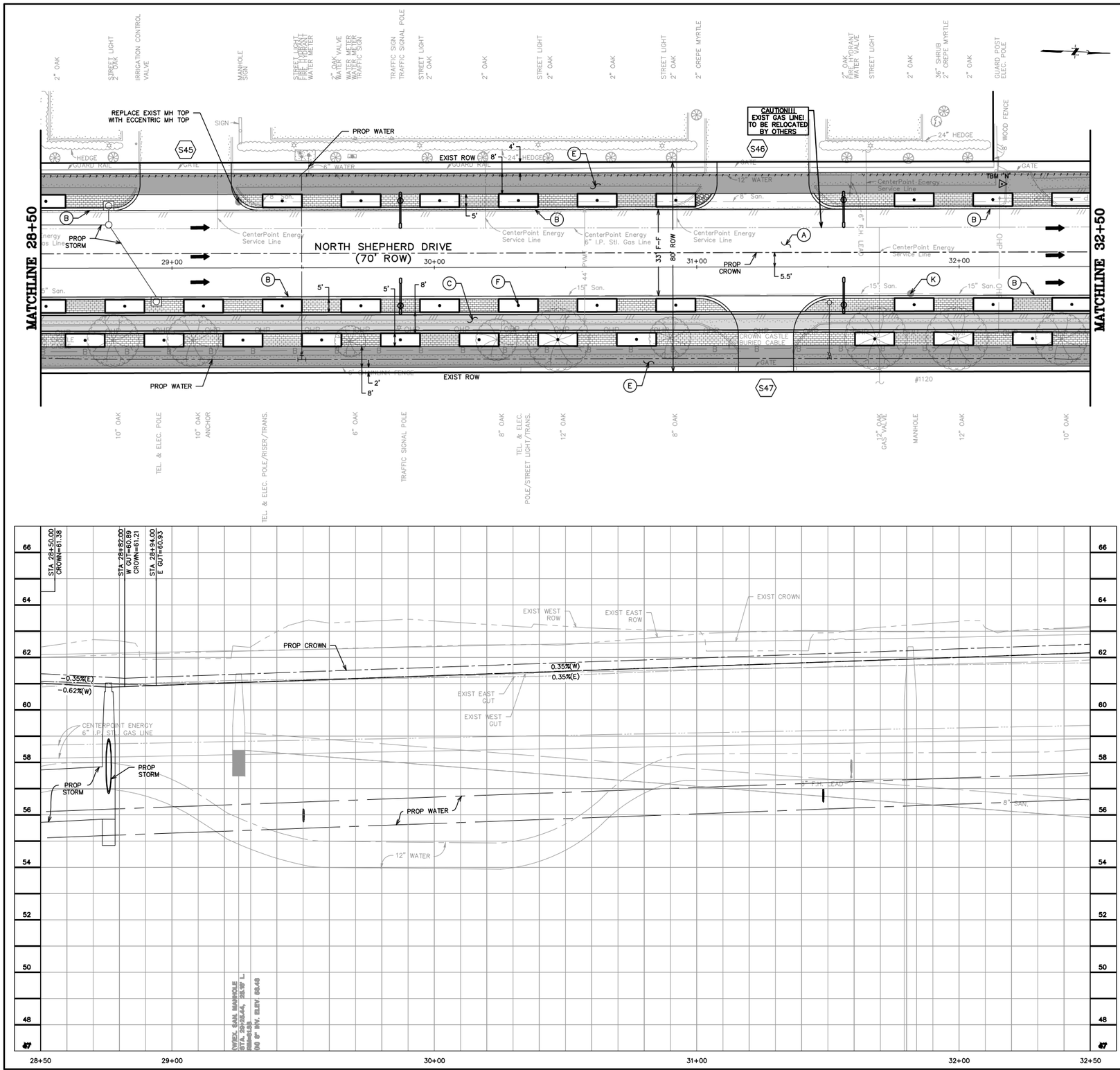
PLAN & PROFILE - PAVING

NORTH SHEPHERD DRIVE
24+50 TO 28+50

SHEET 15 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 227 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd.dwg PLOTTED: 9/25/2024 9:52 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'N',CP-29, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=62.81'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
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KEYED NOTES

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(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-2578 and 10194000
4333 West Loop South, Suite 500 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

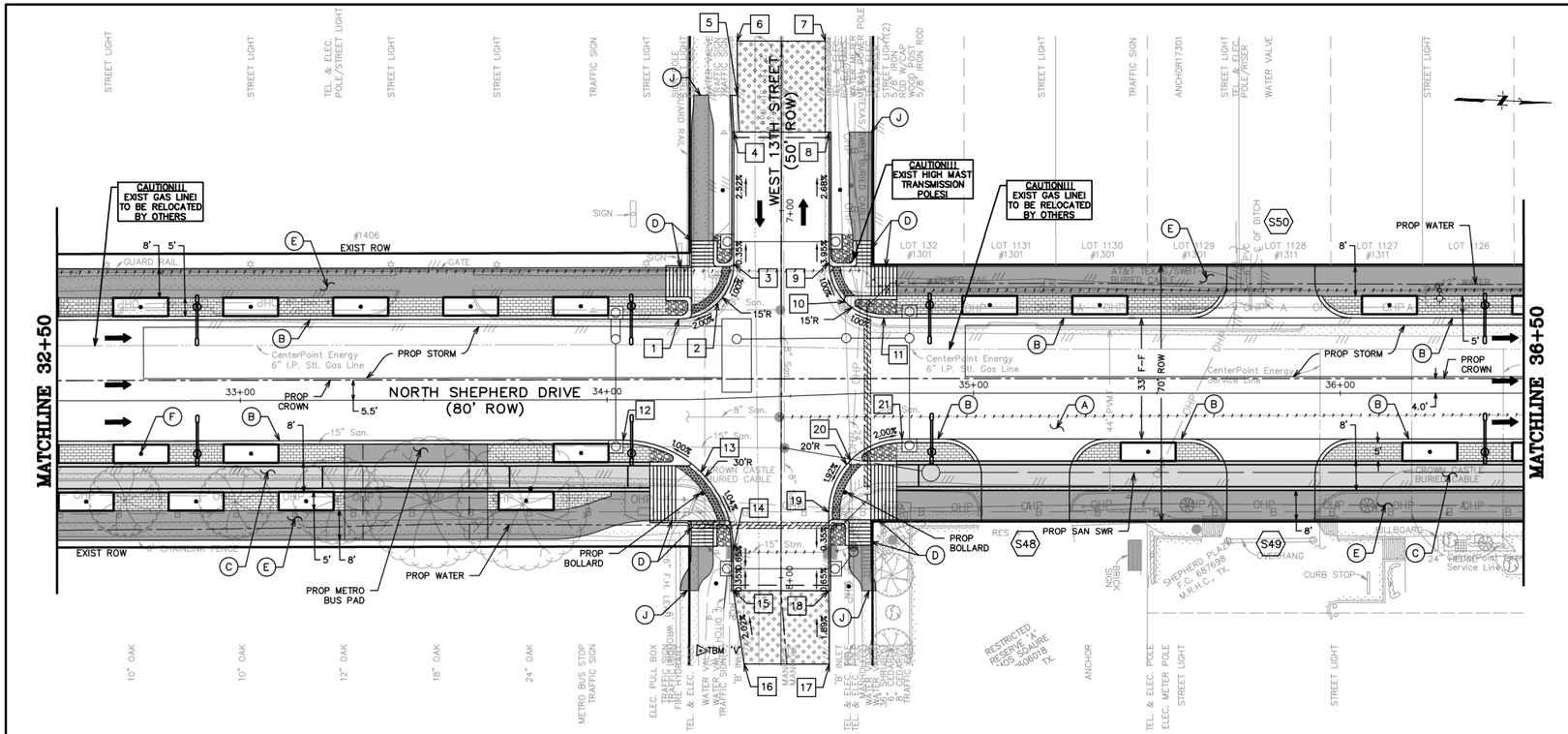
PLAN & PROFILE – PAVING

NORTH SHEPHERD DRIVE
28+50 TO 32+50

SHEET 16 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 228 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd.dwg PLOTTED: 9/25/2024 9:53 AM HVF



GENERAL NOTES

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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'V',CP-107, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=63.48'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	34+19.61	22.00' LT	SEE PROFILE
2	34+31.08	26.10' LT	63.13
3	34+35.84	36.53' LT	63.01
4	34+37.14	72.47' LT	62.23
5	34+38.48	82.43' LT	MATCH EXIST
6	34+38.94	97.17' LT	MATCH EXIST
7	34+62.99	96.29' LT	MATCH EXIST
8	34+63.12	71.53' LT	62.19
9	34+61.83	35.91' LT	63.22
10	34+65.84	25.15' LT	63.34
11	34+75.57	20.50' LT	SEE PROFILE
12	34+04.37	11.00' RT	SEE PROFILE
13	32+24.96	19.92' RT	62.96
14	34+33.00	41.46' RT	62.71
15	34+32.60	52.46' RT	62.70
16	34+34.83	72.55' RT	MATCH EXIST
17	34+58.08	73.40' RT	MATCH EXIST
18	34+58.59	53.40' RT	62.86
19	34+59.36	32.04' RT	62.88
20	34+65.72	18.13' RT	63.18
21	34+80.50	12.50' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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

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Date:

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The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23330 and 10194000
4265 Kirby Drive Suite 300 Houston, TX 77098
713.777.5900

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

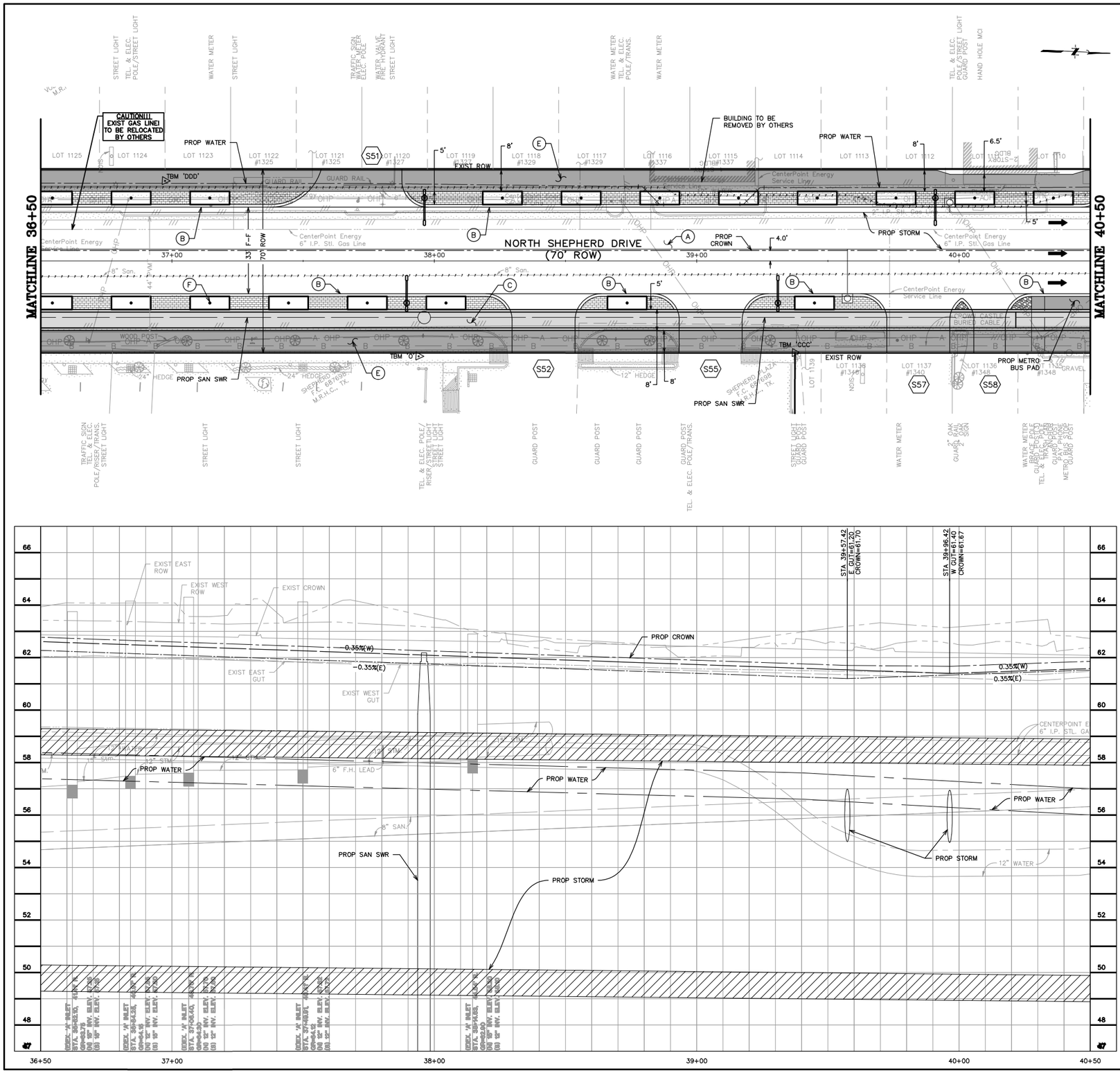
PLAN & PROFILE – PAVING

NORTH SHEPHERD DRIVE
32+50 TO 36+50

SHEET 17 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 229 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd.dwg PLOTTED: 9/25/2024 9:54 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

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(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'O',CP-60, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=63.45'
TBM 'CCC',CP-321, "X" CUT IN CONC. (SEE RECOVERY SKETCH) ELEV=62.68'
TBM 'DDD',CP-322, MAG NAIL WITH SHINER (SEE RECOVERY SKETCH) ELEV=63.13'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
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(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

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FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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Date:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No's F-23294 and 10044100
5330 West Loop South, Suite 210 Houston, TX 77081
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

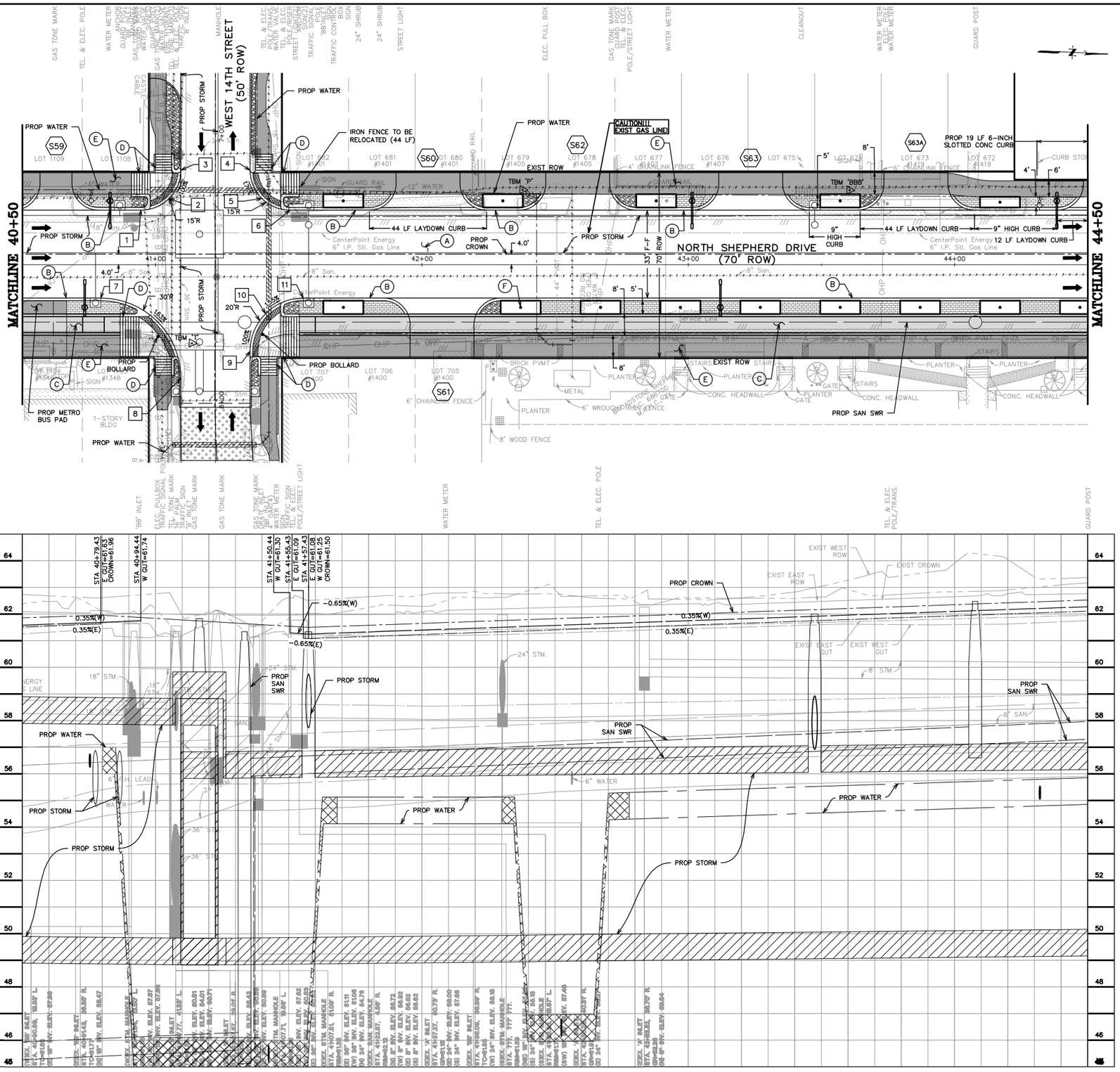
PLAN & PROFILE – PAVING

NORTH SHEPHERD DRIVE
36+50 TO 40+50

SHEET 18 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 230 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd.dwg PLOTTED: 9/25/2024 4:07 PM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
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BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'T',CP-103, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.62'
TBM 'P',CP-61, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=62.42'
TBM 'BBB',CP-320, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=64.08'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
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- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
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KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
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(N) PROP HEADER

SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	40+94.44	20.50' LT	SEE PROFILE
2	41+05.04	24.89' LT	61.86
3	41+09.44	35.50' LT	61.97
4	41+35.44	35.50' LT	61.71
5	41+39.83	24.89' LT	61.50
6	41+50.44	20.50' LT	SEE PROFILE
7	40+79.43	12.50' RT	SEE PROFILE
8	41+09.43	42.50' RT	60.86
9	41+35.43	32.50' RT	61.18
10	41+41.29	18.36' RT	61.34
11	41+55.43	12.50' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification. Signature Valid for 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 Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS · KRISTIN L. LANDRY · 100074 · LICENSED PROFESSIONAL ENGINEER · 8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

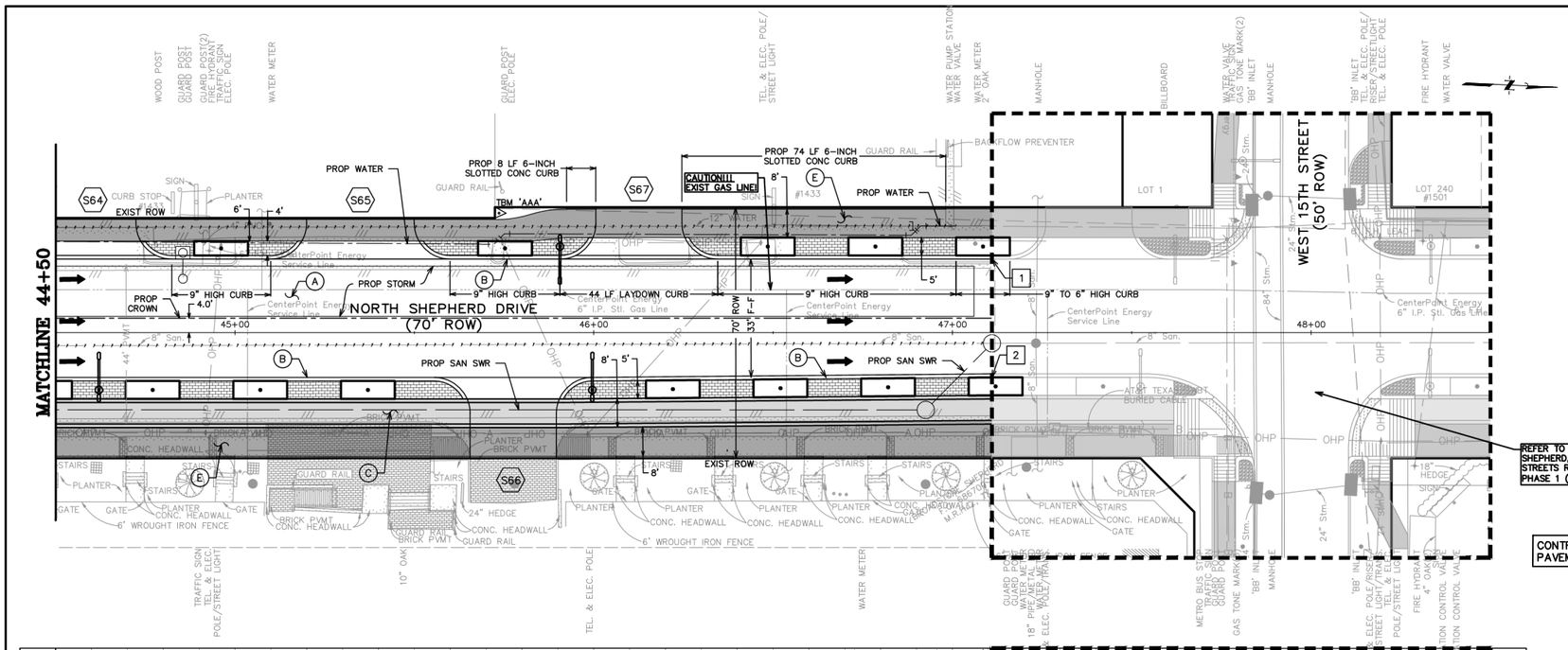
NORTH SHEPHERD DRIVE
40+50 TO 44+50

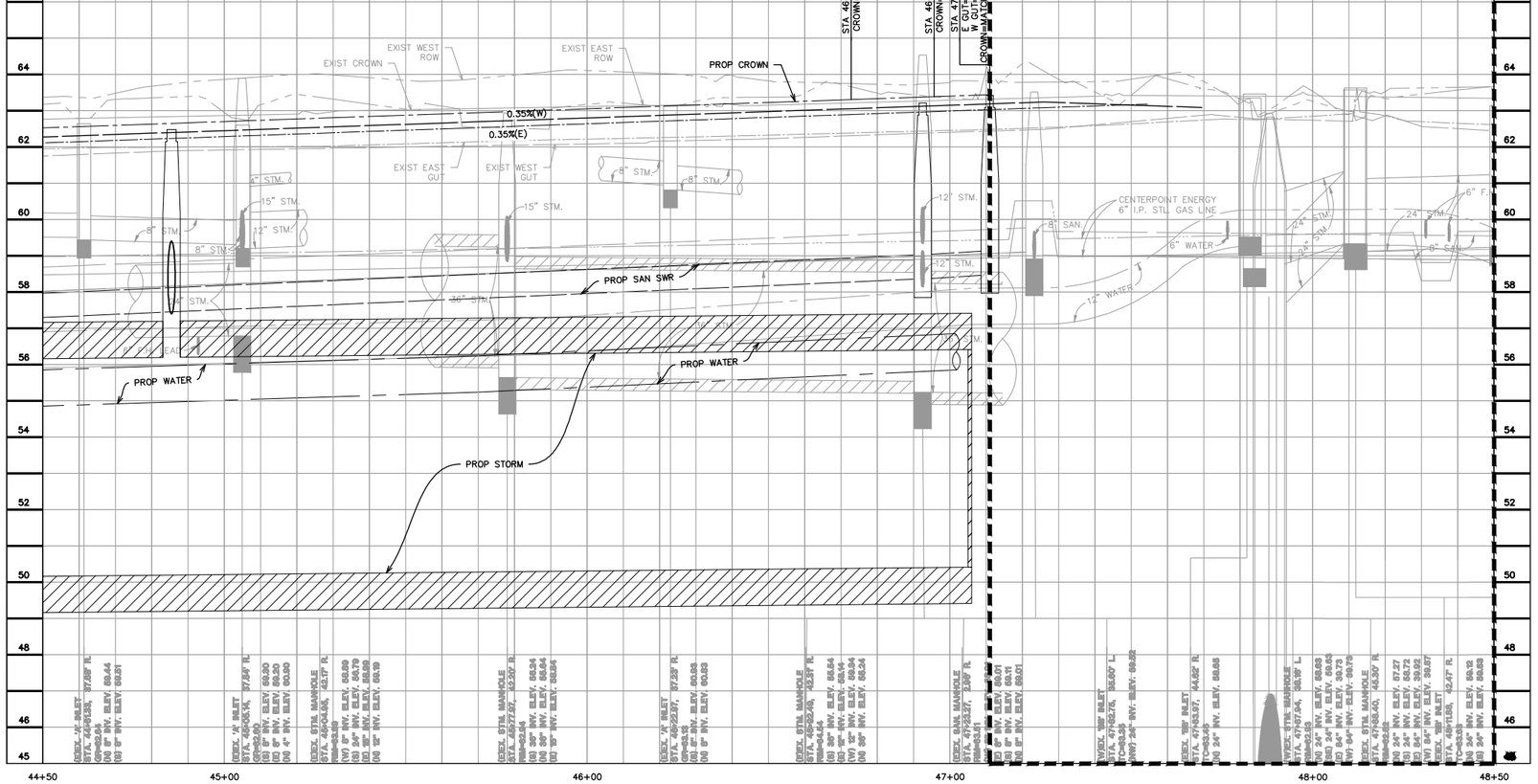
SHEET 19 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 231 OF 711	

PLOTTED: 9/25/2024 9:55 AM HVF

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-Ch-005-P&P_PAV Shepherd.dwg





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
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BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'AAA',CP-319, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=64.08'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
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0 5 10 20 40 60
SCALE: 1" = 20'

REFER TO IMPROVEMENTS INCLUDED IN SHEPHERD, DURHAM, AND SELECTED CROSS STREETS RECONSTRUCTION PROJECT – PHASE 1 (WBS NO. N-T05000-0005-7)

CONTRACTOR SHALL PROTECT ALL NEW PAVEMENT, SIDEWALKS, AND IMPROVEMENTS

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	47+11.01	20.50' LT	SEE PROFILE
2	47+11.01	12.50' RT	SEE PROFILE

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10194000
4265 Kirby Drive, Suite 315, Houston, TX 77098
713.777.5581

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

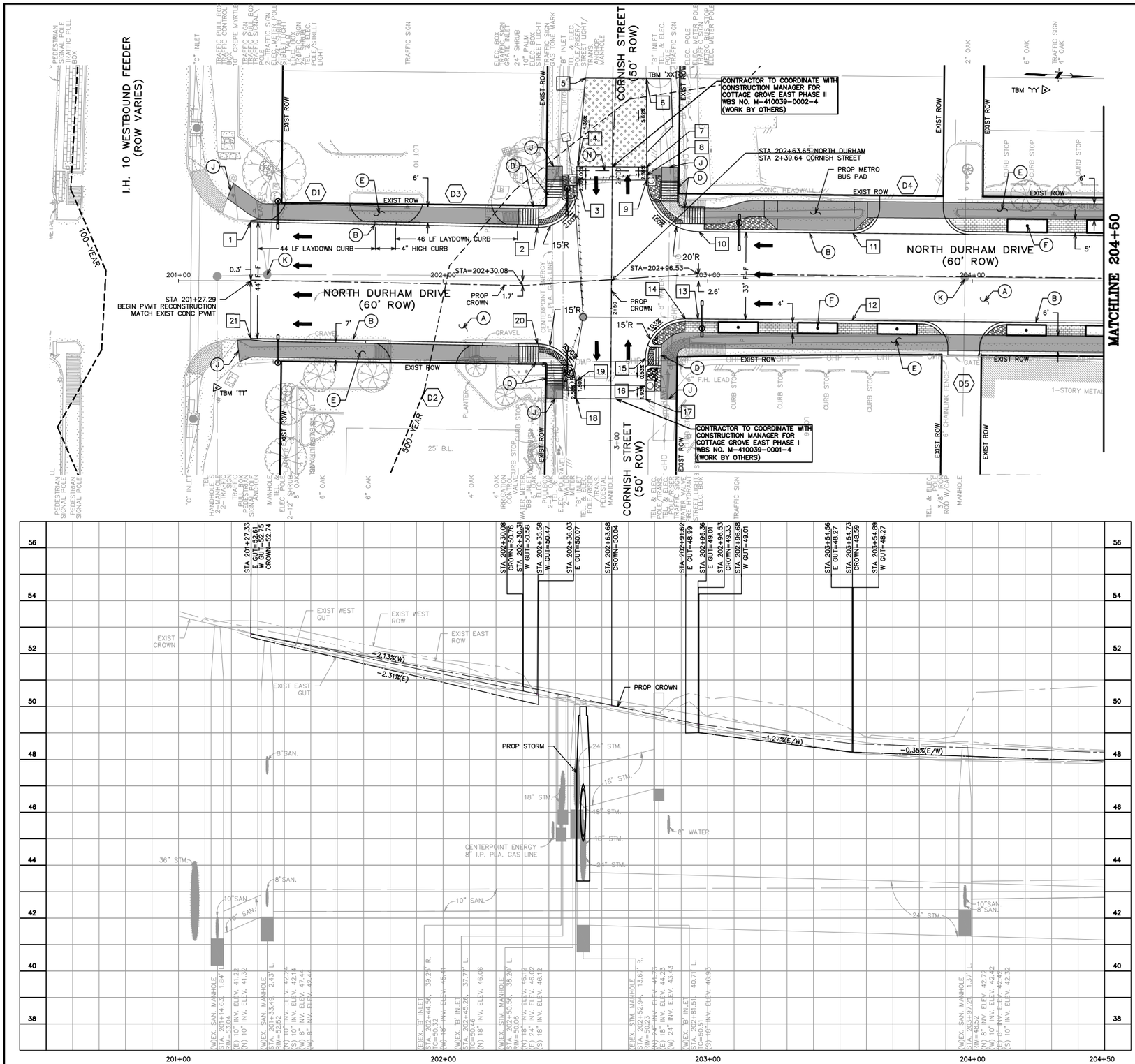
PLAN & PROFILE – PAVING

NORTH SHEPHERD DRIVE
44+50 TO END

SHEET 20 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 232 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Shepherd.dwg PLOTTED: 9/25/2024 9:55 AM HVF



GENERAL NOTES

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FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'YY', CP-317, "X" CUT IN CONC. (SEE RECOVERY SKETCH)
ELEV= 51.69'

TBM 'XX', CP-316, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 51.95'

TBM 'TT', CP-312, 5/8-INCH IRON ROD WITH CAP (SEE RECOVERY SKETCH)
ELEV= 53.65'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	201+27.33	22.39' LT	SEE PROFILE
2	202+55.58	20.26' LT	SEE PROFILE
3	202+50.89	39.17' LT	49.96
4	202+50.91	43.25' LT	50.04
5	202+53.79	76.70' LT	MATCH EXIST
6	202+76.82	76.56' LT	MATCH EXIST
7	202+76.91	43.09' LT	49.62
8	202+76.89	40.09' LT	49.55
9	202+76.88	38.09' LT	49.50
10	202+96.68	18.64' LT	SEE PROFILE
11	203+54.89	18.06' LT	SEE PROFILE
12	203+54.56	14.94' RT	SEE PROFILE
13	202+96.36	14.36' RT	SEE PROFILE
14	202+91.62	14.31' RT	SEE PROFILE
15	202+76.47	29.22' RT	48.75
16	202+76.40	39.61' RT	48.7
17	202+76.37	44.61' RT	48.6
18	202+50.37	44.45' RT	49.47
19	202+50.41	37.84' RT	49.64
20	202+36.69	23.75' RT	SEE PROFILE
21	201.27.33	21.69' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and LF006520
4265 West Linq Street, Suite 100 Houston, TX 77040
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

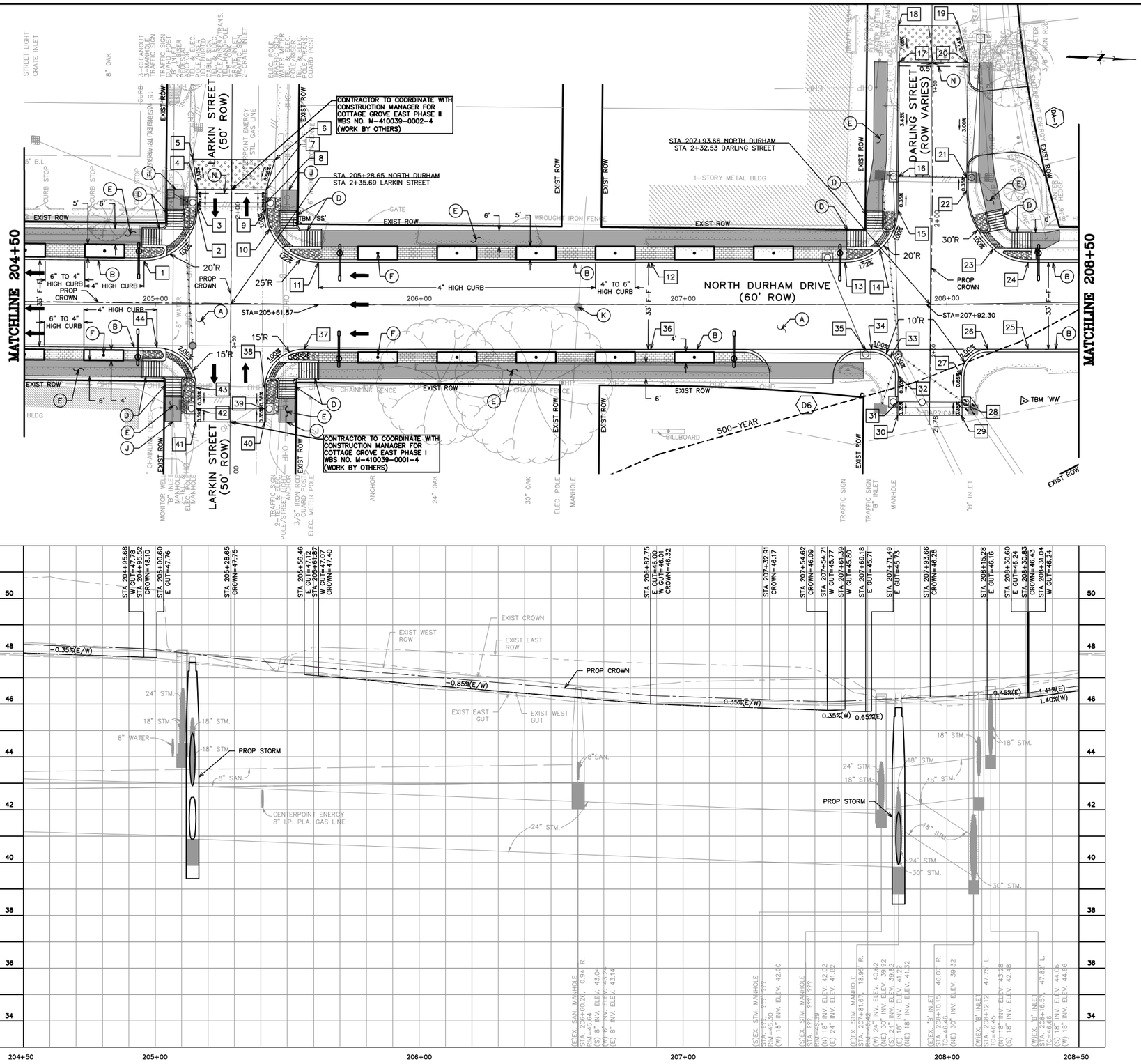
PLAN & PROFILE – PAVING

NORTH DURHAM DRIVE
BEGIN TO 204+50

SHEET 21 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 233 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham Southside.dwg PLOTTED: 9/25/2024 9:59 AM VMM



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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TBM INFO

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
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- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

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(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
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(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

Station and Offset Table

No.	Station	Offset	Elevation
1	204+95.68	16.66' LT	SEE PROFILE
2	205+15.87	36.53' LT	47.46
3	205+15.89	38.63' LT	47.46
4	205+15.92	43.63' LT	47.58
5	205+14.27	55.01' LT	MATCH EXIST
6	205+45.36	54.82' LT	MATCH EXIST
7	205+41.92	43.47' LT	47.41
8	205+41.89	38.47' LT	47.28
9	205+41.89	36.12' LT	47.29
10	205+43.28	28.63' LT	47.37
11	205+61.87	16.00' LT	SEE PROFILE
12	206+87.75	16.00' LT	SEE PROFILE
13	207+61.39	16.00' LT	SEE PROFILE
14	207+74.57	20.96' LT	46.04
15	207+81.39	35.80' LT	45.87
16	207+81.52	48.40' LT	45.83
17	207+81.96	91.86' LT	47.32
18	207+81.58	105.70' LT	MATCH EXIST
19	208+05.86	105.33' LT	MATCH EXIST
20	208+09.20	91.41' LT	47.13
21	208+08.17	47.94' LT	45.83
22	208+08.05	42.94' LT	45.84
23	208+17.85	20.70' LT	46.09
24	208+31.04	15.50' LT	SEE PROFILE
25	208+30.61	17.50' RT	SEE PROFILE
26	208+15.26	17.29' RT	SEE PROFILE
27	208+05.13	27.10' RT	45.85
28	208+04.93	37.25' RT	45.79
29	208+04.83	42.12' RT	45.80
30	207+81.40	41.99' RT	45.71
31	207+81.43	36.94' RT	45.70
32	207+81.49	27.06' RT	45.73
33	207+78.58	19.95' RT	45.81
34	207+71.49	17.00' RT	SEE PROFILE
35	207+69.18	17.00' RT	SEE PROFILE
36	206+87.75	17.00' RT	SEE PROFILE
37	205+56.46	17.00' RT	SEE PROFILE
38	205+41.46	31.91' RT	47.35
39	205+41.41	39.53' RT	47.30
40	205+41.38	44.53' RT	47.32
41	205+15.38	44.37' RT	47.29
42	205+15.41	39.37' RT	47.26
43	205+15.46	31.48' RT	47.29
44	205+00.61	16.39' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

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Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and LS Reg. No. 10194100
4265 West Loop South, Suite 100, Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

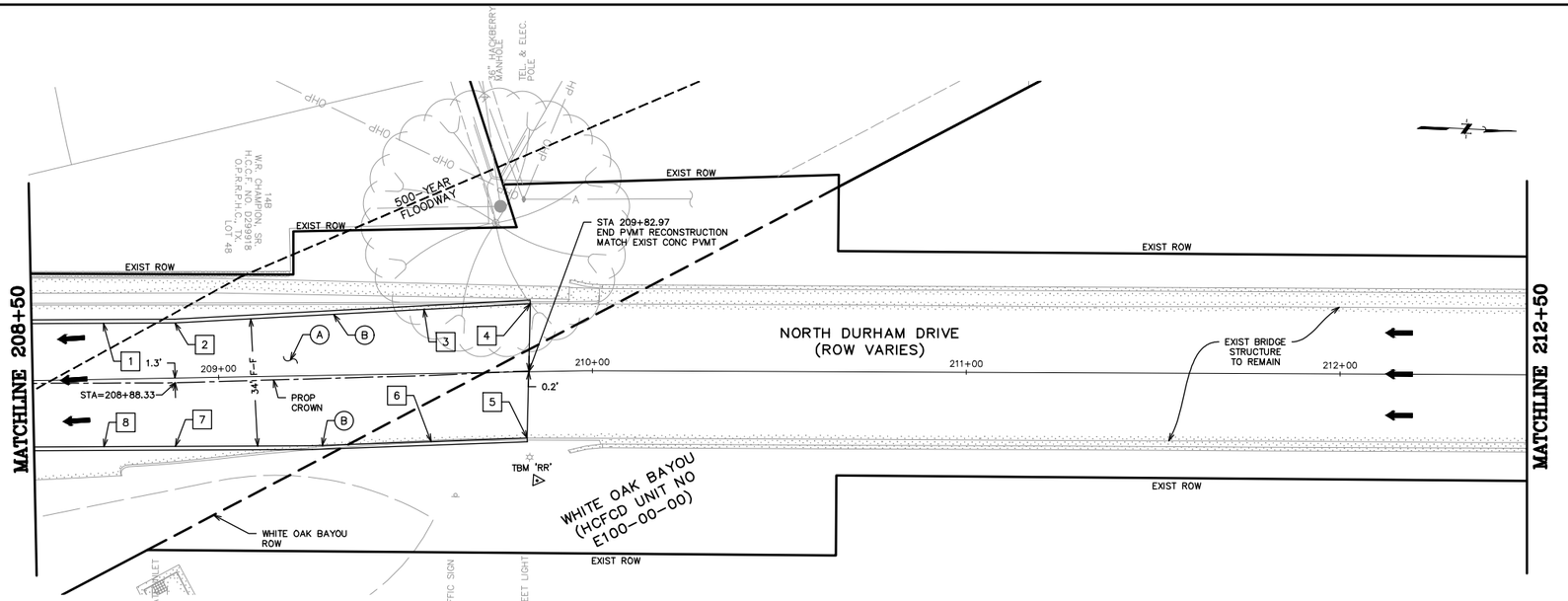
NORTH DURHAM DRIVE

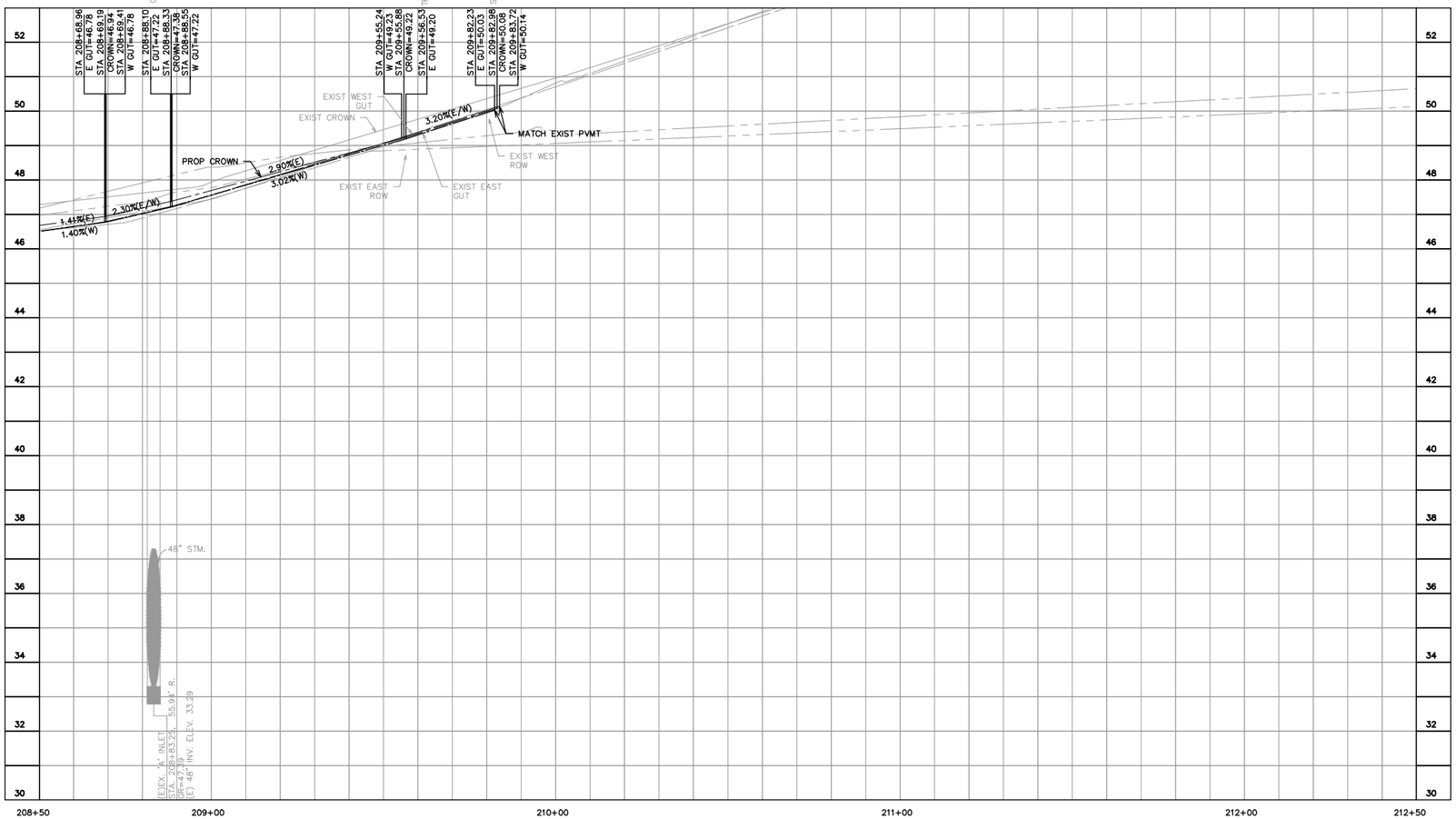
204+50 TO 208+50

SHEET 22 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 234 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham Southside.dwg PLOTTED: 9/25/2024 10:00 AM VMM





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'RR', CP-310, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 50.01'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
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(J) MATCH EXIST SIDEWALK
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(L) REMOVE EXIST STORM SEWER MH
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(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	208+69.41	14.98' LT	SEE PROFILE
2	208+88.55	14.72' LT	SEE PROFILE
3	209+55.24	17.16' LT	SEE PROFILE
4	209+83.72	18.20' LT	MATCH EXIST
5	209+82.23	17.75' RT	MATCH EXIST
6	209+56.53	18.21' RT	SEE PROFILE
7	208+88.10	18.28' RT	SEE PROFILE
8	208+68.96	18.02' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and ES Reg. No. 10194300
4265 West Loop South, Suite 100, Bellaire, TX 77401 713.574.5500

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

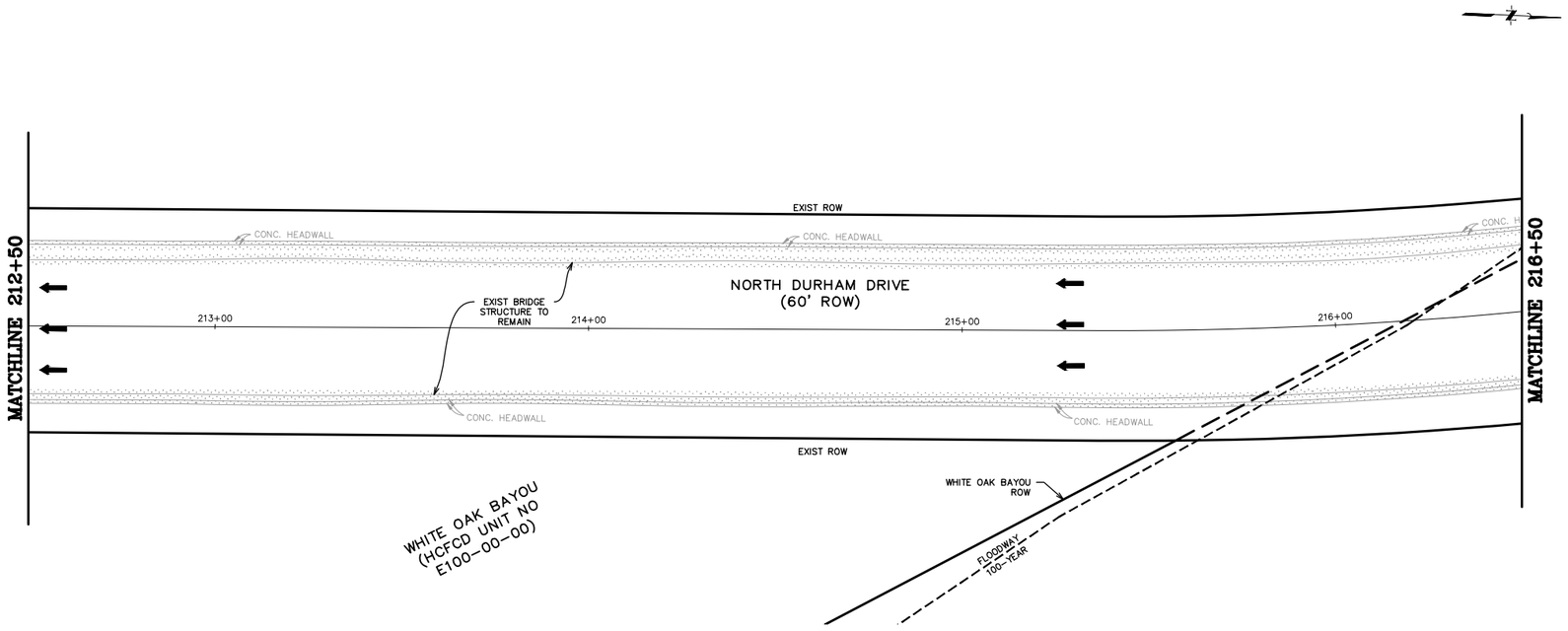
PLAN & PROFILE – PAVING

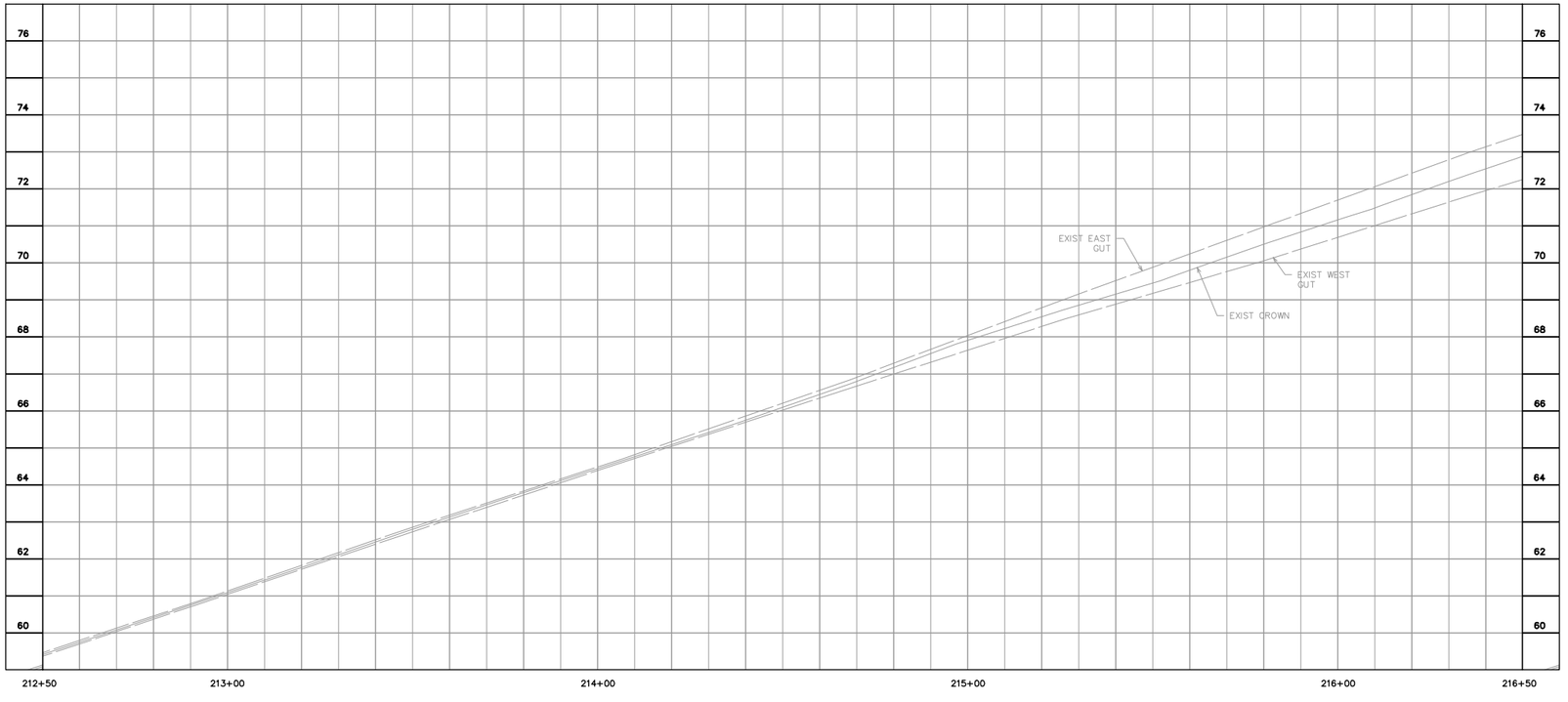
NORTH DURHAM DRIVE
208+50 TO 212+50

SHEET 23 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 235 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham Southside.dwg PLOTTED: 9/25/2024 10:01 AM VMM





GENERAL NOTES

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TBM INFO

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- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
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0 5 10 20 40 60
SCALE: 1" = 20'

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-21296 and 10194000
4333 West Loop South, Suite 250 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
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CITY OF HOUSTON
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SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

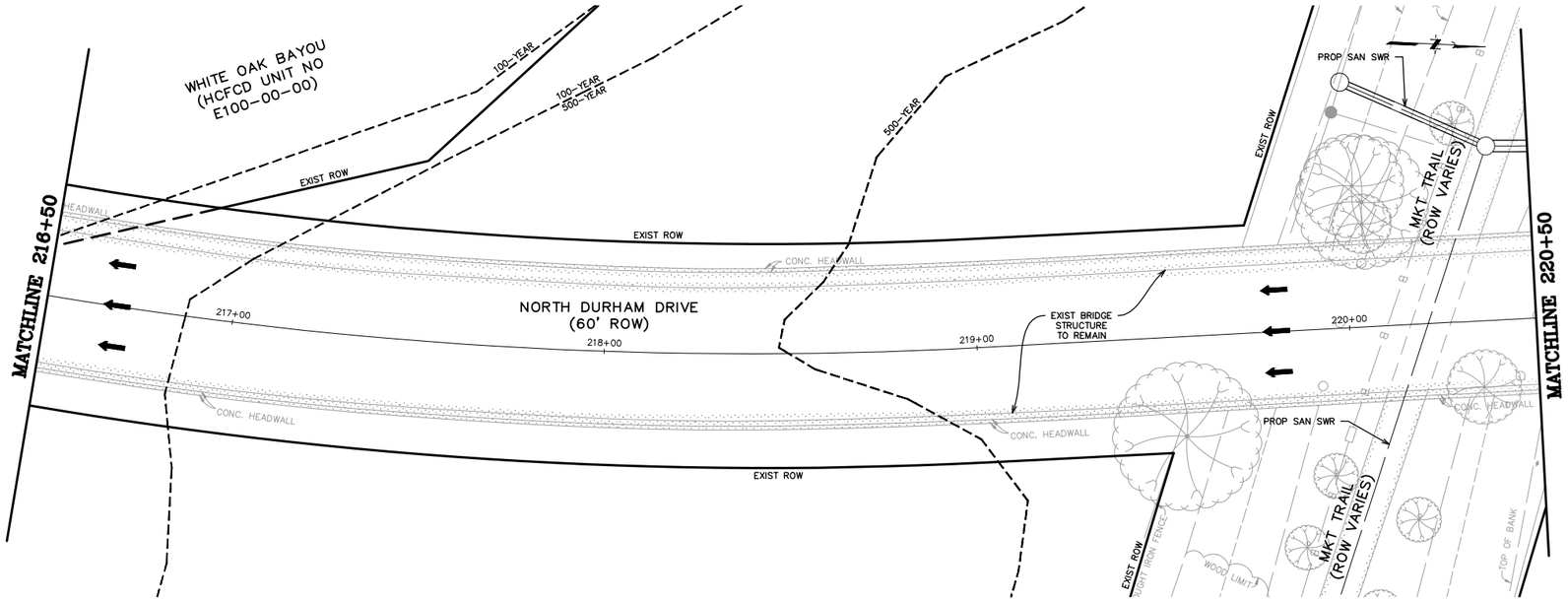
NORTH DURHAM DRIVE

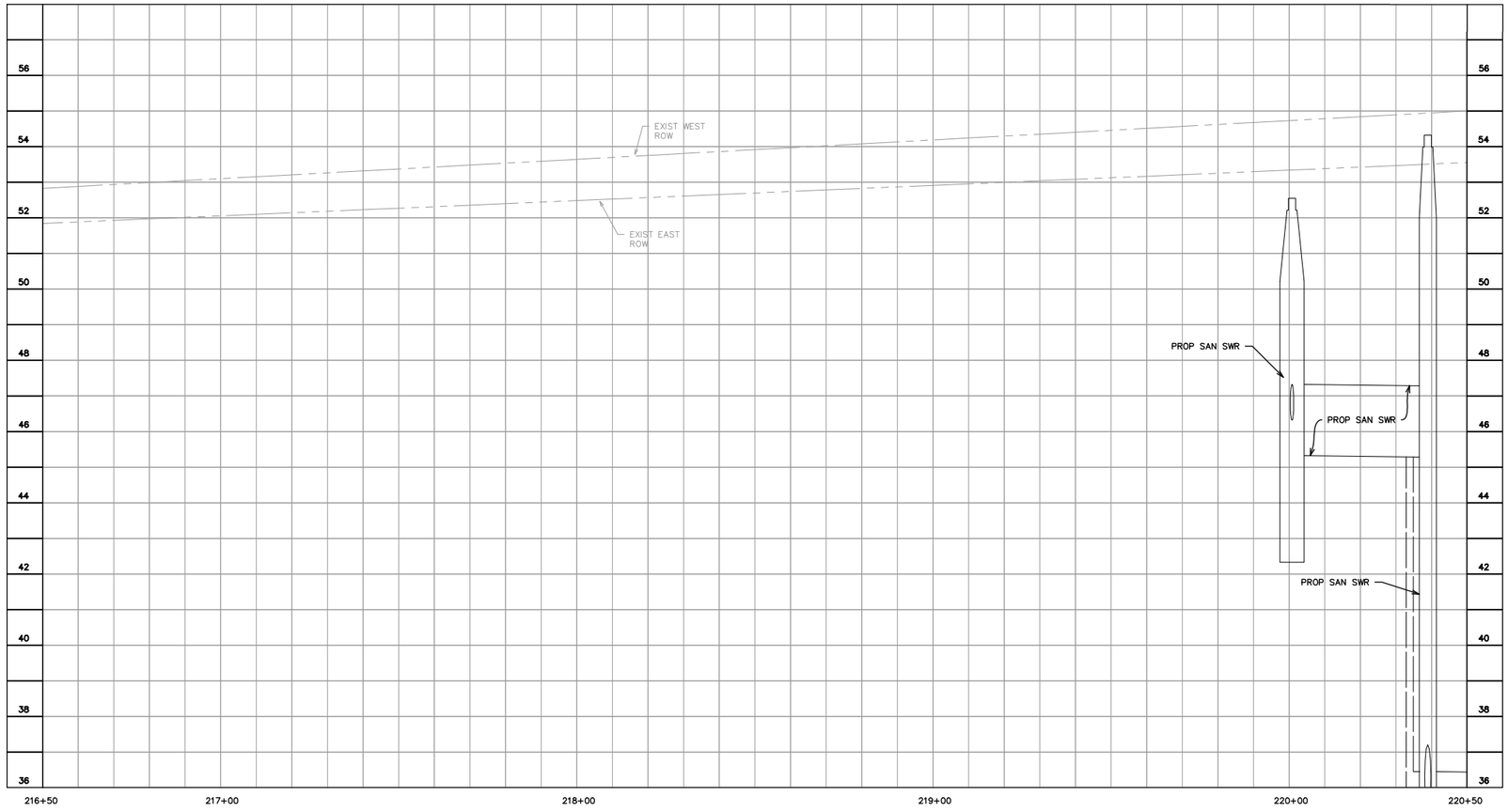
212+50 TO 216+50

SHEET 24 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. **236** OF **711**	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham Southside.dwg PLOTTED: 9/25/2024 10:01 AM VMM





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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 to 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-21291 and 10194000
4333 West Loop South, Suite 210 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

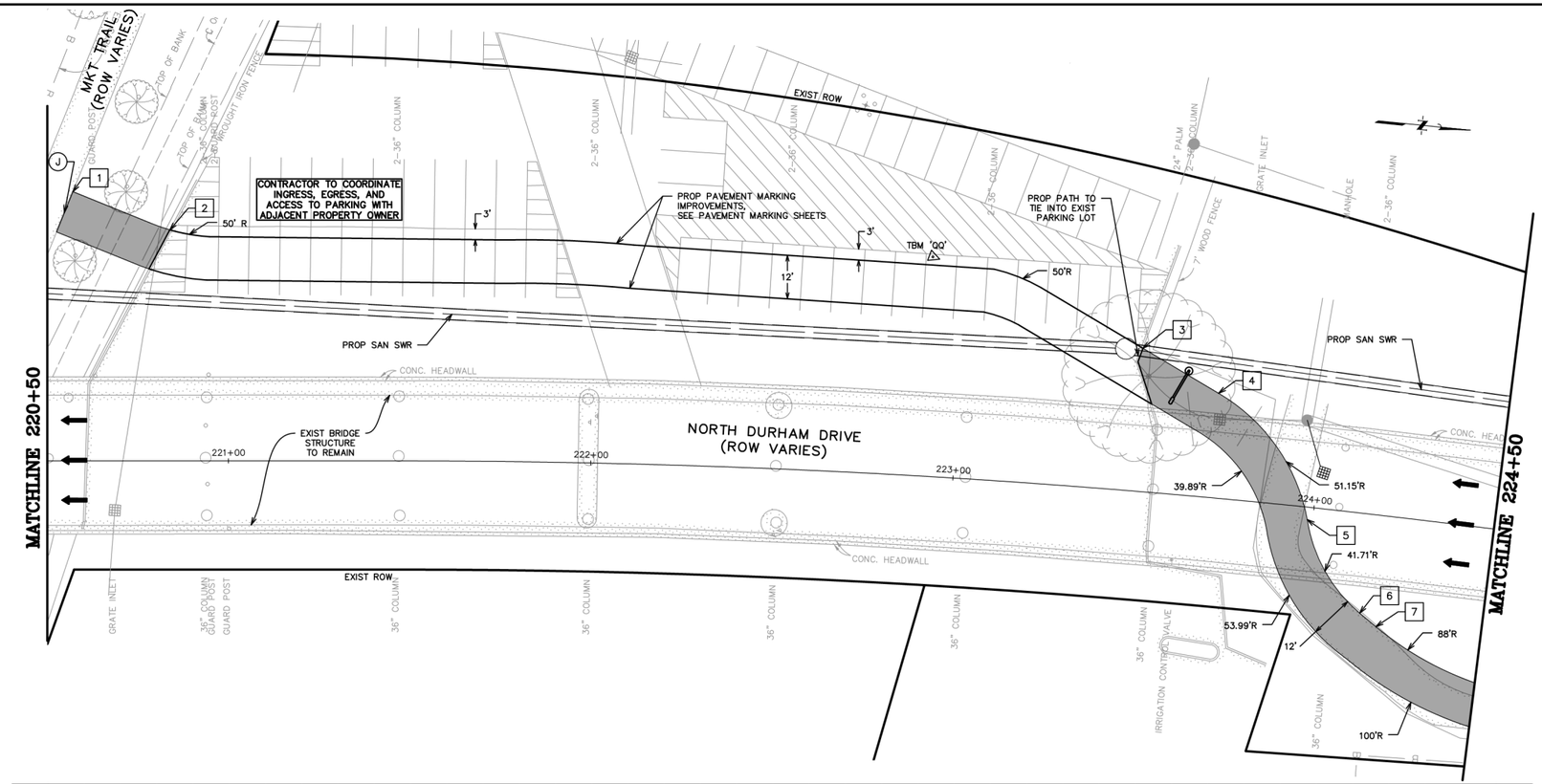
PLAN & PROFILE – PAVING

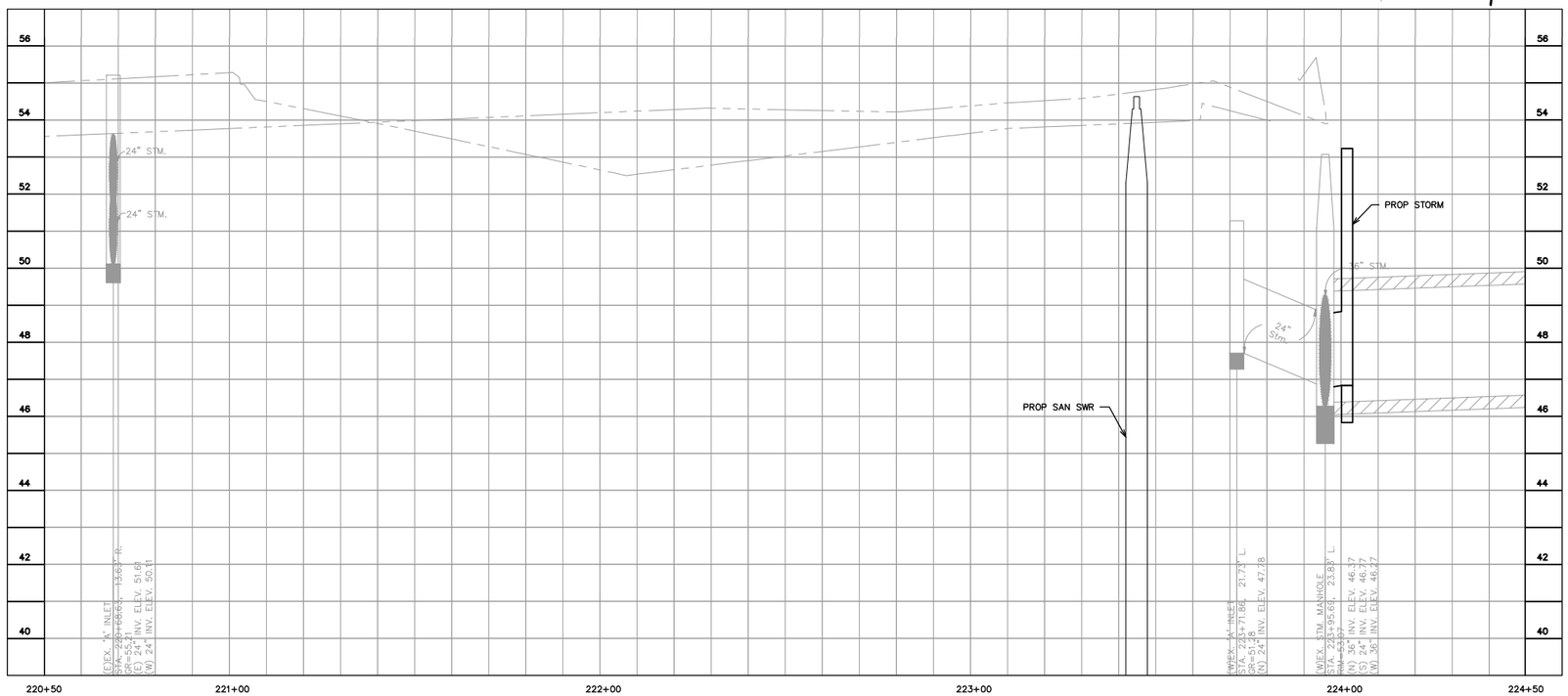
NORTH DURHAM DRIVE
216+50 TO 220+50

SHEET 25 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 237 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham Southside.dwg PLOTTED: 9/25/2024 10:02 AM VMM





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035 FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'QQ', CP-309, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 53.83'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Northing	Easting	Elevation
1	13851240.48	3106963.99	MATCH EXIST
2	13851269.23	3106964.29	MATCH EXIST
3	13851531.74	3106898.96	MATCH EXIST
4	13851555.68	3106903.12	
5	13851590.98	3106926.95	MATCH EXIST
6	13851613.75	3106945.92	MATCH EXIST
7	13851619.24	3106947.81	MATCH EXIST

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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 to 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-12290 and 10194300
4545 West Gray Suite F, Box 112 Houston, TX 77063
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

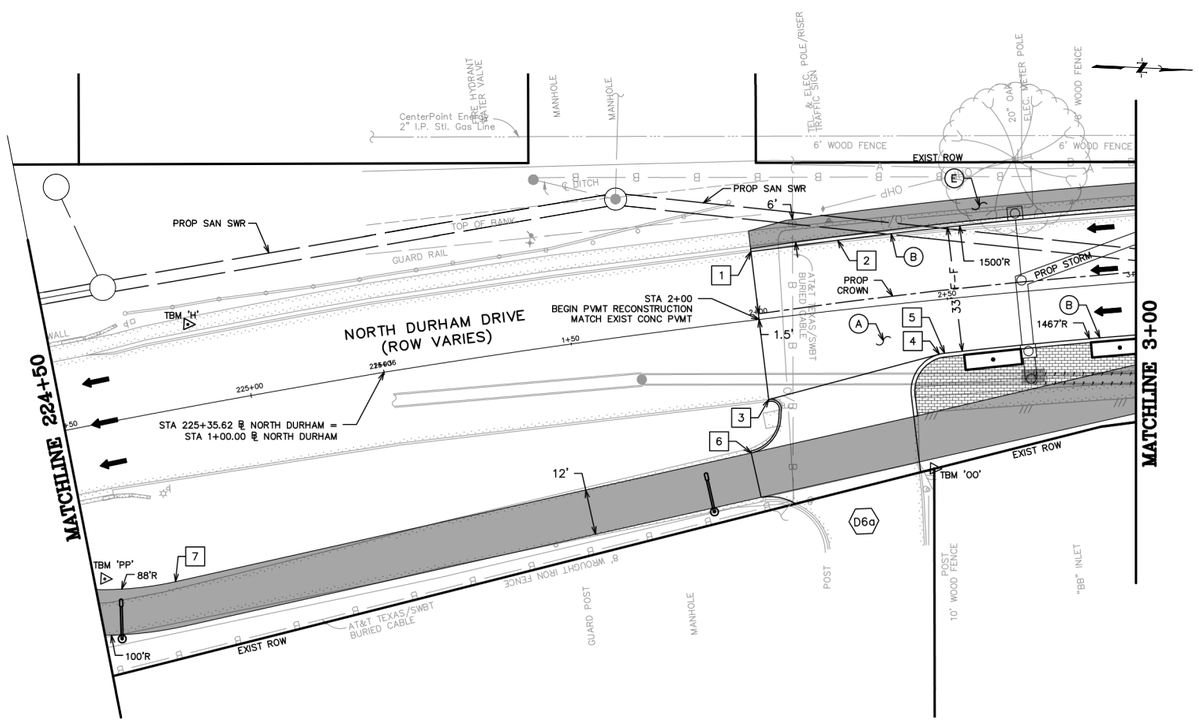
PLAN & PROFILE – PAVING

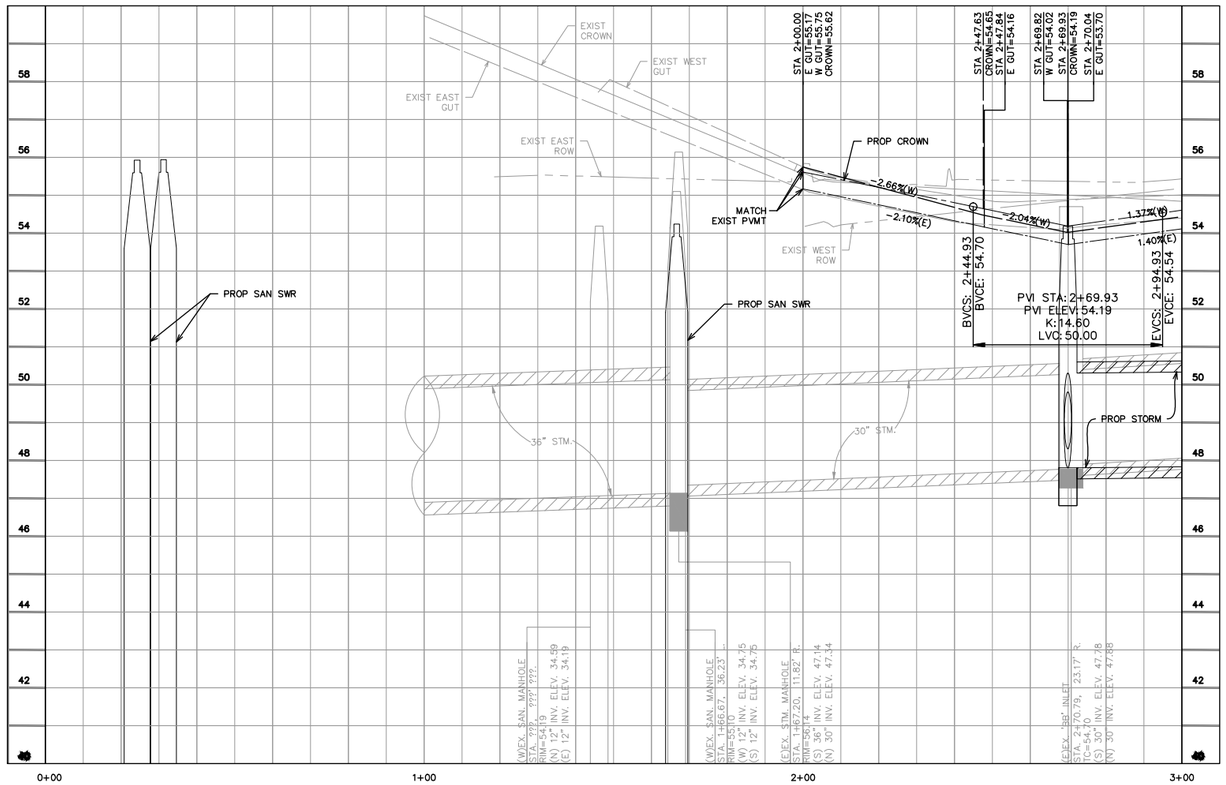
NORTH DURHAM DRIVE
220+50 TO 224+50

SHEET 26 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 238 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham Southside.dwg PLOTTED: 9/25/2024 10:03 AM VMM





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'H', CP-19, MAG NAIL W/ SHINER. (SEE RECOVERY SKETCH)
ELEV= 62.72'

TBM 'OO', CP-307, MAG NAIL W/ SHINER. (SEE RECOVERY SKETCH)
ELEV= 55.53'

TBM 'PP', CP-308, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 54.51'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	2+00.00	18.04' LT	SEE PROFILE
2	2+22.91	18.37' RT	SEE PROFILE
3	2+00.00	21.29' RT	SEE PROFILE
4	2+46.45	14.35' RT	SEE PROFILE
5	2+47.84	14.23' RT	SEE PROFILE
6	1+93.64	34.72' RT	MATCH EXIST
7	224+71.7	44.70' RT	MATCH EXIST

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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 to 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10194000
4333 West Loop South, Suite 500 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

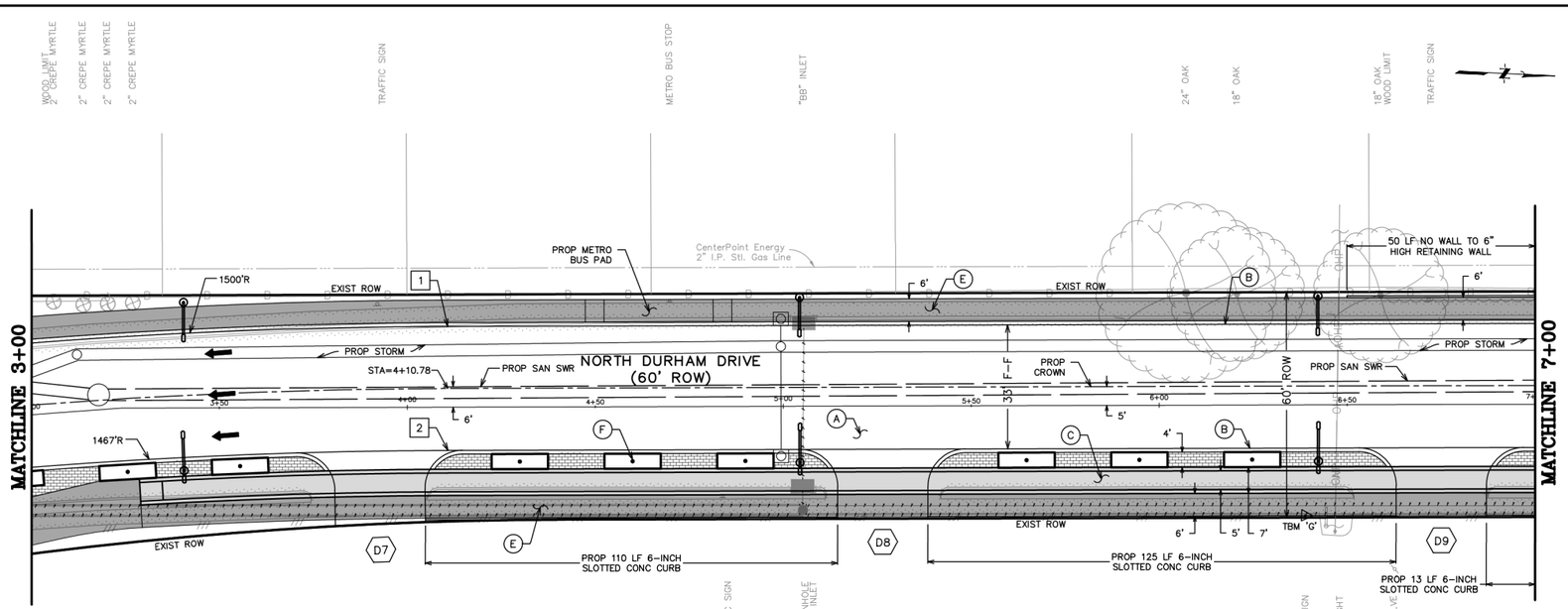
NORTH DURHAM DRIVE

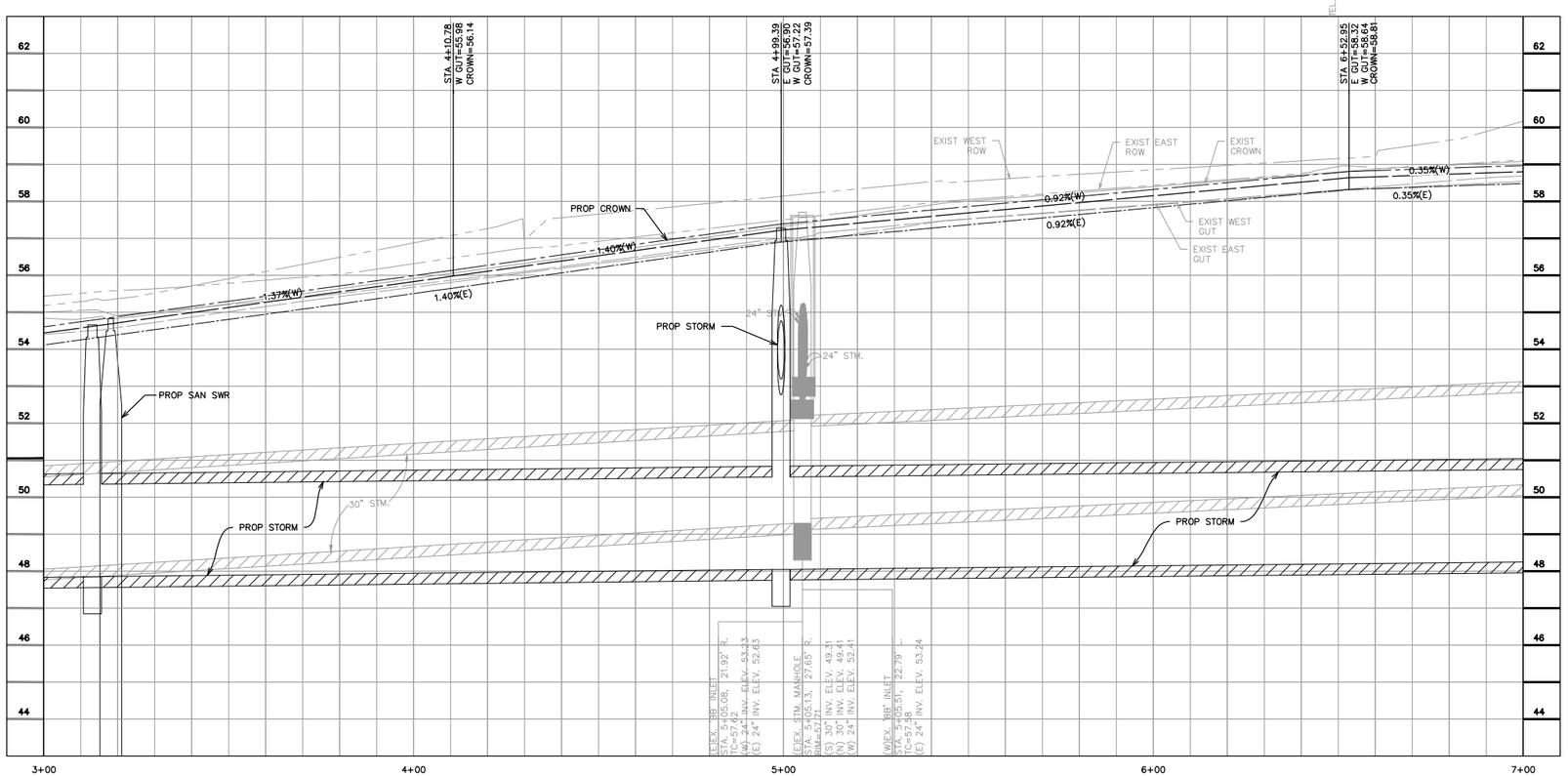
224+50 TO 3+00

SHEET 27 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 239 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg PLOTTED: 9/25/2024 10:04 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.
G. PROPOSED METRO BUS STOPS ARE TO FOLLOW STANDARD DETAIL SUPPLIED ON SHEET 618.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'G', CP-18, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 58.84'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	4+10.78	21.50' LT	SEE PROFILE
2	4+10.78	11.50' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
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Signature Valid for six months.

Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No's F-23294 and 10194100
9330 West Loop South, Suite 1200 Houston, TX 77096
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

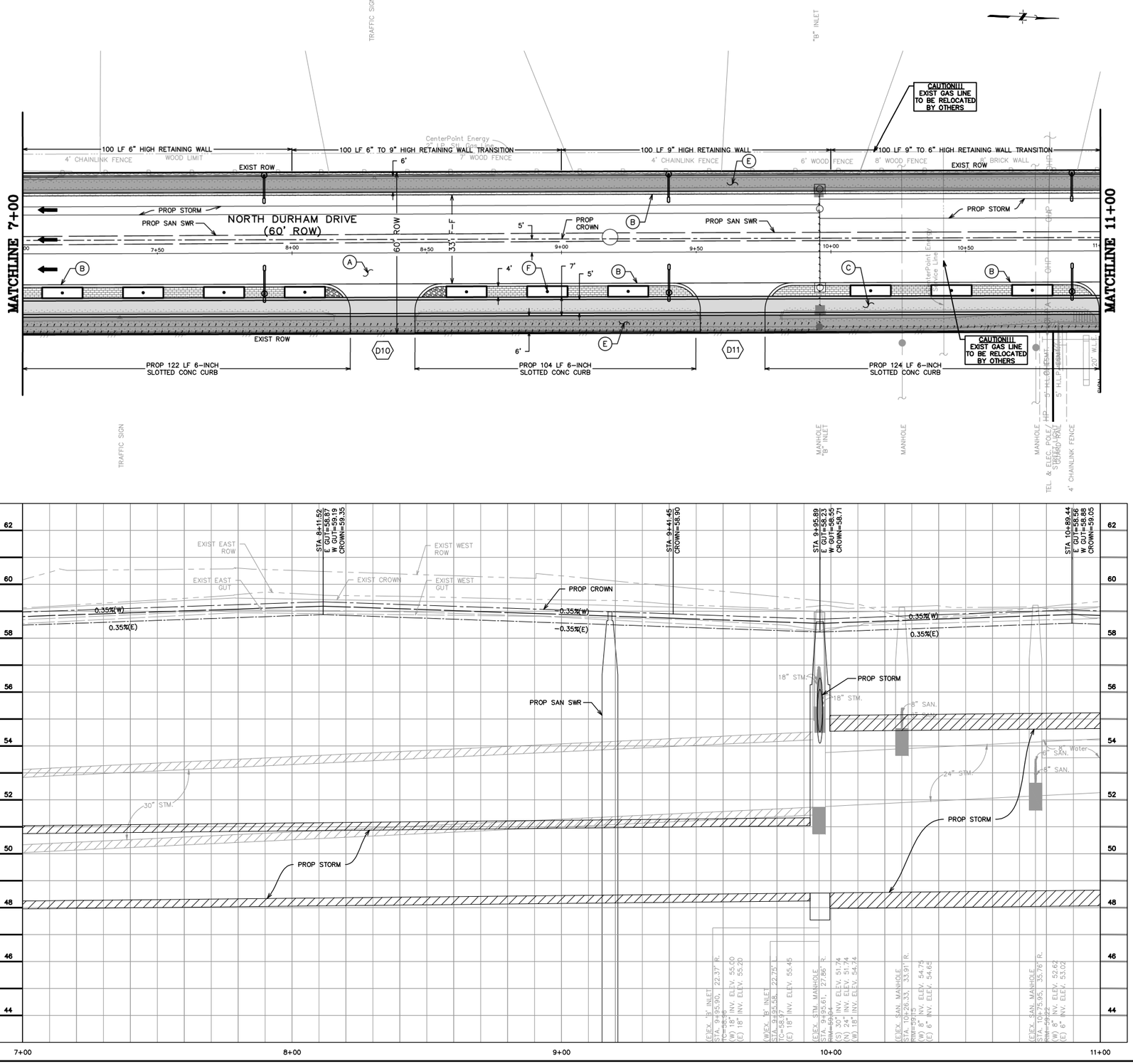
PLAN & PROFILE – PAVING

NORTH DURHAM DRIVE
3+00 TO 7+00

SHEET 28 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 240 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg PLOTTED: 10/18/2024 9:59 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'F', CP-17, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 59.18'

TBM 'G', CP-18, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 58.84

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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 to 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and 10194000
4333 West Loop South, Suite 200 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

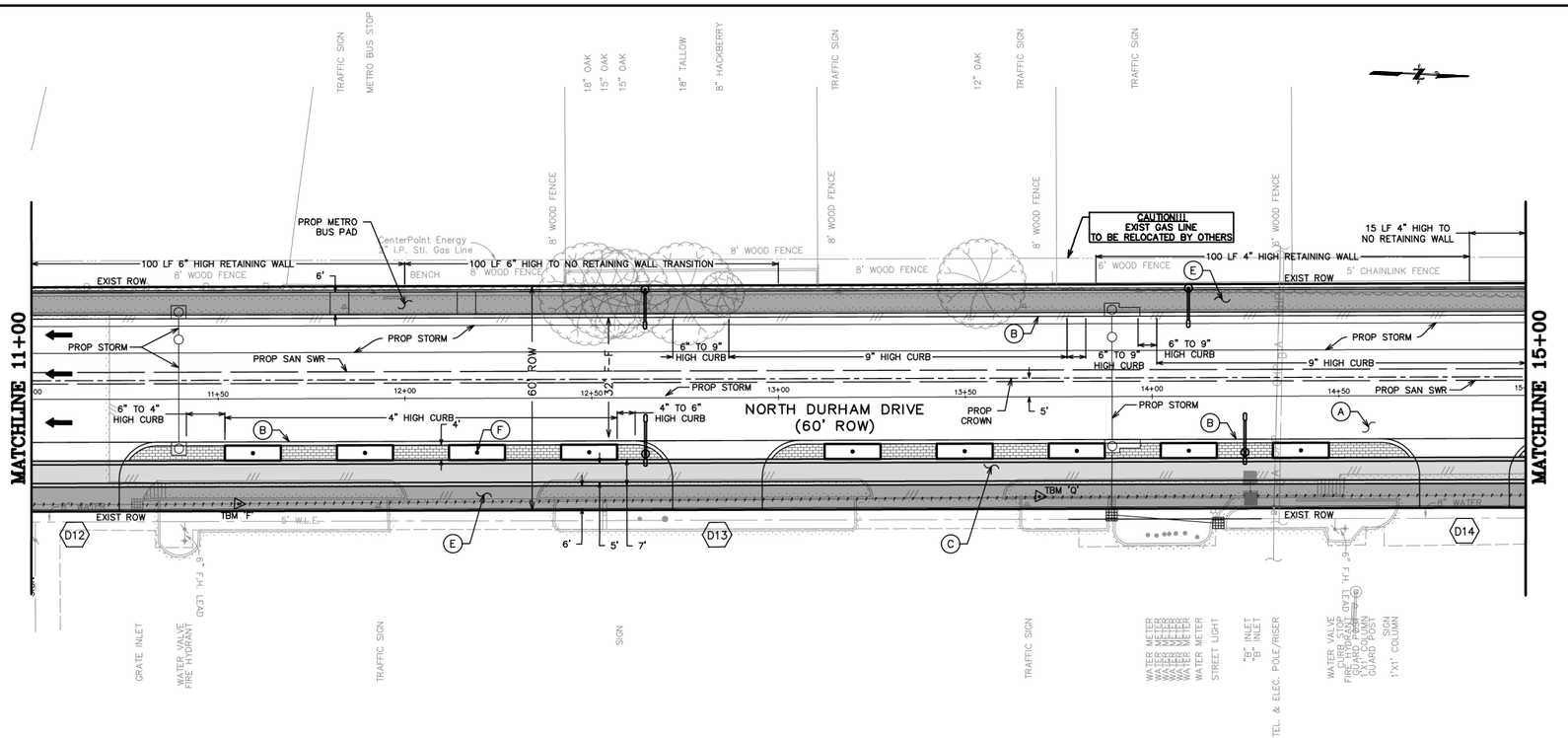
PLAN & PROFILE – PAVING

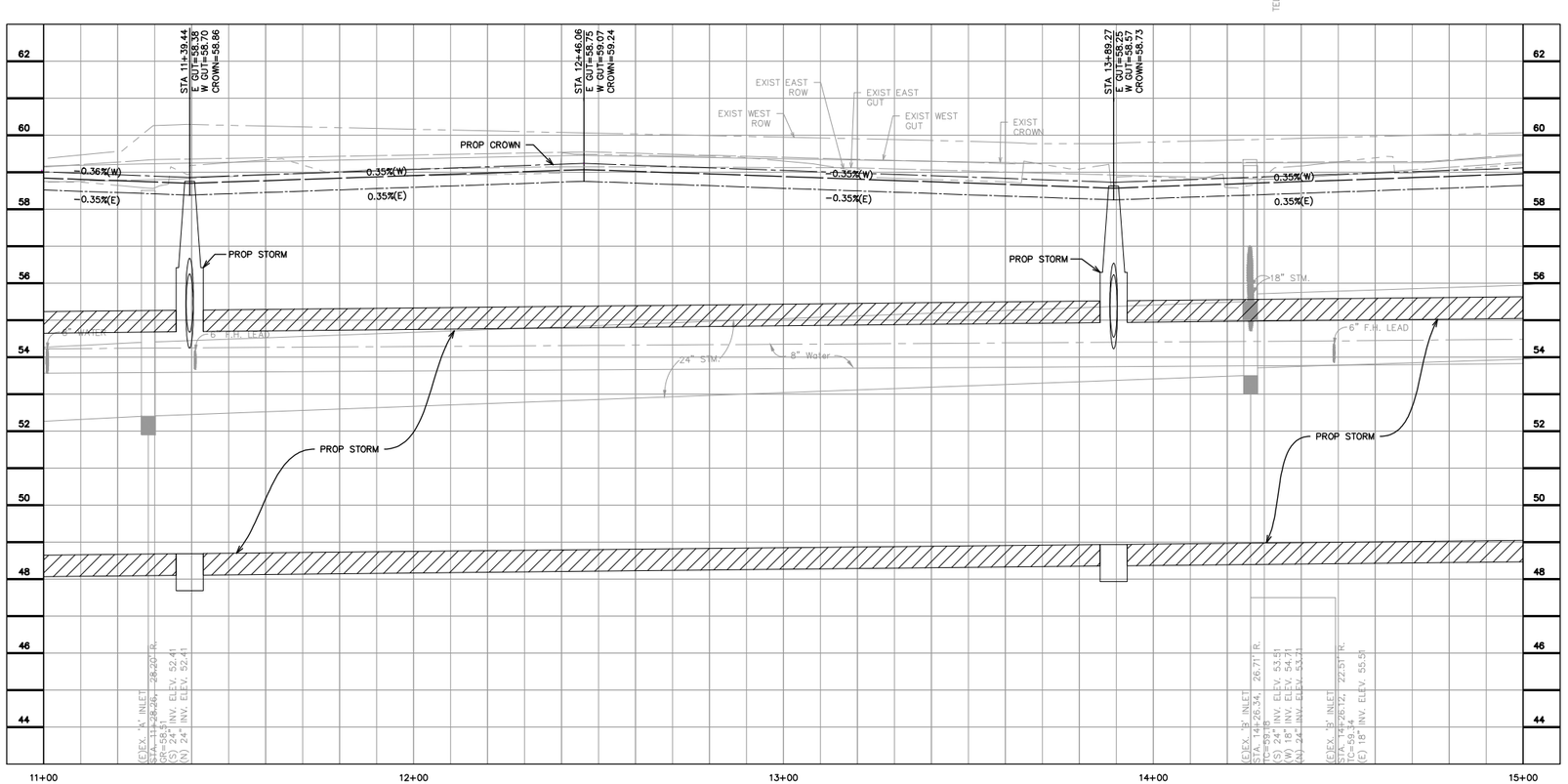
NORTH DURHAM DRIVE
7+00 TO 11+00

SHEET 29 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 241 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg PLOTTED: 9/25/2024 10:43 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'Q', CP-80, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 59.30'

TBM 'F', CP-17, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 59.18'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
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(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23705 and 10194000
4333 West Loop South, Suite 500 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

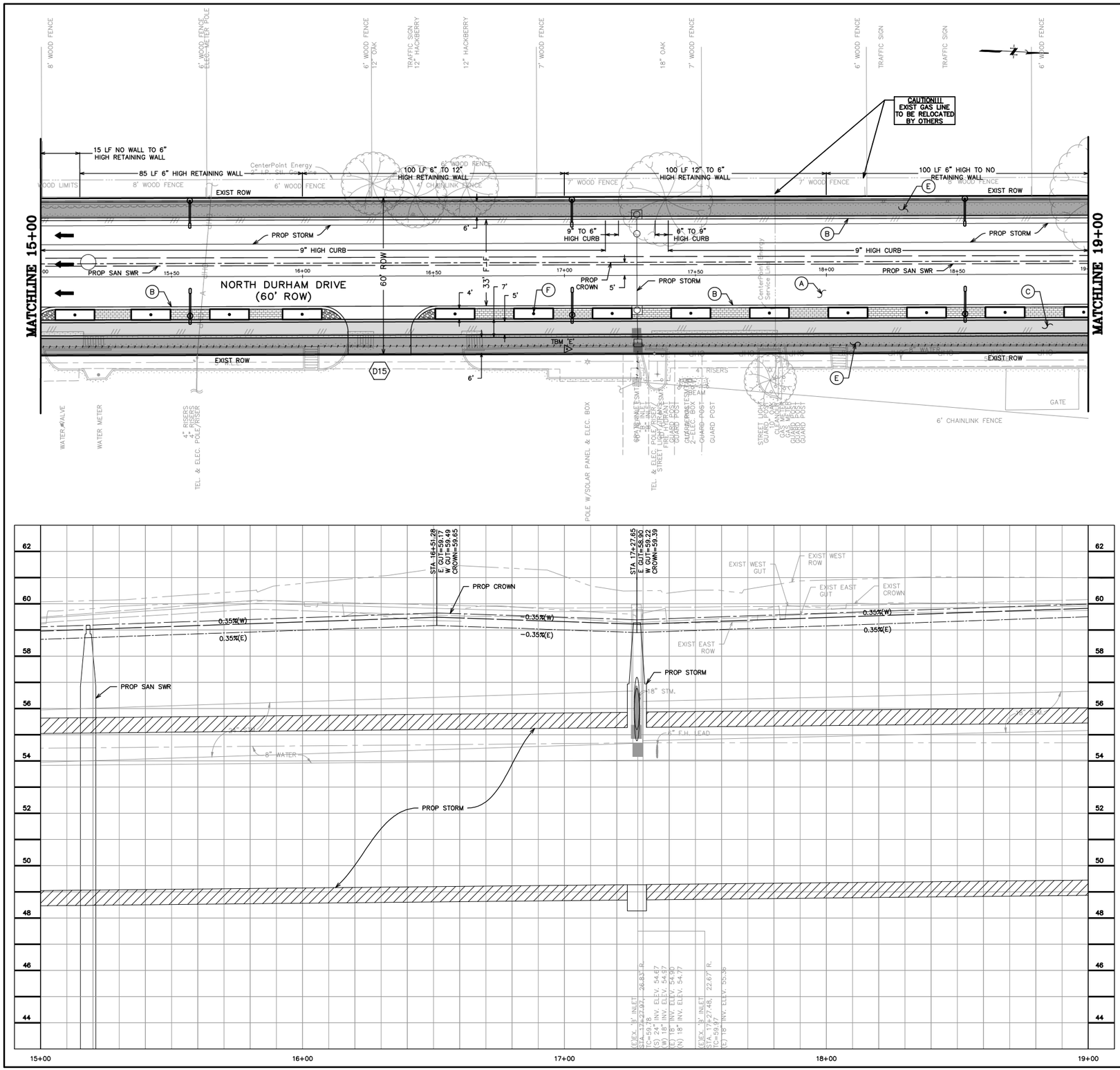
PLAN & PROFILE – PAVING

NORTH DURHAM DRIVE
11+00 TO 15+00

SHEET 30 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 242 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg PLOTTED: 9/25/2024 10:44 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'E', CP-16, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 59.80'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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KEYED NOTES

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(B) PROP 12-INCH CONC CURB
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(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
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0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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VERIFICATION OF PRIVATE UTILITY LINES

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Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and 10194000
4333 West Loop South, Suite 500 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

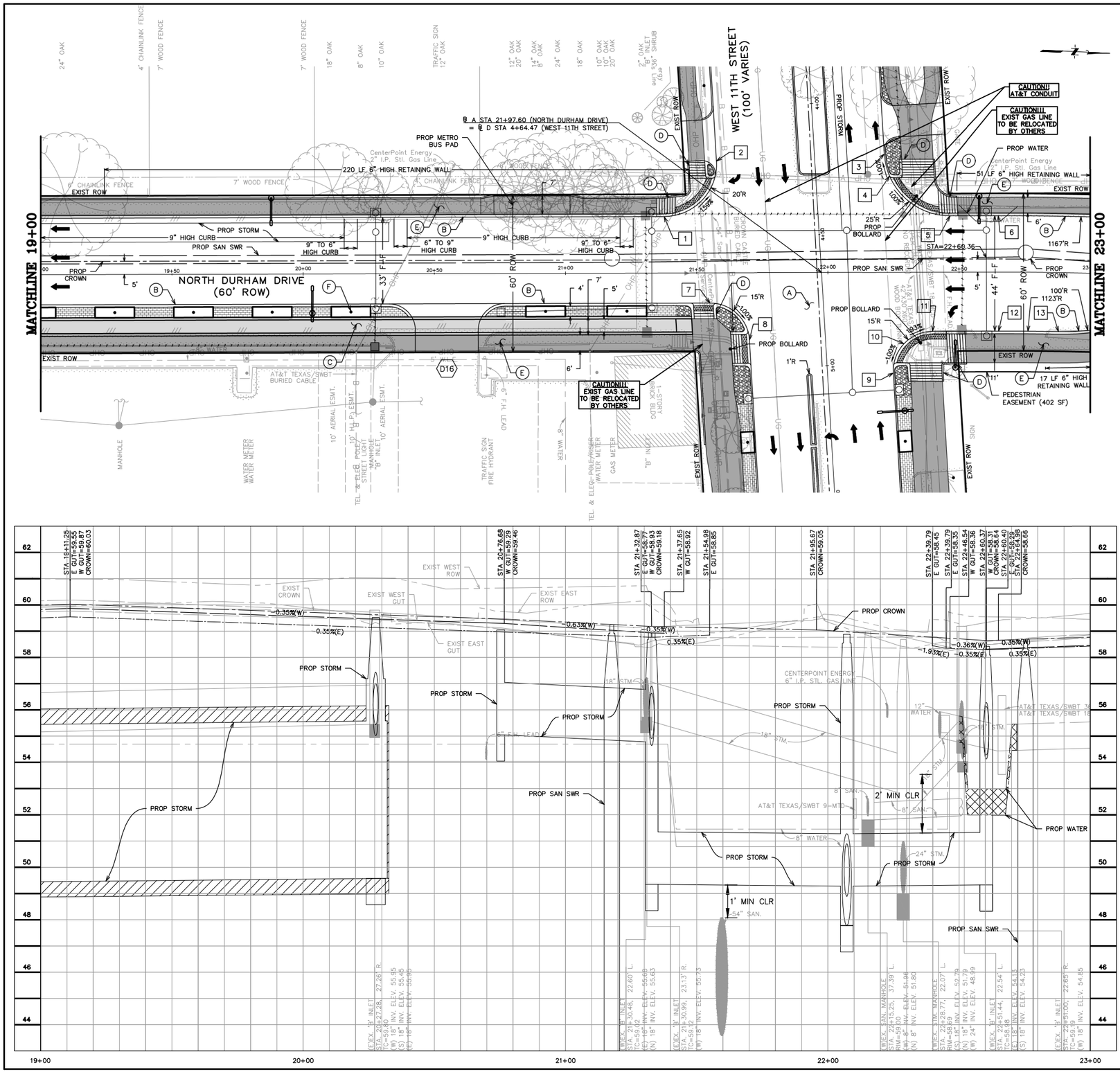
PLAN & PROFILE - PAVING

NORTH DURHAM DRIVE
15+00 TO 19+00

SHEET 31 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 243 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg PLOTTED: 9/25/2024 10:07 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.
G. PROPOSED METRO BUS STOPS ARE TO FOLLOW STANDARD DETAIL SUPPLIED ON SHEET 618. METRO BUS PAD TO BE LOCATED 70 FEET SOUTH OF WEST 11TH STREET AND DURHAM INTERSECTION.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'D', CP-14, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 60.30'
TBM 'E', CP-16, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 59.80'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
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- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
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KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
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(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	21+37.65	21.50' LT	SEE PROFILE
2	21+57.62	42.61' LT	58.40
3	22+21.58	45.08' LT	58.87
4	22+23.54	36.71' LT	58.66
5	22+46.54	21.50' LT	SEE PROFILE
6	22+64.98	21.50' LT	SEE PROFILE
7	21+54.98	11.50' RT	SEE PROFILE
8	21+70.01	25.65' RT	58.62
9	22+24.81	38.35' RT	58.56
10	22+28.89	27.20' RT	58.68
11	22+39.79	22.50' RT	SEE PROFILE
12	22+64.98	22.50' RT	SEE PROFILE
13	22+88.25	22.50' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

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Texas Department of Transportation

QUIDDITY

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS · KRISTIN L. LANDRY · 100074 · LICENSED PROFESSIONAL ENGINEER · 8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

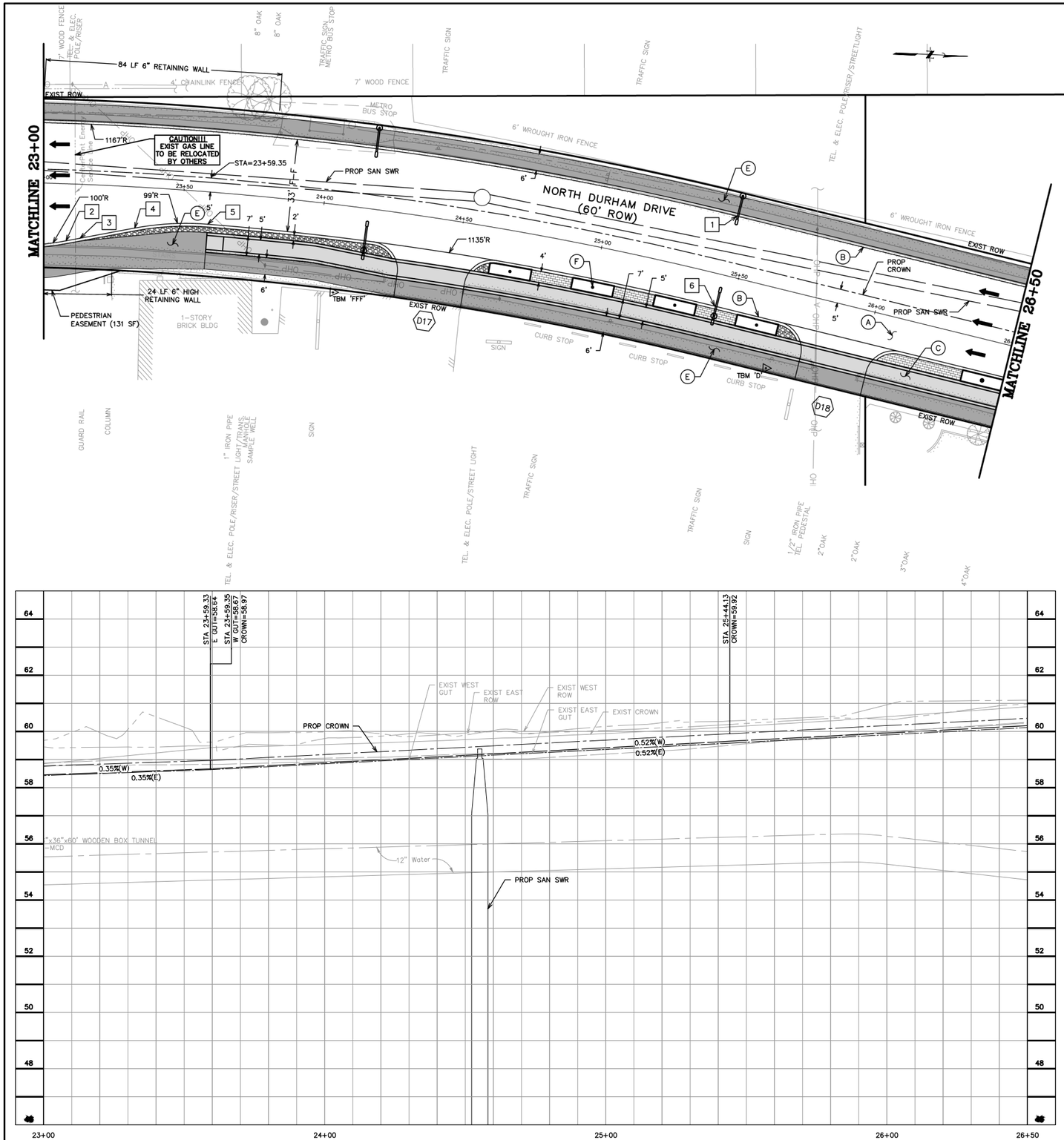
PLAN & PROFILE – PAVING

NORTH DURHAM DRIVE
19+00 TO 23+00

SHEET 32 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. **244** OF **711**	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg PLOTTED: 10/18/2024 10:26 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
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TBM INFO

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ELEV= 60.30'

TBM 'FFF', CP-324, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 60.24'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	25+44.13	21.50' LT	SEE PROFILE
2	23+08.64	20.30' RT	SEE PROFILE
3	23+13.65	19.19' RT	SEE PROFILE
4	23+33.22	14.63' RT	SEE PROFILE
5	23+59.35	11.50' RT	SEE PROFILE
6	25+44.13	11.50' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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 to 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10194100
4200 West Loop South, Suite 250 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

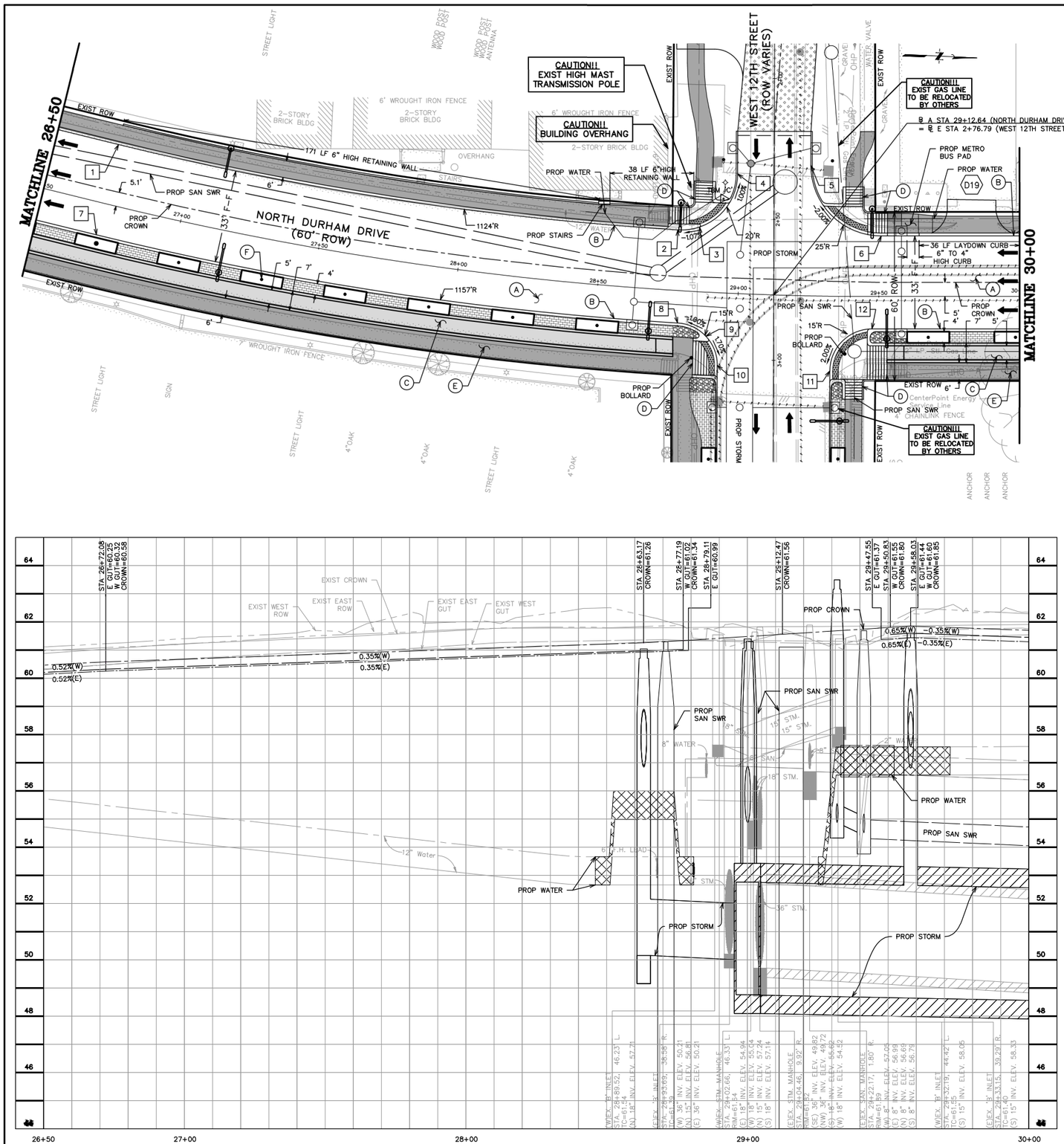
PLAN & PROFILE – PAVING

NORTH DURHAM DRIVE
23+00 TO 26+50

SHEET 33 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 245 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg PLOTTED: 9/25/2024 10:09 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.
G. PROPOSED METRO BUS STOPS ARE TO FOLLOW STANDARD DETAIL SUPPLIED ON SHEET 618.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'C', CP-13, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 61.31'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	26+72.08	21.50' LT	SEE PROFILE
2	28+77.19	21.50' LT	SEE PROFILE
3	28+85.00	23.00' LT	61.11
4	28+97.93	42.48' LT	60.86
5	29+24.87	46.37' LT	60.76
6	29+50.83	21.50' LT	SEE PROFILE
7	26+72.08	11.50' RT	SEE PROFILE
8	28+79.11	11.50' RT	SEE PROFILE
9	28+89.27	15.64' RT	61.10
10	28+93.76	25.75' RT	60.91
11	29+32.90	26.55' RT	60.90
12	29+47.55	11.50' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification. Signature Valid for 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23294 and 10046101
6363 West Loop South, Suite 100 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

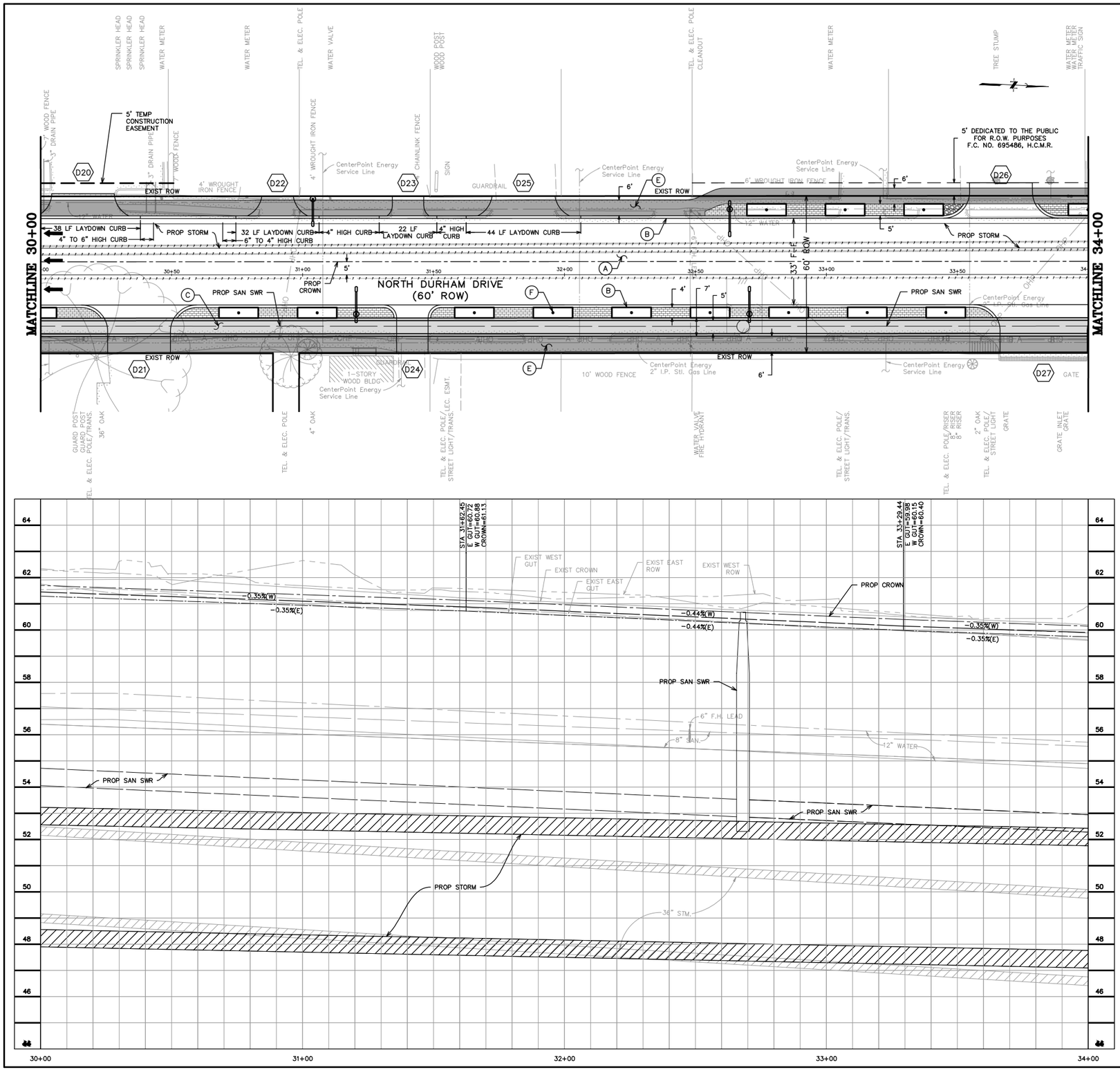
NORTH DURHAM DRIVE

26+50 TO 30+00

SHEET 34 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. **246** OF **711**	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg PLOTTED: 10/18/2024 10:29 AM HVF



NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275–321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416–493

GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'C', CP–13, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 61.31'
TBM 'B', CP–12, X–CUT. (SEE RECOVERY SKETCH)
ELEV= 58.80'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11–INCH REINFORCED CONC PAVEMENT
(B) PROP 12–INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24–INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification. Signature Valid for 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 Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and 10066500
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P–6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

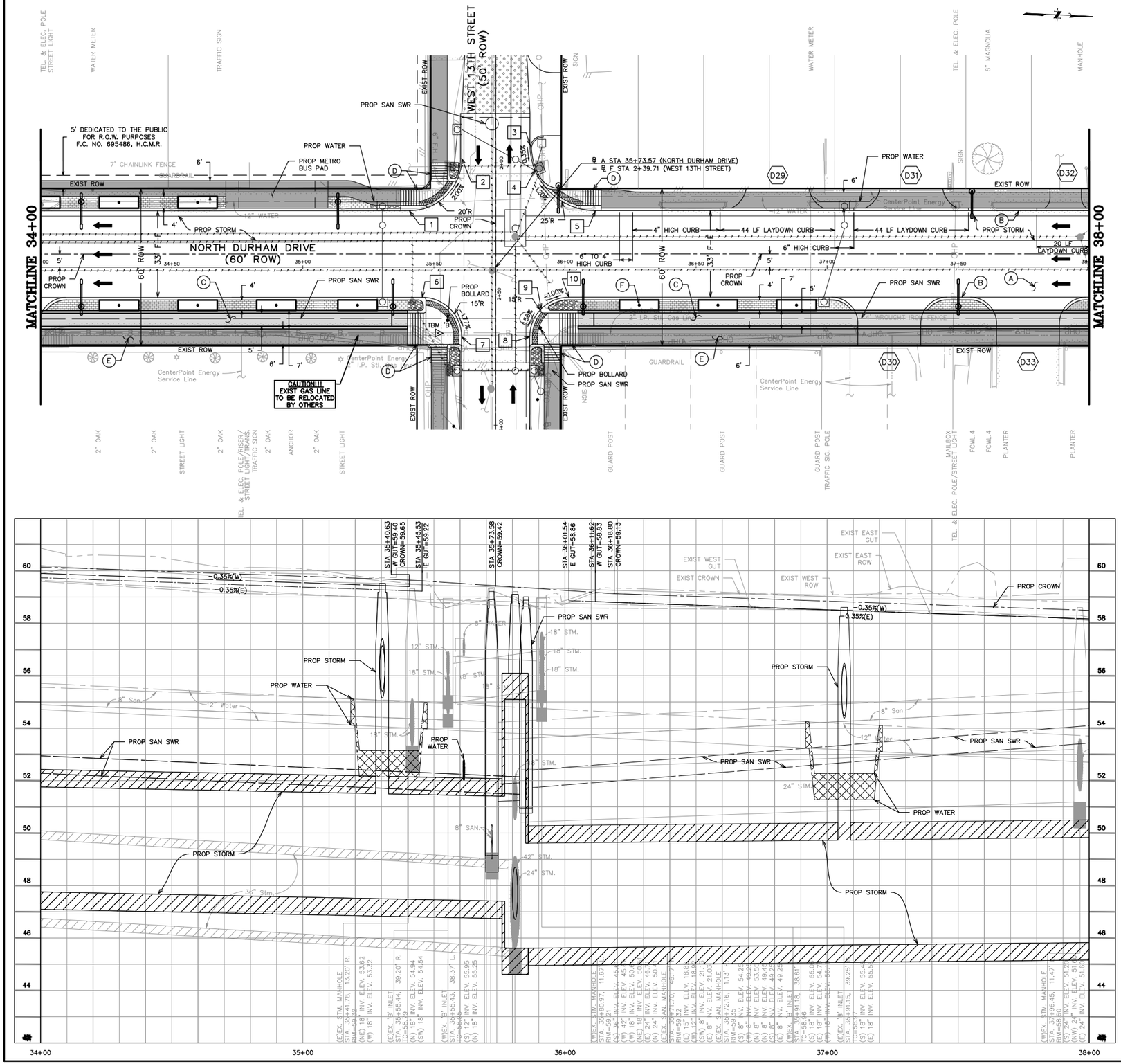
PLAN & PROFILE – PAVING

NORTH DURHAM DRIVE
30+00 TO 34+00

SHEET 35 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N–100041–0001–4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 247 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-Ct-005-P&P_PAV Durham.dwg PLOTTED: 9/25/2024 10:11 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.
G. PROPOSED METRO BUS STOPS ARE TO FOLLOW STANDARD DETAIL SUPPLIED ON SHEET 618. METRO BUS PAD TO BE LOCATED 70 FEET SOUTH OF DURHAM AT WEST 13TH INTERSECTION.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'B', CP-12, X-CUT. (SEE RECOVERY SKETCH)
ELEV= 58.80'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
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(D) PROP CONC WHEEL CHAIR RAMP
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(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	35+40.63	21.50' LT	SEE PROFILE
2	35+60.63	41.47' LT	58.77
3	35+86.62	46.53' LT	58.51
4	35+88.51	36.93' LT	58.47
5	36+11.62	21.50' LT	SEE PROFILE
6	35+45.53	11.50' RT	SEE PROFILE
7	35+60.53	26.52' RT	58.80
8	35+86.54	26.48' RT	58.79
9	35+90.94	15.89' RT	58.98
10	36+01.54	11.50' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:

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Date:

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Signature Valid for six months.

Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No's F-23294 and 10194100
9330 West Loop South, Suite 1290 Houston, TX 77096
713.773.2337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - PAVING

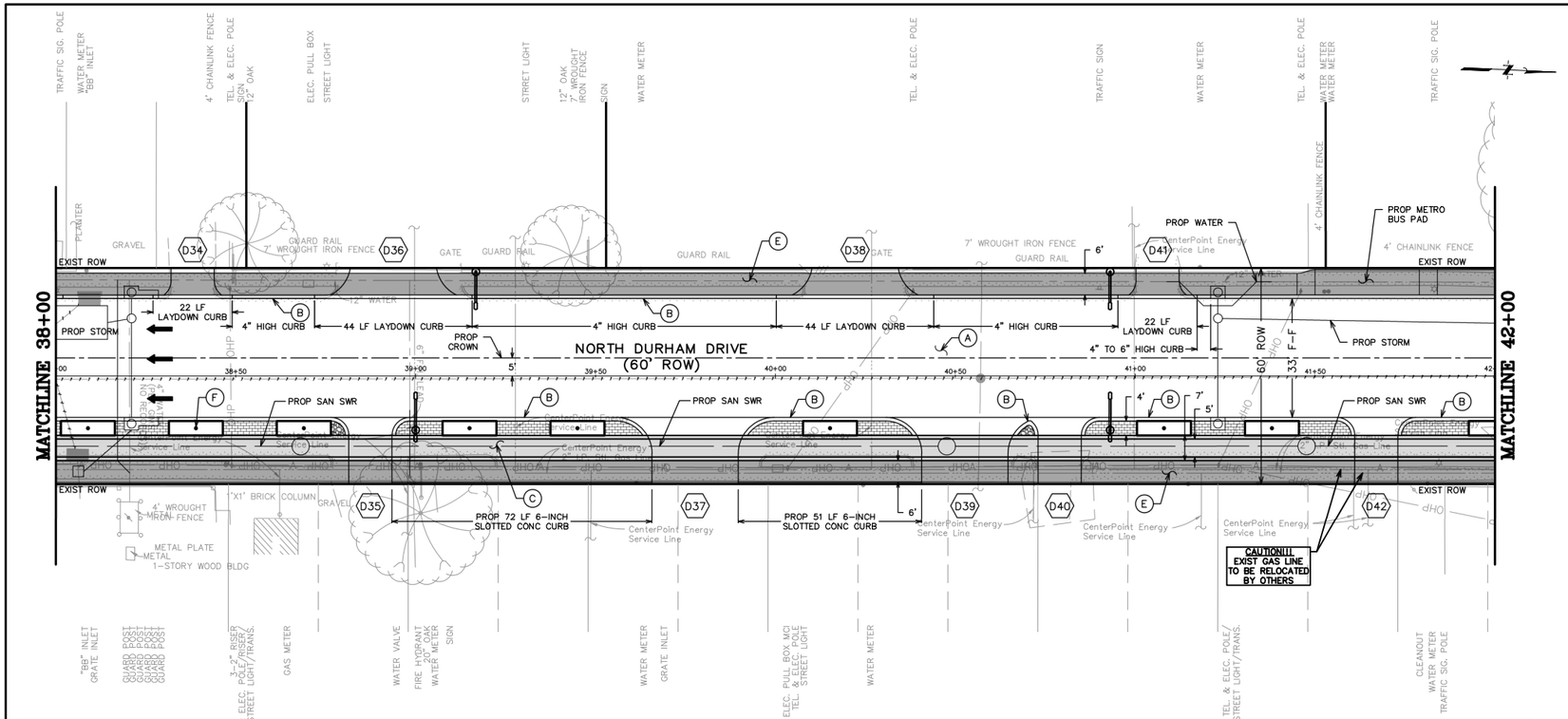
NORTH DURHAM DRIVE

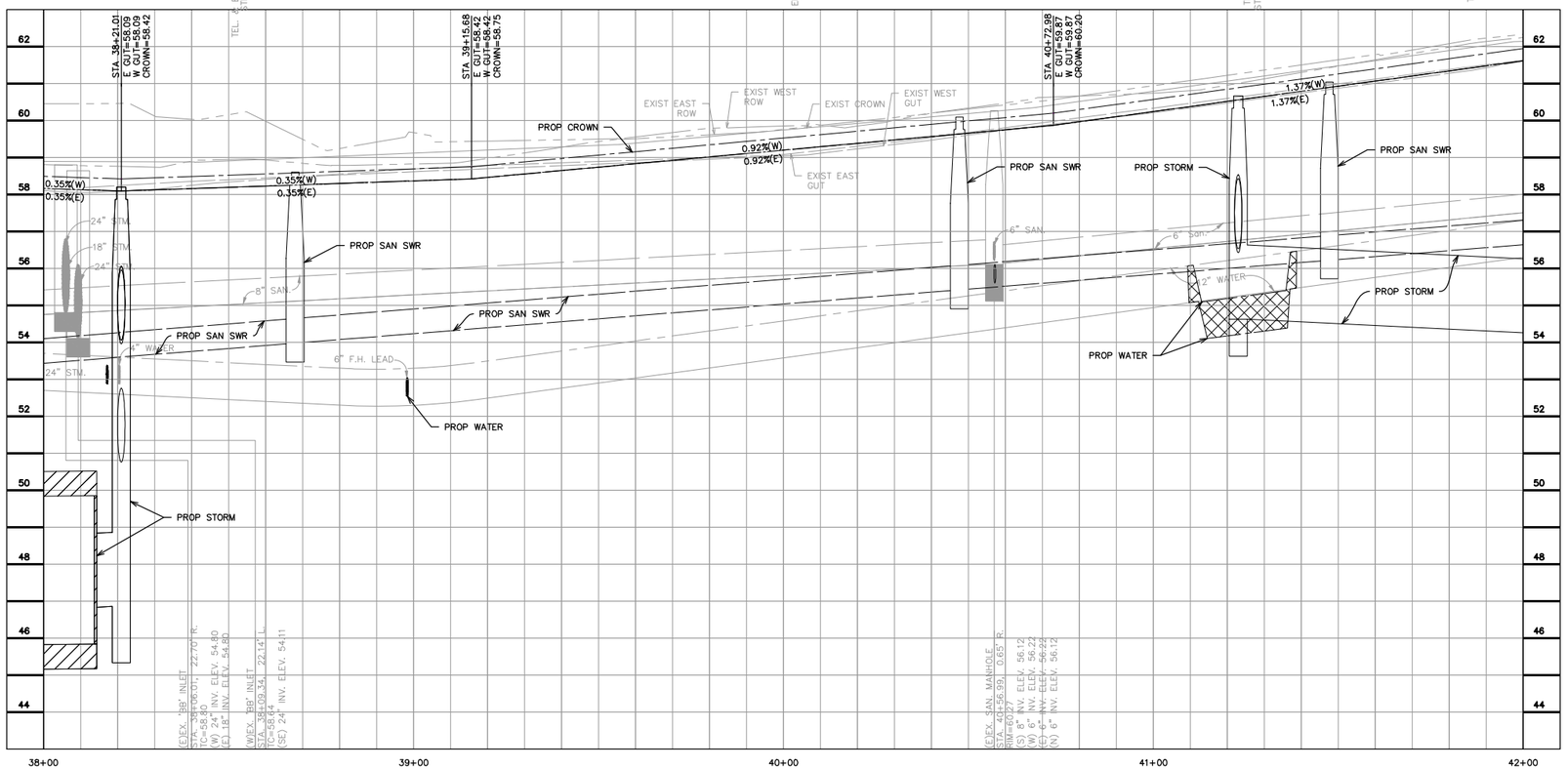
34+00 TO 38+00

SHEET 36 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. **248** OF **711**	

PLOTTED: 10/22/2024 3:51 PM HVF
FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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BENCHMARK INFO

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(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'B', CP-12, X-CUT. (SEE RECOVERY SKETCH)
ELEV= 58.80'

TBM 'FF', CP-178, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 61.97'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
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(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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 to 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers
and Land Surveyors Reg. No.: F-13298 and 10194329
4265 West Loop South, Suite 1200 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS
FROM 15TH TO IH-10 WBFR

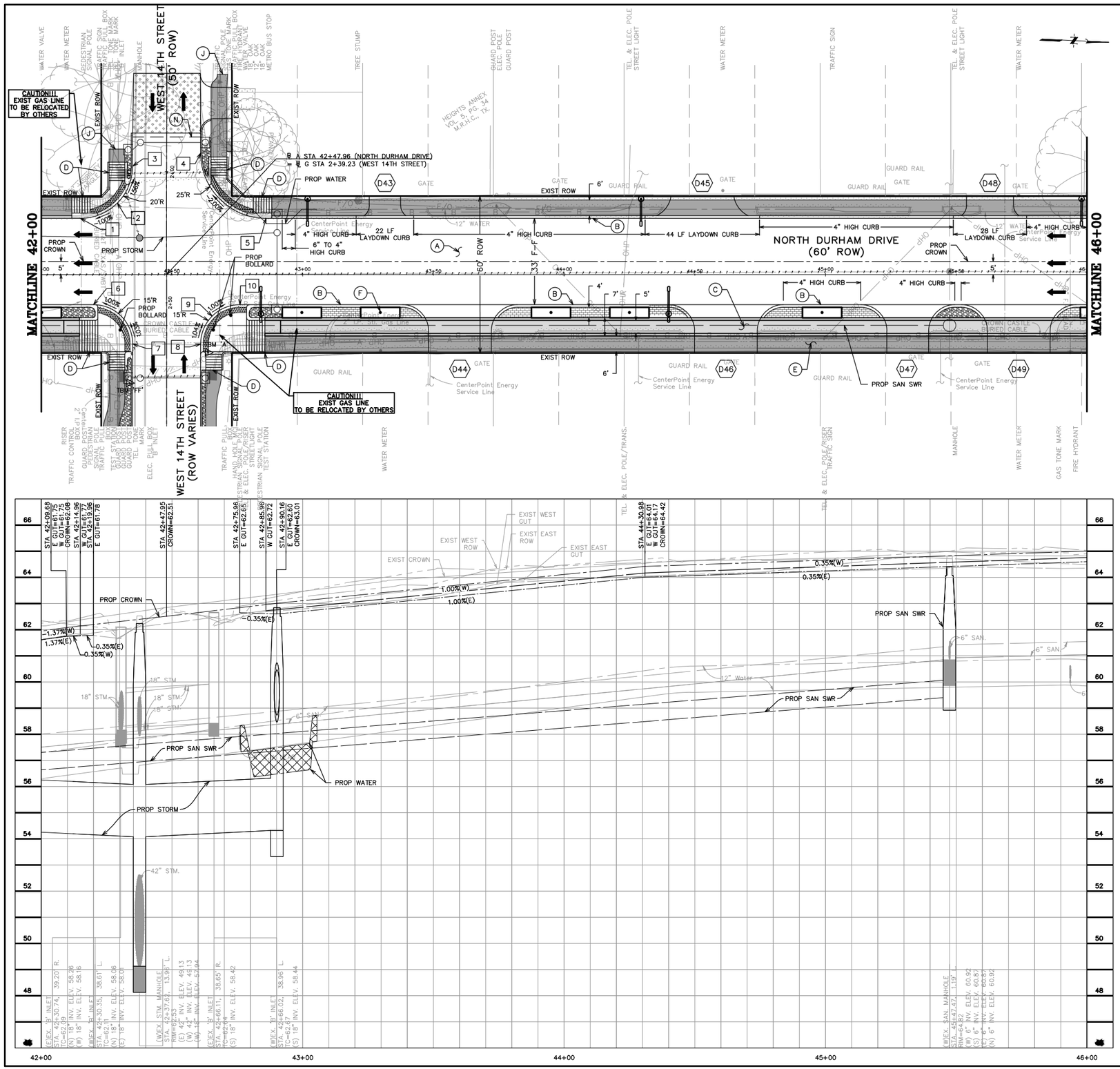
PLAN & PROFILE – PAVING

NORTH DURHAM DRIVE
38+00 TO 42+00

SHEET 37 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 249 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg PLOTTED: 10/22/2024 3:53 PM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'A', CP-11, X-CUT. (SEE RECOVERY SKETCH)
ELEV= 62.42'

TBM 'FF', CP-178, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 61.97'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	42+14.96	21.50' LT	SEE PROFILE
2	42+29.10	27.36' LT	61.93
3	42+34.96	41.50' LT	61.68
4	42+60.96	46.50' LT	61.93
5	42+85.96	21.50' LT	SEE PROFILE
6	42+19.96	11.50' RT	SEE PROFILE
7	42+34.96	26.50' RT	62.02
8	42+60.96	26.50' RT	62.89
9	42+65.35	15.89' RT	62.77
10	42+75.96	11.50' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification. Signature Valid for 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 Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23294 and 10066100
6363 West Loop South, Suite 210 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

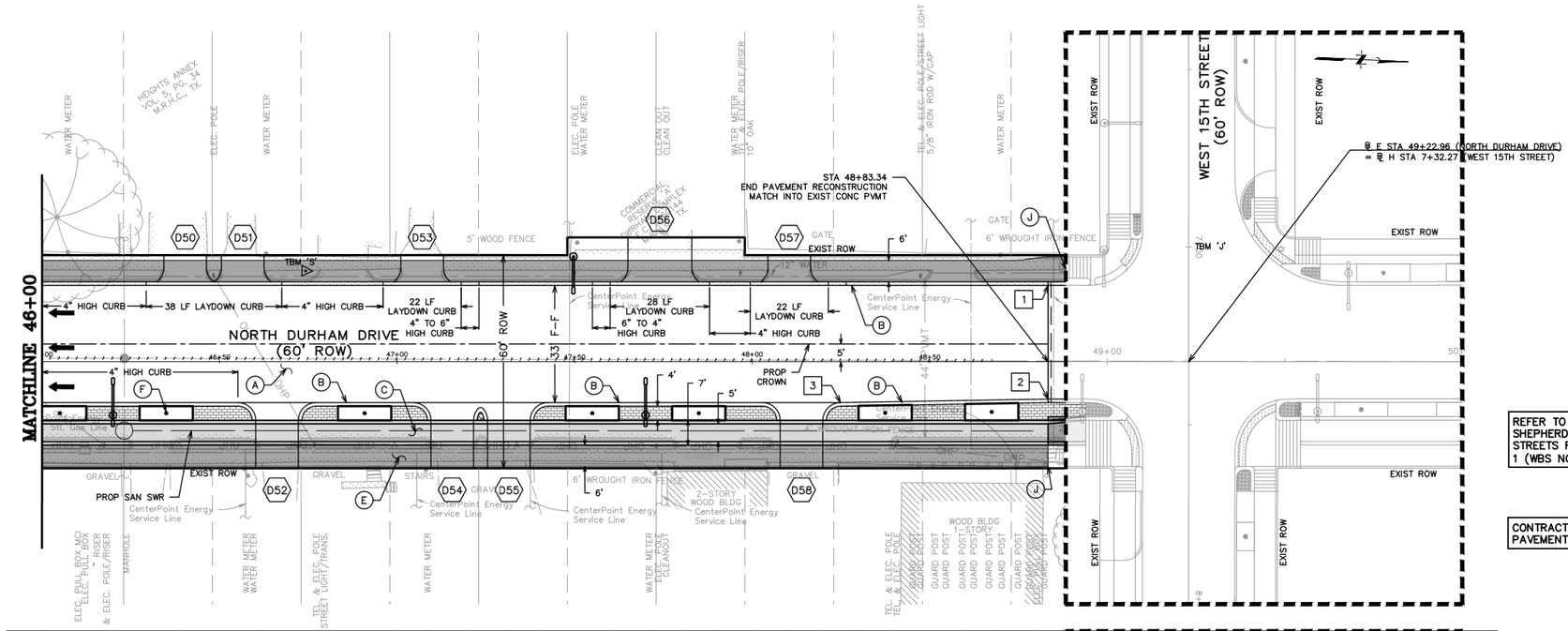
PLAN & PROFILE – PAVING

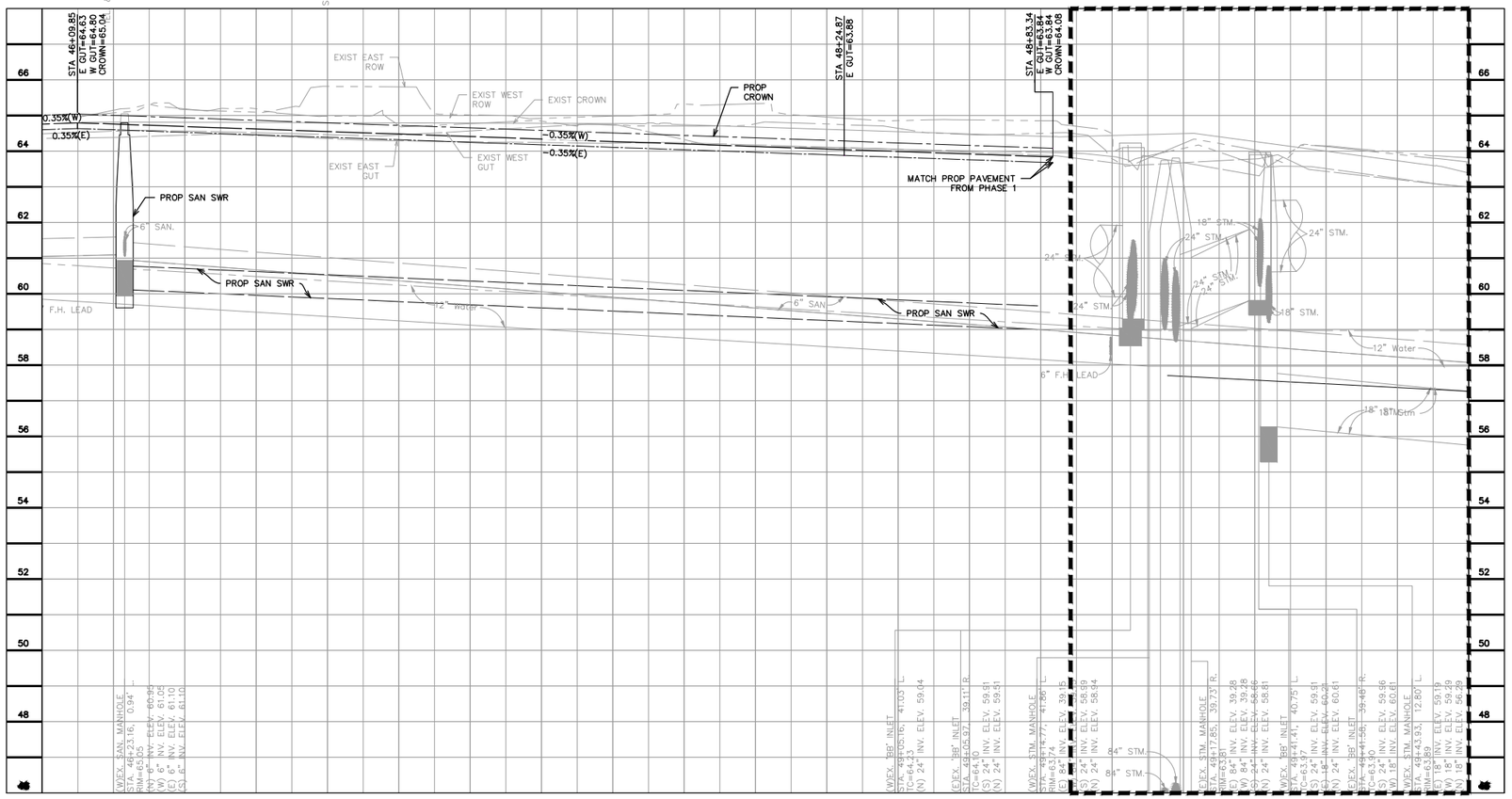
NORTH DURHAM DRIVE
42+00 TO 46+00

SHEET 38 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 250 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg PLOTTED: 9/25/2024 10:49 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'J', CP-10, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 63.76'

TBM 'S', CP-90, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 65.19'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
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(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

REFER TO IMPROVEMENTS INCLUDED IN SHEPHERD, DURHAM, AND SELECTED CROSS STREETS RECONSTRUCTION PROJECT – PHASE 1 (WBS NO. N-T05000-0005-7)

CONTRACTOR SHALL PROTECT ALL NEW PAVEMENT, SIDEWALKS, AND IMPROVEMENTS

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	48+83.34	21.50' LT	SEE PROFILE
2	48+83.34	10.50' RT	SEE PROFILE
3	48+24.87	11.50' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275–321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416–493

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Date:

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Signature Valid for six months.

Date:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10106500
4265 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS
FROM 15TH TO IH-10 WBFR

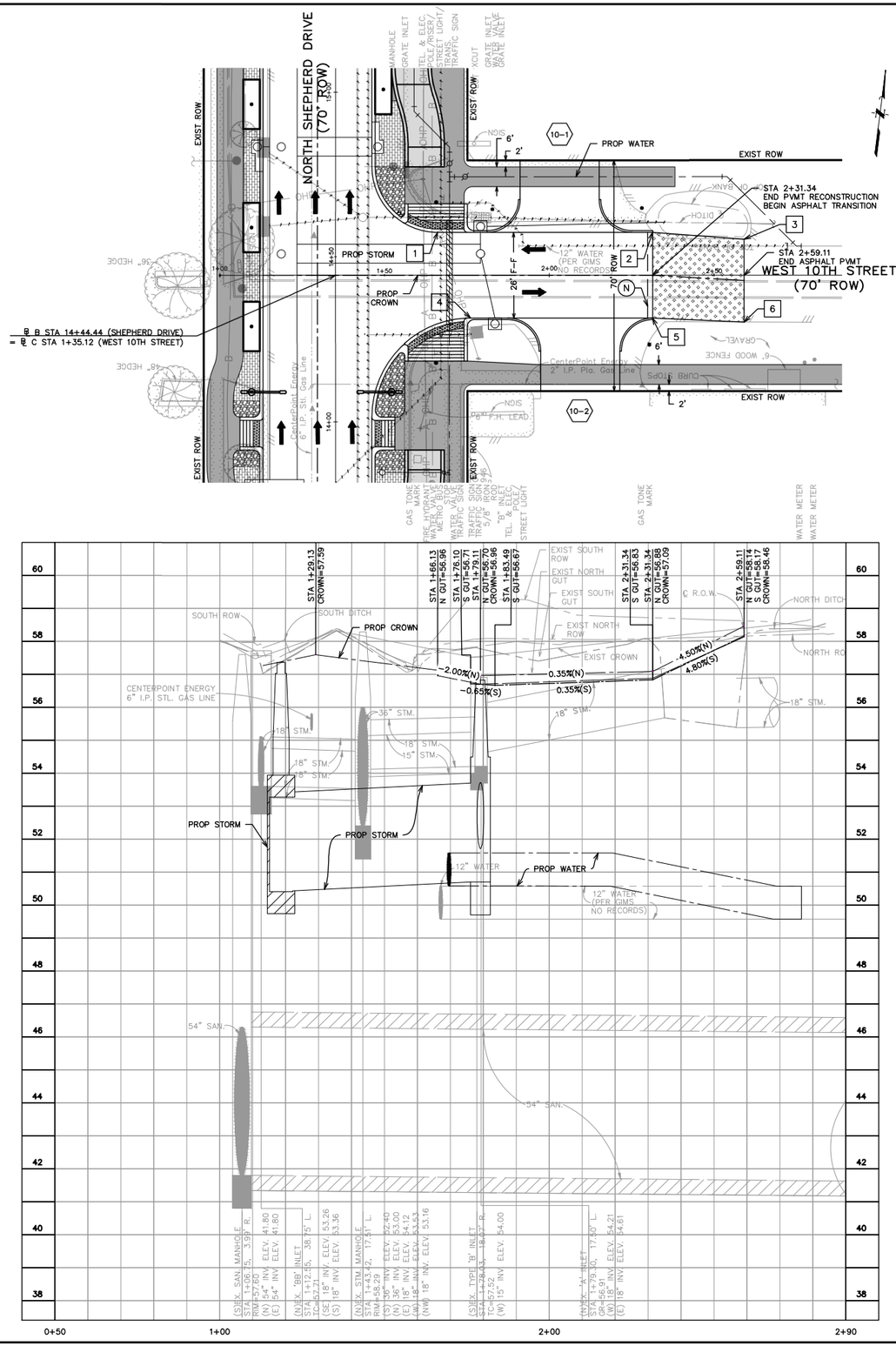
PLAN & PROFILE – PAVING

NORTH DURHAM DRIVE
46+00 TO END

SHEET 39 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 251 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV Durham.dwg PLOTTED: 9/25/2024 10:14 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'K',CP-26, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=58.16'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 10-INCH REINFORCED CONC PAVEMENT
(B) PROP 6-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 30
SCALE: 1" = 10'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	1+63.13	13.00' LT	SEE PROFILE
2	2+31.34	13.00' LT	SEE PROFILE
3	2+59.11	10.89' LT	SEE PROFILE
4	1+76.10	13.00' RT	SEE PROFILE
5	2+31.34	13.00' RT	SEE PROFILE
6	2+59.11	14.19' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. 10194482 and F000220
4200 West Lake Park, Suite 100 Weston, TX 75093
214.777.5557

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED
PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

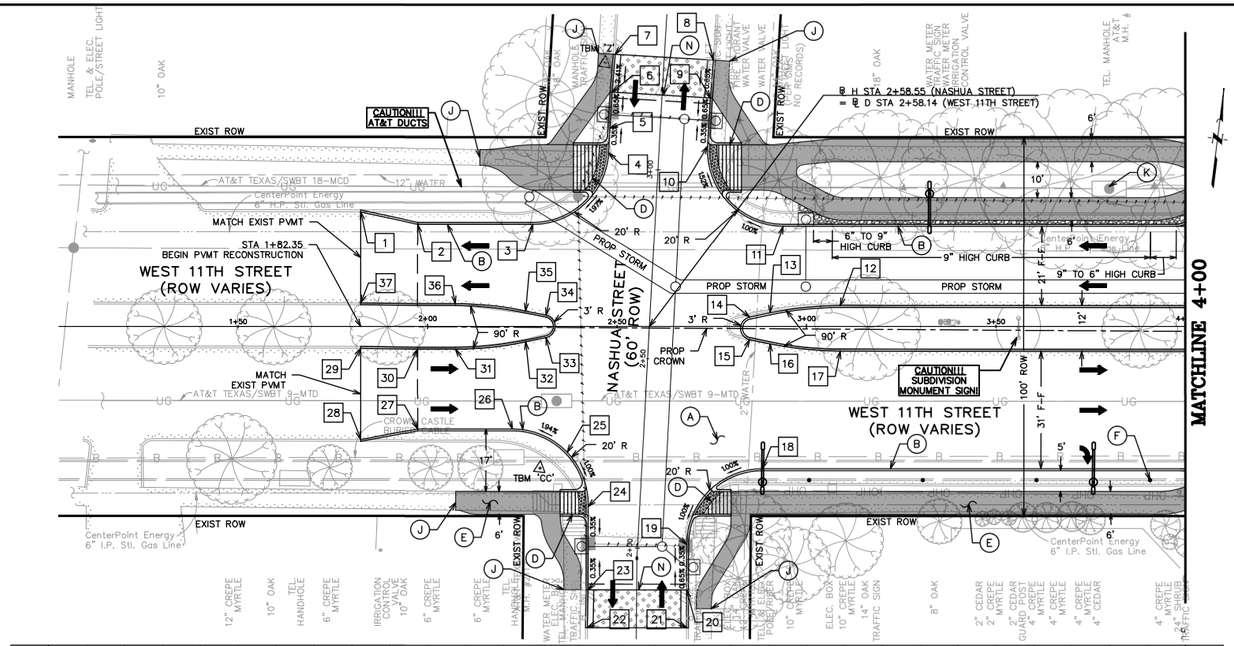
PLAN & PROFILE – PAVING

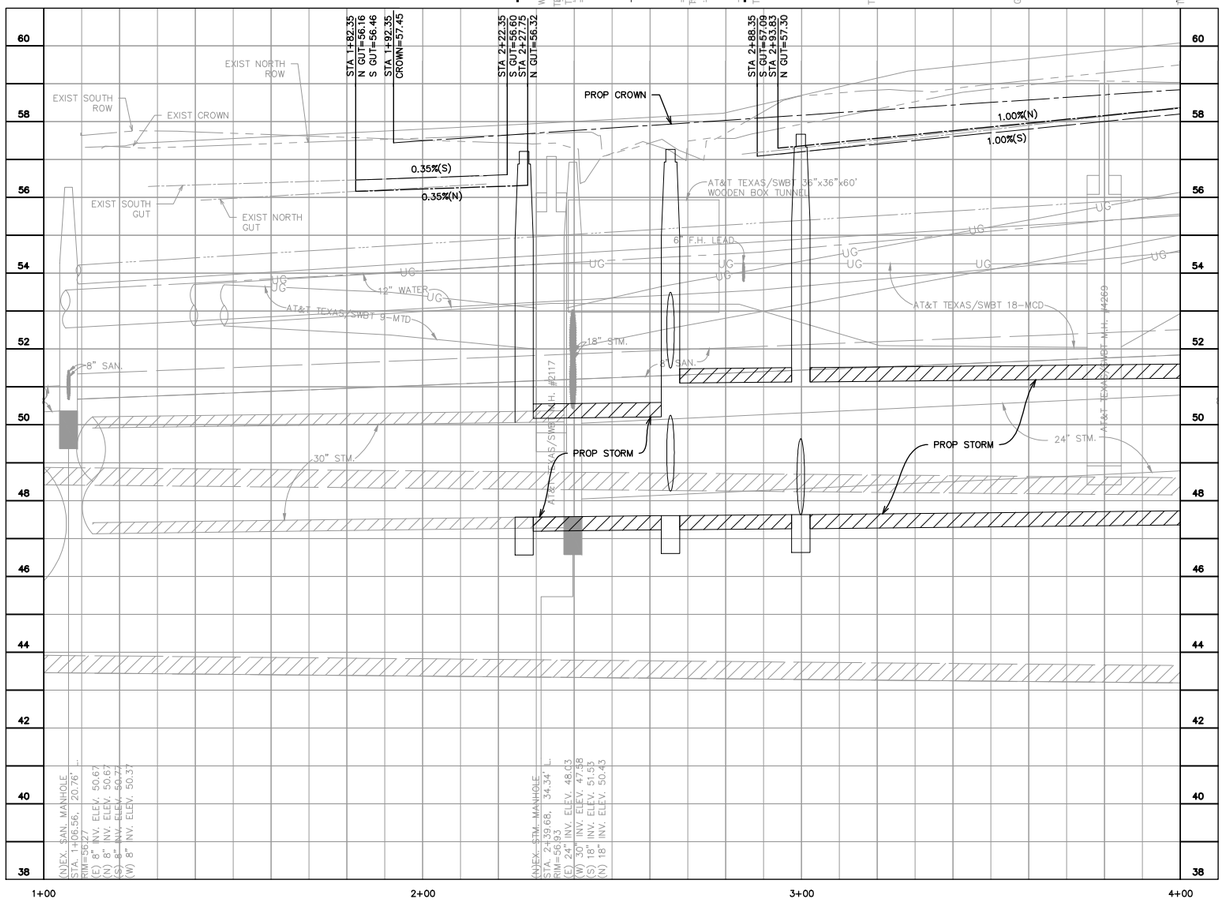
WEST 10TH STREET
BEGIN TO END

SHEET 40 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 252 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV 10th Street.dwg PLOTTED: 9/25/2024 12:02 PM JFR





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'CC', CP-175, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 57.71'

TBM 'Z', CP-167, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 57.76'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
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- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

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(B) PROP 6-INCH CONC CURB
(C) PROP BIKE LANE
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(E) PROP SIDEWALK
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(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

Station and Offset Table			
No.	Station	Offset	Elevation
1	1+82.35	30.23' LT	SEE PROFILE
2	1+97.35	27.00' LT	SEE PROFILE
3	2+27.75	27.00' LT	SEE PROFILE
4	2+47.71	45.88' LT	56.91
5	2+48.09	52.45' LT	56.88
6	2+48.62	61.92' LT	56.91
7	2+49.47	71.88' LT	57.15
8	2+75.40	70.36' LT	56.97
9	2+74.58	60.38' LT	56.91
10	2+73.86	47.65' LT	56.89
11	2+93.83	26.52' LT	SEE PROFILE
12	3+08.93	5.52' LT	57.87
13	2+90.39	3.59' LT	57.69
14	2+85.00	2.45' LT	57.63
15	2+85.00	3.42' RT	57.68
16	2+90.39	4.55' RT	57.73
17	3+08.93	6.48' RT	57.92
18	2+88.35	37.48' RT	SEE PROFILE
19	2+68.35	57.46' RT	56.78
20	2+68.33	69.46' RT	56.80
21	2+68.30	79.46' RT	56.86
22	2+42.15	79.43' RT	56.80
23	2+42.33	69.43' RT	56.76
24	2+42.35	46.98' RT	56.76
25	2+36.82	33.19' RT	56.92
26	2+22.35	26.99' RT	SEE PROFILE
27	1+97.35	26.99' RT	SEE PROFILE
28	1+82.35	29.83' RT	SEE PROFILE
29	1+82.35	5.76' RT	56.78
30	1+97.36	5.99' RT	56.84
31	2+07.35	5.99' RT	56.88
32	2+25.89	4.06' RT	56.95
33	2+31.28	2.92' RT	56.97
34	2+31.28	2.95' LT	57.12
35	2+25.89	4.08' LT	57.10
36	2+07.35	6.01' LT	57.04
37	1+82.35	6.22' LT	56.95

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10194000
4265 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

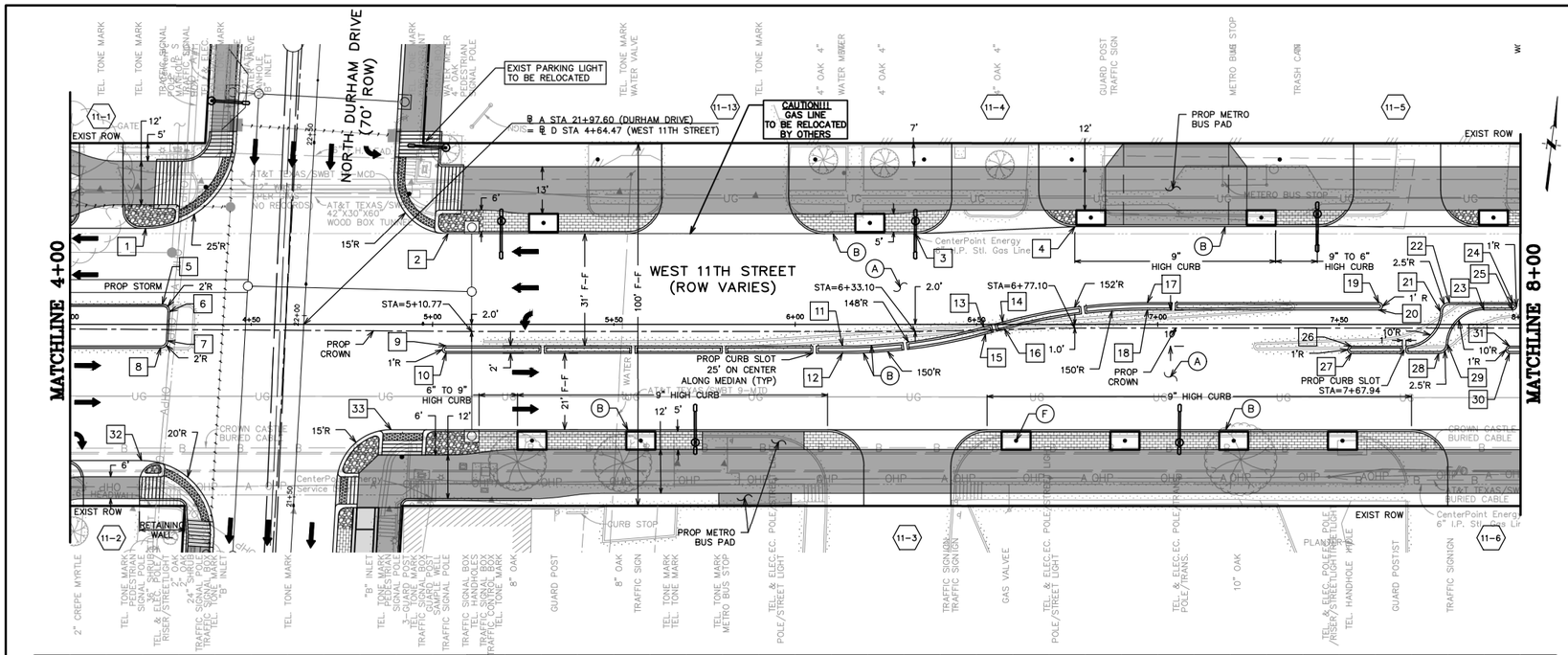
PLAN & PROFILE – PAVING

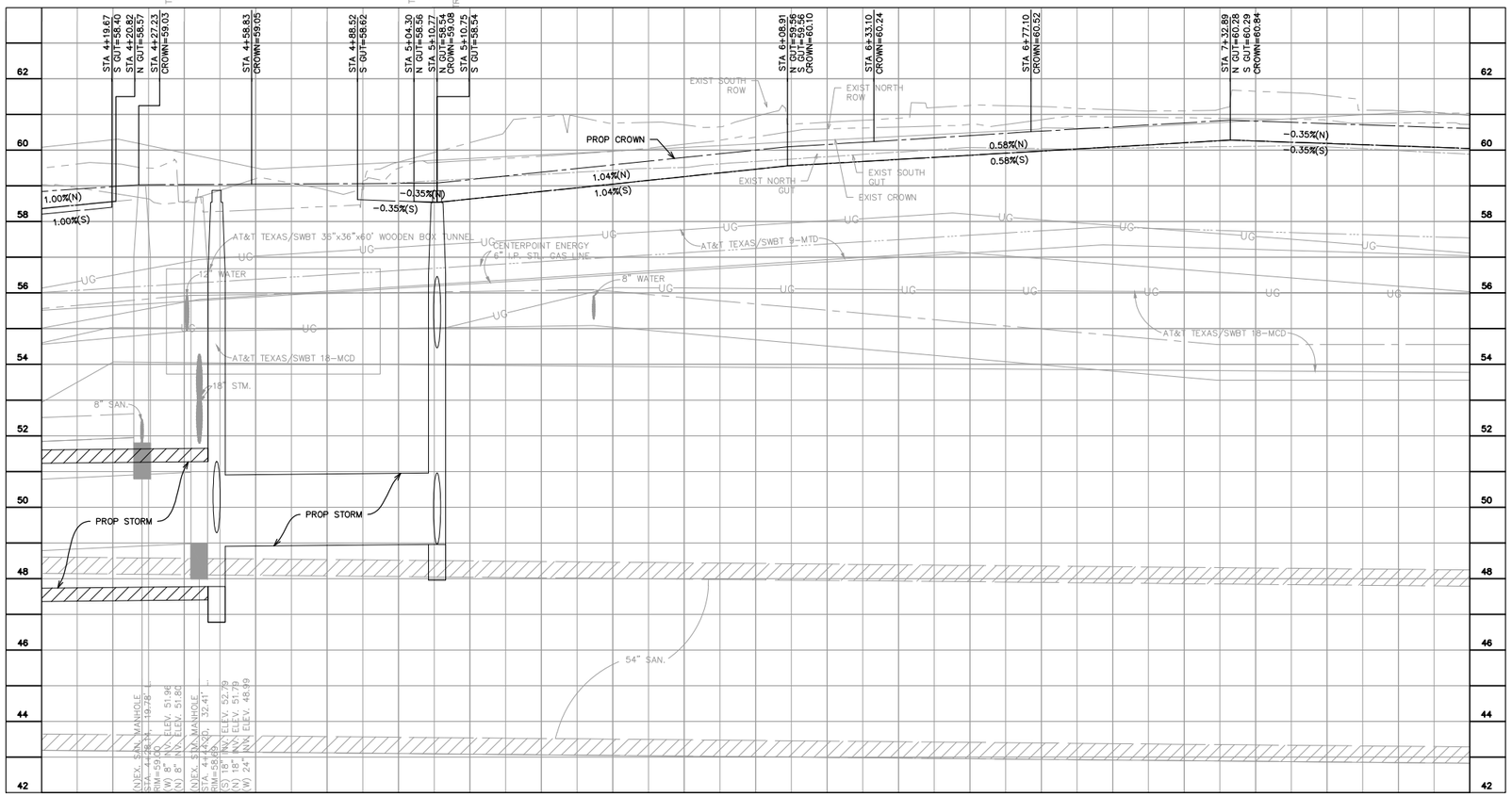
WEST 11TH STREET
BEGIN TO 4+00

SHEET 41 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 253 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV 11th Street.dwg PLOTTED: 9/25/2024 12:03 PM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.
G. PROPOSED METRO BUS STOPS ARE TO FOLLOW STANDARD DETAIL SUPPLIED ON SHEET 618. METRO BUS PAD TO BE LOCATED 70 FEET EAST OF DURHAM AT WEST 11TH INTERSECTION.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035. FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'CC', CP-175, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 57.71'
TBM 'BB', CP-174, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 60.77'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 6-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

Station and Offset Table			
No.	Station	Offset	Elevation
1	4+20.82	26.53' LT	SEE PROFILE
2	5+04.30	25.00' LT	SEE PROFILE
3	6+33.10	25.03' LT	SEE PROFILE
4	6+77.10	27.03' LT	SEE PROFILE
5	4+25.51	5.53' LT	58.97
6	4+27.51	3.48' LT	58.98
7	4+27.05	4.58' RT	59.06
8	4+25.05	6.47' RT	59.04
9	5+03.71	5.96' RT	
10	5+03.71	7.96' RT	
11	6+13.01	6.00' RT	
12	6+13.01	8.00' RT	
13	6+51.95	0.79' RT	
14	6+57.19	0.64' LT	
15	6+52.48	2.71' RT	
16	6+57.72	1.29' RT	
17	6+97.19	6.00' LT	
18	6+97.19	4.00' LT	
19	7+60.93	6.00' LT	
20	7+60.93	4.00' LT	
21	7+77.93	3.60' LT	
22	7+80.43	6.00' LT	
23	7+89.94	4.00' LT	
24	7+97.87	6.00' LT	
25	7+97.87	4.00' LT	
26	7+53.35	6.00' RT	
27	7+53.35	8.00' RT	
28	7+77.45	8.00' RT	
29	7+79.94	5.60' RT	
30	7+96.94	8.00' RT	
31	7+96.94	6.00' RT	
32	4+19.67	37.47' RT	SEE PROFILE
33	4+88.52	29.00' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:

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Date:

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

Date:

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Date:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No.: F-23290 and 10194328
5330 West Loop South, Suite 150 Houston, TX 77081
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

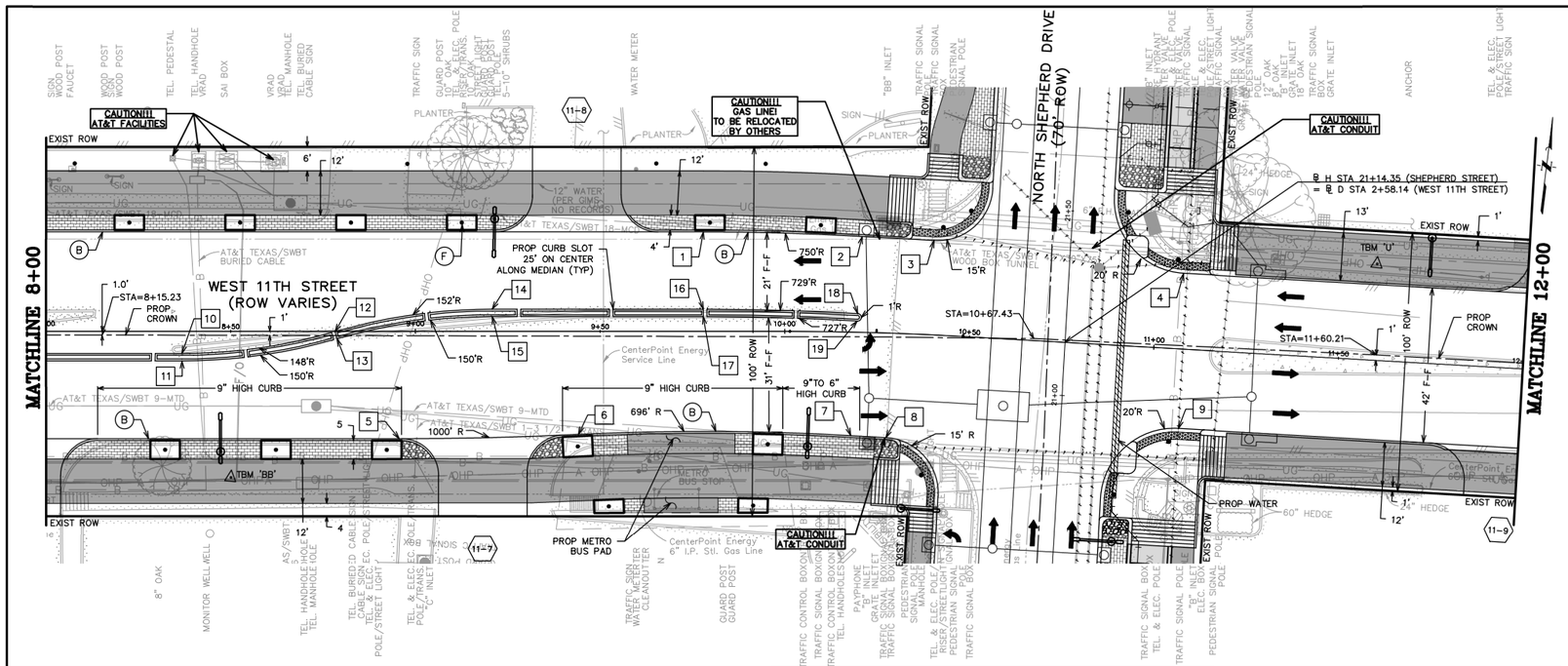
WEST 11TH STREET

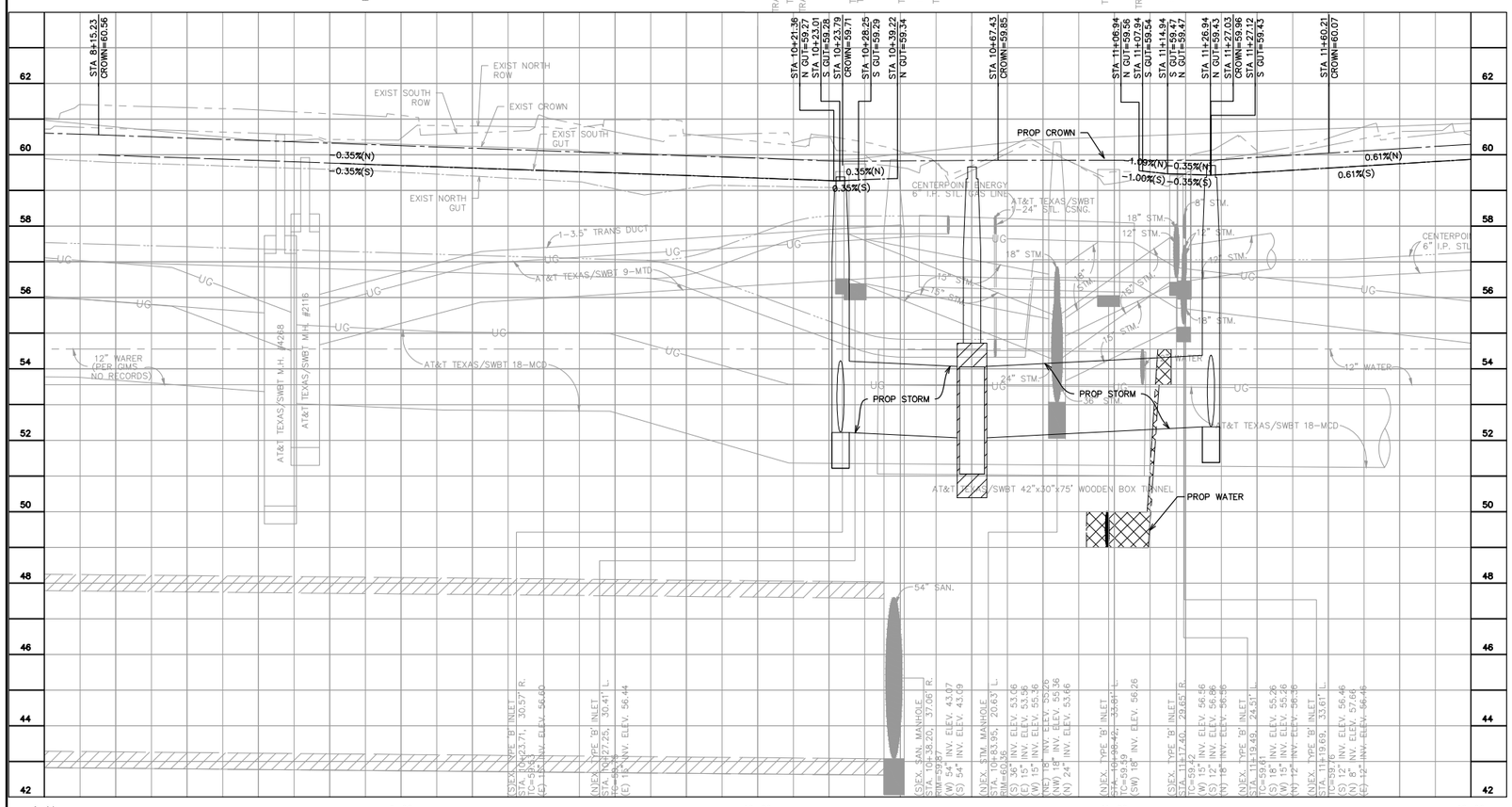
4+00 TO 8+00

SHEET 42 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 254 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV 11th Street.dwg PLOTTED: 10/22/2024 4:00 PM HVF





FILE PATH: K:\14760\14760-0004-05 T-0523A — Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV 11th Street.dwg PLOTTED: 10/18/2024 10:34 AM HVF

GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.
G. PROPOSED METRO BUS STOPS ARE TO FOLLOW STANDARD DETAIL SUPPLIED ON SHEET 618.

BENCHMARK INFO

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(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'U', CP-106, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 63.48'

TBM 'AA', CP-168, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 60.84'

TBM 'BB', CP-174, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 60.77'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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(A) PROP 11-INCH REINFORCED CONC PAVEMENT
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(J) MATCH EXIST SIDEWALK
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(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

Station and Offset Table			
No.	Station	Offset	Elevation
1	9+77.92	27.00' LT	SEE PROFILE
2	10+20.32	25.99' LT	SEE PROFILE
3	10+39.22	25.55' LT	SEE PROFILE
4	11+06.94	20.50' LT	SEE PROFILE
5	8+95.58	29.00' RT	SEE PROFILE
6	9+44.13	27.82' RT	SEE PROFILE
7	10+18.41	27.97' RT	SEE PROFILE
8	10+28.25	28.26' RT	SEE PROFILE
9	11+07.94	21.50' RT	SEE PROFILE
10	8+36.83	6.00' RT	
11	8+36.83	8.00' RT	
12	8+78.27	0.08' RT	
13	8+78.83	2.00' RT	
14	9+20.83	6.00' LT	
15	9+20.83	4.00' LT	
16	9+77.92	6.00' LT	
17	9+77.92	4.00' LT	
18	10+19.61	5.00' LT	
19	10+19.54	3.00' LT	

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers
Architectural & Surveyors' Reg. No.: F-12299 and 10064300
6330 West Loop South, Suite 150 • Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

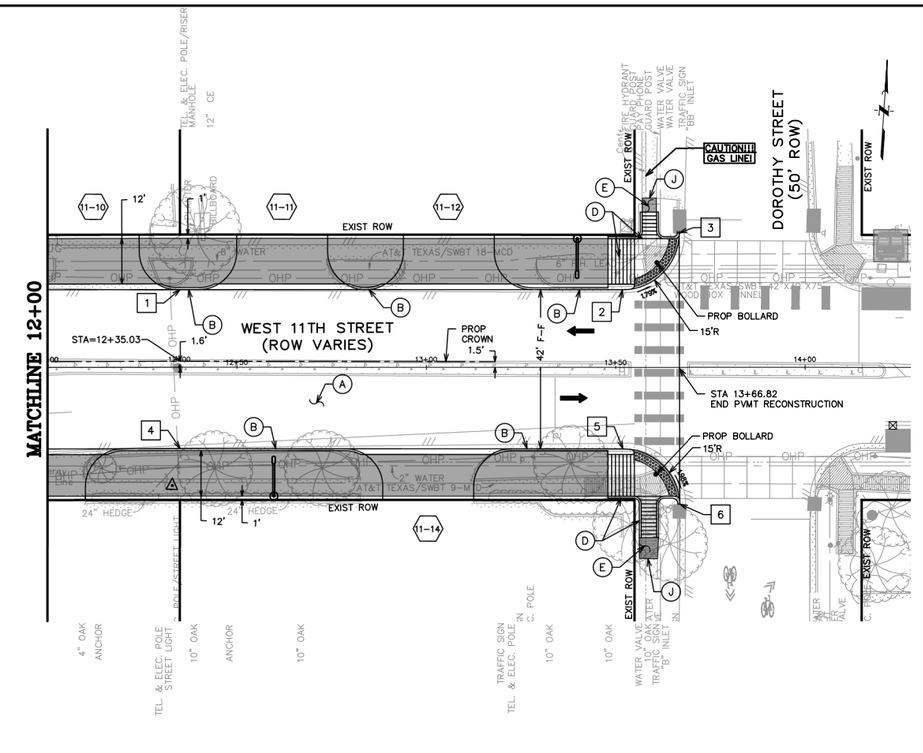
SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – PAVING

WEST 11TH STREET
8+00 TO 12+00

SHEET 43 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 255 OF 711	





GENERAL NOTES

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ELEV= 60.84'

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- [X] STATION AND OFFSET (SEE THIS SHEET)
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(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

No.	Station	Offset	Elevation
1	12+34.98	20.50' LT	SEE PROFILE
2	13+51.72	20.51' LT	SEE PROFILE
3	13+66.72	35.50' LT	59.63
4	12+35.04	21.50' RT	SEE PROFILE
5	13+51.90	21.50' RT	SEE PROFILE
6	13+66.91	36.06'RT	59.59

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-21291 and 10194000
4800 West Loop South, Suite 250 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

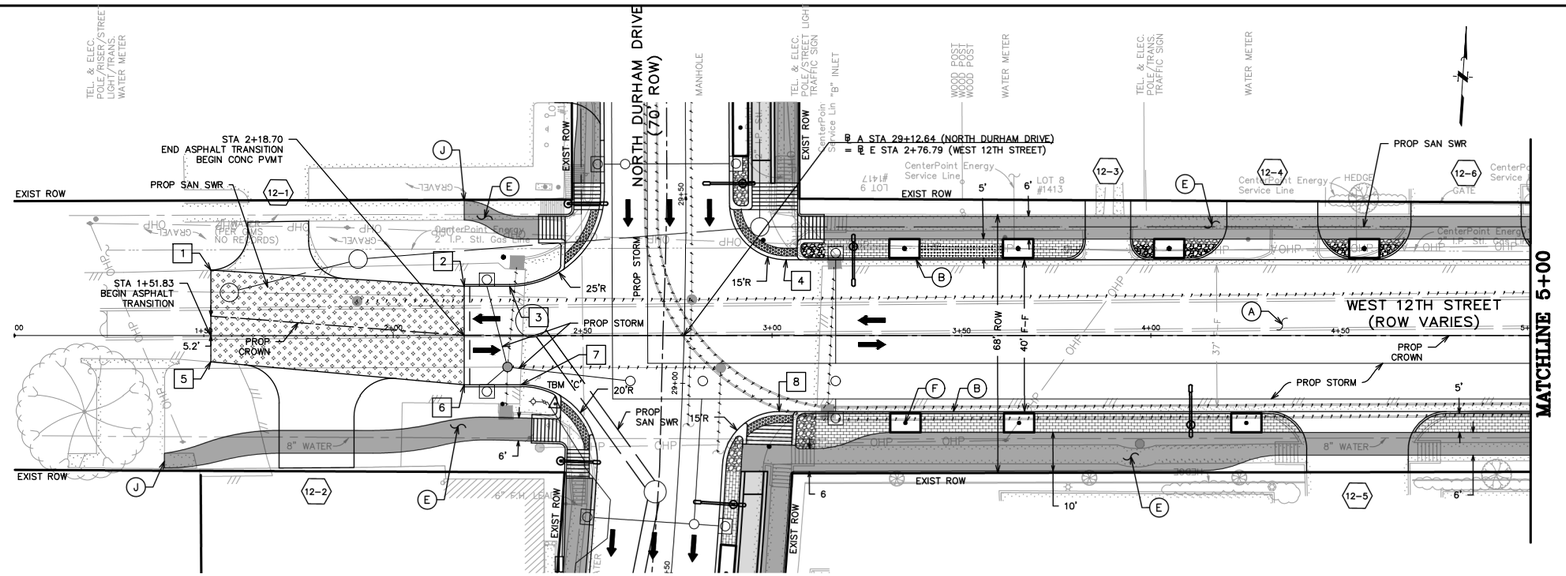
PLAN & PROFILE - PAVING

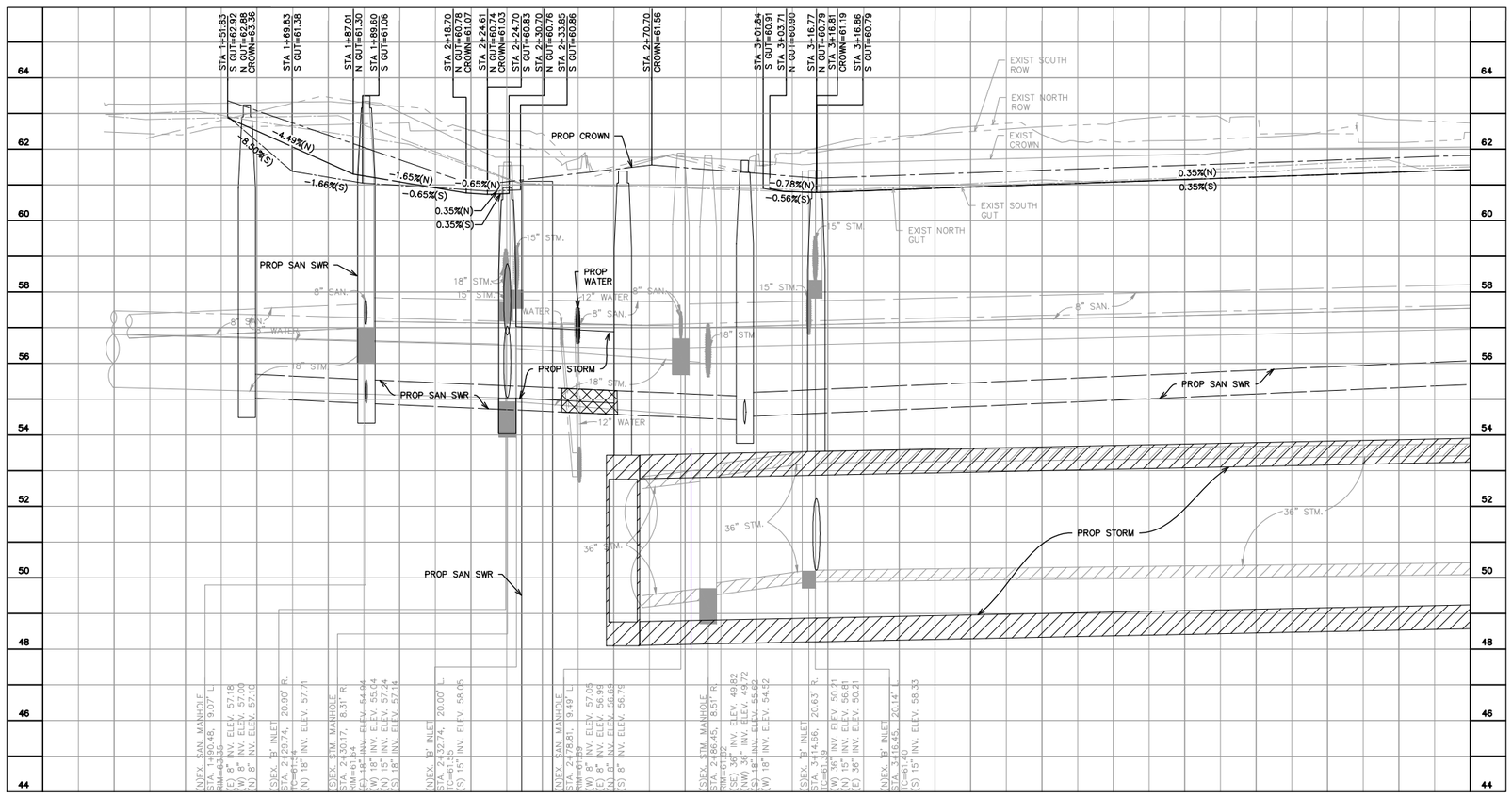
WEST 11TH STREET
12+00 TO END

SHEET 44 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 256 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV 11th Street.dwg PLOTTED: 9/25/2024 12:04 PM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'C',CP-13, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.31'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 10-INCH REINFORCED CONC PAVEMENT
(B) PROP 6-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	1+51.83	17.26' LT	SEE PROFILE
2	2+18.70	13.00' LT	SEE PROFILE
3	2+30.70	13.00' LT	SEE PROFILE
4	3+03.71	20.00' LT	SEE PROFILE
5	1+51.83	6.96' RT	SEE PROFILE
6	2+18.70	13.00' RT	SEE PROFILE
7	2+33.85	13.00' RT	SEE PROFILE
8	3+01.84	20.00' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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 to 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 Texas SWBT underground conduit facilities ONLY The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. Number for Land Surveying Firm 10194103
4200 West Lake Ave, Suite 300 Midland, TX 79703
915.777.5557

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS
FROM 15TH TO IH-10 WBFR

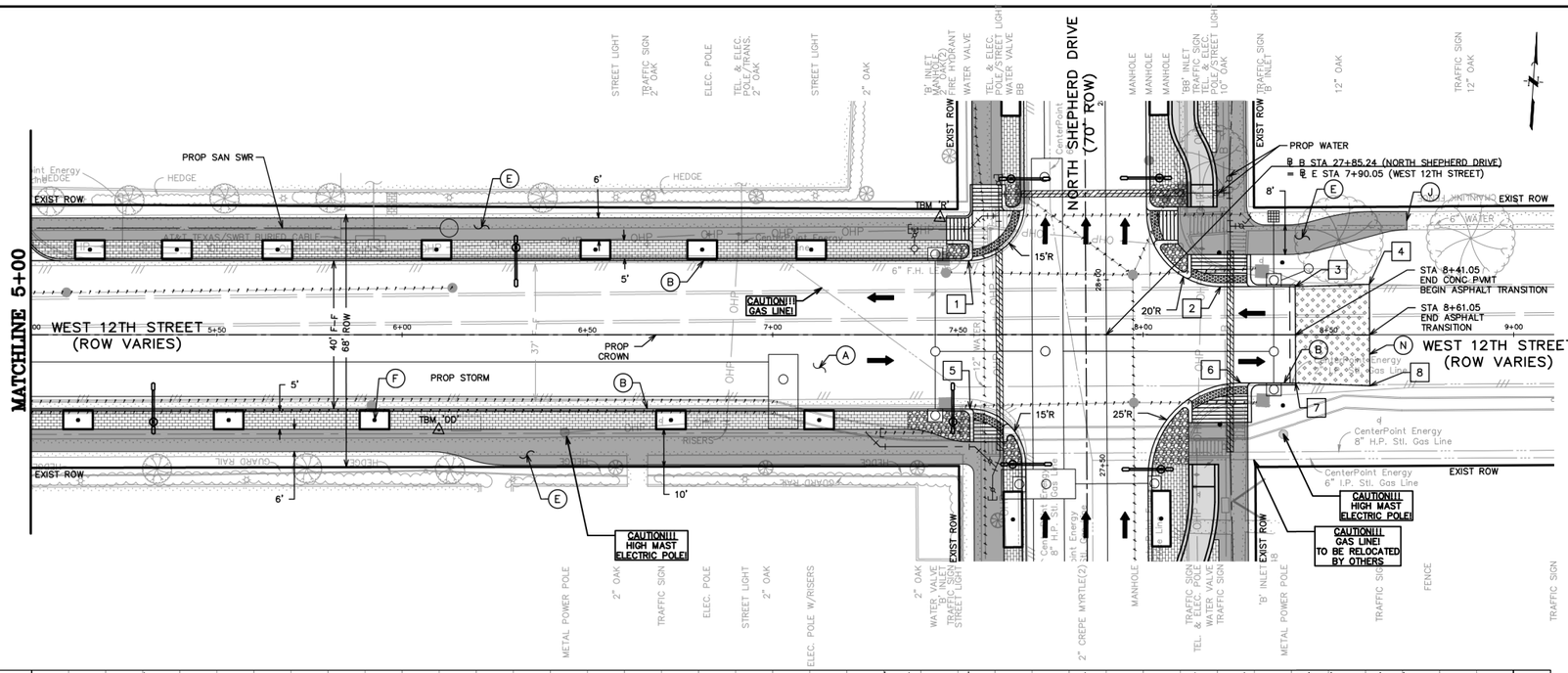
PLAN & PROFILE – PAVING

WEST 12TH STREET
BEGIN TO 5+00

SHEET 45 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 257 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV 12th Street.dwg PLOTTED: 9/25/2024 12:05 PM JFR



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'DD',CP-176, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=62.07'
TBM 'R',CP-85, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.37'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 10-INCH REINFORCED CONC PAVEMENT
(B) PROP 6-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	7+52.86	20.00' LT	SEE PROFILE
2	8+20.87	13.00' LT	SEE PROFILE
3	8+40.98	13.00' LT	SEE PROFILE
4	8+60.98	13.61' LT	SEE PROFILE
5	7+53.25	20.00' RT	SEE PROFILE
6	8+26.26	13.00' RT	SEE PROFILE
7	8+41.13	13.00' RT	SEE PROFILE
8	8+61.13	13.80' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification. Signature Valid for 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS · KRISTIN L. LANDRY · 100074 · LICENSED PROFESSIONAL ENGINEER · 8/2/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - PAVING

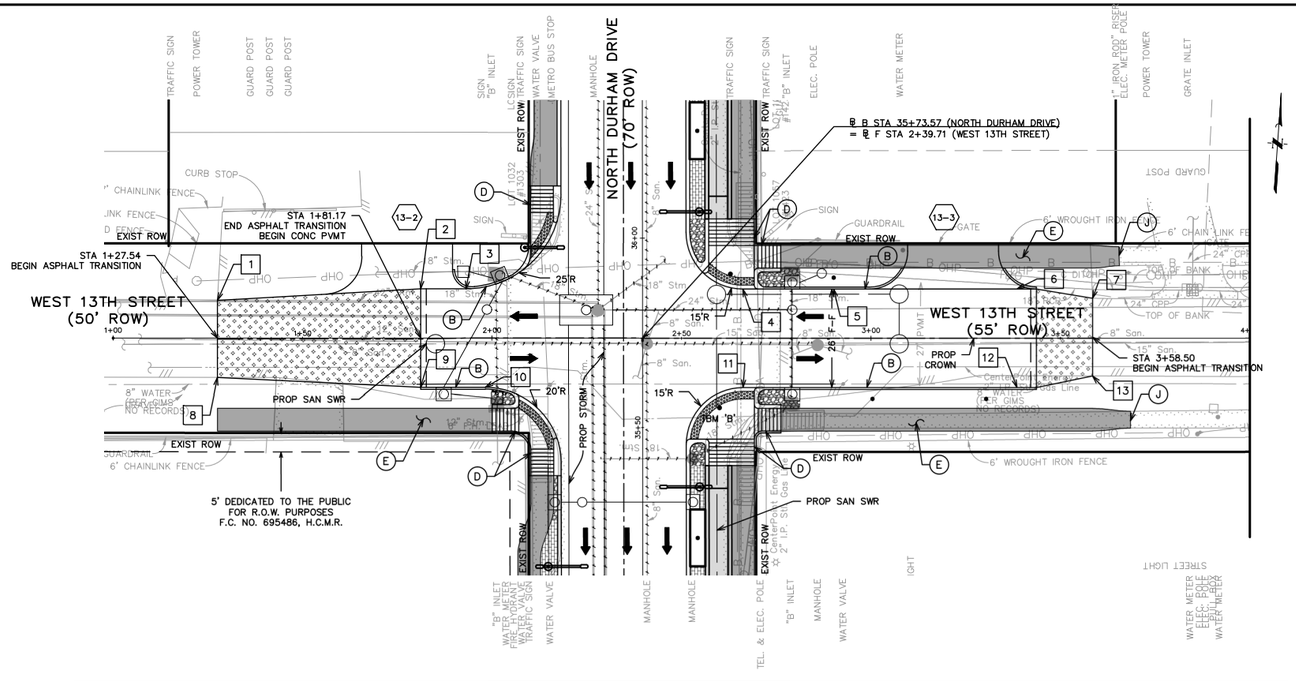
WEST 12TH STREET

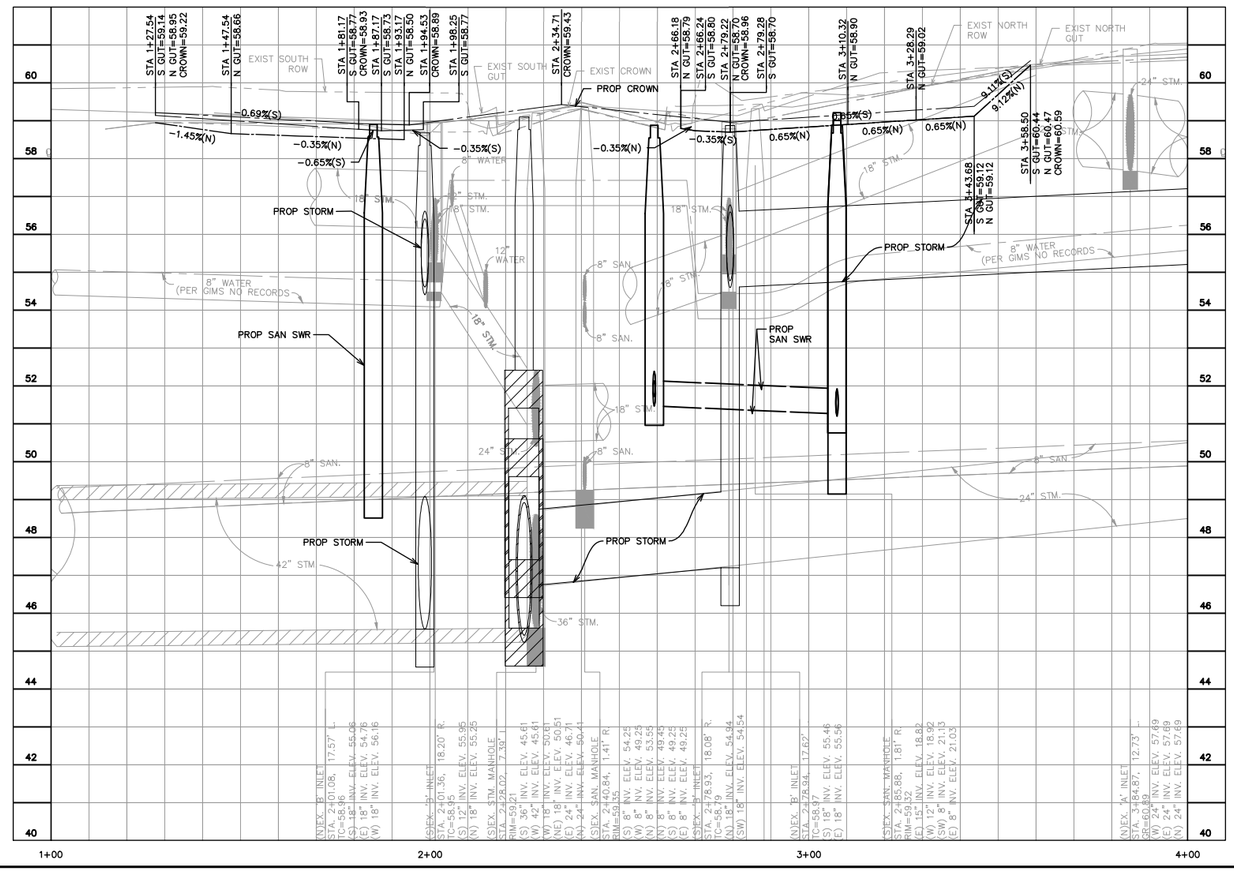
5+00 TO END

SHEET 46 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 258 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV 12th Street.dwg PLOTTED: 9/25/2024 12:05 PM JFR





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'B',CP-12, X-CUT. (SEE RECOVERY SKETCH) ELEV= 58.80'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 10-INCH REINFORCED CONC PAVEMENT
(B) PROP 6-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

No.	Station	Offset	Elevation
1	1+27.54	9.96' LT	SEE PROFILE
2	1+81.17	13.00' LT	SEE PROFILE
3	1+93.17	12.98' LT	SEE PROFILE
4	2+65.18	13.00' LT	SEE PROFILE
5	2+90.18	13.00' LT	SEE PROFILE
6	3+38.58	13.00' LT	SEE PROFILE
7	3+58.50	10.55' LT	SEE PROFILE
8	1+27.54	10.38' RT	SEE PROFILE
9	1+81.17	13.00' RT	SEE PROFILE
10	1+98.25	13.00' RT	SEE PROFILE
11	2+65.24	13.00' RT	SEE PROFILE
12	3+38.58	13.00' RT	SEE PROFILE
13	3+58.50	9.94' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

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(This signature verifies existing underground facilities – not to be used for conflict verification.)
Signature Valid for six months.

Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-12290 and 10194300
8303 West Little York Rd., Suite 110 Houston, TX 77040
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

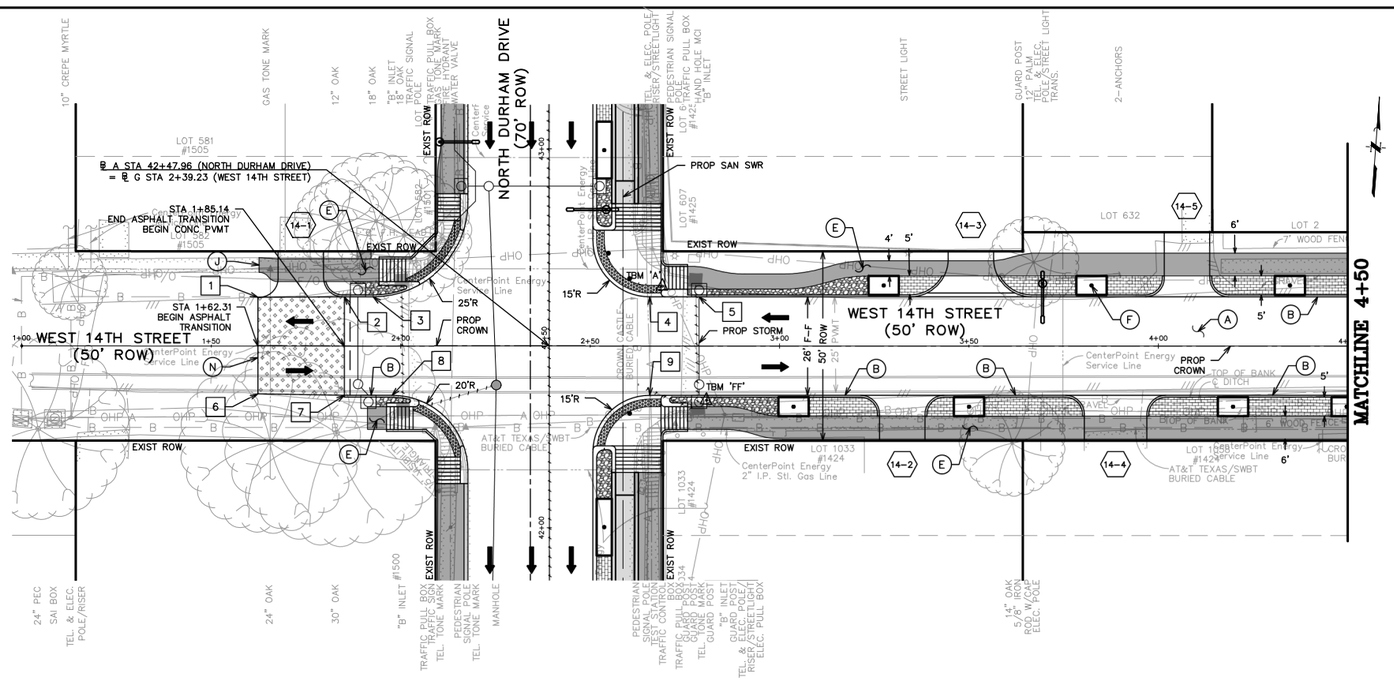
PLAN & PROFILE – PAVING

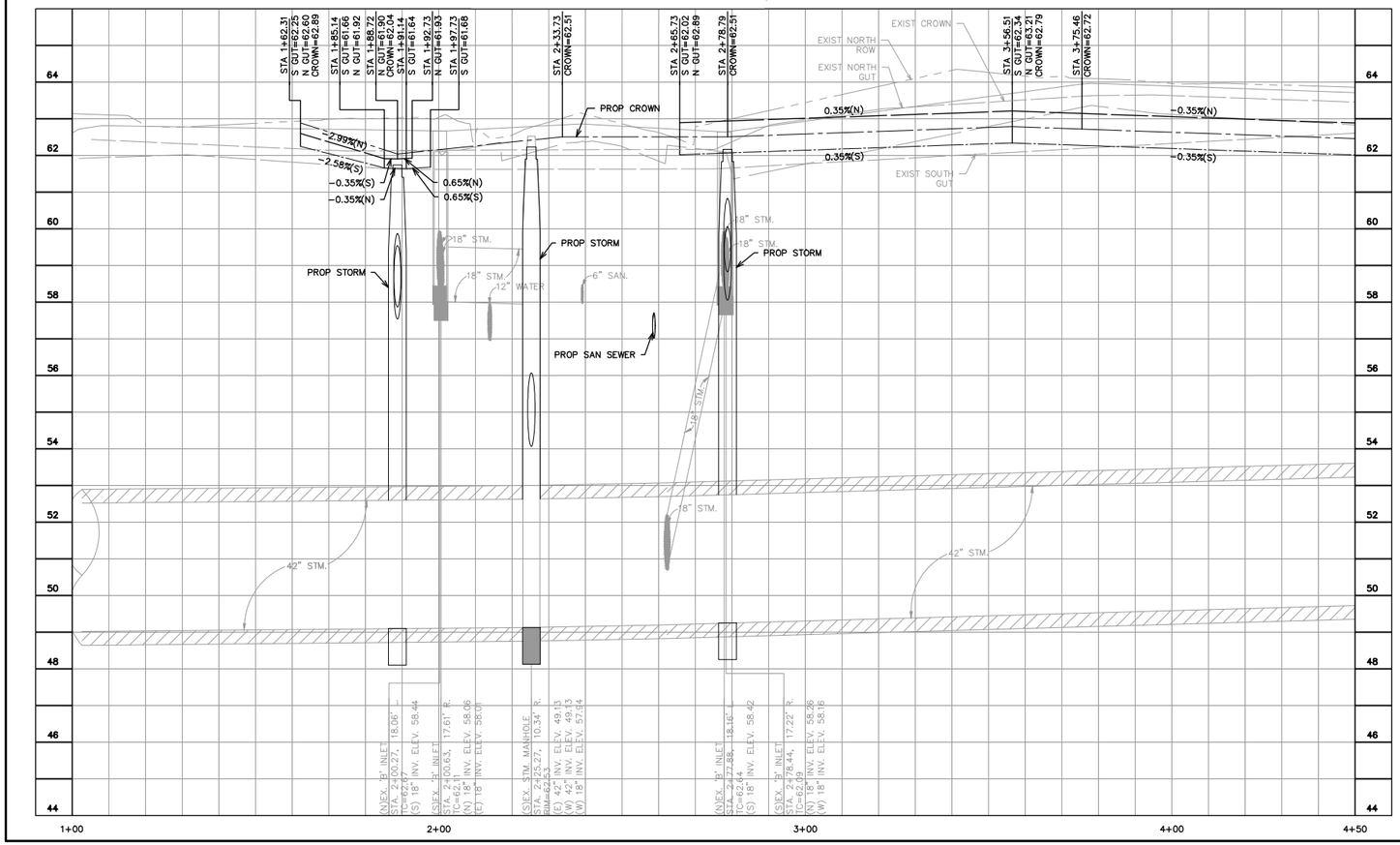
WEST 13TH STREET
BEGIN TO END

SHEET 47 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 259 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV 13th Street.dwg PLOTTED: 9/25/2024 12:06 PM JFR





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'A',CP-11, X-CUT. (SEE RECOVERY SKETCH) ELEV= 62.42'
TBM 'FF',CP-178, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 61.97'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 10-INCH REINFORCED CONC PAVEMENT
(B) PROP 6-INCH CONC CURB
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(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
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(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	1+62.31	12.87' LT	SEE PROFILE
2	1+85.14	12.97' LT	SEE PROFILE
3	1+92.73	13.00' LT	SEE PROFILE
4	2+65.73	13.00' LT	SEE PROFILE
5	2+78.79	13.00' LT	SEE PROFILE
6	1+62.31	12.60' RT	SEE PROFILE
7	1+85.14	13.00' RT	SEE PROFILE
8	1+97.73	13.00' RT	SEE PROFILE
9	2+65.73	13.00' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 100602-00
6363 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5557

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
124074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

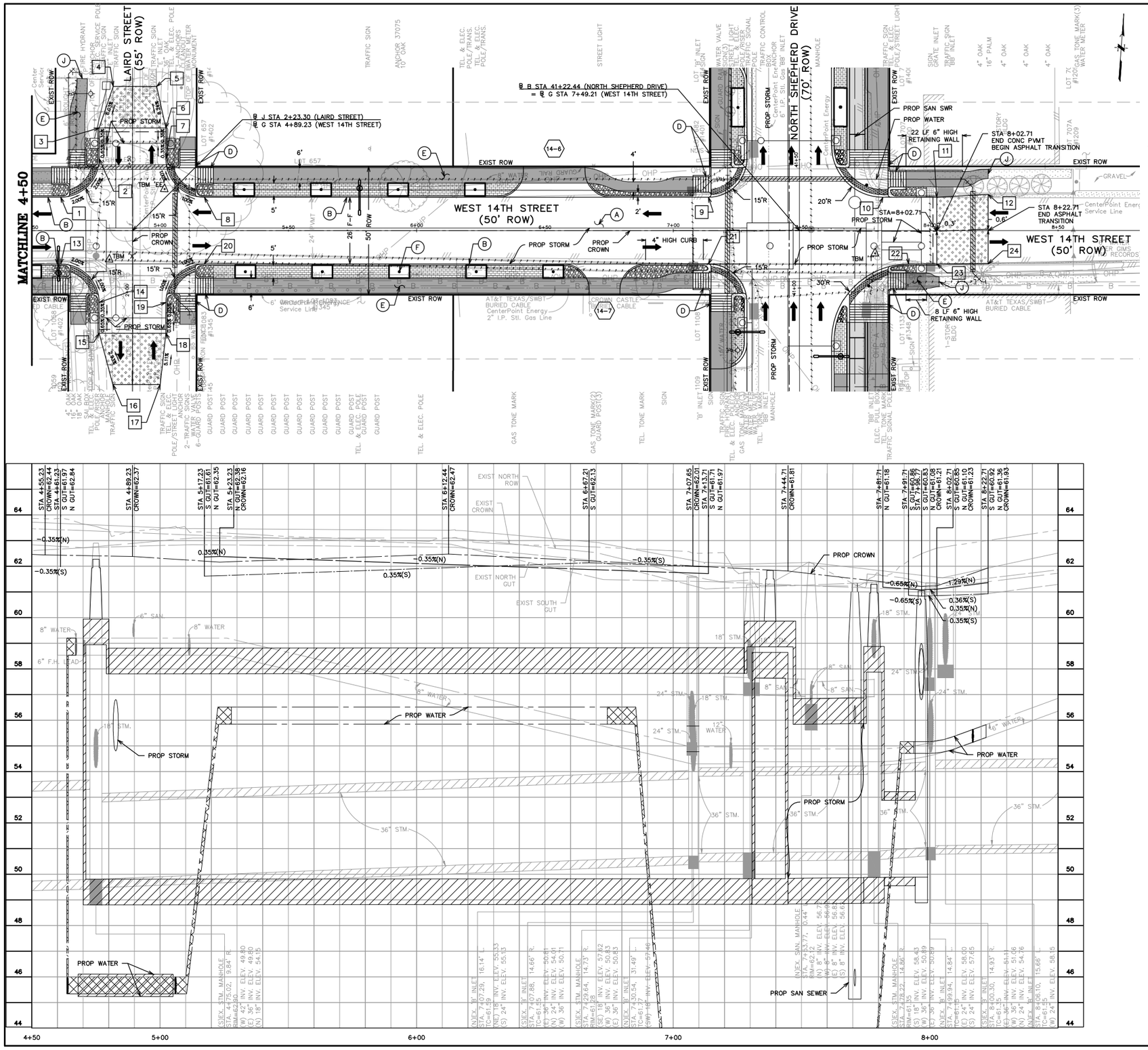
PLAN & PROFILE – PAVING

WEST 14TH STREET
BEGIN TO 4+50

SHEET 48 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 260 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV 14th Street.dwg PLOTTED: 9/25/2024 12:07 PM JFR



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'T',CP-103, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 61.62'
TBM 'X',CP-147, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 63.03'
TBM 'EE',CP-177, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 63.20'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 10-INCH REINFORCED CONC PAVEMENT
(B) PROP 6-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

Station and Offset Table			
No.	Station	Offset	Elevation
1	4+61.23	13.00' LT	SEE PROFILE
2	4+76.23	28.00' LT	SEE PROFILE
3	4+76.23	40.00' LT	62.35
4	4+81.70	56.18' LT	63.38
5	4+98.64	56.18' LT	63.48
6	5+02.23	40.00' LT	62.11
7	5+02.23	28.00' LT	62.11
8	5+17.23	13.00' LT	SEE PROFILE
9	7+13.71	13.00' LT	SEE PROFILE
10	7+81.71	13.00' LT	SEE PROFILE
11	8+02.71	13.00' LT	SEE PROFILE
12	8+22.71	14.12' LT	SEE PROFILE
13	4+61.23	13.00' LT	SEE PROFILE
14	4+76.23	28.00' LT	61.50
15	4+76.23	40.00' LT	61.52
16	4+81.60	60.00' RT	MATCH EXISTING
17	5+00.08	60.00' RT	MATCH EXISTING
18	5+02.23	40.00' RT	61.39
19	5+02.23	28.00' RT	61.37
20	5+17.23	13.00' RT	SEE PROFILE
21	7+13.71	13.00' RT	SEE PROFILE
22	7+91.71	13.00' RT	SEE PROFILE
23	8+02.71	12.99' RT	SEE PROFILE
24	8+22.71	12.97' RT	SEE PROFILE

FOR STORM SEWER IMPROVEMENTS SEE SHEETS 275-321

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

NOTICE:
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 100602
4265 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5557

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
KRISTIN L. LANDRY
100074
LICENSED PROFESSIONAL ENGINEER
8/2/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

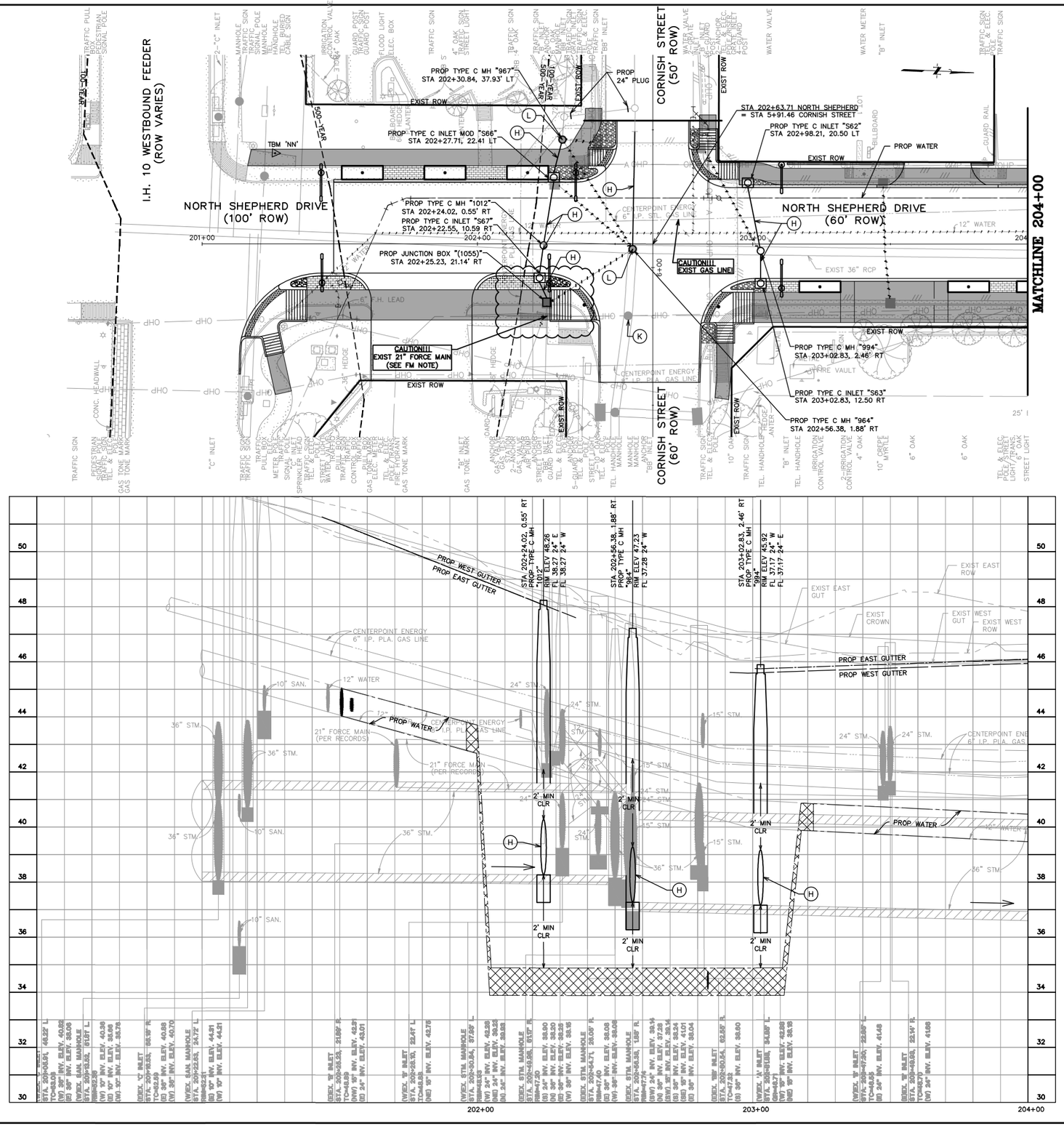
PLAN & PROFILE – PAVING

WEST 14TH STREET
4+50 TO END

SHEET 49 OF 49

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 261 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_PAV 14th Street.dwg PLOTTED: 9/25/2024 12:08 PM JFR



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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TBM INFO

TBM 'NN',CP-306, "X" CUT IN CONC. (SEE RECOVERY SKETCH)
ELEV=52.43'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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KEYED NOTES

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(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(I) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

FM NOTE:
CONTRACTOR TO CAREFULLY EXPOSE EXIST 21" FORCE MAIN AND SUPPORT DURING CONSTRUCTION OF PROP 24" RCP.

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
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FOR PAVING IMPROVEMENTS SEE SHEETS 213-261

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and F-10044390
6363 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – STORM SEWER

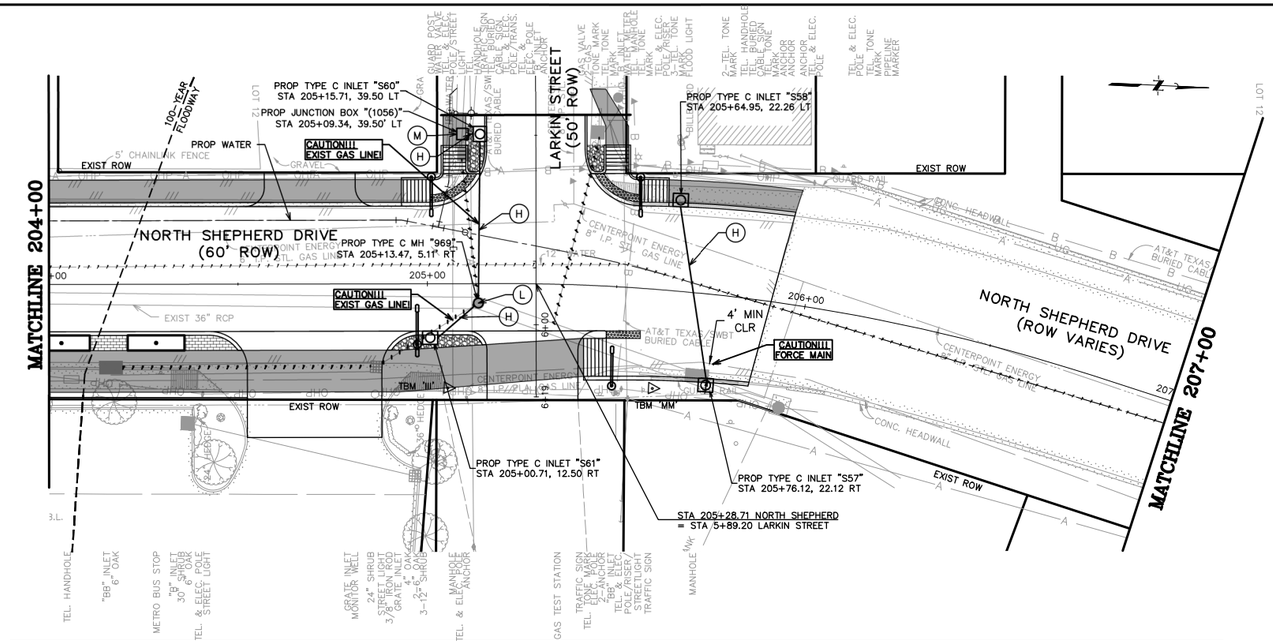
NORTH SHEPHERD DRIVE

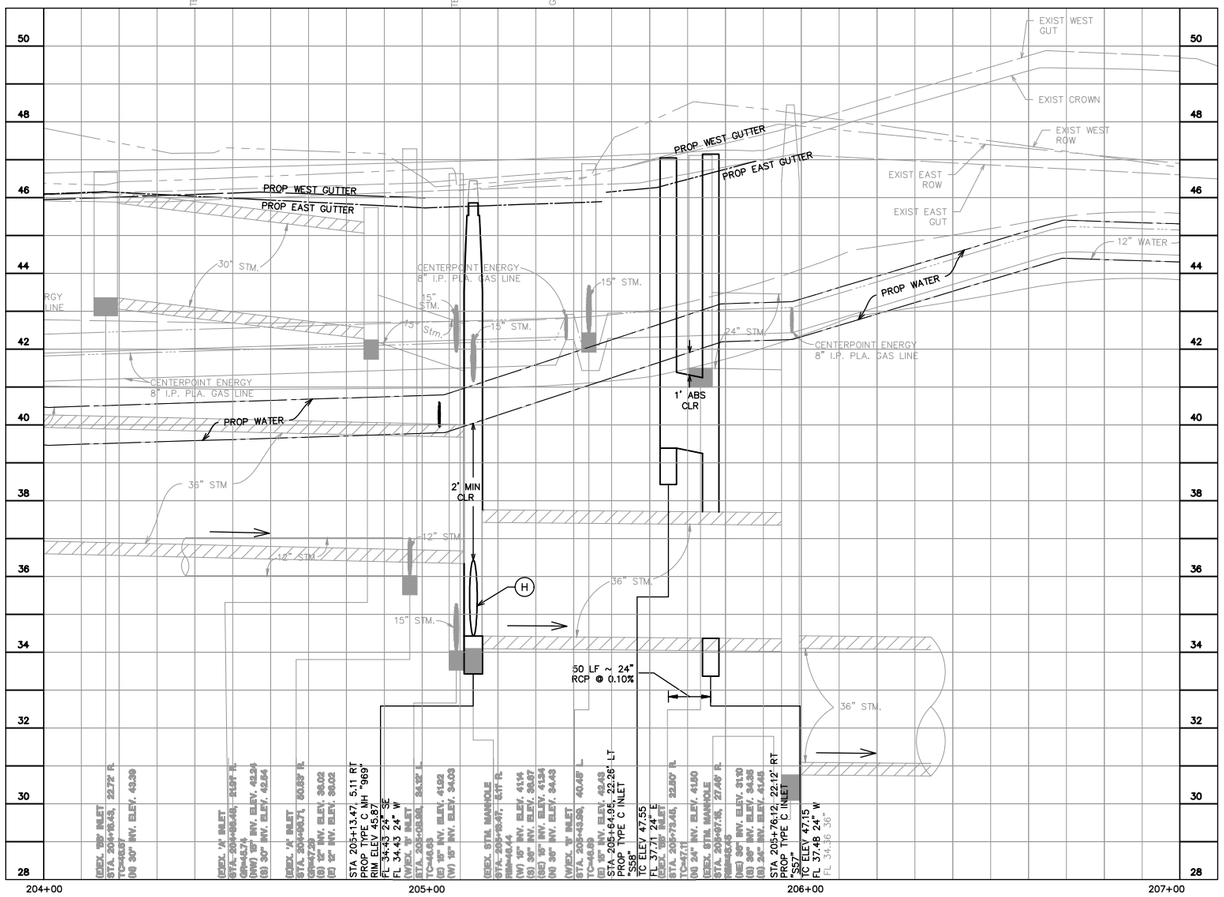
BEGIN TO 204+00

SHEET 1 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 275 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd Southside.dwg PLOTTED: 9/25/2024 11:26 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'MM',CP-305, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=47.23'
TBM 'III',CP-336, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV=46.10'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
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(L) REMOVE EXIST STORM SEWER MH
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(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10194000
4265 Kirby Drive Suite 315, Houston, TX 77098
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

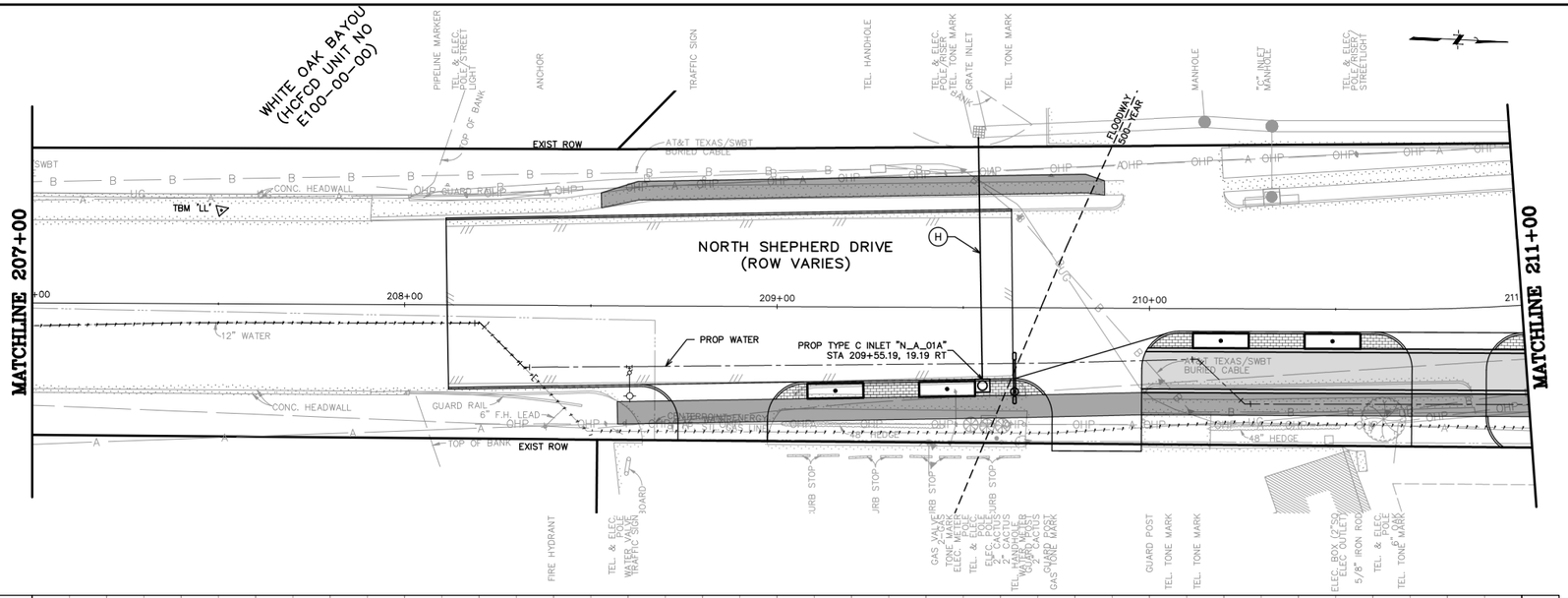
PLAN & PROFILE – STORM SEWER

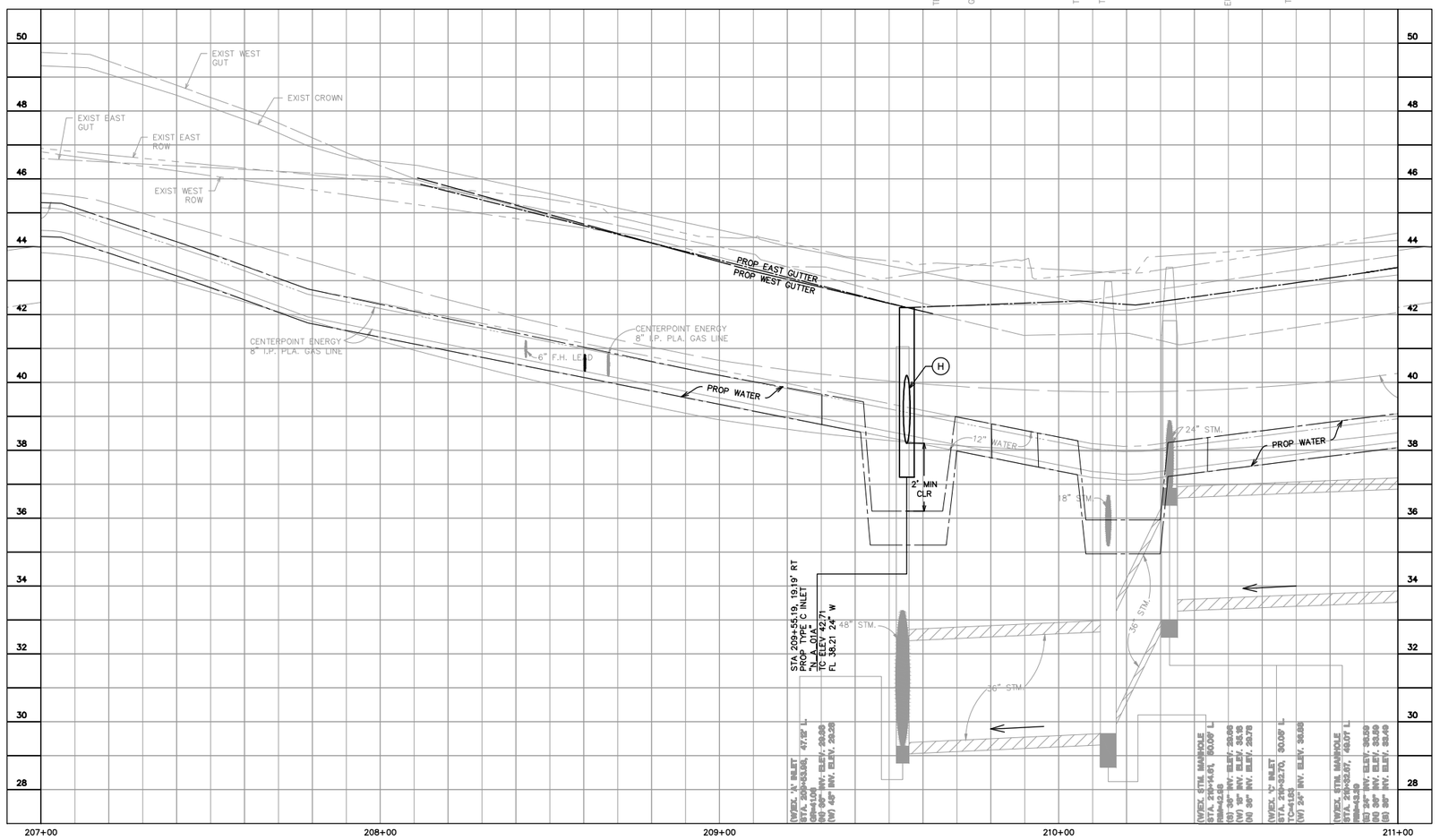
NORTH SHEPHERD DRIVE
204+00 TO 207+00

SHEET 2 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 276 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd Southside.dwg PLOTTED: 9/25/2024 11:26 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
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TBM INFO

TBM 'LL',CP-304, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV-48.77'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
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0 5 10 20 40 60
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Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and #100220
4200 West Loop South, Suite 1500 Bellaire, TX 77401
713.777.5581

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS
FROM 15TH TO IH-10 WBFR

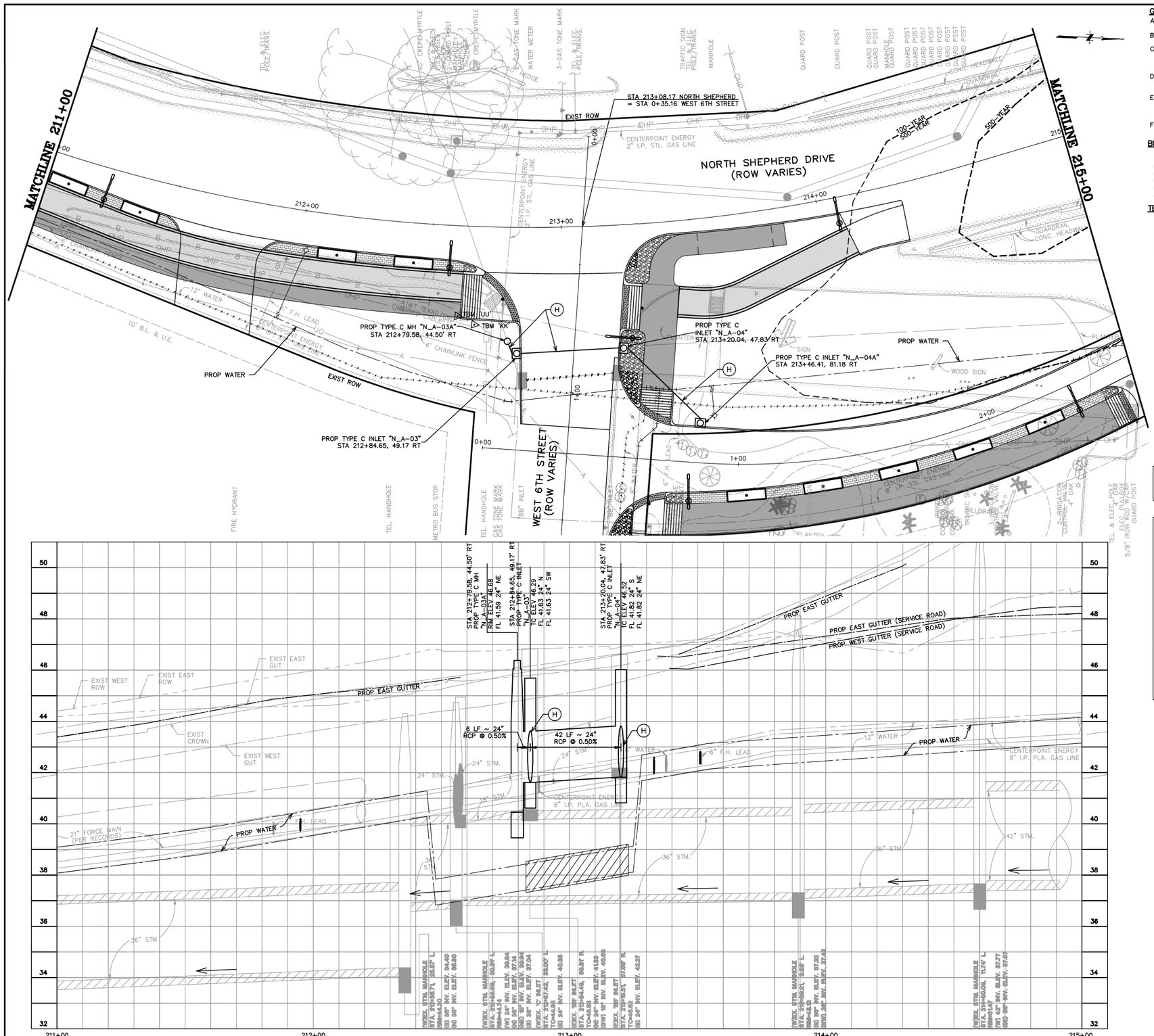
PLAN & PROFILE – STORM SEWER

NORTH SHEPHERD DRIVE
207+00 TO 211+00

SHEET 3 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 277 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd Southside.dwg PLOTTED: 9/25/2024 11:26 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'KK',CP-303, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=46.83'

TBM 'UU',CP-313, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=46.84'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(I) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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FOR PAVING IMPROVEMENTS SEE SHEETS 213-261

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

FOR STORM LATERAL PROFILES SEE SHEETS 322-362

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

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NO.	DATE	REVISIONS	APP.

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4265 West Loop South, Suite 150 Bellaire, TX 77401
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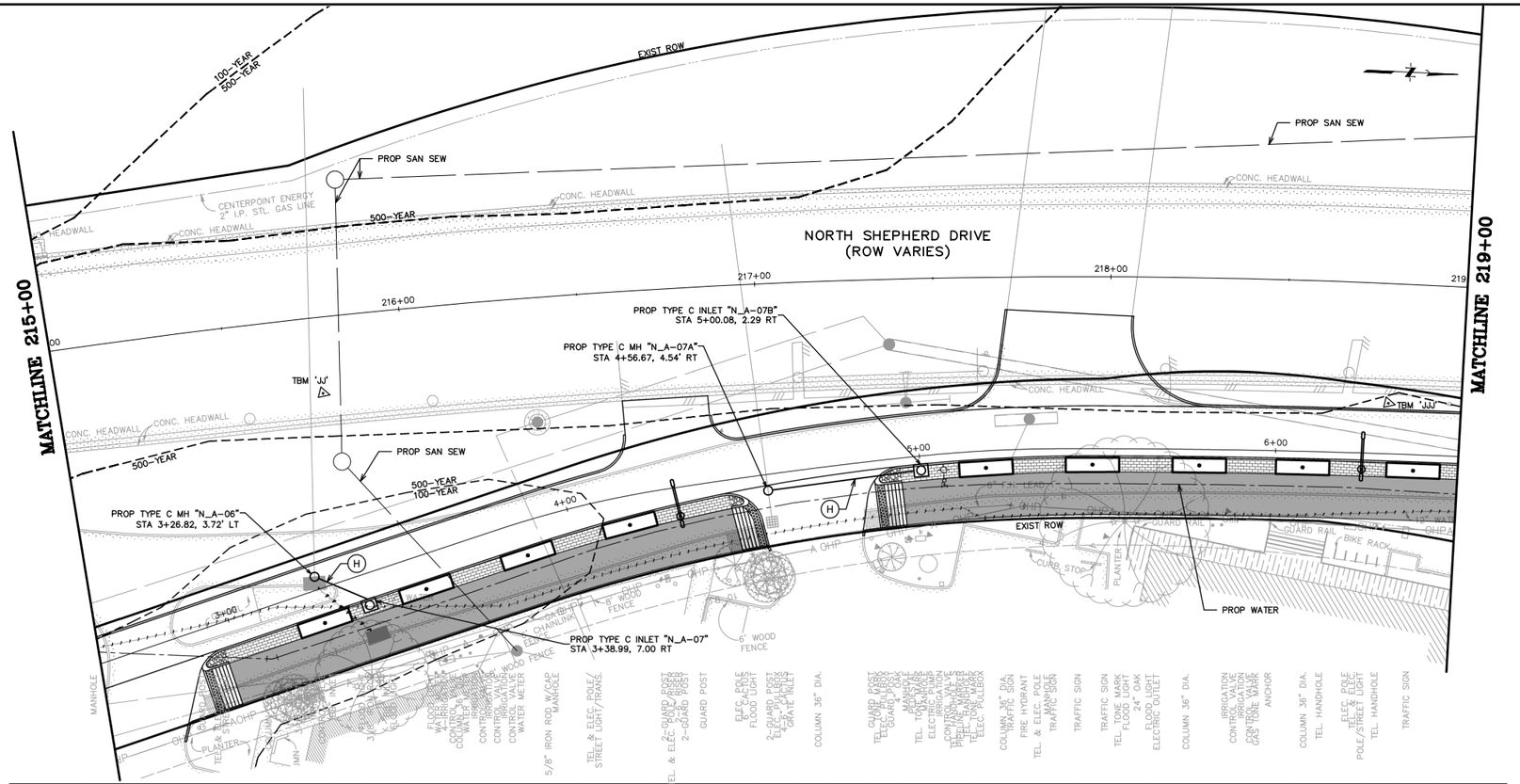
PLAN & PROFILE – STORM SEWER

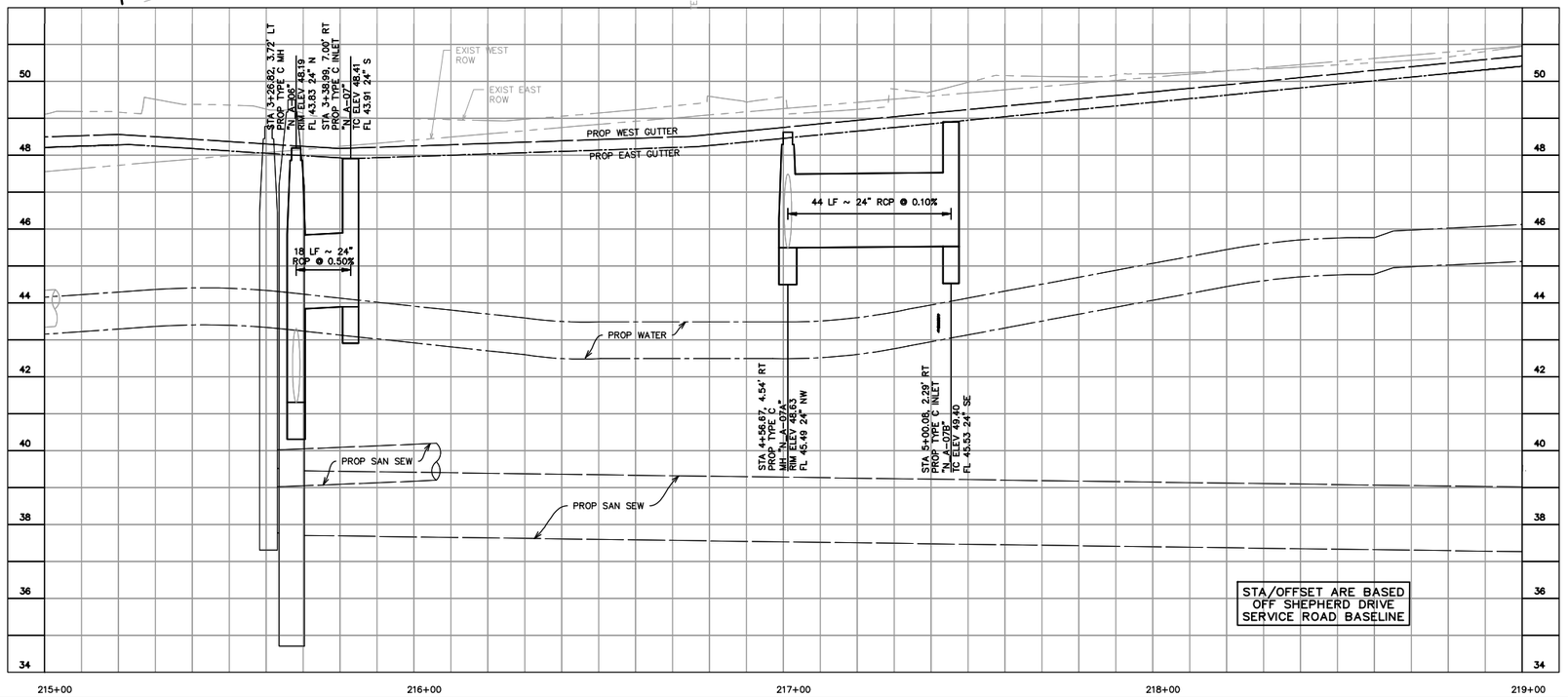
NORTH SHEPHERD DRIVE
211+00 TO 215+00

SHEET 4 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
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VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 278 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd Southside.dwg PLOTTED: 9/25/2024 11:27 AM HVF





STA/OFFSET ARE BASED OFF SHEPHERD DRIVE SERVICE ROAD BASELINE

GENERAL NOTES

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TBM INFO

TBM 'JJJ',CP-337, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV-52.09'
TBM 'JJ',CP-302, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH) ELEV-49.03'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
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0 5 10 20 40 60
SCALE: 1" = 20'

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

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Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10194020
4265 San Felipe Suite 1100, Houston, Texas 77027 713.777.5337

SURVEYED BY:
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FB NO. P-6288

STATE OF TEXAS
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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – STORM SEWER

NORTH SHEPHERD DRIVE

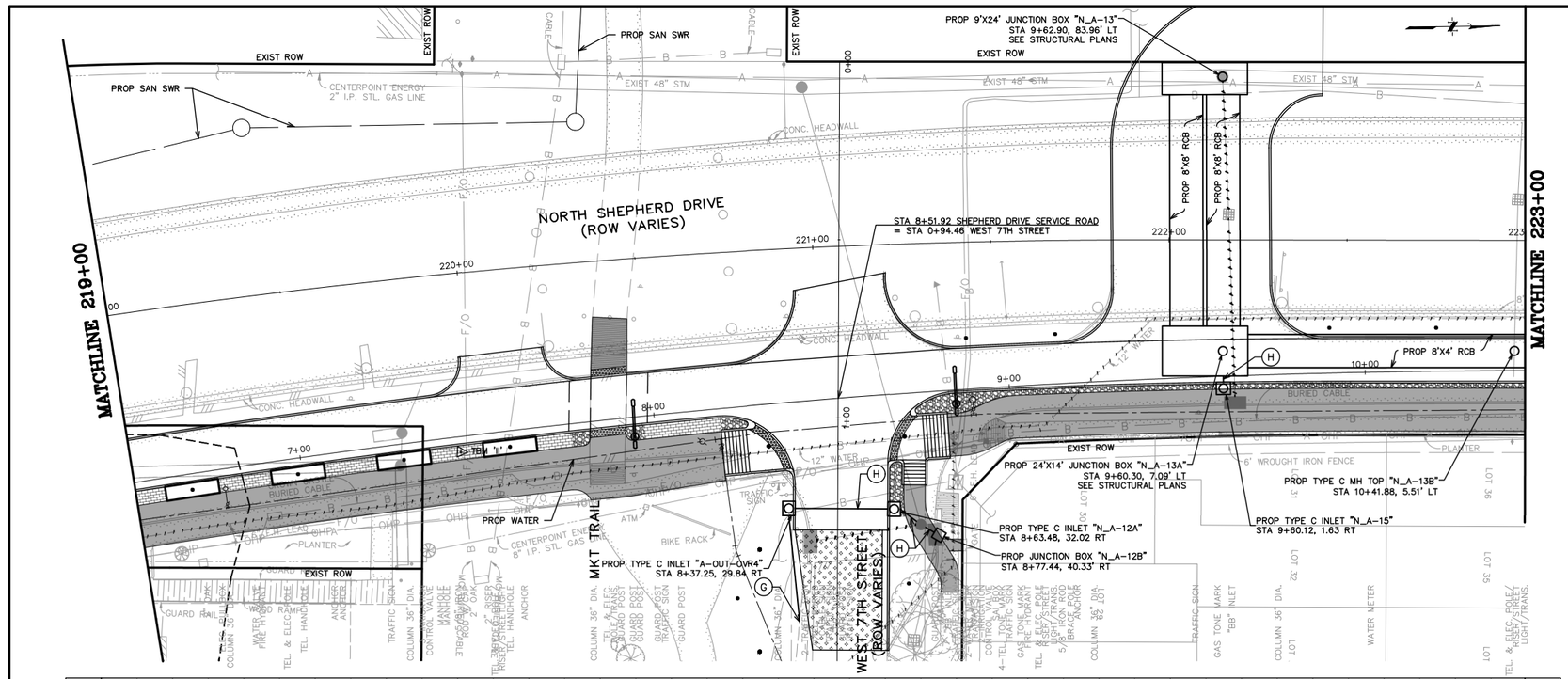
215+00 TO 219+00

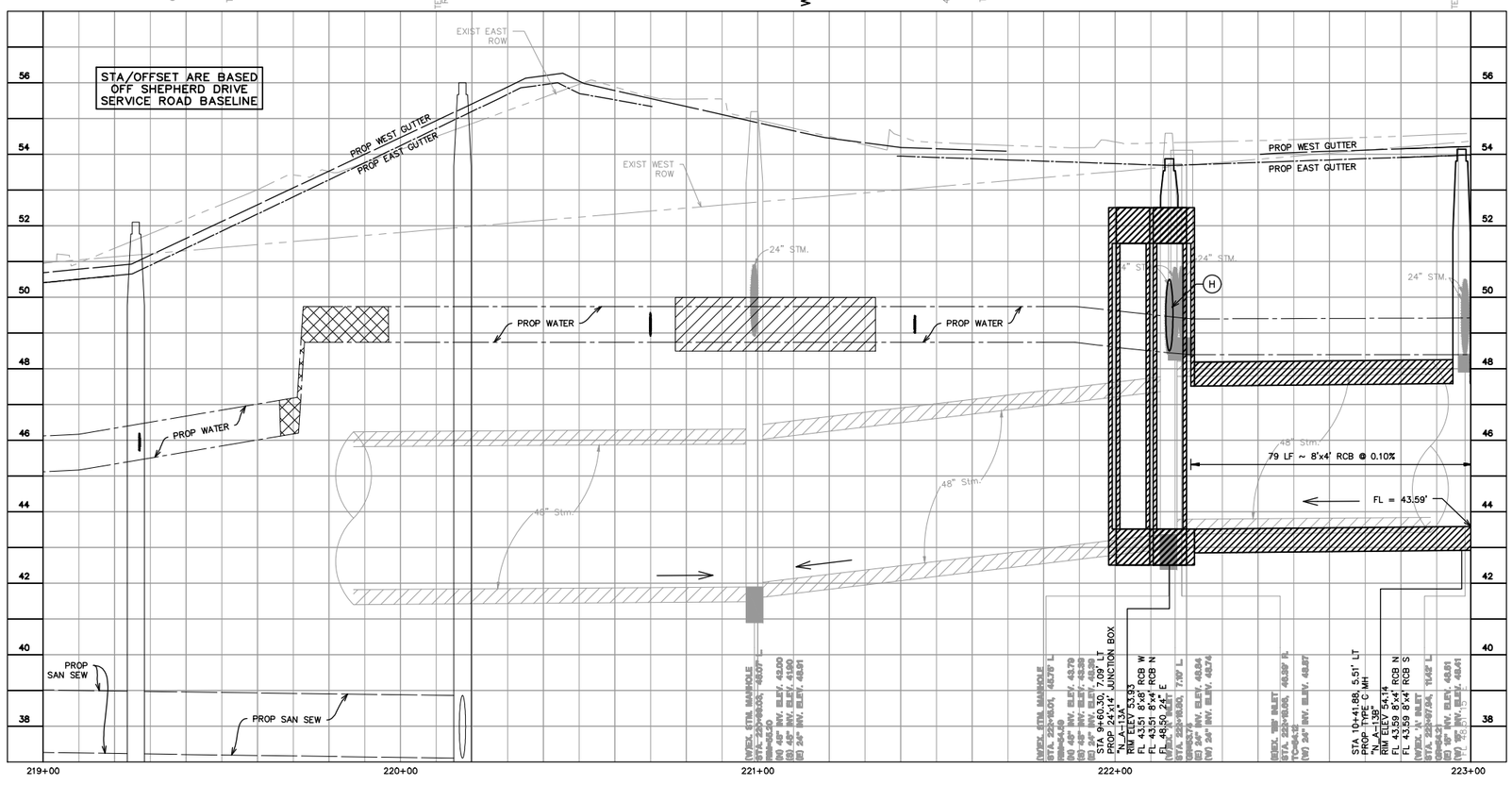
SHEET 5 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 279 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd Southside.dwg PLOTTED: 9/25/2024 11:27 AM HVF

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd Southside.dwg PLOTTED: 9/25/2024 11:28 AM HVF





GENERAL NOTES

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'H',CP-301, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=56.36'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
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- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
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(I) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
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(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

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DRAINAGE NOTES:

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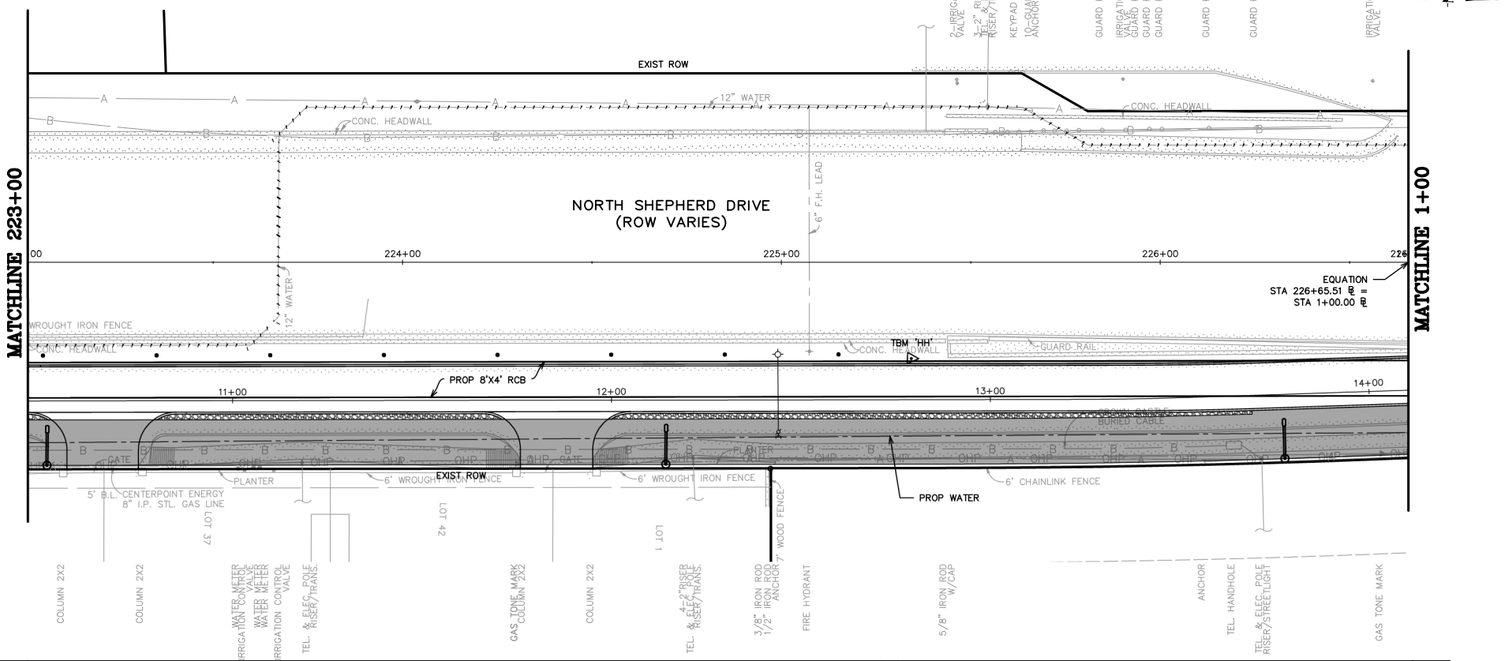
SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – STORM SEWER

NORTH SHEPHERD DRIVE
219+00 TO 223+00

SHEET 6 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
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SUDARSHAN GOUNI, P.E.	
SHEET NO. 280 OF 711	



GENERAL NOTES

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TBM INFO

TBM "HH",CP-300, 5/8-INCH IRON ROD WITH SINER. (SEE RECOVERY SKETCH)'
ELEV=55.83'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
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(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
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0 5 10 20 40 60
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FOR PAVING IMPROVEMENTS SEE SHEETS 213-261
FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493
FOR STORM LATERAL PROFILES SEE SHEETS 322-362

NOTICE:

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 100422
4200 West Loop South, Suite 1500 Austin, TX 78704
713.777.5200

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

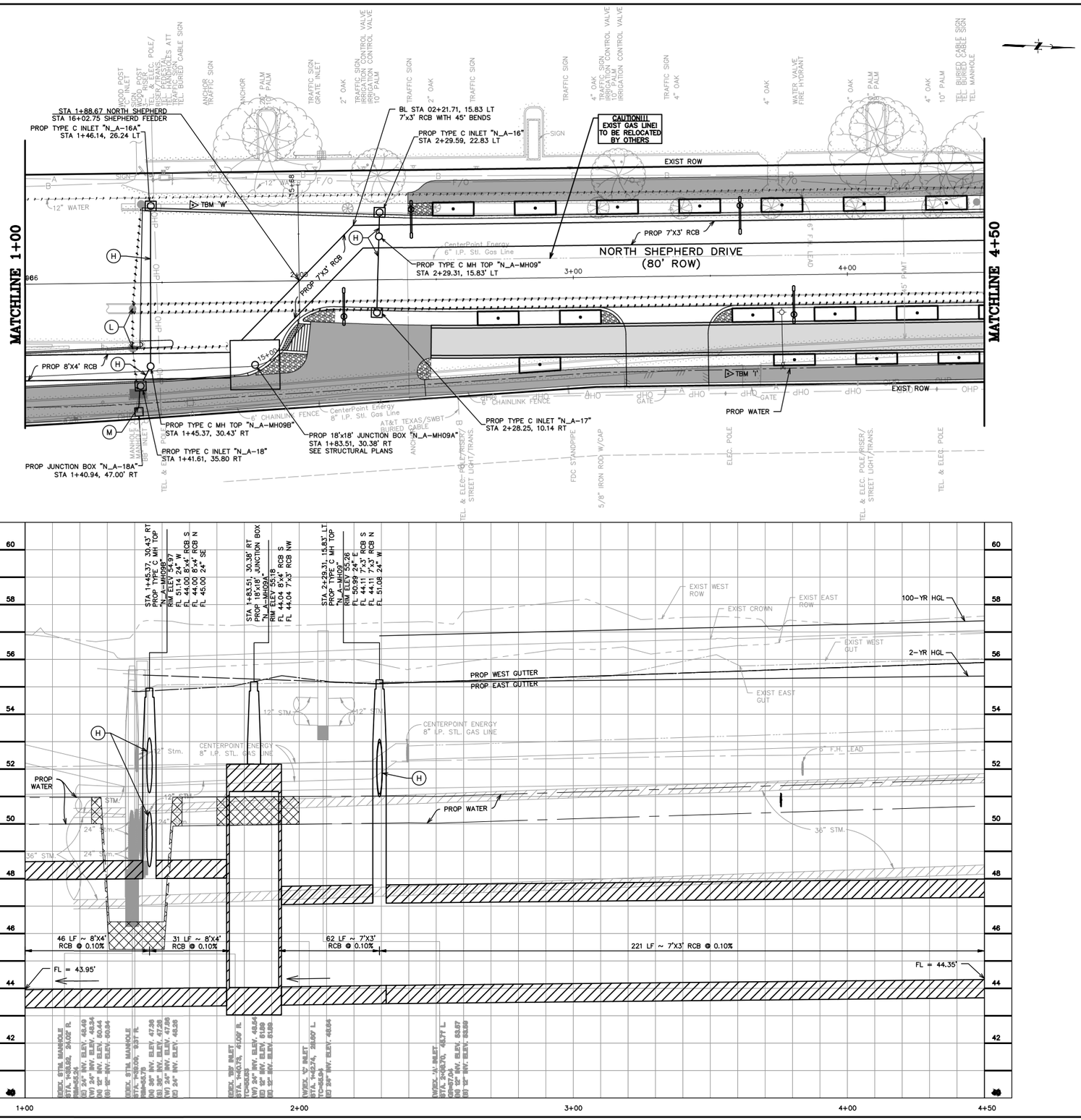
PLAN & PROFILE – STORM SEWER

NORTH SHEPHERD DRIVE
223+00 TO 1+00

SHEET 7 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 281 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd Southside.dwg PLOTTED: 9/25/2024 11:28 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'W',CP-108, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=56.12'

TBM 'I',CP-24, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=56.67'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10066500
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

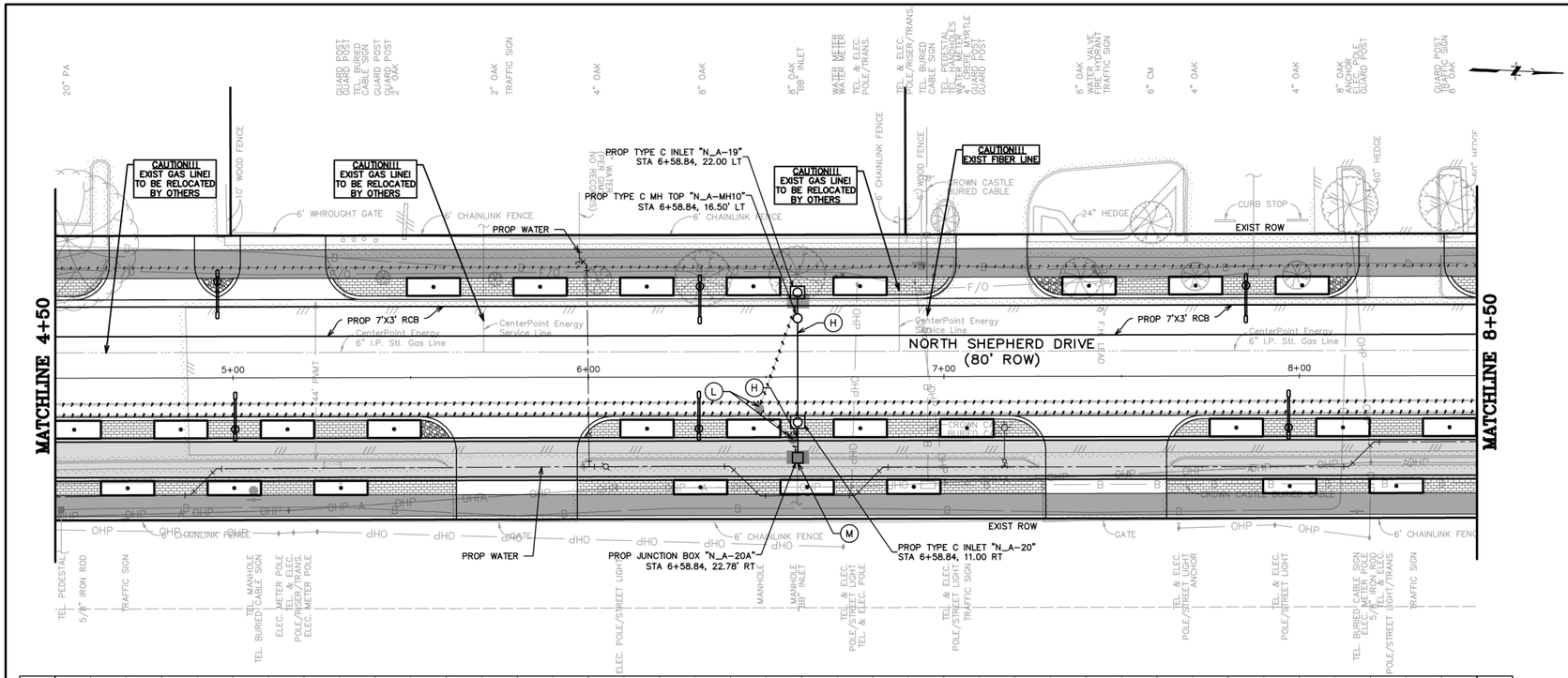
PLAN & PROFILE – STORM SEWER

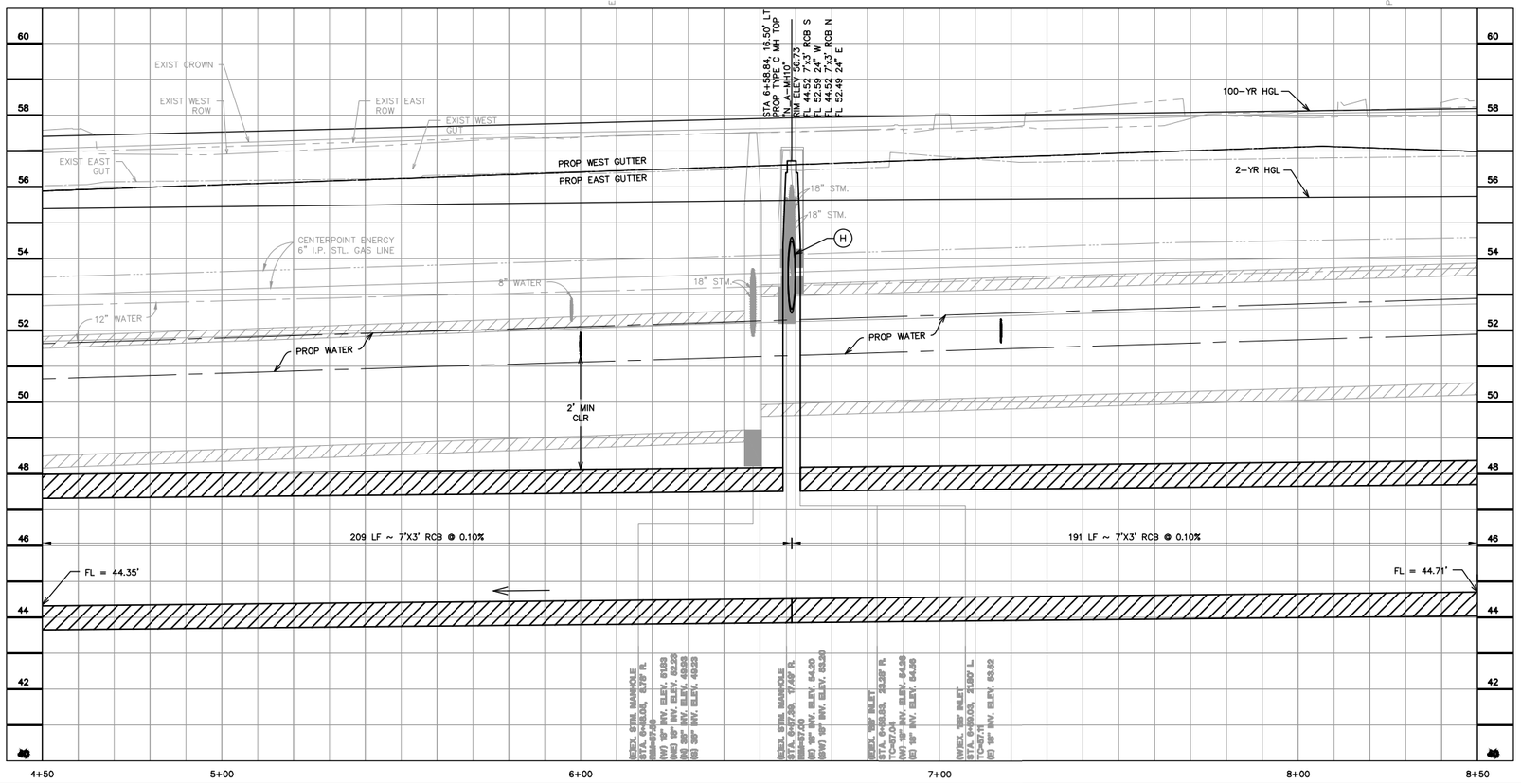
NORTH SHEPHERD DRIVE
1+00 TO 4+50

SHEET 8 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 282 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd.dwg PLOTTED: 9/25/2024 11:29 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM '1',CP-24, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=56.67'
TBM 'J',CP-25, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=58.37

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
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(J) MATCH EXIST SIDEWALK
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(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

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DRAINAGE NOTES:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 100693
6363 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5557

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

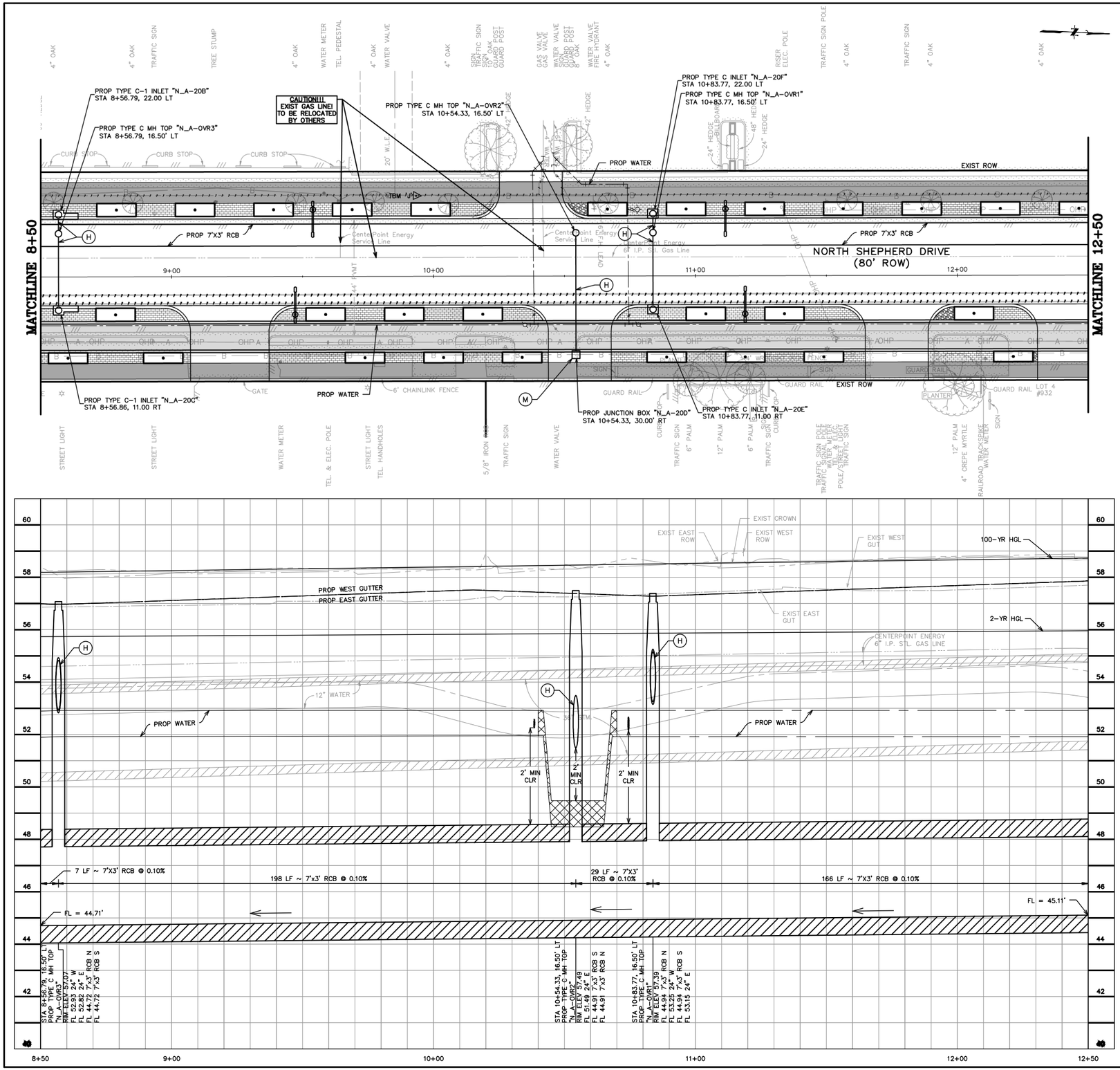
PLAN & PROFILE – STORM SEWER

NORTH SHEPHERD DRIVE
4+50 TO 8+50

SHEET 9 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 283 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd.dwg PLOTTED: 9/25/2024 11:30 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'J',CP-25, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=58.37

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
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- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
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KEYED NOTES

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(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
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(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and ES16020
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

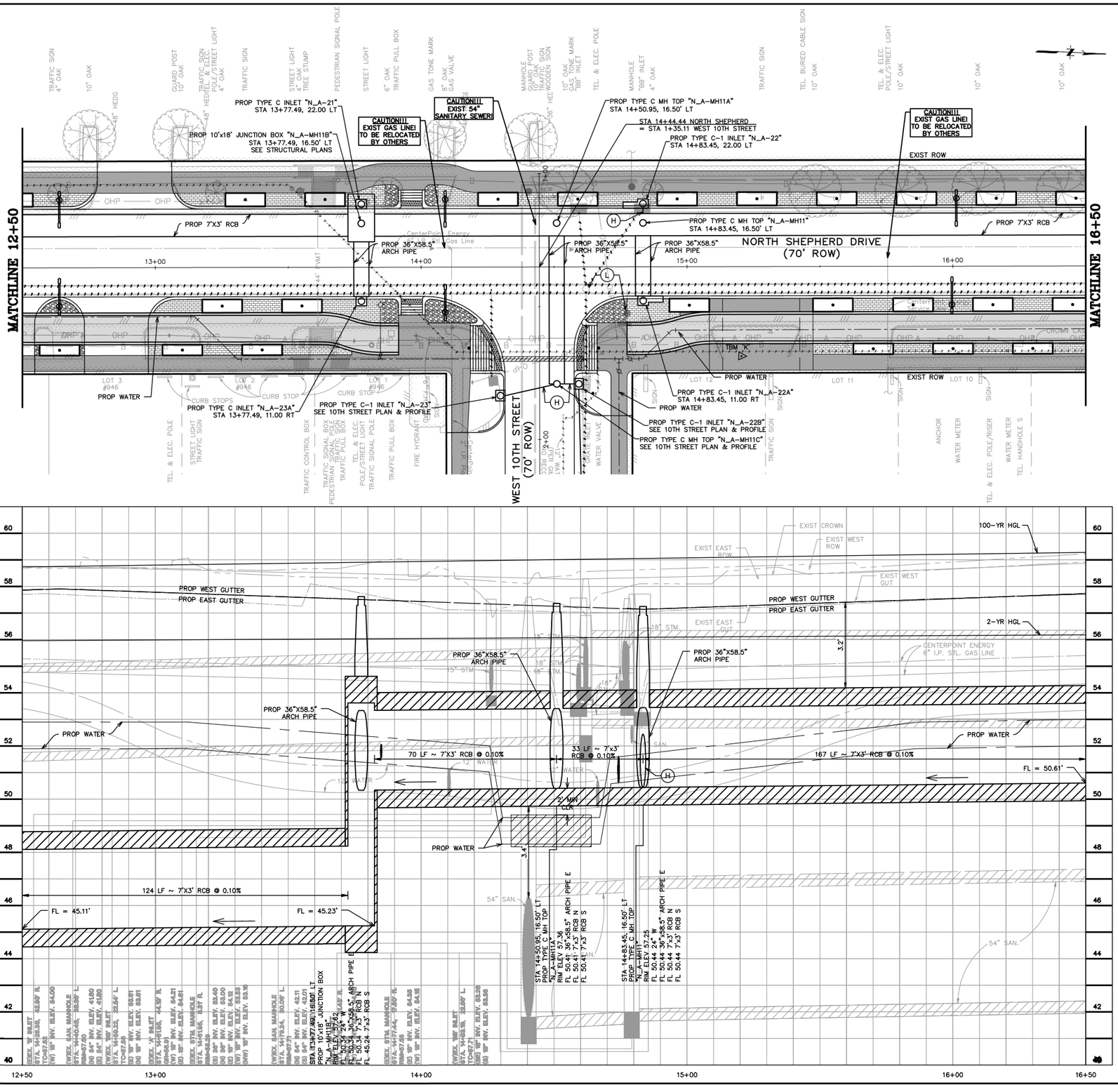
PLAN & PROFILE – STORM SEWER

NORTH SHEPHERD DRIVE
8+50 TO 12+50

SHEET 10 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 284 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd.dwg PLOTTED: 9/25/2024 11:30 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'K',CP-26, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=58.16'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
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0 5 10 20 40 60
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DRAINAGE NOTES:

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FOR PAVING IMPROVEMENTS SEE SHEETS 213-261
FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493
FOR STORM LATERAL PROFILES SEE SHEETS 322-362

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and LSS10020
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

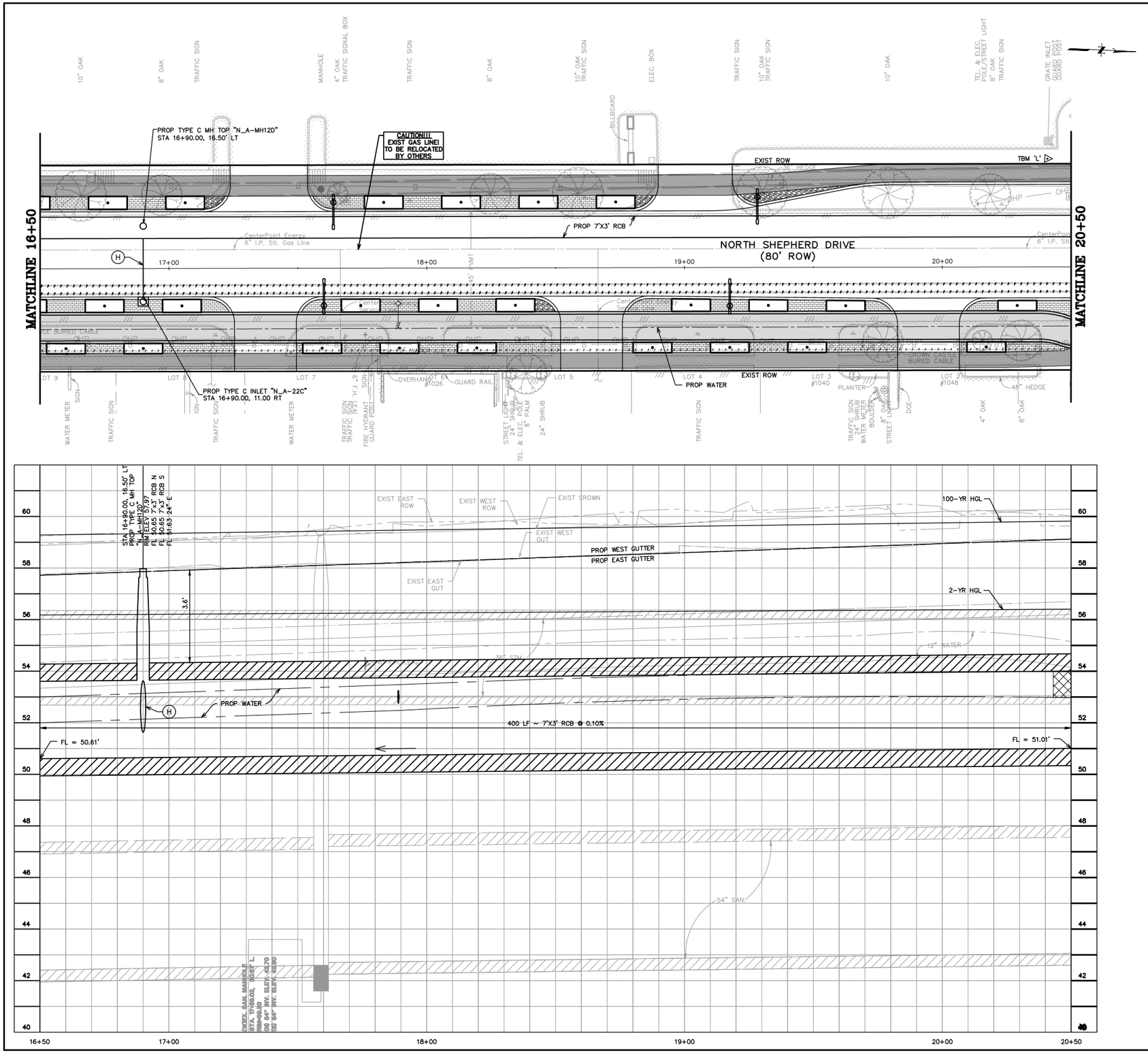
PLAN & PROFILE – STORM SEWER

NORTH SHEPHERD DRIVE
12+50 TO 16+50

SHEET 11 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 285 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd.dwg PLOTTED: 9/25/2024 11:31 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'L',CP-27, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=60.54'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
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(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

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SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

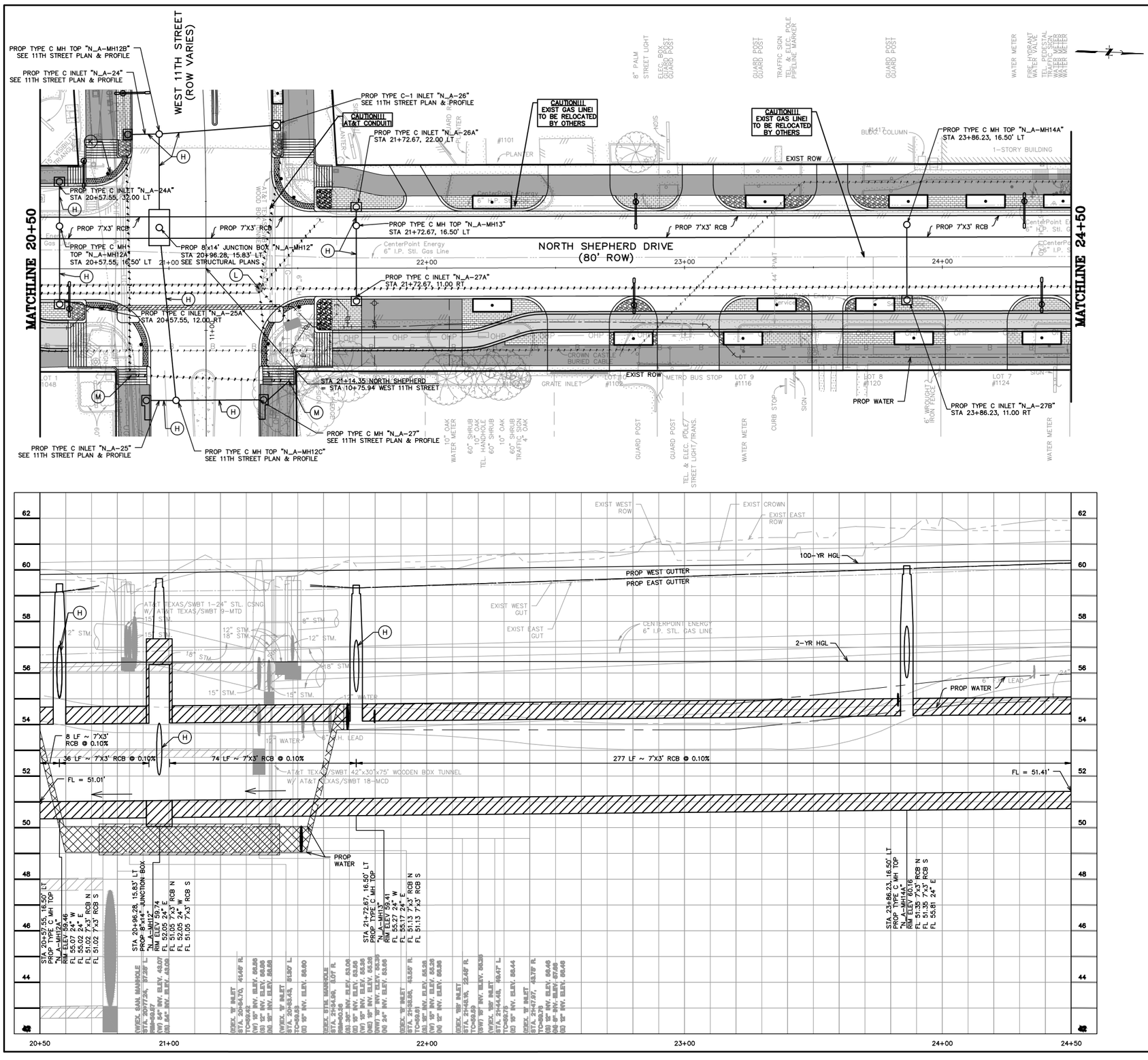
PLAN & PROFILE – STORM SEWER

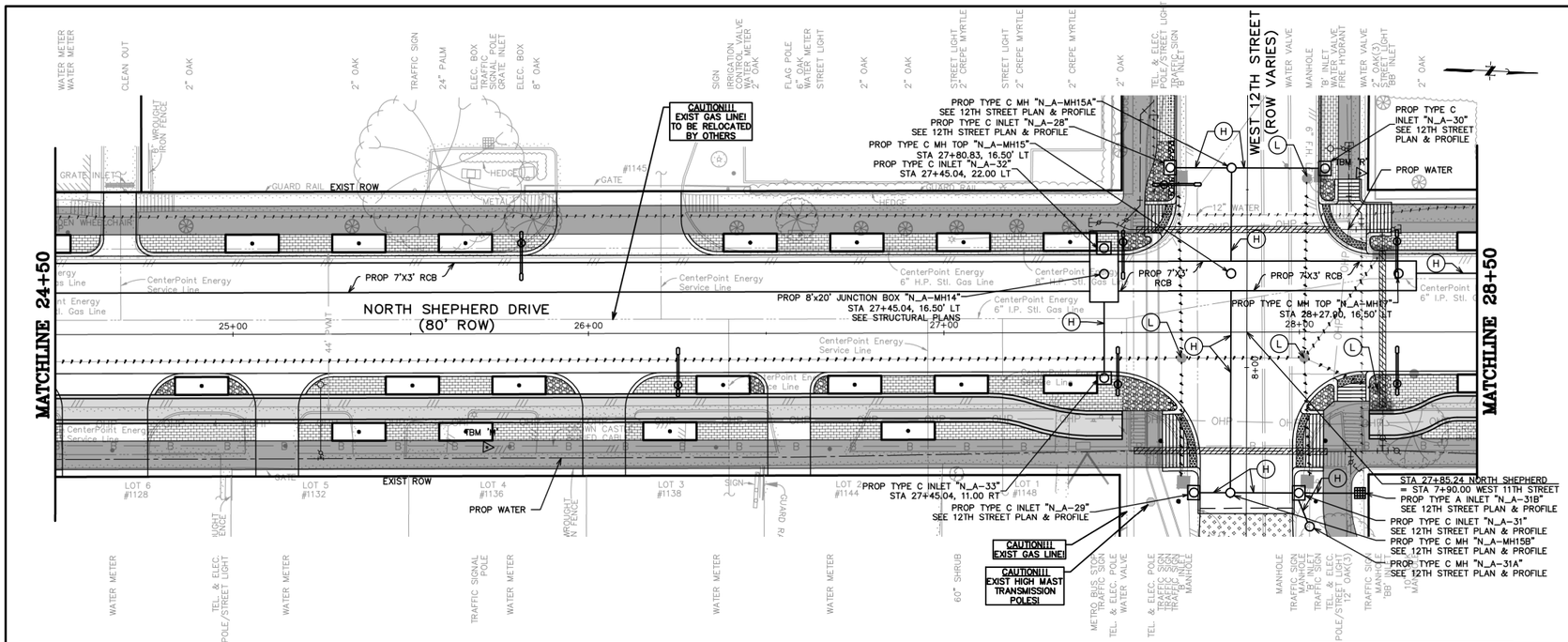
NORTH SHEPHERD DRIVE
16+50 TO 20+50

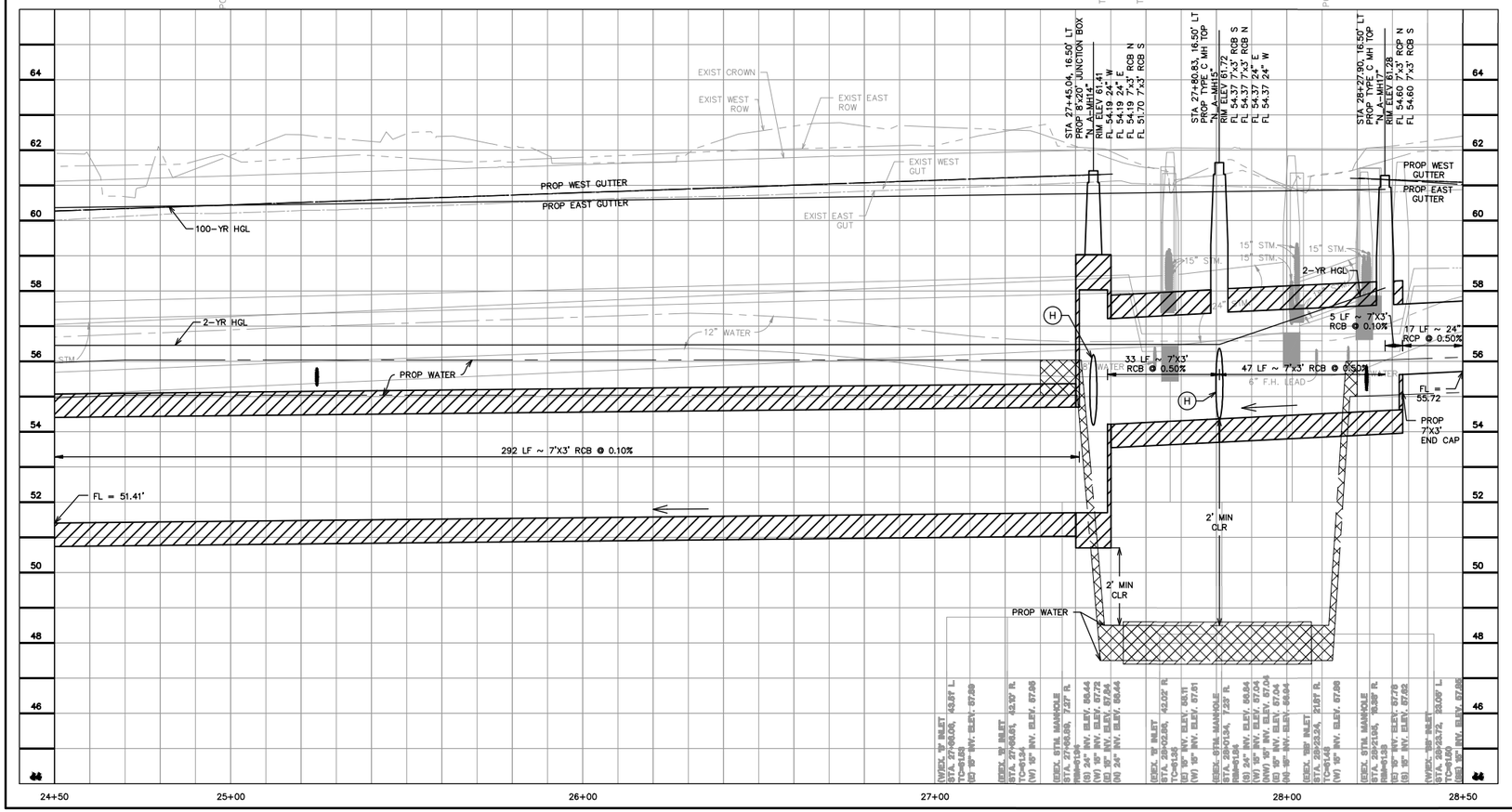
SHEET 12 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 286 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd.dwg PLOTTED: 9/25/2024 11:32 AM HVF


WEST 11TH STREET
(ROW VARIES)
MATCHLINE 20+50
MATCHLINE 24+50
NORTH SHEPHERD DRIVE
(80' ROW)
EXIST ROW
PROP TYPE C MH TOP "N_A-MH12B"
SEE 11TH STREET PLAN & PROFILE
PROP TYPE C INLET "N_A-24"
SEE 11TH STREET PLAN & PROFILE
PROP TYPE C-1 INLET "N_A-26"
SEE 11TH STREET PLAN & PROFILE
CAUTION!!! AT&T CONDUIT!
PROP TYPE C INLET "N_A-26A"
STA 21+72.67, 22.00' LT
CAUTION!!! EXIST GAS LINE! TO BE RELOCATED BY OTHERS
CAUTION!!! EXIST GAS LINE! TO BE RELOCATED BY OTHERS
PROP TYPE C MH TOP "N_A-MH14A"
STA 23+86.23, 16.50' LT
PROP TYPE C INLET "N_A-24A"
STA 20+57.55, 22.00' LT
PROP 7'X3' RCB
PROP TYPE C MH TOP "N_A-MH13"
STA 21+72.67, 16.50' LT
PROP TYPE C MH TOP "N_A-MH12A"
STA 20+57.55, 16.50' LT
PROP 8'x14' JUNCTION BOX "N_A-MH12"
STA 20+96.28, 15.83' LT
SEE STRUCTURAL PLANS
PROP TYPE C INLET "N_A-27A"
STA 21+72.67, 11.00 RT
PROP TYPE C INLET "N_A-25A"
STA 20+57.55, 12.00' RT
STA 21+14.35 NORTH SHEPHERD
= STA 10+75.94 WEST 11TH STREET
PROP TYPE C INLET "N_A-27B"
STA 23+86.23, 11.00 RT
PROP WATER
PROP TYPE C MH "N_A-27"
SEE 11TH STREET PLAN & PROFILE
PROP TYPE C INLET "N_A-25"
SEE 11TH STREET PLAN & PROFILE
PROP TYPE C MH TOP "N_A-MH12C"
SEE 11TH STREET PLAN & PROFILE
CenterPoint Energy
6" I.P. Stl. Gas Line
METRO BUS STOP
CROWN CASTLE
BURIED CABLE
GRATE INLET
1-STORY BUILDING
BLDG. COLUMN
8" PALM
STREET LIGHT
ELEC. BOX
GUARD POST
TRAFFIC SIGN
TEL. & ELEC. POLE
PIPELINE MARKER
WATER METER
FIRE HYDRANT
WATER VALVE
TRAFFIC SIGNAL
WATER METER
LOT 1 1048
LOT 10 #1102
LOT 9 #1116
LOT 8 #120
LOT 7 #1124
#1101
#1417
#1123
#1125
#1127
#1129
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#1193
#1195
#1197
#1199
#1201





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TBM INFO

TBM 'M',CP-28, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.50'
TBM 'R',CP-85, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.37'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
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0 5 10 20 40 60
SCALE: 1" = 20'

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CITY OF HOUSTON

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PLAN & PROFILE – STORM SEWER

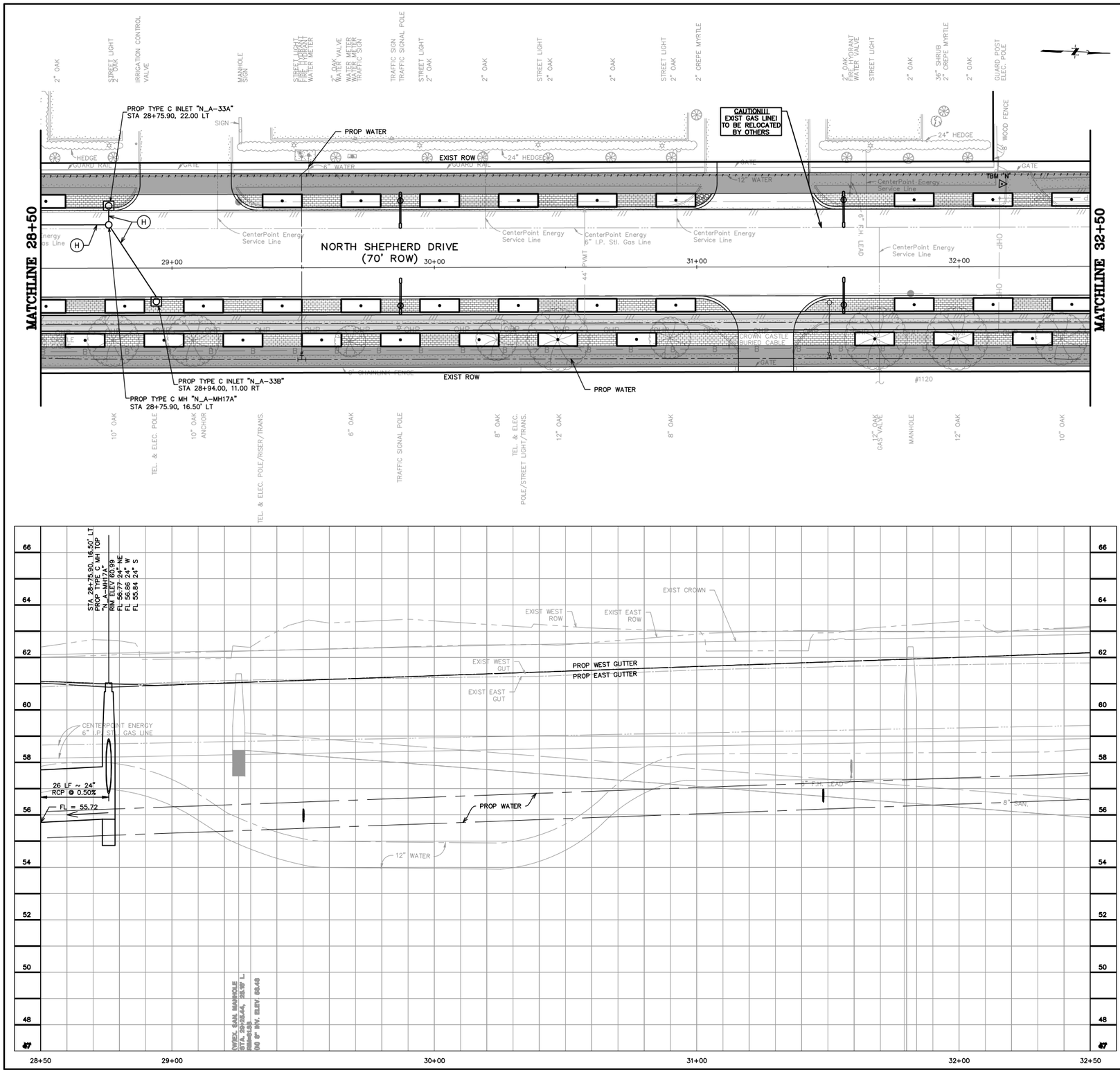
NORTH SHEPHERD DRIVE

24+50 TO 28+50

SHEET 14 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd.dwg PLOTTED: 9/25/2024 11:33 AM HVF



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TBM INFO

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LEGEND

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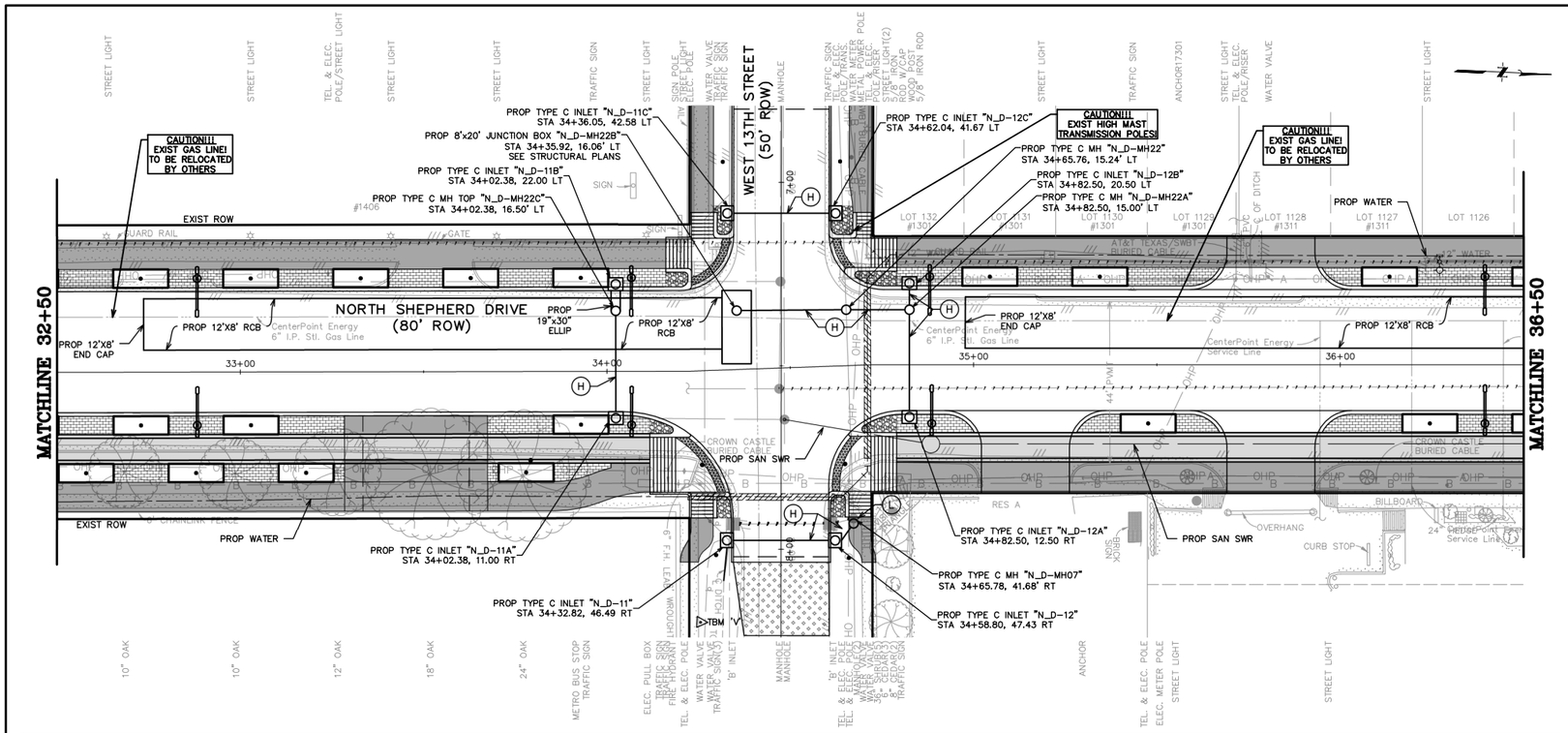
PLAN & PROFILE – STORM SEWER

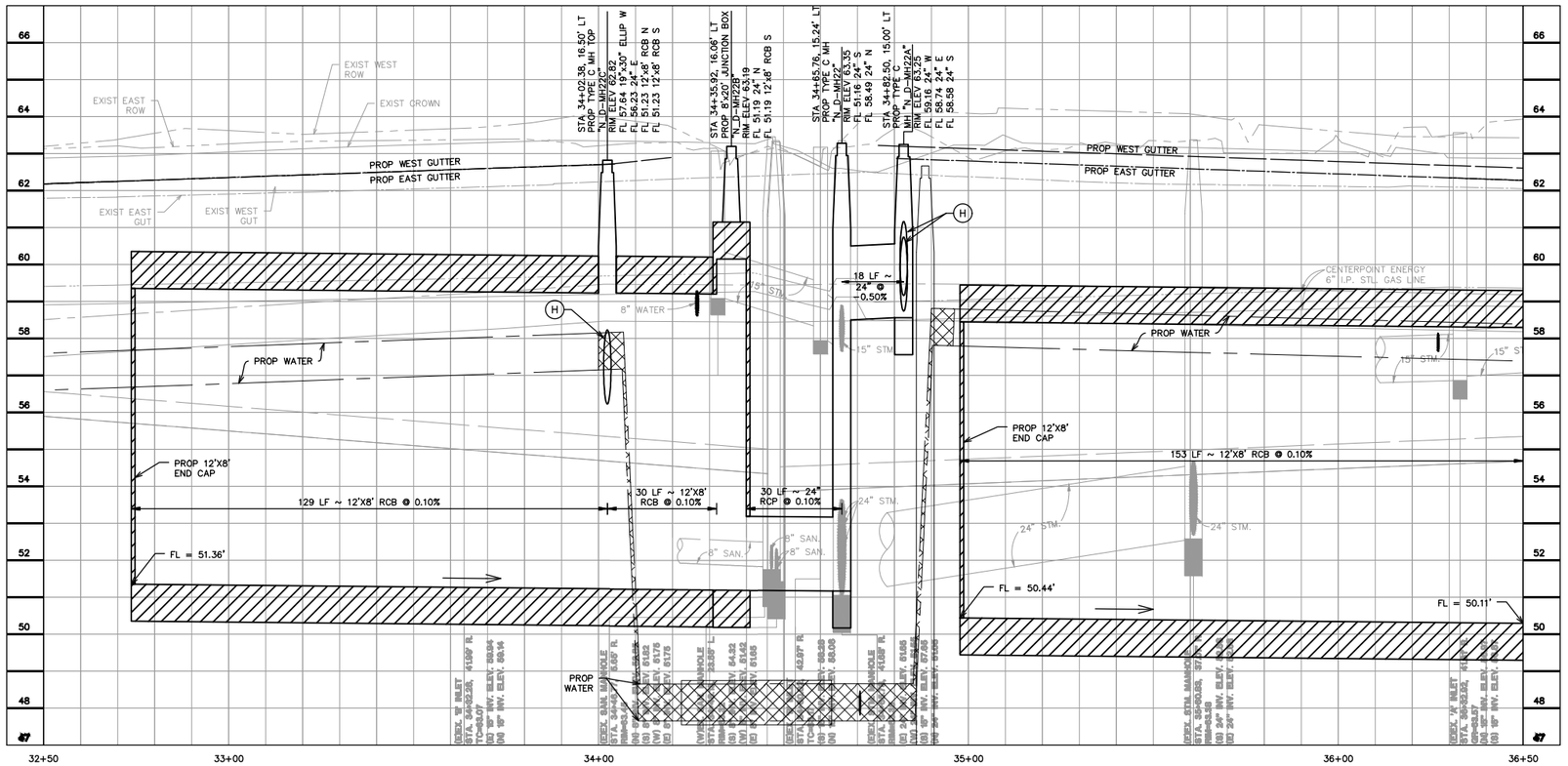
NORTH SHEPHERD DRIVE
28+50 TO 32+50

SHEET 15 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 289 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd.dwg PLOTTED: 9/25/2024 11:33 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'V',CP-107, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=63.48'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
2. EOR HAS REVIEWED ALL SWMM OUTPUTS AT LOCATIONS WHERE MAX WSEL EXCEEDS CRITICAL ELEVATIONS AND FOUND THAT PROPOSED MAX WSEL DOES NOT EXCEED EXISTING MAX WSEL.
3. PROPOSED DESIGN PROVIDES 100-YEAR LEVEL OF SERVICE FOR ENTIRE PROJECT LIMITS EXCEPT AT A LOCAL LOW POINT ALONG SHEPHERD DRIVE BETWEEN STA 1+83.51 AND WEST 11TH STREET AND ALONG DURHAM DRIVE BETWEEN STA. 10+25 TO STA 15+00 WHERE A 10-YEAR OR BETTER LEVEL OF SERVICE IS PROVIDED.

FOR PAVING IMPROVEMENTS SEE SHEETS 213-261
FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493
FOR STORM LATERAL PROFILES SEE SHEETS 322-362

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 to be used for conflict verification. Signature Valid for six months.

Date:

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and #10194000
4200 West Loop South, Suite 250 Bellaire, TX 77401
713.777.5581

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALUSO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

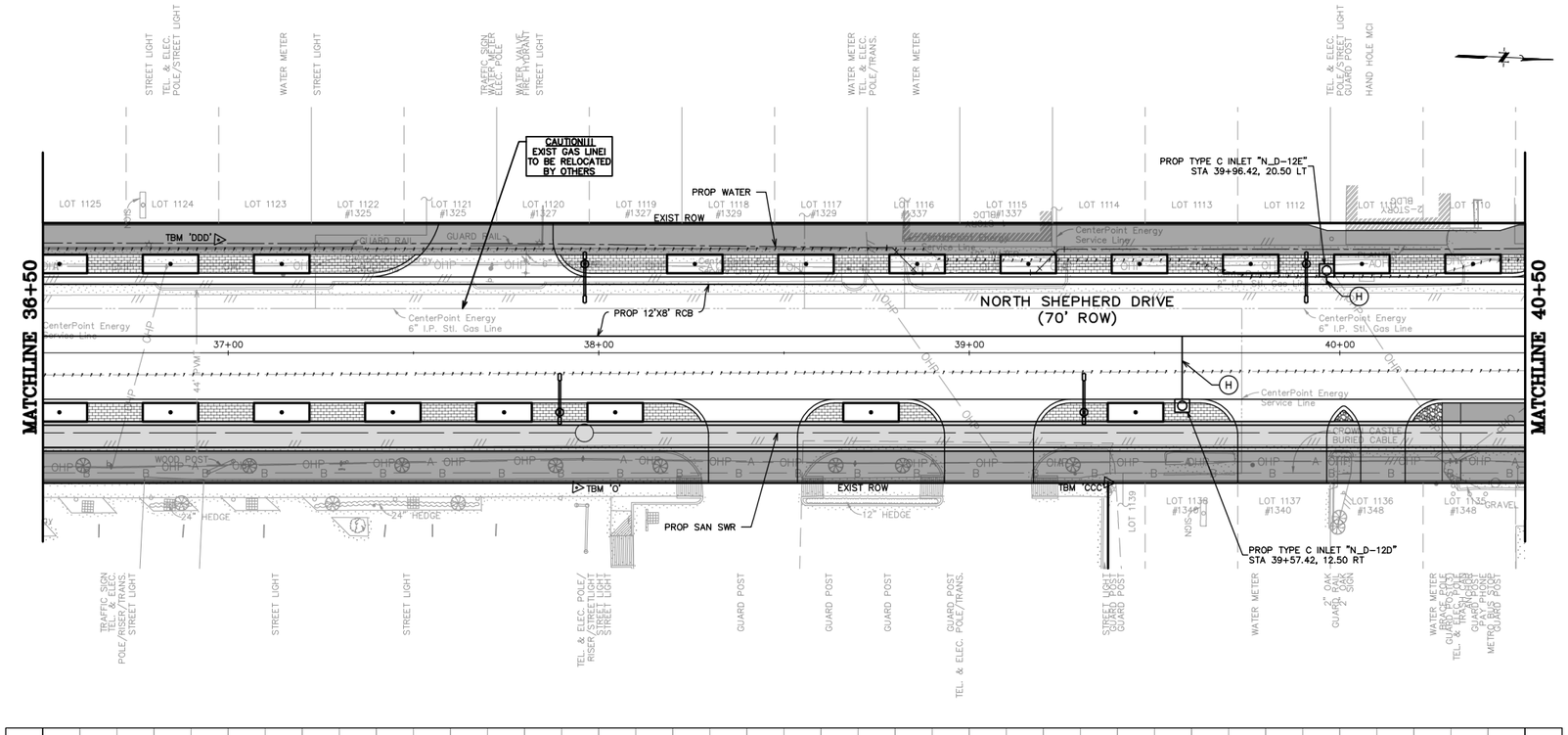
PLAN & PROFILE – STORM SEWER

NORTH SHEPHERD DRIVE
32+50 TO 36+50

SHEET 16 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 290 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd.dwg PLOTTED: 9/25/2024 11:34 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'O',CP-60, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=63.45'
TBM 'CCC',CP-321, "X" CUT IN CONC. (SEE RECOVERY SKETCH) ELEV=62.68'
TBM 'DDD',CP-322, MAG NAIL WITH SHINER (SEE RECOVERY SKETCH) ELEV=63.13'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
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(C) PROP BIKE LANE
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(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10194000
4200 West Loop South, Suite 1100 Bellaire, TX 77401
713.777.5200

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

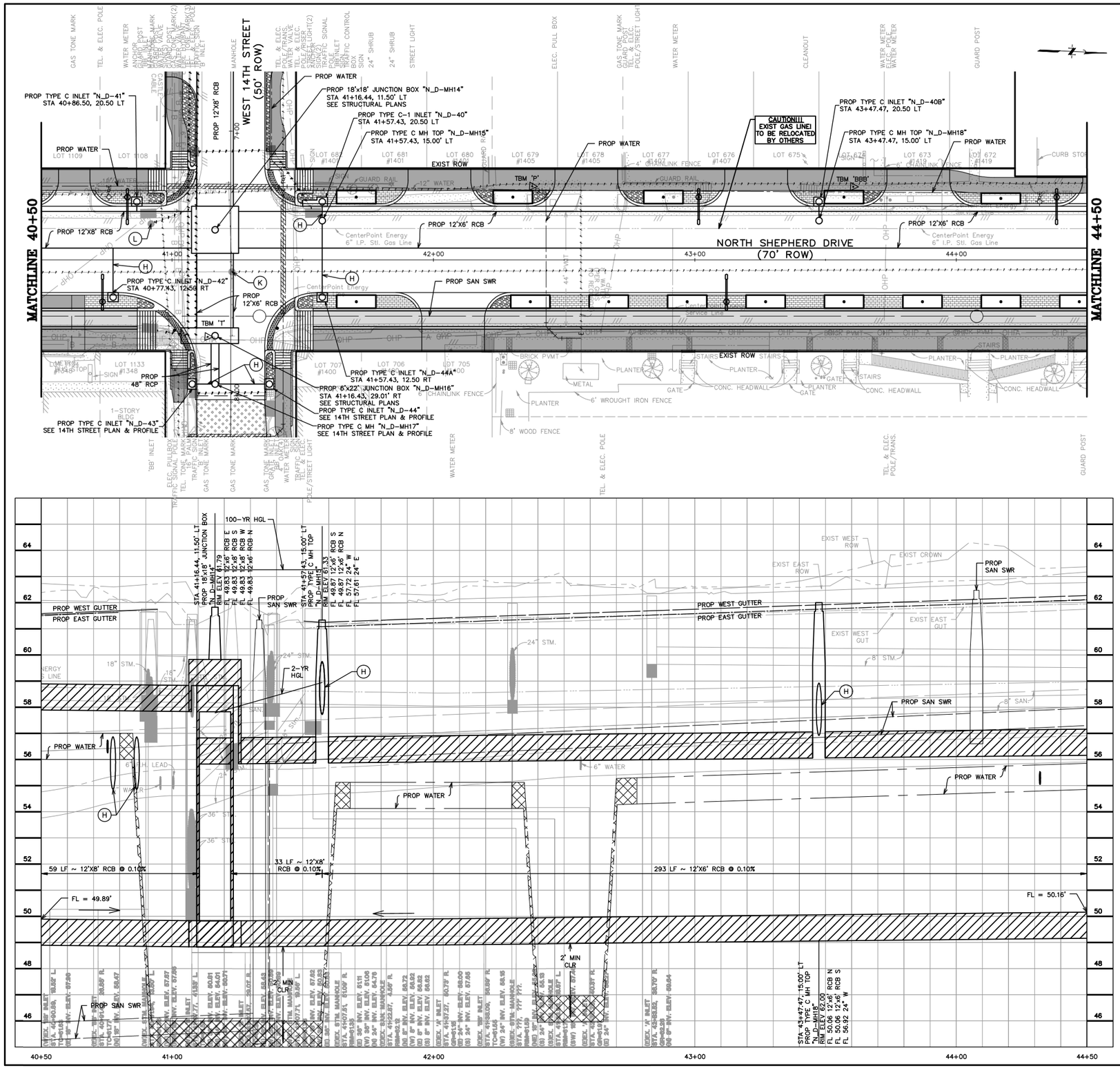
PLAN & PROFILE – STORM SEWER

NORTH SHEPHERD DRIVE
36+50 TO 40+50

SHEET 17 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 291 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd.dwg PLOTTED: 9/25/2024 11:35 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'T',CP-103, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.62'
TBM 'P',CP-61, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=62.42'
TBM 'BBB',CP-320, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=64.08'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
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FOR PAVING IMPROVEMENTS SEE SHEETS 213-261
FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493
FOR STORM LATERAL PROFILES SEE SHEETS 322-362

NOTICE:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 100693
4265 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5557

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – STORM SEWER

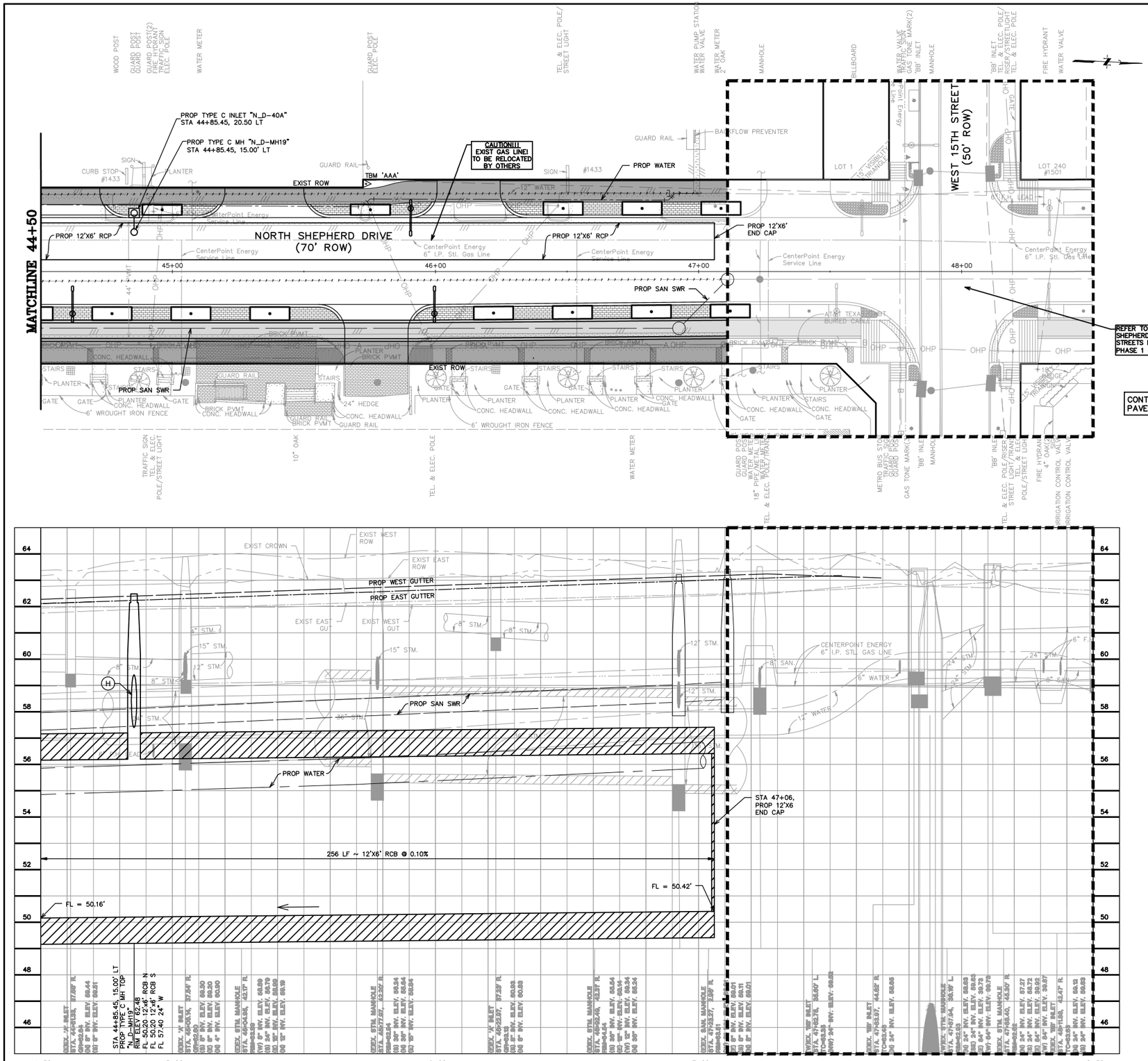
NORTH SHEPHERD DRIVE

40+50 TO 44+50

SHEET 18 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 292 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd.dwg PLOTTED: 9/25/2024 11:35 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'T',CP-62, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=63.10'
TBM 'MM',CP-102, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=63.10'
TBM 'AAA',CP-319, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=64.08'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
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- PROP PAVERS (SEE LANDSCAPING PLANS)
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(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER

0 5 10 20 40 60
SCALE: 1" = 20'

CONTRACTOR SHALL PROTECT ALL NEW PAVEMENT, SIDEWALKS, AND IMPROVEMENTS

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and #10044300
4265 West Gray Suite B, Suite 250 Houston, TX 77063
713.777.5581

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALUSO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

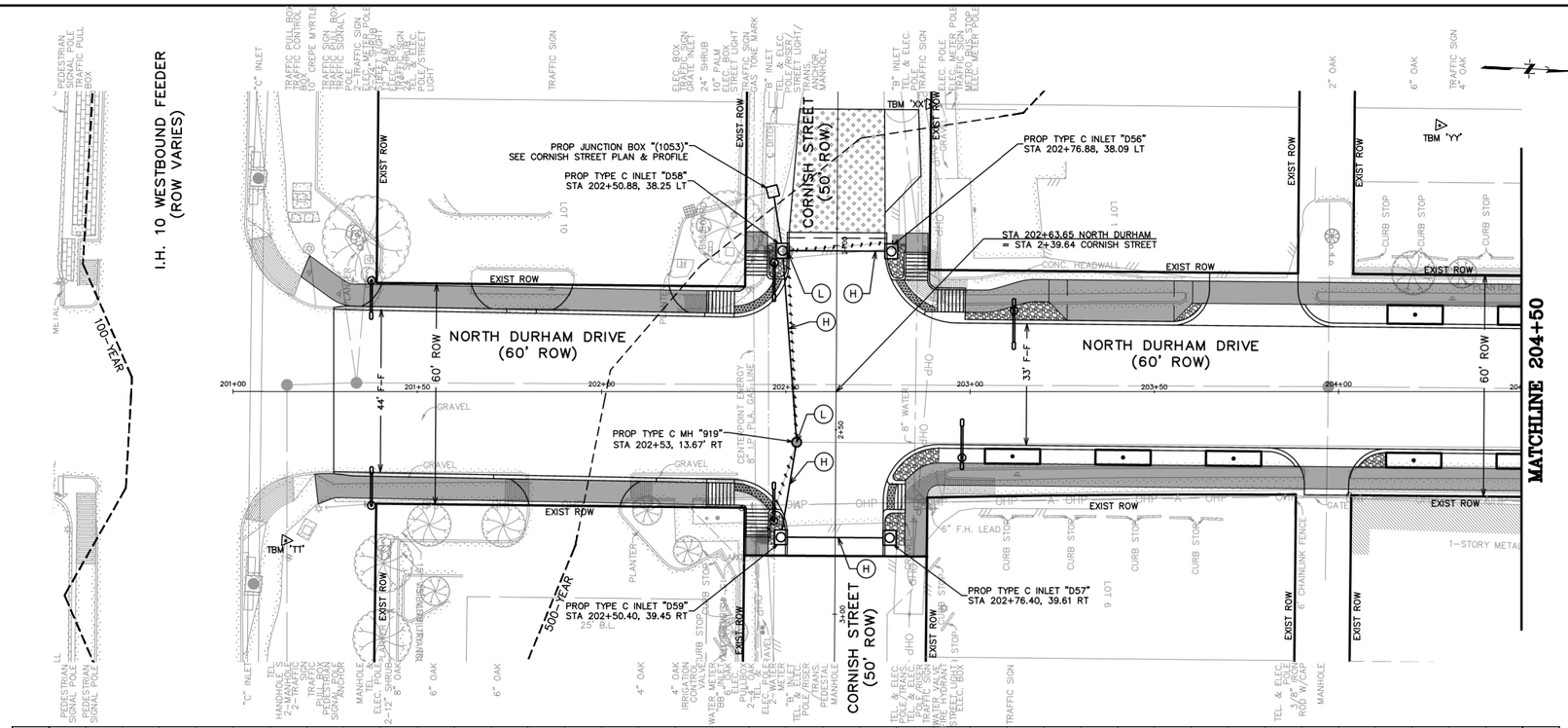
PLAN & PROFILE – STORM SEWER

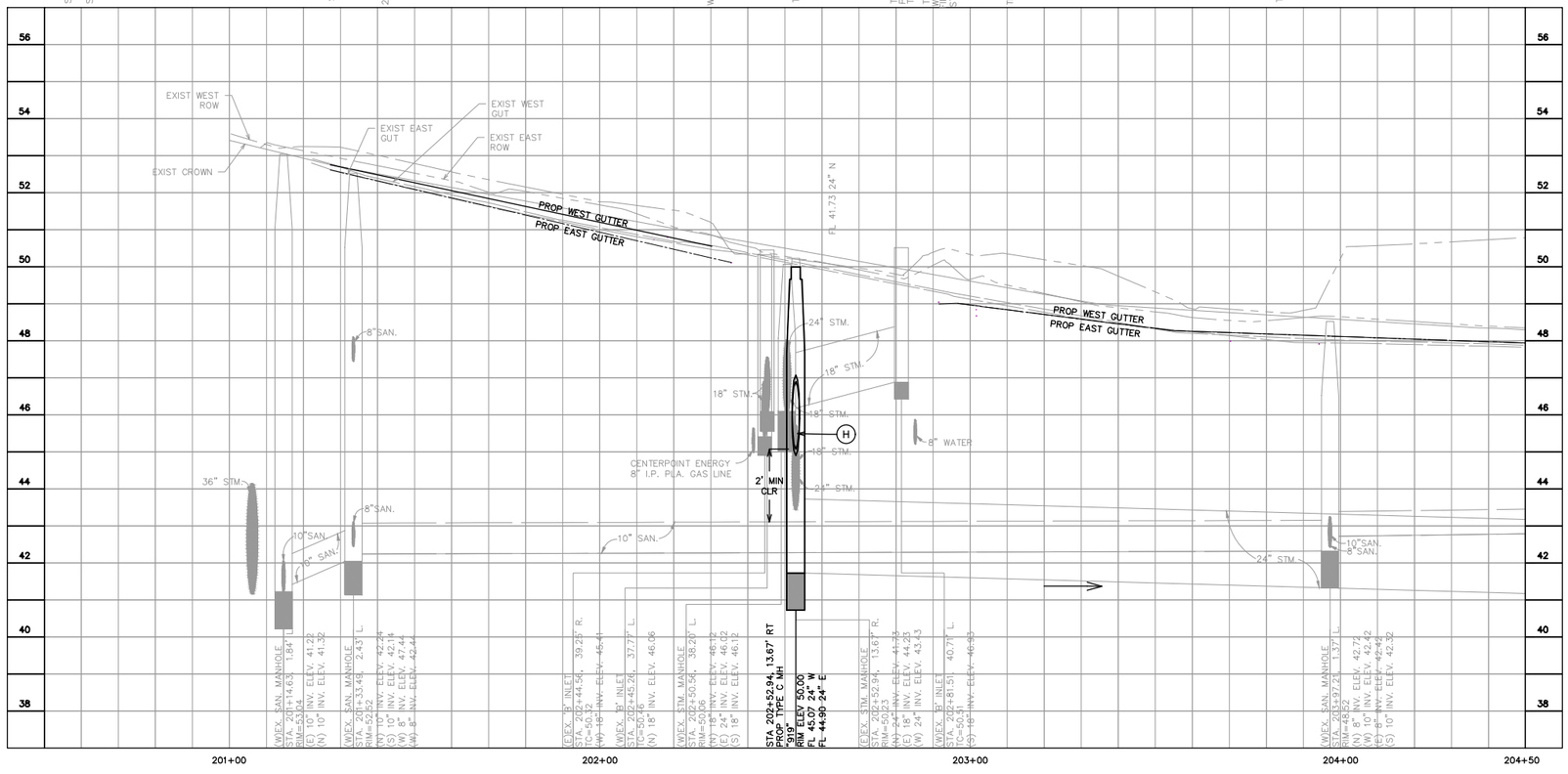
NORTH SHEPHERD DRIVE
44+50 TO END

SHEET 19 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 293 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Shepherd.dwg PLOTTED: 9/25/2024 11:36 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'YY', CP-317, "X" CUT IN CONC. (SEE RECOVERY SKETCH)
ELEV= 51.69'

TBM 'XX', CP-316, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 51.95'

TBM 'TT', CP-312, 5/8-INCH IRON ROD WITH CAP (SEE RECOVERY SKETCH)
ELEV= 53.65'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(I) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
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FOR PAVING IMPROVEMENTS SEE SHEETS 213-261

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

FOR STORM LATERAL PROFILES SEE SHEETS 322-362

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 to be used for conflict verification. Signature Valid for six months.

Date:

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Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and LS100220
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

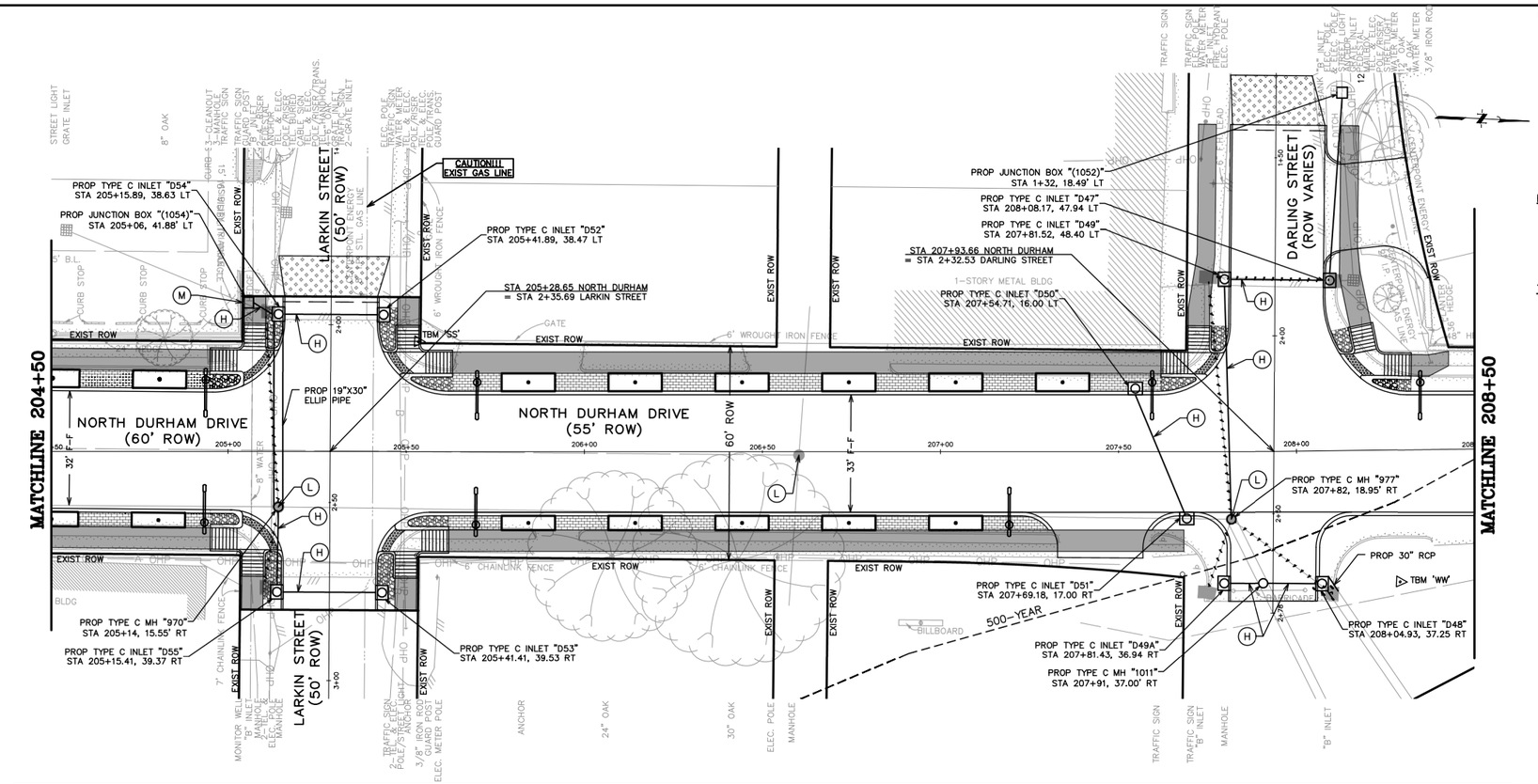
PLAN & PROFILE – STORM SEWER

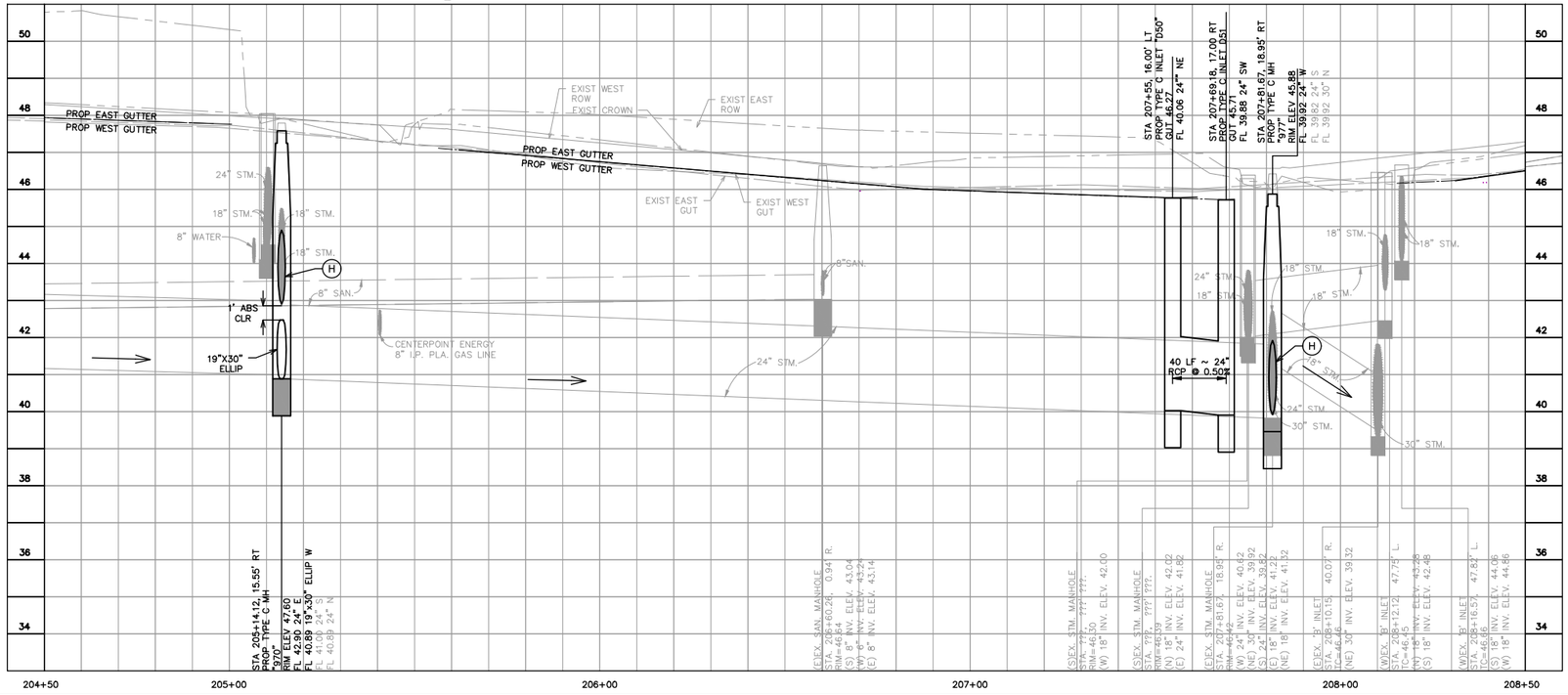
NORTH DURHAM DRIVE
BEGIN TO 204+50

SHEET 20 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. **294** OF **711**	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham Southside.dwg PLOTTED: 9/25/2024 11:39 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035 FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'WW', CP-315, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 46.74'

TBM 'SS', CP-311, "X" CUT IN CONC.. (SEE RECOVERY SKETCH)
ELEV= 47.84'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
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(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
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(I) MATCH EXIST SIDEWALK
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(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
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Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and TX Reg. No. 10193900
4200 West Loop South, Suite 1100 Bellaire, TX 77401
713.777.5900

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – STORM SEWER

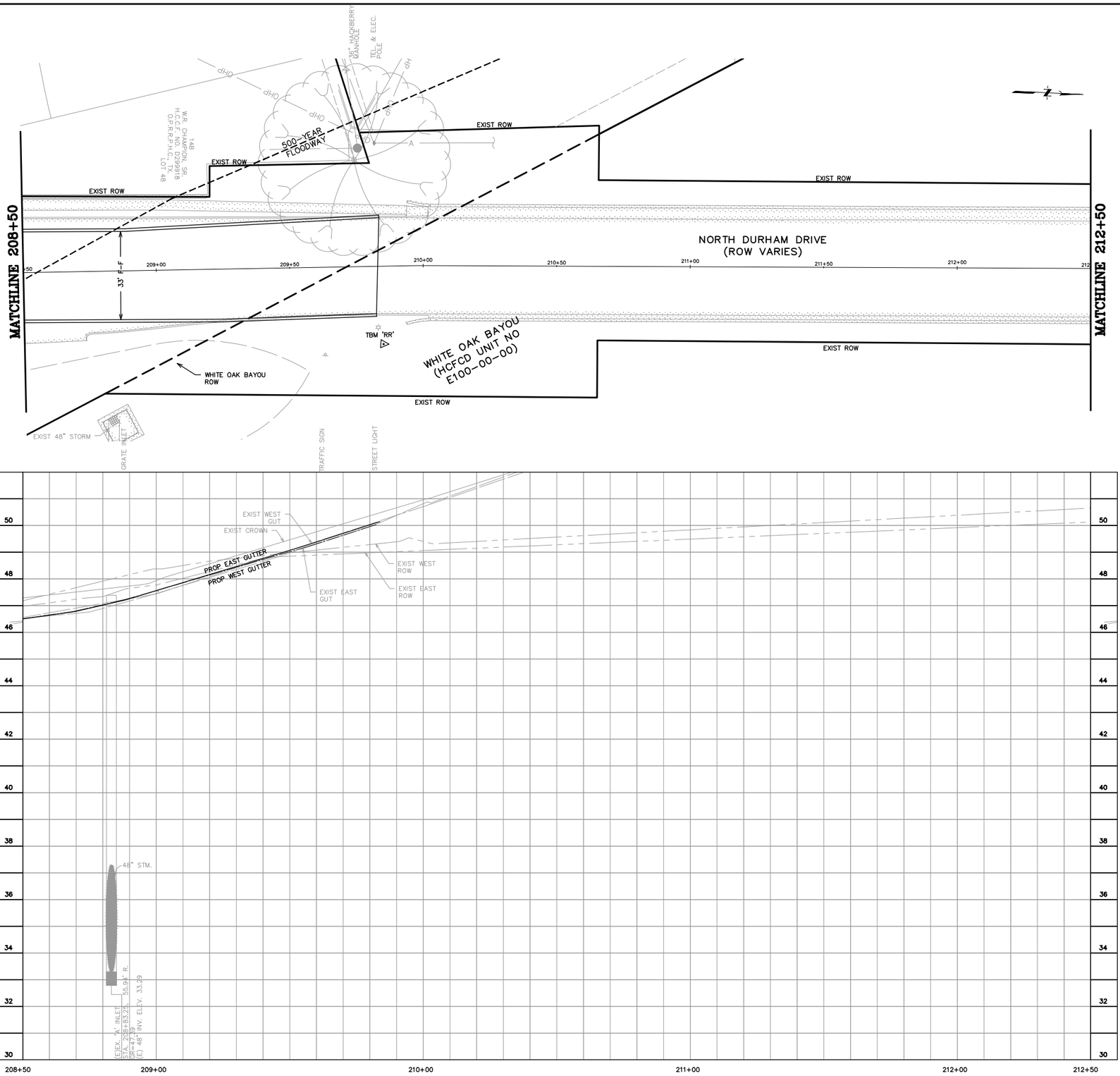
NORTH DURHAM DRIVE

204+50 TO 208+50

SHEET 21 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. **295** OF **711**	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham Southside.dwg PLOTTED: 9/25/2024 11:39 AM HVF



208+50 209+00 210+00 211+00 212+00 212+50

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BENCHMARK INFO

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(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
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TBM INFO

TBM 'RR', CP-310, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 50.01'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
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(P) 6-INCH CURB

0 5 10 20 40 60
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NO PROPOSED STORM SEWER ON THIS SHEET

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DRAINAGE NOTES:

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Texas Department of Transportation

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6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
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FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
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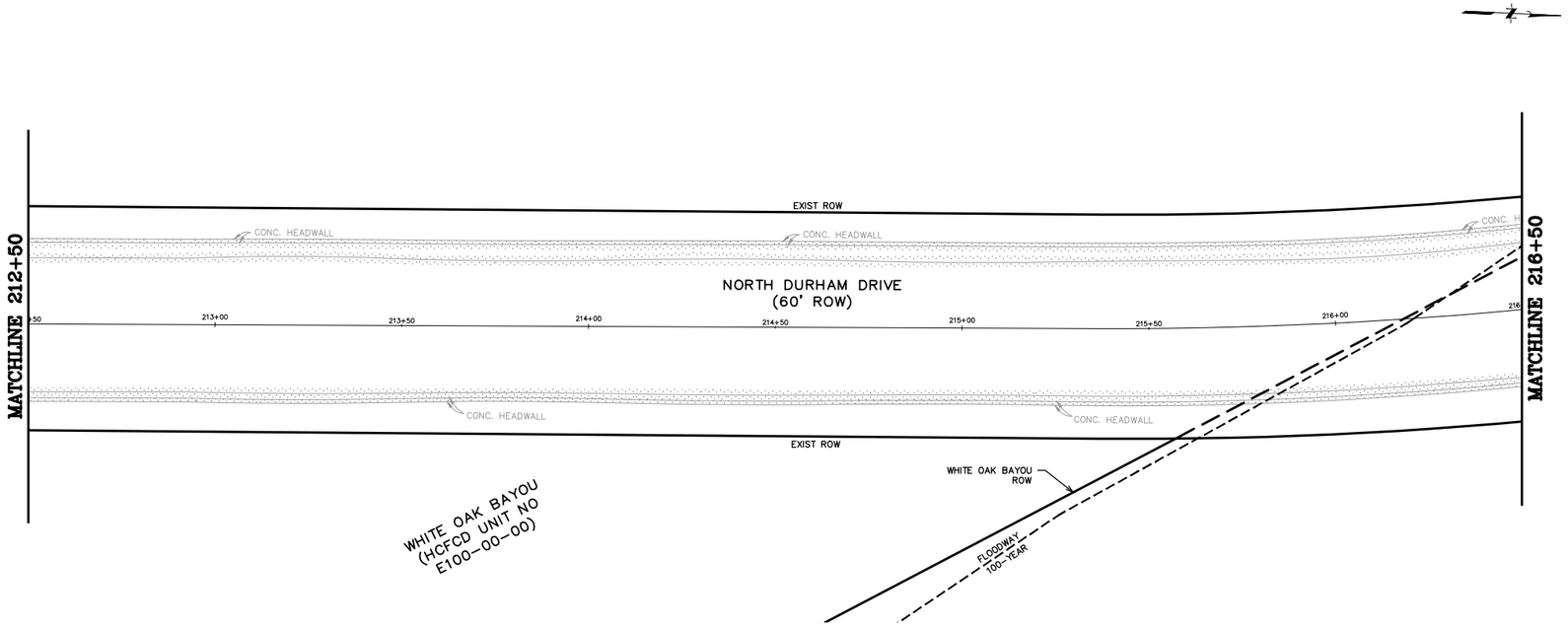
PLAN & PROFILE – STORM SEWER

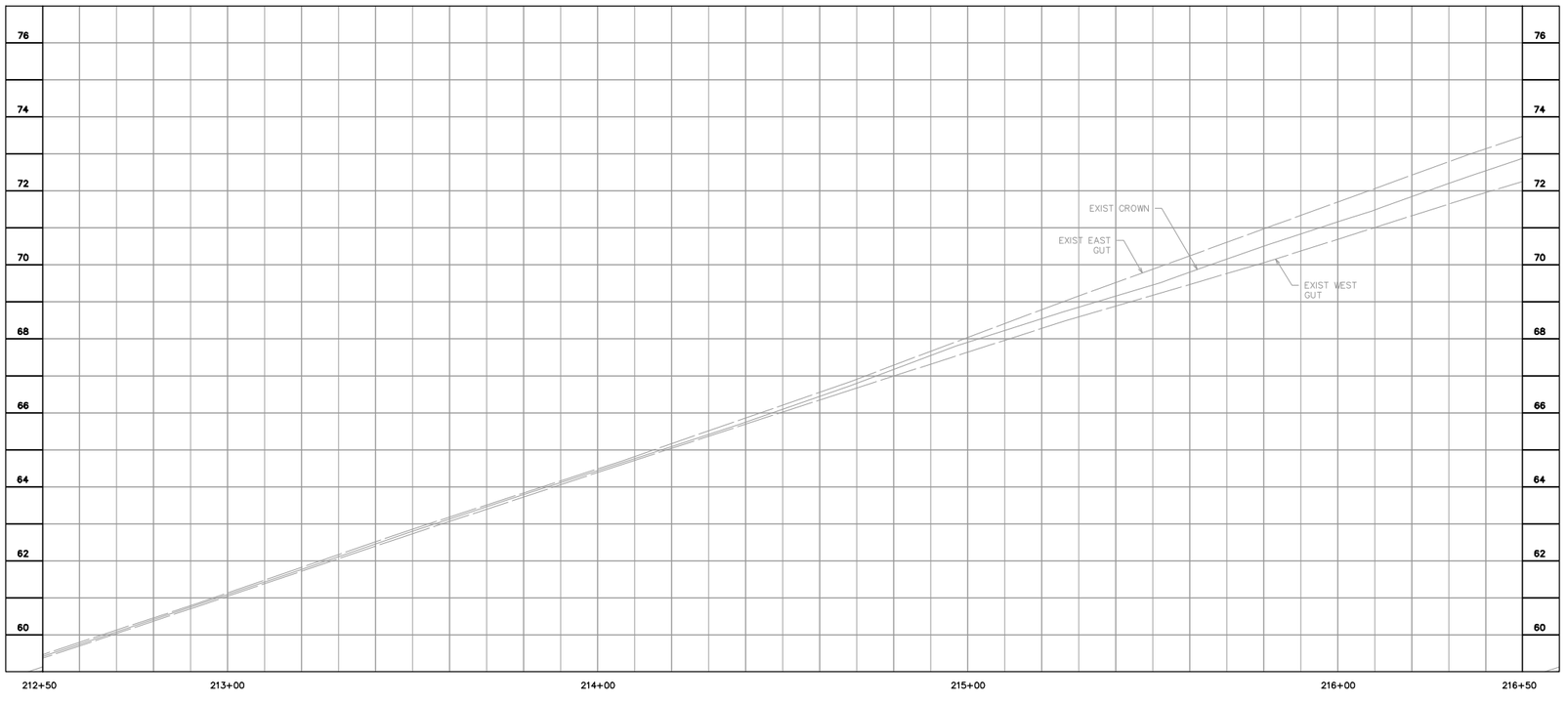
NORTH DURHAM DRIVE
208+50 TO 212+50

SHEET 22 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 296 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham_Southside.dwg PLOTTED: 9/25/2024 11:40 AM HVF





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LEGEND

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- PROP SIDEWALK
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- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
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0 5 10 20 40 60
SCALE: 1" = 20'

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1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
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FOR PAVING IMPROVEMENTS SEE SHEETS 213-261

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

FOR STORM LATERAL PROFILES SEE SHEETS 322-362

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

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Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and 10194000
4333 West Loop South, Suite 250 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

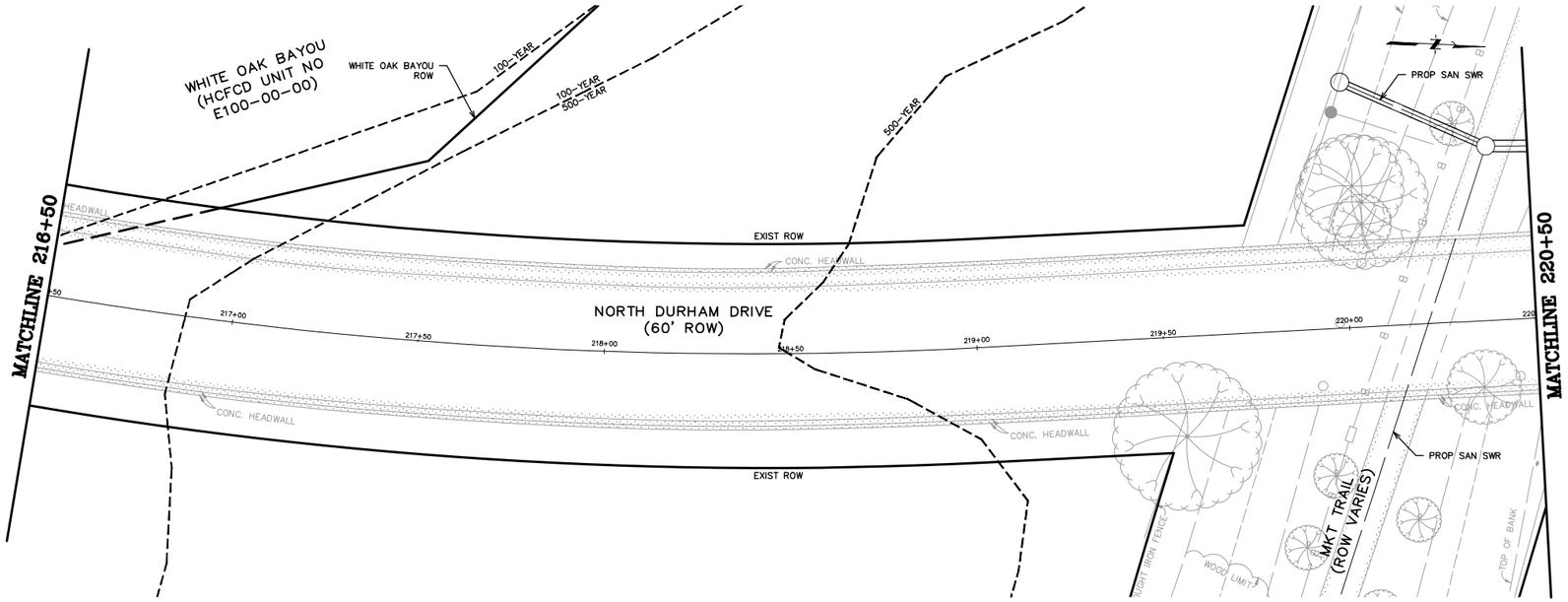
PLAN & PROFILE – STORM SEWER

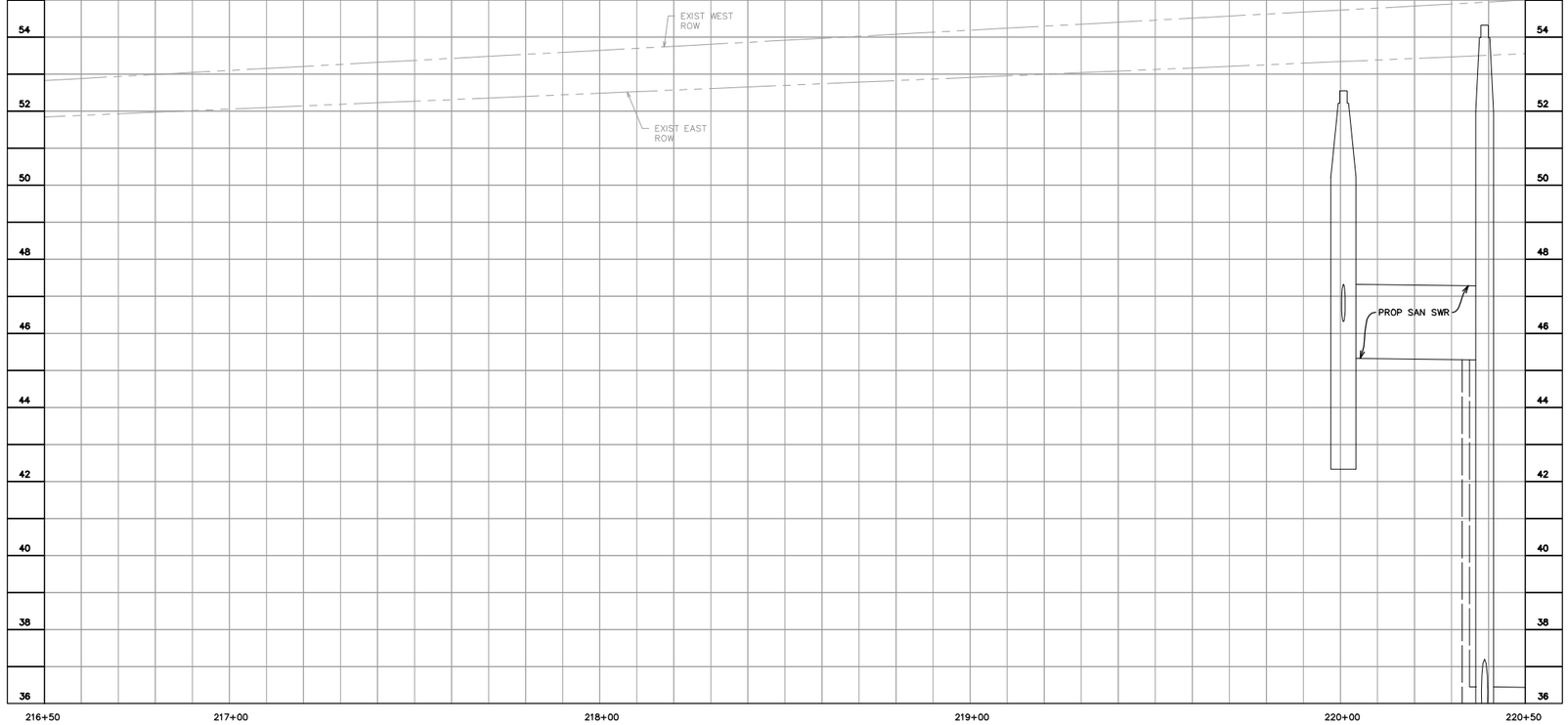
NORTH DURHAM DRIVE
212+50 TO 216+50

SHEET 23 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 297 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham Southside.dwg PLOTTED: 9/25/2024 11:40 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035 FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'QQ', CP-309, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 53.83'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
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(D) PROP CONC WHEEL CHAIR RAMP
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(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NO PROPOSED STORM SEWER ON THIS SHEET

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FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and 10194000
4333 West Loop South, Suite 200 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

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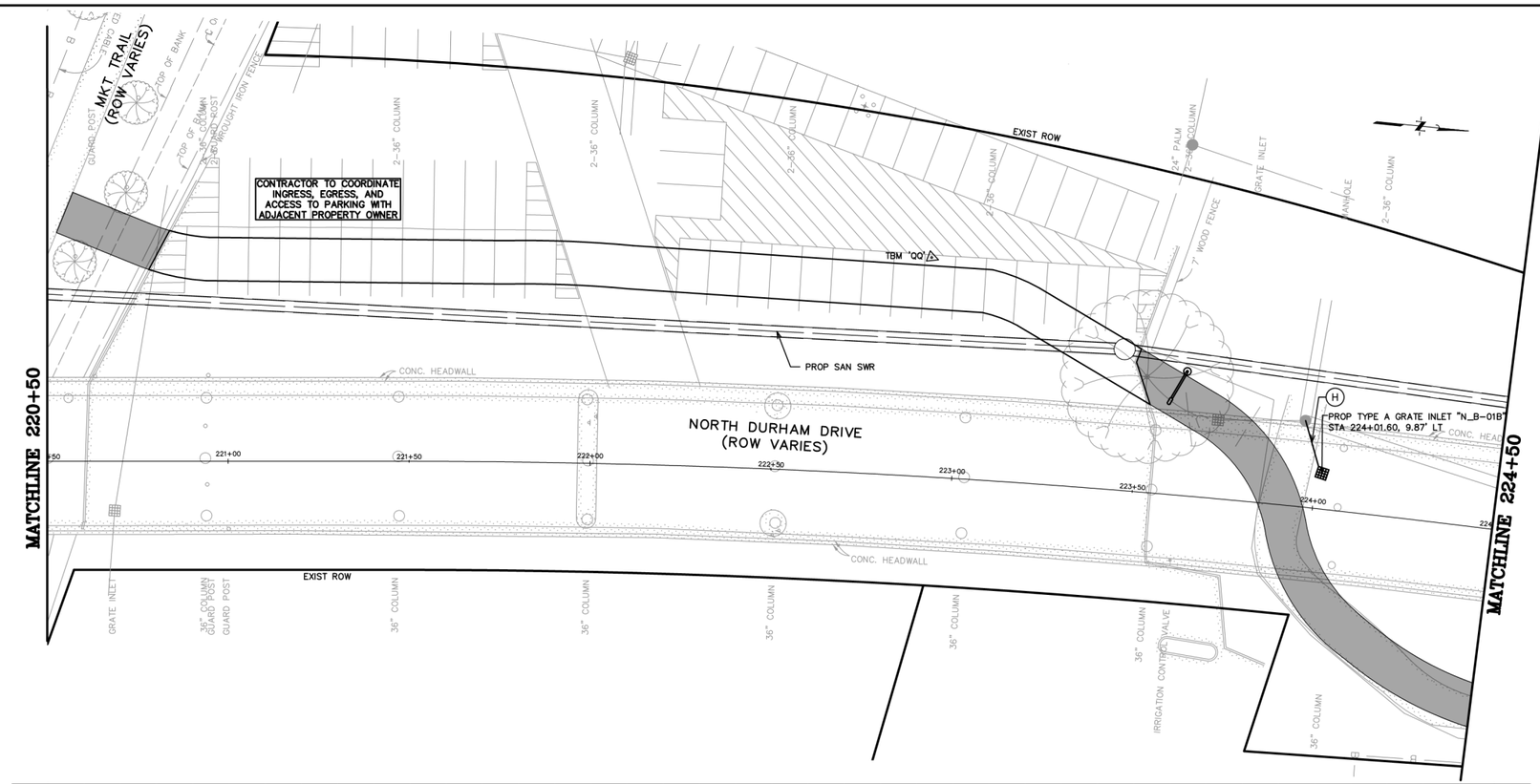
PLAN & PROFILE – STORM SEWER

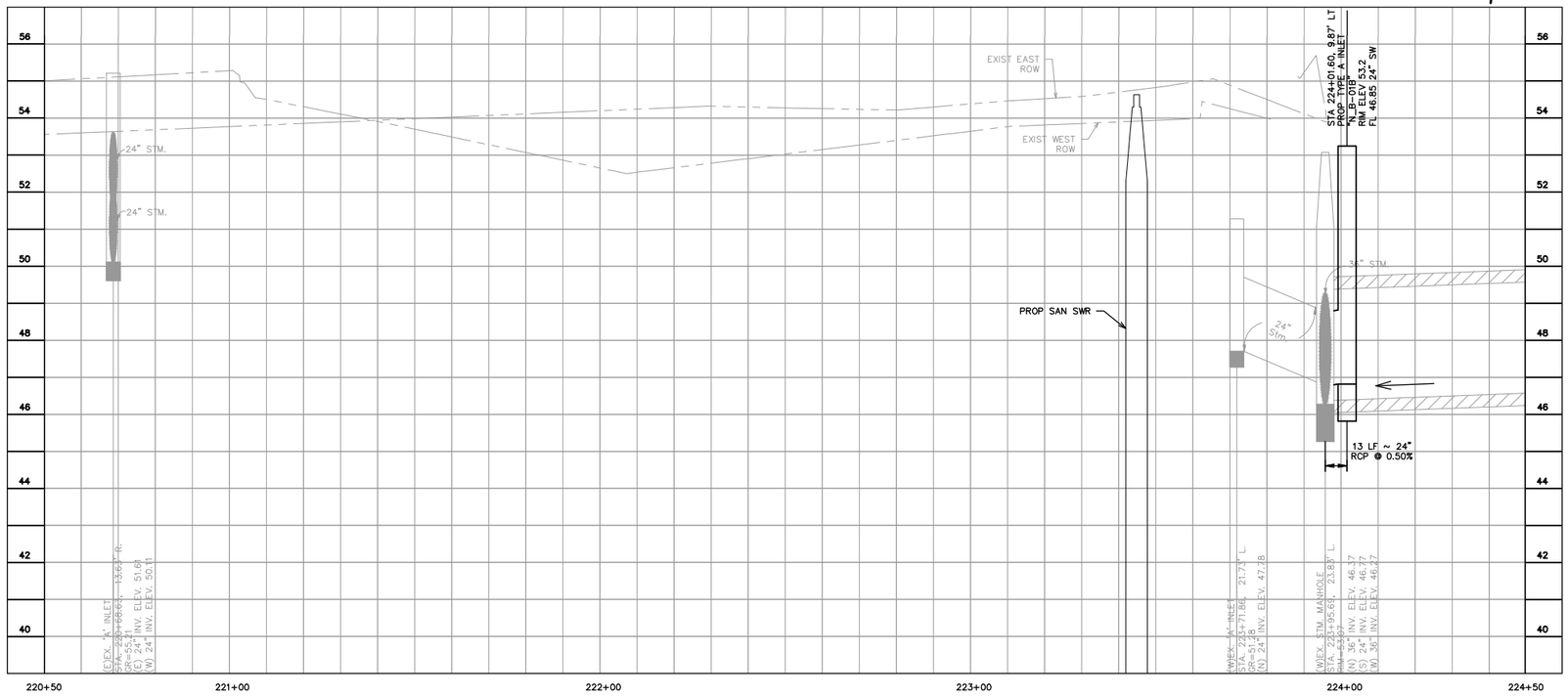
NORTH DURHAM DRIVE
216+50 TO 220+50

SHEET 24 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 298 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham Southside.dwg PLOTTED: 9/25/2024 11:40 AM HVF





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0 5 10 20 40 60
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Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and LS100220
4265 West Loop South, Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – STORM SEWER

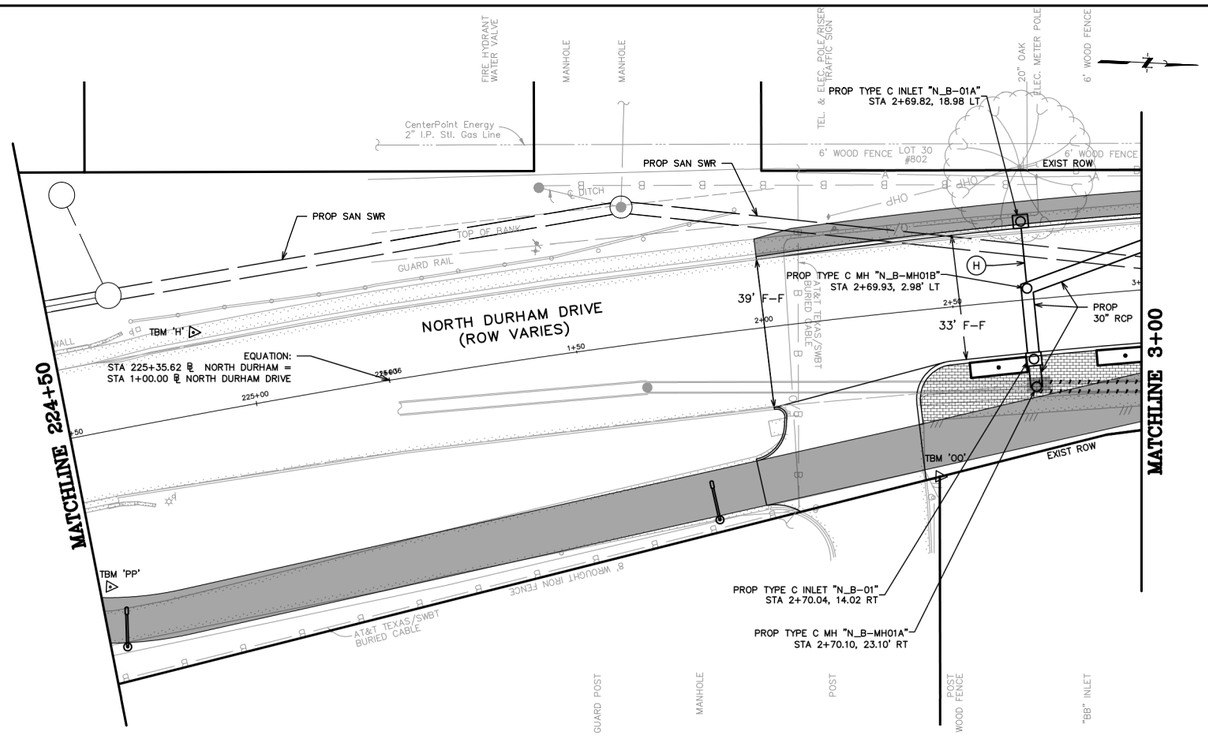
NORTH DURHAM DRIVE

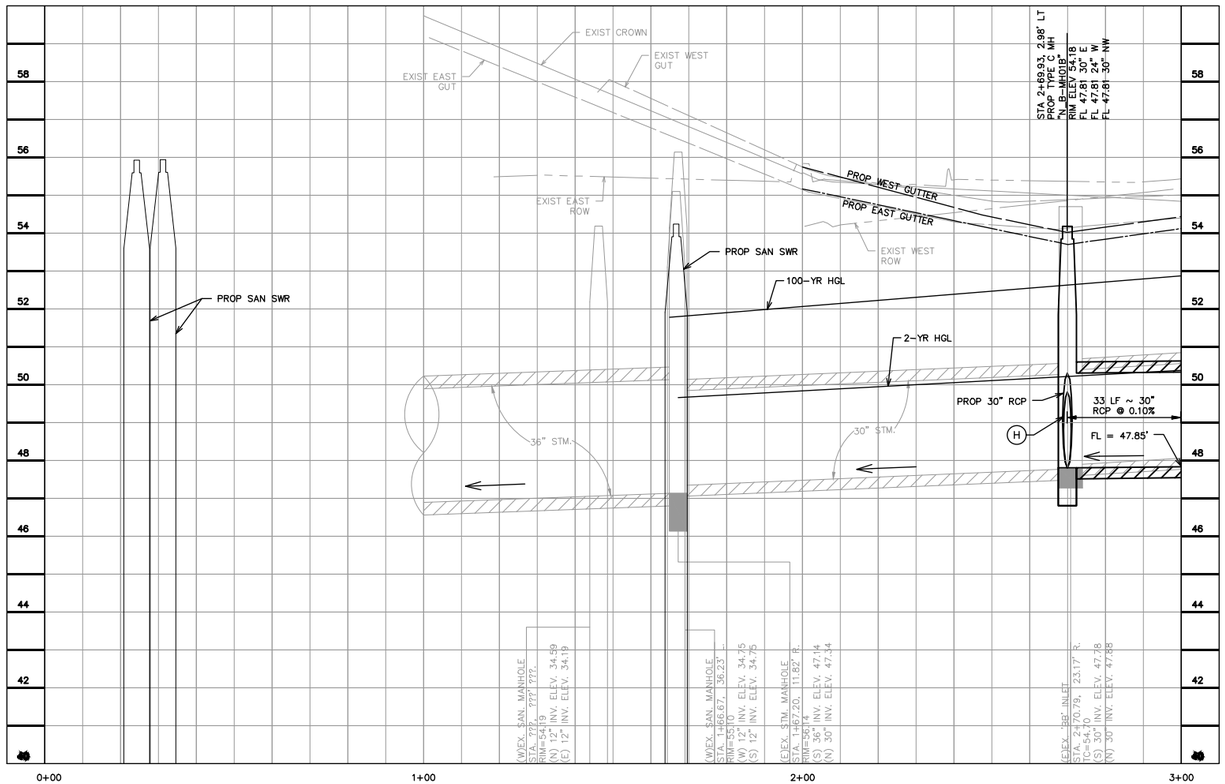
220+50 TO 224+50

SHEET 25 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 299 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham Southside.dwg PLOTTED: 9/25/2024 11:41 AM HVF





GENERAL NOTES

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BENCHMARK INFO

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TBM INFO

TBM 'H', CP-19, MAG NAIL W/ SHINER. (SEE RECOVERY SKETCH)
ELEV= 62.72'

TBM 'OO', CP-307, MAG NAIL W/ SHINER. (SEE RECOVERY SKETCH)
ELEV= 55.53'

TBM 'PP', CP-308, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 54.51'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
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- PROP TRUNCATED DOMES
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- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
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0 5 10 20 40 60
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Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and F-10044100
4203 West Loop South, Suite 100, Houston, TX 77027
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
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8/1/24

CITY OF HOUSTON
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PLAN & PROFILE – STORM SEWER

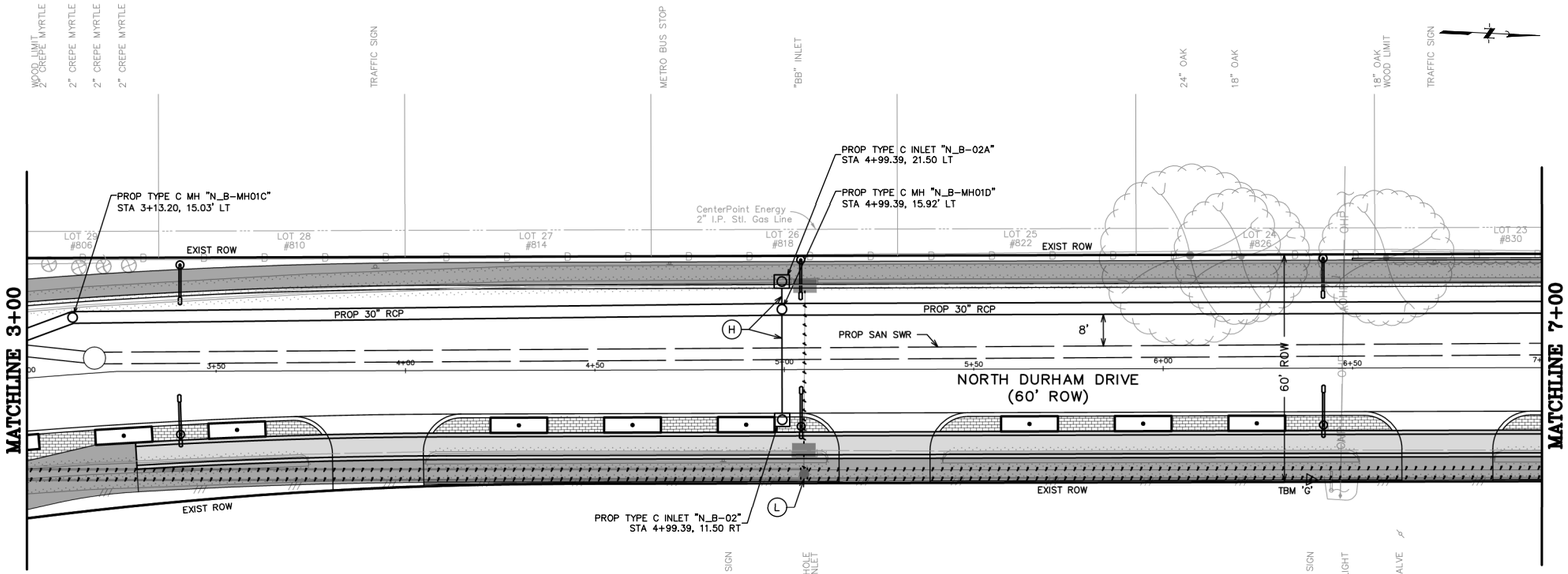
NORTH DURHAM DRIVE

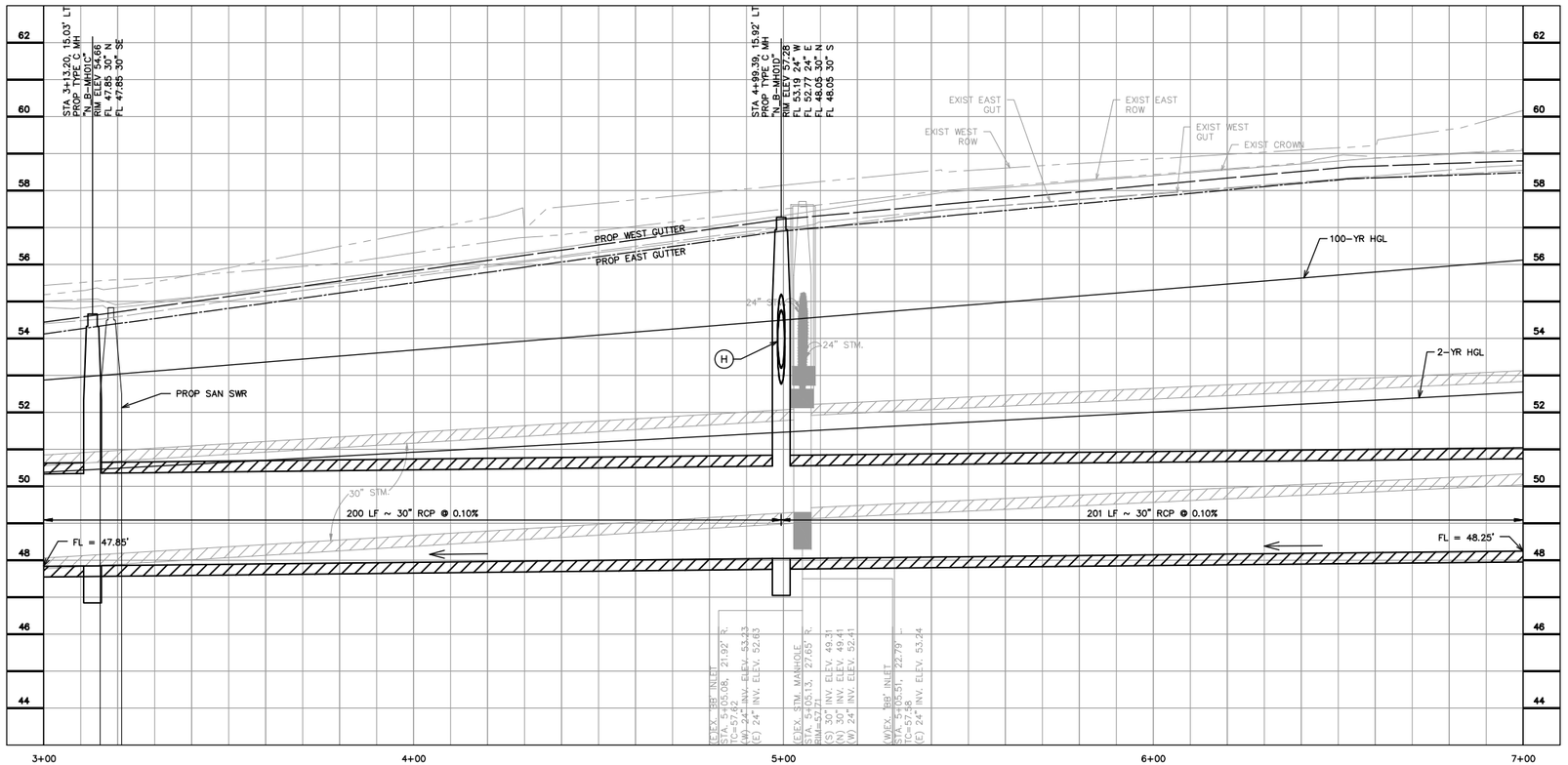
224+50 TO 3+00

SHEET 26 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. **300** OF **711**	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P-STM Durham.dwg PLOTTED: 9/25/2024 11:42 AM HVF





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TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'G', CP-18, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 58.84'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
2. EOR HAS REVIEWED ALL SWMM OUTPUTS AT LOCATIONS WHERE MAX WSEL EXCEEDS CRITICAL ELEVATIONS AND FOUND THAT PROPOSED MAX WSEL DOES NOT EXCEED EXISTING MAX WSEL.
3. PROPOSED DESIGN PROVIDES 100-YEAR LEVEL OF SERVICE FOR ENTIRE PROJECT LIMITS EXCEPT AT A LOCAL LOW POINT ALONG SHEPHERD DRIVE BETWEEN STA 1+83.51 AND WEST 11TH STREET AND ALONG DURHAM DRIVE BETWEEN STA. 10+25 TO STA 15+00 WHERE A 10-YEAR OR BETTER LEVEL OF SERVICE IS PROVIDED.

FOR PAVING IMPROVEMENTS SEE SHEETS 213-261
FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493
FOR STORM LATERAL PROFILES SEE SHEETS 322-362

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 to 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.)
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Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10194000
8303 West Loop South, Suite 200 Houston, Texas 77063
713.777.5959

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

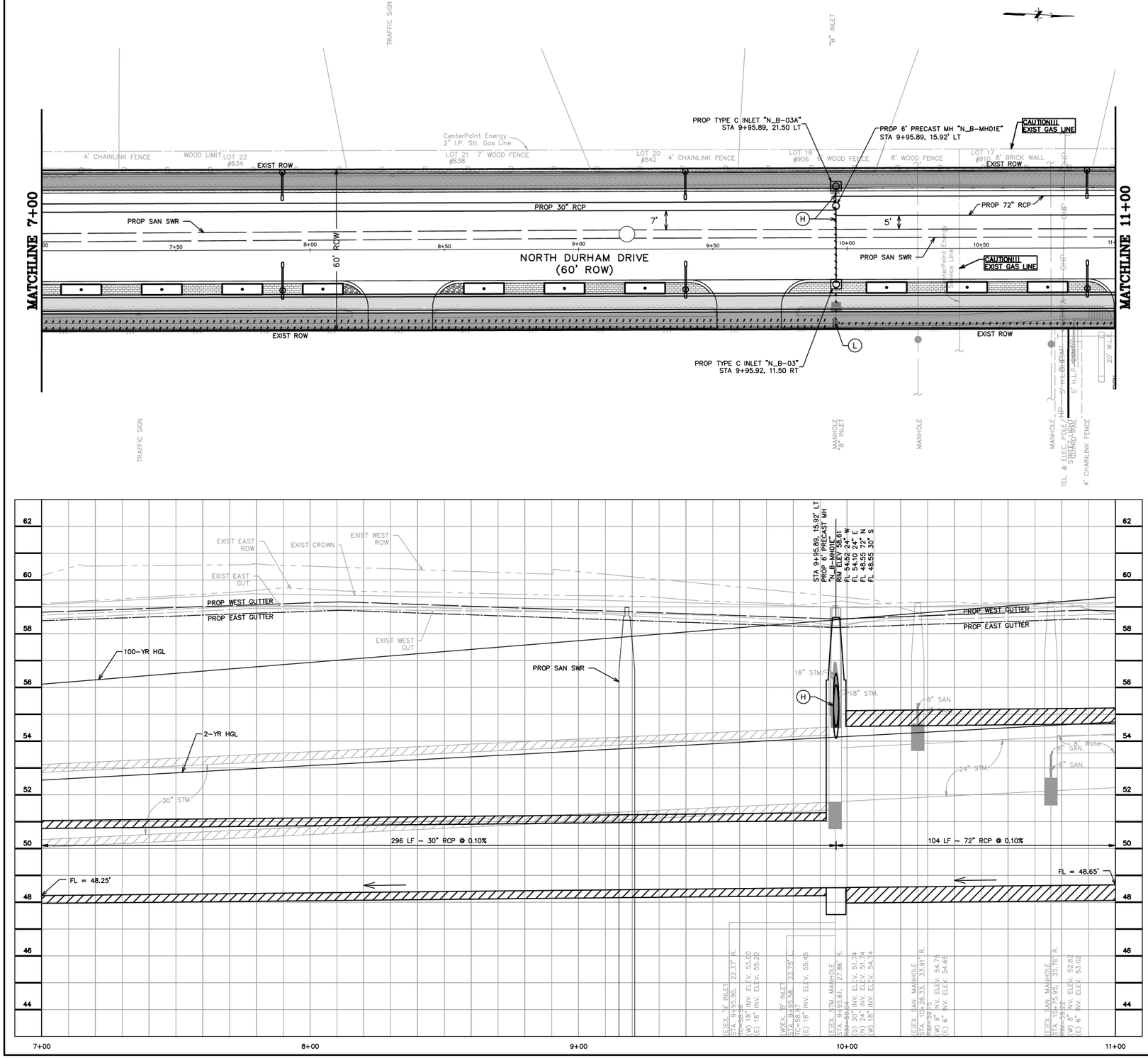
PLAN & PROFILE – STORM SEWER

NORTH DURHAM DRIVE
3+00 TO 7+00

SHEET 27 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. **301** OF **711**	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham.dwg PLOTTED: 9/25/2024 11:42 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'F', CP-17, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 59.18'

TBM 'G', CP-18, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 58.84'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
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(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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FOR PAVING IMPROVEMENTS SEE SHEETS 213-261
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10194000
4333 West Loop South, Suite 500 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

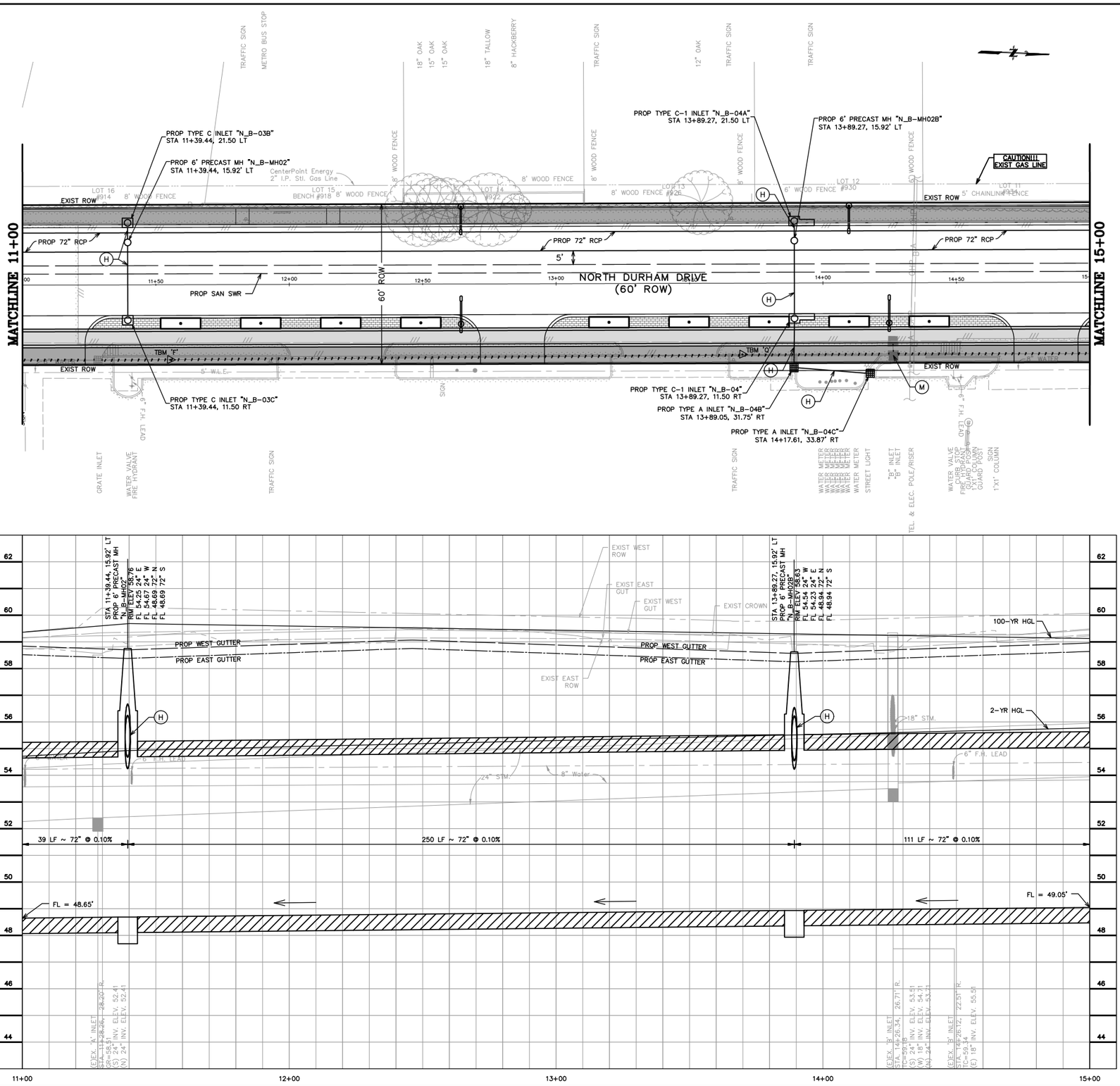
PLAN & PROFILE – STORM SEWER

NORTH DURHAM DRIVE
7+00 TO 11+00

SHEET 28 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 302 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham.dwg
PLOTTED: 9/25/2024 11:43 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'Q', CP-80, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 59.30'

TBM 'F', CP-17, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 59.18'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
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KEYED NOTES

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0 5 10 20 40 60
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DRAINAGE NOTES:

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FOR PAVING IMPROVEMENTS SEE SHEETS 213-261
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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Date:

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Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and 10194000
4200 West Loop South, Suite 1700 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – STORM SEWER

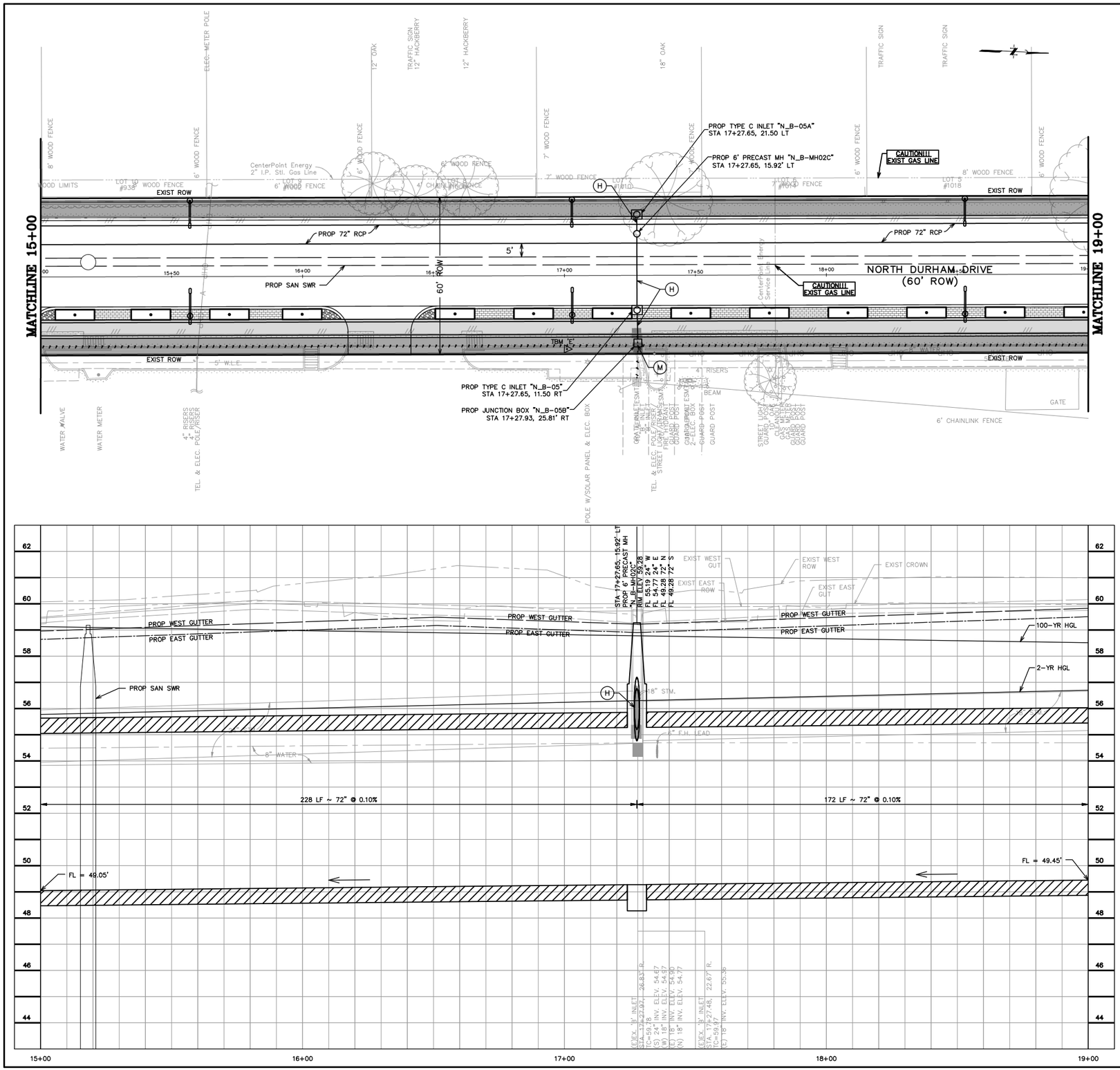
NORTH DURHAM DRIVE

11+00 TO 15+00

SHEET 29 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 303 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P-STM Durham.dwg PLOTTED: 9/25/2024 11:44 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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BENCHMARK INFO

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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'E', CP-16, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 59.80'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
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KEYED NOTES

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0 5 10 20 40 60
SCALE: 1" = 20'

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and F-10194222
4333 West Loop South, Suite 550 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – STORM SEWER

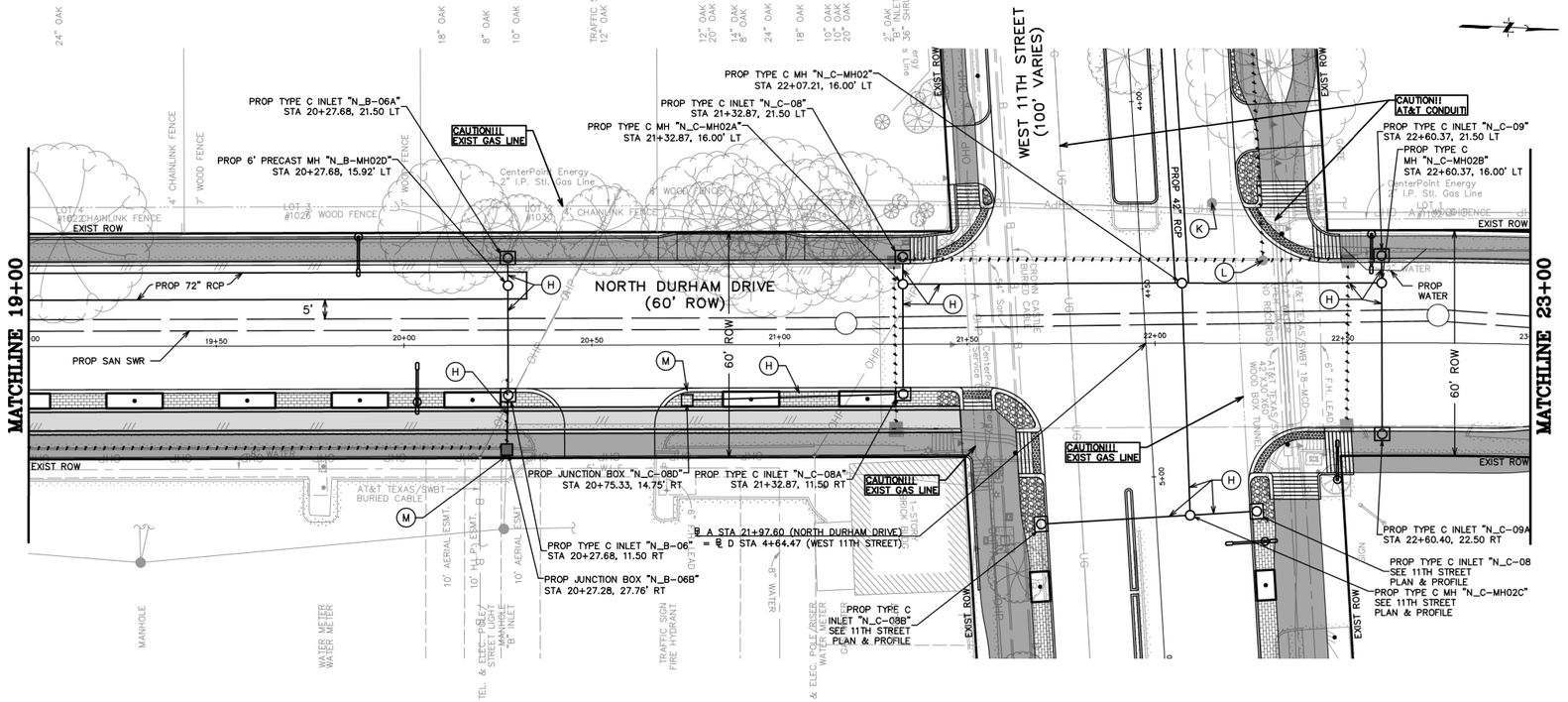
NORTH DURHAM DRIVE

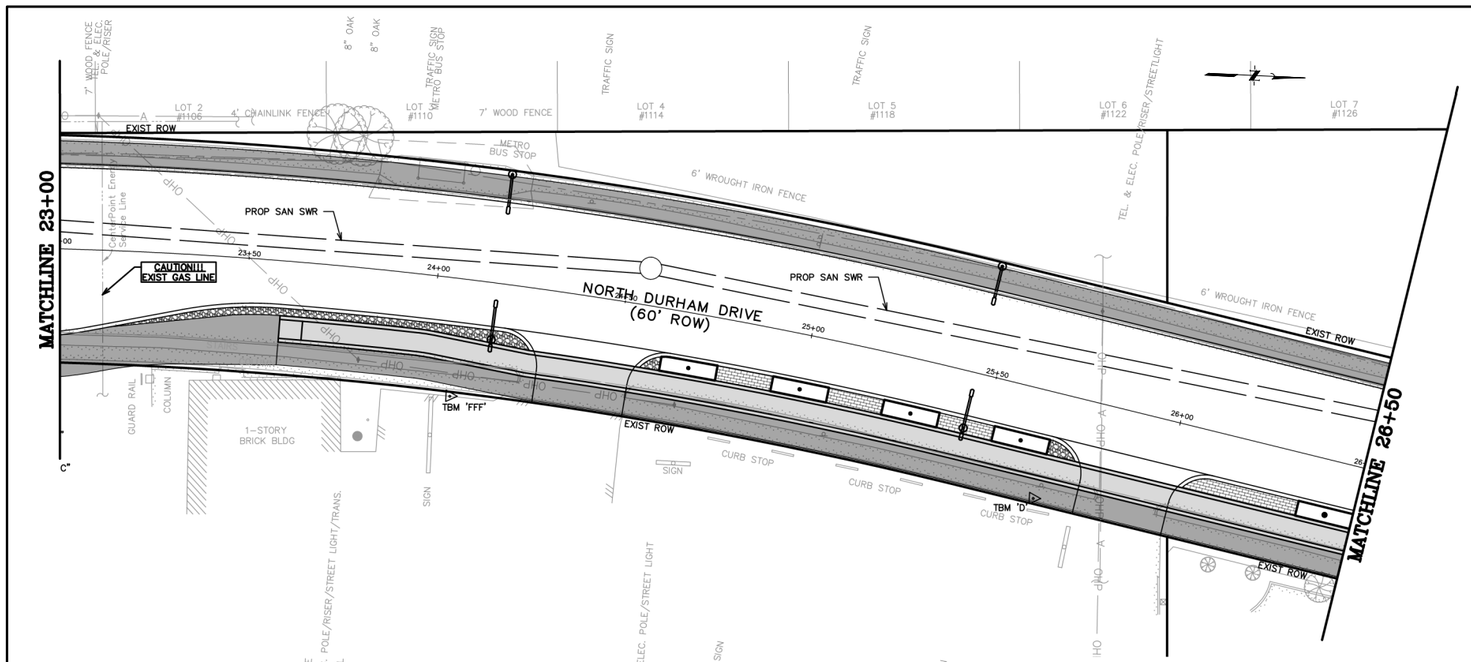
15+00 TO 19+00

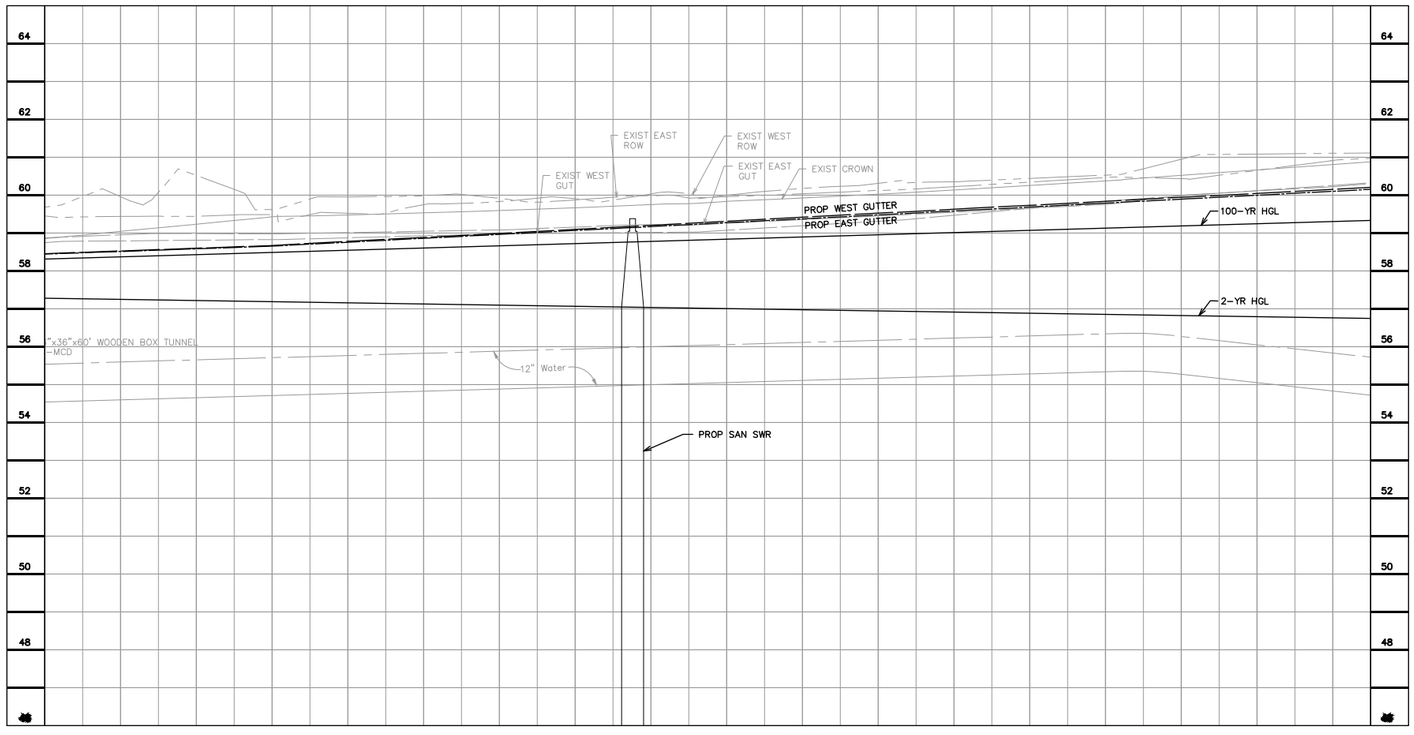
SHEET 30 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 304 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P-STM Durham.dwg PLOTTED: 9/25/2024 11:44 AM HVF


MATCHLINE 19+00
MATCHLINE 23+00
NORTH DURHAM DRIVE
(60' ROW)
WEST 11TH STREET
(100' VARIES)
PROP TYPE C INLET "N_B-06A"
STA 20+27.68, 21.50 LT
CAUTION!! EXIST GAS LINE
PROP 6' PRECAST MH "N_B-MH02D"
STA 20+27.68, 15.92' LT
PROP TYPE C MH "N_C-MH02"
STA 22+07.21, 16.00' LT
PROP TYPE C INLET "N_C-08"
STA 21+32.87, 21.50 LT
PROP TYPE C MH "N_C-MH02A"
STA 21+32.87, 16.00' LT
CAUTION!! AT&T CONDUIT
PROP TYPE C INLET "N_C-09"
STA 22+60.37, 21.50 LT
PROP TYPE C MH "N_C-MH02B"
STA 22+60.37, 16.00' LT
PROP 72" RCP
PROP SAN SWR
PROP 42" RCP
PROP WATER
PROP JUNCTION BOX "N_C-08D"
STA 20+75.33, 14.75' RT
PROP TYPE C INLET "N_C-08A"
STA 21+32.87, 11.50 RT
CAUTION!! EXIST GAS LINE
℄ A STA 21+97.60 (NORTH DURHAM DRIVE) = ℄ D STA 4+64.47 (WEST 11TH STREET)
PROP TYPE C INLET "N_B-06"
STA 20+27.68, 11.50 RT
PROP JUNCTION BOX "N_B-06B"
STA 20+27.28, 27.76' RT
PROP TYPE C INLET "N_C-08B"
SEE 11TH STREET PLAN & PROFILE
CAUTION!! EXIST GAS LINE
PROP TYPE C INLET "N_C-09A"
STA 22+60.40, 22.50 RT
PROP TYPE C INLET "N_C-08
SEE 11TH STREET PLAN & PROFILE
PROP TYPE C MH "N_C-MH02C"
SEE 11TH STREET PLAN & PROFILE
EXIST ROW
60' ROW
5'
CenterPoint Energy 2" I.P. Stl. Gas Line
AT&T TEXAS/SWBT BURIED CABLE
10' AERIAL ESMT.
10' U.G. ESMT.
MANHOLE
WATER METER
TRAFFIC SIGN
FIRE HYDRANT
TEL. & ELEC. POLE
STREET LIGHT
"S" INLET
LOT 4 #1022 CHAINLINK FENCE
LOT 3 #1026 WOOD FENCE
LOT 2 #1030 CHAINLINK FENCE
LOT 1 #1034 WOOD FENCE
LOT 5 #1018 WOOD FENCE
LOT 6 #1014 WOOD FENCE
LOT 7 #1010 WOOD FENCE
LOT 8 #1006 WOOD FENCE
LOT 9 #1002 WOOD FENCE
LOT 10 #1000 WOOD FENCE
LOT 11 #1001 WOOD FENCE
LOT 12 #1005 WOOD FENCE
LOT 13 #1009 WOOD FENCE
LOT 14 #1013 WOOD FENCE
LOT 15 #1017 WOOD FENCE
LOT 16 #1021 WOOD FENCE
LOT 17 #1025 WOOD FENCE
LOT 18 #1029 WOOD FENCE
LOT





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'D', CP-14, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 60.30'

TBM 'FFF', CP-324, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 60.24'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(I) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NO PROPOSED STORM SEWER ON THIS SHEET

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
2. EOR HAS REVIEWED ALL SWMM OUTPUTS AT LOCATIONS WHERE MAX WSEL EXCEEDS CRITICAL ELEVATIONS AND FOUND THAT PROPOSED MAX WSEL DOES NOT EXCEED EXISTING MAX WSEL.
3. PROPOSED DESIGN PROVIDES 100-YEAR LEVEL OF SERVICE FOR ENTIRE PROJECT LIMITS EXCEPT AT A LOCAL LOW POINT ALONG SHEPHERD DRIVE BETWEEN STA 1+83.51 AND WEST 11TH STREET AND ALONG DURHAM DRIVE BETWEEN STA. 10+25 TO STA 15+00 WHERE A 10-YEAR OR BETTER LEVEL OF SERVICE IS PROVIDED.

FOR PAVING IMPROVEMENTS SEE SHEETS 213-261

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

FOR STORM LATERAL PROFILES SEE SHEETS 322-362

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 to 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 Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers
4545 West Gate Blvd, Suite 350 Houston, TX 77027
713-777-5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

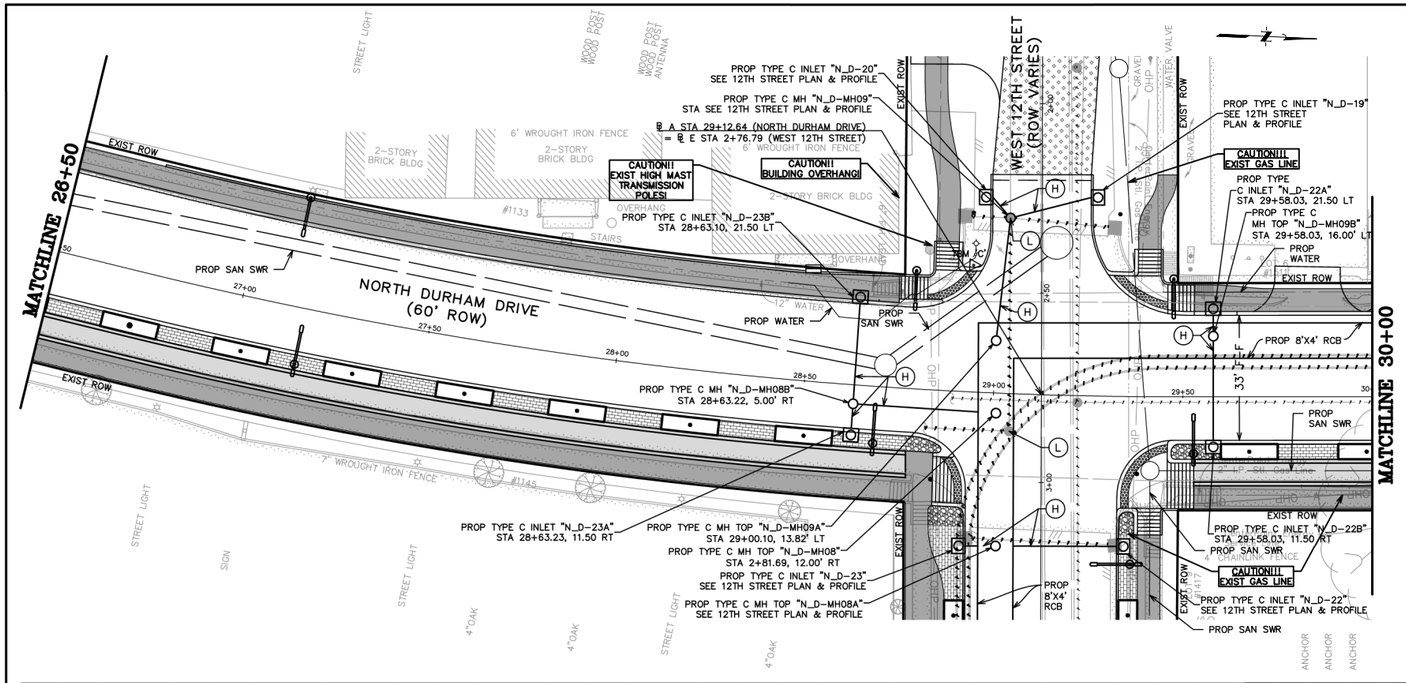
PLAN & PROFILE – STORM SEWER

NORTH DURHAM DRIVE
23+00 TO 26+50

SHEET 32 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 306 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham.dwg PLOTTED: 9/25/2024 11:46 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'C', CP-13, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 61.31'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
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(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
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(J) MATCH EXIST SIDEWALK
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(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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VERIFICATION OF PRIVATE UTILITY LINES

Date:

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.
Signature Valid for 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 Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and 10194000
4333 West Loop South, Suite 500 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

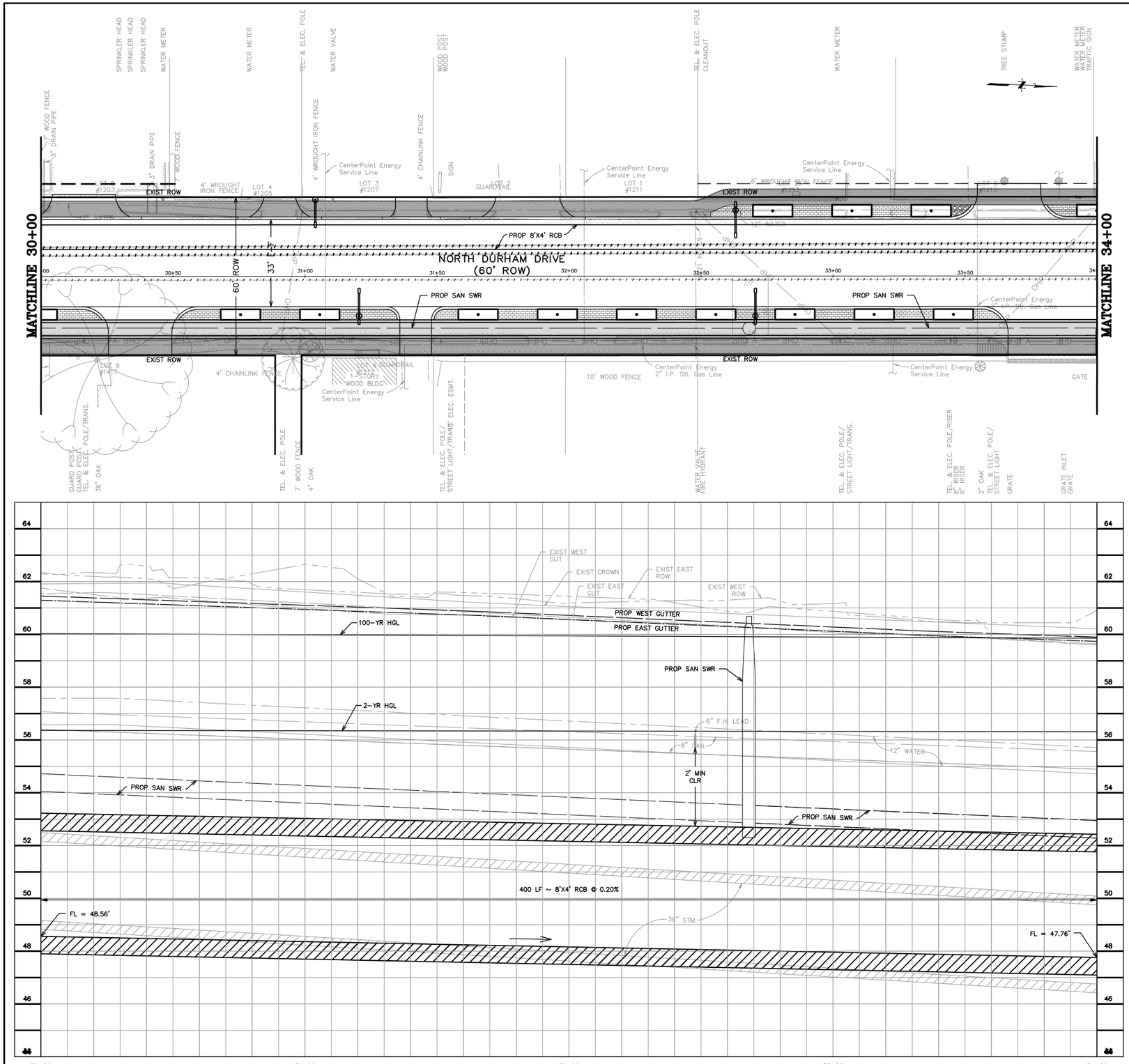
PLAN & PROFILE – STORM SEWER

NORTH DURHAM DRIVE
26+50 TO 30+00

SHEET 33 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 307 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham.dwg PLOTTED: 9/25/2024 11:46 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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TBM INFO

TBM 'B', CP-12, X-CUT. (SEE RECOVERY SKETCH)
ELEV= 58.80'

TBM 'C', CP-13, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 61.31'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
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- [X] STATION AND OFFSET (SEE THIS SHEET)
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KEYED NOTES

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(I) MATCH EXIST SIDEWALK
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(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and #10194300
4265 West Linq-Joshi, Suite 150 Houston, TX 77084
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

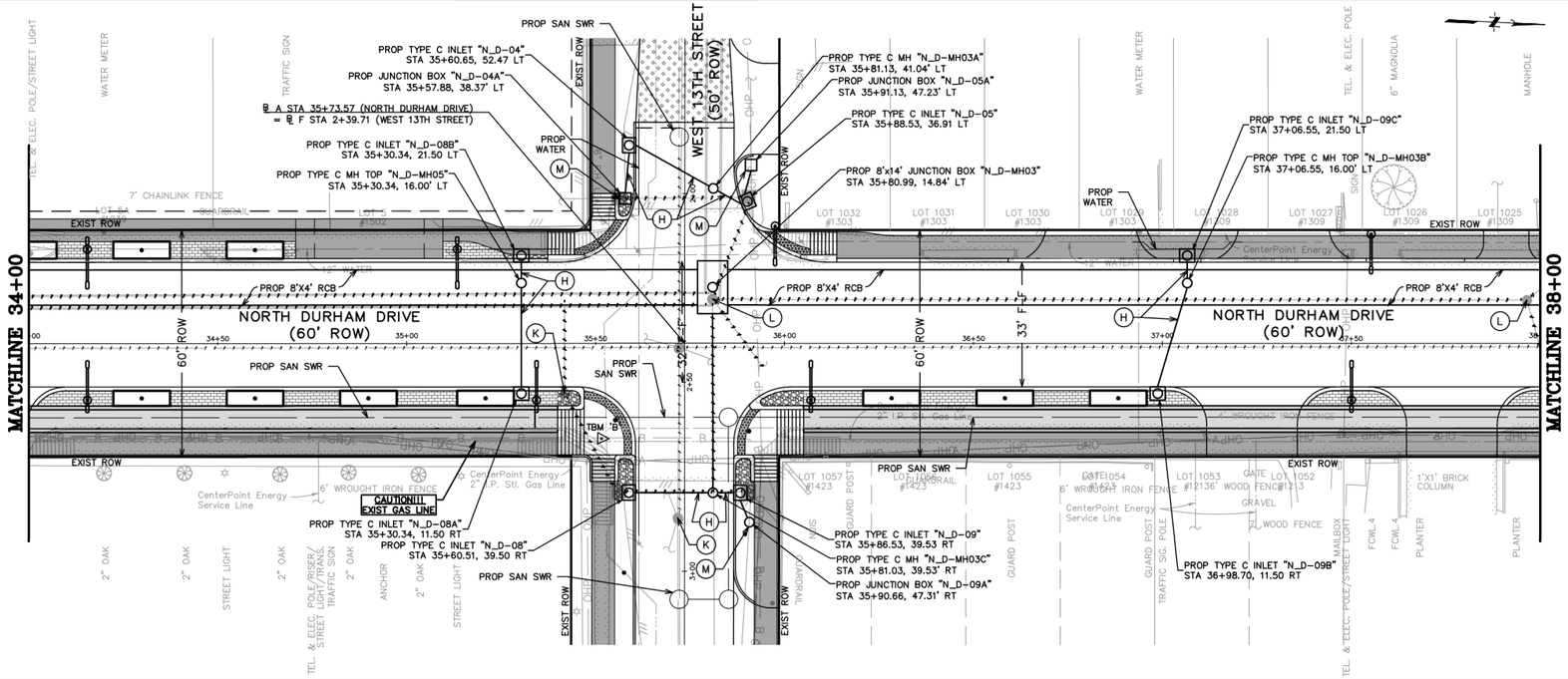
PLAN & PROFILE – STORM SEWER

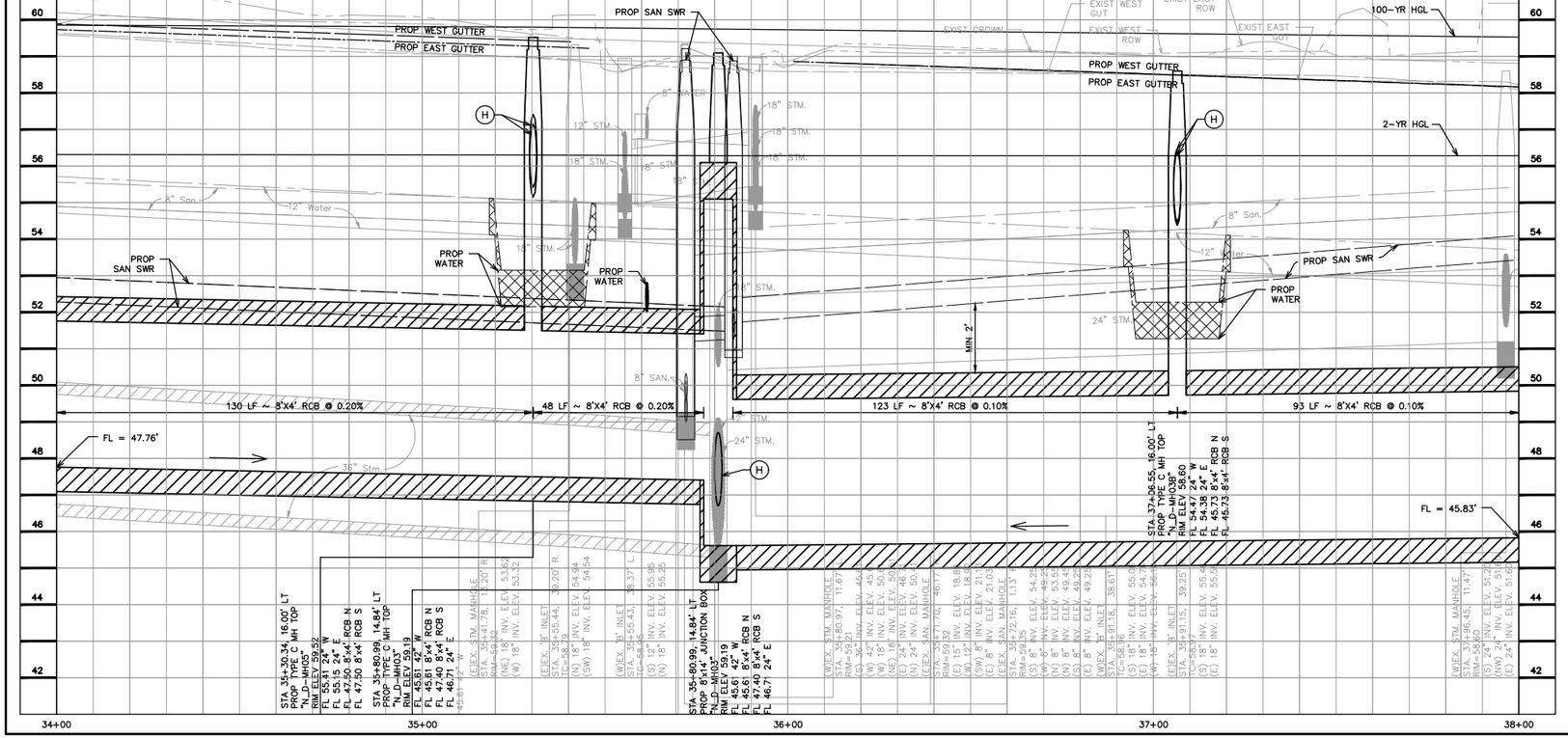
NORTH DURHAM DRIVE
30+00 TO 34+00

SHEET 34 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. **308** OF **711**	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham.dwg PLOTTED: 9/25/2024 11:47 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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TBM INFO

TBM 'B', CP-12, X-CUT. (SEE RECOVERY SKETCH)
ELEV= 58.80'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
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(L) REMOVE EXIST STORM SEWER MH
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0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

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3. PROPOSED DESIGN PROVIDES 100-YEAR LEVEL OF SERVICE FOR ENTIRE PROJECT LIMITS EXCEPT AT A LOCAL LOW POINT ALONG SHEPHERD DRIVE BETWEEN STA 1+83.51 AND WEST 11TH STREET AND ALONG DURHAM DRIVE BETWEEN STA. 10+25 TO STA 15+00 WHERE A 10-YEAR OR BETTER LEVEL OF SERVICE IS PROVIDED.

FOR PAVING IMPROVEMENTS SEE SHEETS 213-261
FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493
FOR STORM LATERAL PROFILES SEE SHEETS 322-362

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
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Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and PLS 10022100
4203 West Lake Park Blvd., Suite 100 Plano, TX 75093
214.777.5350

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

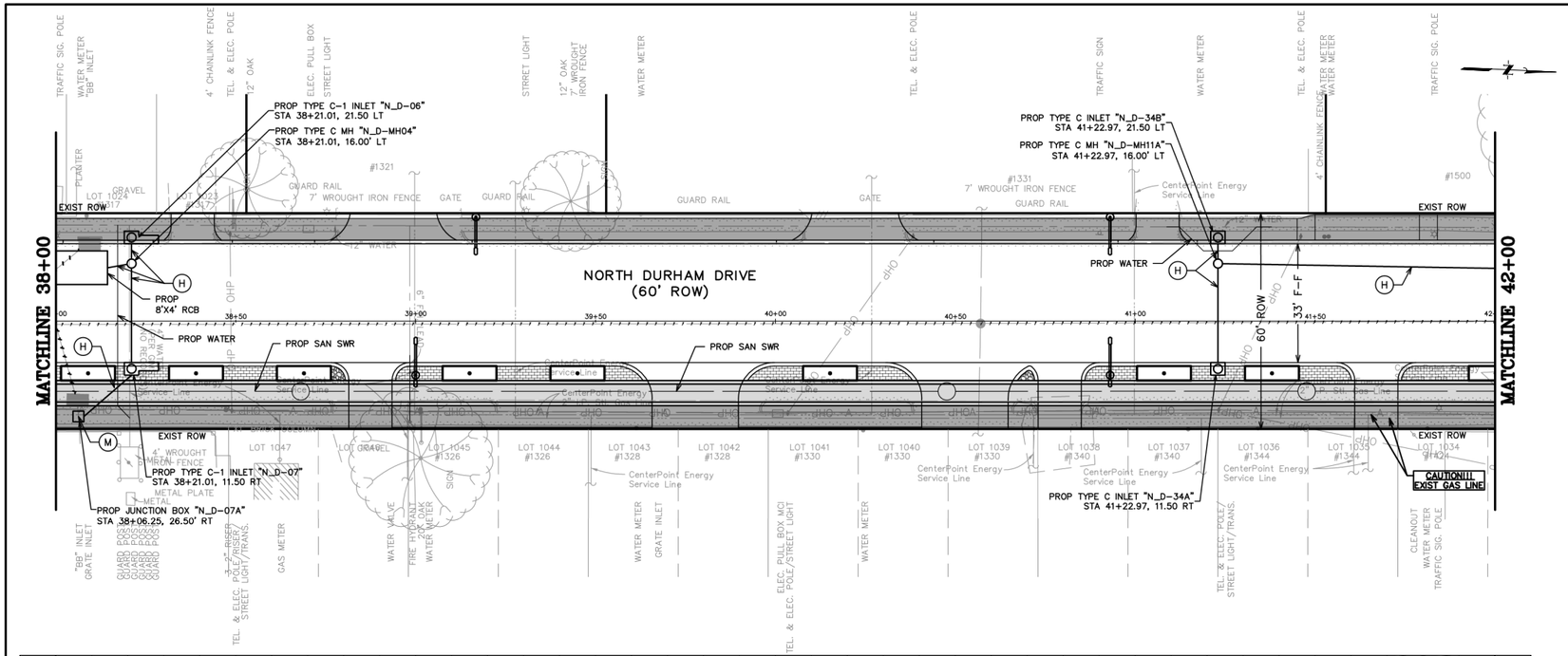
PLAN & PROFILE – STORM SEWER

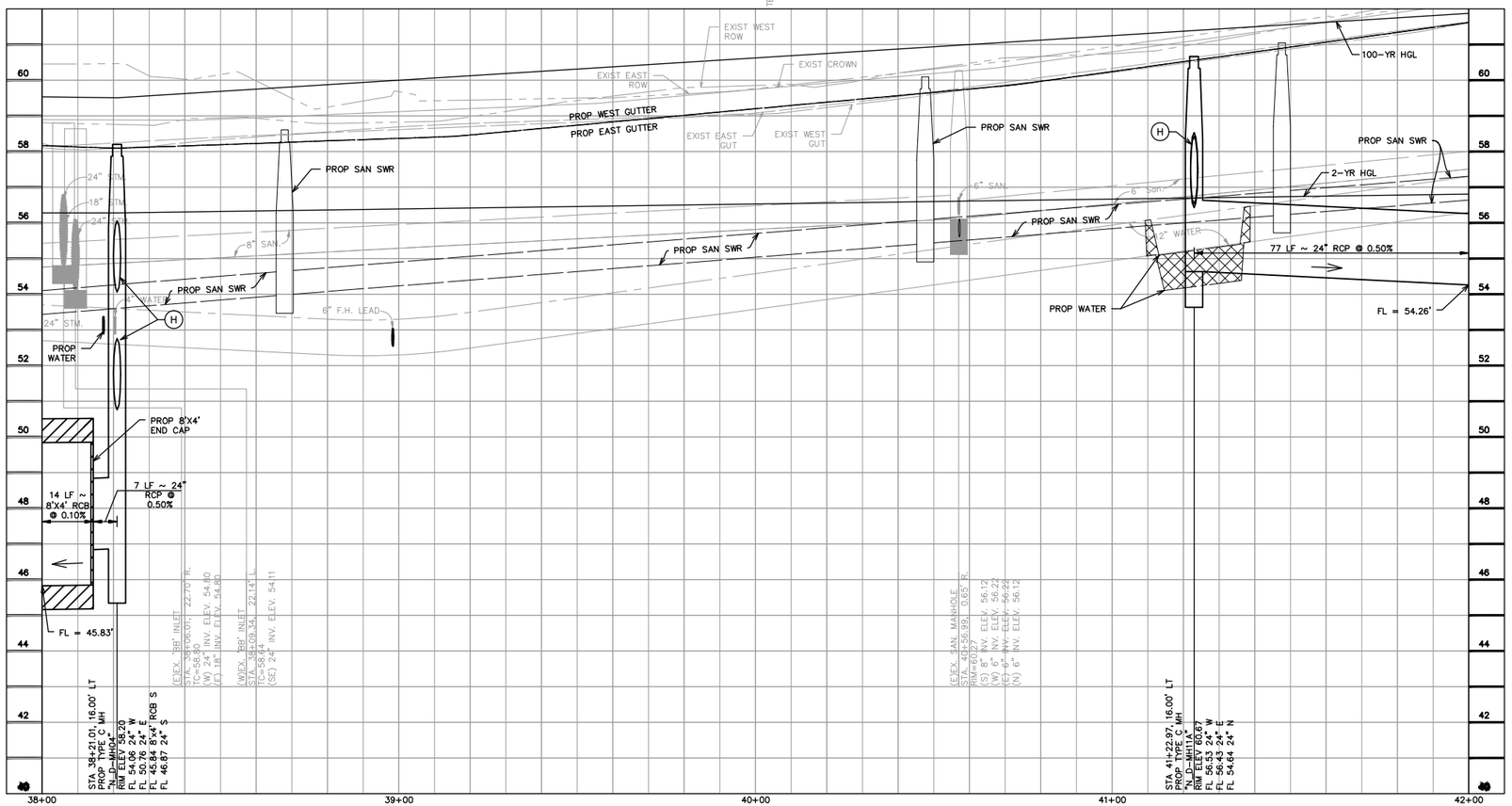
NORTH DURHAM DRIVE
34+00 TO 38+00

SHEET 35 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 309 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham.dwg PLOTTED: 9/25/2024 11:47 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'A', CP-11, X-CUT. (SEE RECOVERY SKETCH)
ELEV= 62.42'

TBM 'B', CP-12, X-CUT. (SEE RECOVERY SKETCH)
ELEV= 58.80'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 12-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
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(I) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and LSS10230
4265 West Loop South, Suite 100 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

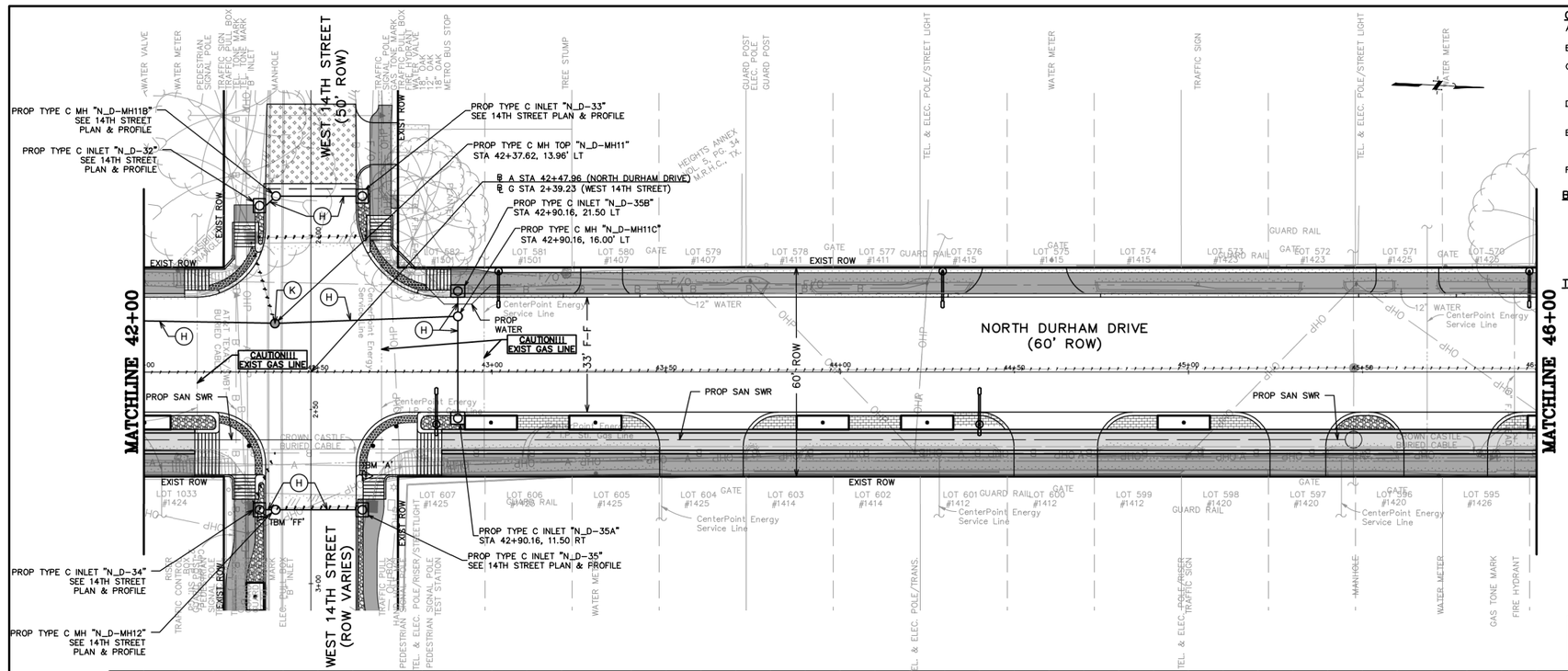
PLAN & PROFILE – STORM SEWER

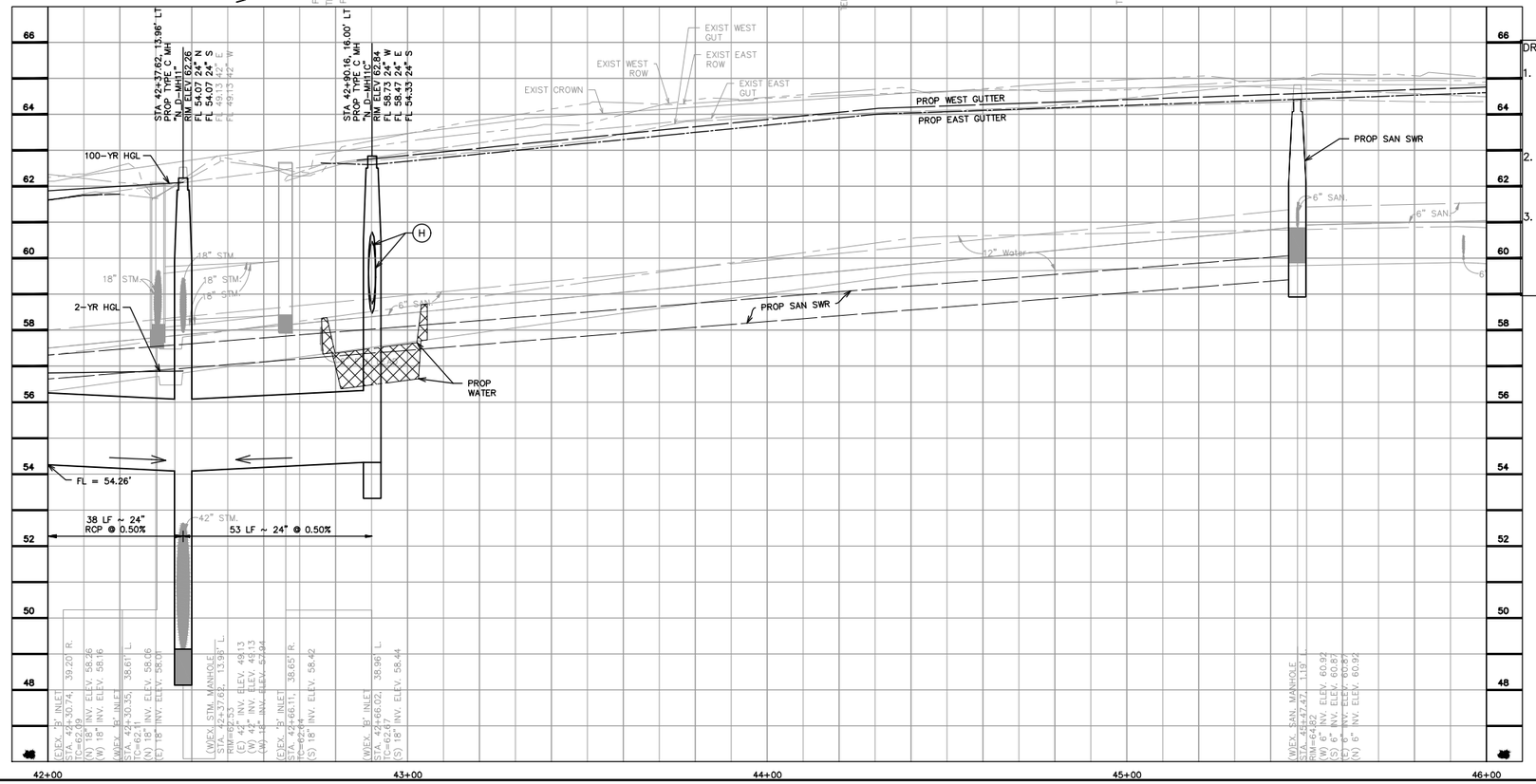
NORTH DURHAM DRIVE
38+00 TO 42+00

SHEET 36 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 310 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham.dwg PLOTTED: 9/25/2024 11:48 AM HVF





GENERAL NOTES

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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'A', CP-11, X-CUT. (SEE RECOVERY SKETCH)
ELEV= 62.42'

TBM 'FF', CP-178, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 61.97'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
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0 5 10 20 40 60
SCALE: 1" = 20'

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and #10194300
4265 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5581

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

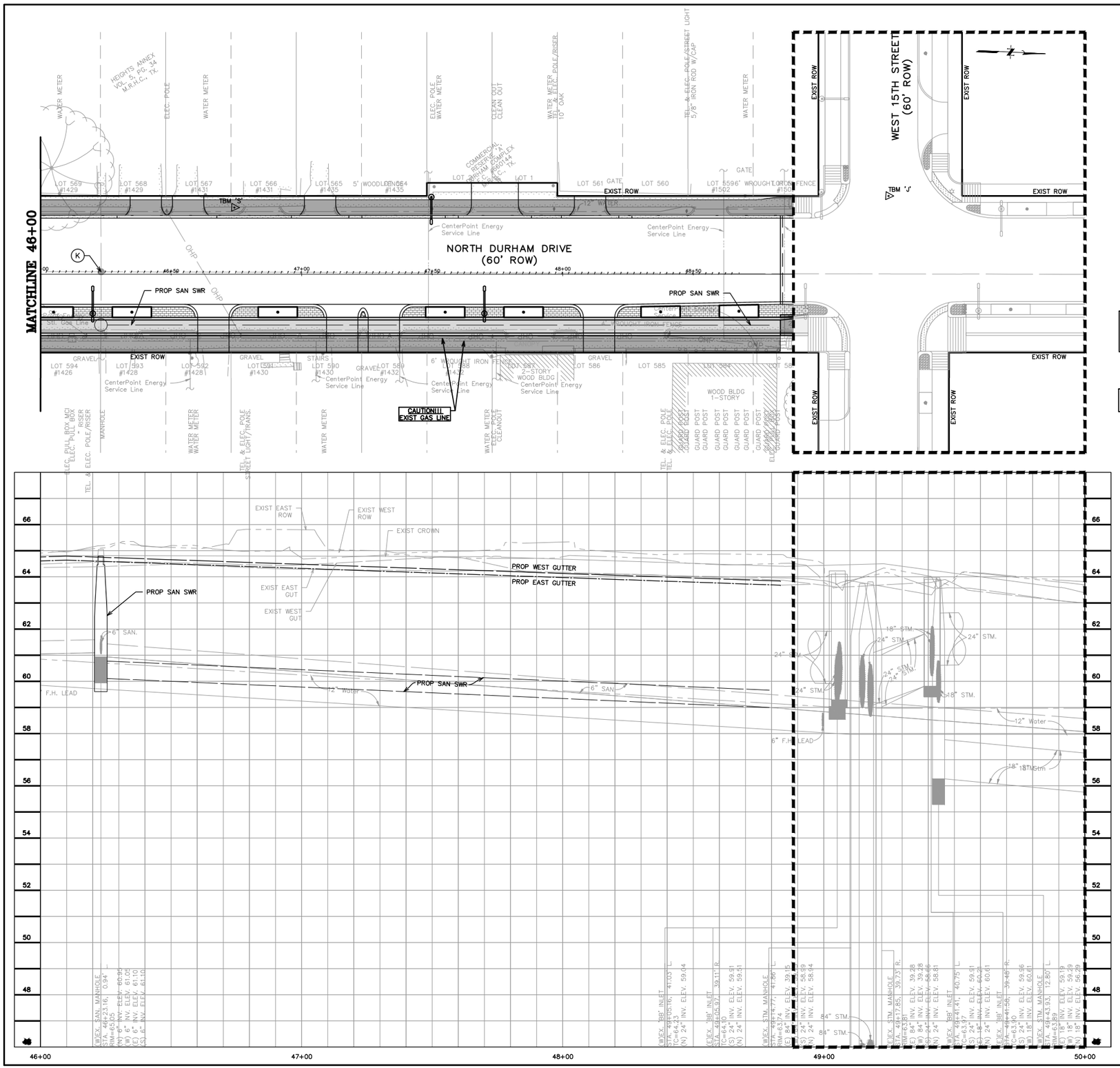
PLAN & PROFILE – STORM SEWER

NORTH DURHAM DRIVE
42+00 TO 46+00

SHEET 37 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 311 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham.dwg PLOTTED: 9/25/2024 11:49 AM HVF



GENERAL NOTES

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BENCHMARK INFO

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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'J', CP-10, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 63.76'

TBM 'S', CP-90, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 65.19'

REFER TO IMPROVEMENTS INCLUDED IN SHEPHERD, DURHAM, AND SELECTED CROSS STREETS RECONSTRUCTION PROJECT – PHASE 1 (WBS NO. N-T05000-0005-7)

CONTRACTOR SHALL PROTECT ALL NEW PAVEMENT, SIDEWALKS, AND IMPROVEMENTS

NO PROPOSED STORM SEWER ON THIS SHEET

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
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- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
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0 5 10 20 40 60
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Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and BTS00239
4265 West Loop South, Suite 100, Bellaire, TX 77401
713.979.9191

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
LICENSED
142304
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON

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SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – STORM SEWER

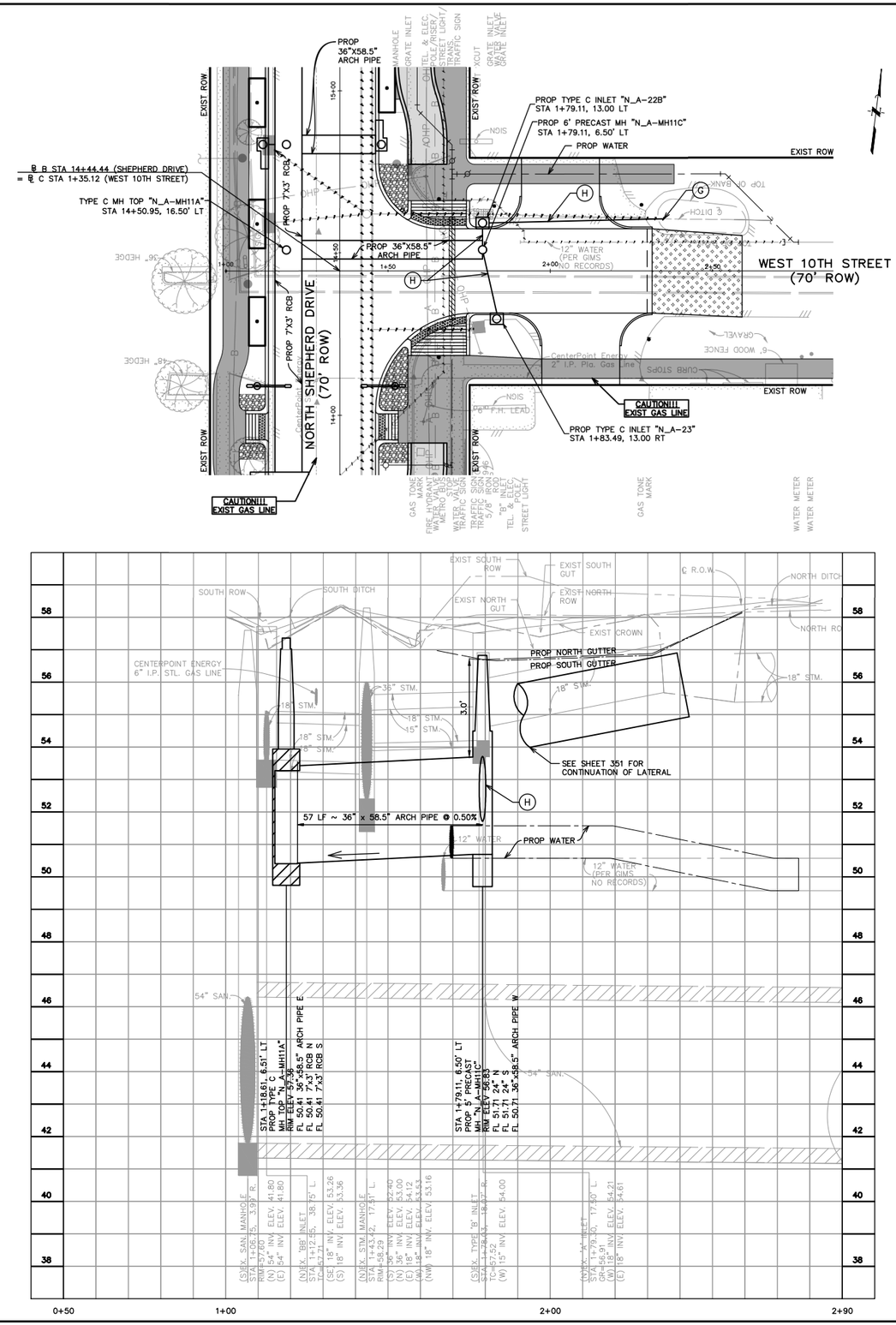
NORTH DURHAM DRIVE

46+00 TO END

SHEET 38 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 312 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM Durham.dwg PLOTTED: 9/25/2024 11:49 AM HVF



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TBM INFO

LEGEND

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- PROP SIDEWALK
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- PROP PAVERS (SEE LANDSCAPING PLANS)
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- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 10-INCH REINFORCED CONC PAVEMENT
(B) PROP 6-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(I) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
2. EOR HAS REVIEWED ALL SWMM OUTPUTS AT LOCATIONS WHERE MAX WSEL EXCEEDS CRITICAL ELEVATIONS AND FOUND THAT PROPOSED MAX WSEL DOES NOT EXCEED EXISTING MAX WSEL.
3. PROPOSED DESIGN PROVIDES 100-YEAR LEVEL OF SERVICE FOR ENTIRE PROJECT LIMITS EXCEPT AT A LOCAL LOW POINT ALONG SHEPHERD DRIVE BETWEEN STA 1+83.51 AND WEST 11TH STREET AND ALONG DURHAM DRIVE BETWEEN STA. 10+25 TO STA 15+00 WHERE A 10-YEAR OR BETTER LEVEL OF SERVICE IS PROVIDED.

FOR PAVING IMPROVEMENTS SEE SHEETS 213-261
FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493
FOR STORM LATERAL PROFILES SEE SHEETS 322-362

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

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

Date:

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

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and Registered 4225 West Loop South, Suite 200, Bellaire, TX 77401 713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

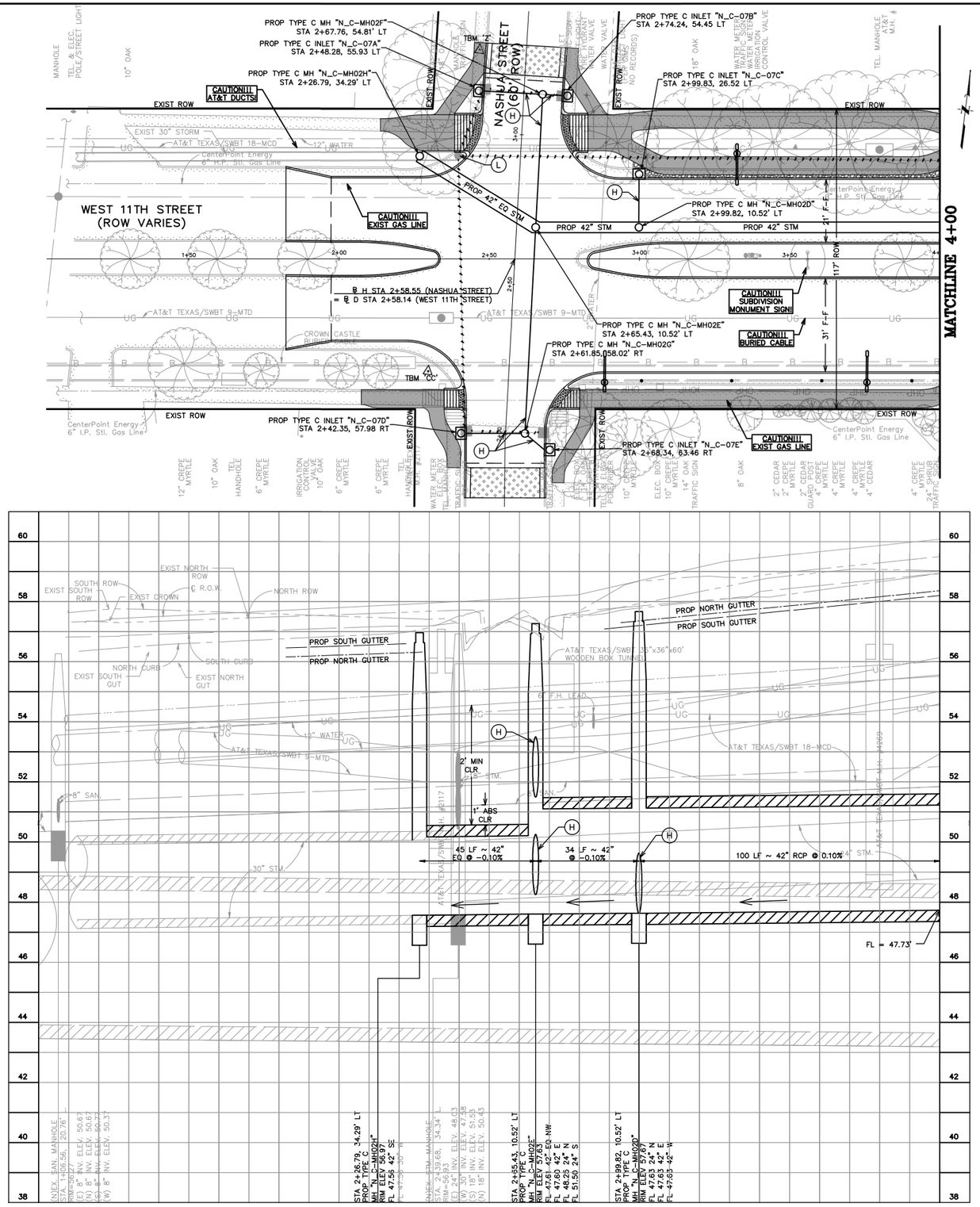
PLAN & PROFILE – STORM SEWER

WEST 10TH STREET
BEGIN TO END

SHEET 39 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 313 OF 711	

FILE PATH: K:\14760\14760-00004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CH-005-P&P_STM 10th Street.dwg PLOTTED: 9/25/2024 11:53 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
E. CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING GAS LINE. GAS LINE SHOULD BE EXPOSED PRIOR TO COMMENCING WORK. ADJUSTMENTS TO WORK TO AVOID CONFLICT WITH EXISTING GAS LINE SHOULD BE COORDINATED WITH CONSTRUCTION MANAGER.
F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'CC', CP-175, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 57.71'

TBM 'Z', CP-167, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 57.76'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 6-INCH CONC CURB
(C) PROP BIKE LANE
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(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
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(I) MATCH EXIST SIDEWALK
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(L) REMOVE EXIST STORM SEWER MH
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(N) PROP HEADER
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0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and LSS6433
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

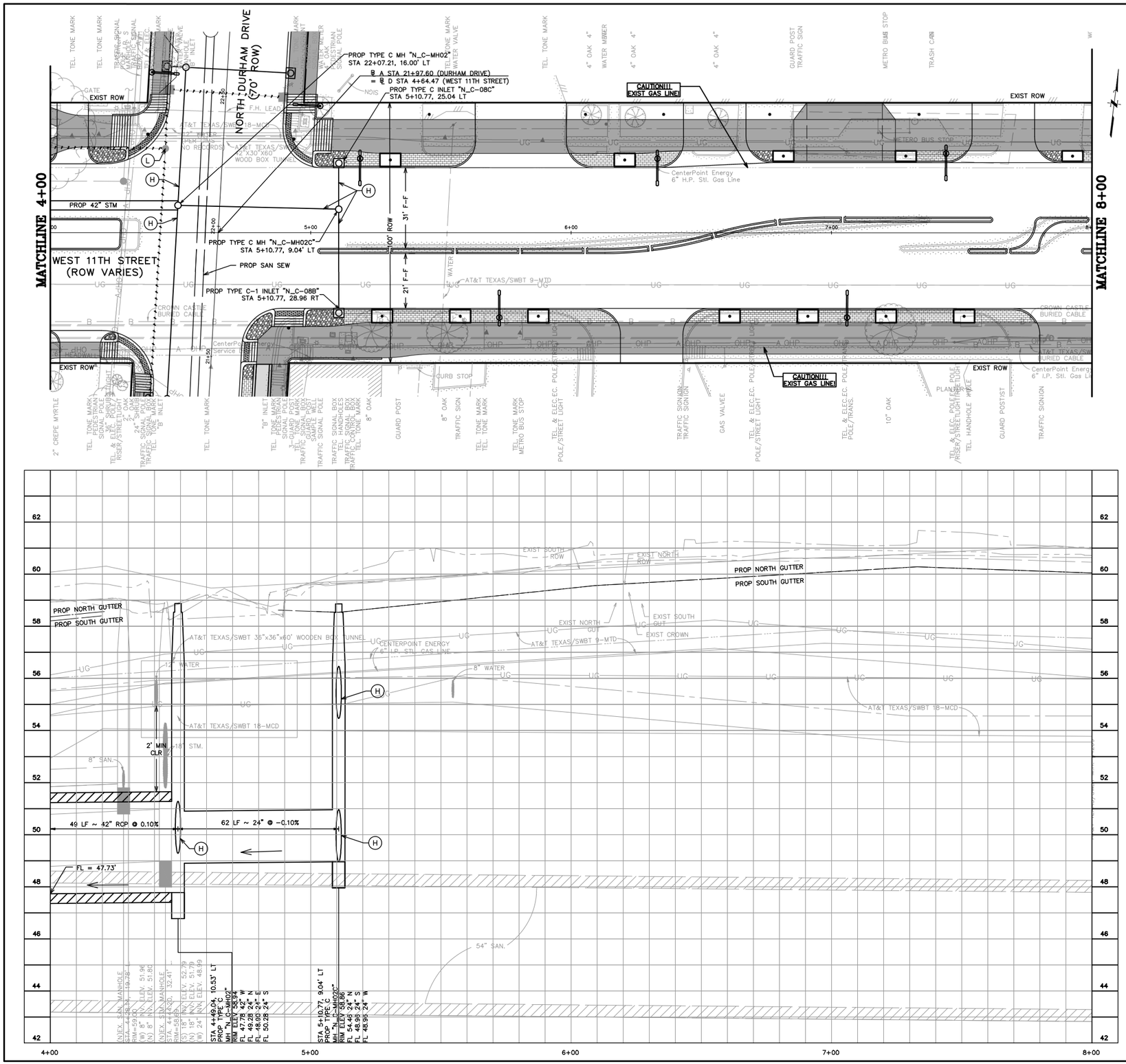
PLAN & PROFILE – STORM SEWER

WEST 11TH STREET
BEGIN TO 4+00

SHEET 40 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 314 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM 11th Street.dwg PLOTTED: 9/25/2024 11:54 AM HVF



GENERAL NOTES

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B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
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(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23295 and F-10194220
4203 West Lake Park Blvd., Suite 100 Weatherford, TX 76088 (817) 771-3313

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – STORM SEWER

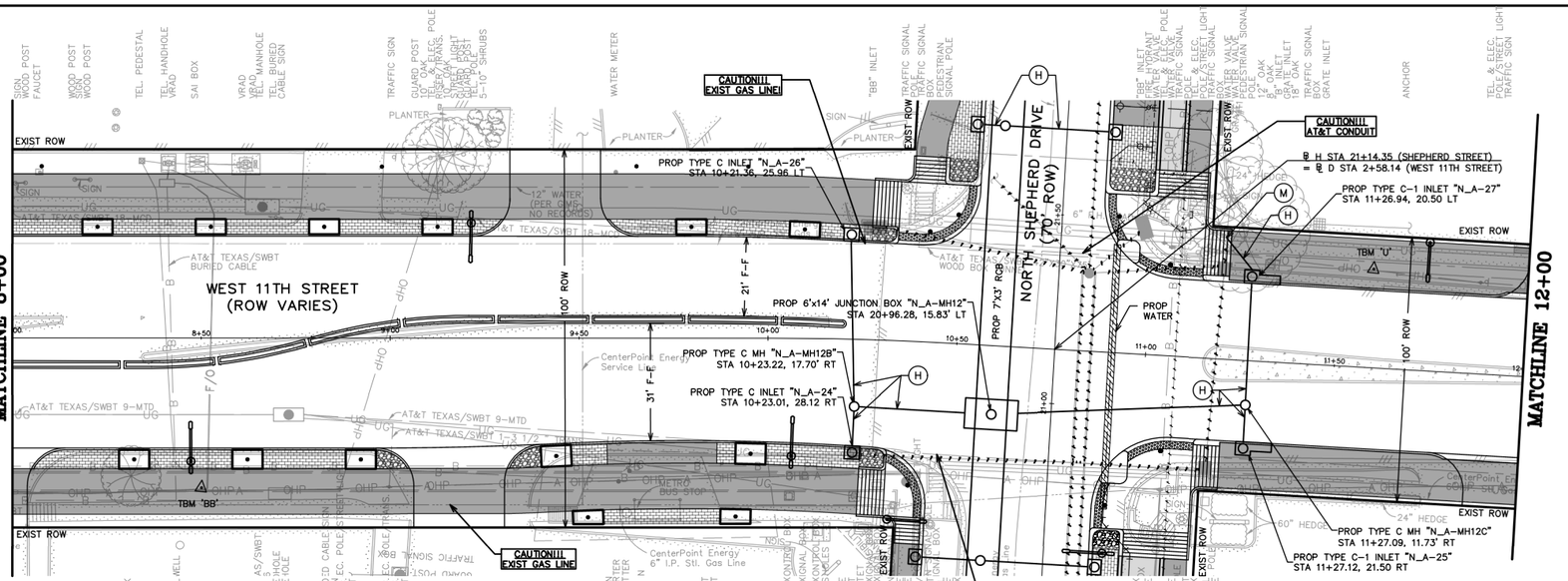
WEST 11TH STREET

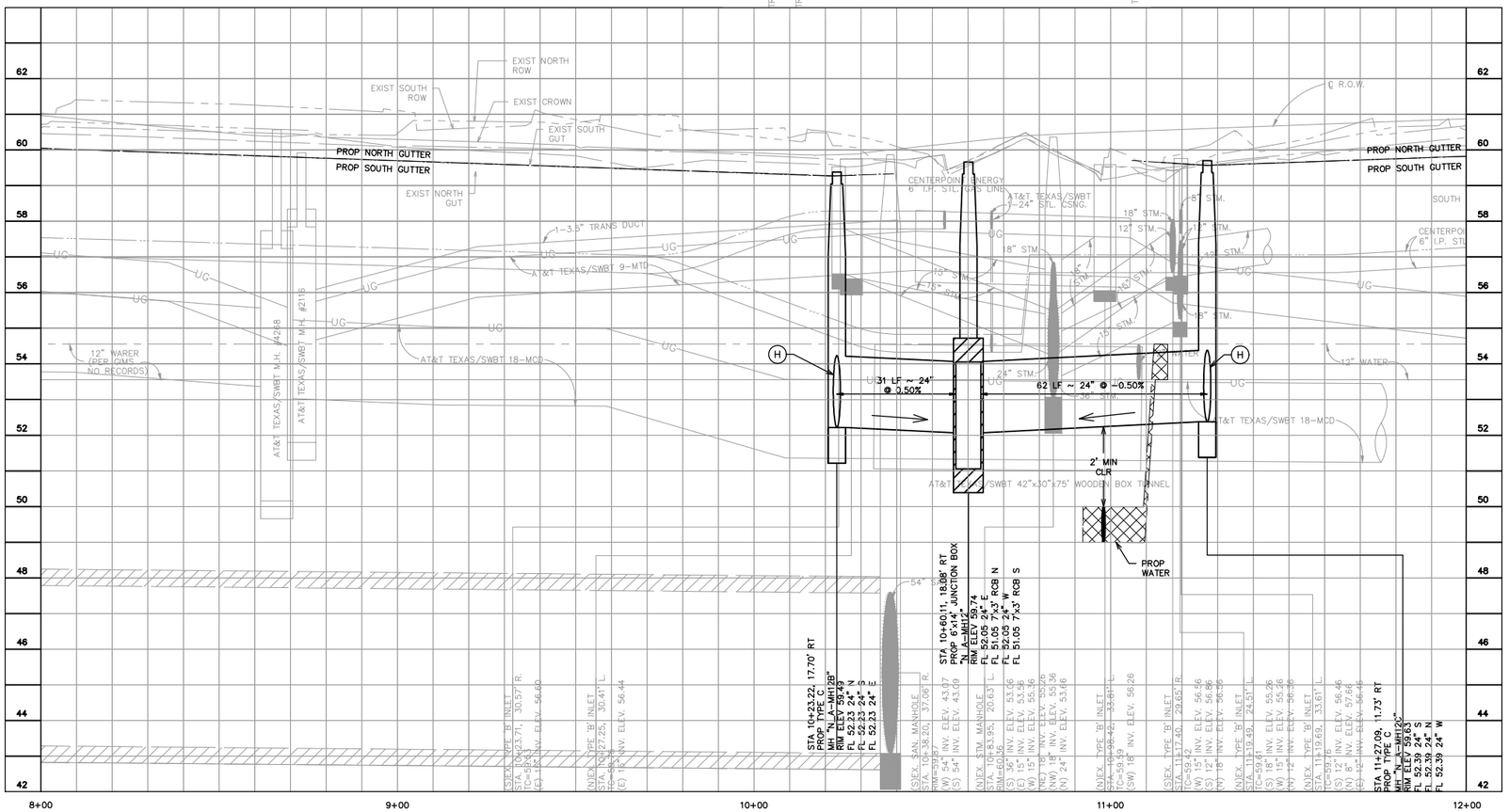
4+00 TO 8+00

SHEET 41 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 315 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P-STM 11th Street.dwg PLOTTED: 9/25/2024 11:54 AM HVF





GENERAL NOTES

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BENCHMARK INFO

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(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'U', CP-106, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 63.48'

TBM 'AA', CP-168, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 60.84'

TBM 'BB', CP-174, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 60.77'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
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- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
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0 5 10 20 40 60
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NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

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6330 West Loop South, Suite 150 Bellaire, TX 77401
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SURVEYED BY:
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FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

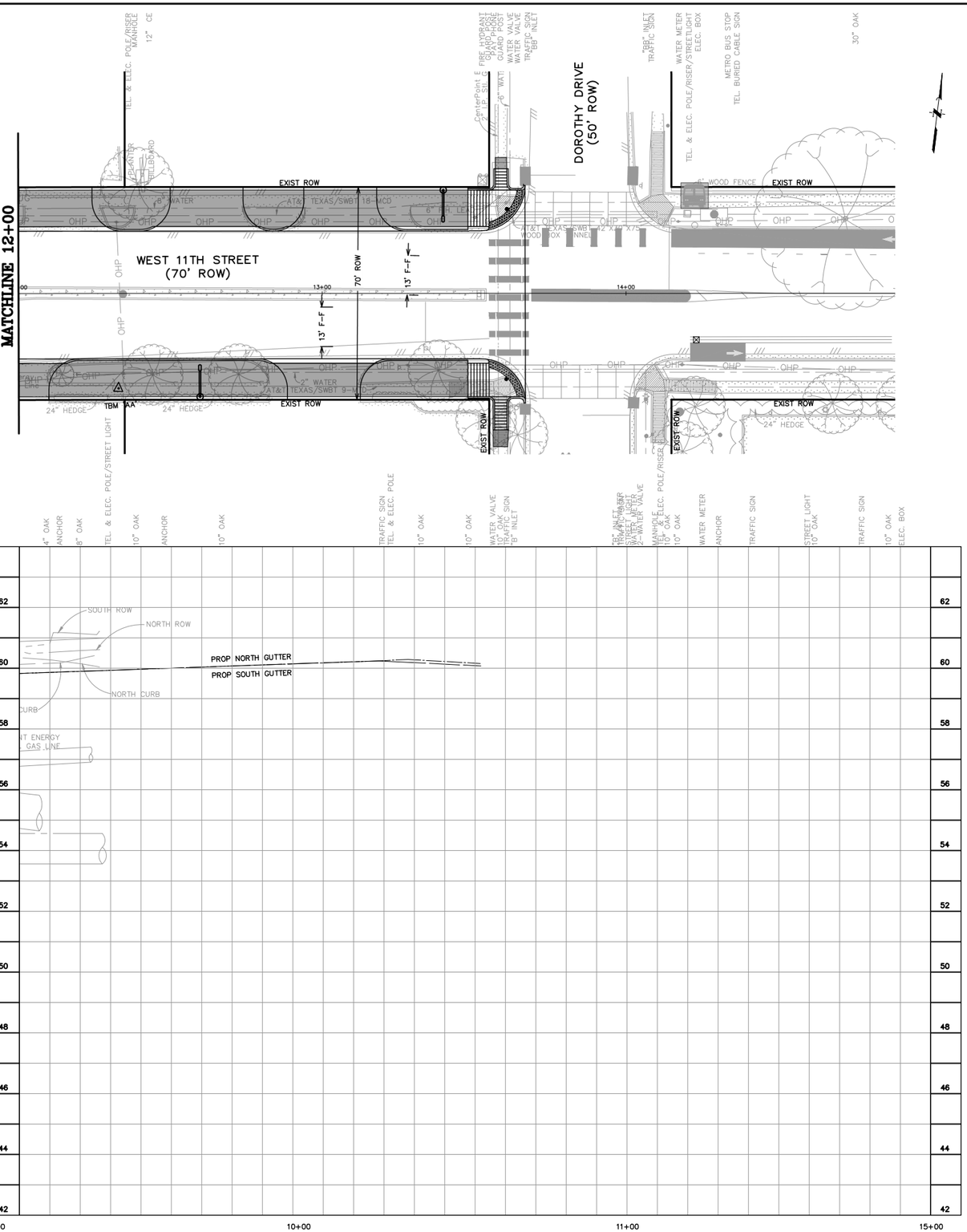
PLAN & PROFILE – STORM SEWER

WEST 11TH STREET
8+00 TO 12+00

SHEET 42 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 316 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM 11th Street.dwg PLOTTED: 9/25/2024 11:55 AM HVF



GENERAL NOTES

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TBM INFO

TBM 'AA', CP-168, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 60.84'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 11-INCH REINFORCED CONC PAVEMENT
(B) PROP 6-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(I) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
2. EOR HAS REVIEWED ALL SWMM OUTPUTS AT LOCATIONS WHERE MAX WSEL EXCEEDS CRITICAL ELEVATIONS AND FOUND THAT PROPOSED MAX WSEL DOES NOT EXCEED EXISTING MAX WSEL.
3. PROPOSED DESIGN PROVIDES 100-YEAR LEVEL OF SERVICE FOR ENTIRE PROJECT LIMITS EXCEPT AT A LOCAL LOW POINT ALONG SHEPHERD DRIVE BETWEEN STA 1+83.51 AND WEST 11TH STREET AND ALONG DURHAM DRIVE BETWEEN STA. 10+25 TO STA 15+00 WHERE A 10-YEAR OR BETTER LEVEL OF SERVICE IS PROVIDED.

NO PROPOSED STORM SEWER ON THIS SHEET

FOR PAVING IMPROVEMENTS SEE SHEETS 213-261

FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493

FOR STORM LATERAL PROFILES SEE SHEETS 322-362

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

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Date:

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Date:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 100422-00
6330 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

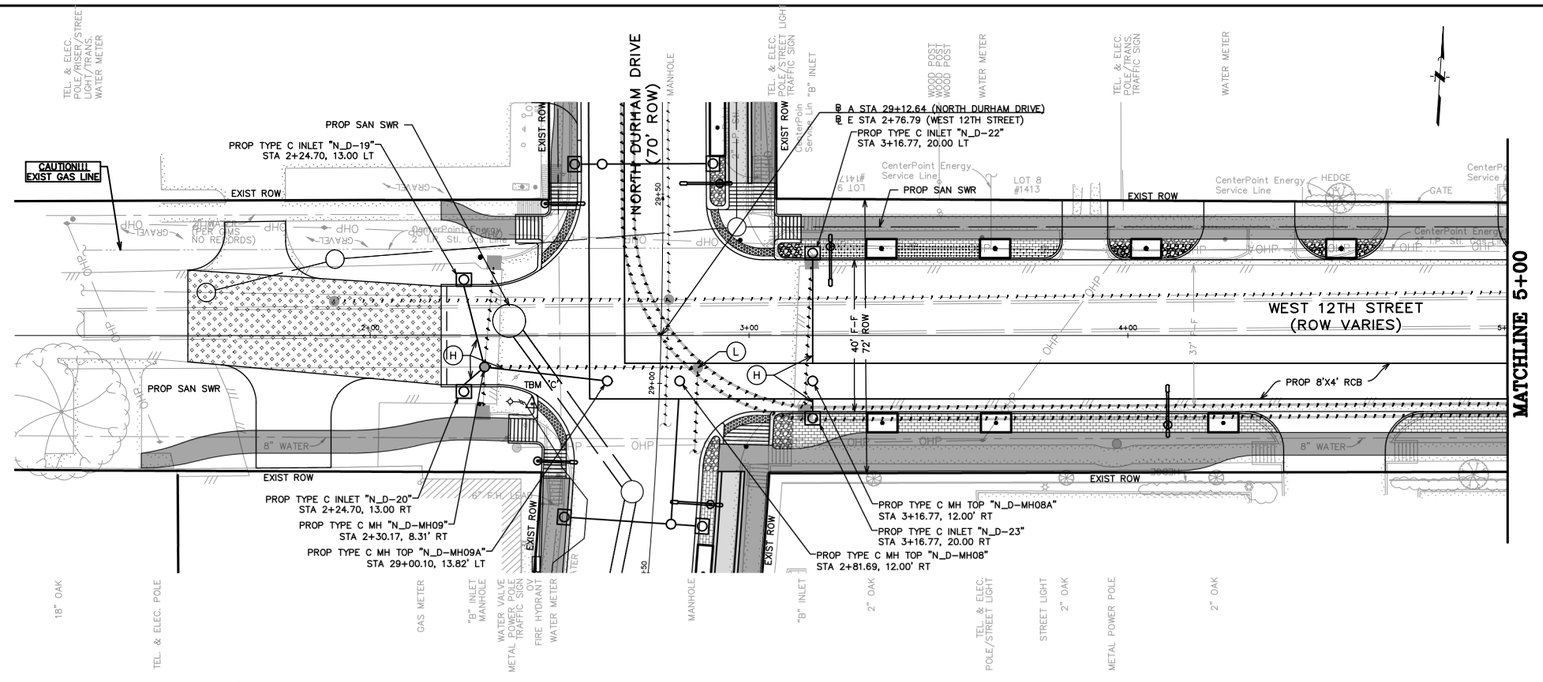
PLAN & PROFILE – STORM SEWER

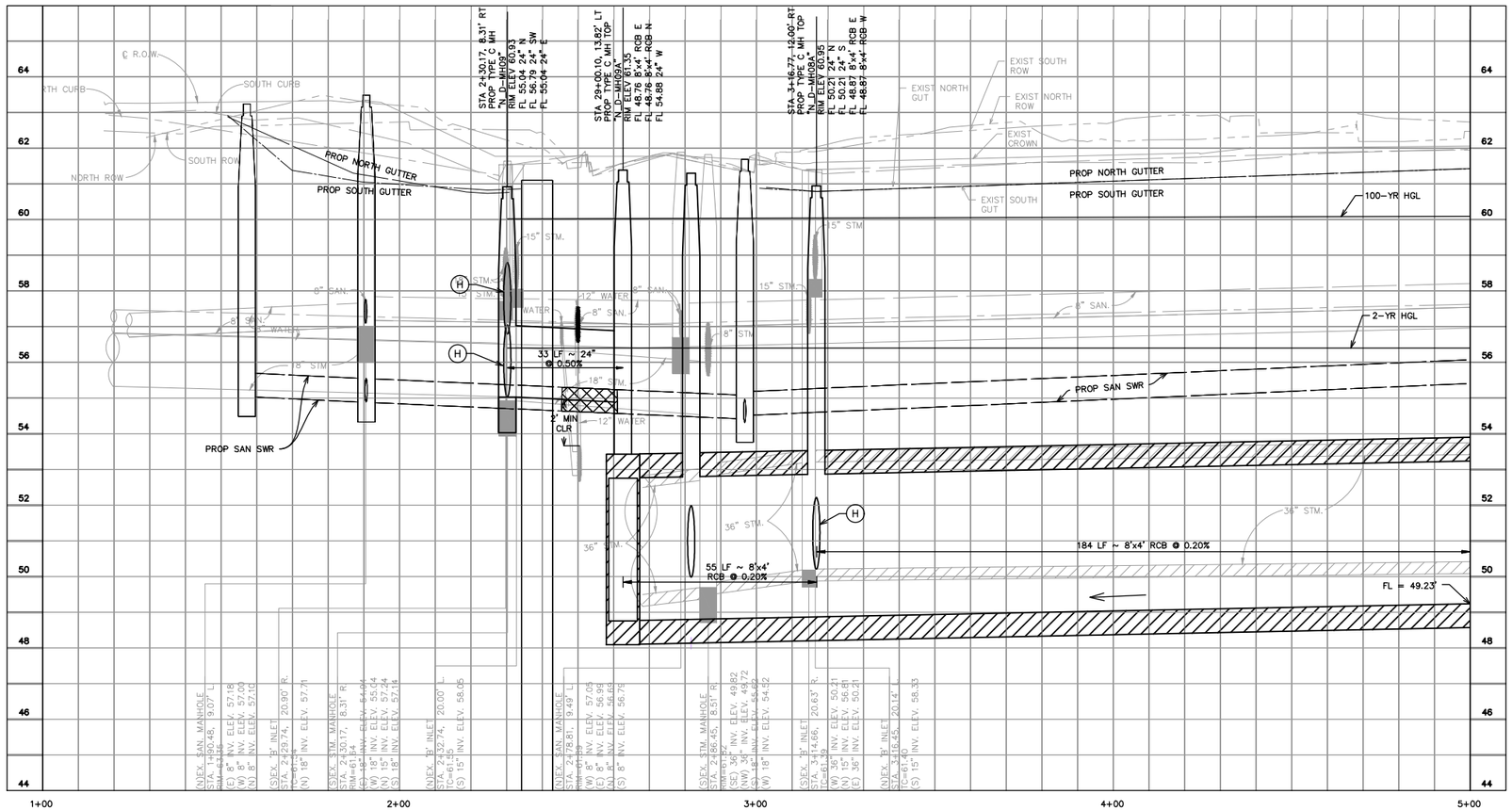
WEST 11TH STREET
12+00 TO END

SHEET 43 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 317 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM 11th Street.dwg PLOTTED: 9/25/2024 11:55 AM HVF





GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
C. WORK BENEATH EXISTING MATURE TREES SHALL BE COMPLETED BY USING HAND TOOLS. NO LARGE EQUIPMENT OR ANY EQUIPMENT WITH TRACKS SHALL BE ALLOWED TO WORK OR DRIVE UNDER THE DRIP LINE OF THE EXISTING TREES.
D. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'C',CP-13, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.31'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
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(I) MATCH EXIST SIDEWALK
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0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10044300
6363 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

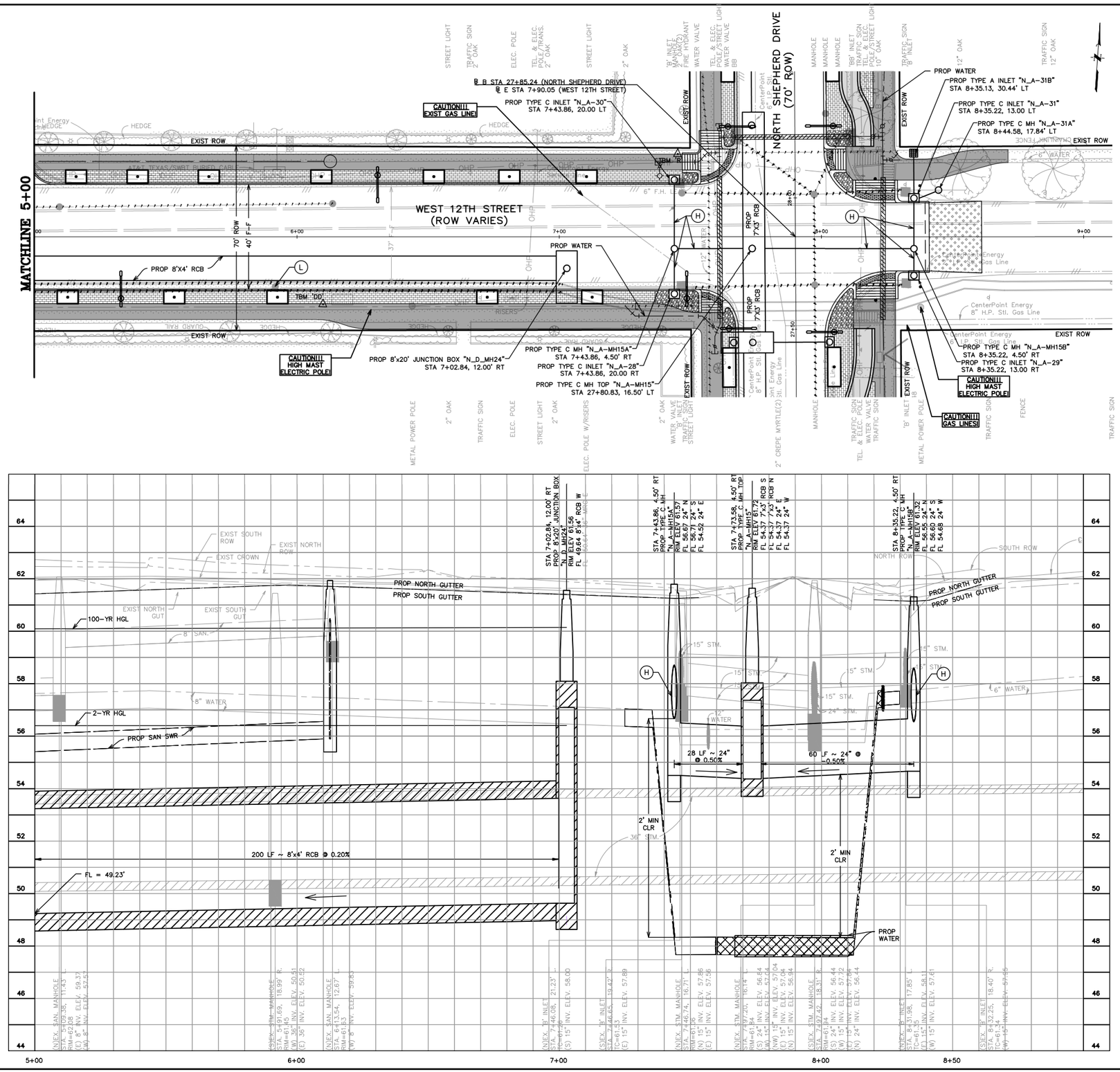
PLAN & PROFILE – STORM SEWER

WEST 12TH STREET
BEGIN TO 5+00

SHEET 44 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 318 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM 12th Street.dwg PLOTTED: 9/25/2024 11:56 AM HVF



GENERAL NOTES

A. SEE WATER & SANITARY PLAN & PROFILE SHEETS FOR PROP WATER LINE AND SANITARY SEWER IMPROVEMENTS.
B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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BENCHMARK INFO

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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'DD',CP-176, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=62.07'
TBM 'R',CP-85, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.37'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
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KEYED NOTES

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(D) PROP CONC WHEEL CHAIR RAMP
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(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
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(J) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
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0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23291 and T.B.P.E.L.S. 4233 West Loop South, Suite 210 Houston, Texas 77027 713.777.5337

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

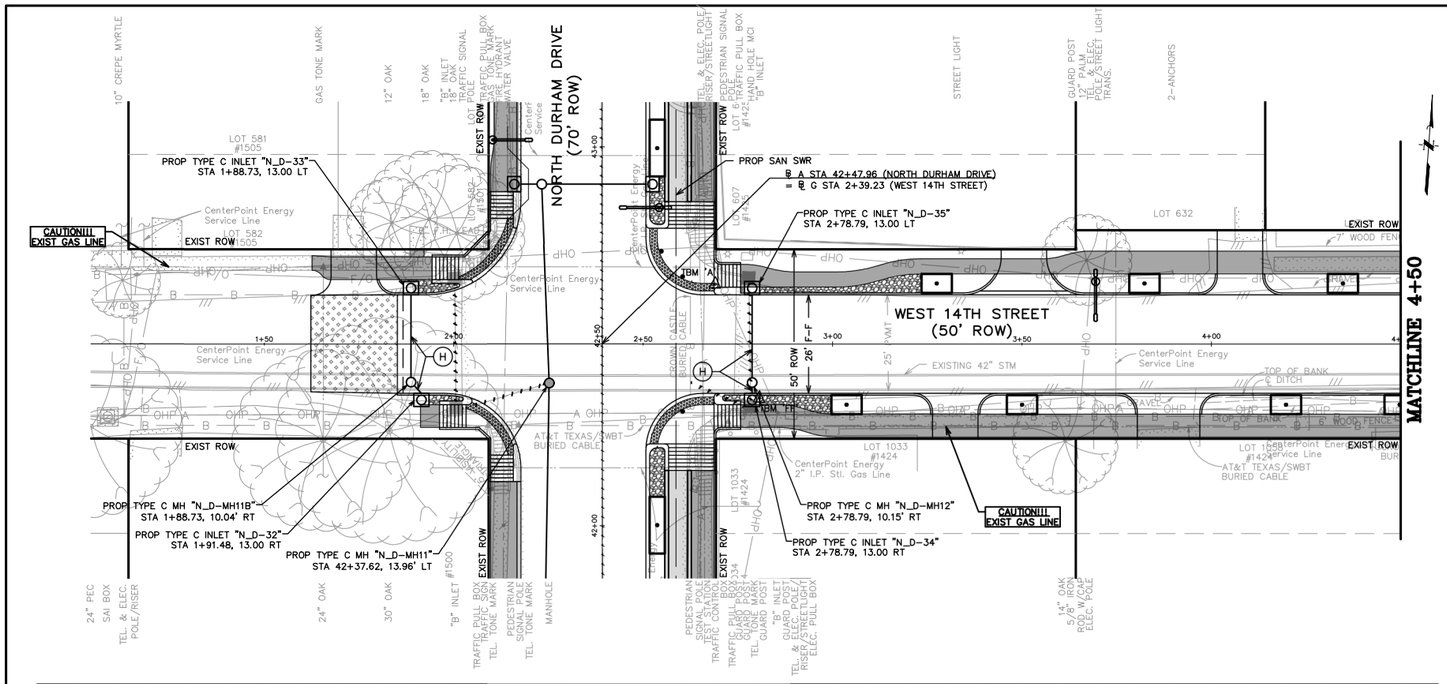
PLAN & PROFILE – STORM SEWER

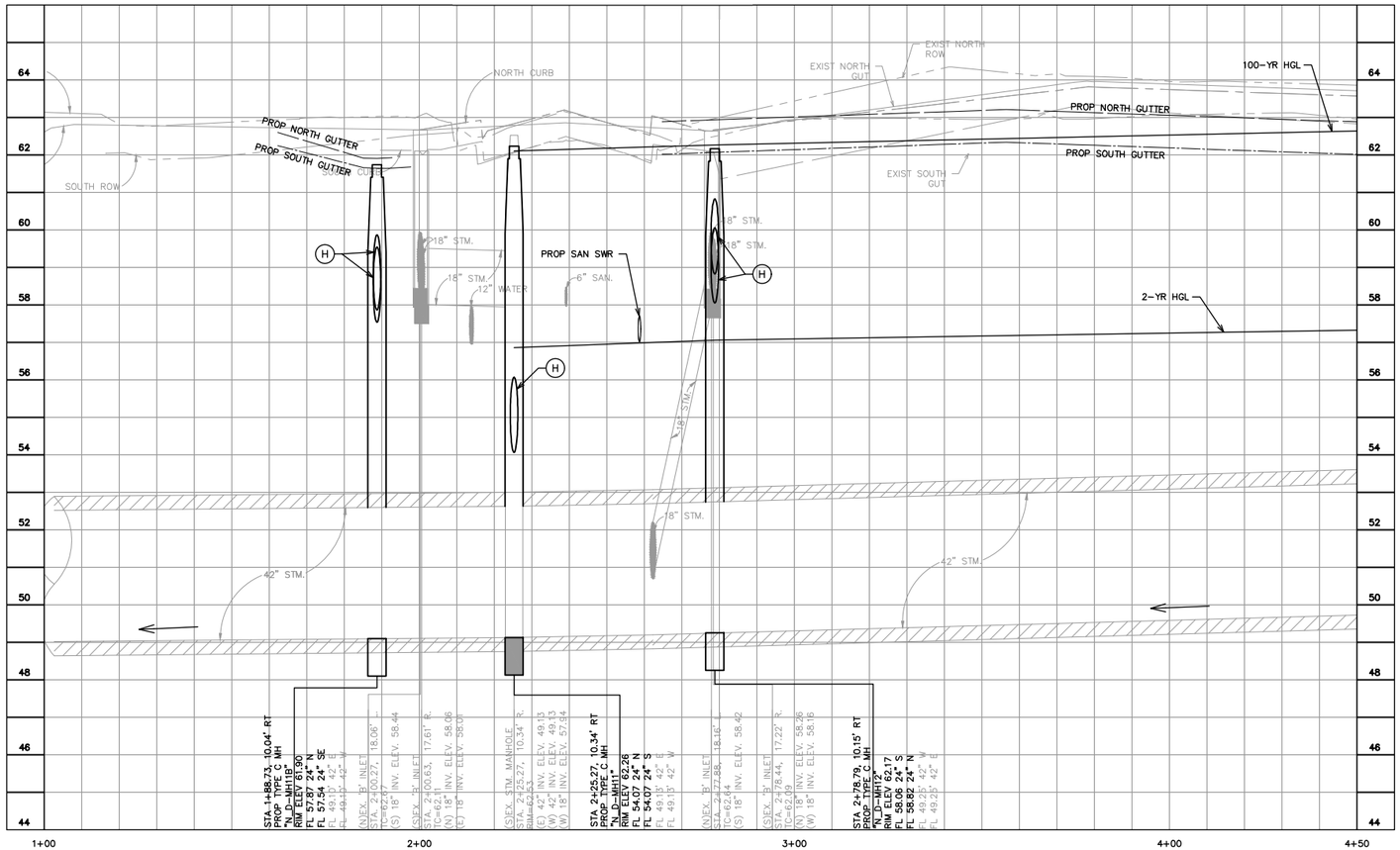
WEST 12TH STREET
5+00 TO END

SHEET 45 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 319 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A – Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM 12th Street.dwg PLOTTED: 9/25/2024 11:57 AM HVF





GENERAL NOTES

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B. CONTRACTOR TO ADJUST EXIST VALVE/METER/VAULT/PULLBOX TO REMAIN TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED BOXES AND COVERS.
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TBM INFO

TBM 'A',CP-11, X-CUT. (SEE RECOVERY SKETCH) ELEV= 62.42'
TBM 'FF',CP-178, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 61.97'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
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KEYED NOTES

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(N) PROP HEADER
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0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

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Texas Department of Transportation

QUIDDITY
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6330 West Loop South, Suite 150 Bellaire, TX 77401
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SURVEYED BY:
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FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
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8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

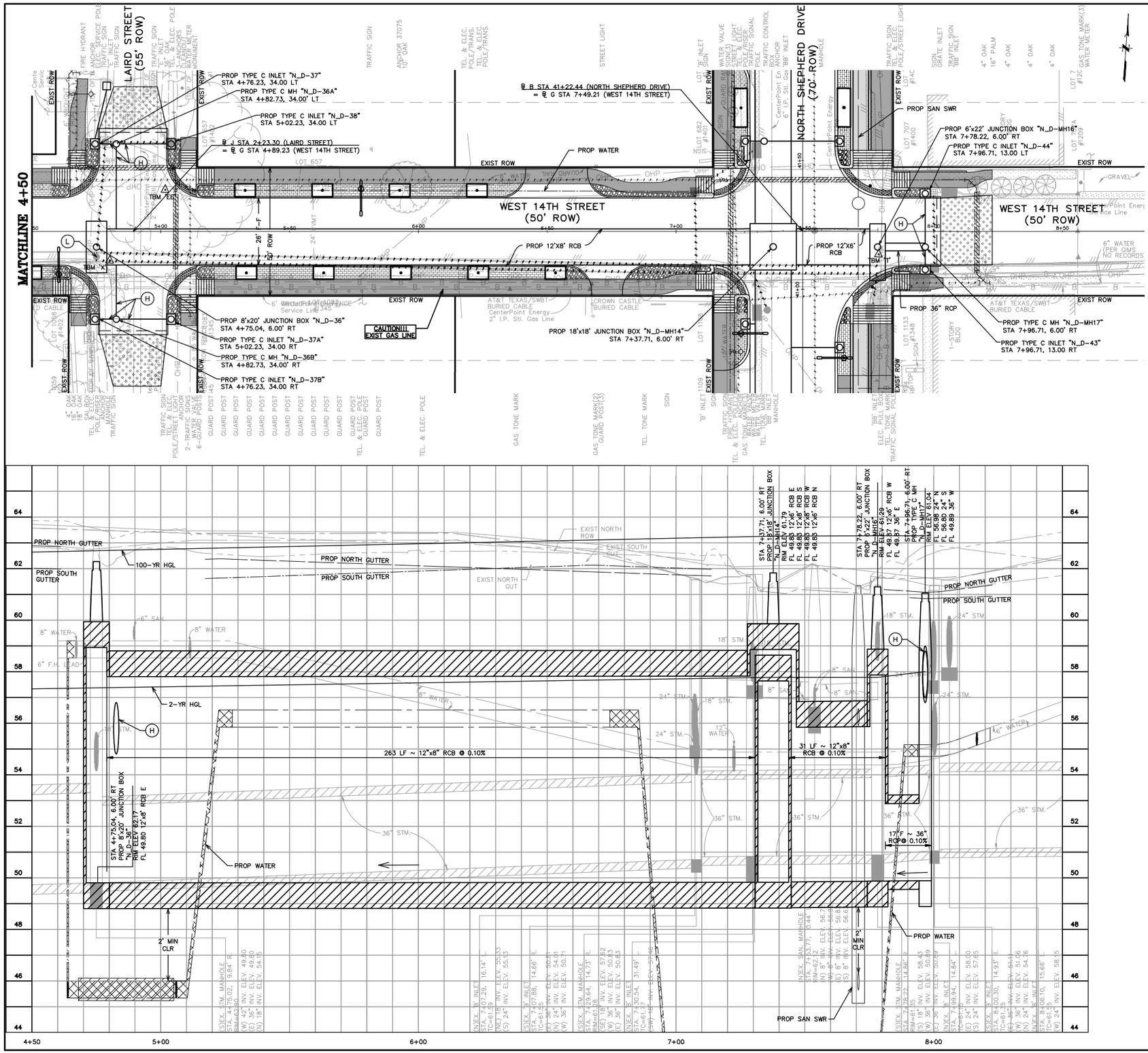
PLAN & PROFILE – STORM SEWER

WEST 14TH STREET
BEGIN TO 4+50

SHEET 46 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 320 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-CI-005-P&P_STM 14th Street.dwg PLOTTED: 9/25/2024 11:57 AM HVF



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F. CONTRACTOR TO DAYLIGHT EXIST SHALLOW PRIVATE DRAIN THROUGH CURB.

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'T',CP-103, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 61.62'
TBM 'X',CP-147, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 63.03'
TBM 'EE',CP-177, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 63.20'

LEGEND

- PROP BIKE LANE (SEE LANDSCAPING PLANS)
- PROP SIDEWALK
- PROP ASPHALT TRANSITION
- PROP TRUNCATED DOMES
- PROP COBBLE STONE (SEE LANDSCAPING PLANS)
- PROP PAVERS (SEE LANDSCAPING PLANS)
- PROP PLANTER W/ TREE (SEE LANDSCAPING PLANS)
- (X) PROP DRIVEWAY (SEE DRIVEWAY SCHEDULE)
- [X] STATION AND OFFSET (SEE THIS SHEET)
- EXIST STORM TO BE REMOVED
- PROP SINGLE/DOUBLE ARM LIGHT FIXTURE (SEE LIGHTING PLANS)

KEYED NOTES

(A) PROP 10-INCH REINFORCED CONC PAVEMENT
(B) PROP 6-INCH CONC CURB
(C) PROP BIKE LANE
(D) PROP CONC WHEEL CHAIR RAMP
(E) PROP SIDEWALK
(F) PROP TREE/PLANTING (SEE LANDSCAPING PLANS)
(G) PROP RING GRATE
(H) PROP 24-INCH RCP
(I) MATCH EXIST SIDEWALK
(K) ADJUST EXIST MH COVER TO FIT NEW GRADE
(L) REMOVE EXIST STORM SEWER MH
(M) CONNECT PRIVATE STORM SEWER TO PROP JUNCTION BOX/MH/INLET
(N) PROP HEADER
(P) 6-INCH CURB

0 5 10 20 40 60
SCALE: 1" = 20'

NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

DRAINAGE NOTES:

1. 100-YEAR STORM EVENT (ATLAS 14) WAS ANALYZED USING XP-SWMM HYDRAULIC MODELING SOFTWARE. SEE DRAINAGE IMPACT ANALYSIS REPORT FOR SHEPHERD DURHAM RECONSTRUCTION PREPARED BY CASCADE CIVIL SERVICES DATED JUNE 20, 2023.
2. EOR HAS REVIEWED ALL SWMM OUTPUTS AT LOCATIONS WHERE MAX WSEL EXCEEDS CRITICAL ELEVATIONS AND FOUND THAT PROPOSED MAX WSEL DOES NOT EXCEED EXISTING MAX WSEL.
3. PROPOSED DESIGN PROVIDES 100-YEAR LEVEL OF SERVICE FOR ENTIRE PROJECT LIMITS EXCEPT AT A LOCAL LOW POINT ALONG SHEPHERD DRIVE BETWEEN STA 1+83.51 AND WEST 11TH STREET AND ALONG DURHAM DRIVE BETWEEN STA. 10+25 TO STA 15+00 WHERE A 10-YEAR OR BETTER LEVEL OF SERVICE IS PROVIDED.

FOR PAVING IMPROVEMENTS SEE SHEETS 213-261
FOR WATER AND WASTEWATER IMPROVEMENTS SEE SHEETS 416-493
FOR STORM LATERAL PROFILES SEE SHEETS 322-362

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290 and 10194020
4265 West Loop South, Suite 150 Bellaire, TX 77401
713.777.5557

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
VICTORIA M. MACALINO
142304
LICENSED
PROFESSIONAL ENGINEER
8/1/24

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

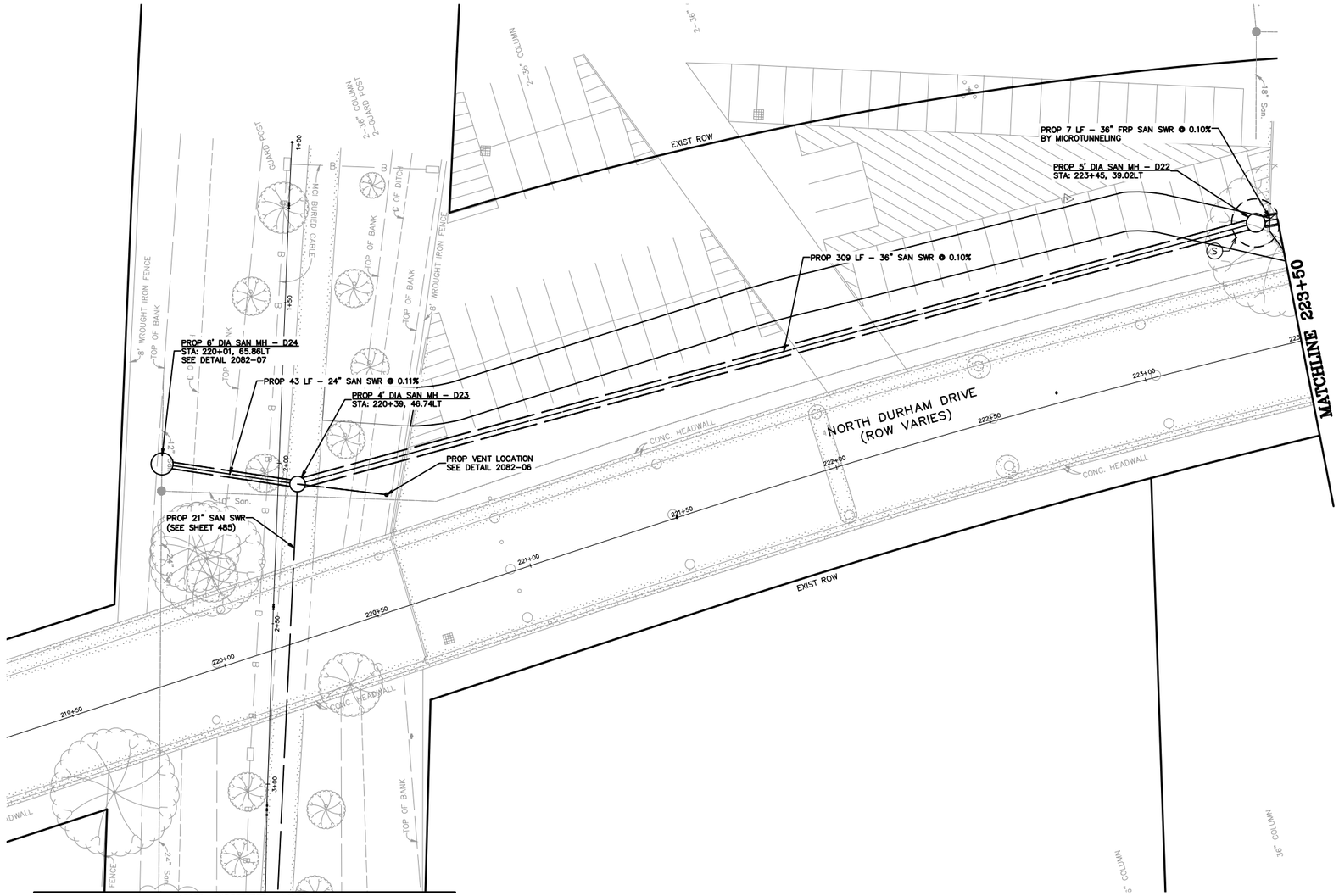
PLAN & PROFILE – STORM SEWER

WEST 14TH STREET
4+50 TO END

SHEET 47 OF 47

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 321 OF 711	

FILE PATH: K:\14760\14760-0004-05 T-0523A - Shepherd, Durham, and Selected\2 Design Phase\CAD\Plans\14760-Ch-005-P&P_STM 14th Street.dwg PLOTTED: 9/25/2024 11:58 AM HVF



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TBM INFO

TBM 'H', CP-19, MAG NAIL W/ SHINER. (SEE RECOVERY SKETCH)
ELEV= 62.72'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

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9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 20'

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V. J. Gonzalez Date: 4/2/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
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6330 West Loop South, Suite 350 ● Bellaire, TX 77401 ● 713.777.5337

Aurora Technical Services, LLC
2121 Sage Road, Suite 130 Houston, TX 77056
Tel: (281) 453-7700

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED PROFESSIONAL ENGINEER
09.18.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE
N DURHAM DR BEGIN TO 223+50 PLAN

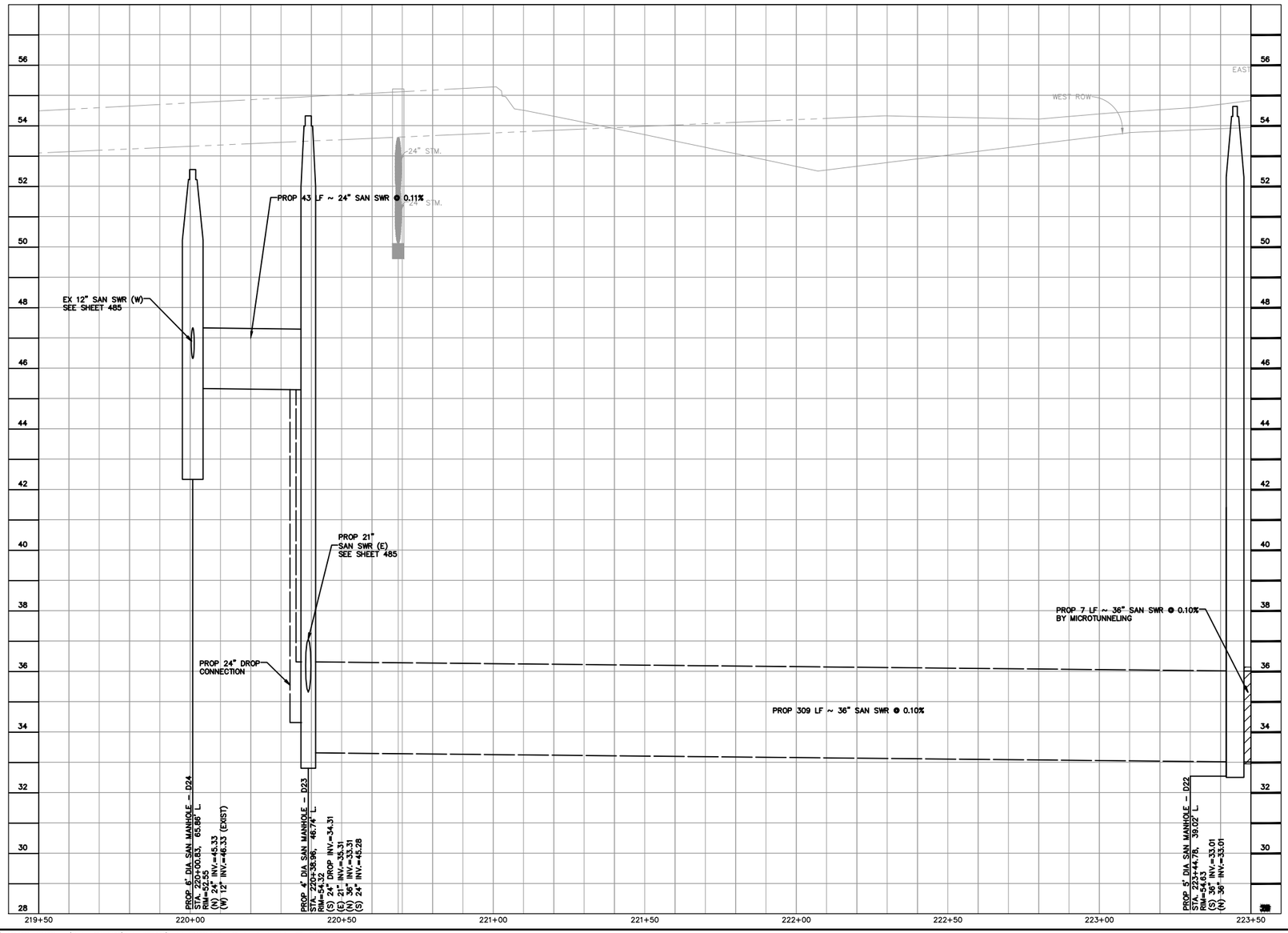
SHEET 7 OF 78

WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 422 OF 711

FOR CITY OF HOUSTON USE ONLY
78839

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362



BENCHMARK INFO

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TBM INFO

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ELEV= 62.72'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
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GENERAL NOTES

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0 5 10 20 40 60
SCALE: 1" = 20'

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 ■ Bellaire, TX 77401 ■ 713.777.5337

Aurora Technical Services, LLC
2211 Norfolk, Suite 130 Houston, TX 77098
Tel: (281) 403-7700

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.18.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

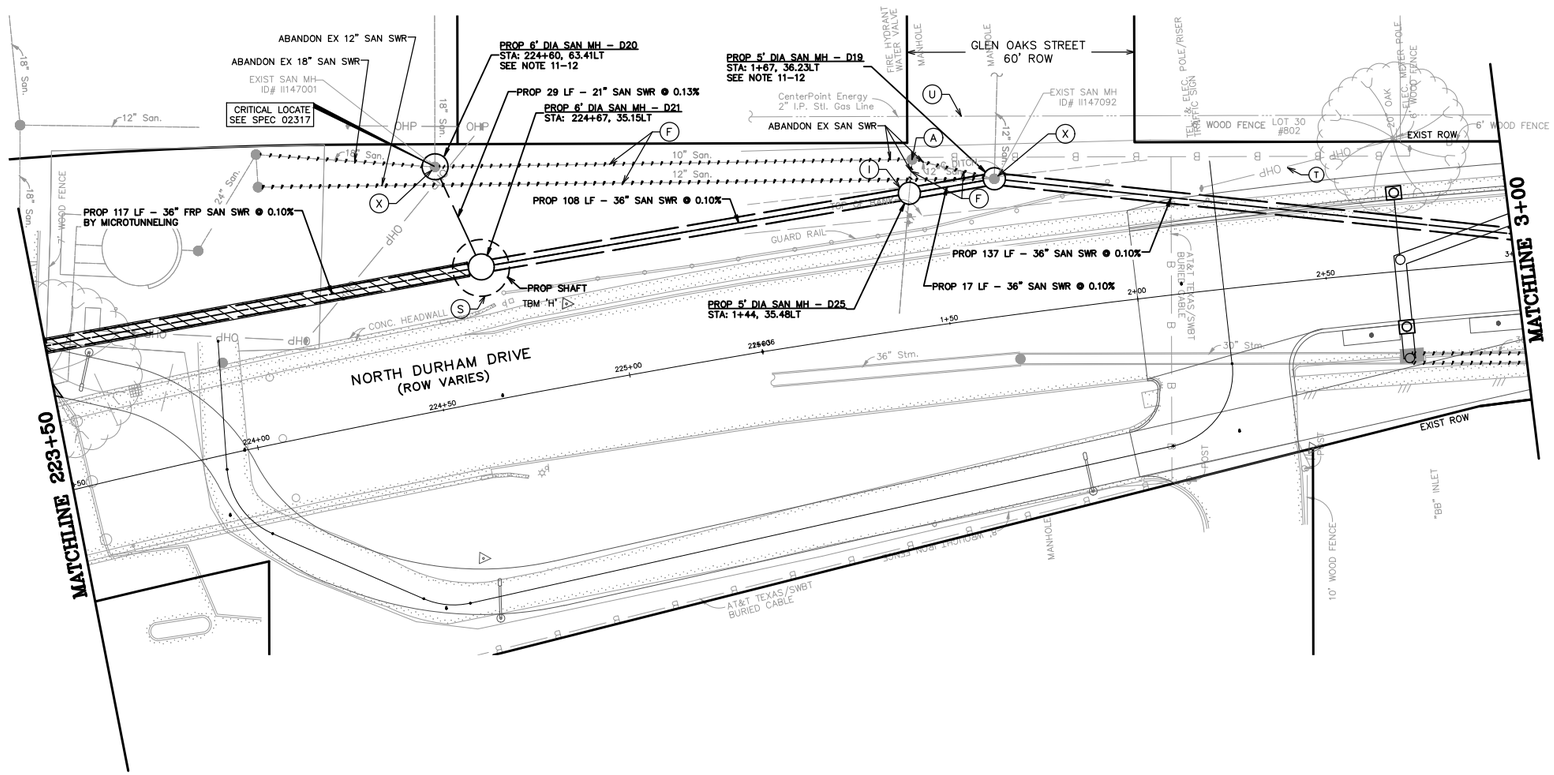
PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE
N DURHAM DR BEGIN TO 223+50 PROFILE

SHEET 8 OF 78

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 423 OF 711	

78839



BENCHMARK INFO

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TBM INFO

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ELEV= 62.72'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
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- PROPOSED WATER LINE

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10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.
11. CONTRACTOR TO VERIFY ACTIVE SEWERS CONNECTED TO EXISTING MANHOLE AND CORRESPONDING INVERT ELEVATIONS PRIOR TO INSTALLING PROP MH.
12. CONTRACTOR TO PROVIDE DIVERSION PUMPING PLAN PRIOR TO INSTALLATION OF PROPOSED MANHOLE.

0 5 10 20 40 60
SCALE: 1" = 20'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE
N DURHAM DR 223+50 TO 3+00 PLAN

SHEET 9 OF 78

WBS NUMBER
N-100041-0001-4
DRAWING SCALE
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CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 423 OF **687**

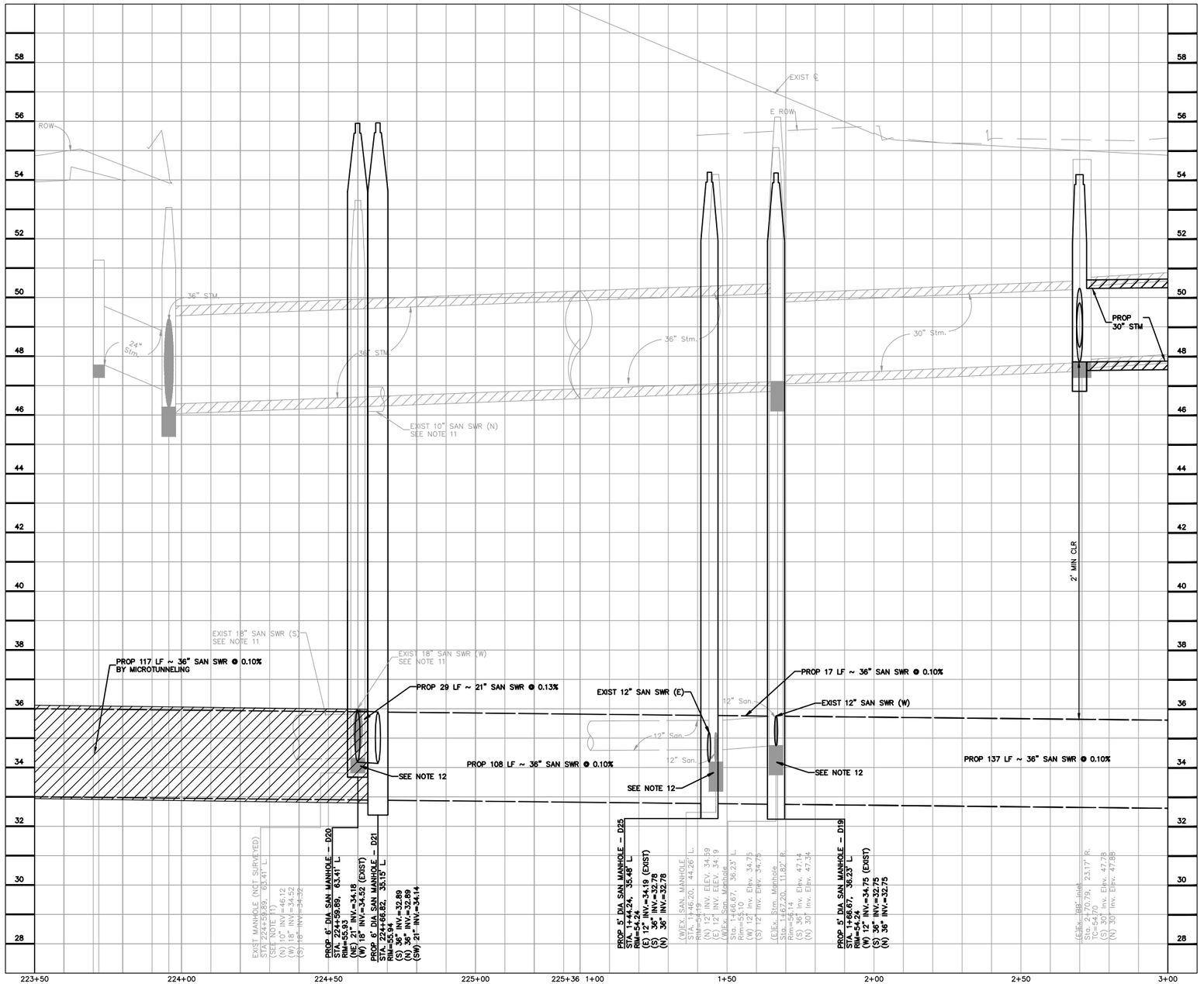
FOR CITY OF HOUSTON USE ONLY

78839

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 277-323

FOR STORM LATERAL PROFILES, SEE SHEETS 324-364

SEE PREVIOUS SHEET FOR PLAN VIEW



K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Durham.dwg Oct 18, 2024 – 11:42am jrush06

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11. MANHOLE RIM AND INVERT ELEVATIONS NOT SURVEYED. EXISTING MANHOLE INFLUENT ELEVATIONS ARE APPROXIMATE BASED OFF RECORDS.
12. CONTRACTOR TO FIELD VERIFY ACTIVE SEWERS AND CORRESPONDING INVERT ELEVATIONS IN EXISTING MANHOLE.

0 5 10 20 40 60
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Aurora Technical Services, LLC
2121 Sage Road, Suite 150 Houston, TX 77056
Tel: (281) 453-7700
www.auroratechservices.com

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
10.18.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE
N DURHAM DR 223+50 TO 3+00 PROFILE

SHEET 10 OF 78

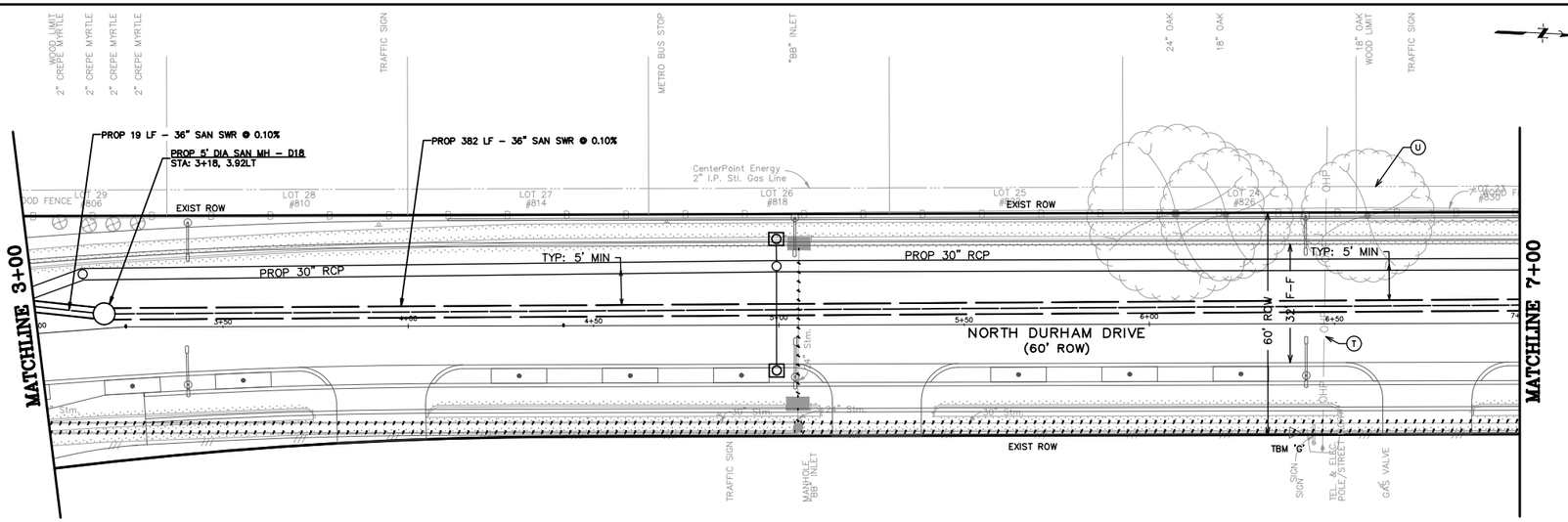
WBS NUMBER	N–100041–0001–4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 424 OF 687	

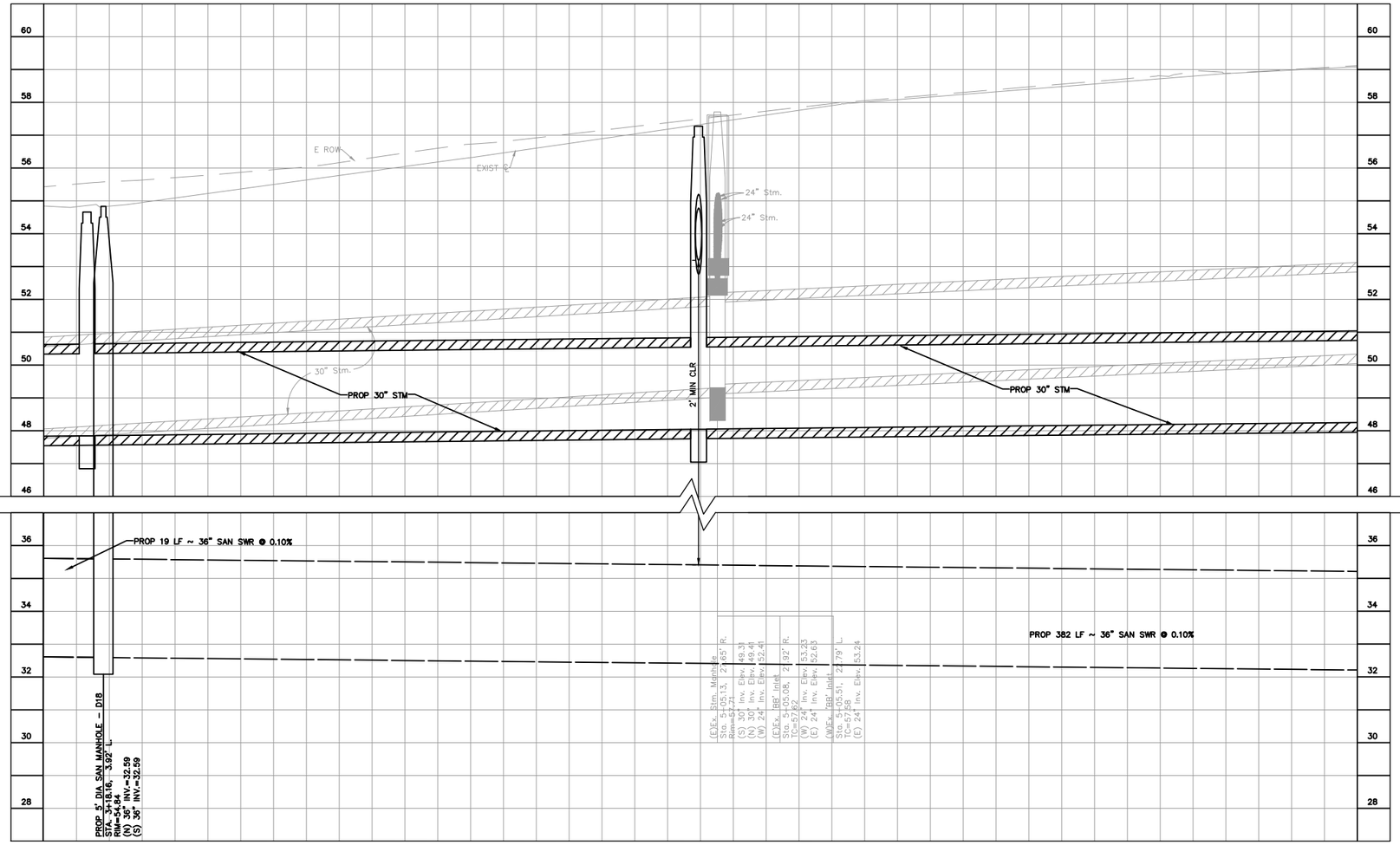
FOR CITY OF HOUSTON USE ONLY

78839

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 277–323

FOR LATERAL PROFILES, SEE SHEETS 324–364





BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'G', CP–18, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 63.76'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
2. HAND EXCAVATION IS REQUIRED FOR EXCAVATION WORK BENEATH AND WITHIN DRIP LINE AREAS OF MATURE TREES. DO NOT STORE EQUIPMENT OR MATERIALS, OR DRIVE HEAVY OR TRACK EQUIPMENT WITHIN DRIP LINE AREAS OF MATURE TREES. REFER TO SPECIFICATION SECTION 01562 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
3. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395–8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
4. CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
5. CONTRACTOR TO ADJUST EXIST VALVE BOXES/METER BOXES/VAULTS/PULLBOXES TO MATCH NEW PAVING GRADE. REPLACE MISSING OR DAMAGED BOXES AND COVERS.
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7. EXISTING WATER SERVICE LINES AND WATER METERS LESS THAN 3" ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINES FOR EXISTING METERS. SEE SHEET 487 FOR WATER SERVICE LINE AND METER DETAILS.
8. SUBMIT TO THE CITY OF HOUSTON CCTV VIDEO INSPECTIONS OF SANITARY SEWERS AND MANHOLE ACCORDING TO DOC. SPEC. NO. 02558
9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 20'

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275–321

FOR STORM LATERAL PROFILES, SEE SHEETS 322–362

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: 4/4/24

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification. Signature Valid for six months.
Date: 4/4/24

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.
V. J. Gonzalez Date: 4/2/24

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board Of Professional Engineers and Land Surveyors Reg. No. F-23290
4200 West Loop South, Suite 210 Bellaire, TX 77401 (713) 777-5377

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09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

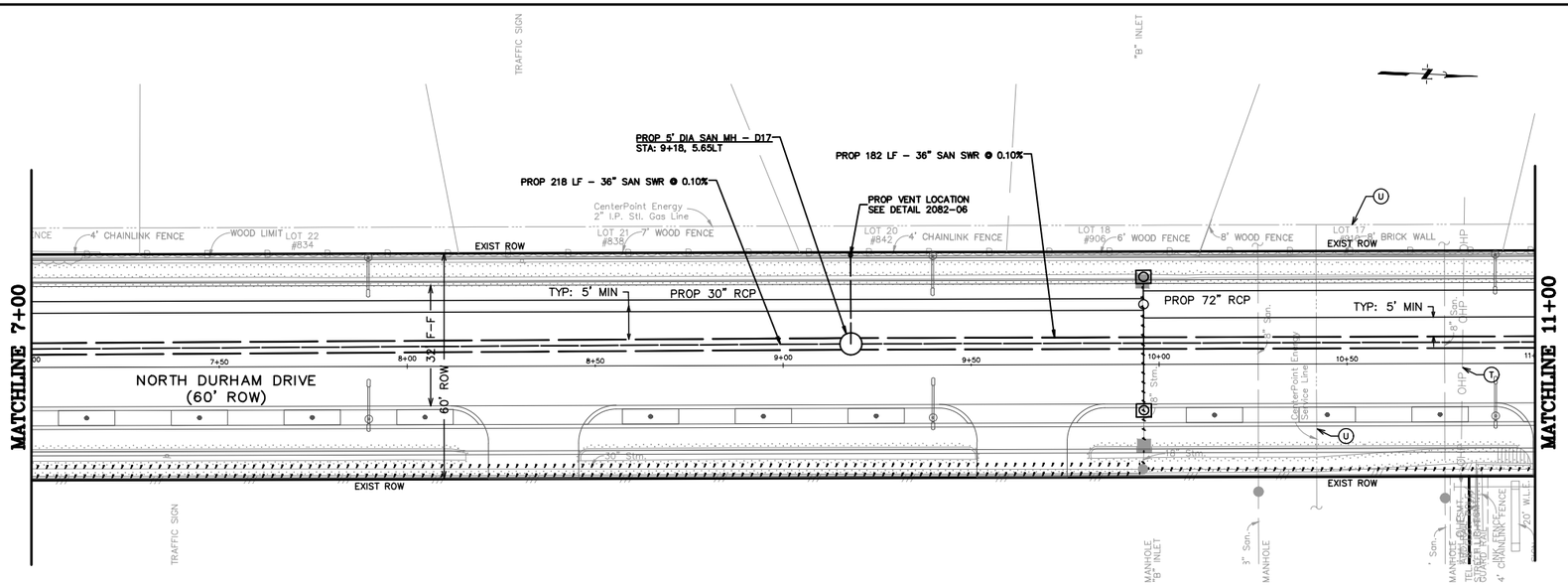
PLAN & PROFILE – WATER AND WASTEWATER

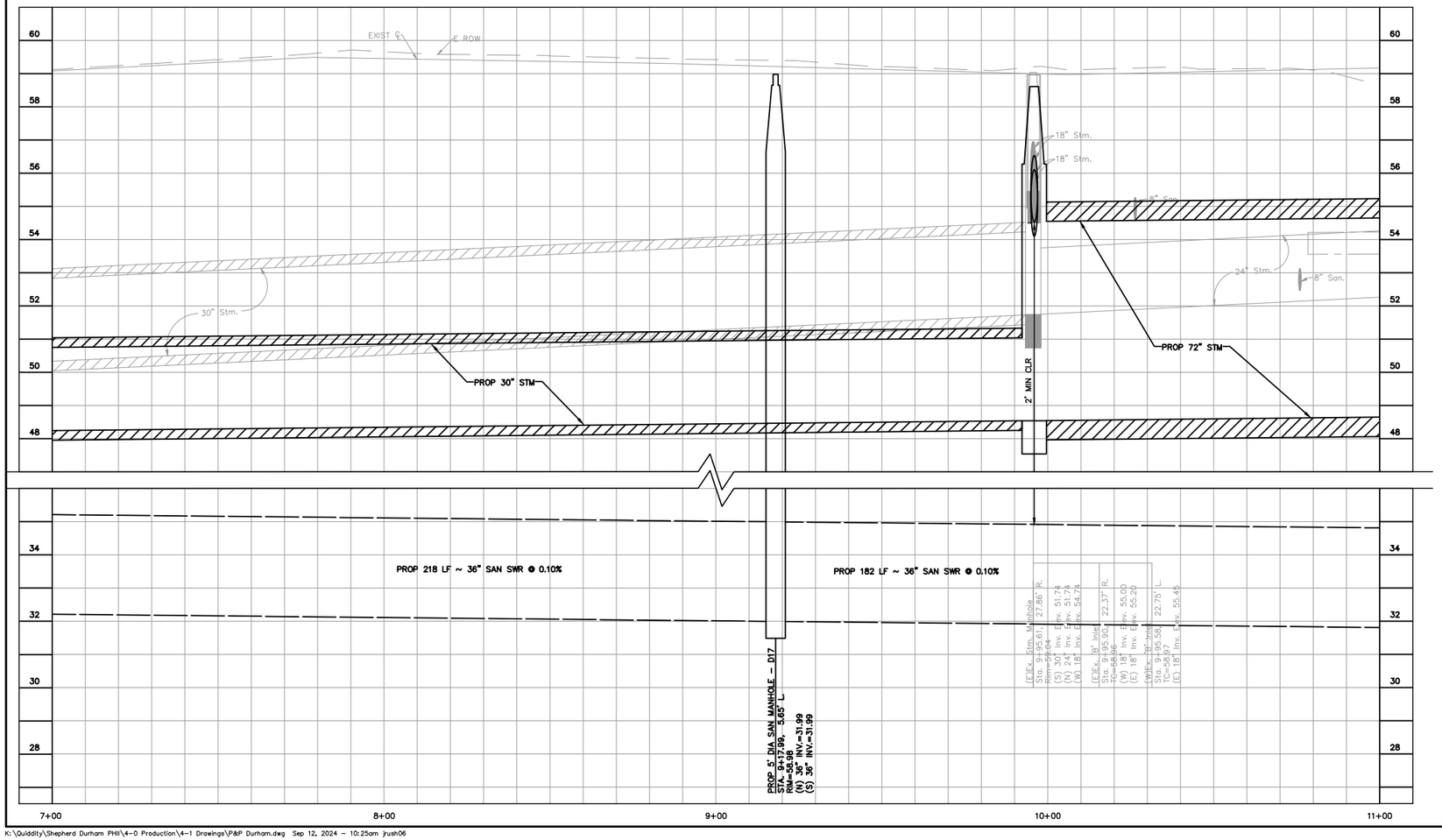
NORTH DURHAM DRIVE
N DURHAM DR 3+00 TO 7+00

SHEET 11 OF 78

WBS NUMBER	N–100041–0001–4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 426 OF 711	

FOR CITY OF HOUSTON USE ONLY
78839
CITY OF HOUSTON, TEXAS





BENCHMARK INFO

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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'J', CP-10, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 63.76'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
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0 5 10 20 40 60
SCALE: 1" = 20'

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VERIFICATION OF PRIVATE UTILITY LINES

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NO.	DATE	REVISIONS	APP.

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09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE
N DURHAM DR 7+00 TO 11+00

SHEET 12 OF 78

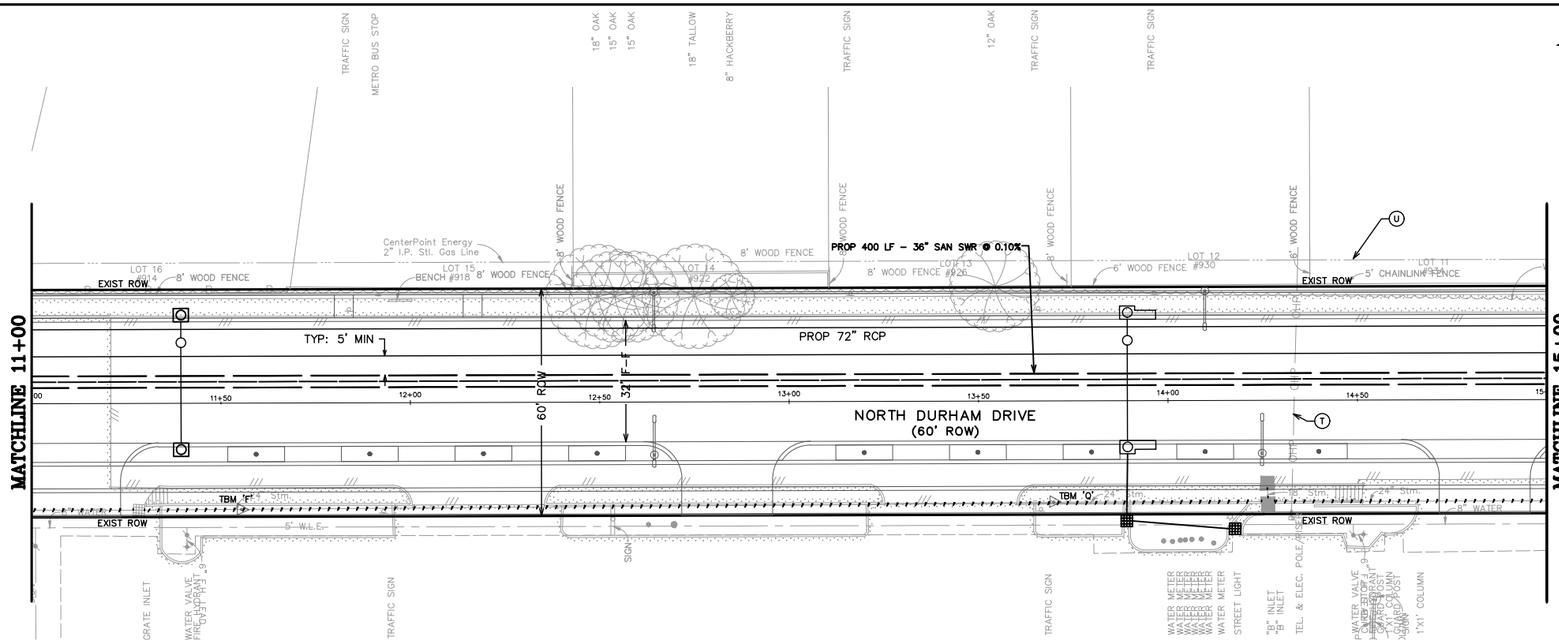
WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 427 OF 711	

FOR CITY OF HOUSTON USE ONLY
P.E. 78839 LICENSED PROFESSIONAL ENGINEER CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Durham.dwg Sep 12, 2024 - 10:25am jrush06



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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'O', CP-80, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 59.30'

TBM 'F', CP-17, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 59.18'

GENERAL NOTES

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LEGEND

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- TRENCHLESS
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- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

0 5 10 20 40 60
SCALE: 1" = 20'

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VERIFICATION OF PRIVATE UTILITY LINES

Date: 4/4/24

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Signature Valid for six months.

Date: 4/4/24

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V. J. Gonzalez Date: 4/2/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE

N DURHAM DR 11+00 TO 15+00

SHEET 13 OF 78

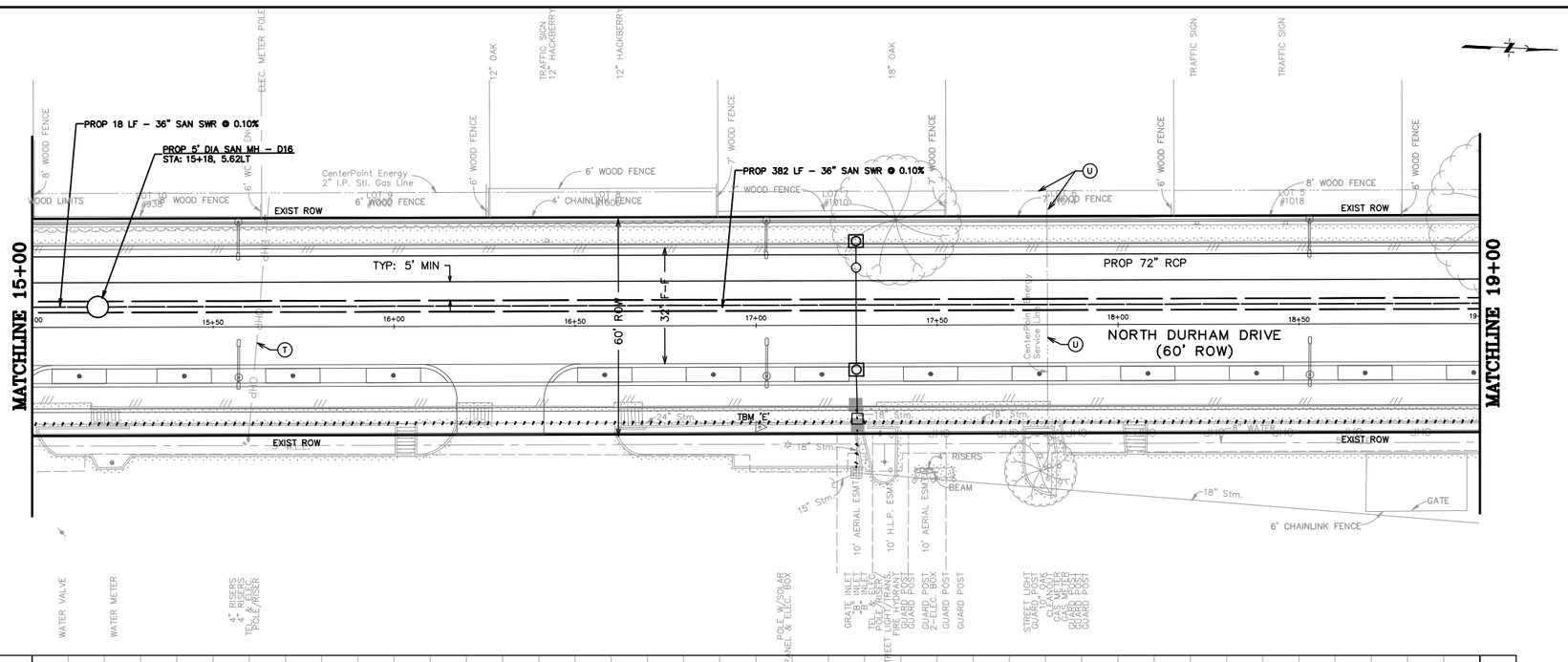
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 428 OF 711	

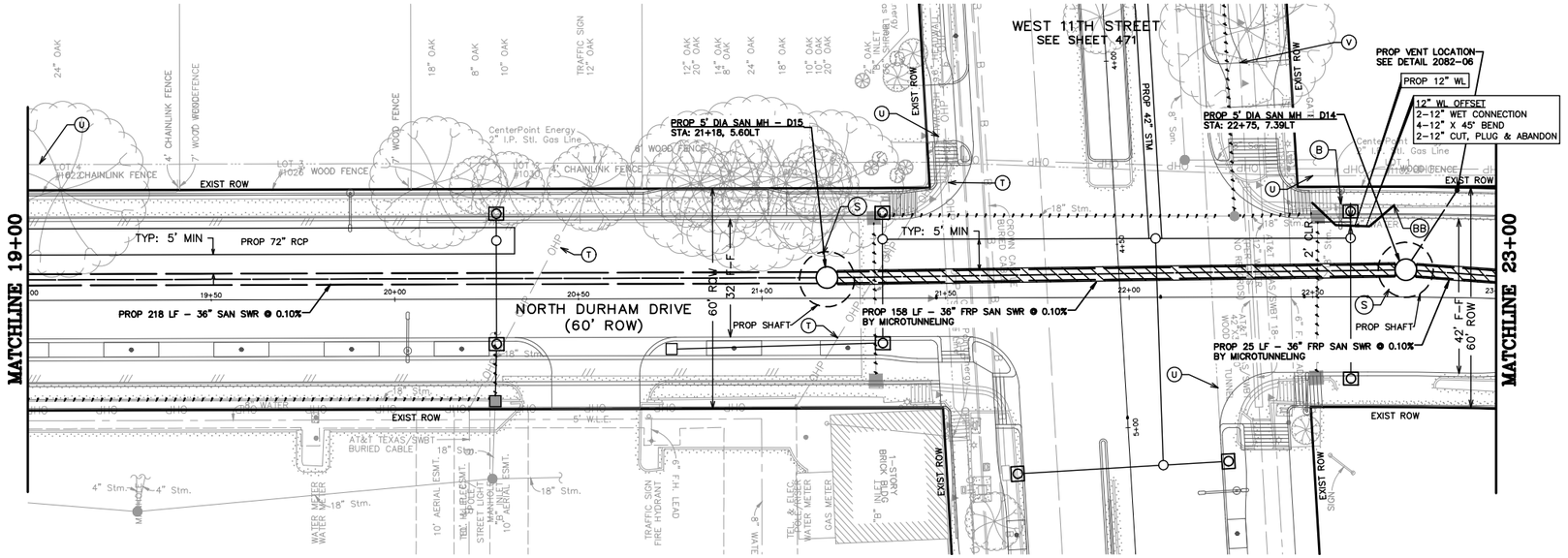
P.E. 78839 HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Durham.dwg Sep 12, 2024 - 10:27am jrush06


MATCHLINE 15+00
MATCHLINE 19+00
PROP 18 LF – 36" SAN SWR @ 0.10%
PROP 5' DIA SAN MH – D16
STA: 15+18, 5.62LT
PROP 382 LF – 36" SAN SWR @ 0.10%
PROP 72" RCP
NORTH DURHAM DRIVE
(60' ROW)
60' ROW
TYP: 5' MIN
EXIST ROW
TBM 'E'
6' CHAINLINK FENCE
GATE
WOOD LIMITS
8' WOOD FENCE
6' WOOD FENCE
7' WOOD FENCE
4' CHAINLINK FENCE
CenterPoint Energy 2" I.P. Stl. Gas Line
CenterPoint Energy Service Line Warning
12" OAK
18" OAK
12" HACKBERRY
TRAFFIC SIGN
ELEC. METER POLE
LOT 5 #938
LOT 6 #1010
LOT 5 #1018
15+50
16+00
16+50
17+00
17+50
18+00
18+50
19+00
18" Stm.
15" Stm.
10' AERIAL ESMT
10' H.L.P. ESMT
4" RISERS
BEAM
WATER VALVE
WATER METER
4" RISERS
4" RISERS
TELEPHONE POLE/RISER
POLE W/SOLAR PANEL & ELEC BOX
GRATE INLET 8' INTL
8' INLET
ELEC. BOX
POLE W/SOLAR PANEL & ELEC BOX
STREET LIGHT/TRANS.
FIRE HYDRANT
GUARD POST
2-ELEC. BOX
STREET LIGHT
GUARD POST
LEANING METER
GAS METER
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TBM INFO

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HOUSTON PUBLIC WORKS

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PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE

N DURHAM DR 19+00 TO 23+00

SHEET 15 OF 78

WBS NUMBER
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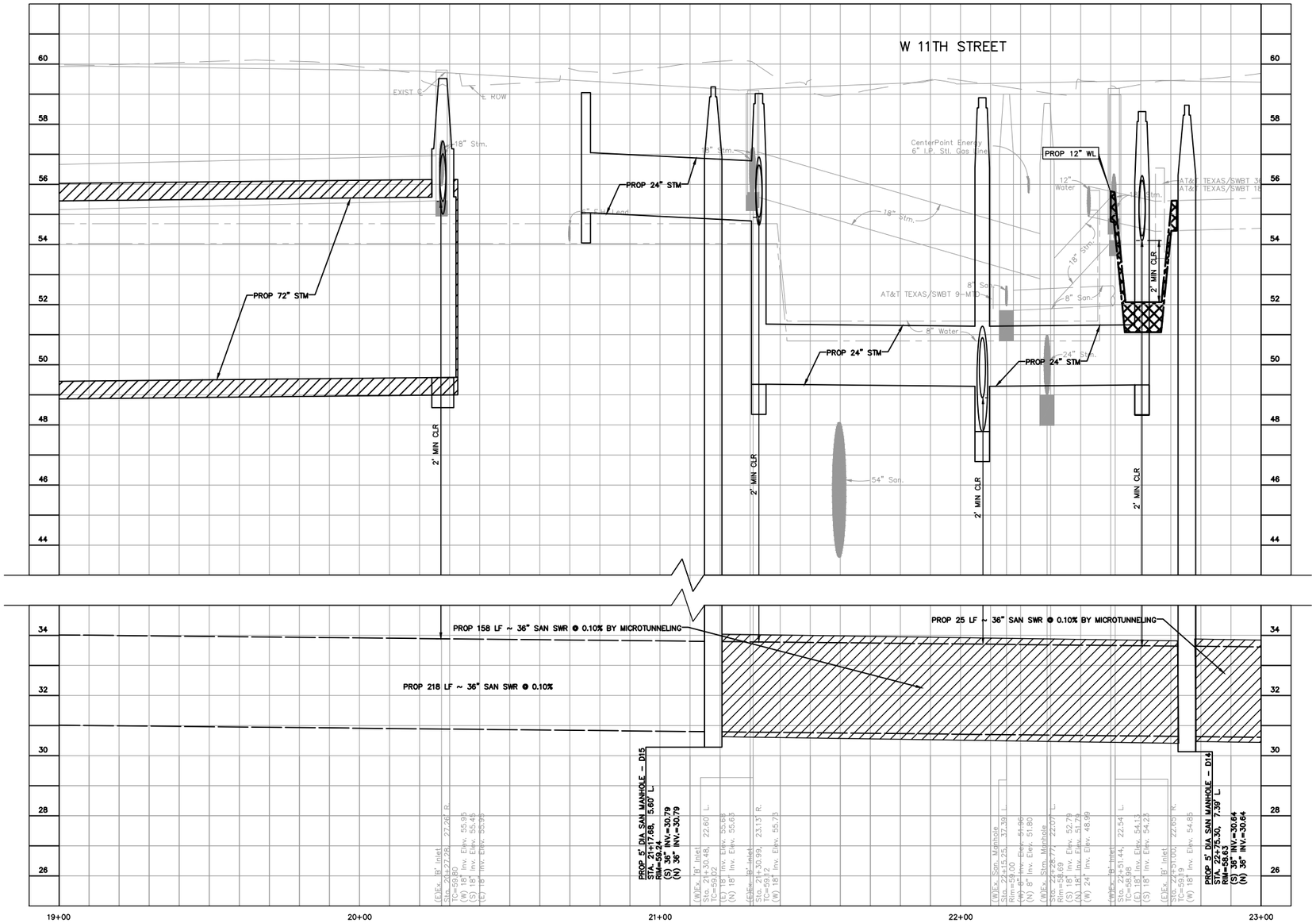
PUBLIC WORKS & ENGINEERING
78839
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K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Durham.dwg Sep 12, 2024 – 10:29am jrush06

SEE PREVIOUS SHEET FOR PLAN VIEW



K:\Quiddity\Shepherd Durham PH1\4-0 Production\4-1 Drawings\P&P Durham.dwg Sep 12, 2024 - 10:30am jrush06

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
2. HAND EXCAVATION IS REQUIRED FOR EXCAVATION WORK BENEATH AND WITHIN DRIP LINE AREAS OF MATURE TREES. DO NOT STORE EQUIPMENT OR MATERIALS, OR DRIVE HEAVY OR TRACK EQUIPMENT WITHIN DRIP LINE AREAS OF MATURE TREES. REFER TO SPECIFICATION SECTION 01562 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
3. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
4. CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
5. CONTRACTOR TO ADJUST EXIST VALVE BOXES/METER BOXES/VAULTS/PULLBOXES TO MATCH NEW PAVING GRADE. REPLACE MISSING OR DAMAGED BOXES AND COVERS.
6. MAINTAIN WATER SERVICE TO CUSTOMERS, FIRE HYDRANTS AND INTERCONNECTIONS. PROVIDE TEMPORARY CONNECTIONS AS NECESSARY TO MAINTAIN SERVICES DURING CONSTRUCTION.
7. EXISTING WATER SERVICE LINES AND WATER METERS LESS THAN 3" ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINES FOR EXISTING METERS. SEE SHEET 487 FOR WATER SERVICE LINE AND METER DETAILS.
8. SUBMIT TO THE CITY OF HOUSTON CCTV VIDEO INSPECTIONS OF SANITARY SEWERS AND MANHOLE ACCORDING TO DOC. SPEC. NO. 02558
9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 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

4/4/24
Date:

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

4/4/24
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.

V. J. Gonzalez 4/2/24
Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
10350 Ella Blvd Loop South, Suite 210 Houston, TX 77063 (713) 777-5337

Aurora Technical Services, LLC
2321 Sage Road, Suite 150 Houston, TX 77056
Tel: (281) 402-7700
www.auroratechservices.com

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS
FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

NORTH DURHAM DRIVE
N DURHAM DR 19+00 TO 23+00
PROFILE

SHEET 16 OF 78

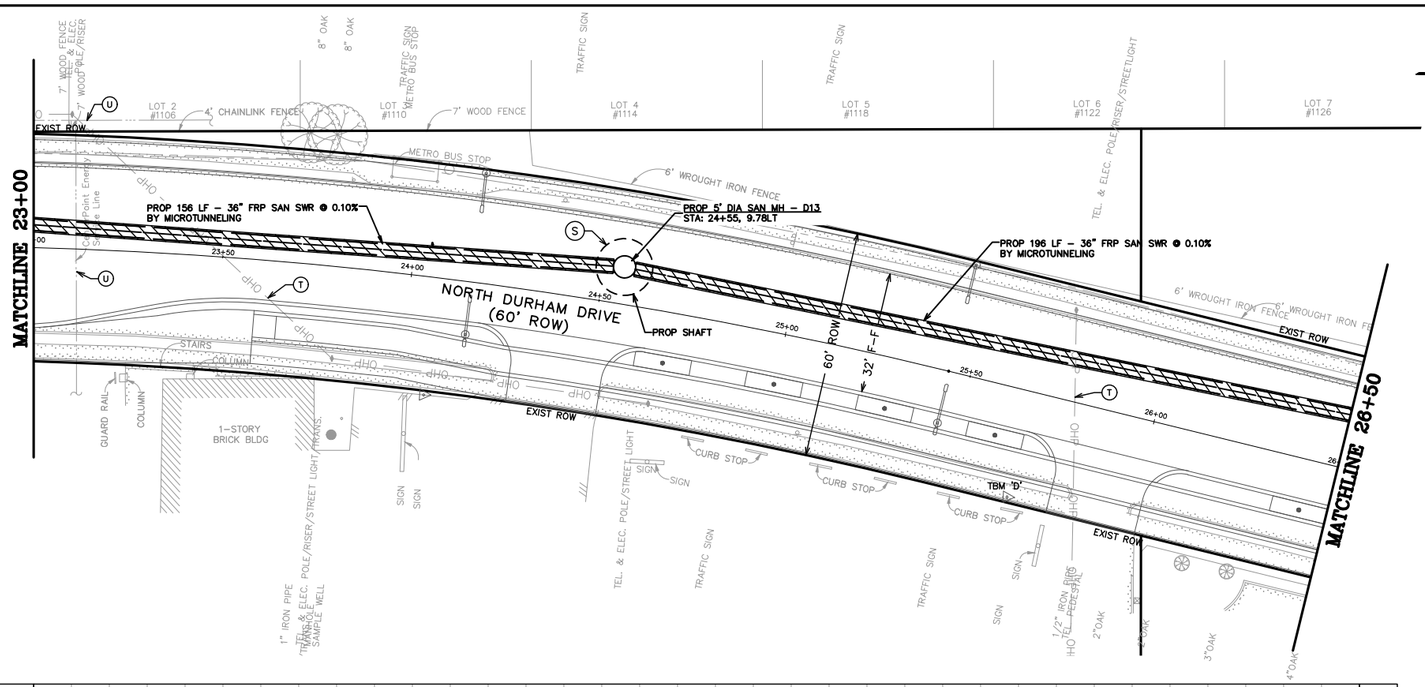
WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 431 OF 711	

FOR CITY OF HOUSTON USE ONLY

78839

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362



K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Durham.dwg Sep 12, 2024 - 10:32am jrush06

BENCHMARK INFO

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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'D', CP-14, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 60.30'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- XXX EXIST WATER AND/OR SANITARY TO BE REMOVED
- \\\ EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

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VERIFICATION OF PRIVATE UTILITY LINES

4/4/24
Date:

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

4/4/24
Date:

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V. J. Gonzalez Date: 4/2/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

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STATE OF TEXAS
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

NORTH DURHAM DRIVE

N DURHAM DR 23+00 TO 26+50

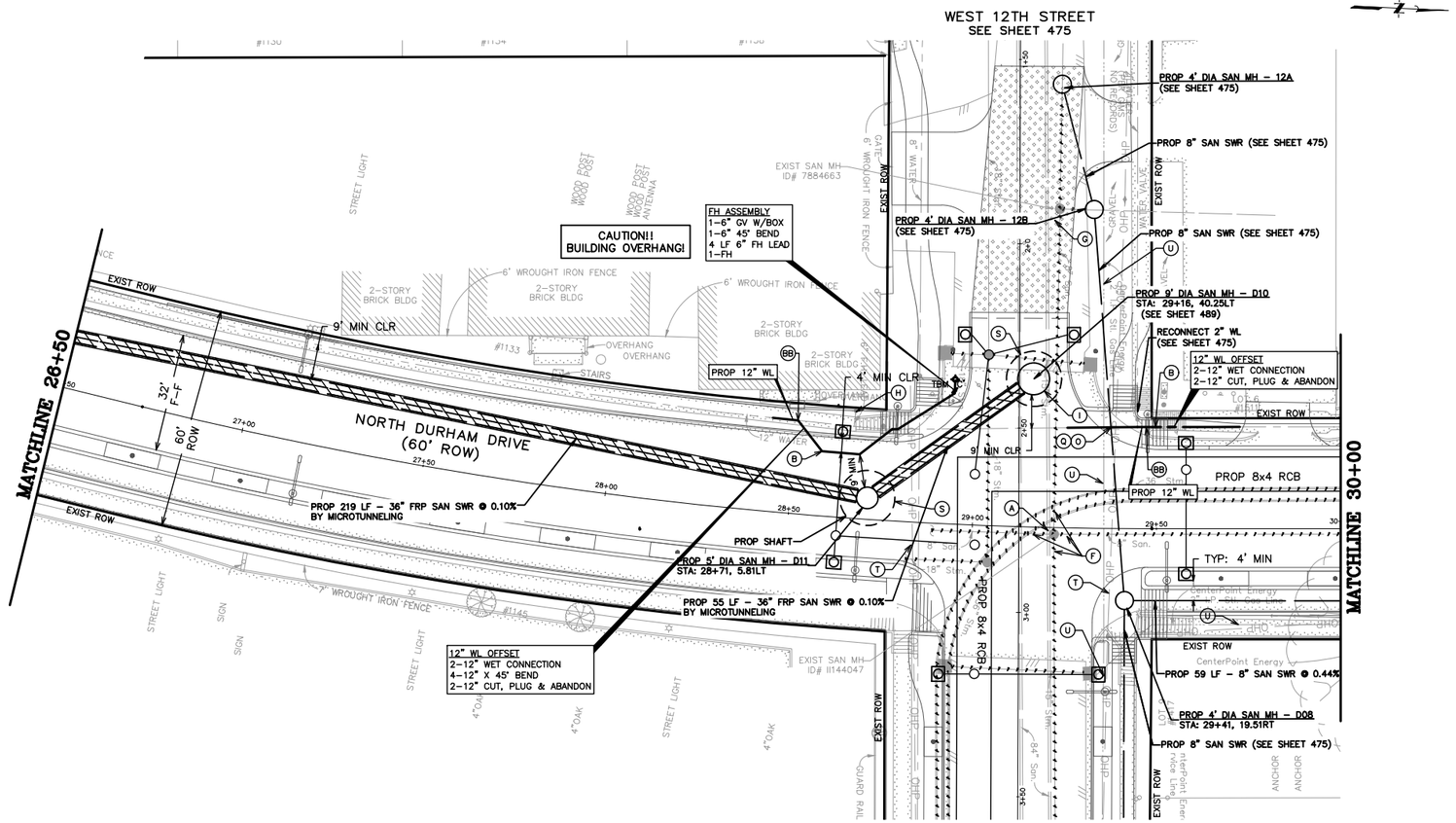
SHEET 17 OF 78

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 432 OF 711	

PUBLIC WORKS
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362



BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'C', CP-13, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 61.31'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

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0 5 10 20 40 60
SCALE: 1" = 20'

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VERIFICATION OF PRIVATE UTILITY LINES

Date: 4/4/24

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

Date: 4/4/24

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
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Signature Valid for six months.

V. Z. Gonzalez Date: 4/2/24

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY

Aurora Technical Services, LLC

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE

N DURHAM DR 26+50 TO 30+00

SHEET 18 OF 78

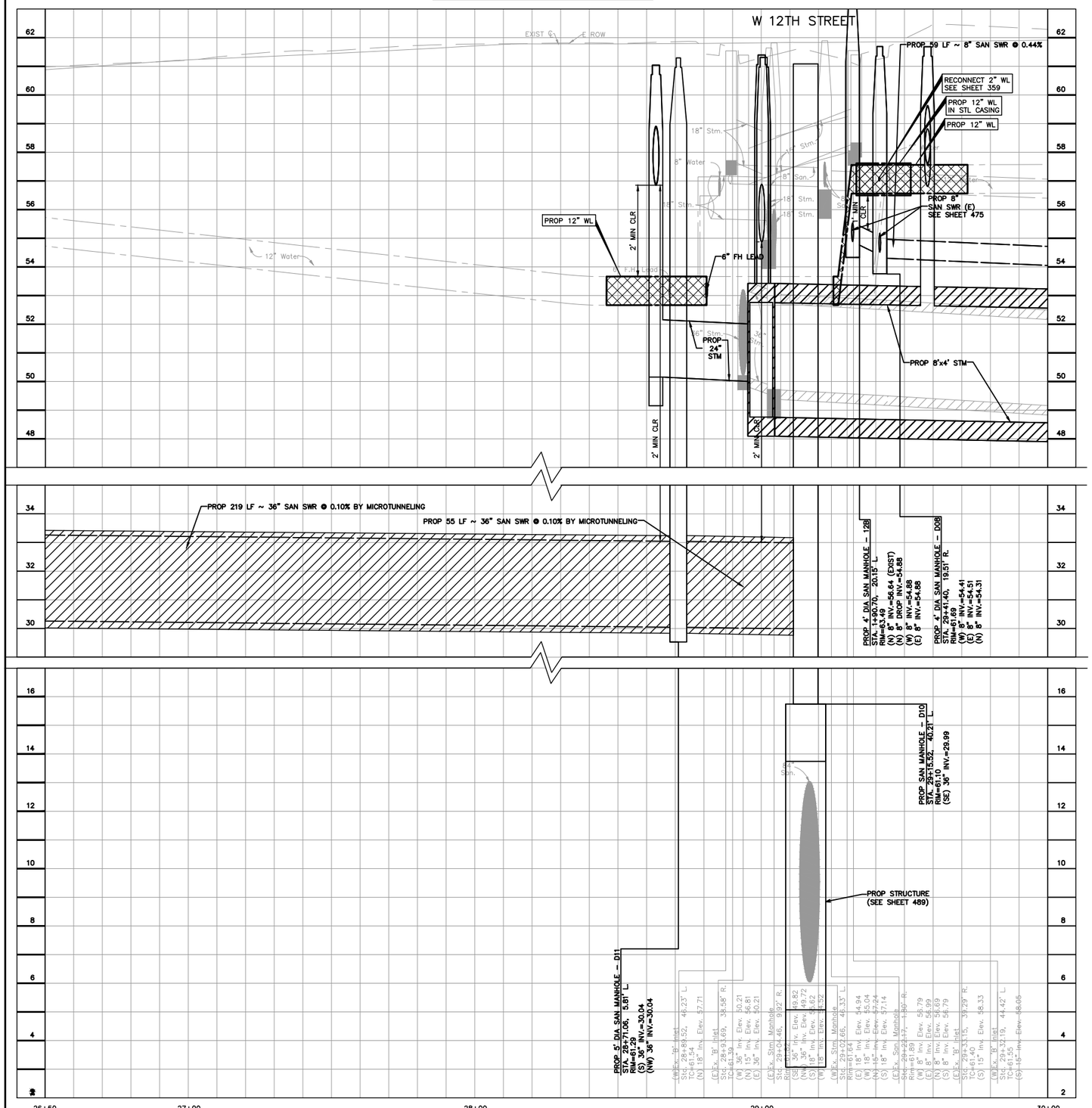
WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 433 OF 711

FOR CITY OF HOUSTON USE ONLY
78839

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

SEE PREVIOUS SHEET FOR PLAN VIEW



K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Durham.dwg Sep 12, 2024 - 10:34am jrush06

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'C', CP-13, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 61.31'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

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0 5 10 20 40 60
SCALE: 1" = 20'

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VERIFICATION OF PRIVATE UTILITY LINES

Date: 4/4/24

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

Date: 4/4/24

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
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Signature Valid for six months.

V. J. Gonzalez Date: 4/2/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
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6330 West Loop South, Suite 150 Bellaire, TX 77401 713.777.5337

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STATE OF TEXAS
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE
N DURHAM DR 26+50 TO 30+00 PROFILE

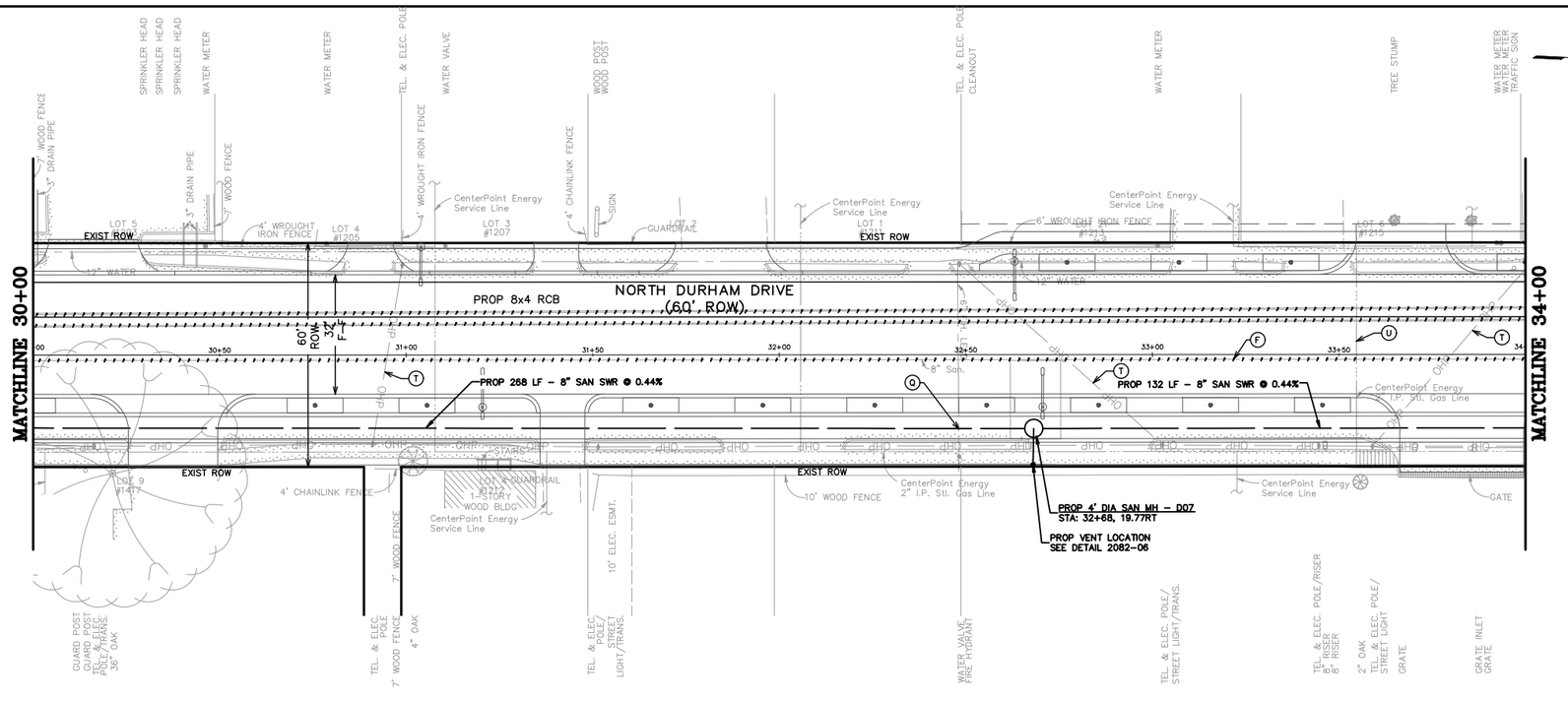
SHEET 19 OF 78

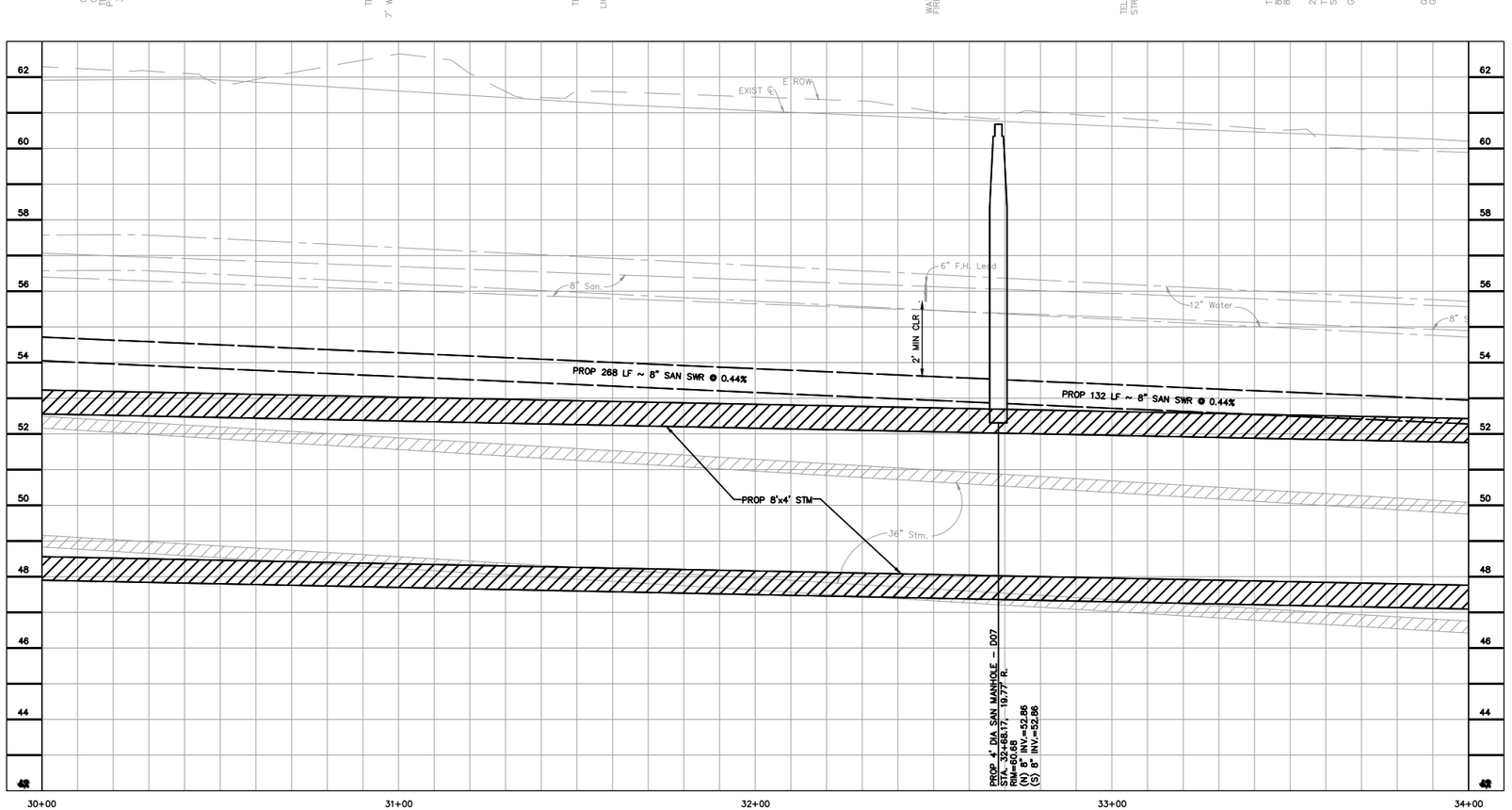
WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 434 OF 711	

FOR CITY OF HOUSTON USE ONLY
78839
REGISTERED
JOHN D.
ENGINEER
HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362





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TBM INFO

TBM 'J', CP-10, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 63.76'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
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0 5 10 20 40 60
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STATE OF TEXAS
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CITY OF HOUSTON
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SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE
N DURHAM DR 30+00 TO 34+00

SHEET 20 OF 78

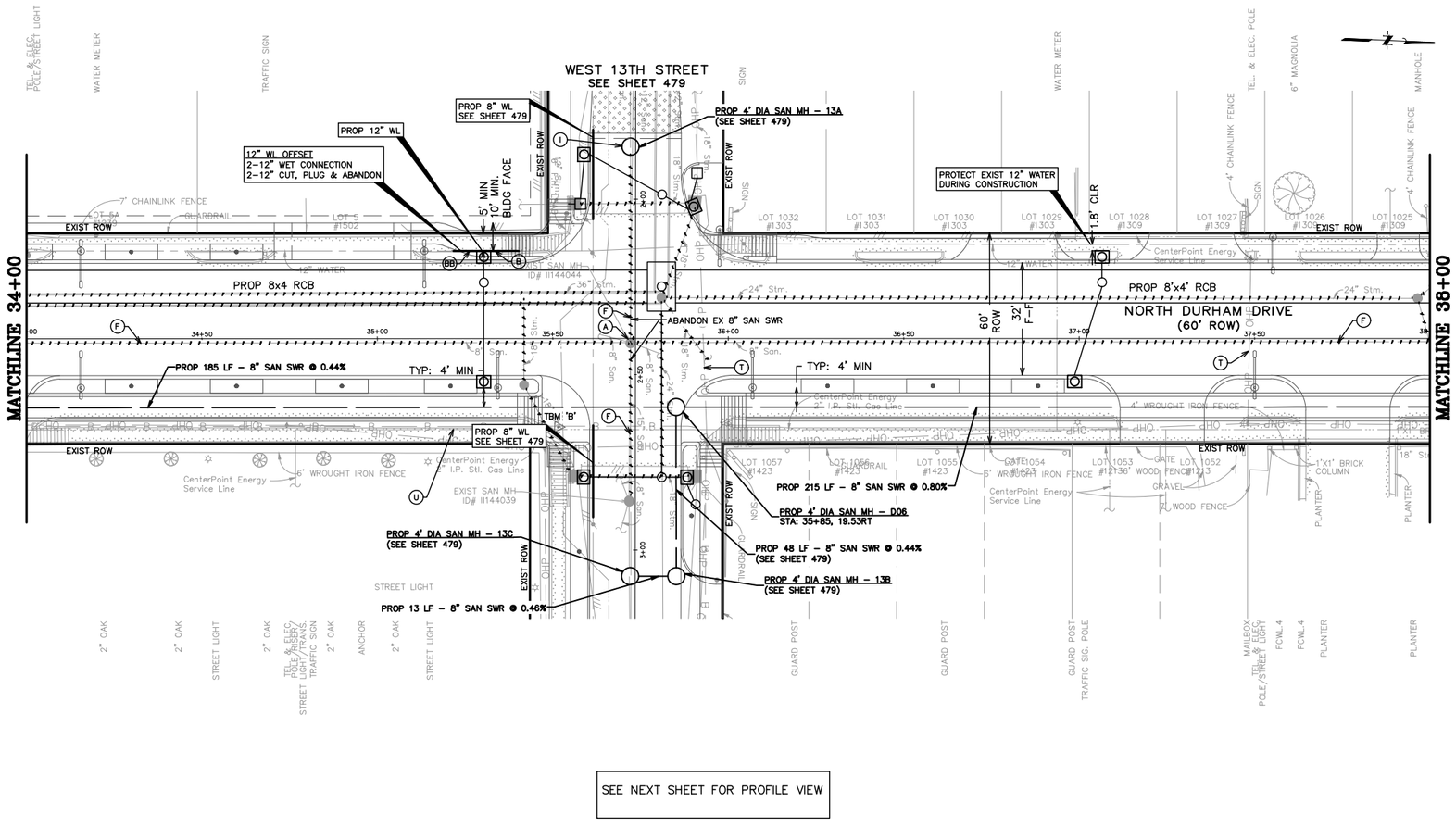
WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 435 OF 711

FOR CITY OF HOUSTON USE ONLY
78839

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Durham.dwg Sep 12, 2024 - 10:35am jrush06



SEE NEXT SHEET FOR PROFILE VIEW

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'B', CP-12, X-CUT. (SEE RECOVERY SKETCH)
ELEV= 58.80'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
2. HAND EXCAVATION IS REQUIRED FOR EXCAVATION WORK BENEATH AND WITHIN DRIP LINE AREAS OF MATURE TREES. DO NOT STORE EQUIPMENT OR MATERIALS, OR DRIVE HEAVY OR TRACK EQUIPMENT WITHIN DRIP LINE AREAS OF MATURE TREES. REFER TO SPECIFICATION SECTION 01562 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
3. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
4. CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
5. CONTRACTOR TO ADJUST EXIST VALVE BOXES/METER BOXES/VAULTS/PULLBOXES TO MATCH NEW PAVING GRADE. REPLACE MISSING OR DAMAGED BOXES AND COVERS.
6. MAINTAIN WATER SERVICE TO CUSTOMERS, FIRE HYDRANTS AND INTERCONNECTIONS. PROVIDE TEMPORARY CONNECTIONS AS NECESSARY TO MAINTAIN SERVICES DURING CONSTRUCTION.
7. EXISTING WATER SERVICE LINES AND WATER METERS LESS THAN 3" ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINES FOR EXISTING METERS. SEE SHEET 487 FOR WATER SERVICE LINE AND METER DETAILS.
8. SUBMIT TO THE CITY OF HOUSTON CCTV VIDEO INSPECTIONS OF SANITARY SEWERS AND MANHOLE ACCORDING TO DOC. SPEC. NO. 02558
9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 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: 4/4/24

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

Date: 4/4/24

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.

V. J. Gonzalez Date: 4/2/24

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
5120 West Lamar Street, Suite 150 • Bellaire, TX 77401 • 713.777.5337

Aurora Technical Services, LLC
TBPELS Firm No. 10194379

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE

N DURHAM DR 34+00 TO 38+00

SHEET 21 OF 78

WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 436 OF 711

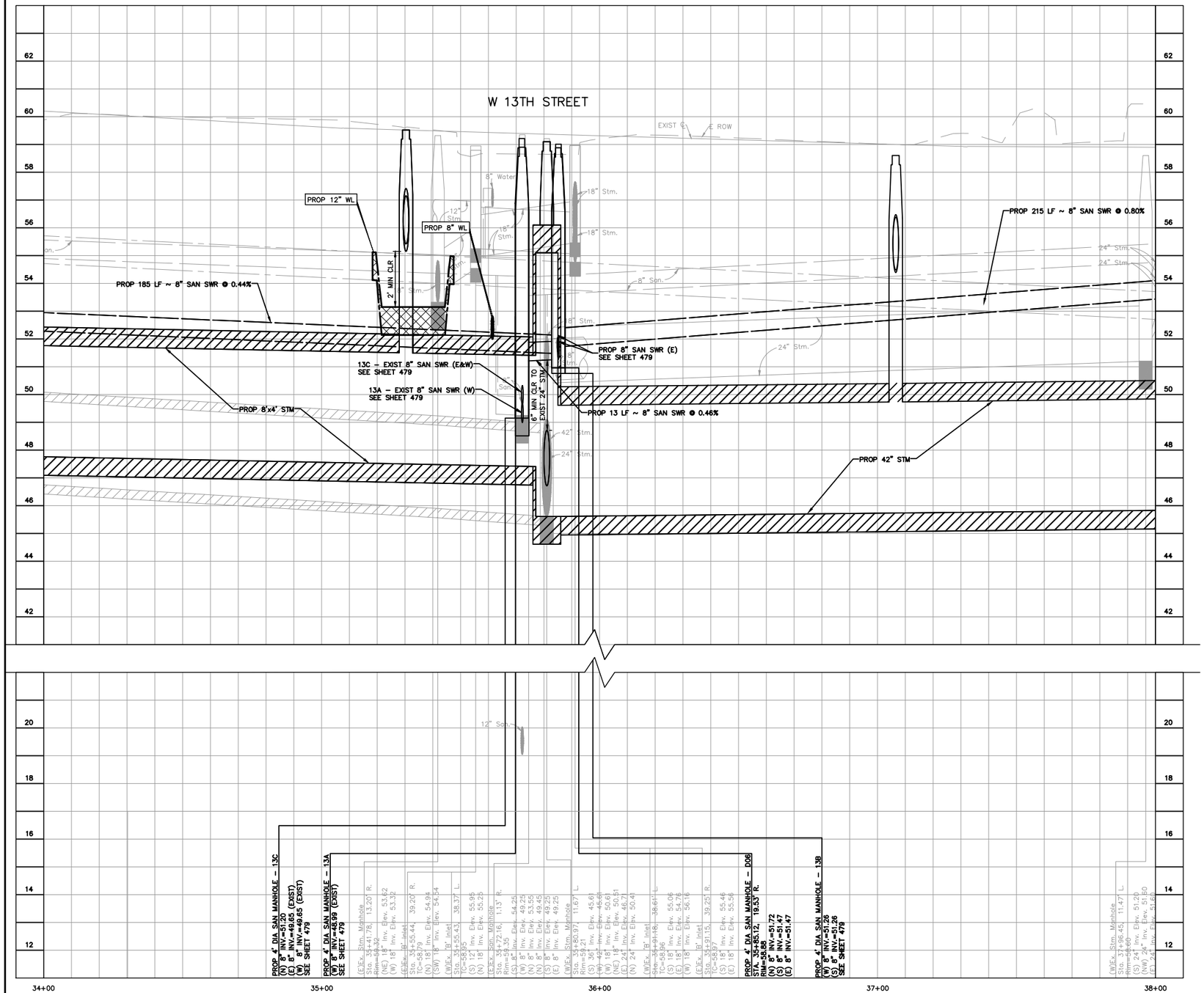
FOR CITY OF HOUSTON USE ONLY

PUBLIC WORKS AND ENGINEERING ACCEPTED AND APPROVED 78899 CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

SEE PREVIOUS SHEET FOR PLAN VIEW



BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'B', CP-12, X-CUT. (SEE RECOVERY SKETCH)
ELEV= 58.80'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

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0 5 10 20 40 60
SCALE: 1" = 20'

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VERIFICATION OF PRIVATE UTILITY LINES

Date: 4/4/24

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

Date: 4/4/24

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Signature Valid for six months.

V. J. Gonzalez Date: 4/2/24

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 210 Bellaire, TX 77401 (713) 773-5337

Aurora Technical Services, LLC
2121 Sage Road, Suite 100 Houston, TX 77056
Tel: (281) 453-1700
www.auroratechservices.com

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

NORTH DURHAM DRIVE
N DURHAM DR 34+00 TO 38+00
PROFILE

SHEET 22 OF 78

WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 437 OF 711	

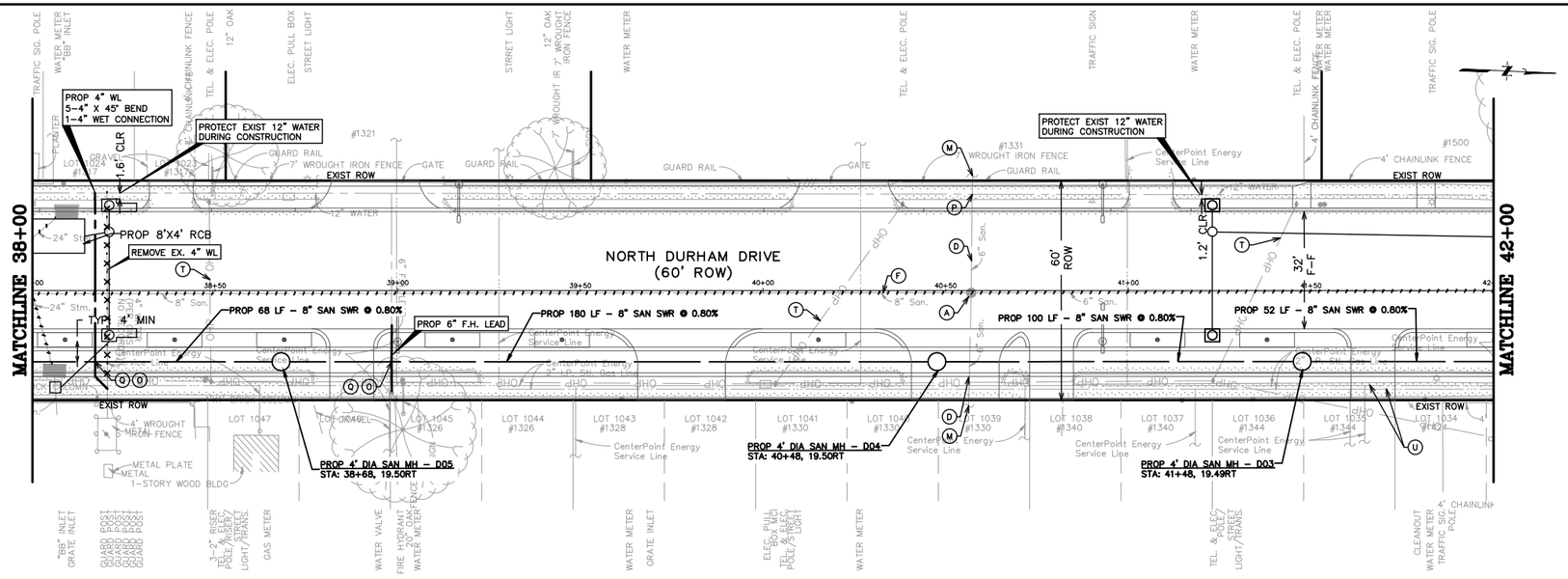
FOR CITY OF HOUSTON USE ONLY

78839
CITY OF HOUSTON
HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Durham.dwg Sep 12, 2024 - 10:37am jyush06





BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'O', CP-80, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 59.30'

TBM 'F', CP-17, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 59.18'

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
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0 5 10 20 40 60
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VERIFICATION OF PRIVATE UTILITY LINES

4/4/24
Date:

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

4/4/24
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.

V. J. Gonzalez Date: 4/2/24

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

Aurora Technical Services, LLC
2101 Sage Road, Suite 130 Houston, TX 77056
Tel: (281) 453-7700

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE

N DURHAM DR 38+00 TO 42+00

SHEET 23 OF 78

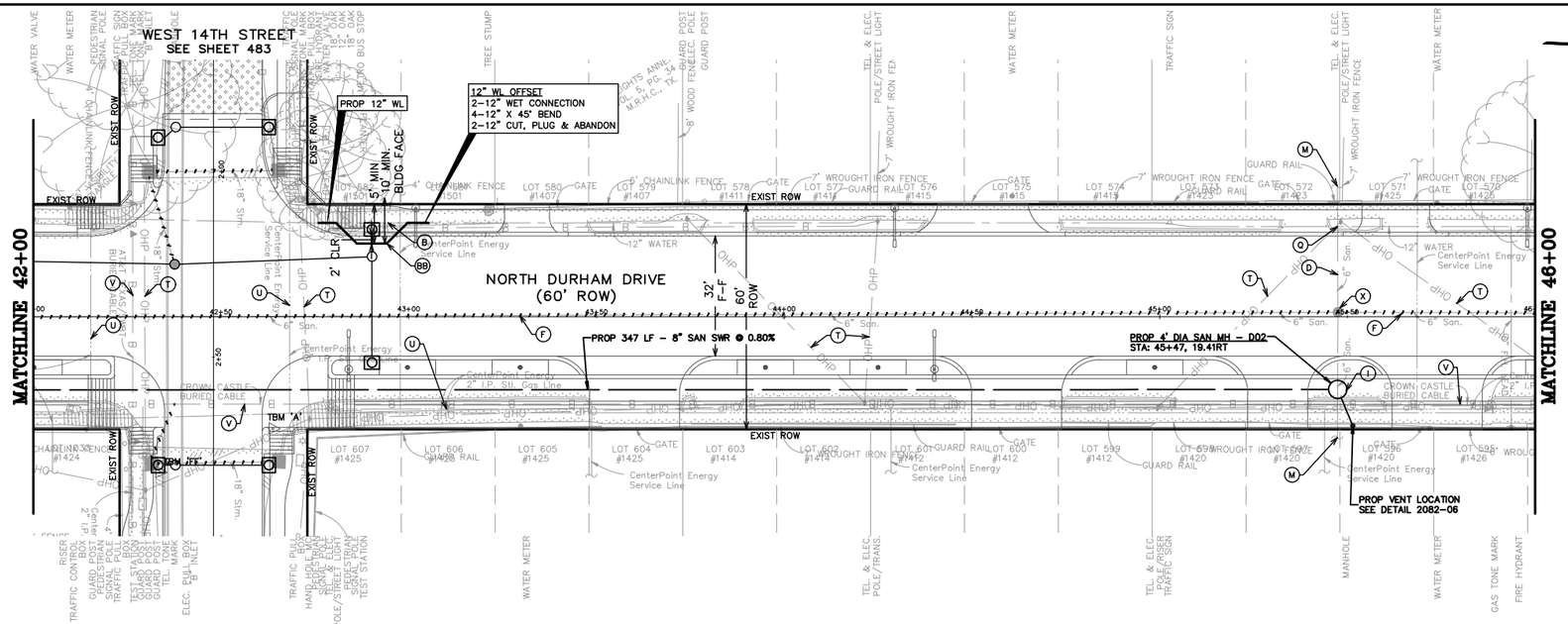
WBS NUMBER	N–100041–0001–4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO.	438 OF 711

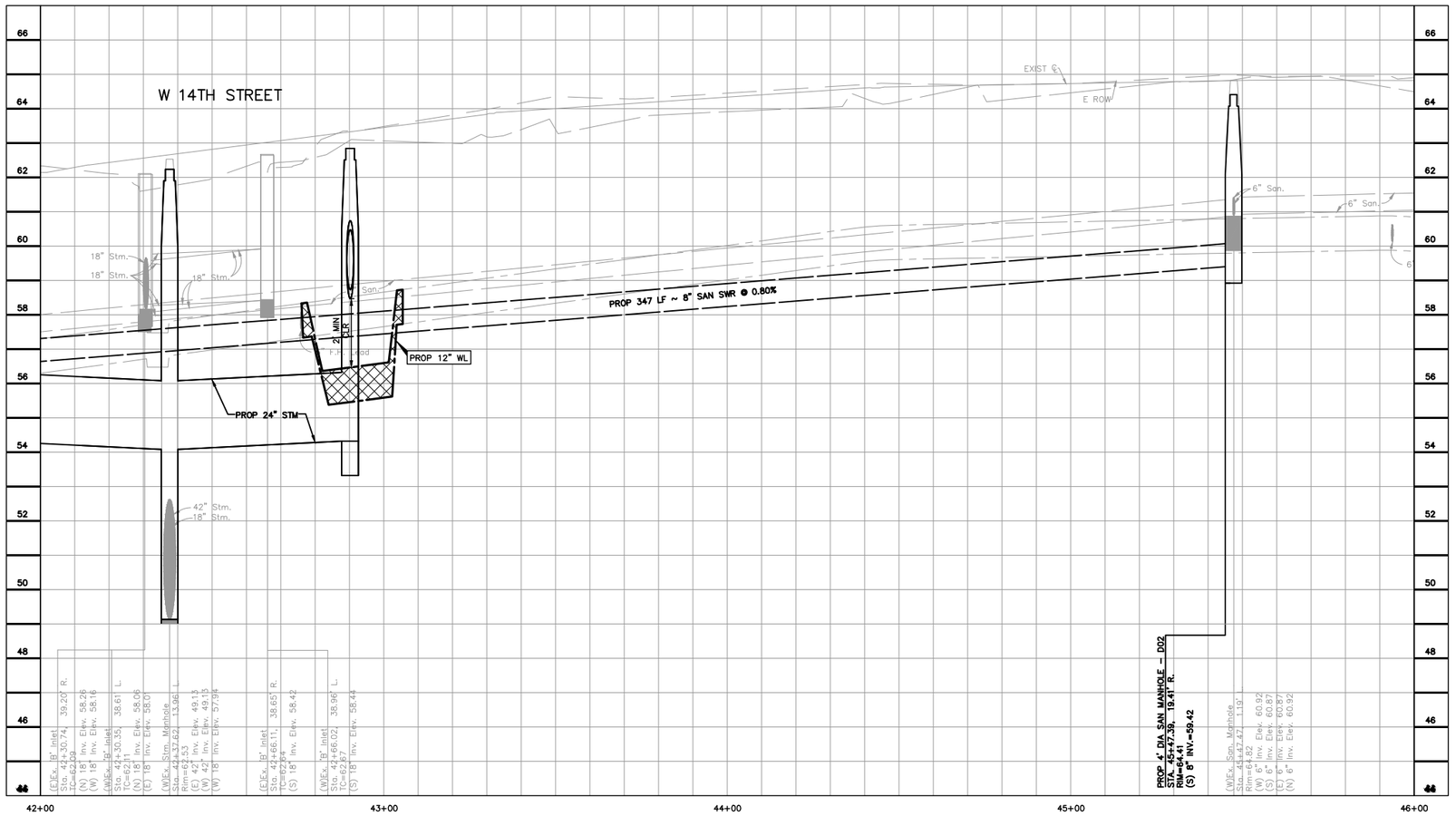
FOR CITY OF HOUSTON USE ONLY
78839

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275–321

FOR STORM LATERAL PROFILES, SEE SHEETS 322–362

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Durham.dwg Sep 12, 2024 – 10:38am jrush06





BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'A', CP-11, X-CUT. (SEE RECOVERY SKETCH)
ELEV= 62.42'

TBM 'FF', CP-178, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH)
ELEV= 61.97'

GENERAL NOTES

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LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
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SCALE: 1" = 20'

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY

Aurora Technical Services, LLC

SURVEYED BY:
UNITED ENGINEERS, INC.
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STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE

N DURHAM DR 42+00 TO 46+00

SHEET 24 OF 78

WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 439 OF 711	

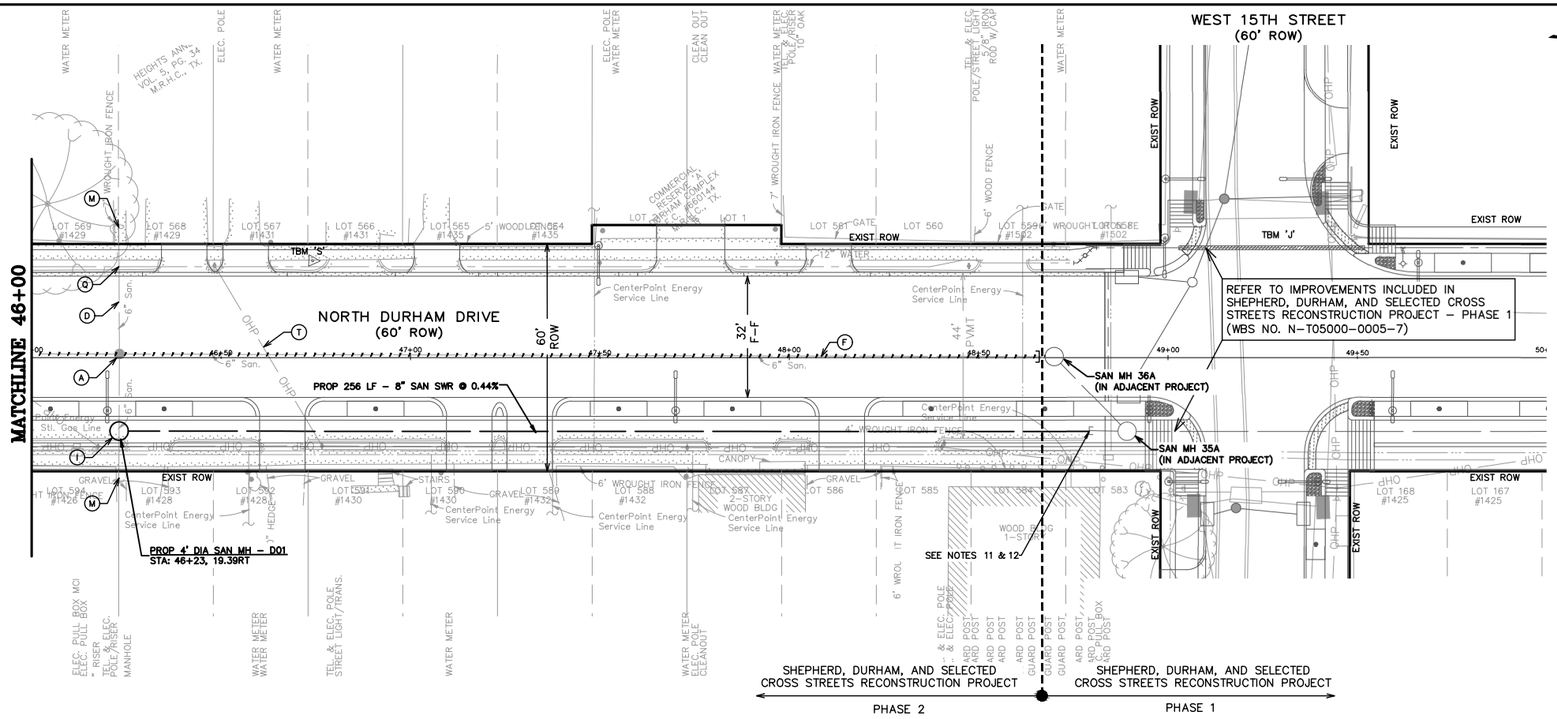
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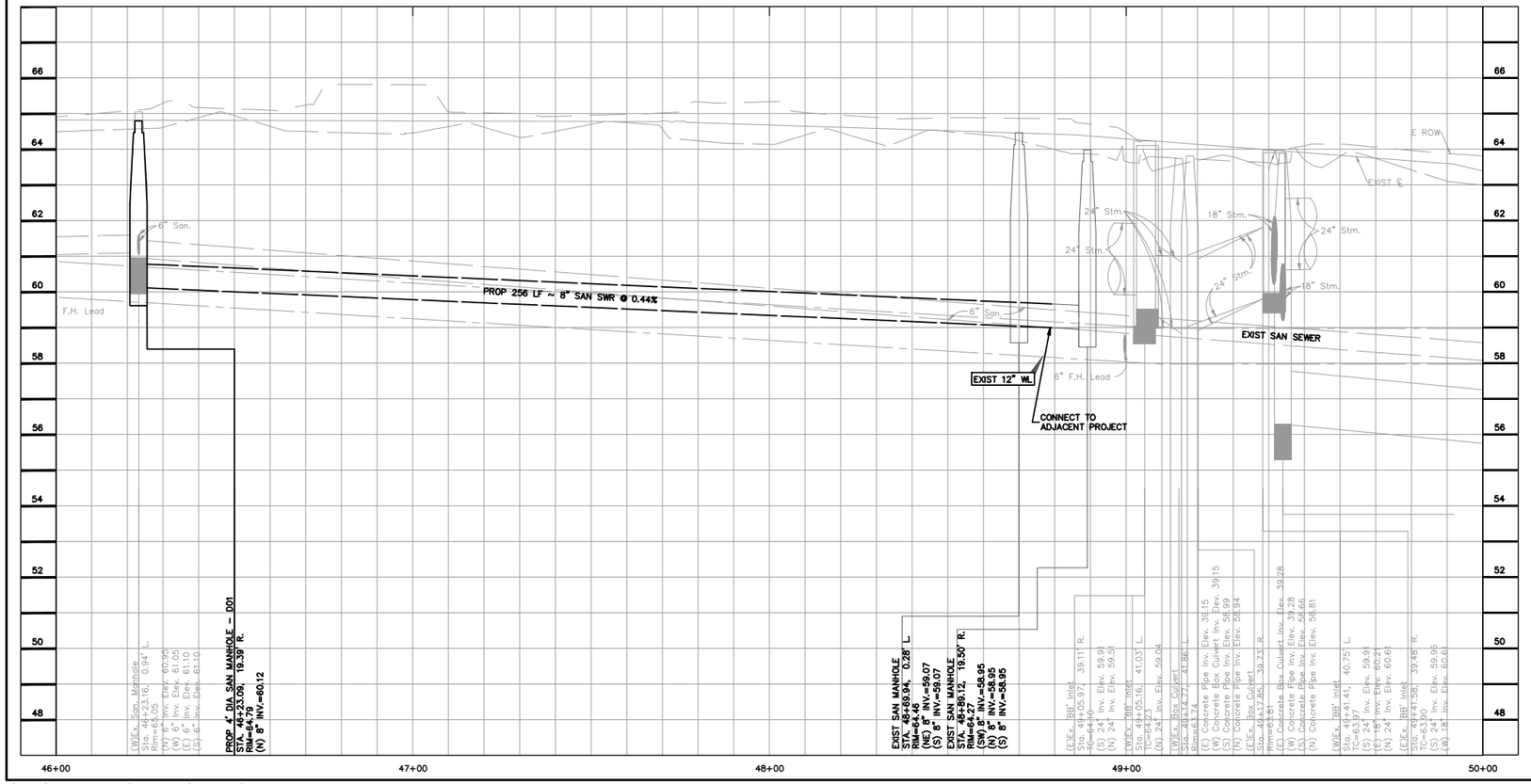
ACCEPTED
78899
CITY OF HOUSTON, TEXAS

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FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Durham.dwg Sep 12, 2024 - 10:40am jrush06





K:\Quiddity\Shepherd Durham PHII\4–0 Production\4–1 Drawings\P&P Durham.dwg Sep 12, 2024 – 10:42am jrush06

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TBM INFO

TBM 'J', CP–10, 5/8–INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 63.76'

TBM 'S', CP–90, 5/8–INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV= 65.19'

GENERAL NOTES

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9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.
11. CONNECT TO ADJACENT PROJECT: SHEPHERD, DURHAM, AND SELECTED CROSS STREETS RECONSTRUCTION PROJECT – WBS NO. T–05000–0005–7.
12. REMOVE 8–INCH PLUG AND CONNECT TO 8" STUB PIPE. VERIFY INVERT ELEVATION OF 8" STUB PIPE

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

0 5 10 20 40 60
SCALE: 1" = 20'

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275–321

FOR STORM LATERAL PROFILES, SEE SHEETS 322–362

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: 4/4/24

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.
Signature Valid for six months.
Date: 4/4/24

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
(This signature verifies existing underground facilities – not to be used for conflict verification.)
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V. J. Gonzalez Date: 4/2/24

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Aurora Technical Services, LLC

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P–6288

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

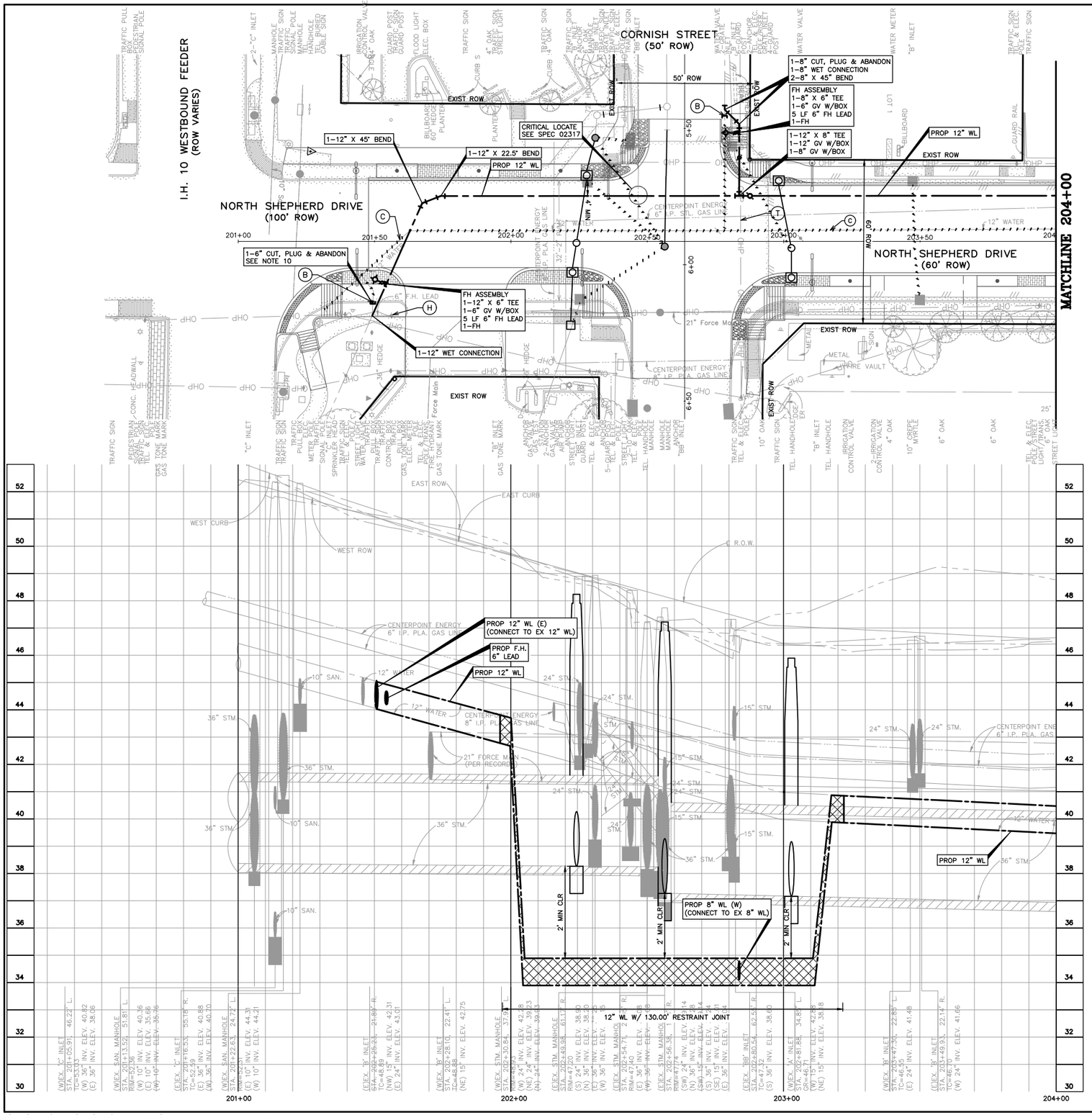
PLAN & PROFILE – WATER AND WASTEWATER

NORTH DURHAM DRIVE
N DURHAM DR 46+00 TO END

SHEET 25 OF 78

WBS NUMBER	N–100041–0001–4
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 440 OF 711	

FOR CITY OF HOUSTON USE ONLY
PUBLIC WORKS & ENGINEERING
78899
CITY OF HOUSTON, TEXAS



C:\Users\jrush06\AppData\Local\Temp\AcPublish_20948\P&P Shepherd Southside.dwg Sep 12, 2024 - 12:12pm jrush06

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
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TBM 'MM',CP-102, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=63.10'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

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4. CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
5. CONTRACTOR TO ADJUST EXIST VALVE BOXES/METER BOXES/VAULTS/PULLBOXES TO MATCH NEW PAVING GRADE. REPLACE MISSING OR DAMAGED BOXES AND COVERS.
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10. REMOVE EXISTING PIPING TO BE ABANDONED AS NECESSARY TO INSTALL WET CONNECTION AND NEW FH ASSEMBLY.
11. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 20'

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
5020 West Loop South, Suite 330 ■ Bellaire, TX 77401 ■ 713.777.5337

Aurora Technical Services, LLC
7322 Total Blvd., Suite 100 ■ Houston, TX 77086
Tel: (281) 453-7700 www.auroratechnical.com

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

N SHEPHERD DR
BEGIN TO 204+00

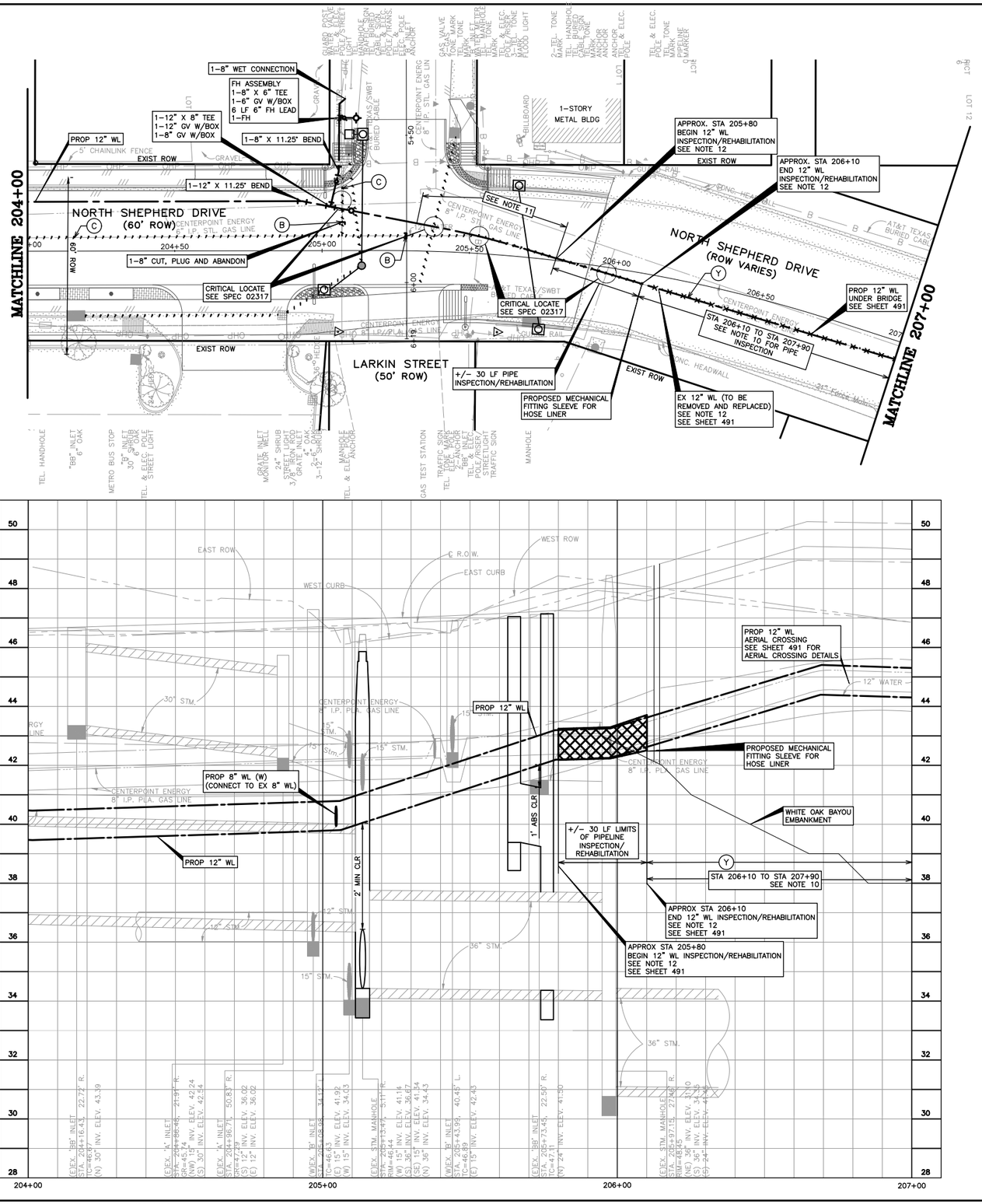
SHEET 26 OF 78

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 441 OF 711	

PUBLIC WORKS ENGINEERING REGISTERED 78899 CITY OF HOUSTON TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362



BENCHMARK INFO

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LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
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- PROPOSED SANITARY SEWER W/MANHOLE
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13. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 20'

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VERIFICATION OF PRIVATE UTILITY LINES
Date: 4/4/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
5420 West Lake Road, Suite 110 ■ Bellaire, TX 77401 ■ 713.777.5337

Aurora Technical Services, LLC
2121 Sage Road, Suite 350 Houston, TX 77056
Tel (281) 492-1700
www.auroratechnical.com

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

N SHEPHERD DR
204+00 TO 207+00

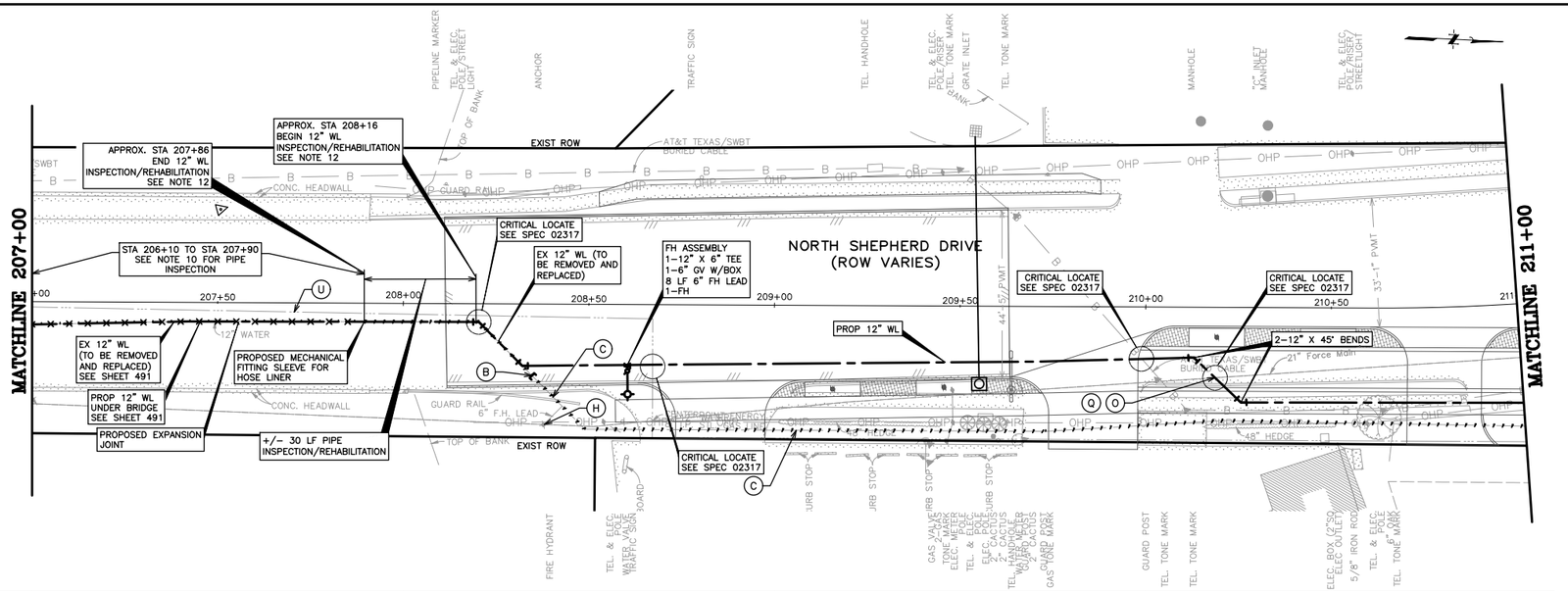
SHEET 27 OF 78

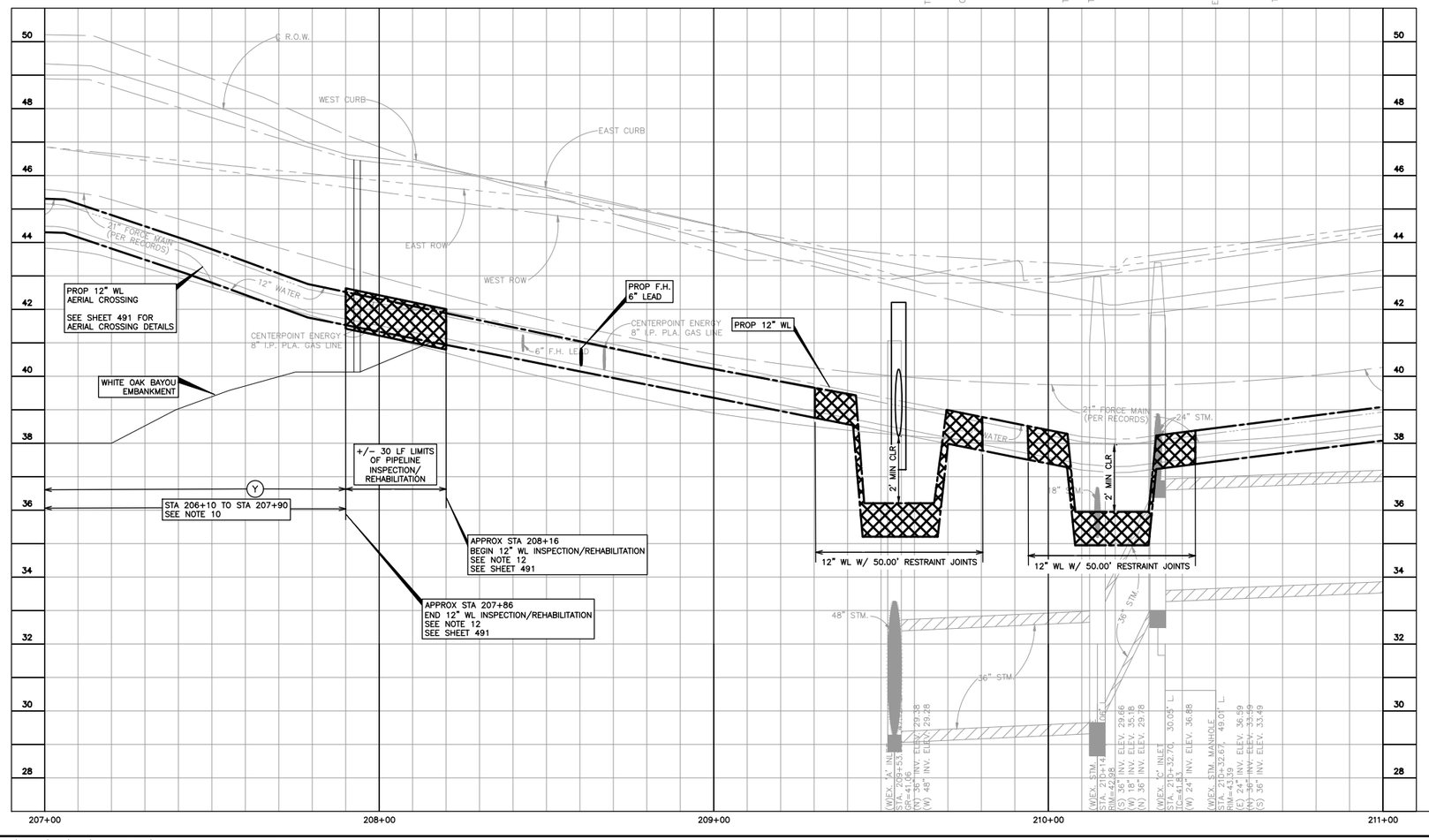
WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 442 OF 711	

FOR CITY OF HOUSTON USE ONLY
PUBLIC WORKS & ENGINEERING
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362





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BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
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LEGEND

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- TRENCHLESS
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GENERAL NOTES

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0 5 10 20 40 60
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Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
5300 West Loop South, Suite 100 • Bellaire, TX 77401 • 713.777.5337

Aurora Technical Services, LLC
TBPELS Firm Registration No. 10194102

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

N SHEPHERD DR
207+00 TO 211+00

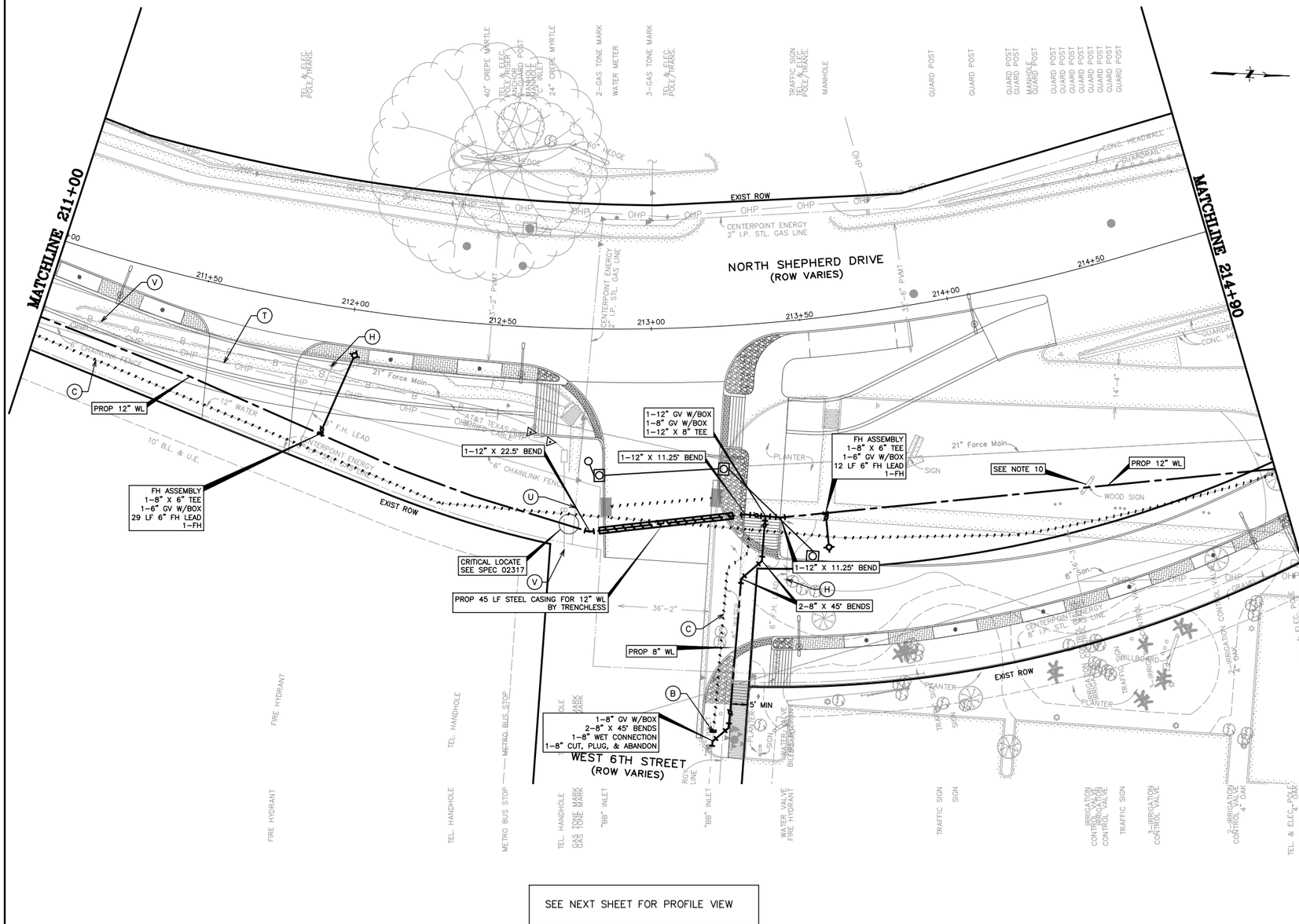
SHEET 28 OF 78

WBS NUMBER	N-100041-0001-4
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 443 OF 711	

FOR CITY OF HOUSTON USE ONLY
PUBLIC WORKS & ENGINEERING
78899
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362



SEE NEXT SHEET FOR PROFILE VIEW

BENCHMARK INFO

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10. REMOVE AND REINSTALL WOOD SIGN.
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0 5 10 20 40 60
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

N SHEPHERD DR
211+00 TO 214+90

SHEET 29 OF 78

WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 444 OF 711

FOR CITY OF HOUSTON USE ONLY

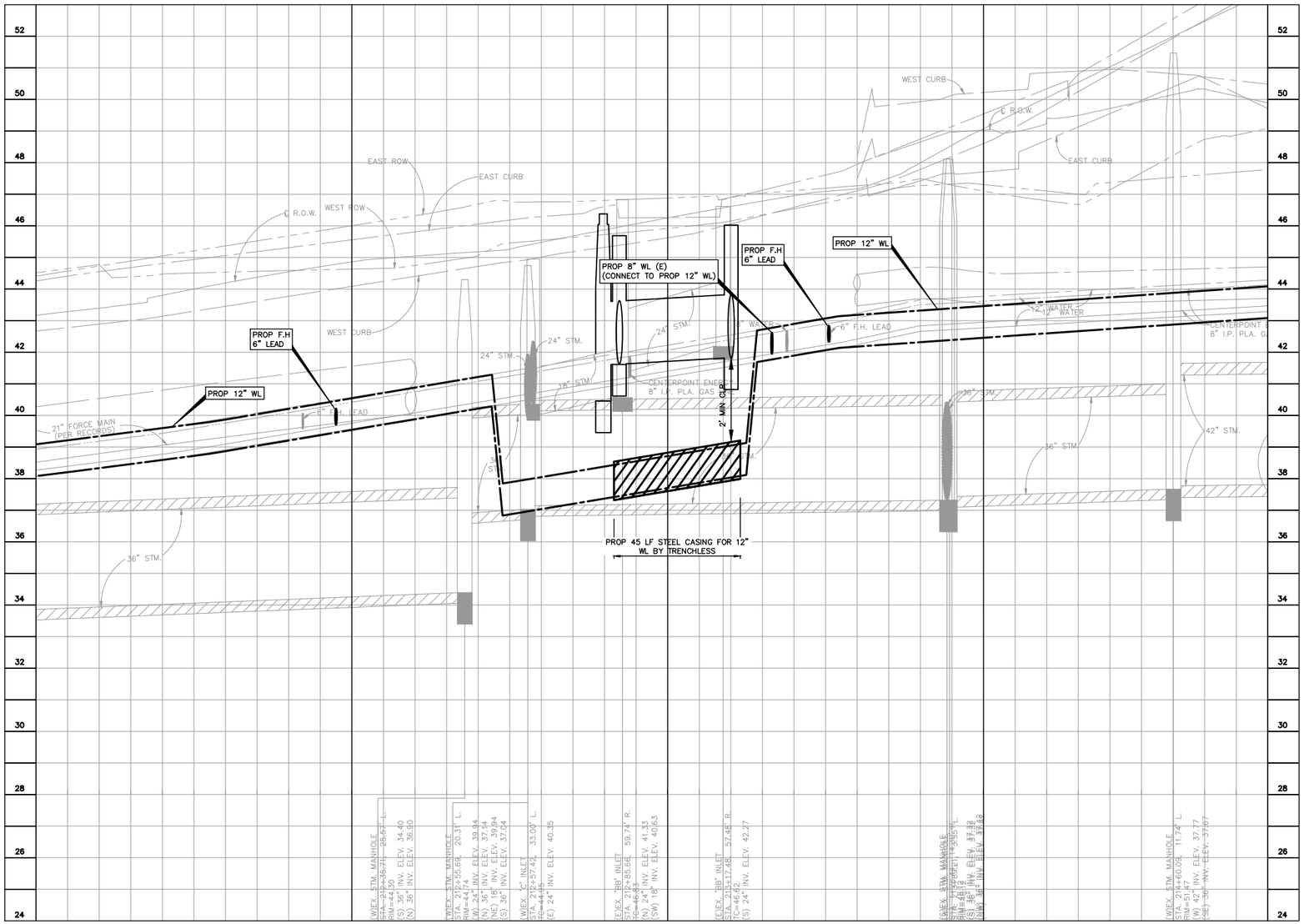
ACCEPTED
PUBLIC IMPROVEMENTS
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

C:\Users\jrush06\AppData\Local\Temp\AcPublish_20948\P&P Shepherd Southside.dwg Sep 12, 2024 - 12:16pm jrush06

SEE PREVIOUS SHEET FOR PLAN VIEW



BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'T',CP-62, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV-63.10'
TBM 'MM',CP-102, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=63.10'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- XXX EXIST WATER AND/OR SANITARY TO BE REMOVED
- \\\ EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
2. HAND EXCAVATION IS REQUIRED FOR EXCAVATION WORK BENEATH AND WITHIN DRIP LINE AREAS OF MATURE TREES. DO NOT STORE EQUIPMENT OR MATERIALS, OR DRIVE HEAVY OR TRACK EQUIPMENT WITHIN DRIP LINE AREAS OF MATURE TREES. REFER TO SPECIFICATION SECTION 01562 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
3. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
4. CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
5. CONTRACTOR TO ADJUST EXIST VALVE BOES/METER BOXES/VAULTS/PULLBOXES TO MATCH NEW PAVING GRADE. REPLACE MISSING OR DAMAGED BOXES AND COVERS.
6. MAINTAIN WATER SERVICES TO CUSTOMERS, FIRE HYDRANTS AND INTERCONNECTIONS, PROVIDE TEMPORARY CONNECTION AS NECESSARY TO MAINTAIN SERVICES DURING CONSTRUCTION.
7. CONNECTION TO PROPOSED WATERLINES OF EXISTING SERVICES LESS THAN 3" ARE NOT GRAPHICALLY SHOWN, HOWEVER SHALL BE PERFORMED BY CONTRACTOR. SEE SHEET 487 FOR WATER SERVICE LINES AND METER DETAILS.
8. SUBMIT TO THE CITY OF HOUSTON CCTV VIDEO INSPECTIONS OF SANITARY SEWERS AND MANHOLE ACCORDING TO DOC. SPEC. NO. 02558
9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
10. REMOVE AND REINSTALL WOOD SIGN.
11. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 20'

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date: 4/4/24

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

Date: 4/4/24

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
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V. J. Gonzalez Date: 4/2/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 ● Bellaire, TX 77401 ● 713.777.5337

Aurora Technical Services, LLC
2525 Kirby Road, Suite 150 Houston, TX 77005
Tel: (281) 402-7750
www.auroratechnicalservices.com

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

N SHEPHERD DR
211+00 TO 214+90
PROFILE

SHEET 30 OF 78

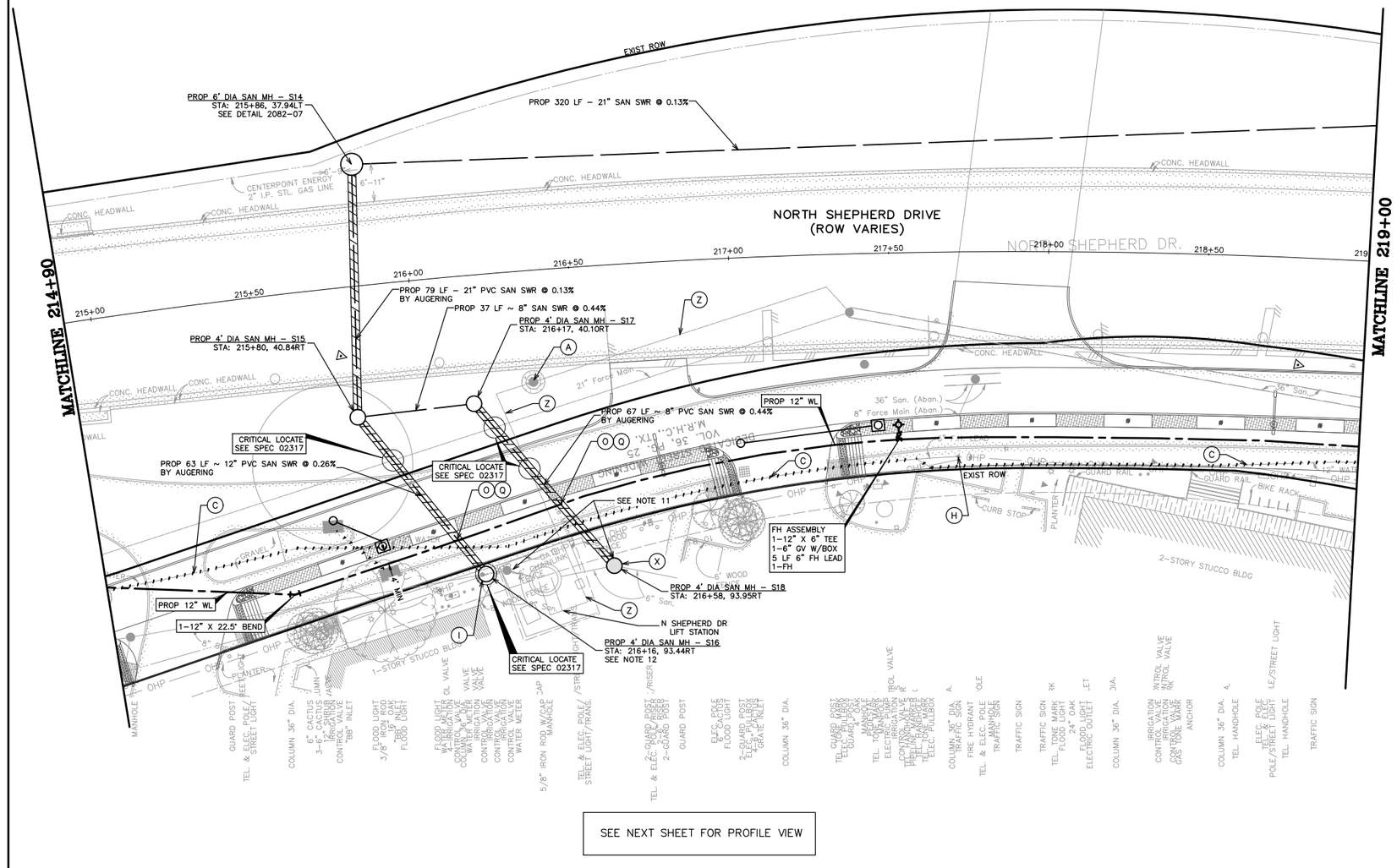
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DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
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SHEET NO. 445 OF 711	

PUBLIC WORKS ENGINEERING
78839
REGISTERED
HOUSTON, TEXAS

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FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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SEE NEXT SHEET FOR PROFILE VIEW

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- TRENCHLESS
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10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.
11. CONTRACTOR TO VERIFY ACTIVE SEWERS CONNECTED TO EXISTING MANHOLE AND CORRESPONDING INVERT ELEVATIONS PRIOR TO INSTALLING PROP MH. CONTRACTOR TO CONFIRM PROP INVERT ELEVATION OF PROP MH PRIOR TO ORDERING MATERIALS AND INSTALLATION.
12. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ADJACENT BUILDING FOUNDATION DURING CONSTRUCTION. IF CONDITIONS DICTATE USING SPECIAL SHORING TO PROTECT BUILDING DURING CONSTRUCTION, CONTRACTOR SHALL PROVIDE SPECIAL SHORING AT NO ADDITIONAL COST.

0 5 10 20 40 60
SCALE: 1" = 20'

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Texas Department of Transportation

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5100 West Lovers Lane, Suite 112 ■ Kenosha, TX 75209 ■ 713.777.5337

Aurora Technical Services, LLC
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Tel: (281) 402-7750
www.auroratechnical.com

SURVEYED BY:
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FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.18.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

N SHEPHERD DR
214+90 TO 219+00

SHEET 31 OF 78

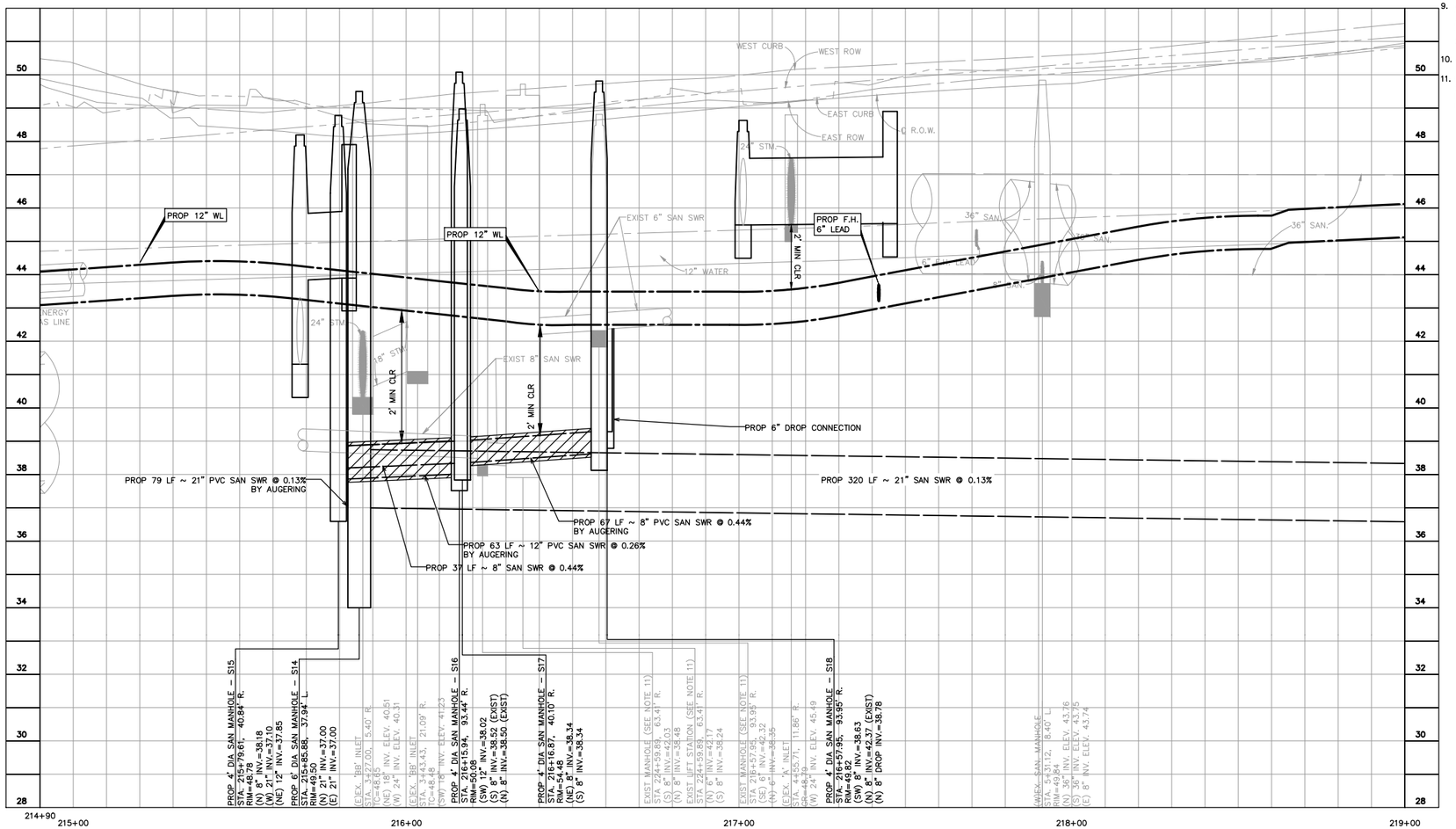
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CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 446 OF 711

FOR CITY OF HOUSTON USE ONLY
PUBLIC WORKS & ENGINEERING
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

SEE PREVIOUS SHEET FOR PLAN VIEW



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- TRENCHLESS
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11. EXISTING MANHOLE LOCATION AND RIM ELEVATION NOT SURVEYED. LOCATION AND RIM ELEVATION ARE APPROXIMATE. INVERT ELEVATIONS ARE APPROXIMATE BASED ON FIELD MEASUREMENTS FROM RIM.

0 5 10 20 40 60
SCALE: 1" = 20'

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-22290
6330 West Loop South, Suite 150 ■ Bellaire, TX 77401 ■ 713.777.5337

Aurora Technical Services, LLC
2321 Sage Road, Suite 150 Houston, TX 77056
Tel: (281) 653-7700

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED PROFESSIONAL ENGINEER
09.18.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

N SHEPHERD DR
214+90 TO 219+00
PROFILE

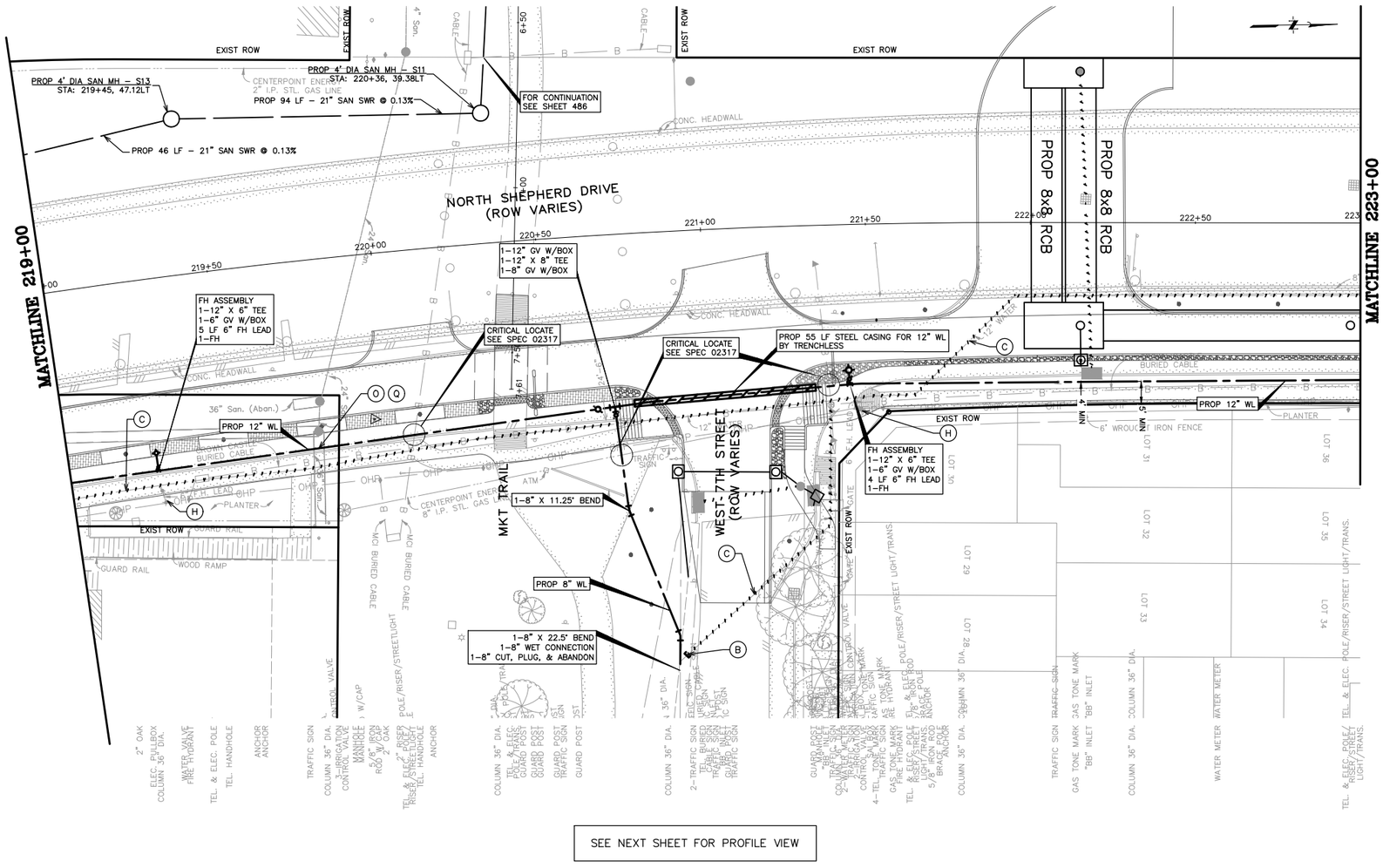
SHEET 32 OF 78

WBS NUMBER
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DRAWING SCALE
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CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 447 OF 711

FOR CITY OF HOUSTON USE ONLY

78839

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Shepherd Southside.dwg Sep 16, 2024 – 9:30am jhush06



BENCHMARK INFO

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PLAN & PROFILE – WATER AND WASTEWATER

N SHEPHERD DR
219+00 TO 223+00

SHEET 33 OF 78

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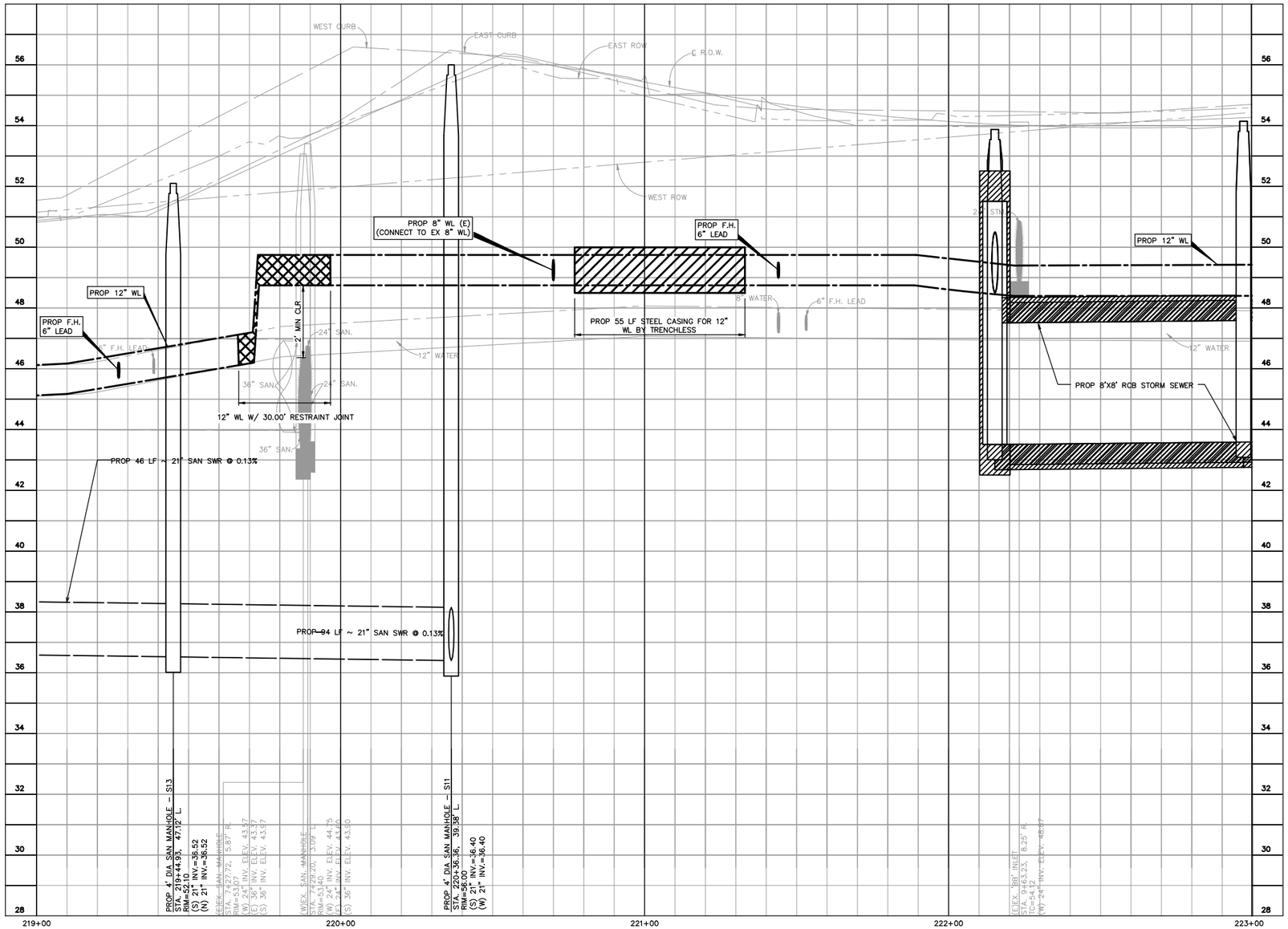
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7. EXISTING WATER SERVICE LINES AND WATER METERS LESS THAN 3" ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINES FOR EXISTING METERS. SEE SHEET 487 FOR WATER SERVICE LINES AND METER DETAILS.
8. SUBMIT TO THE CITY OF HOUSTON CCTV VIDEO INSPECTIONS OF SANITARY SEWERS AND MANHOLE ACCORDING TO DOC. SPEC. NO. 02558
9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 20'

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date: 4/4/24

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

Date: 4/4/24

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.

V. J. Gonzalez Date: 4/2/24

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 250 ■ Bellaire, TX 77401 ■ 713.777.5337

Aurora Technical Services, LLC
2101 Sage Road, Suite 150 ■ Houston, TX 77056
Tel: (281) 453-7700

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.18.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

N SHEPHERD DR
219+00 TO 223+00
PROFILE

SHEET 34 OF 78

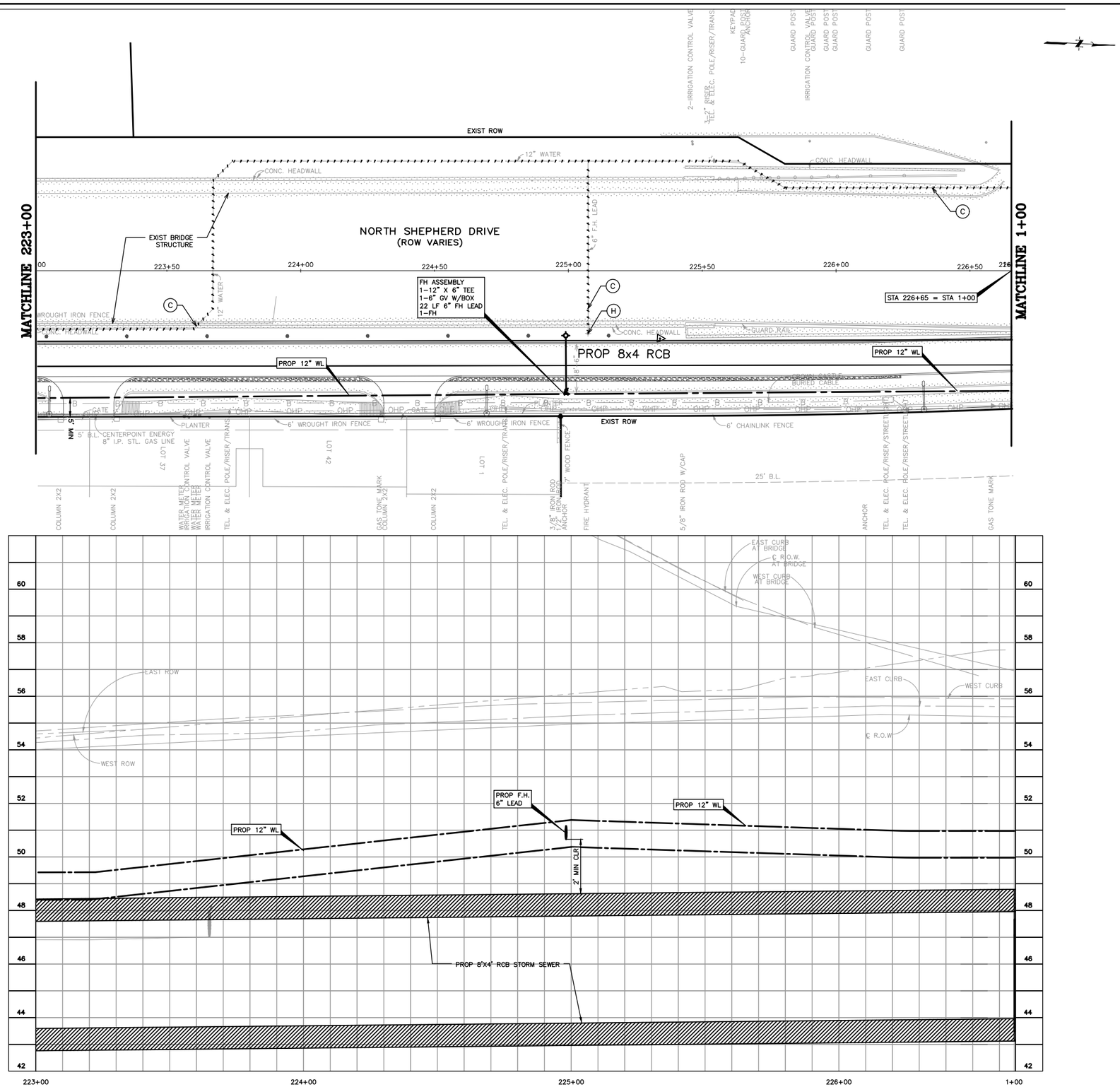
WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 449 OF 711	

FOR CITY OF HOUSTON USE ONLY

78839

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362



BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'T',CP-62, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV-63.10'
TBM 'MM',CP-102, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=63.10'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
2. HAND EXCAVATION IS REQUIRED FOR EXCAVATION WORK BENEATH AND WITHIN DIP LINE AREAS OF MATURE TREES. DO NOT STORE EQUIPMENT OR MATERIALS, OR DRIVE HEAVY OR TRACK EQUIPMENT WITHIN DRIP LINE AREAS OF MATURE TREES. REFER TO SPECIFICATION SECTION 01562 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
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0 5 10 20 40 60
SCALE: 1" = 20'

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VERIFICATION OF PRIVATE UTILITY LINES
Date: 4/4/24

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.
Signature Valid for six months.
Date: 4/4/24

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
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V. J. Gonzalez Date: 4/2/24

Approved for AT&T Texas SWBT underground conduit facilities ONLY
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Aurora Technical Services, LLC

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

N SHEPHERD DR
223+00 TO 1+00

SHEET 35 OF 78

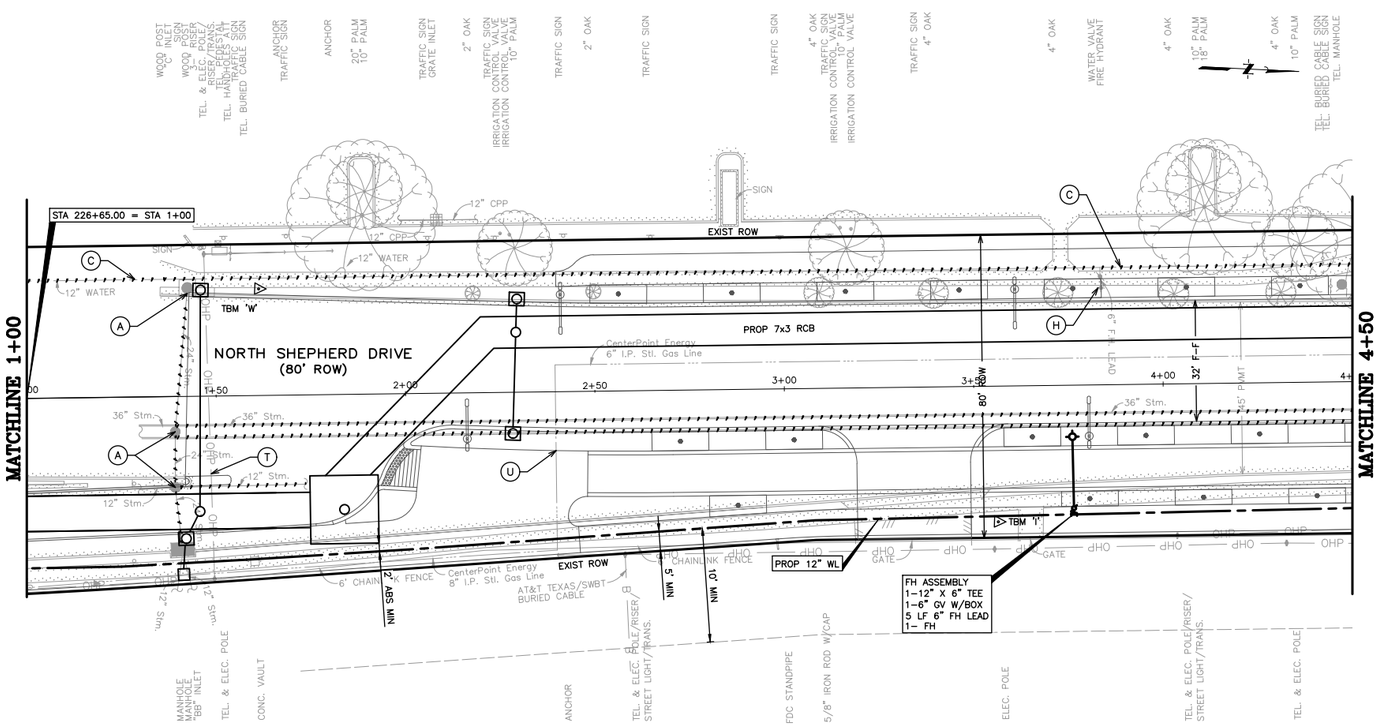
WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 450 OF 711	

FOR CITY OF HOUSTON USE ONLY
78839

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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SEE NEXT SHEET FOR PROFILE VIEW

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'W',CP-108, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=56.12'

TBM 'I',CP-24, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=56.67'

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
2. HAND EXCAVATION IS REQUIRED FOR EXCAVATION WORK BENEATH AND WITHIN DIP LINE AREAS OF MATURE TREES. DO NOT STORE EQUIPMENT OR MATERIALS, OR DRIVE HEAVY OR TRACK EQUIPMENT WITHIN DRIP LINE AREAS OF MATURE TREES. REFER TO SPECIFICATION SECTION 01562 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
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LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
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- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

0 5 10 20 40 60
SCALE: 1" = 20'

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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VERIFICATION OF PRIVATE UTILITY LINES

Date: 4/4/24

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Date: 4/4/24

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V. J. Gonzalez Date: 4/2/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 ● Bellaire, TX 77401 ● 713.777.5337

Aurora Technical Services, LLC
3223 Eagle Blvd, Suite 150 Houston, TX 77026
Tel: (281) 453-7700

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH SHEPHERD DRIVE

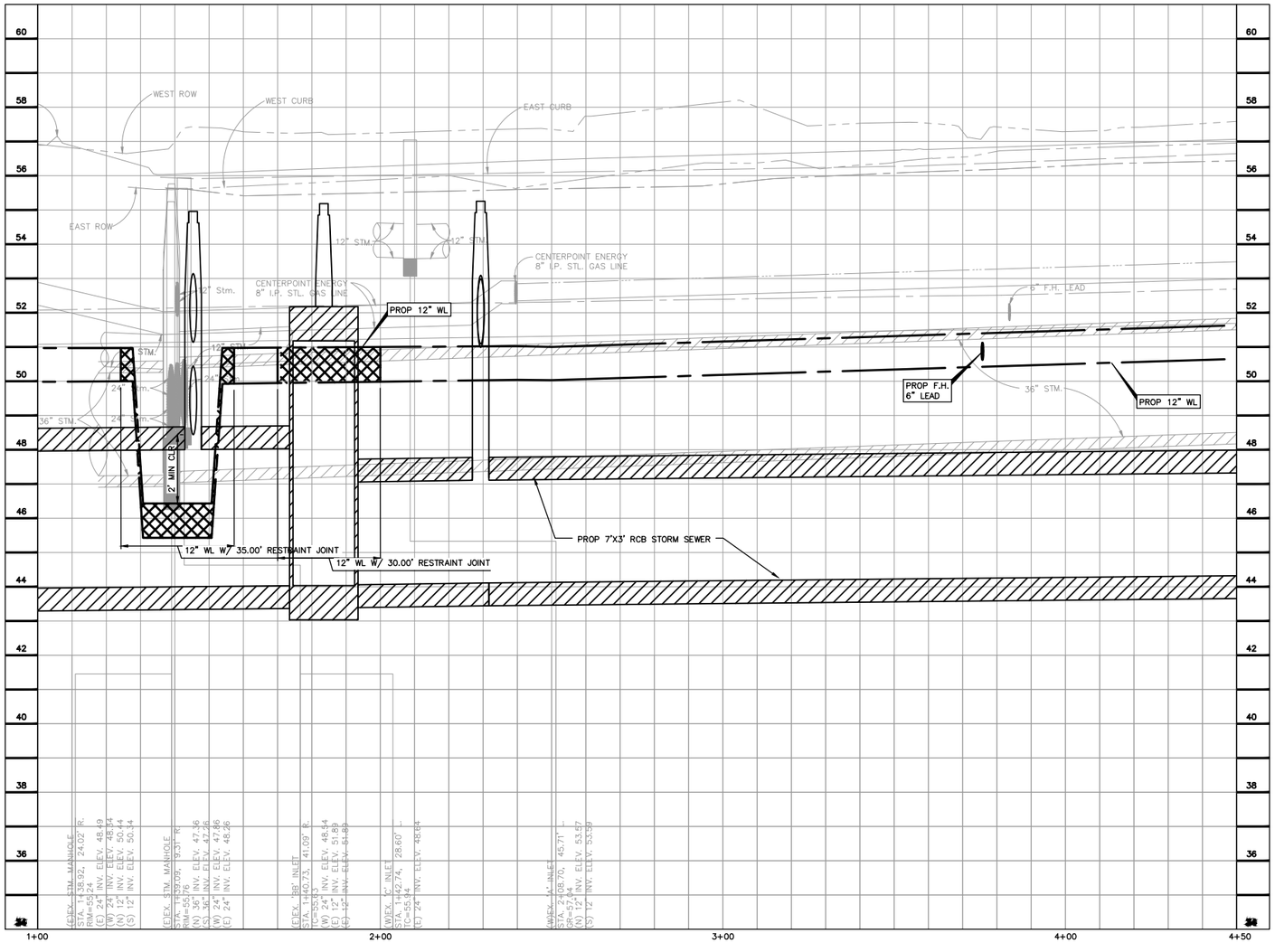
N SHEPHERD DR 1+00 TO 4+50

SHEET 36 OF 78

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 451 OF 711	

78839
REGISTERED
PROFESSIONAL
ENGINEER
HOUSTON, TEXAS

SEE PREVIOUS SHEET FOR PLAN VIEW



BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'W',CP-108, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=56.12'

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GENERAL NOTES

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LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

0 5 10 20 40 60
SCALE: 1" = 20'

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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VERIFICATION OF PRIVATE UTILITY LINES

Date: 4/4/24

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www.auroratechservices.com

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

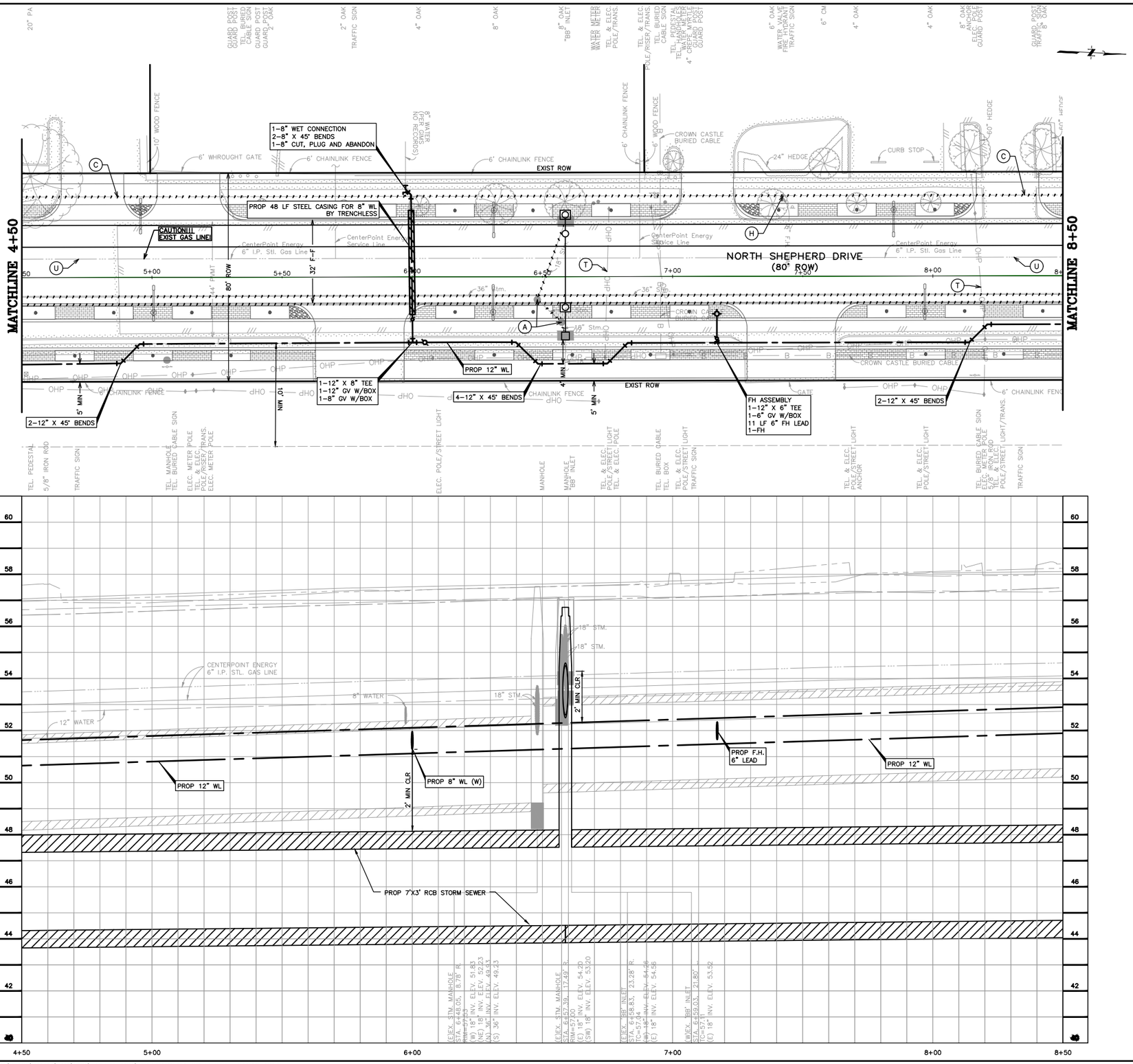
NORTH SHEPHERD DRIVE
N SHEPHERD DR 1+00 TO 4+50 PROFILE

SHEET 37 OF 78

WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 452 OF 711

FOR CITY OF HOUSTON USE ONLY
78839

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BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
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TBM INFO

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
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0 5 10 20 40 60
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY

Aurora Technical Services, LLC

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH SHEPHERD DRIVE

N SHEPHERD DR 4+50 TO 8+50

SHEET 38 OF 78

WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 453 OF 711	

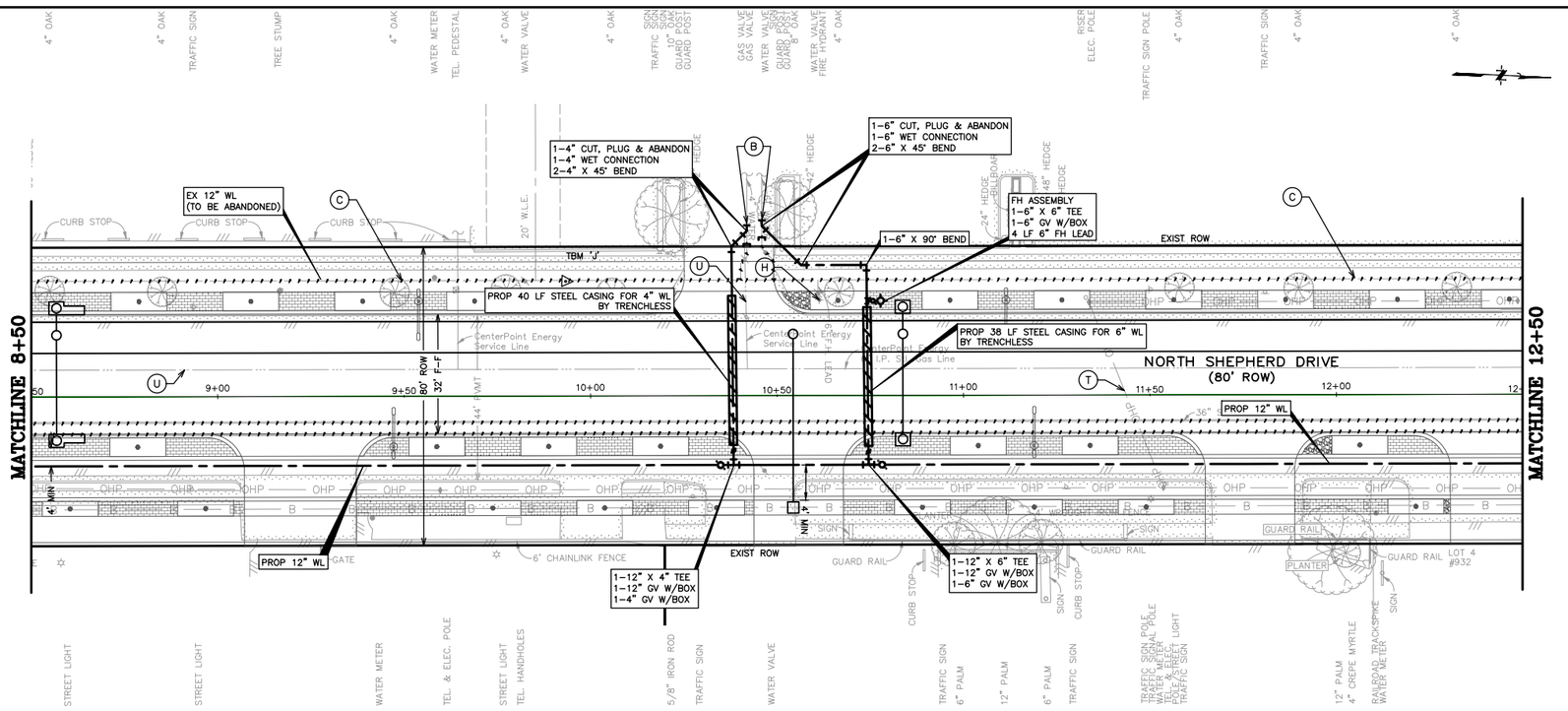
FOR CITY OF HOUSTON USE ONLY

ACCEPTED
PUBLIC WORKS & ENGINEERING
78899
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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BENCHMARK INFO

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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'J',CP-25, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=58.37

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

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2. HAND EXCAVATION IS REQUIRED FOR EXCAVATION WORK BENEATH AND WITHIN DIP LINE AREAS OF MATURE TREES. DO NOT STORE EQUIPMENT OR MATERIALS, OR DRIVE HEAVY OR TRACK EQUIPMENT WITHIN DRIP LINE AREAS OF MATURE TREES. REFER TO SPECIFICATION SECTION 01562 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
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7. EXISTING WATER SERVICE LINES AND WATER METERS LESS THAN 3" ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINES FOR EXISTING METERS. SEE SHEET 487 FOR WATER SERVICE LINES AND METER DETAILS.
8. SUBMIT TO THE CITY OF HOUSTON CCTV VIDEO INSPECTIONS OF SANITARY SEWERS AND MANHOLE ACCORDING TO DOC. SPEC. NO. 02558
9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 20'

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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VERIFICATION OF PRIVATE UTILITY LINES
Date: 4/4/24

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.
Signature Valid for six months.
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V. Z. Gonzalez Date: 4/2/24

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Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
5420 West Lake Houston Pkwy, Suite 310 ● Houston, TX 77049 ● 713.777.5337

Aurora Technical Services, LLC
7251 Regal Road, Suite 100 Houston, TX 77040
Tel: (281) 452-1700
www.AuroraTechnicalServices.com

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

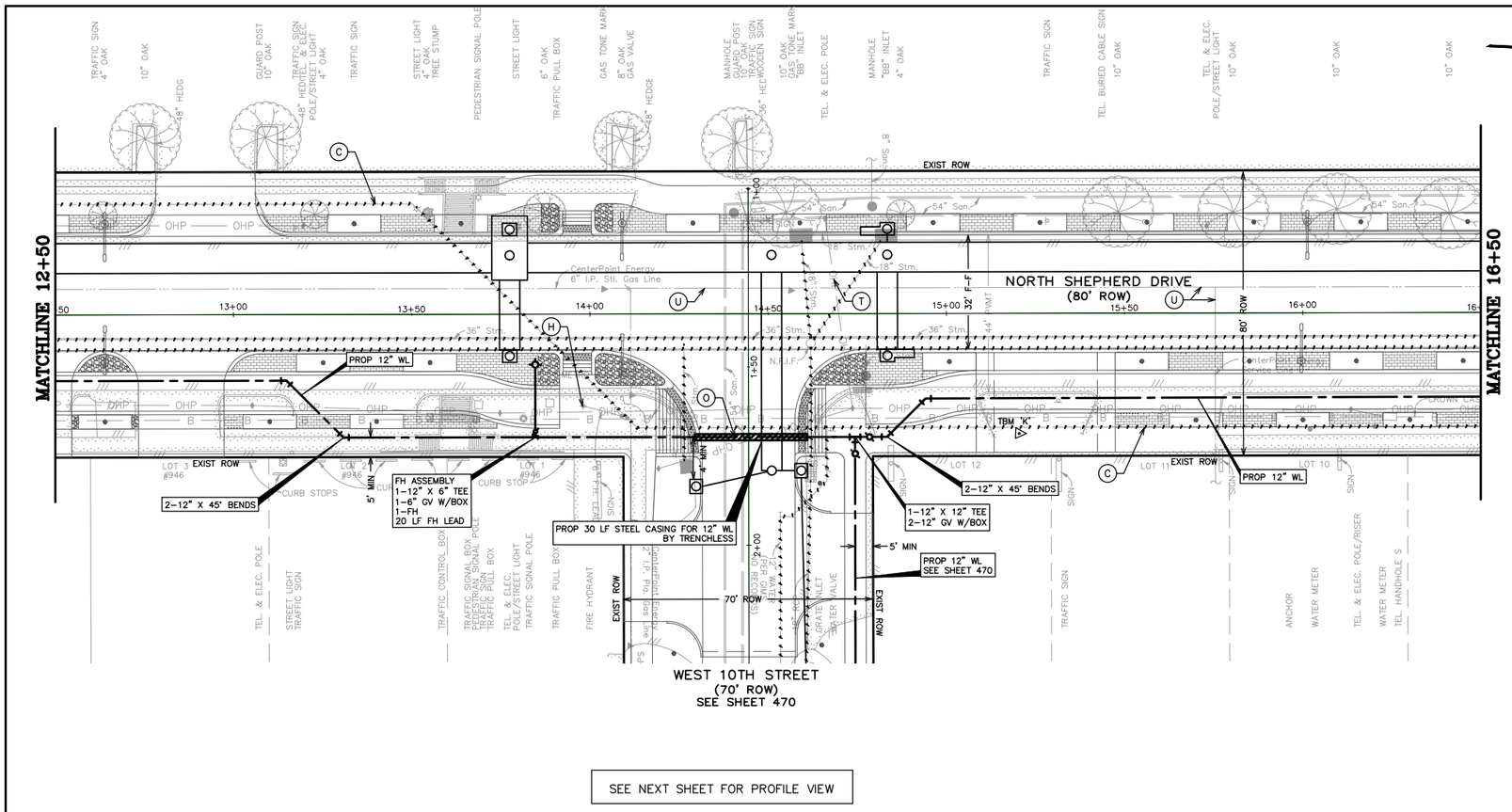
NORTH SHEPHERD DRIVE
N SHEPHERD DR 8+50 TO 12+50 PROFILE

SHEET 39 OF 78

WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 454 OF 711

FOR CITY OF HOUSTON USE ONLY
78839

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SEE NEXT SHEET FOR PROFILE VIEW

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'K',CP-26, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=58.16'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

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Texas Department of Transportation

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5330 West Loop South, Suite 100 • Bellaire, TX 77401 • 713.777.5337

Aurora Technical Services, LLC
2121 Sage Road, Suite 360 • Houston, TX 77056
Tel. (281) 450-7788

SURVEYED BY:
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FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
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LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
N SHEPHERD DR 12+50 TO 16+50

SHEET 40 OF 78

WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 455 OF 711

FOR CITY OF HOUSTON USE ONLY

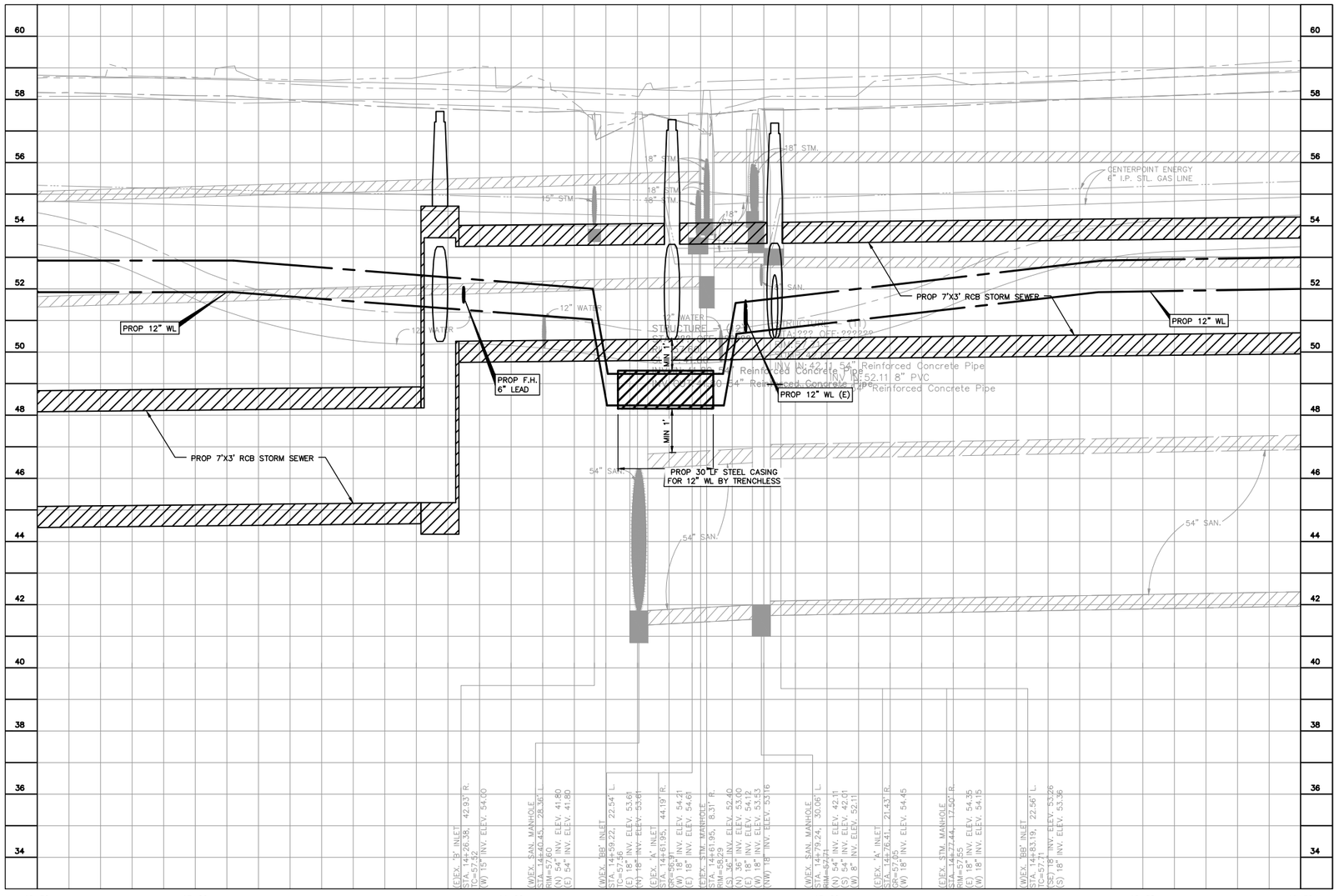
PUBLIC WORKS M.J.C. ACCEPTED 78839 CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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SEE PREVIOUS SHEET FOR PLAN VIEW



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
N SHEPHERD DR 12+50 TO 16+50 PROFILE

SHEET 41 OF 78

WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 456 OF 711

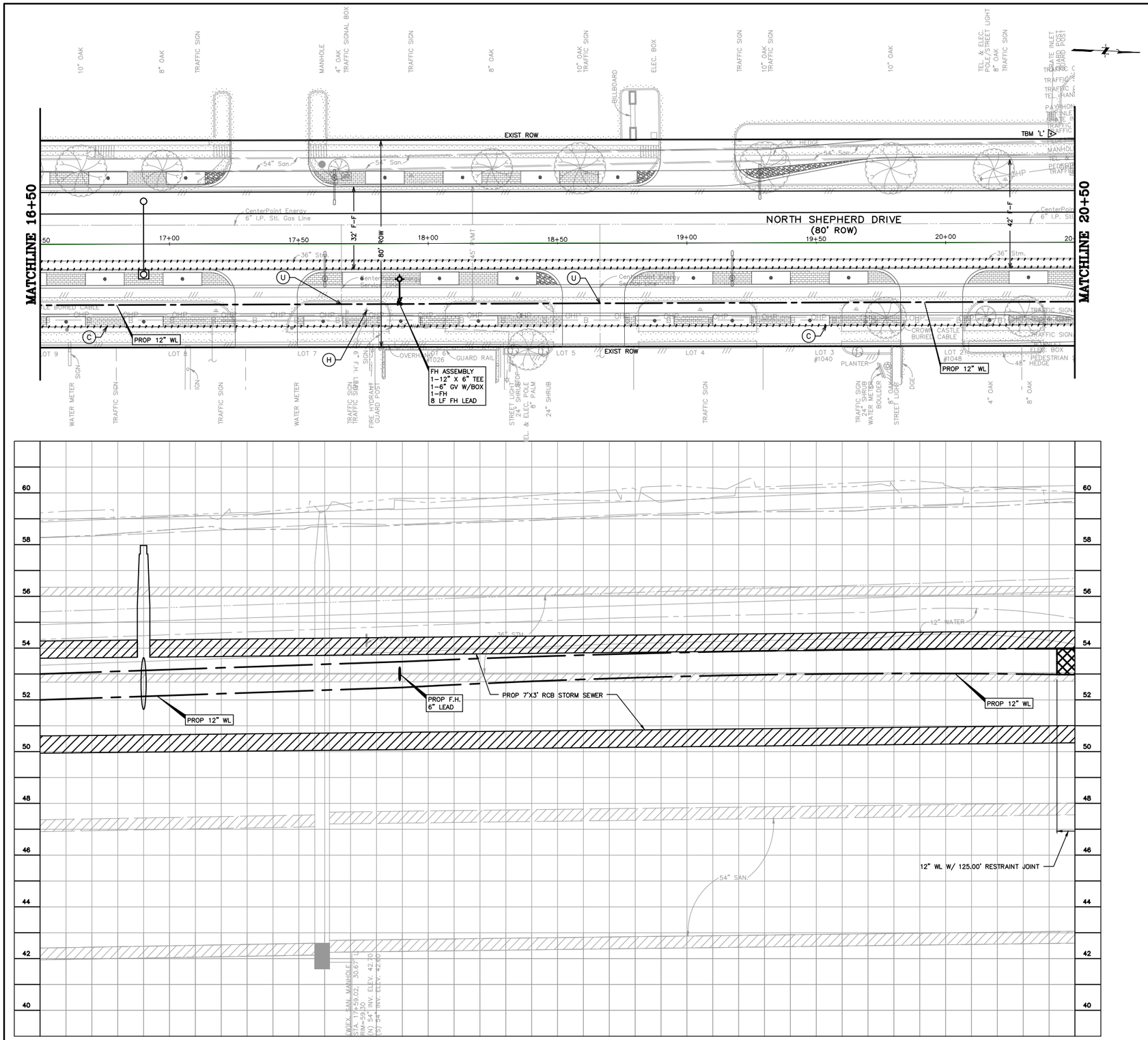
FOR CITY OF HOUSTON USE ONLY

78839

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'L',CP-27, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=60.54'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
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Texas Department of Transportation

QUIDDITY

Aurora Technical Services, LLC

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
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LICENSED
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09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
N SHEPHERD DR 16+50 TO 20+50

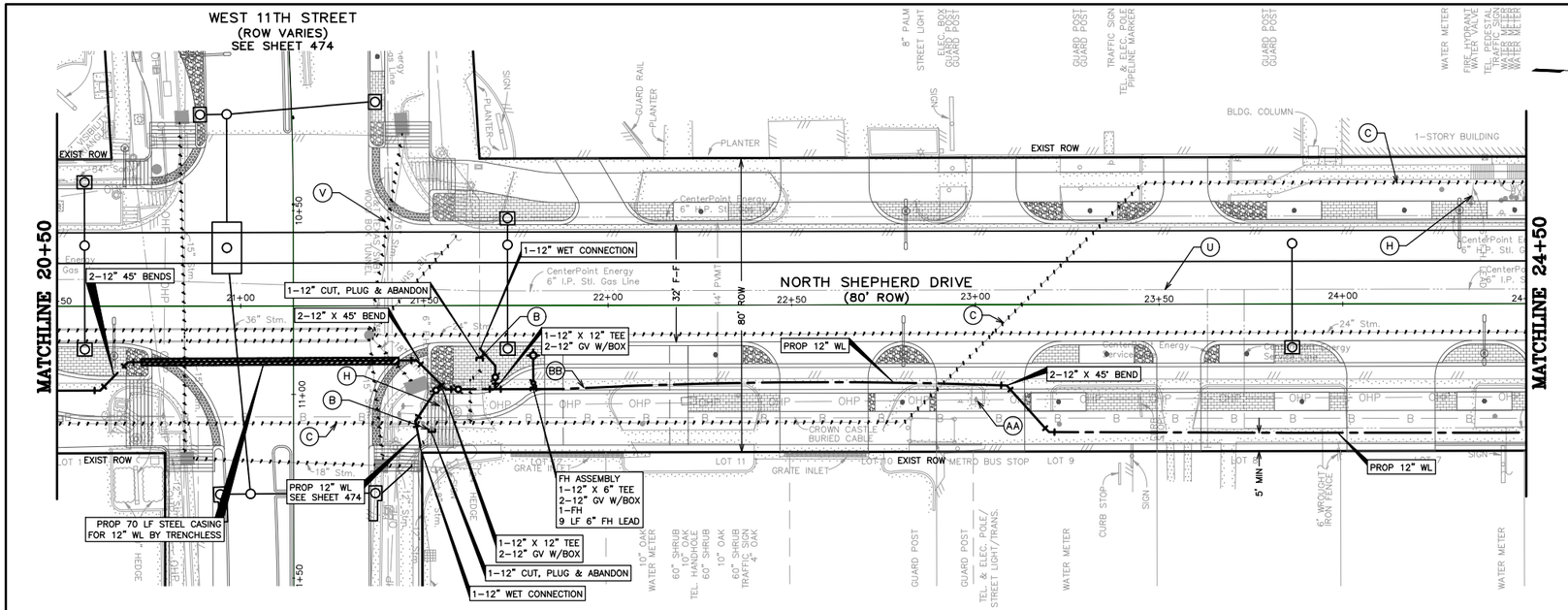
SHEET 42 OF 78

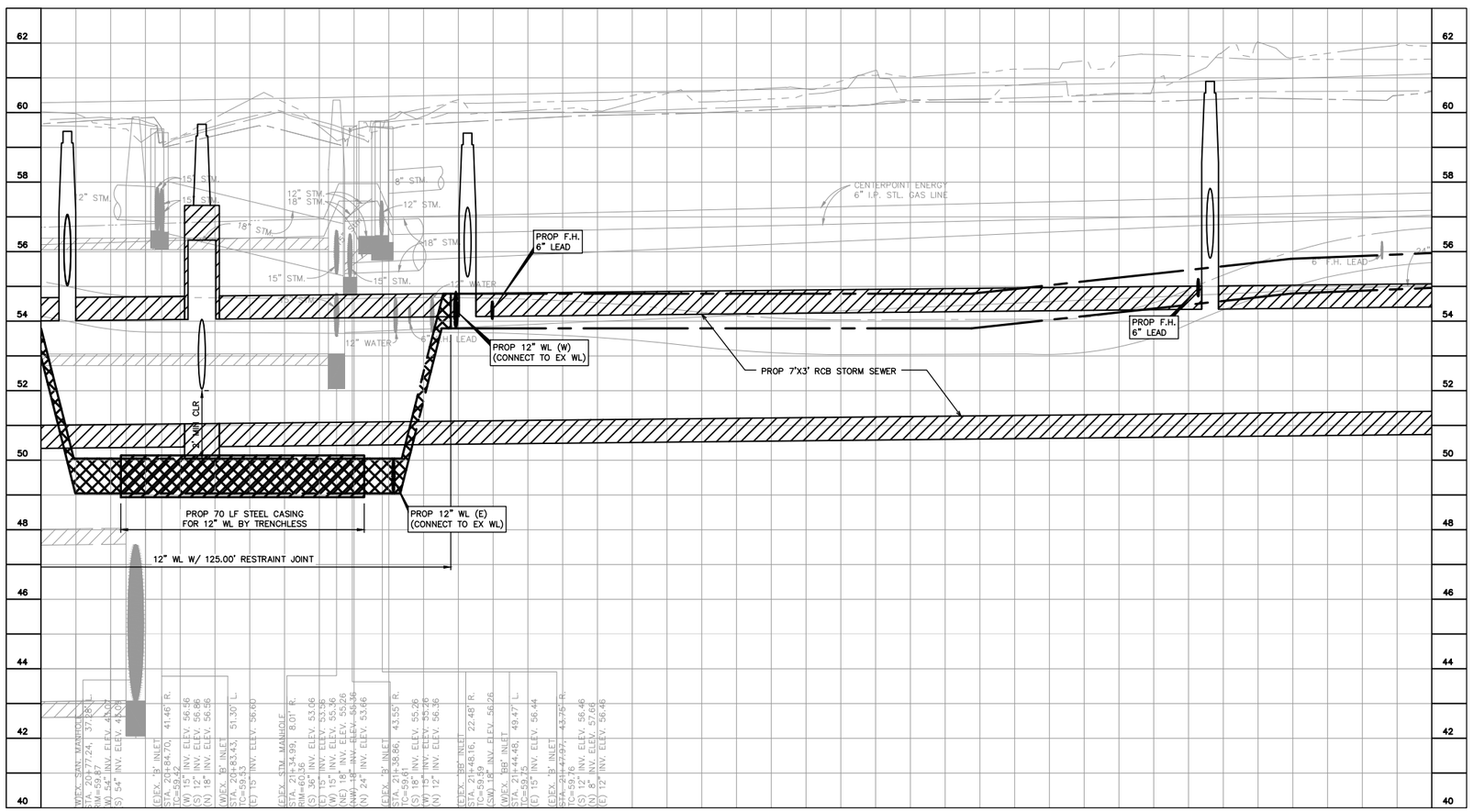
WBS NUMBER
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VERT. 1"=2' HORIZ. 1"=20'
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SUDARSHAN GOUNI, P.E.
SHEET NO. 457 OF 711

FOR CITY OF HOUSTON USE ONLY
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FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

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PLAN & PROFILE – WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
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SHEET 43 OF 78

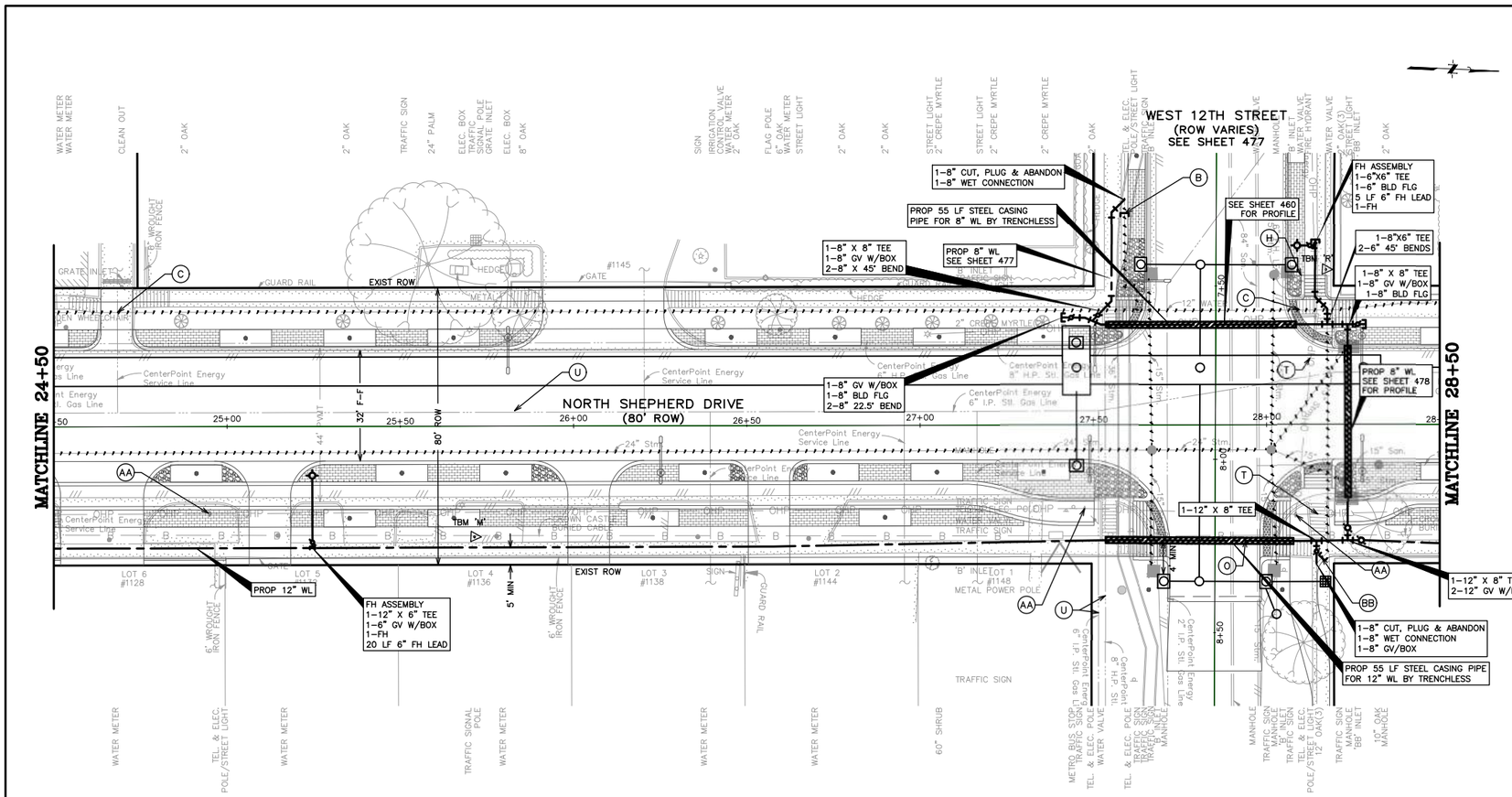
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FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275–321

FOR STORM LATERAL PROFILES, SEE SHEETS 322–362

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BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'M',CP-28, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.50'
TBM 'R',CP-85, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.37'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
2. HAND EXCAVATION IS REQUIRED FOR EXCAVATION WORK BENEATH AND WITHIN DIP LINE AREAS OF MATURE TREES. DO NOT STORE EQUIPMENT OR MATERIALS, OR DRIVE HEAVY OR TRACK EQUIPMENT WITHIN DRIP LINE AREAS OF MATURE TREES. REFER TO SPECIFICATION SECTION 01562 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
3. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
4. CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
5. CONTRACTOR TO ADJUST EXIST VALVE BOXES/METER BOXES/VAULTS/PULLBOXES TO MAINTAIN NEW PAVING GRADE. REPLACE MISSING OR DAMAGED BOXES AND COVERS.
6. MAINTAIN WATER SERVICES TO CUSTOMERS, FIRE HYDRANTS AND INTERCONNECTIONS, PROVIDE TEMPORARY CONNECTION AS NECESSARY TO MAINTAIN SERVICE DURING CONSTRUCTION.
7. EXISTING WATER SERVICE LINES AND WATER METERS LESS THAN 3" ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINES FOR EXISTING METERS. SEE SHEET 487 FOR WATER SERVICE LINES AND METER DETAILS.
8. SUBMIT TO THE CITY OF HOUSTON CCTV VIDEO INSPECTIONS OF SANITARY SEWERS AND MANHOLE ACCORDING TO DOC. SPEC. NO. 02558
9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 20'

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date: 4/4/24

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

Date: 4/4/24

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V. J. Gonzalez Date: 4/2/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
5051 Westheimer Road, Suite 1212 • Houston, TX 77056 • 713.777.5337

Aurora Technical Services, LLC
1111 Rancho Bravo, Suite 150 • Brenham, TX 77833
Tel: (281) 402-7760

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
N SHEPHERD DR 24+50 TO 28+50

SHEET 44 OF 78

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 459 OF 711	

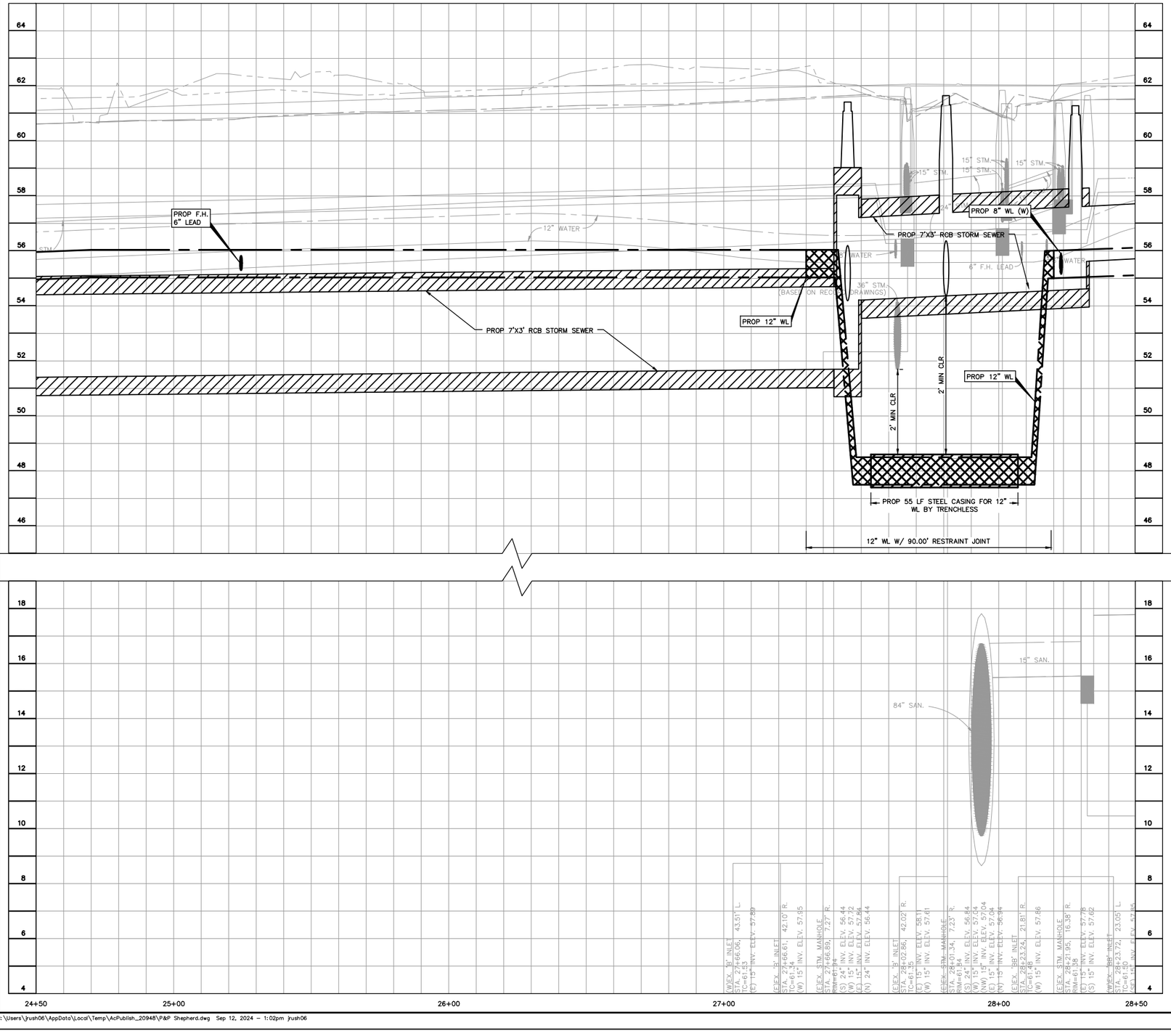
PUBLIC WORKS APPROVED AS NOTED
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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SEE PREVIOUS SHEET FOR PLAN VIEW



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SCALE: 1" = 20'

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

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6330 West Loop South, Suite 150 ● Bellaire, TX 77401 ● 713.777.5337

Aurora Technical Services, LLC
3333 Terry Ave., Ste. 150 Houston, TX 77003
Tel: (281) 402-7790

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FB NO. P-6288

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LICENSED
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09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
12" WATER LINE

N SHEPHERD DR 24+50 TO 28+50 PROFILE

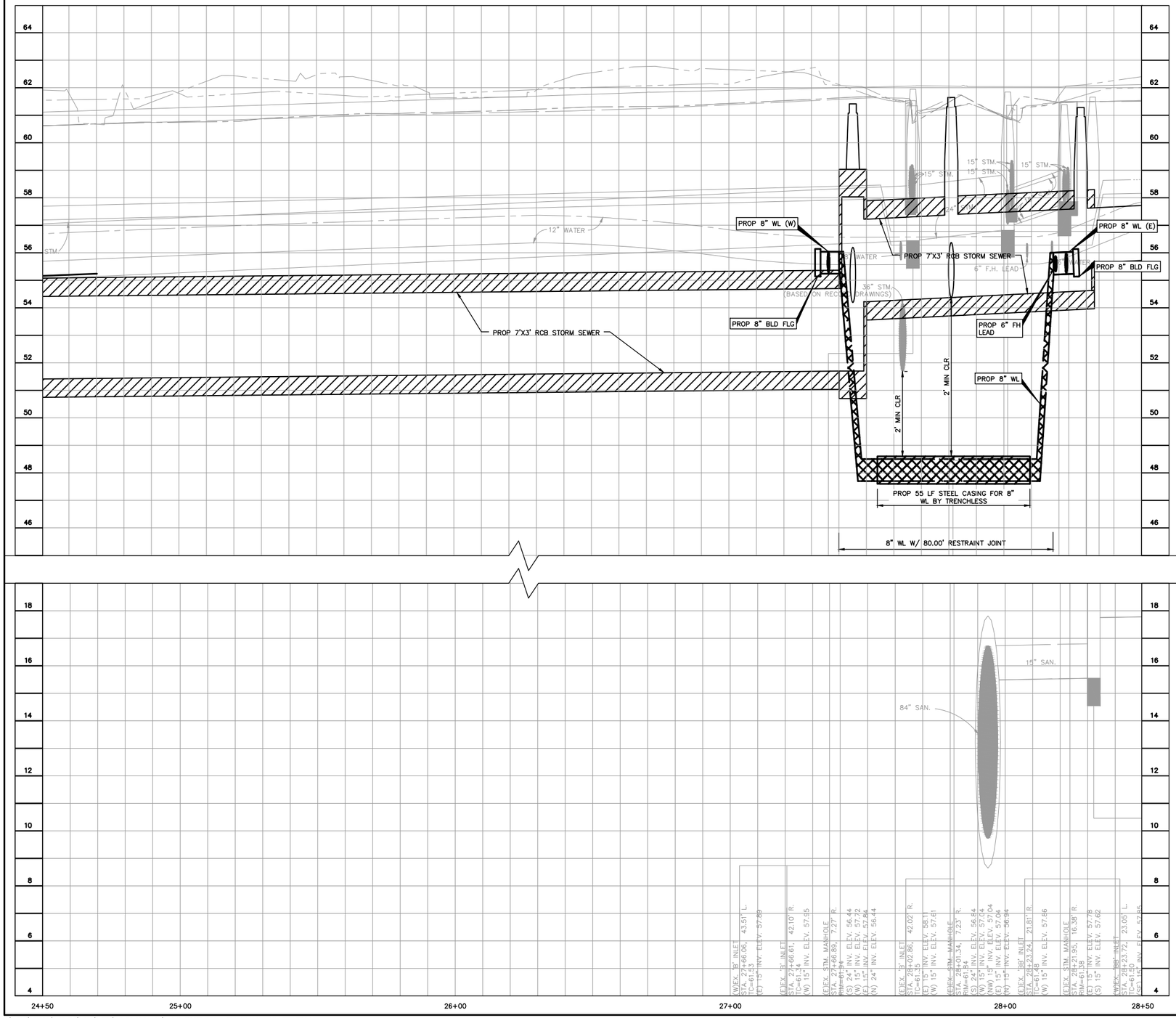
SHEET 45 OF 78

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 460 OF 711	

PUBLIC WORKS & ENGINEERING
78839
CITY OF HOUSTON, TEXAS

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SEE PREVIOUS SHEET FOR PLAN VIEW



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0 5 10 20 40 60
SCALE: 1" = 20'

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VERIFICATION OF PRIVATE UTILITY LINES

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Texas Department of Transportation

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Aurora Technical Services, LLC
2727 Sage Road, Suite 150 Houston, TX 77056
Tel. (281) 453-7700
www.auroratechservices.com

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
8" WATER LINE
P&P SHEPHERD – 24+50
TO 28+50 PROFILE A

SHEET 46 OF 78

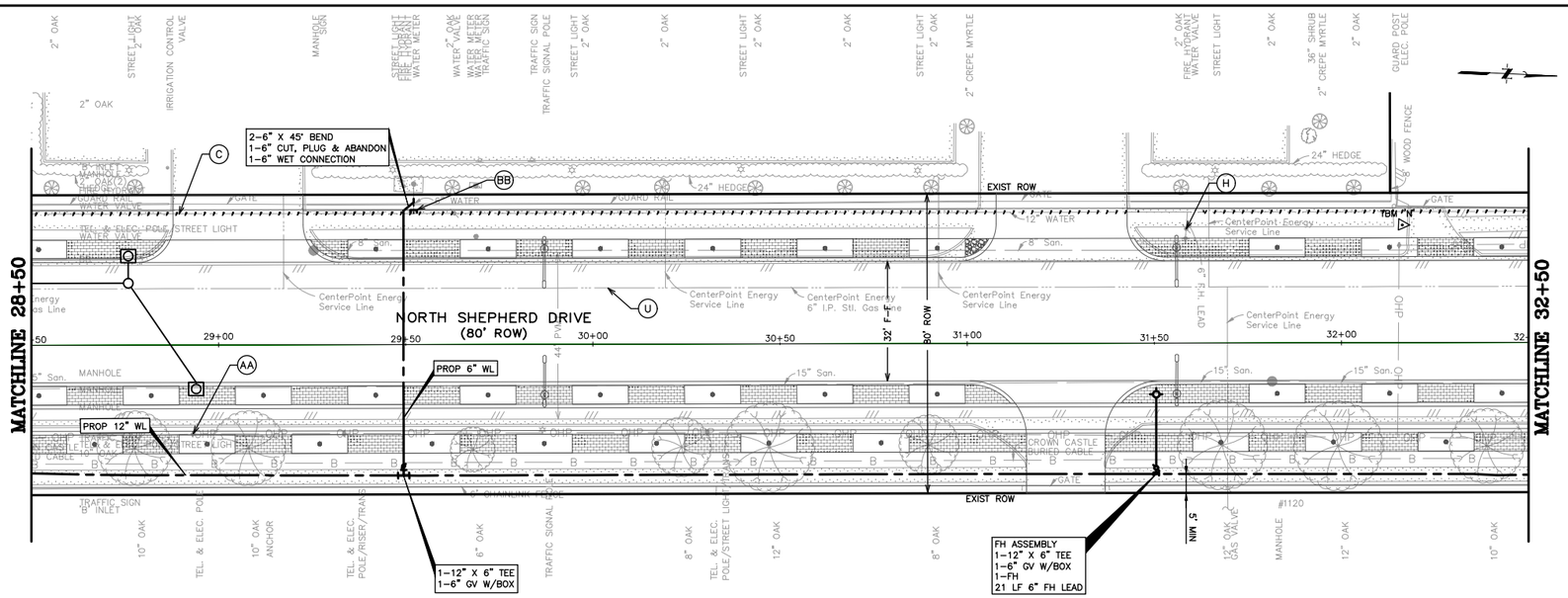
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 461 OF 711	

PUBLIC WORKS & ENGINEERING
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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SEE NEXT SHEET FOR PROFILE VIEW

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TBM INFO

TBM 'N',CP-29, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=62.81'

LEGEND

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0 5 10 20 40 60
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QUIDDITY

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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

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PLAN & PROFILE – WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
N SHEPHERD DR 28+50 TO 32+50

SHEET 47 OF 78

WBS NUMBER
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VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 462 OF 711

FOR CITY OF HOUSTON USE ONLY

PUBLIC WORKS AND ENGINEERING ACCEPTED
78899
CITY OF HOUSTON, TEXAS

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PLAN & PROFILE – WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
N SHEPHERD DR 28+50 TO 32+50 PROFILE

SHEET 48 OF 78

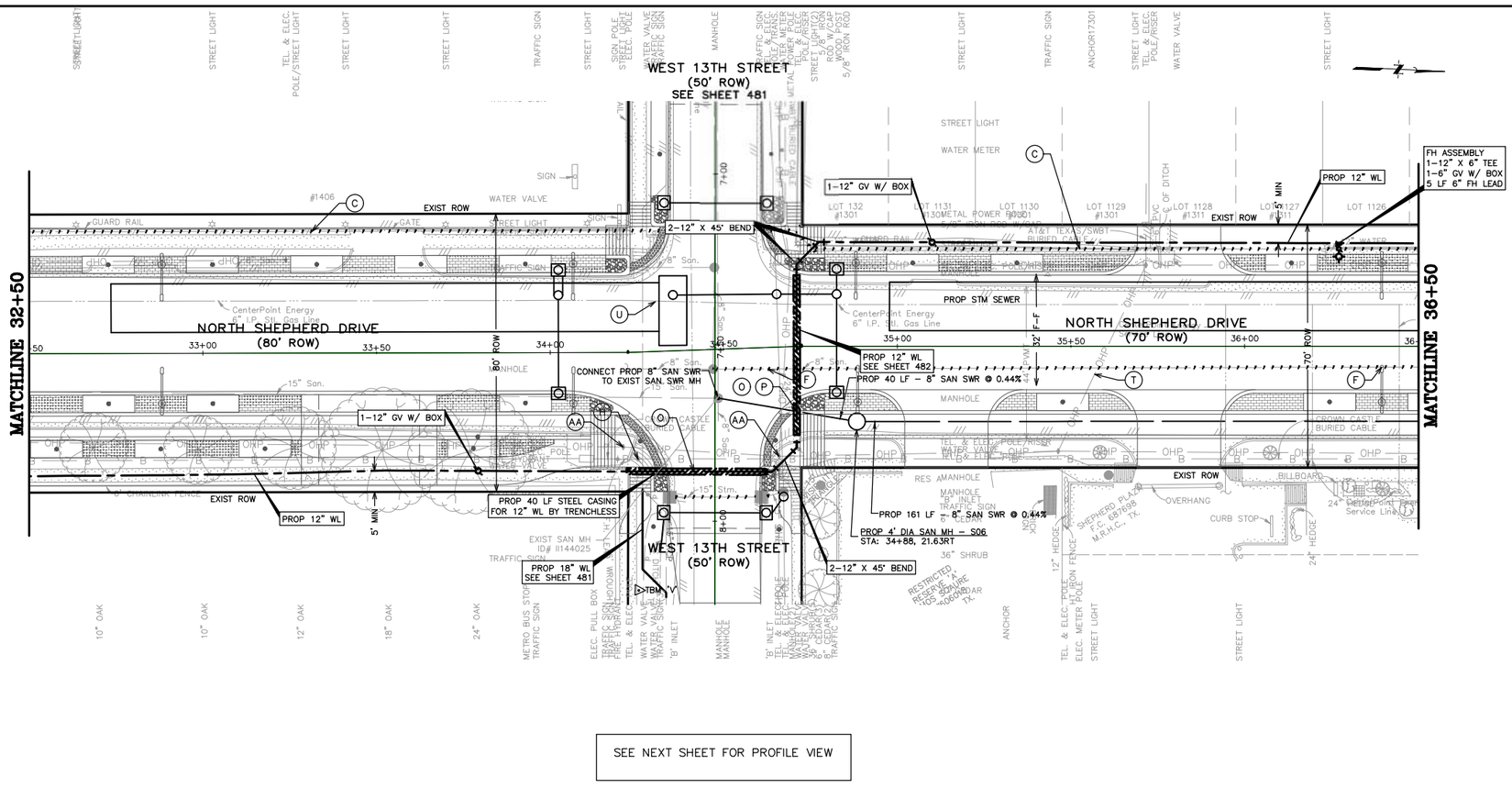
WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 463 OF 711

FOR CITY OF HOUSTON USE ONLY
PUBLIC WORKS & ENGINEERING
ACCEPTED
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

C:\Users\jrush06\AppData\Local\Temp\AcPublish_20948\P&P Shepherd.dwg Sep 12, 2024 – 1:05pm jrush06



BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'V',CP-107, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=63.48'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
2. HAND EXCAVATION IS REQUIRED FOR EXCAVATION WORK BENEATH AND WITHIN DIP LINE AREAS OF MATURE TREES. DO NOT STORE EQUIPMENT OR MATERIALS, OR DRIVE HEAVY OR TRACK EQUIPMENT WITHIN DRIP LINE AREAS OF MATURE TREES. REFER TO SPECIFICATION SECTION 01562 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
3. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
4. CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
5. CONTRACTOR TO ADJUST EXIST VALVE BOXES/METER BOXES/VAULTS/PULLBOXES TO MAINTAIN NEW PAVING GRADE. REPLACE MISSING OR DAMAGED BOXES AND COVERS.
6. MAINTAIN WATER SERVICES TO CUSTOMERS, FIRE HYDRANTS AND INTERCONNECTIONS, PROVIDE TEMPORARY CONNECTION AS NECESSARY TO MAINTAIN SERVICE DURING CONSTRUCTION.
7. EXISTING WATER SERVICE LINES AND WATER METERS LESS THAN 3" ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINES FOR EXISTING METERS. SEE SHEET 487 FOR WATER SERVICE LINES AND METER DETAILS.
8. SUBMIT TO THE CITY OF HOUSTON CCTV VIDEO INSPECTIONS OF SANITARY SEWERS AND MANHOLE ACCORDING TO DOC. SPEC. NO. 02558
9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 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

4/4/24
Date:

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

4/4/24
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.

V. Z. Gonzalez 4/2/24
Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY

Aurora Technical Services, LLC

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.25.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
N SHEPHERD DR 32+50 TO 36+50

SHEET 49 OF 78

WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 464 OF 711

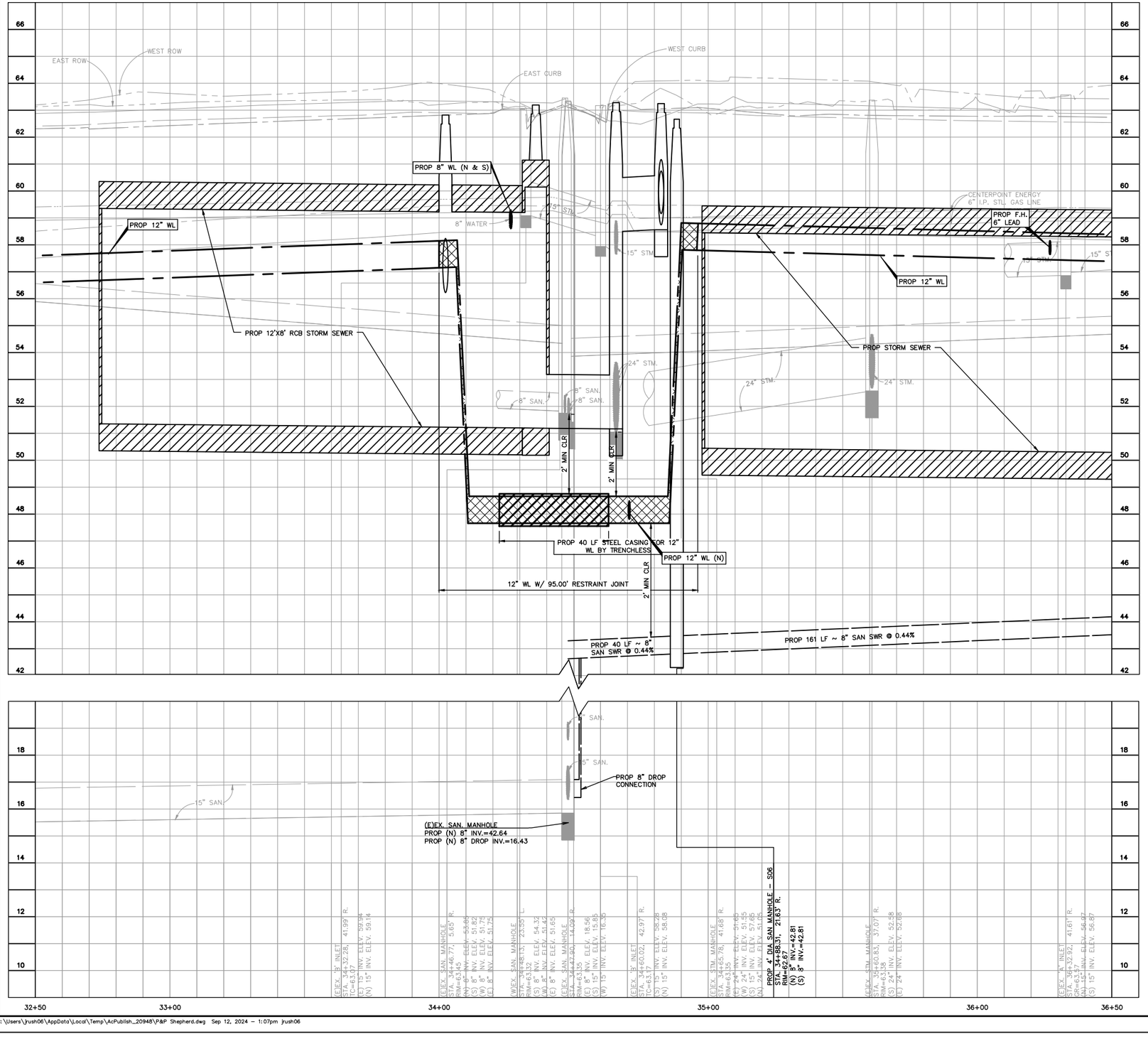
FOR CITY OF HOUSTON USE ONLY
78899

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FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P Shepherd.dwg Sep 25, 2024 - 9:51am jush06

SEE PREVIOUS SHEET FOR PLAN VIEW



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TBM 'V',CP-107, 5/8-INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
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LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
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- PROPOSED WATER LINE

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V. J. Gonzalez Date: 4/2/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 Houston, TX 77401 713.737.5337

Aurora Technical Services, LLC
2331 Sage Road, Suite 150 Houston, TX 77056
Tel (281) 402-2700

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
N SHEPHERD DR 32+50 TO 36+50 PROFILE

SHEET 50 OF 78

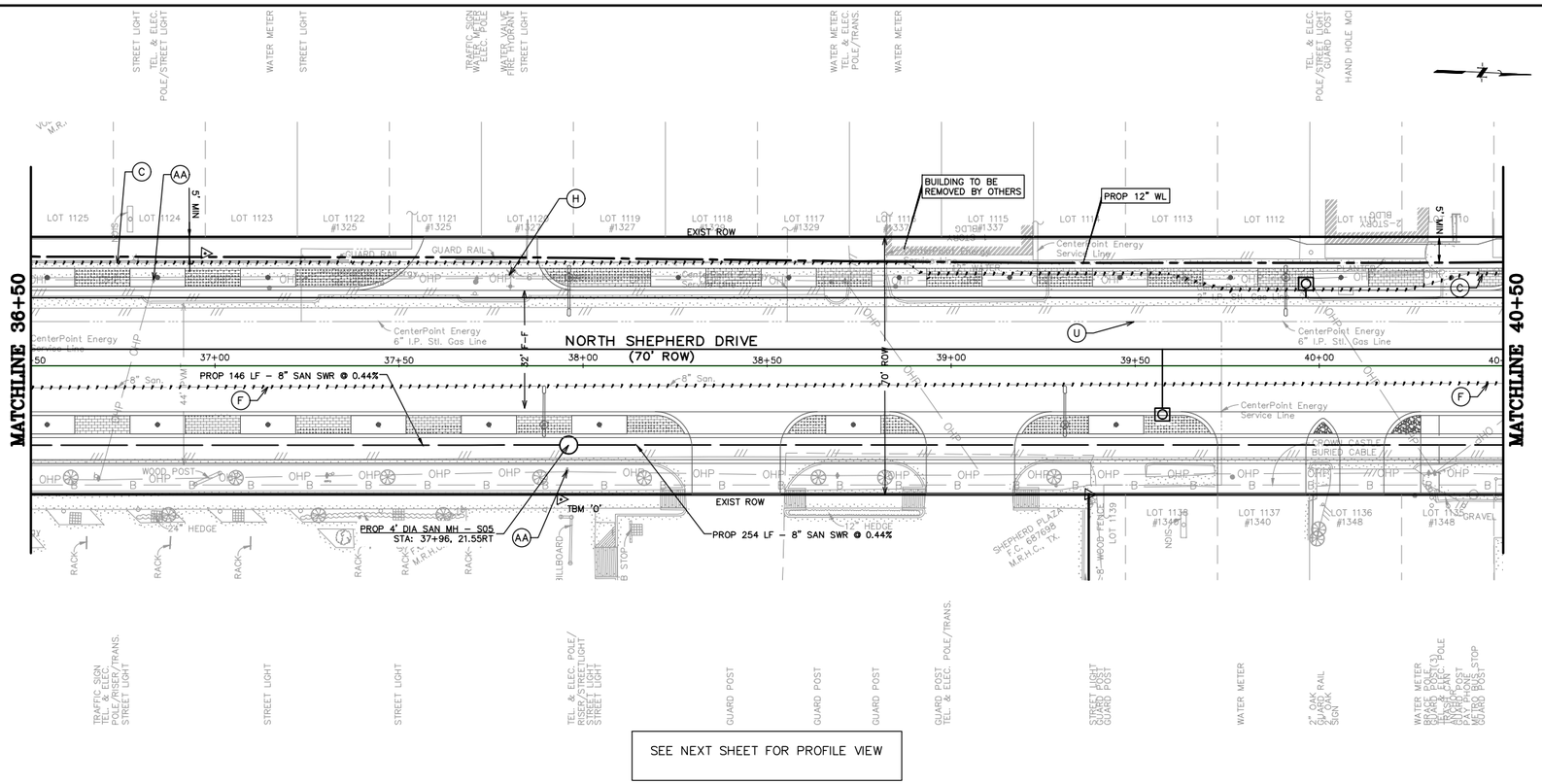
WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO.	465 OF 711

FOR CITY OF HOUSTON USE ONLY

PUBLIC WORKS & ENGINEERING
78839
CITY OF
HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362



SEE NEXT SHEET FOR PROFILE VIEW

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275–321

FOR STORM LATERAL PROFILES, SEE SHEETS 322–362

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TBM INFO

TBM 'O',CP–60, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=63.45'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
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0 5 10 20 40 60
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Signature Valid for six months.

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V. J. Gonzalez Date: 4/2/24

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
5300 West Loop South, Suite 1120 • Bellaire, TX 77401 • 713.777.5337

Aurora Technical Services, LLC
TBPELS Firm Reg. No. 10194000

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P–6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.25.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
N SHEPHERD DR 36+50 TO 40+50

SHEET 51 OF 78

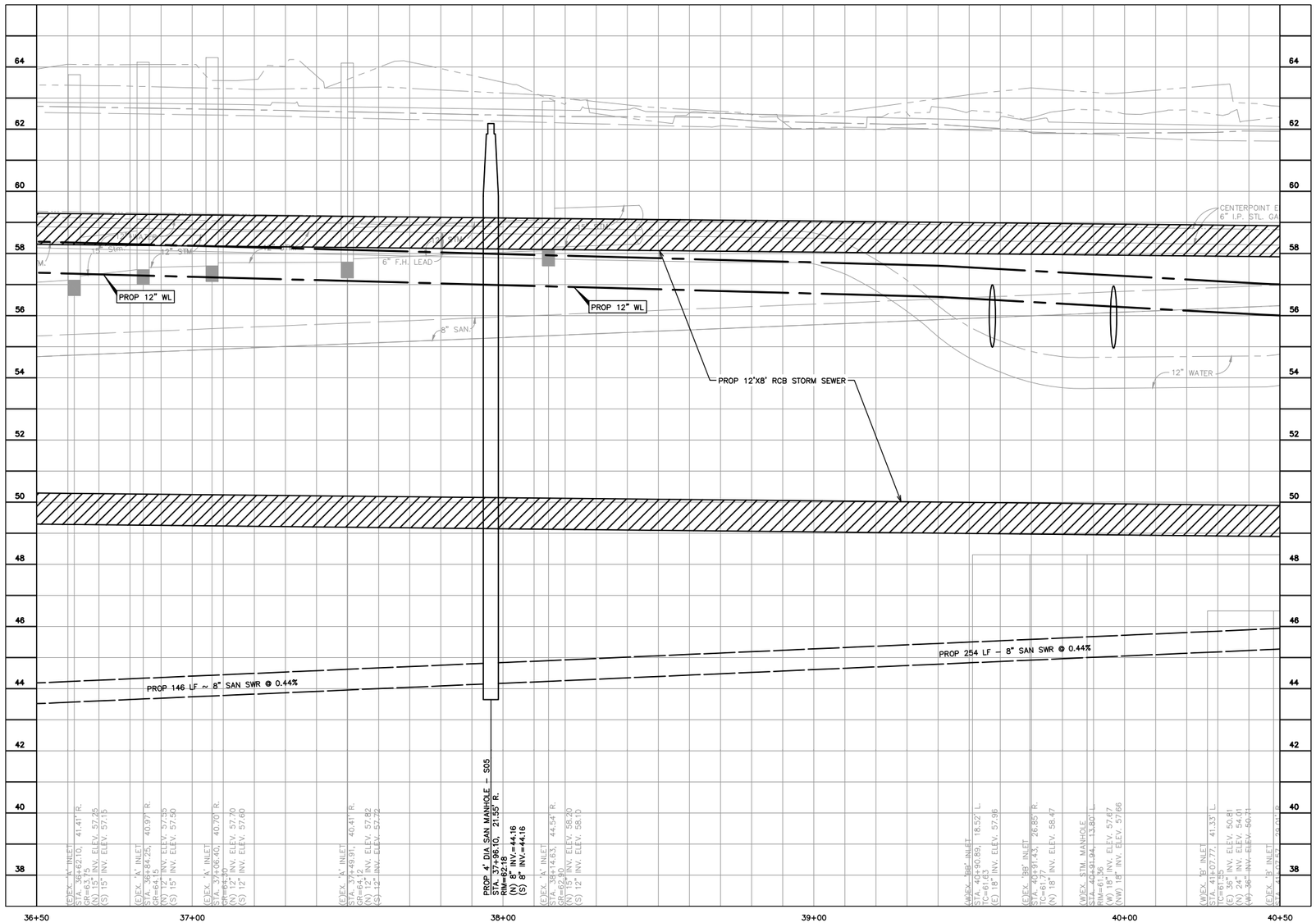
WBS NUMBER
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DRAWING SCALE
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CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 466 OF 711

FOR CITY OF HOUSTON USE ONLY

PUBLIC WORKS & ENGINEERING, INC. REGISTERED
78839
CITY OF HOUSTON, TEXAS

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SEE PREVIOUS SHEET FOR PLAN VIEW



BENCHMARK INFO

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TBM INFO

TBM 'O',CP-60, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=63.45'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- XXX EXIST WATER AND/OR SANITARY TO BE REMOVED
- \\\ EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

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0 5 10 20 40 60
SCALE: 1" = 20'

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

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Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4330 West Linx Loop South, Suite 200 Fort Worth, TX 76109 (817) 770-5377

Aurora Technical Services, LLC
2320 Sage Road, Suite 100 Houston, TX 77056
Tel: (281) 453-7700
www.auroratechservices.com

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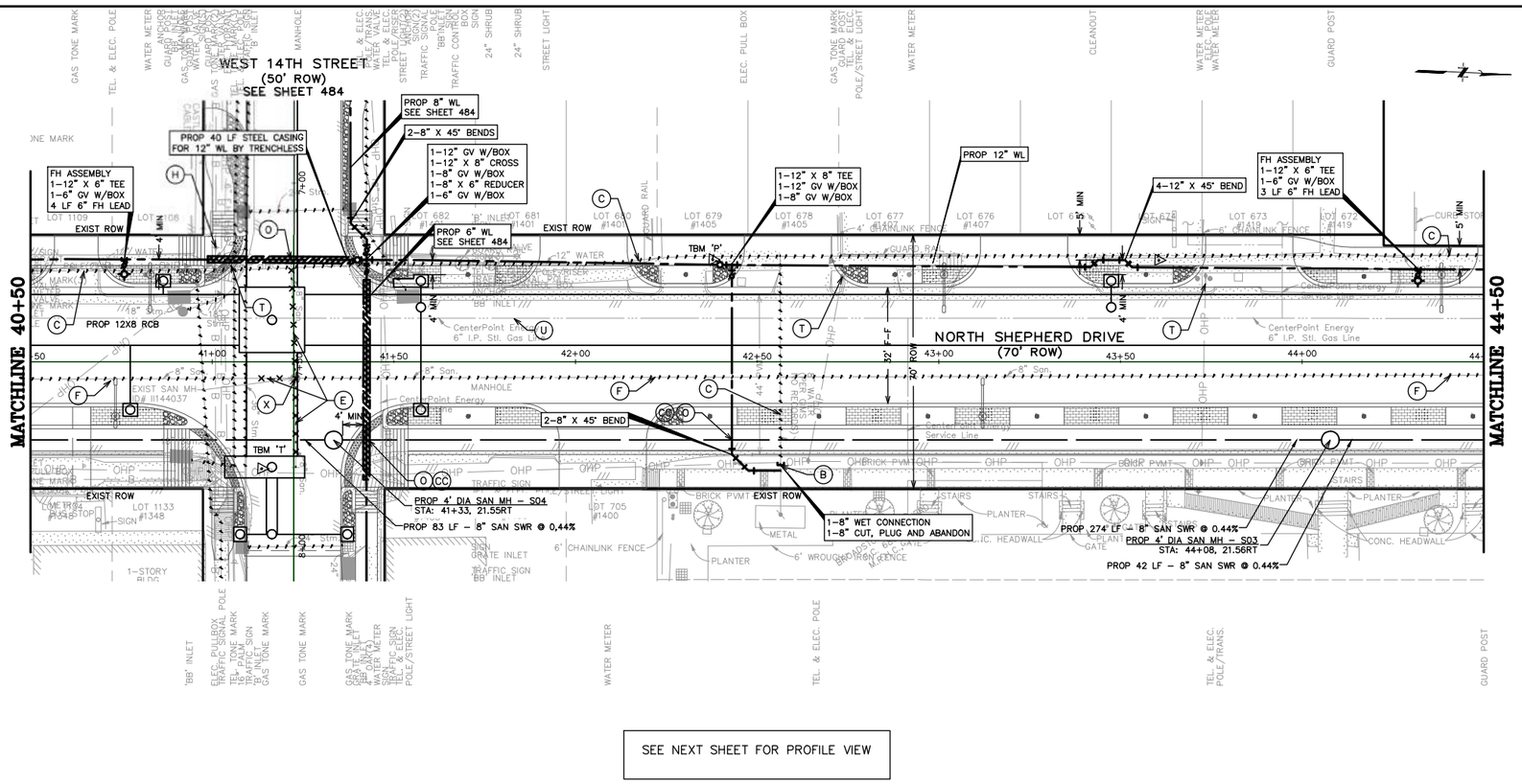
NORTH SHEPHERD DRIVE
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SHEET 52 OF 78

WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
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C:\Users\jrush06\AppData\Local\Temp\AcPublish_20948\P&P Shepherd.dwg Sep 12, 2024 - 1:09pm jrush06



SEE NEXT SHEET FOR PROFILE VIEW

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TBM INFO

TBM 'T',CP-103, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.62'
TBM 'P',CP-61, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=62.42'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
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CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.
Signature Valid for six months.

Date: 4/4/24

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V. J. Gonzalez Date: 4/2/24

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
5330 West Loop South, Suite 1120 • Bellaire, TX 77401 • 713.777.3337

Aurora Technical Services, LLC
221 Troy Road, Suite 130 Houston, TX 77060
Tel (281) 452-7900

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

NORTH SHEPHERD DRIVE
N SHEPHERD DR 40+50 TO 44+50

SHEET 53 OF 78

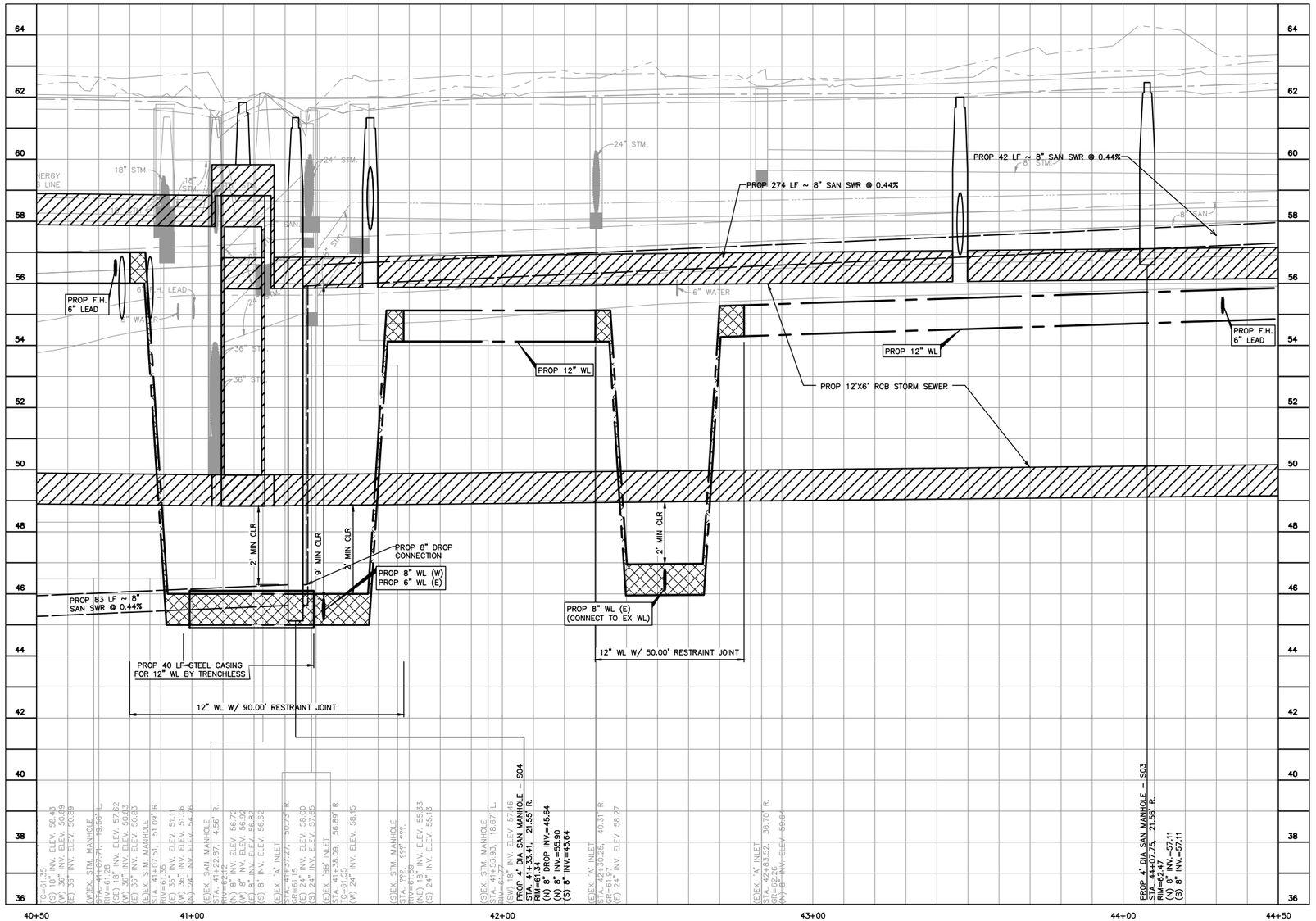
WBS NUMBER
N-100041-0001-4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 468 OF 711

FOR CITY OF HOUSTON USE ONLY

ACCEPTED PUBLIC WORKS 78839 CITY OF HOUSTON, TEXAS

C:\Users\jrush06\AppData\Local\Temp\AcPublish_20948\P&P Shepherd.dwg Sep 12, 2024 - 1:10pm jrush06

SEE PREVIOUS SHEET FOR PLAN VIEW



C:\Users\jrush06\AppData\Local\Temp\AcPublish_20948\P&P Shepherd.dwg Sep 12, 2024 - 1:11pm jrush06

BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'T',CP-103, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.62'
TBM 'P',CP-61, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=62.42'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- XXX EXIST WATER AND/OR SANITARY TO BE REMOVED
- \\\ EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER W/MANHOLE
- PROPOSED WATER LINE

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
2. HAND EXCAVATION IS REQUIRED FOR EXCAVATION WORK BENEATH AND WITHIN DIP LINE AREAS OF MATURE TREES. DO NOT STORE EQUIPMENT OR MATERIALS, OR DRIVE HEAVY OR TRACK EQUIPMENT WITHIN DRIP LINE AREAS OF MATURE TREES. REFER TO SPECIFICATION SECTION 01562 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
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4. CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
5. CONTRACTOR TO ADJUST EXIST VALVE BOXES/METER BOXES/VAULTS/PULLBOXES TO MAINTAIN NEW PAVING GRADE. REPLACE MISSING OR DAMAGED BOXES AND COVERS.
6. MAINTAIN WATER SERVICES TO CUSTOMERS, FIRE HYDRANTS AND INTERCONNECTIONS, PROVIDE TEMPORARY CONNECTION AS NECESSARY TO MAINTAIN SERVICE DURING CONSTRUCTION.
7. EXISTING WATER SERVICE LINES AND WATER METERS LESS THAN 3" ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINES FOR EXISTING METERS. SEE SHEET 487 FOR WATER SERVICE LINES AND METER DETAILS.
8. SUBMIT TO THE CITY OF HOUSTON CCTV VIDEO INSPECTIONS OF SANITARY SEWERS AND MANHOLE ACCORDING TO DOC. SPEC. NO. 02558
9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
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0 5 10 20 40 60
SCALE: 1" = 20'

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

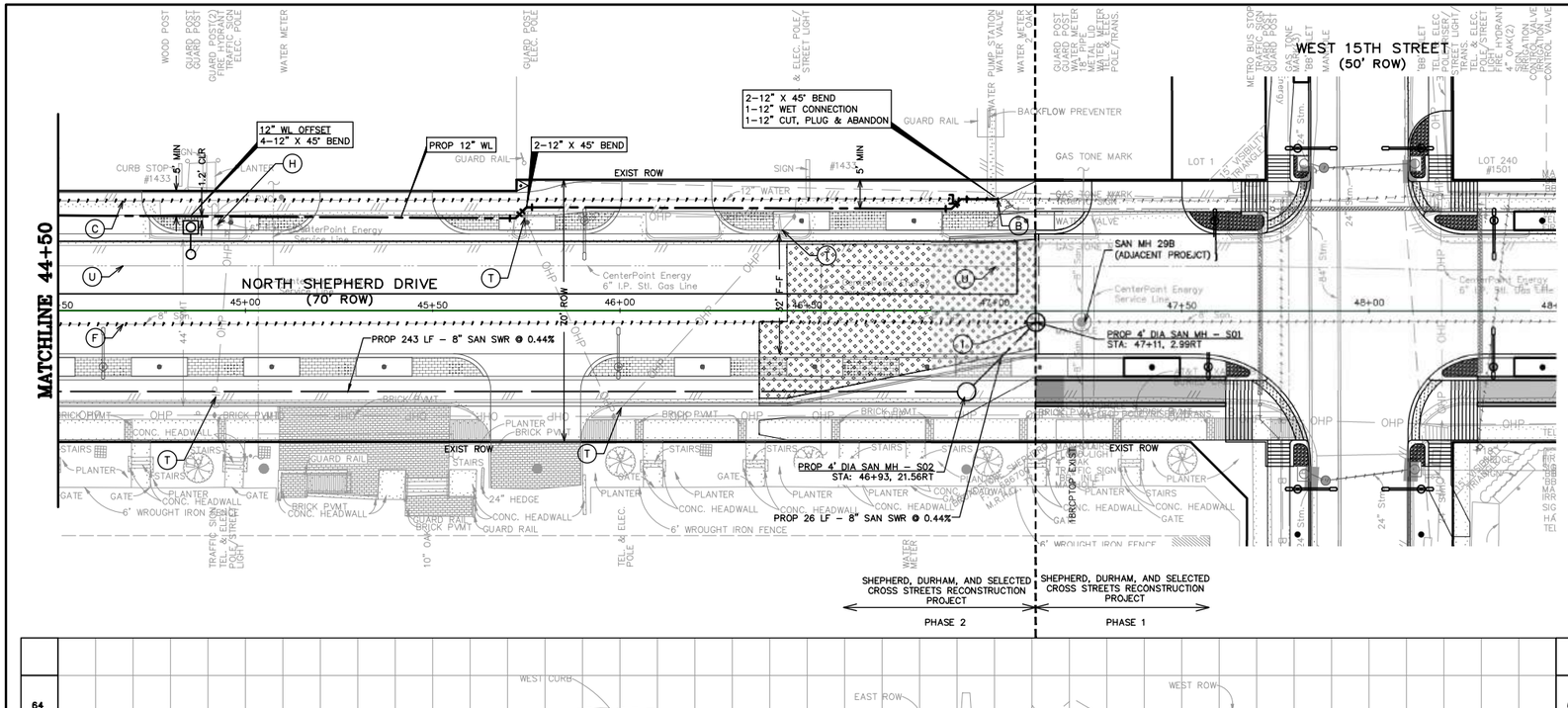
NORTH SHEPHERD DRIVE
N SHEPHERD DR 40+50 TO 44+50 PROFILE

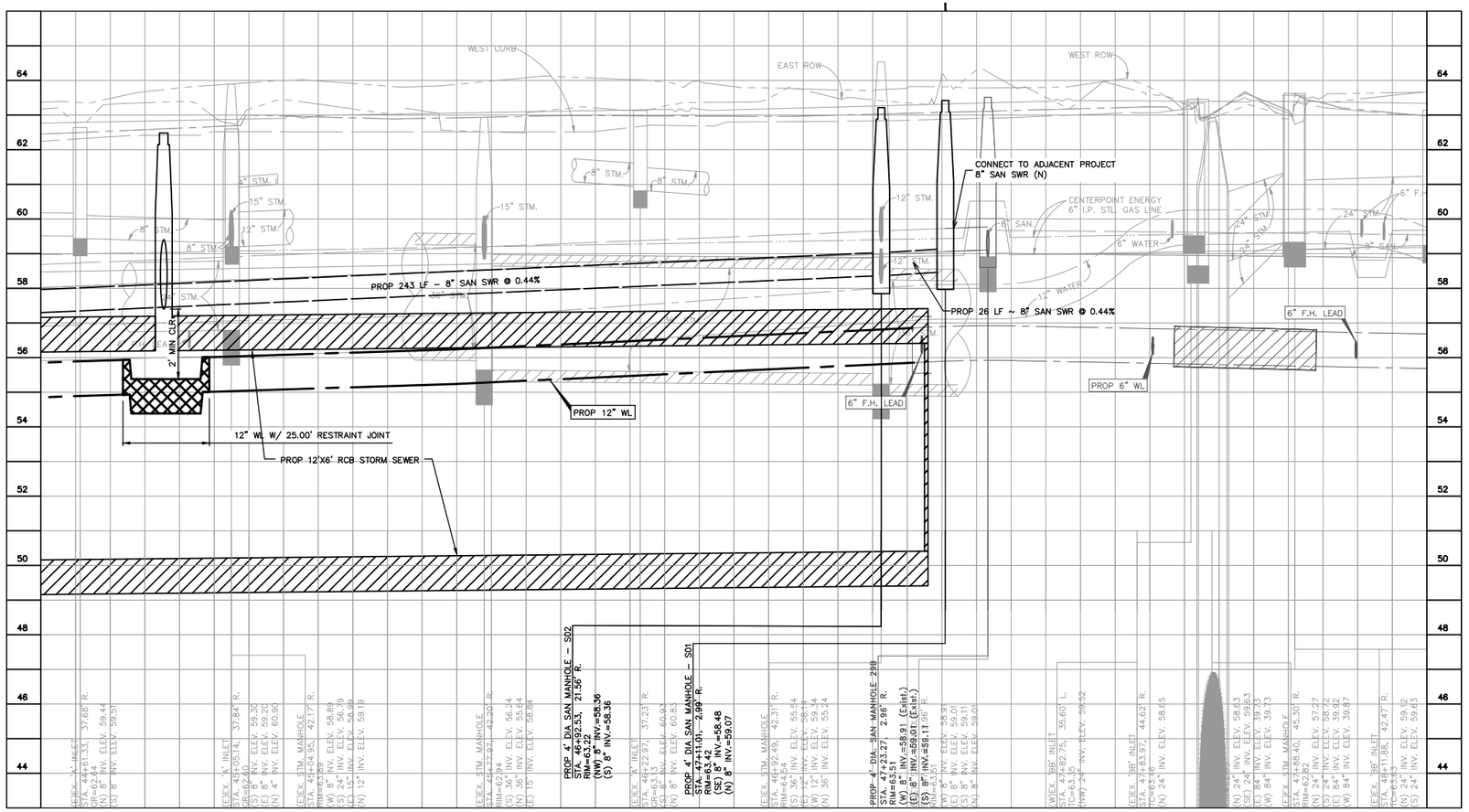
SHEET 54 OF 78

WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 469 OF 711	

FOR CITY OF HOUSTON USE ONLY

ACCEPTED
PUBLIC WORKS
78839
CITY OF HOUSTON, TEXAS





BENCHMARK INFO

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TBM INFO

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TBM 'MM',CP-102, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=63.10'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- XXX EXIST WATER AND/OR SANITARY TO BE REMOVED
- \\\ EXIST WATER AND/OR SANITARY TO BE ABANDON
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- PROPOSED WATER LINE

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SCALE: 1" = 20'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

NORTH SHEPHERD DRIVE

N SHEPHERD DR 44+50 TO END

SHEET 55 OF 78

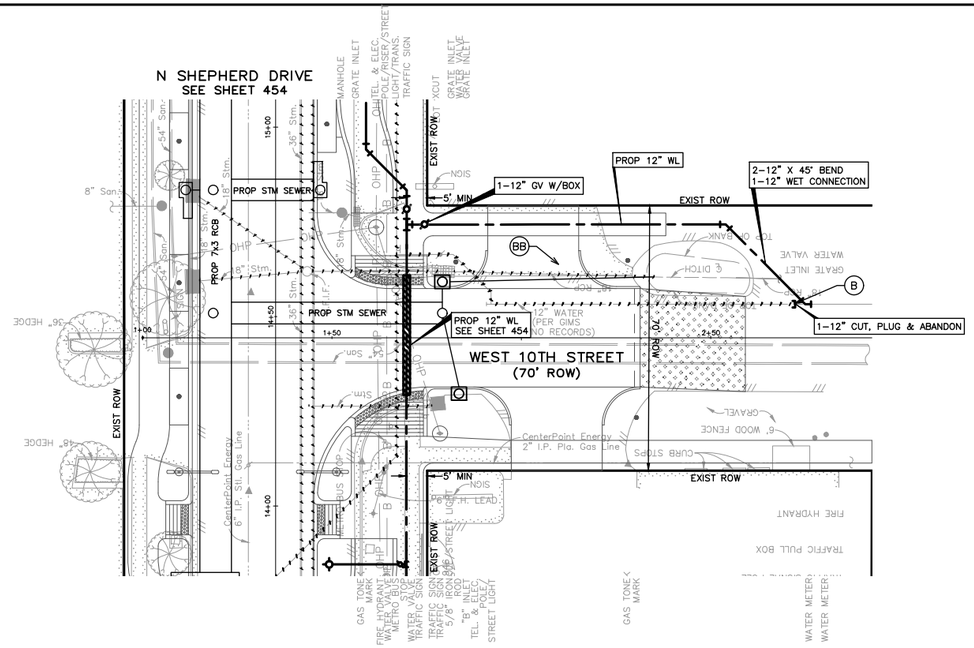
WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 470 OF 711	

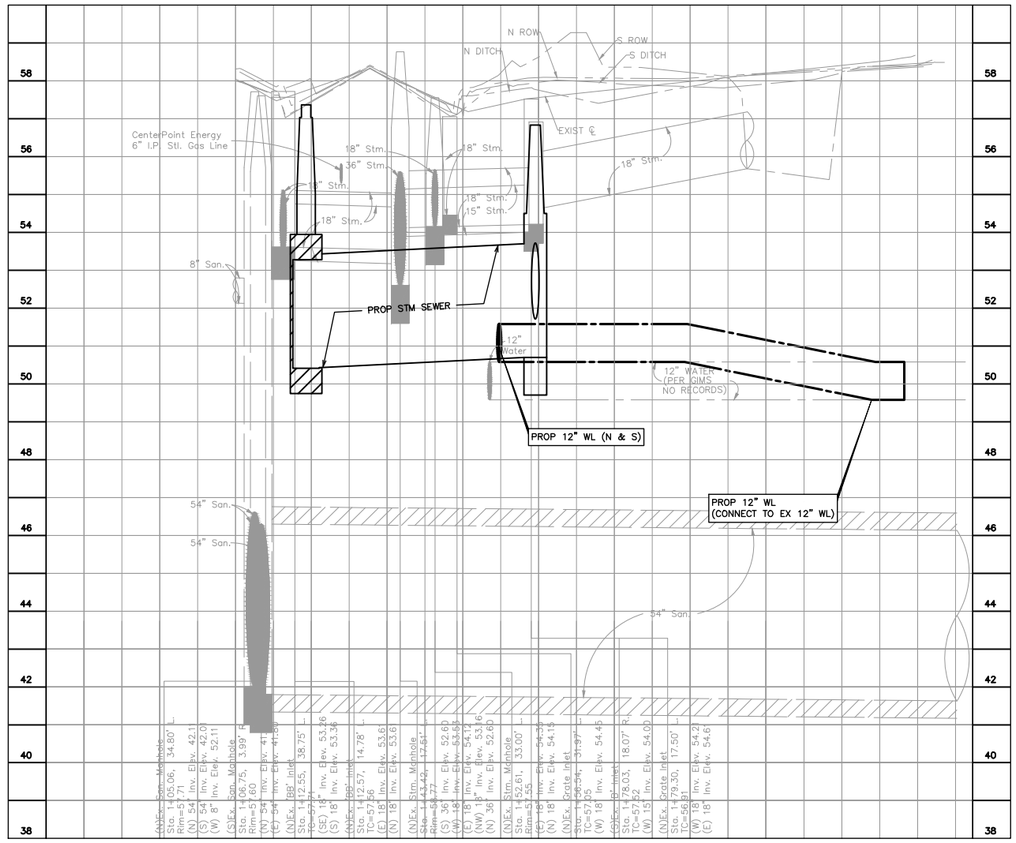
FOR CITY OF HOUSTON USE ONLY
PUBLIC WORKS
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362

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K:\Quiddity\Shepherd Durham PH1\4-0 Production\4-1 Drawings\P&P 10th Street.dwg Sep 12, 2024 - 1:45pm jyush06

BENCHMARK INFO

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TBM INFO

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
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N

0 5 10 20 40 60
SCALE: 1" = 20'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

10TH STREET

10TH ST BEGIN TO END

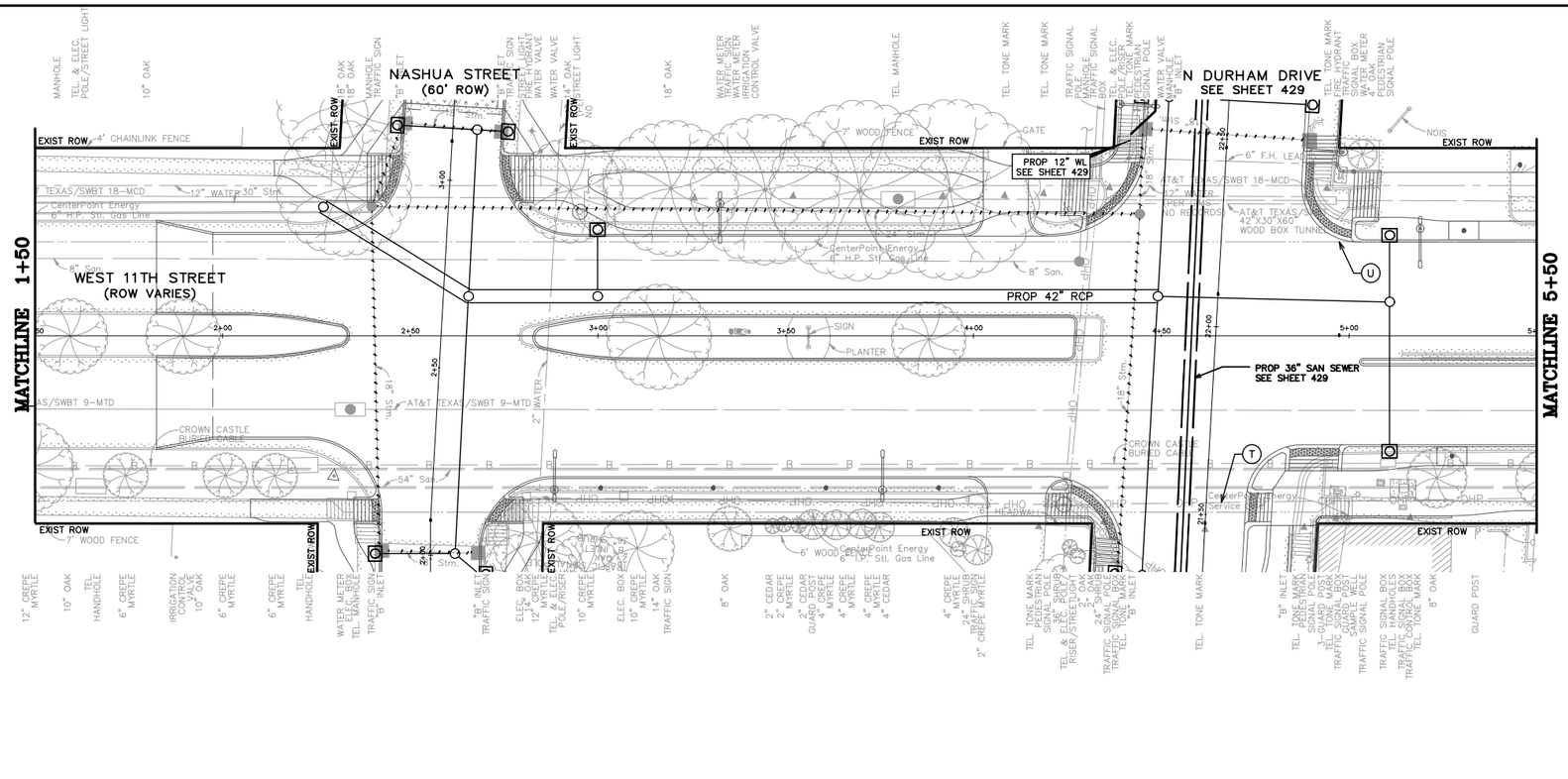
SHEET 56 OF 78

WBS NUMBER	N-100041-0001-4
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 471 OF 711	

FOR CITY OF HOUSTON USE ONLY
PUBLIC WORKS
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362



BENCHMARK INFO

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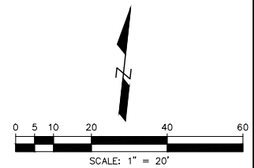
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PLAN & PROFILE – WATER AND WASTEWATER

11TH STREET

11TH ST BEGIN TO 5+50

SHEET 57 OF 78

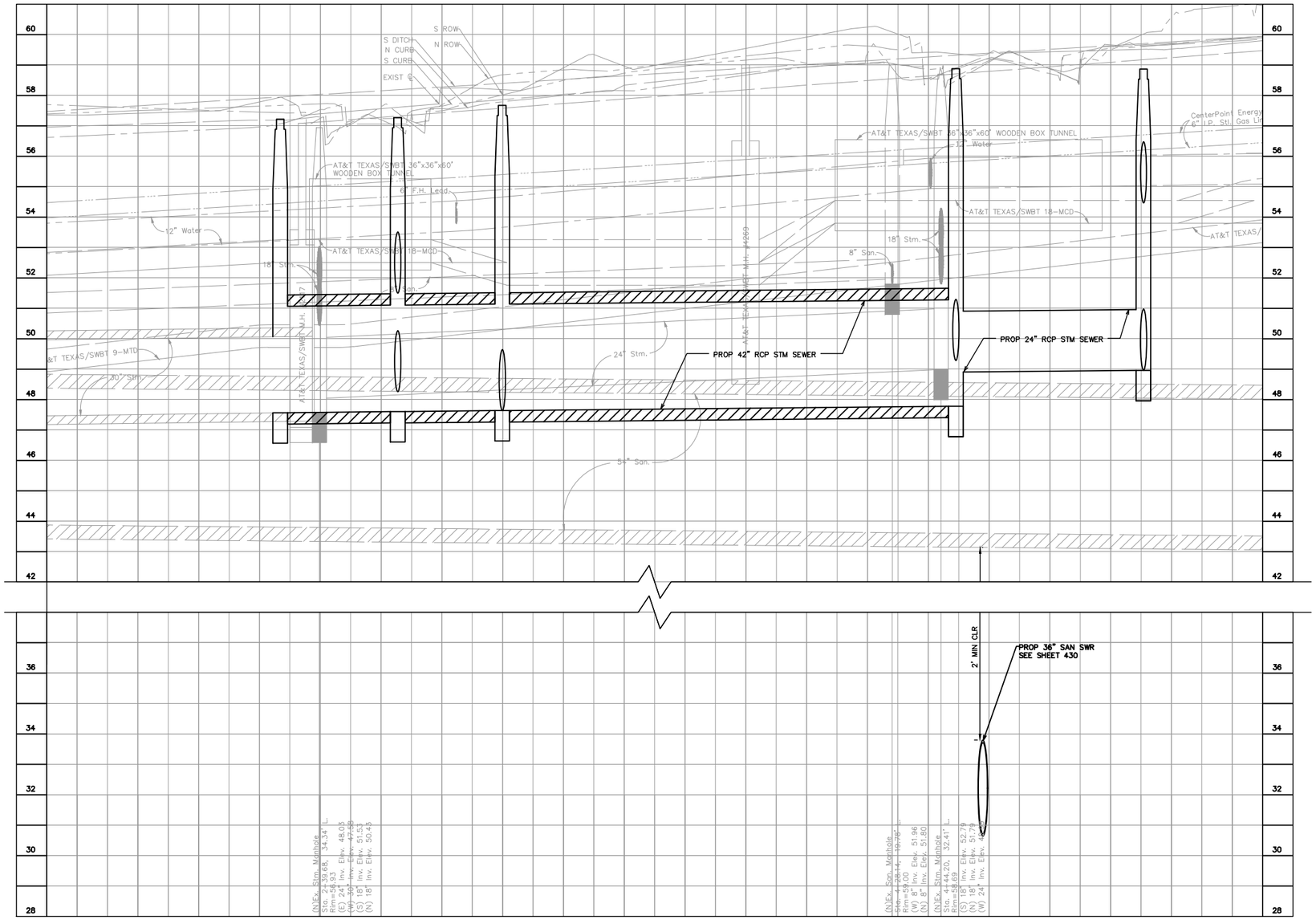
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78899
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K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P 11th Street.dwg Sep 12, 2024 - 1:49pm jrush06

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0 5 10 20 40 60
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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23190
1550 West Loop South, Suite 200 • Bellaire, TX 77401 • (713) 771-3337

Aurora Technical Services, LLC
2321 Sage Road, Suite 150 Houston, TX 77056
Tel: (281) 402-7700

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

11TH STREET

11TH ST BEGIN TO 5+50 PROFILE

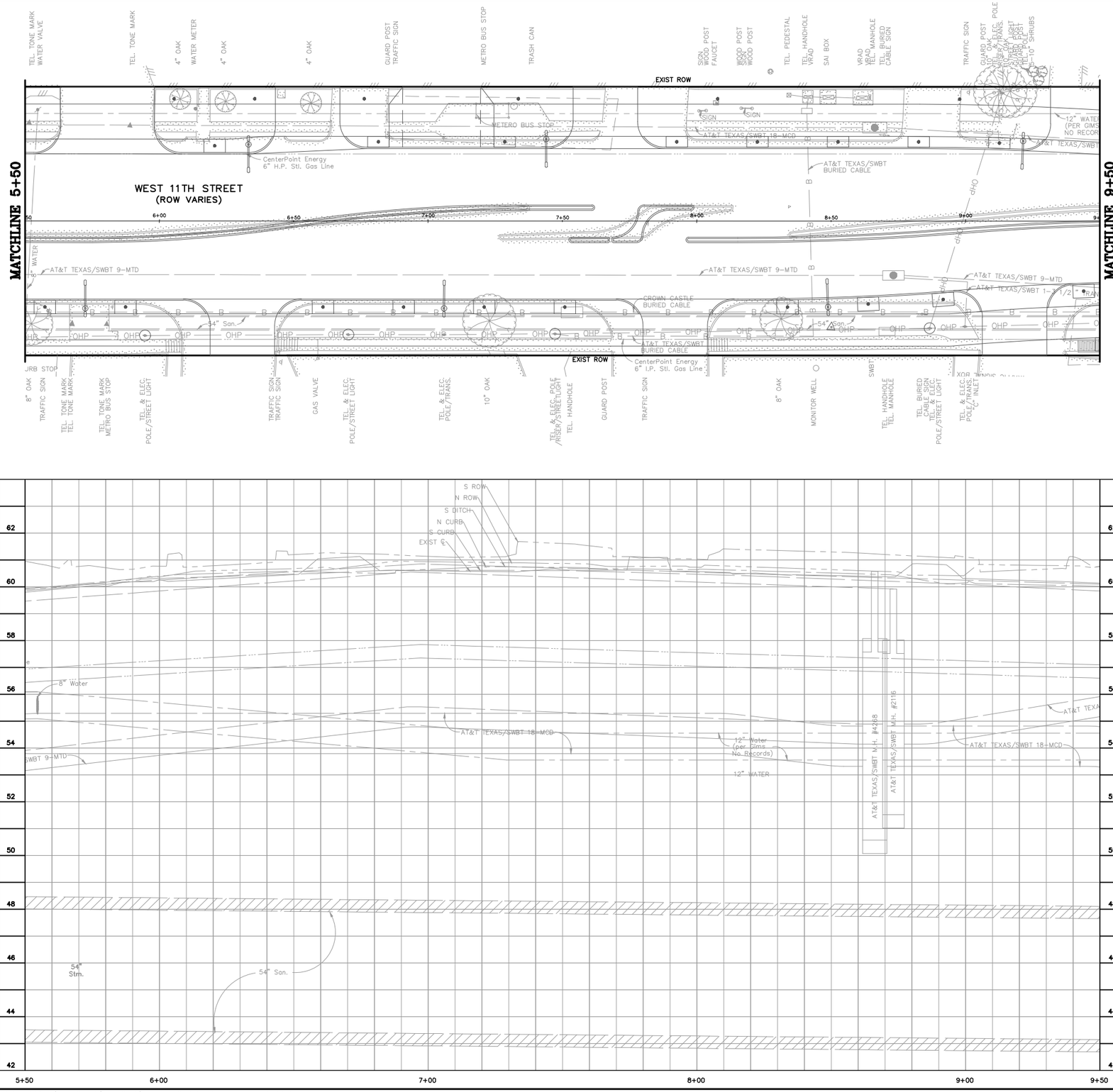
SHEET 58 OF 78

WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 473 OF 711	

FOR CITY OF HOUSTON USE ONLY
78839

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362



BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
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- PROPOSED SANITARY SEWER
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6330 West Loop South, Suite 150 ● Bellaire, TX 77401 ● 713.771.5337

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Tel: (281) 453-7700

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WILLIAM M. WILSHIRE III
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09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

11TH STREET

11TH ST 5+50 TO 9+50

SHEET 59 OF 78

WBS NUMBER
N–100041–0001–4
DRAWING SCALE
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CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 474 OF 711

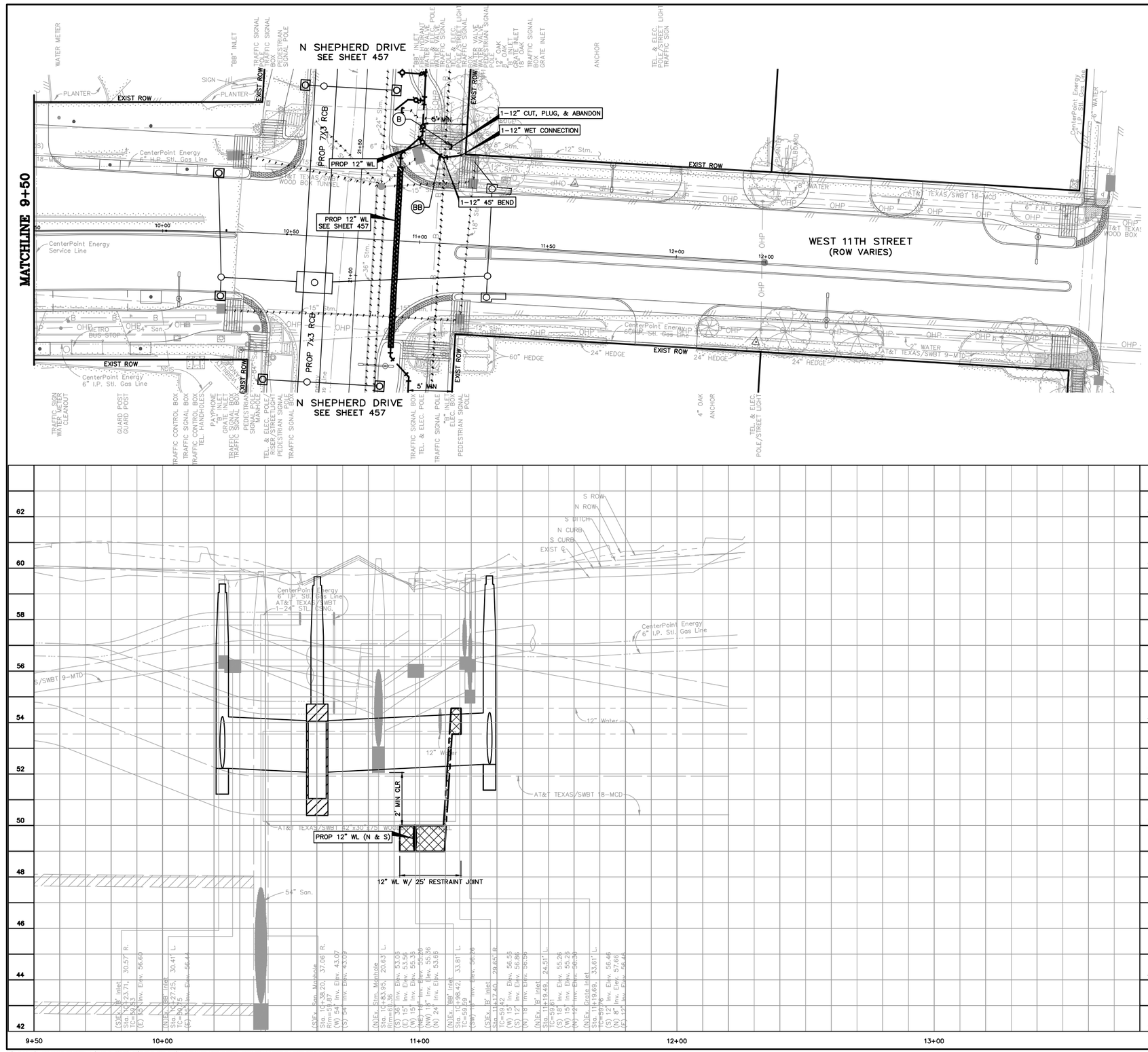
FOR CITY OF HOUSTON USE ONLY

PUBLIC WORKS ENGINEERING
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275–321

FOR STORM LATERAL PROFILES, SEE SHEETS 322–362

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P 11th Street.dwg Sep 12, 2024 - 1:50pm jrush06



BENCHMARK INFO

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N

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www.aurorahouston.com

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WILLIAM M. WILSHIRE III
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LICENSED
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09.12.2024

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

11TH STREET

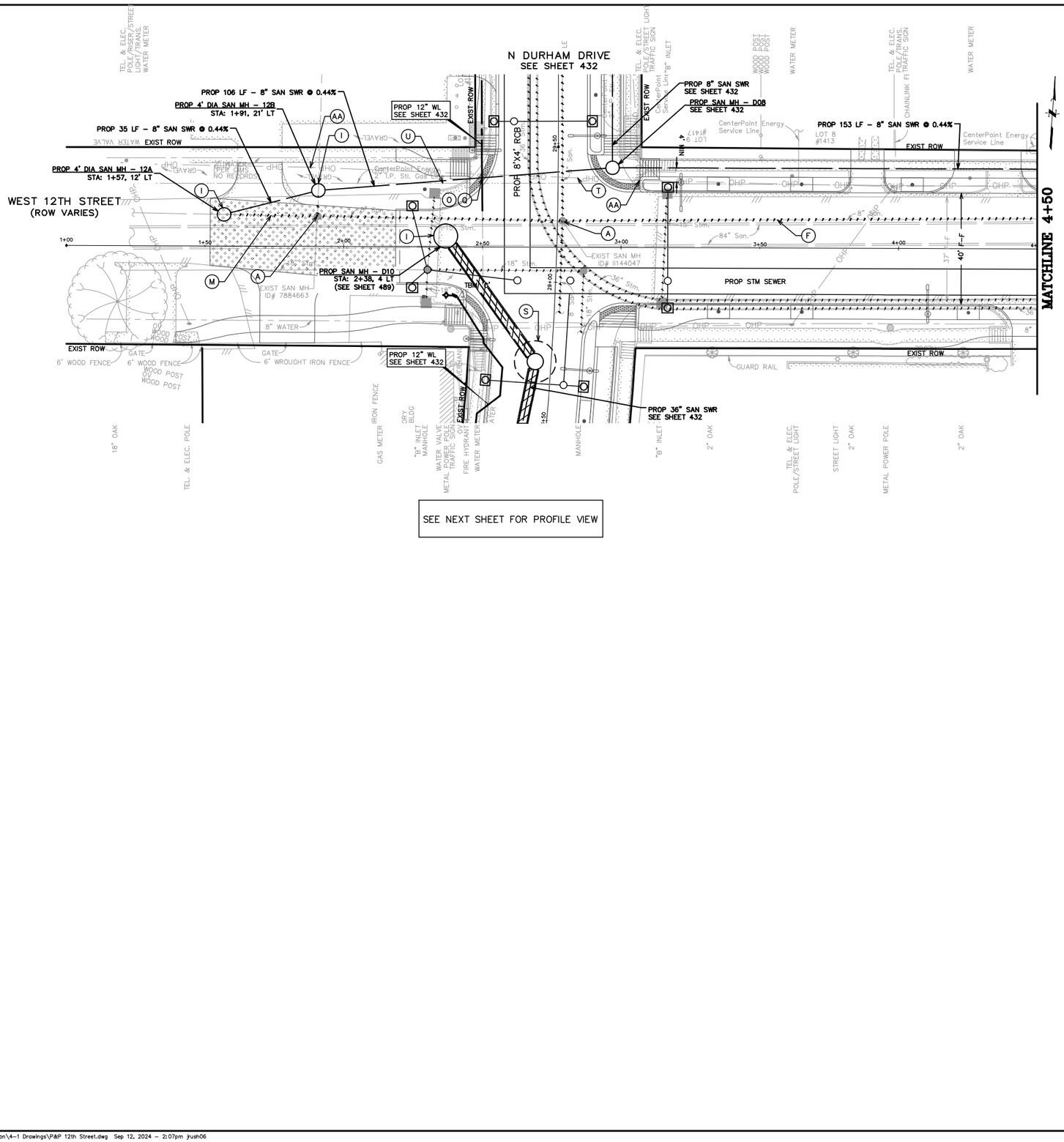
11TH ST 9+50 TO END

SHEET 60 OF 78

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 475 OF 711	

PUBLIC WORKS & ENGINEERING ACCEPTED 78839 CITY OF HOUSTON, TEXAS

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P 11th Street.dwg Sep 12, 2024 – 1:51pm jrush06



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TBM INFO

TBM 'C',CP-13, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.31'

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0 5 10 20 40 60
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QUIDDITY

Aurore Technical Services, LLC

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
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09.12.2024

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

12TH STREET

12TH ST BEGIN TO 4+50

SHEET 61 OF 78

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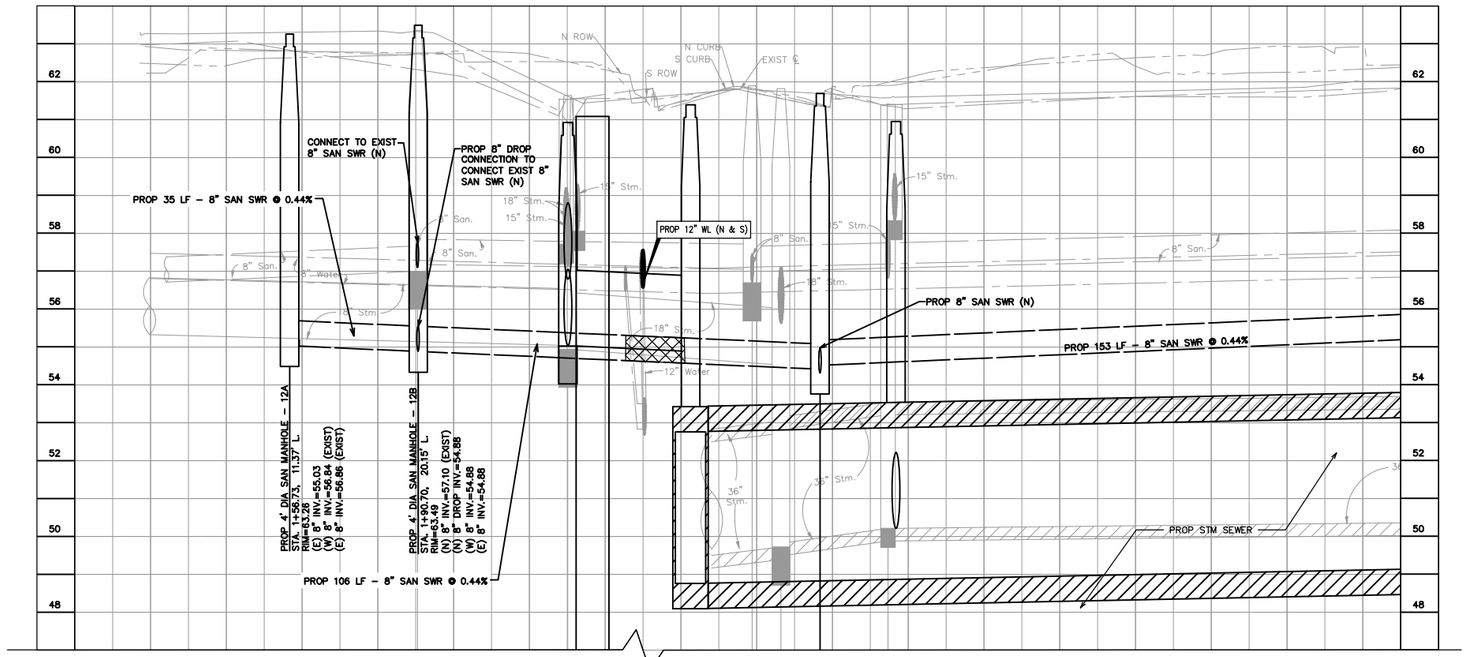
PUBLIC WORKS & ENGINEERING
ACCEPTED AND APPROVED
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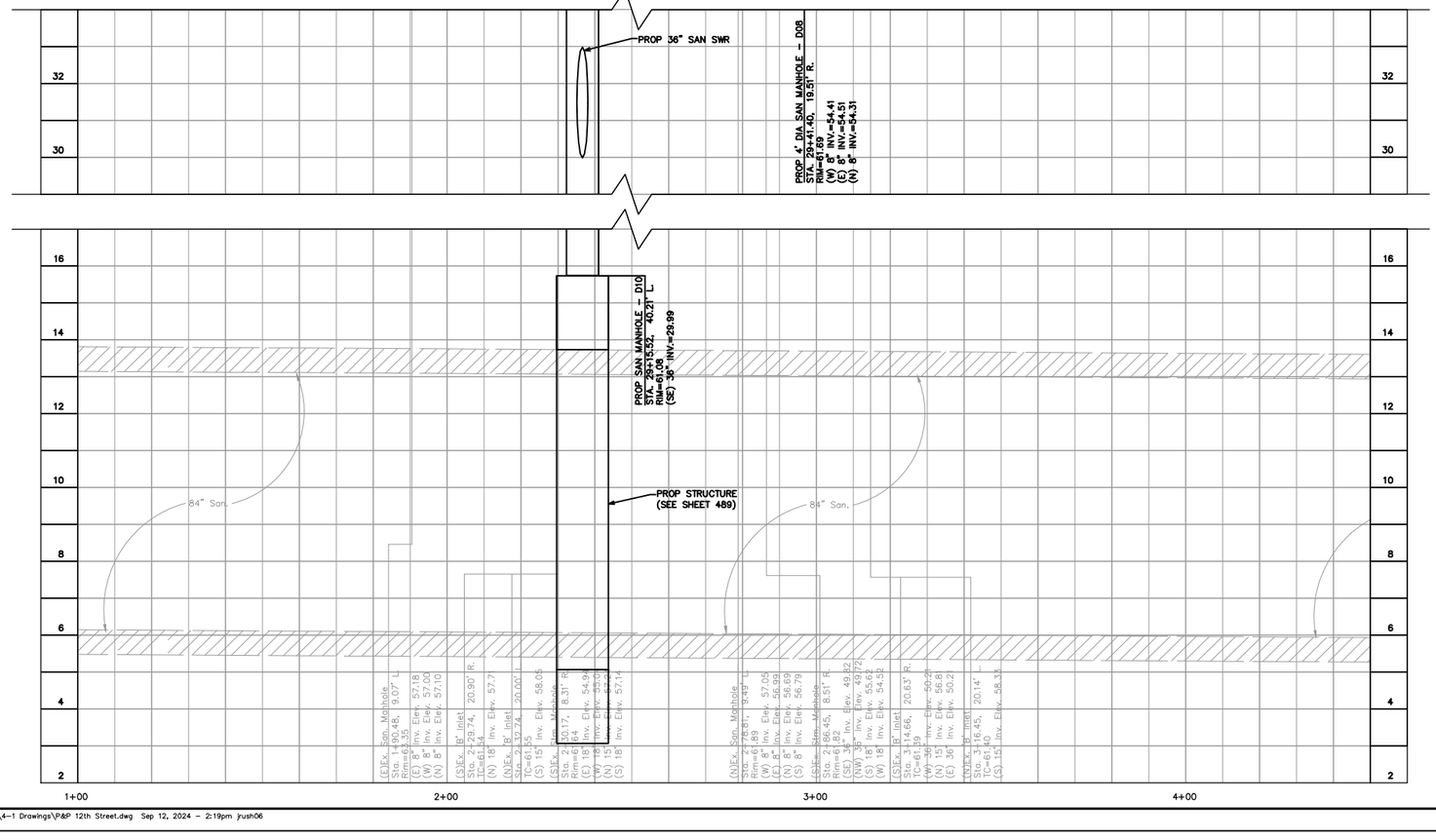
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SEE PREVIOUS SHEET FOR PLAN VIEW





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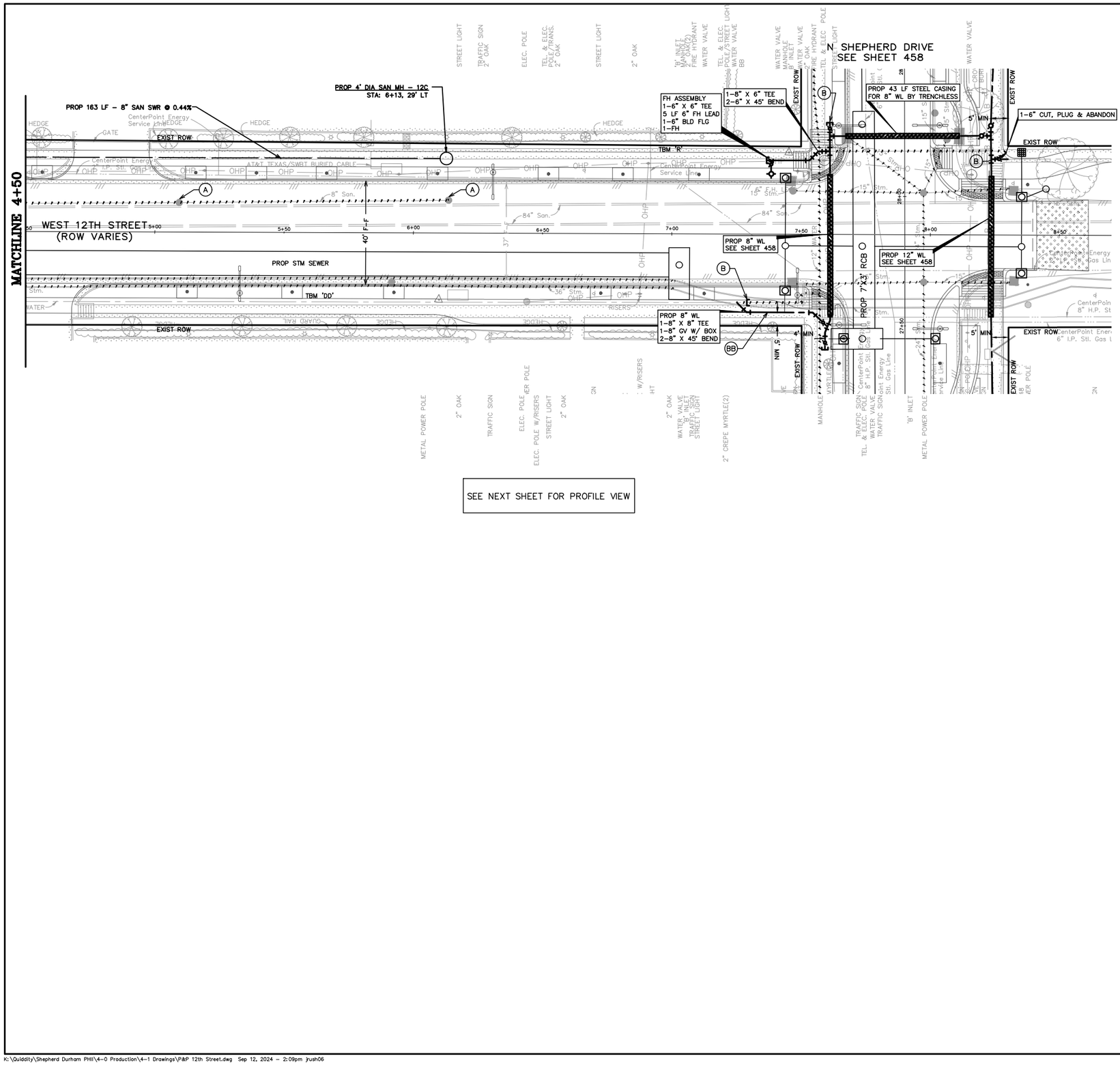
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FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'DD',CP–176, 5/8–INCH IRON ROD WITH CAP. (SEE RECOVERY SKETCH)
ELEV=62.07'
TBM 'R',CP–85, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV=61.37'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
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- PROPOSED WATER LINE

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
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0 5 10 20 40 60
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Date: 4/4/24

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V. Z. Gonzalez Date: 4/2/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY

Aurore Technical Services, LLC

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P–6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

12TH STREET

12TH ST 4+50 TO END

SHEET 63 OF 78

WBS NUMBER
N–100041–0001–4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 478 OF 711

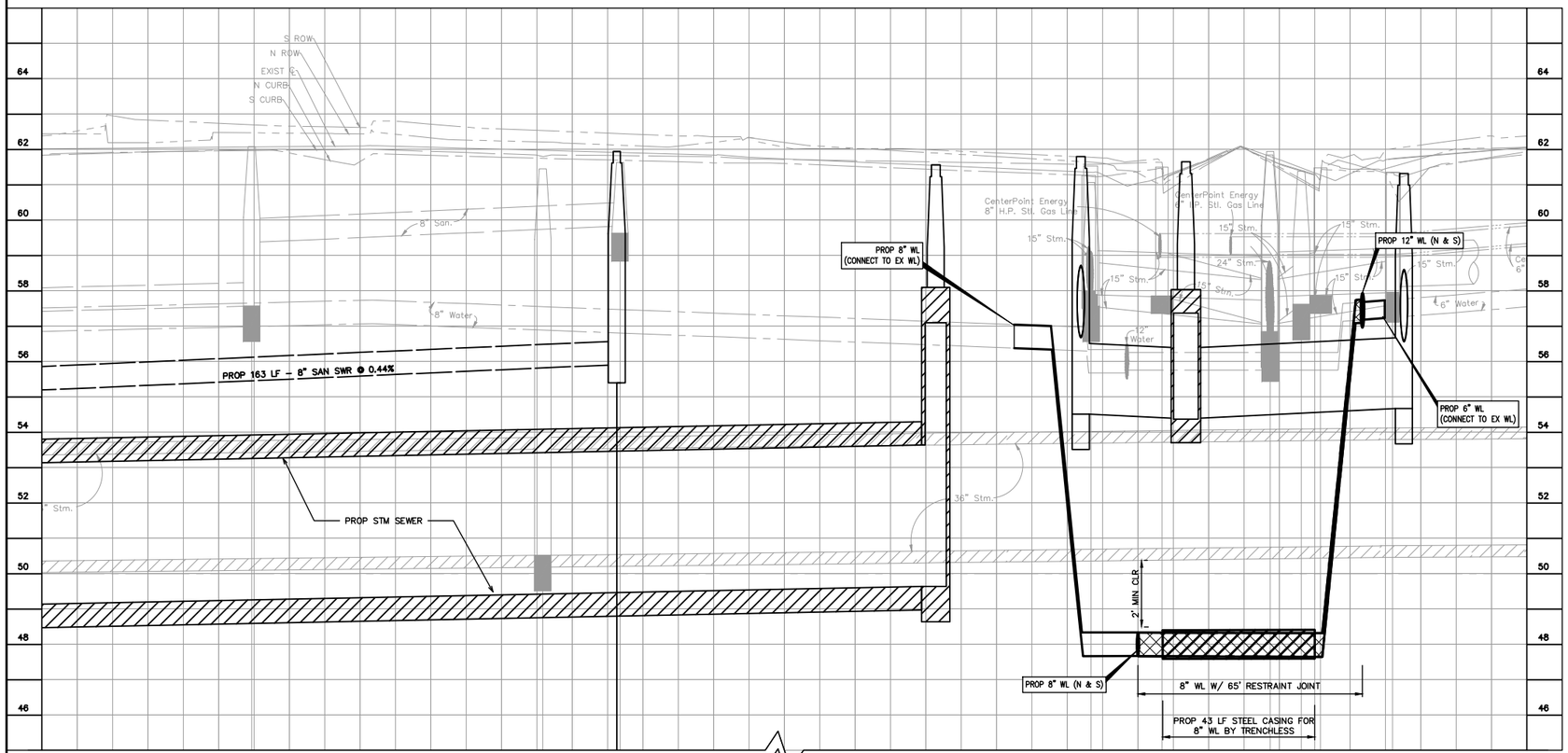
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78899
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275–321

FOR STORM LATERAL PROFILES, SEE SHEETS 322–362

SEE PREVIOUS SHEET FOR PLAN VIEW



BENCHMARK INFO

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16300 West Long Point, Suite 210 ● Houston, TX 77070 ● 713.773.5337

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2101 Sage Road, Suite 150 Houston, TX 77056
Tel: (281) 453-7700
www.auroratechservices.com

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PLAN & PROFILE – WATER AND WASTEWATER

12TH STREET

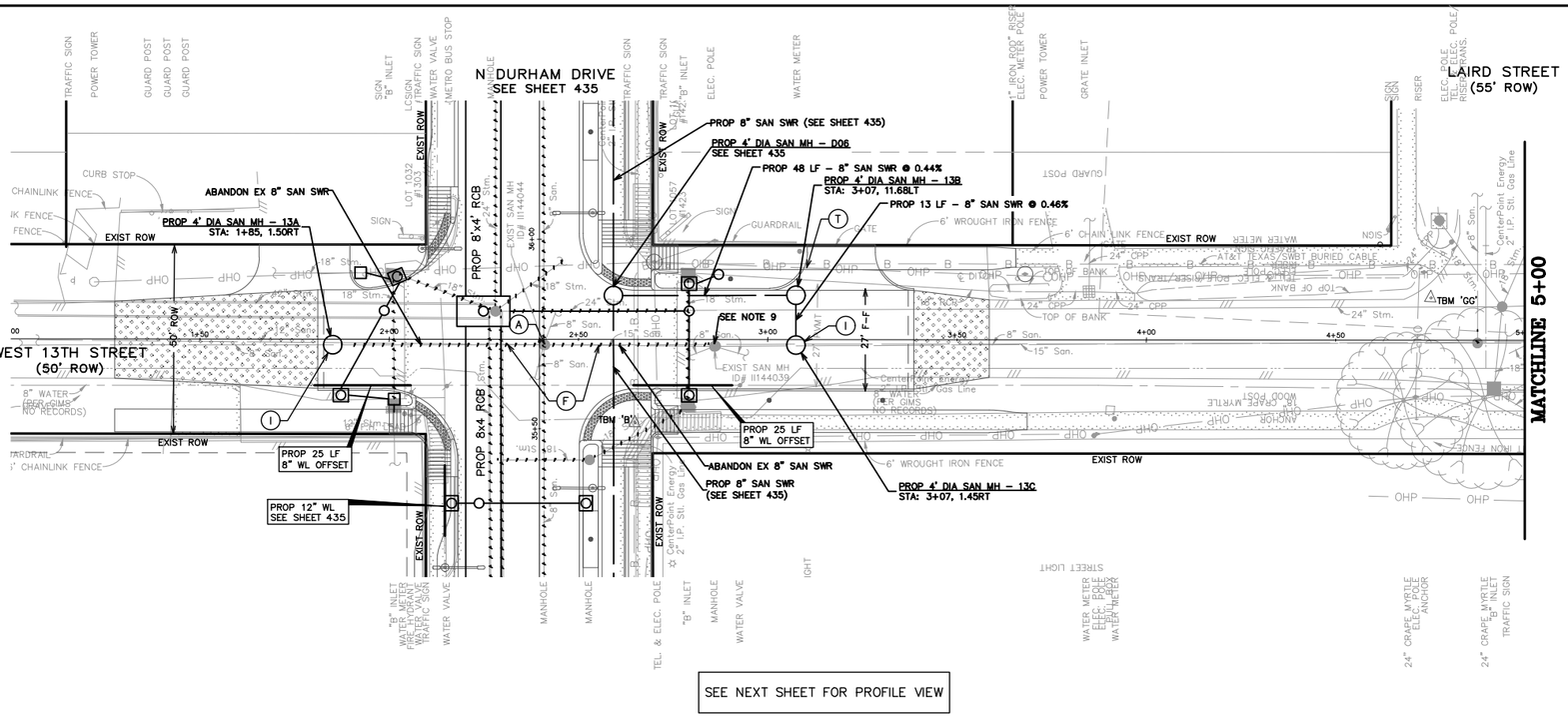
12TH ST 4+50 TO END PROFILE

SHEET 64 OF 78

WBS NUMBER	N–100041–0001–4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO.	479 OF 711

FOR CITY OF HOUSTON USE ONLY

PUBLIC WORKS & ENGINEERING
78839
CITY OF HOUSTON, TEXAS



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SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
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LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

13TH STREET

13TH ST BEGIN TO 5+00

SHEET 65 OF 78

WBS NUMBER
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DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 480 OF 711

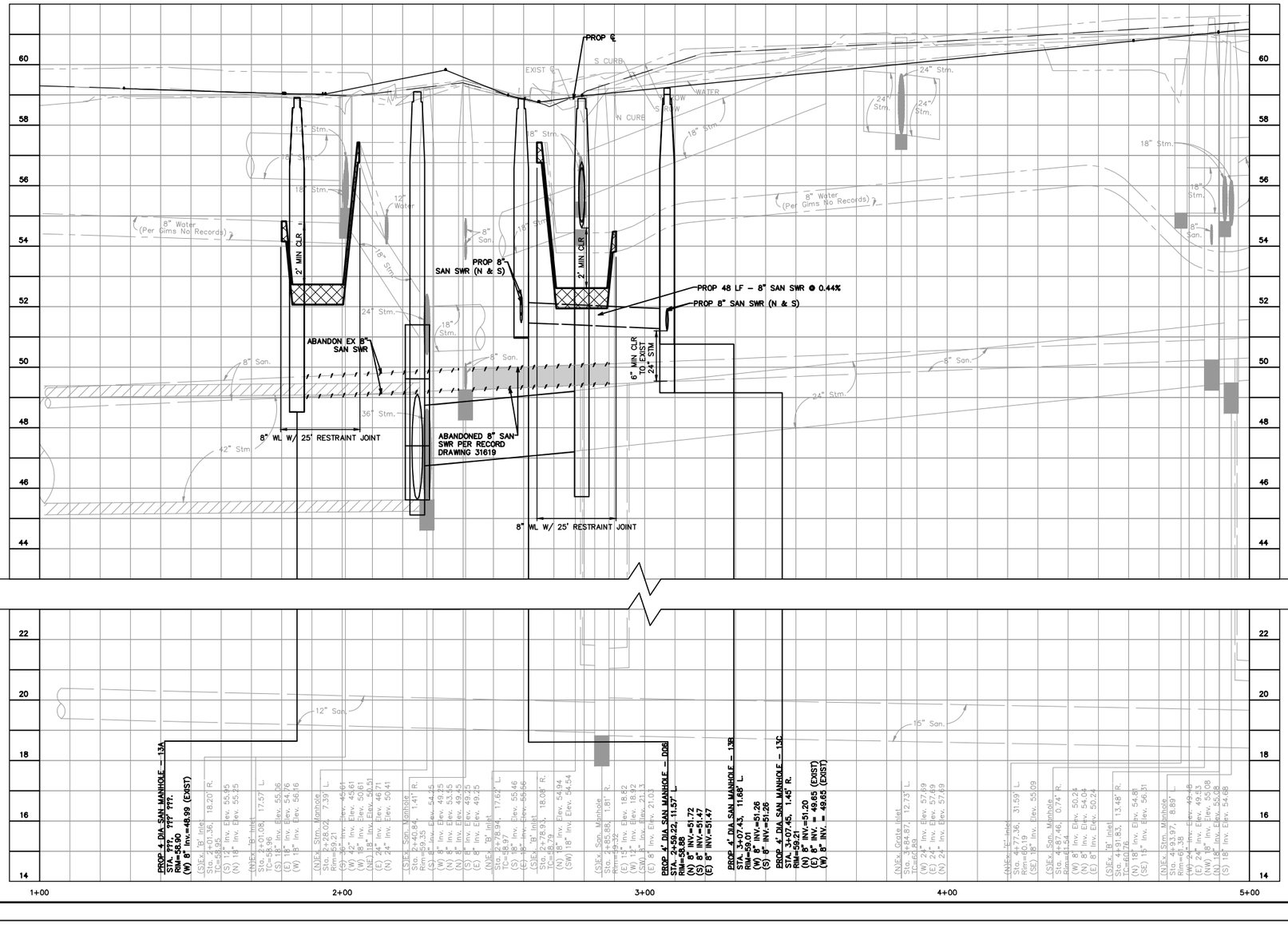
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PUBLIC WORKS & ENGINEERING
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78899
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275–321

FOR STORM LATERAL PROFILES, SEE SHEETS 322–362

SEE PREVIOUS SHEET FOR PLAN



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6330 West Loop South, Suite 150 ● Bellaire, TX 77401 ● 713.751.5257

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13TH STREET

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SHEET 66 OF 78

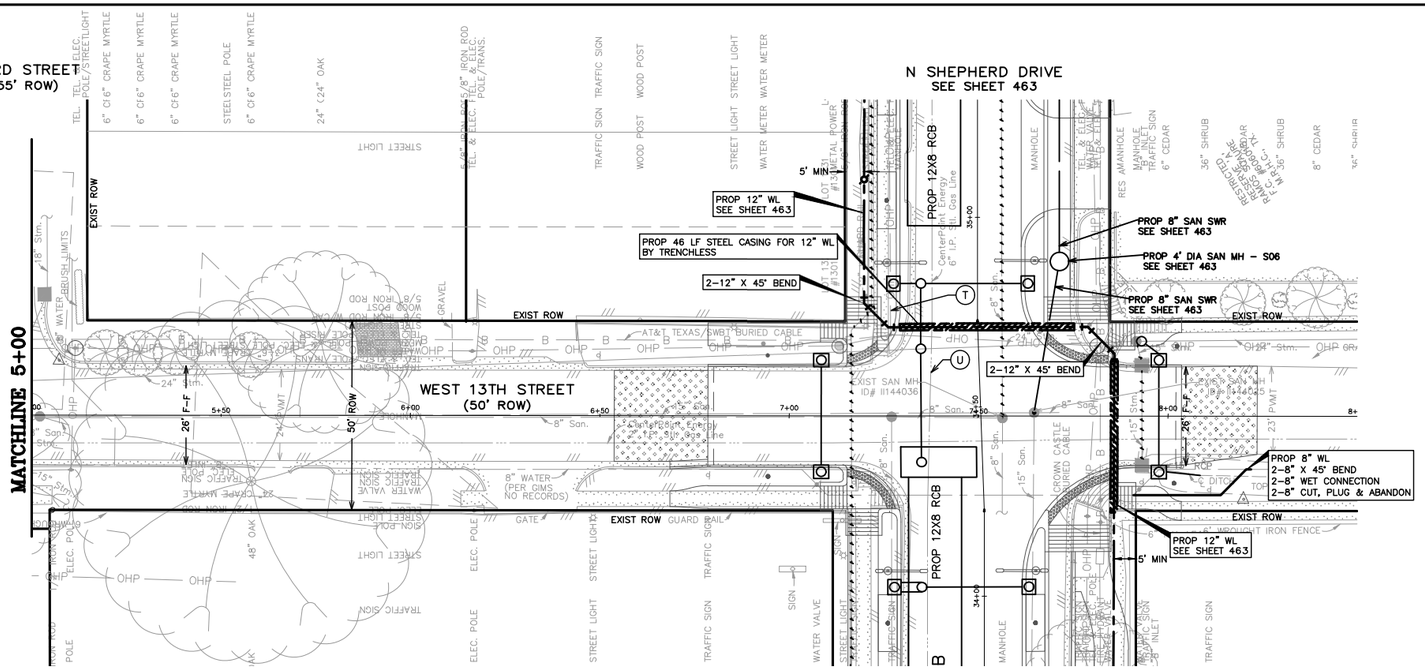
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13TH STREET

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SHEET 67 OF 78

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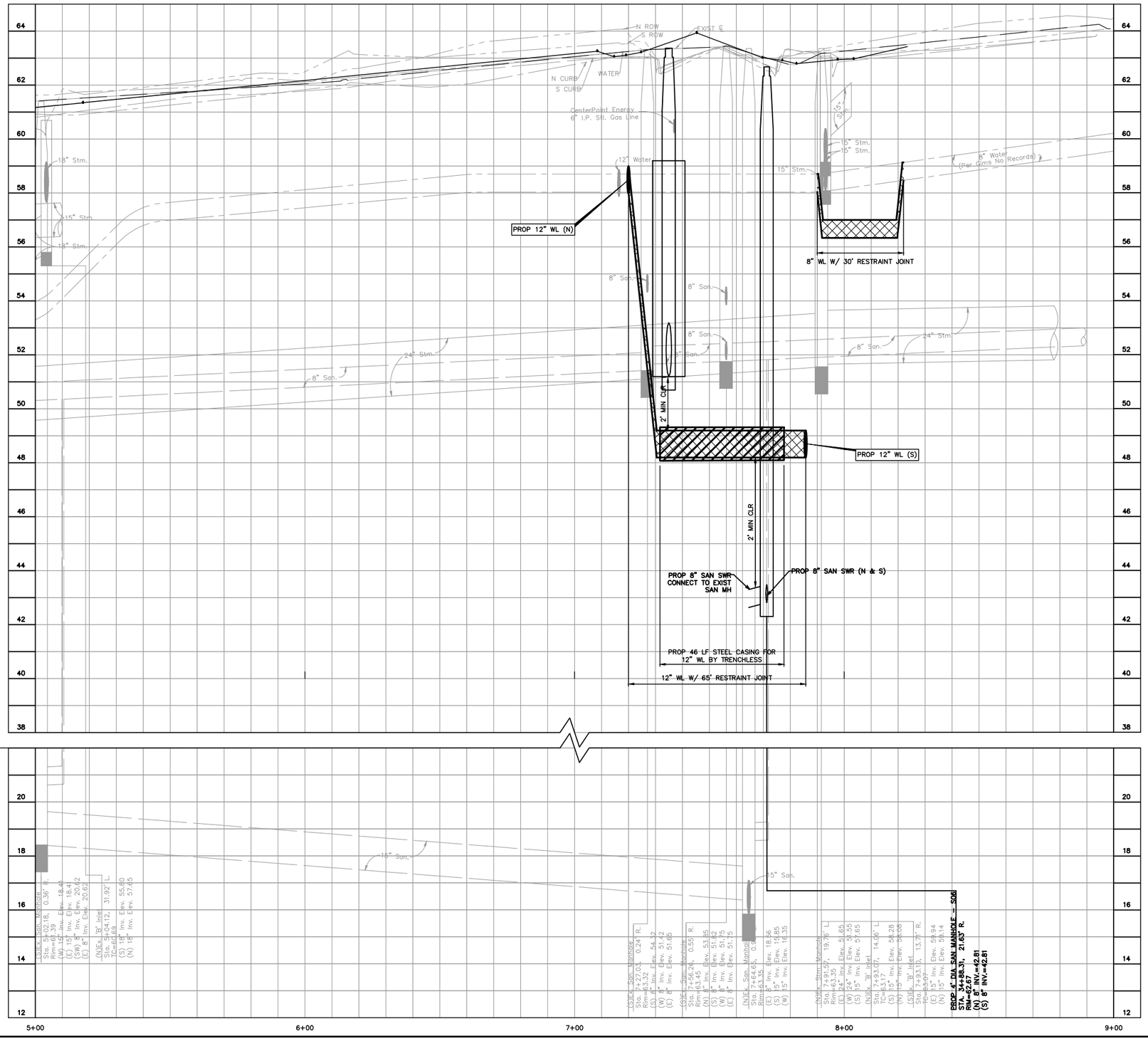
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- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
- PROPOSED SANITARY SEWER
- PROPOSED WATER LINE

GENERAL NOTES

1. SEE PAVING & DRAINAGE PLAN & PROFILE SHEETS FOR PROP ROADWAY AND STORM SEWER IMPROVEMENTS.
2. HAND EXCAVATION IS REQUIRED FOR EXCAVATION WORK BENEATH AND WITHIN DRIP LINE AREAS OF MATURE TREES. DO NOT STORE EQUIPMENT OR MATERIALS, OR DRIVE HEAVY OR TRACK EQUIPMENT WITHIN DRIP LINE AREAS OF MATURE TREES. REFER TO SPECIFICATION SECTION 01562 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
3. CONTRACTOR TO COORDINATE WITH CITY OF HOUSTON URBAN FORESTER AT (832)395-8459 PRIOR TO WORK BENEATH EXISTING MATURE TREES FOR ANY ADDITIONAL TREE PROTECTION REQUIREMENTS.
4. CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
5. CONTRACTOR TO ADJUST EXIST VALVE BOXES/METER BOXES/VAULTS/PULLBOXES TO MATCH NEW PAVING GRADE. REPLACE MISSING OR DAMAGED BOXES AND COVERS.
6. MAINTAIN WATER SERVICES TO CUSTOMERS, FIRE HYDRANTS AND INTERCONNECTIONS, PROVIDE TEMPORARY CONNECTION AS NECESSARY TO MAINTAIN SERVICES DURING CONSTRUCTION.
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9. AFTER INSTALLATION AND SUCCESSFUL TESTING OF WATER MAINS AND SANITARY SEWERS, TRANSFER SERVICES FROM EXISTING LINES TO NEW LINES. ABANDON EXISTING WATER MAINS AND SANITARY SEWERS WHERE SHOWN OR INDICATED ON THE DRAWINGS.
10. ALL WATER LINE OFFSETS SHALL USE DUCTILE IRON PIPE.

0 5 10 20 40 60
SCALE: 1" = 20'

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275–321

FOR STORM LATERAL PROFILES, SEE SHEETS 322–362

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

4/4/24
Date:

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

4/4/24
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CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
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V. J. Gonzalez 4/2/24
Date:

Approved for AT&T Texas SWBT underground conduit facilities ONLY
The AT&T electronic signature is valid for one year.

NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-22390
6330 West Loop South, Suite 150 ● Bellaire, TX 77401 ● 713.777.5337

Aurora Technical Services, LLC
3131 Eastside Street, Suite 100 Houston, TX 77098
Tel: (281) 402-7700
www.auroratechnicalservices.com

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

13TH STREET

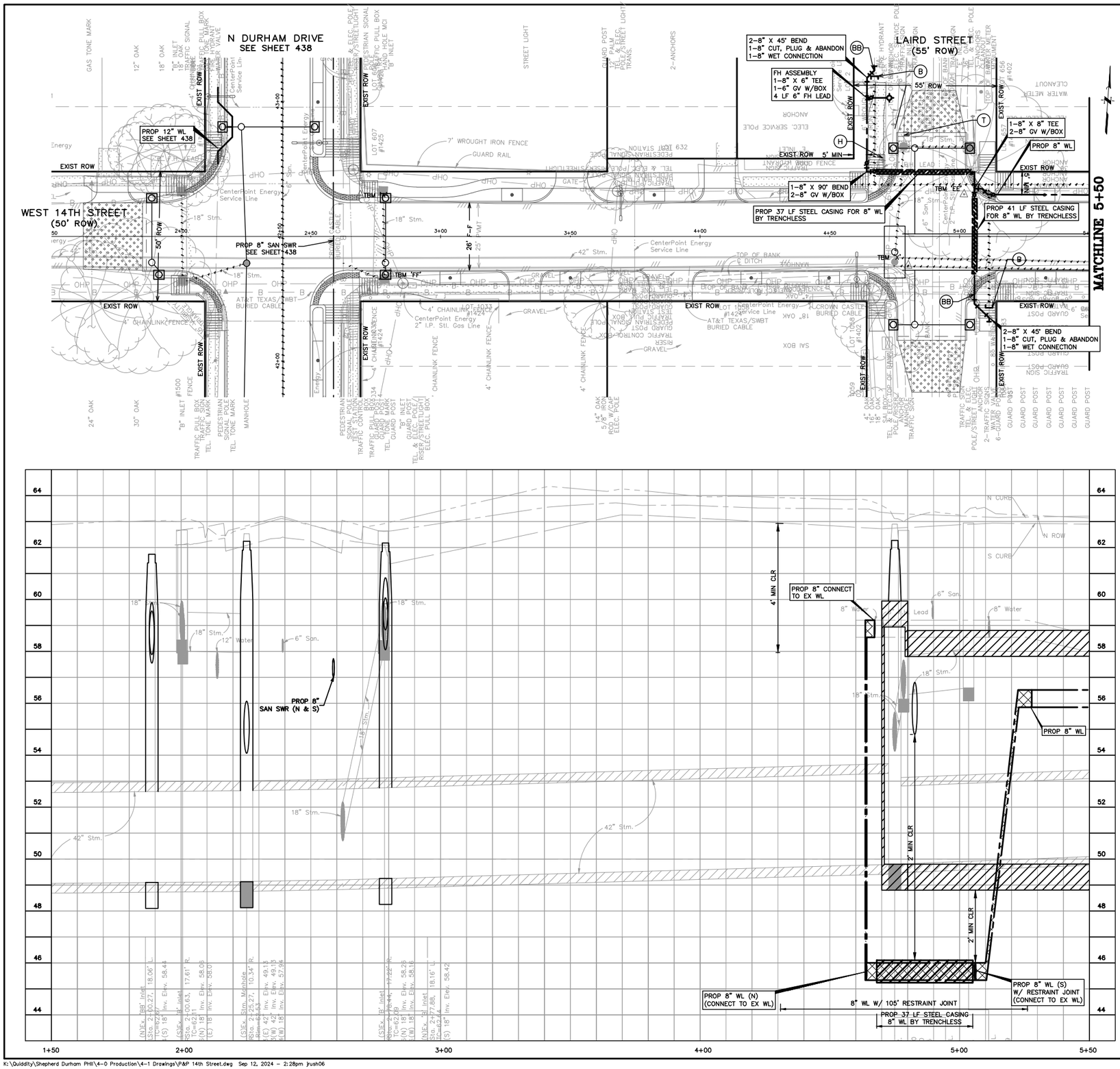
13TH ST 5+00 TO END PROFILE

SHEET 68 OF 78

WBS NUMBER	N–100041–0001–4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 483 OF 711	

FOR CITY OF HOUSTON USE ONLY

ACCEPTED
PUBLIC WORKS & ENGINEERING
78899
CITY OF
HOUSTON, TEXAS



BENCHMARK INFO

TSARP CONVERSION REFERENCE MONUMENT
(TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 050035
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED RM 050035 FROM THE INTERSECTION OF IH 10 AND N. SHEPHERD DR., NORTH ALONG SHEPHERD 0.15 MILES TO THE BENCHMARK ON THE LEFT.
PUBLISHED ELEV= 50.55 (NAVD 1988, 2001 ADJUSTMENT)
OBSERVED ELEV= 50.59 (NAVD 1988, (CORS '96) COMPUTED USING GEOID 12A)

TBM INFO

TBM 'A',CP-11, X-CUT. (SEE RECOVERY SKETCH) ELEV= 62.42'
TBM 'FF',CP-178, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 61.97'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
- EXIST WATER AND/OR SANITARY TO BE REMOVED
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Date: 4/4/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 ● Bellaire, TX 77401 ● 713.777.5337

Aurora Technical Services, LLC
3319 Sage Road, Ste. 155 Houston, TX 77056
Tel: (281) 402-7790

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

14TH STREET

14TH ST BEGIN TO 5+50

SHEET 69 OF 78

WBS NUMBER
N–100041–0001–4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 484 OF 711

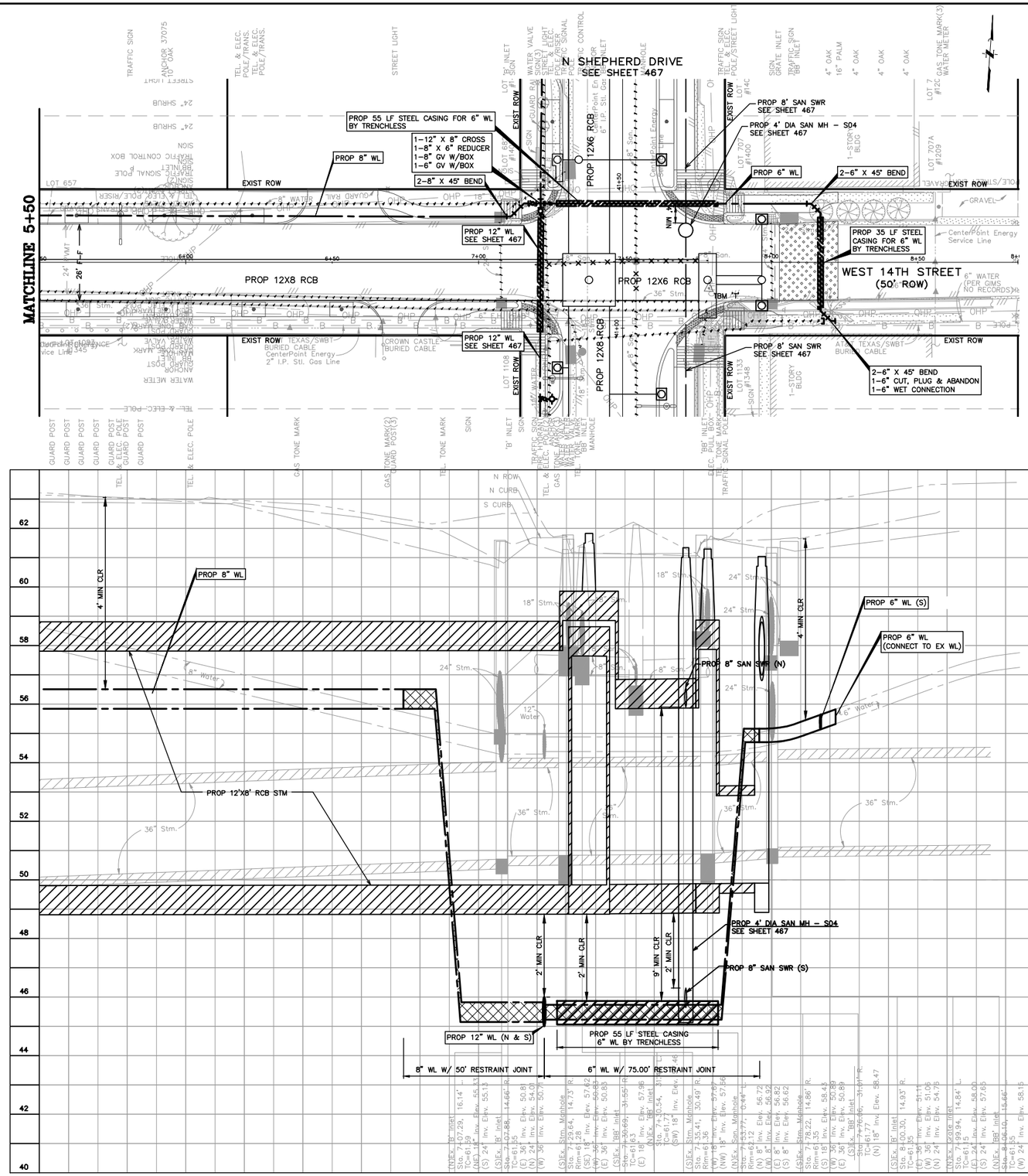
FOR CITY OF HOUSTON USE ONLY

PUBLIC WORKS ENGINEERING
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275–321

FOR STORM LATERAL PROFILES, SEE SHEETS 322–362

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P 14th Street.dwg Sep 12, 2024 – 2:28pm jrush06



K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P 14th Street.dwg Sep 12, 2024 - 2:31pm jrush06

BENCHMARK INFO

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TBM INFO

TBM 'T',CP-103, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 61.62'
TBM 'X',CP-147, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 63.03'
TBM 'EE',CP-177, MAG NAIL WITH SHINER. (SEE RECOVERY SKETCH) ELEV= 63.20'

LEGEND

- RESTRAINT JOINTS
- TRENCHLESS
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0 5 10 20 40 60
SCALE: 1" = 20'

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

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V. J. Gonzalez Date: 4/2/24

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NO.	DATE	REVISIONS	APP.

Texas Department of Transportation

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6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

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Tel: (281) 402-7750
www.aurora-technical.com

STATE OF TEXAS
WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

SURVEYED BY:
UNITED ENGINEERS, INC.
FB NO. P-6288

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

PLAN & PROFILE - WATER AND WASTEWATER

14TH STREET

14TH ST 5+50 TO END

SHEET 70 OF 78

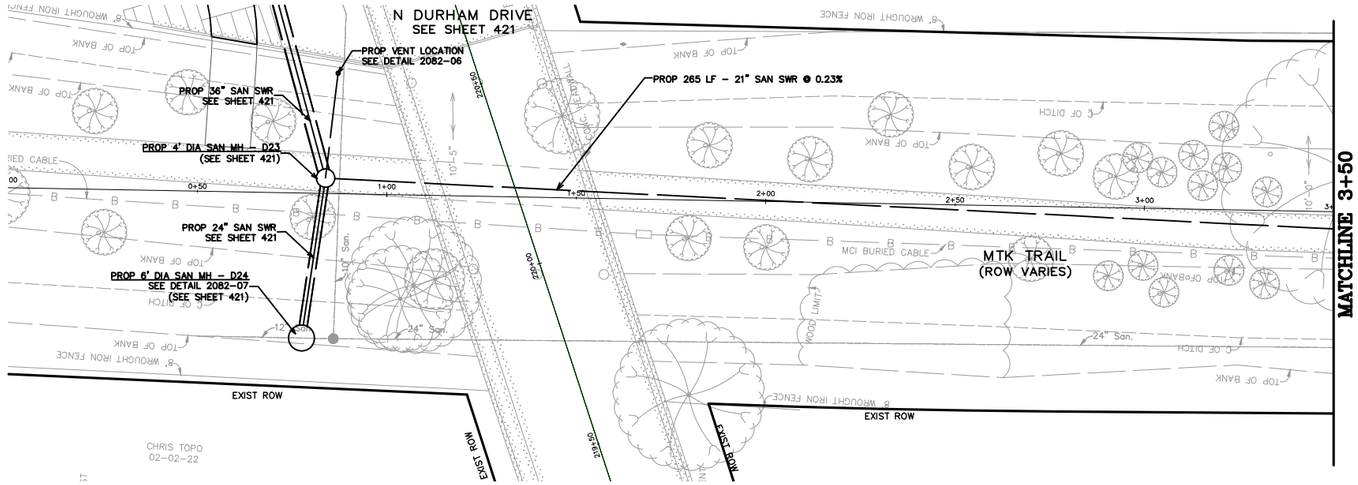
WBS NUMBER	N-100041-0001-4
DRAWING SCALE	VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM	SUDARSHAN GOUNI, P.E.
SHEET NO. 485 OF 711	

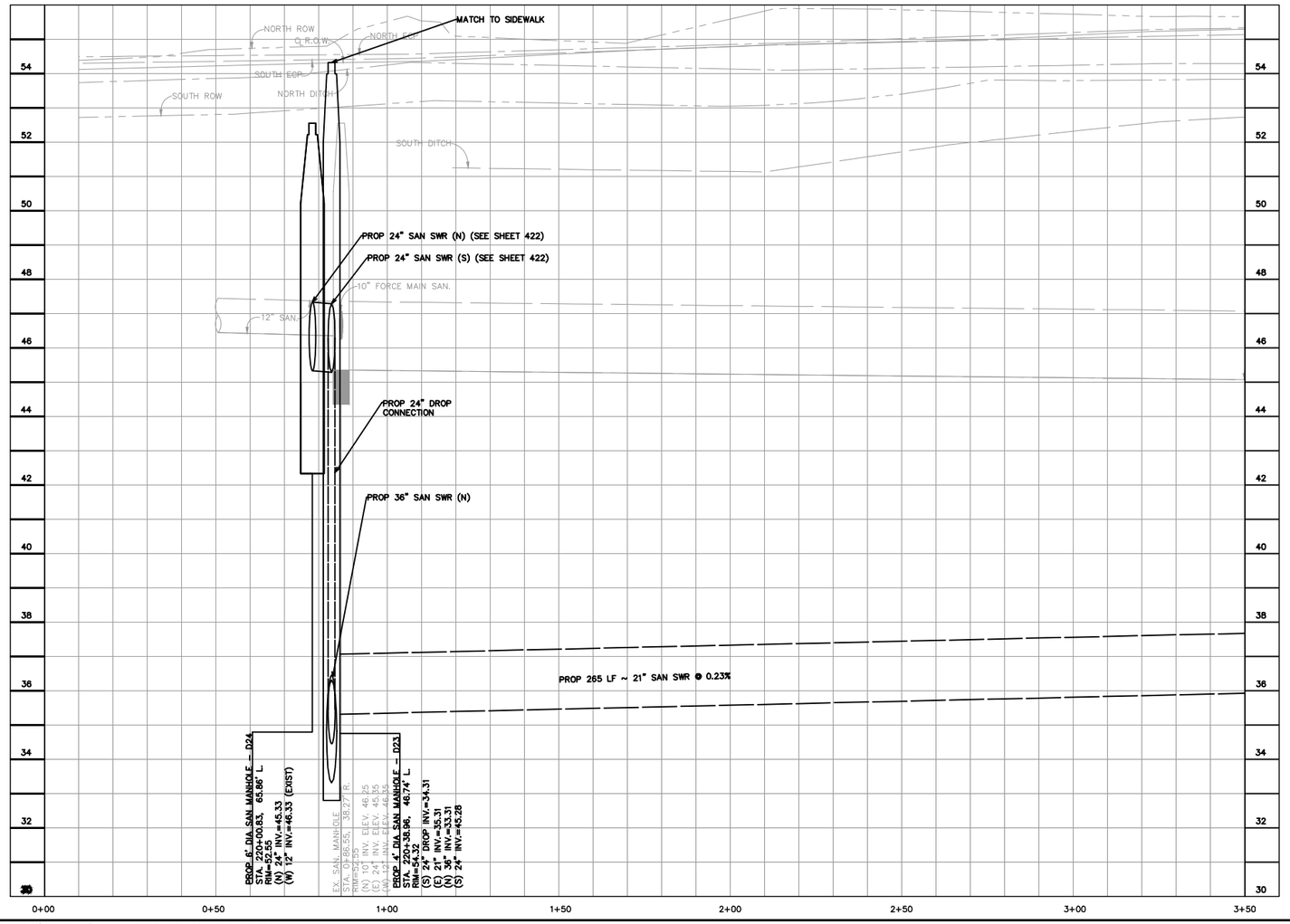
FOR CITY OF HOUSTON USE ONLY

PUBLIC WORKS & ENGINEERING ACCEPTED
78839
CITY OF HOUSTON, TEXAS

FOR STORM SEWER IMPROVEMENTS, SEE SHEETS 275-321

FOR STORM LATERAL PROFILES, SEE SHEETS 322-362





K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P MKT Trail.dwg Sep 12, 2024 - 2:42pm jrush06

BENCHMARK INFO

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TBM INFO

LEGEND

- RESTRAINT JOINTS
- TUNNEL SHAFT (FOR REFERENCE ONLY, KEY NOTE S)
- EXIST WATER AND/OR SANITARY TO BE REMOVED
- EXIST WATER AND/OR SANITARY TO BE ABANDON
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0 5 10 20 40 60
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NOTE: CONTRACTOR TO VERIFY ELEVATION AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY NEW CONSTRUCTION

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Date: 4/4/24

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

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Texas Department of Transportation

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STATE OF TEXAS
WILLIAM M. WILSHIRE III
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SHEPHERD-DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH-10 WBFR

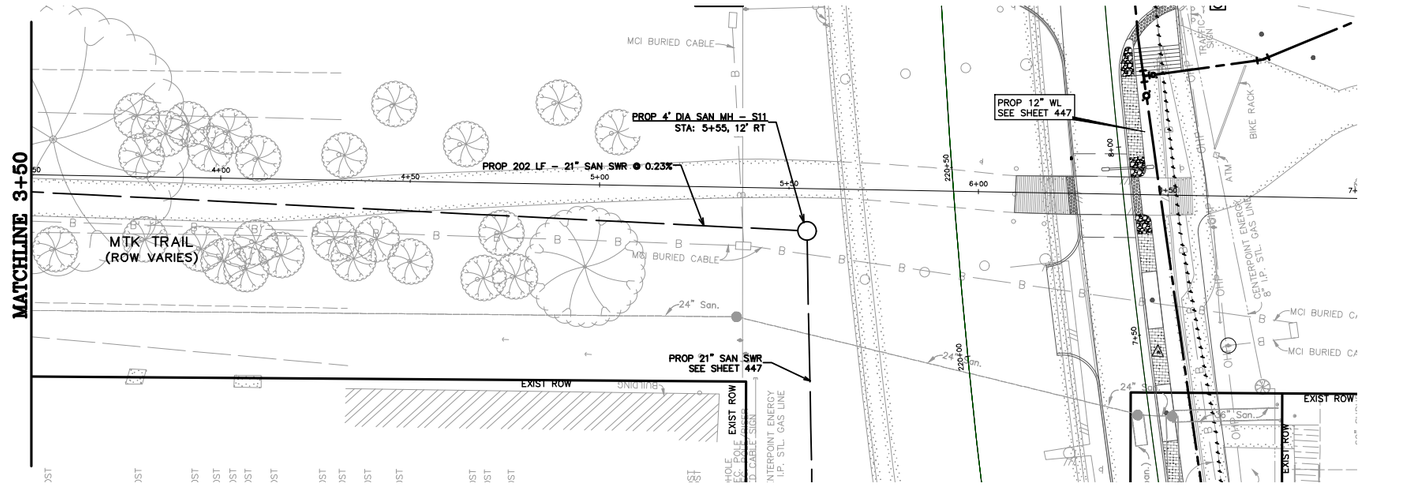
PLAN & PROFILE - WATER AND WASTEWATER

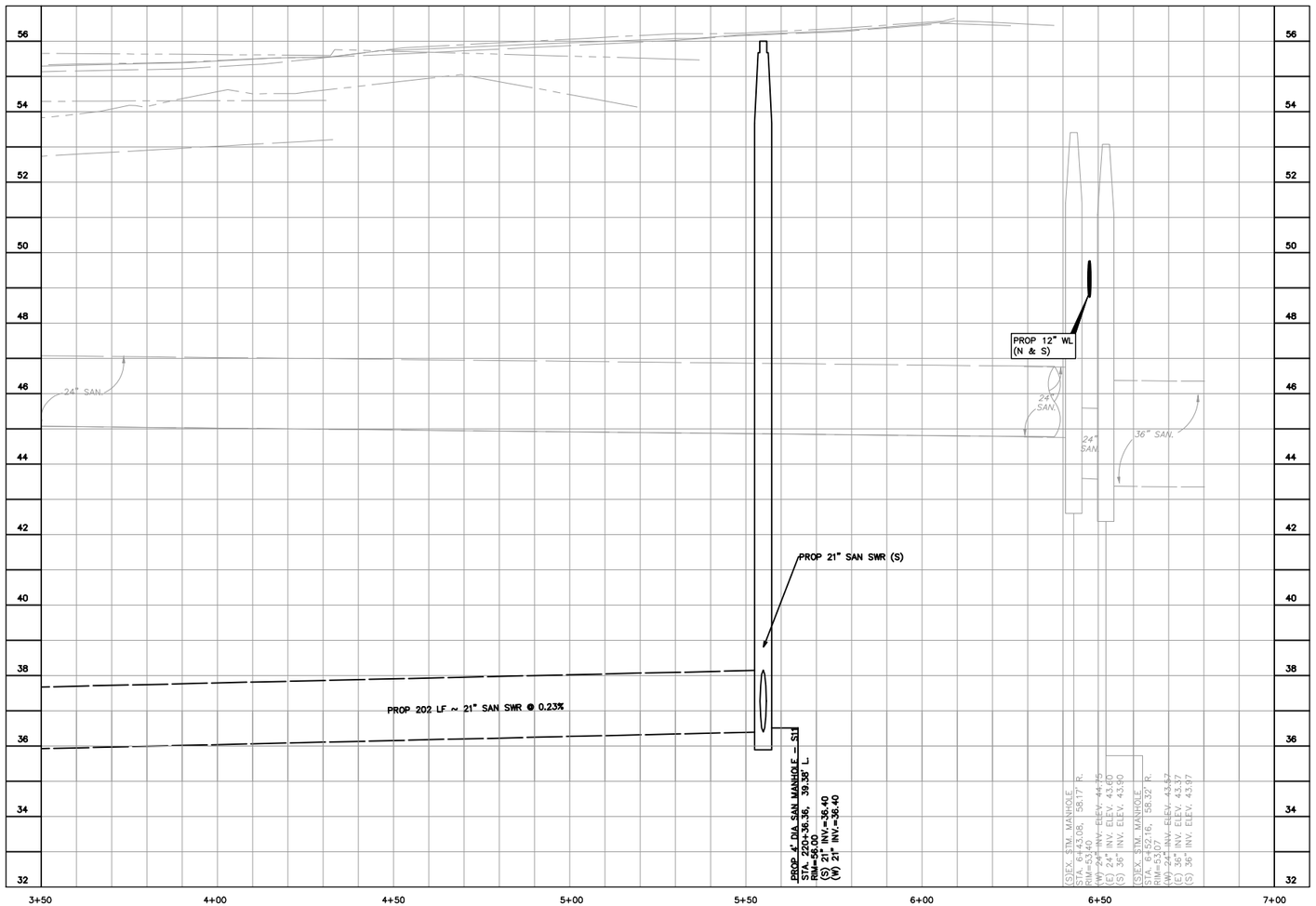
MKT TRAIL

MKT TRAIL BEGIN TO 3+50

SHEET 71 OF 78

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100041-0001-4	PUBLIC WORKS & ENGINEERING ACCEPTED 78839 CITY OF HOUSTON, TEXAS
DRAWING SCALE	
VERT. 1"=2' HORIZ. 1"=20'	
CITY OF HOUSTON PM	
SUDARSHAN GOUNI, P.E.	
SHEET NO. 486 OF 711	





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TBM INFO

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WILLIAM M. WILSHIRE III
94193
LICENSED
PROFESSIONAL ENGINEER
09.12.2024

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

SHEPHERD–DURHAM INFRASTRUCTURE IMPROVEMENTS FROM 15TH TO IH–10 WBFR

PLAN & PROFILE – WATER AND WASTEWATER

MKT TRAIL

MKT TRAIL 3+50 TO END

SHEET 72 OF 78

WBS NUMBER
N–100041–0001–4
DRAWING SCALE
VERT. 1"=2' HORIZ. 1"=20'
CITY OF HOUSTON PM
SUDARSHAN GOUNI, P.E.
SHEET NO. 487 OF 711

FOR CITY OF HOUSTON USE ONLY
78839
CITY OF HOUSTON, TEXAS

K:\Quiddity\Shepherd Durham PHII\4-0 Production\4-1 Drawings\P&P MKT Trail.dwg Sep 12, 2024 – 2:43pm jrush06