

Document 00910

## ADDENDUM NO. 3

Date of Addendum: April 7, 2016PROJECT NAME: Neighborhood Street Reconstruction Project 467PROJECT NO: WBS No. N-000400-0001-4BID DATE: April 14, 2016 (There is no change to the Bid Date.)

FROM: James T. Lincoln, P.E., P.E., City Engineer  
City of Houston, Department of Public Works and Engineering  
611 Walker, 15<sup>th</sup> floor  
Houston, Texas 77002  
Attn: Ben Bansal, P.E., Project Manager

TO: Prospective Bidders

This Addendum forms a part of the Bidding Documents and will be incorporated into the Contract documents, as applicable. Insofar as the original Project Manual and Drawings are inconsistent, this Addendum governs.

ADDENDUM NO. 3**CHANGES TO PROJECT MANUAL****BIDDING REQUIREMENTS**

1. Document 00410B – Bid Form. (Remove and Replace all pages: Added bid items for temporary residential and commercial driveways; modified quantities of water line pipe and communication manholes to be removed; added bid item for relocating WiMax and Ethernet Switch on Traffic Signal; fixed the formatting for the 8"x8" Tapping sleeve and valve bid item (Bid Item 143); and modified bid item for pull boxes to include the concrete apron.)
2. Document 01110 – (Remove and Replace all pages: Revised to include references to Traffic Signal Design Requirements and Traffic Signal Details Series 02893; included reference to relocating WiMax and Ethernet Switch on Traffic Signal; and revised quantity of asbestos pipe to be removed.)

00910-1

02-01-2004

### CHANGES TO DESIGN PLANS

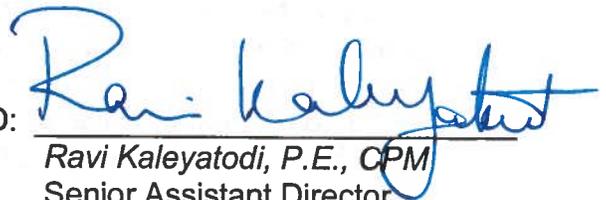
1. Traffic Signal Sheets 175-177 – (Remove and replace sheets 175-177 with these sheets 175-177 in this Addendum: Revisions to add two more specification references in the remarks and identification of the WiMax and Ethernet Switch.)
2. Colquitt Plan Sheets 72, 74, 76, and 78 – (Remove and replace sheets 72, 74, 76, and 78 with these sheets 72, 74, 76, and 78 in this Addendum: Revisions to identify existing water line to be removed and communication manholes to be removed.)

### CLARIFICATIONS

1. In section B6. Traffic Signals, Item 170 calls for a Dynamic Message Sign quantity of 2. Where are they? Response: The two Dynamic Message Signs are identified on Sheet 176 as Signs S3 and S7 "Active".
2. On the Bid Form - Part B for this project Item No. 87, Spec, Ref. 02632, 02633, calls for 17 Type K Inlets. I am unfamiliar with this item. Response: The detail for the Type K inlet is found on Sheet 219 in the Storm Water Details.
3. We normally construct water and sewer mains in segments longer than two blocks. This will cause us to make several interim connections or plugs. Response: The two block maximum referenced in Document 01110 is for roadway construction as we wanted to minimize the amount of impact on the adjacent residents, parking, and traffic flows. The underground utility work can extend more than two blocks at one time as long as the negative impacts on the adjacent residents, parking, and traffic flows can be minimized during these operations. Contractor shall coordinate with the City Construction Project Manager to develop a plan on the amount of underground construction at one time per area. Any open cuts will be will be covered with steel plates at night.

END OF ADDENDUM NO. 3

DATED:



*Ravi Kaleyatodi, P.E., CPM*  
Senior Assistant Director  
Department of Public Works and  
Engineering

  
RK:MS:BB:sdd

END OF DOCUMENT

00910-2

02-01-2004

Document 00410B

**BID FORM – PART B**

**1.0 TOTAL BID PRICE HAS BEEN CALCULATED BY BIDDER, USING THE FOLLOWING COMPONENT PRICES AND PROCESS (PRINT OR TYPE NUMERICAL AMOUNTS):**

**A. STIPULATED PRICE: \$0.00 (N/A)**

(Total Bid Price; minus Base Unit Prices, Extra Unit Prices, Cash Allowances and All Alternates, if any)

\*\*\*\*\*  
*Insert unit price items in table. Identify each unit price item by specification section number under the Item Description. Duplicate this page as needed to list required unit price items. Insert "TOTAL BASE UNIT PRICES" line from table on final page of unit price items. See Paragraph 9.0 in Document 00200 – Instructions to Bidders for guidance.*  
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**B. BASE UNIT PRICE TABLE:**

Item No.	Spec. Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price	Total in figures	
<b>B1. GENERAL ITEMS</b>							
1	01502	Mobilization	LS	1	\$450,000.00 <sup>(1)</sup>	\$450,000.00 <sup>(1)</sup>	
2	01506	Diversion Pumping	LS	1			
3	01554	Remove and reinstall signs on new sign poles, hardware and foundations at locations listed on the plans, existing in the field, or as directed by the engineer	EA	156			
4	01555	Traffic Control and Regulation	LS	1	\$300,000.00 <sup>(2)</sup>	\$300,000.00 <sup>(2)</sup>	
5	01555	Flagmen	LS	1	\$152,000.00 <sup>(2)</sup>	\$152,000.00 <sup>(2)</sup>	
6	01562	Tree and plant protection	LS	1	\$180,000.00 <sup>(2)</sup>	\$180,000.00 <sup>(2)</sup>	
7	01562S	Sidewalk Removal (hand excavation)	SY	278			
8	01570	Inlet Protection Barrier (Gravel Bags)	LF	2,310			
9	01570	Filter Fabric Fence	LF	9,240			
10	01575	Stabilized construction exit	EA	2			
11	02260	Trench safety system for trench excavations	LF	38,510			
12	02922	Sodding	SY	11,486			
			<b>SUBTOTAL:</b>				
<b>B2. STREET ITEMS:</b>							
13	02221	Remove/Dispose Conc Sidewalk 4-inch thick/More	SY	9,441			

14	02221	Remove/Dispose Conc Driveway 6-inch thick/More	SY	9,364		
15	02221	Remove/Dispose Asphalt Surface/with or without Base	SY	56,912		
16	02221	Removing and disposing of Concrete pavements (all thickness, w/ or w/o Asphalt, including base & subgrade, w/ or w/o curb, all depth)	SY	696		
17	02221	Remove and dispose of existing wheel chair ramps	SY	685		
18	02221	Remove and dispose of concrete directional islands	SY	256		
19	02315	Roadway excavation, including removal of waste disposal	CY	910		
20	02315	Borrow / embankment	CY	2,426		
21	02336	Lime Stabilized Subgrade 8-inch thick	SY	61,165		
22	02336	Lime for Lime stabilized Subgrade (DRY WEIGHT)	TON	1,633		
23	02546	Decomposed Granite	SF	560		
24	02714	Flexible Base Course for Temporary Driveways- Residential up to 12-feet wide	EA	245		
25	02714	Flexible Base course for Temporary Driveways- Commercial up to 24-feet wide	EA	42		
26	02741	Temporary Asphalt Concrete Pavement, including surface and base materials, grading, maintenance and removal	SY	148		
27	02741	Hot Mix Asphalt Concrete Pavement 2-inch thick	TON	141		
28	02751	Reinforced Concrete Pavement 8-inch thick	SY	51,988		
29	02752	Street pavement expansion joint with/without load transfer device	LF	11,753		
30	02752	Horizontal Dowel, 18-inch	EA	10,722		
31	02752S	Saw Cutting	LF	2,175		
32	02754	Concrete Driveways including Excavation 6-inch thick	SF	63,312		
33	02754	Concrete Driveways including Excavation 7-inch thick	SF	17,943		
34	02762	Blast cleaning pavement markers 4-inch wide lines	LF	1,533		
35	02765	Temporary Removable Pavement Markings Class I- 4-inch White, Class I	LF	1,533		
36	02767	Thermoplastic Pavement Marking 8-inch wide White (SLD)	LF	140		
37	02767	Thermoplastic Pavement Marking 4-inch wide White (SLD)	LF	655		
38	02767	Thermoplastic Pavement Marking 4-inch wide White (BRK)	LF	1,533		
39	02767	Thermoplastic Pavement Marking 12-inch wide White (SLD)	LF	456		
40	02767	Thermoplastic Pavement Marking 24-inch wide White (SLD)	LF	1,755		
41	02771	6-inch Curb and Gutter (Monolithic)	LF	171		
42	02771	6-Inch Concrete Curb (Monolithic)	LF	22,272		
43	02771	Concrete Paving Header	LF	834		
44	02772	6-inch Concrete Median or Directional Island	SY	135		
45	02772	Low Rise Retaining Wall	LF	185		
46	02775	Sidewalk 4-1/2-inch thick	SF	104,052		
47	02775	Curb Ramp	SF	16,131		
48	02960	Milling Asphalt pavement upto 2-inches	SY	1,326		
			<b>SUBTOTAL:</b>			

<b>B3. STORM SEWER ITEMS:</b>						
49	02081 02082 02087	Type C manhole for 42-inch diameter and smaller sewers	EA	110		
50	02081 02082 02087	Type C manhole for 48-inch to 72-inch diameter sewers	EA	33		
51	02081 02082 02087	Type C manhole for 78-inch diameter and greater sewers	EA	3		
52	02081 02082 02087	Manhole for concrete box sewers	EA	3		
53	02221	Remove/Dispose storm pipe 6-inch dia	LF	8		
54	02221	Remove/Dispose storm pipe 10-inch dia	LF	63		
55	02221	Remove/Dispose storm pipe 12-inch dia	LF	254		
56	02221	Remove/Dispose storm pipe 15-inch dia	LF	2,584		
57	02221	Remove/Dispose storm pipe 18-inch dia	LF	5,441		
58	02221	Remove/Dispose storm pipe 24-inch dia	LF	1,490		
59	02221	Remove/Dispose storm pipe 36-inch dia	LF	349		
60	02221	Remove/Dispose storm pipe 42-inch dia	LF	277		
61	02221	Remove/Dispose storm pipe 48-inch dia	LF	616		
62	02221	Remove/Dispose storm pipe 54-inch dia	LF	316		
63	02221	Remove/Dispose storm pipe 60-inch dia	LF	269		
64	02221	Remove /Dispose Manholes all Sizes/depth	EA	42		
65	02221	Remove and Dispose of Existing Inlets	EA	117		
66	02221	Abandon and grout fill existing inlets	EA	2		
67	02222	Abandon and Fill 15-inch Diameter Storm Sewer	LF	288		
68	02222	Abandon and Fill 18-inch Diameter Storm Sewer	LF	340		
69	02222	Abandon and Fill 24-inch Diameter Storm Sewer	LF	46		
70	02222	Abandon and Fill 36-inch Diameter Storm Sewer	LF	22		
71	02631	8'x 8' Box Culvert by open cut	LF	286		
72	02631	84-inch diameter storm sewer by open cut	LF	926		
73	02631	78-inch diameter storm sewer by open cut	LF	310		
74	02631	72-inch diameter storm sewer by open cut	LF	667		
75	02631	66-inch diameter storm sewer by open cut	LF	303		
76	02631	60-inch diameter storm sewer by open cut	LF	256		
77	02631	48-inch diameter storm sewer by open cut	LF	3,605		
78	02631	42-inch diameter storm sewer by open cut	LF	483		
79	02631	36-inch diameter storm sewer by open cut	LF	6,285		
80	02631	30-inch diameter storm sewer by open cut	LF	752		
81	02631	24-inch diameter storm sewer by open cut	LF	3,743		
82	02631 02505	Remove and replace existing curb drains with 4-inch diameter high-density polyethylene pipe storm sewer, including thickened sidewalk, complete-in-place	LF	949		
83	02632 02633	Type A grate inlet	EA	1		
84	02632 02633	Type BB inlet	EA	174		
85	02632 02633	Type BB inlet frame and grate	EA	1		
86	02632 02633	Type C inlet	EA	1		

87	02632 02633	Type C-1 inlet	EA	3		
88	02632 02633	Type C-2 Inlet	EA	13		
89	02632 02633	Type C-2A inlet	EA	1		
90	02632 02633	SPL 10'x10'x10' Conflict Box	EA	1		
91	02632 02633	Type K Inlet	EA	17		
			<b>SUBTOTAL:</b>			
<b>B4. WASTEWATER ITEMS:</b>						
92	02082	4-foot diameter precast concrete manholes	EA	70		
93	02082	Extra depth, 4-foot diameter precast concrete manhole	VF	217		
94	02082	Manhole drops; 8-inch diameter, all depths	EA	22		
95	02221	Remove and Dispose 4-inch diameter sanitary sewer	LF	31		
96	02221	Remove and Dispose 6-inch diameter sanitary sewer	LF	1,383		
97	02221	Remove and Dispose 8-inch diameter sanitary sewer	LF	2,901		
98	02221	Remove and Dispose 10-inch diameter sanitary sewer	LF	3,063		
99	02221	Remove and Dispose 15-inch diameter sanitary sewer	LF	1,225		
100	02221	Remove and Dispose of Existing sanitary sewer manholes	EA	59		
101	02222	Abandon and fill 6-inch diameter sanitary sewer	LF	980		
102	02222	Abandon and fill 8-inch diameter sanitary sewer	LF	1,248		
103	02222	Abandon and fill 10-inch diameter sanitary sewer	LF	1,655		
104	02222	Abandon and fill 15-inch diameter sanitary sewer	LF	527		
105	02531 02501	8-inch diameter sanitary sewer, by open-cut	LF	7,238		
106	02531 02501	10-inch diameter sanitary sewer, by open-cut	LF	1,736		
107	02531 02501	12-inch diameter sanitary sewer, by open-cut	LF	2,799		
108	02531 02501	15-inch diameter sanitary sewer, by open-cut	LF	3,540		
109	02534	Service stubs or reconnections including construction of stack on sanitary sewer	EA	188		
110	02534	Service stubs or reconnections without stack on sanitary sewer	EA	32		
			<b>SUBTOTAL:</b>			
<b>B5. WATER ITEMS:</b>						
111	02221	Remove/Dispose 2-inch diameter Galv. St. water line	LF	214		
112	02221	Remove/Dispose 2-inch diameter CI water line	LF	25		
113	02221	Remove/Dispose 4-inch diameter Galv. St. water line	LF	66		
114	02221	Remove/Dispose 4-inch diameter CI water line	LF	38		
115	02221	Remove/Dispose 6-inch diameter CI water line	LF	217		
116	02221	Remove/Dispose 6-inch diameter AC water line	LF	316		



149	02893	Electrical Service Pedestal Assembly-30 AMP & 60 AMP (Square D breakers included)	EA	1		
150	02893	Remove and Salvage Existing Traffic Signal Equipment	LS	1		
151	02893	Overhead Street Name Signs	EA	4		
152	02893	Sign, "NO THRU TRUCKS", R5-2A - All sizes	EA	1		
153	02893	Sign, "NO TURN ON RED" w/ "3:45 - 7:45 PM", R10-11A - All sizes	EA	2		
154	02893	Sign, "NO TURN ON RED" w/ "6:00 - 9:15 AM", R10-11A - All sizes	EA	2		
155	02893	Controller Cabinet Foundation with Apron (All types)	EA	1		
156	02893 16709 16733 16734	Relocate WiMax and Field-Hardened Ethernet Switch to proposed signal pole and controller cabinet, included associated cabling and re-establishment of operation	LS	1		
157	16710	Type A Pull Box with Gravel, Ground Rod and Apron	EA	3		
158	16710	Type B Pull Box with Gravel, Ground Rod, and Apron	EA	4		
159	16711	Conduit 1 1/2-Inch Sch 80 PVC Trench	LF	190		
160	16711	Conduit 2-Inch Sch 80 PVC Trench	LF	90		
161	16711	Conduit 2 1/2-Inch Rigid	LF	40		
162	16711	Conduit 3-Inch Sch 80 PVC Trench	LF	210		
163	16711	Conduit 4-Inch Sch 80 PVC Trench	LF	230		
164	16711	Conduit 4-Inch Sch 80 PVC Bore	LF	125		
165	16713	Pre-Formed Loops	EA	4		
166	16715	3-Section Horizontal Vehicle Signal Head assembly (Yellow) (Including Back Plates)	EA	8		
167	16715	3-Section Vertical Vehicle Signal Head assembly (Yellow) (Including Back Plates)	EA	2		
168	16719	LED Pedestrian Signal Head Assembly (Yellow) (Symbolic) (Countdown)	EA	8		
169	16720	Detector Lead-In Cable 14 AWG IMSA 50-2-1984	LF	500		
170	16720	3/C-#14 AWG IMSA 19-1-1984	LF	1,165		
171	16720	5/C-#14 AWG IMSA 19-1-1984	LF	1,000		
172	16720	7/C-#14 AWG IMSA 19-1-1984	LF	1,460		
173	16720	#6 AWG THHN Service Wire	LF	100		
174	16720	#8 AWG Solid Bare Ground	LF	375		
175	16720	#4 AWG Solid Bare Ground	LF	85		
176	16724	Emergency Vehicle Preemption System	EA	1		
177	16725	Dynamic Message Sign	EA	2		
178	16727	Loop Detector Sawcut With Loop Wire	LF	380		
179	16730	ITS Controller Cabinet Assembly (Model 340) (Type 2070L) (GPS Serial Comm Module) (UPS Battery Back-Up System)	EA	1		
180	16737	COMMUNICATION SERVICE BOX WITH GRAVEL AND GROUND ROD (Pullbox - Type C, Adjacent to the Controller Cabinet)	EA	1		
181	16750	Accessible Pedestrian Push Button System (Central Control Unit and Eight Push Button Stations, Including Signs)	EA	1		
			<b>SUBTOTAL:</b>			

<b>B7. CUSTOM:</b>						
182	01562	Install Zero Curb Cutback	LF	3525		
183	01562	Install Checker Plate Sidewalk Construction	SF	2,499		
184	02221	Remove Communication Manhole	EA	8		
185	02221	Remove Duct (1) Conduit	LF	97		
186	02221	Remove Multi-Duct (4 through 9) Conduit	LF	576		
187	02221	Remove Multi-Duct (27) Conduit	LF	307		
188	02915	Tree Planting (4" Live Oak)	EA	14		
189	02915	Tree Planting (4" Monterrey Oak)	EA	6		
190	02915	Tree Planting (4" Chinese Pistache)	EA	74		
191	02915	Tree Planting (4" Savannah Holly)	EA	15		
192	02915	Tree Planting (4" Bur Oak)	EA	8		
193	02915	Tree Planting (4" Cedar Elm)	EA	3		
			<b>SUBTOTAL:</b>			
			<b>TOTAL:</b>			

**C. EXTRA UNIT PRICE TABLE:**

Item No.	Spec. Ref.	Extra Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
1	02318	Excavation around obstructions	CY	300	\$20.00 <sup>(2)</sup>	\$6,000.00 <sup>(2)</sup>
2	02318	Extra hand excavation	CY	300	\$30.00 <sup>(2)</sup>	\$9,000.00 <sup>(2)</sup>
3	02318	Extra machine excavation	CY	300	\$20.00 <sup>(2)</sup>	\$6,000.00 <sup>(2)</sup>
4	02318	Extra placement of backfill material	CY	300	\$20.00 <sup>(2)</sup>	\$6,000.00 <sup>(2)</sup>
5	02318	Extra cement-stabilized sand	CY	400	\$30.00 <sup>(2)</sup>	\$12,000.00 <sup>(2)</sup>
6	03315	Extra class "A" Concrete with or without forms	CY	150	\$160.00 <sup>(2)</sup>	\$24,000.00 <sup>(2)</sup>
7	02501	Extra DI Water Line Fittings	TON	7	\$14,000.00 <sup>(1)</sup>	\$98,000.00 <sup>(1)</sup>
<b>TOTAL EXTRA UNIT PRICES</b>						\$161,000.00

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**D. CASH ALLOWANCE TABLE:**

<b>Item No.</b>	<b>Spec Ref.</b>	<b>Cash Allowance Short Title</b>	<b>Cash Allowance in figures (1)</b>
1	1110	Street Cut Permit Fees	\$5,000.00
<b><u>TOTAL CASH ALLOWANCES</u></b>			\$5,000.00

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**E. ALTERNATES TABLE:**

Item No.	Spec. Ref.	Alternate Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total Price for Alternate in figures
1		N/A				
<b>TOTAL ALTERNATES</b>						\$ _____

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**F. TOTAL BID PRICE:**

(Add Totals for Items A., B., C., and D. above)

\$ \_\_\_\_\_

**2.0 SIGNATURES:** By signing this Document, I agree that I have received and reviewed all Addenda and considered all cost associated with the Addenda in calculating the Total Bid Price.

Bidder:

\_\_\_\_\_  
(Print or Type full name of your proprietorship, partnership, corporation, or joint venture. \*)

\*\*By:

\_\_\_\_\_  
Signature Date Date

Name:

\_\_\_\_\_  
Print or Type Name Title

Address:

\_\_\_\_\_  
Mailing

\_\_\_\_\_  
(Street, if different)

Telephone and Fax Number: \_\_\_\_\_  
(Print or type numbers)

- \* If Bid is a joint venture, add additional Bid Form signature sheets for each member of the joint venture.
- \* Bidder certifies that the only person or parties interested in this offer as principals are those named above. Bidder has not directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding.

Note: This document constitutes a government record, as defined by § 37.01 of the Texas Penal Code. Submission of a false government record is punishable as provided in § 37.10 of the Texas Penal Code.

Footnotes for Tables B through E:

- (1) Fixed Unit Price determined prior to Bid. Cannot be adjusted by the Bidder.
- (2) Minimum Bid Price determined prior to Bid. Can be increased by the Bidder by crossing out the Minimum and noting revised price on the line above.
- (3) Maximum Bid Price determined prior to Bid. Can be decreased but not increased by Bidder by crossing out the Maximum and noting revised price on the line above. A Bid that increases the Maximum Bid Price may be found non-conforming and non-responsive.
- (4) Fixed Range Bid Price determined prior to Bid. Unit Price can be adjusted by Bidder to any amount within the range defined by crossing out prices noted and noting revised price on the line above.

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Section 01110

SUMMARY OF WORK

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Summary of the Work including work by the City, City-furnished Products, work sequence, future work, Contractor use of Premises, special conditions for substantial completion and City occupancy.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work of the Contract as shown in the Contract Documents (Contract Drawings and Project Manual) is for construction of tree protection, demolition and removal of existing asphalt pavement, concrete pavers, storm manholes, inlets and sewers, and abandonment of existing water mains. Work includes construction of new water mains, drainage improvements, gravity sanitary sewers, construction of reinforced concrete pavement and curb, construction of temporary and permanent traffic signals, signing and striping, placement of sod and tree planting for the following streets within the City of Houston:

W Alabama Street from Brandt Street to Spur 527  
Sul Ross Street from Montrose Boulevard to Brandt Street  
Branard Street from Montrose Boulevard to Spur 527  
W Main Street from Montrose Boulevard to Bute Street  
Colquitt Street from Montrose Boulevard to Garrott Street  
Roseland Street from Richmond Avenue to W Alabama Street  
Stanford Street from Richmond Avenue to W Alabama Street  
Greeley Street from Richmond Avenue to W Alabama Street  
Jack Street from Richmond Avenue to W Alabama Street  
Garrott Street from Spur 527 to W Alabama Street  
Bute Street from W Main Street to W Alabama Street  
Brandt Street from Sul Ross Street to W Alabama Street

1. Tree and plant protection work (Specification 01562) consists of protecting-in-place, pruning, and/or removing existing trees within the project area in accordance with the City of Houston Street Tree Ordinance and the plans. Work includes pruning existing street canopies to facilitate construction equipment access or to protect trees from damage or displacement by construction equipment. Contractor shall contract the services of an experienced, qualified arborist for the tree protection work of the project and shall coordinate with and receive approval from City Arborist prior to removing any and all trees shown for removal in the Tree Protection Plan.
2. Demolition work consists of the removal of existing reinforced concrete pavement with curb; asphalt concrete pavement and base of varying thickness with and without monolithic curb and gutter; sidewalks, driveways and off-street parking spaces; storm manholes, inlets, culverts and sewers; sanitary manholes and sewers; abandonment of existing storm sewers, culverts and water mains, removal of communication manholes and selected duct bank runs all within limits of the existing streets' rights-of-way. Approximately 473-LF of asbestos cement (AC) water main will be removed requiring special handling and paid for as shown in Document 00410. Demolition work on Colquitt and Sul Ross also includes removal of abandoned AT&T and Zayo manholes in addition to duct banks where conflicts are identified with proposed water, sanitary sewer, and storm sewer improvements.
3. Water main work consists of constructing 8-inch water main, fittings, valves and fire hydrants, transferring services, and grid interconnects. The auger method will be used for construction unless otherwise shown on the construction drawings, indicated in the Project Manual, or instructed by the City Engineer.
4. Storm drainage work consists of constructing inlets, manholes, reinforced concrete pipe leads, systems of pipe sewers ranging from 24- to 84-inches in diameter.

5. Sanitary sewer work consists of constructing new manholes and 8- to 36-inch diameter gravity sewers. Sanitary sewer construction will be open cut and includes sanitary sewer leads with wye connections and stubs with and without stacks. The approximate locations of the service leads and stacks are shown in the contract drawings. Contractor shall use caution and verify the exact location of these services during construction activities. Lots along Roseland and at various other locations are currently served by back of lot connections. The City Substitute Services group will be responsible for establishing the service connections from the right of way (ROW) to the buildings under a separate project. The contractor shall extend the sanitary sewer connections to the ROW and install a temporary cap. The temporary caps shall not be paid for directly, but shall be considered subsidiary to the sanitary sewer service connection.
6. Diversion Pumping is required for construction of the proposed sanitary sewers. Contractor to conform to Section 01506 – Diversion Pumping. Cost will be considered incidental to the various construction bid items included in Document 00410 – Bid Form, Parts A & B. If Contractor encounters water service lines during sanitary sewer construction, Contractor shall repair any damaged service line promptly to avoid extended water service interruptions. The costs related to preserve the existing water service lines are incidental to all other pay items and are at no additional cost to the City of Houston.
7. Traffic signal work at the intersection of W Alabama and Stanford consists of removing the existing traffic signals, adjusting the signal heads for the various construction phases, relocating existing WiMax and Ethernet Switch, and installing permanent traffic signals, signage and striping. Contractor shall reference PWE Infrastructure Manual - Chapter 15 Traffic & Signal Design Requirements and Traffic Signal Details Series 02893. Traffic control and any lane closures shall be coordinated with the City Engineer and the City Traffic Operations Section.
8. Pavement work within the rights-of-way (with the exception of Roseland Street) consists of constructing 8-inch thick reinforced concrete pavement, 27-feet wide, with 6-inch reinforced concrete curb, 4-1/2-inch thick concrete sidewalks and wheelchair ramps, and 6-inch thick concrete driveways of varying widths. Pavement work within the right-of-way of Roseland Street consists of constructing 8-inch thick reinforced concrete pavement, 36-feet wide, with 6-inch reinforced concrete curb, 4-1/2-inch thick concrete sidewalks and wheelchair ramps, and 6-inch thick concrete driveways of varying widths. All pavements will be placed on an 8-inch lime stabilized subgrade (8% lime) having the appropriate widths.
  - a. Pavement work does not include replacement of existing "decorative" or "specialty" sidewalks, walkways or driveways built with non-standard materials and finishes. All existing sidewalks, walkways and driveways that are to be replaced will be replaced with standard materials and finishes.
  - b. Pavement work includes placement of block sod on all disturbed, non-paved areas between the back of proposed curb and the right-of-way; and maintenance of same until grass is fully established.
  - c. Site improvements including irrigation systems, planters, fences, landscaping, etc., are present in the streets' rights-of-way. Contractor shall restore the project site disturbed by construction operations at no cost to the City. Include cost in the surface improvements associated with the roadway construction.
  - d. Pavement work includes restoring existing through-curb drains. Work includes connection of new pipe to the existing drain pipe at the right-of-way (make watertight connection), extension of new pipe through the proposed curb, a thickened sidewalk section and control joint. Payment is specified in Document 00410.
9. The notes "CAUTION EX. GAS FACILITIES IN AREA SEE COH SPEC. SEC 01110" and "CAUTION EX. CPE U/G FACILITIES IN AREA SEE COH SPEC. SEC. 01110" are included as a precaution to the contractor where the proposed improvements cross or are in close proximity to an existing CenterPoint Energy (CPE) gas line smaller than 4-inch, or to an existing CPE underground facility. Contractor shall exercise caution during construction of improvements in the vicinity of these facilities.
10. Throughout the project site the Contractor will be responsible for providing and installing streetlight conduit, including pull boxes, in areas identified in the plans. Contractor shall coordinate with CenterPoint

Energy Lighting Design Section including scheduling of the removal and installation of streetlights and inspection of the conduit and pull boxes.

11. Additional work includes the removal and replacement of permanent signs and pavement markings.
12. Any irrigation utilities that have been disturbed due to construction shall be replaced with same quality material or better according to the City of Houston standard specifications. The cost incurred will be incidental to the various construction bid items included in Document 00410-Bid Form, Parts A&B. Contractor should verify the operation of irrigation systems with the property owner prior to starting construction.
13. The Contractor shall acknowledge the following:
  - a. Due to the number of utilities that require relocation or adjustment for this project, minor adjustments to proposed utility depths or alignment as shown on the plans might be recommended during construction.
  - b. The sequence of work might be revised during construction to expedite construction or to avoid possible conflicts with other utilities that might delay contractor activities.
- B. The Contractor shall pay special attention to the Supplementary Specifications contained within this document as they will affect the bid items for this project.
- C. Contractor shall adhere to City of Houston Street Tree Ordinance including latest amendments with regard to trees that are to be removed and relocated or removed and replaced.

#### 1.03 CASH ALLOWANCES

- A. Include the following specific Cash Allowances in Contract Price under provision of General Conditions Paragraph 3.11:
  1. Removal/relocation of streetlights by CenterPoint Energy--(Cash Allowance included in Document No. 00410)
  2. Street Cut Permit -- (Cash Allowance included in Document No. 00410)

#### 1.04 CITY-FURNISHED PRODUCTS

- A. Items Furnished by the City for Installation and final connection by Contractor: None.
- B. Contractor's Responsibilities:
  1. Arrange and pay for Product delivery to the site.
  2. Receive and unload Products at the site; jointly with the City, inspect for completeness or damage.
  3. Handle, store, Install, and finish Products.
  4. Repair or replace damaged items.

#### 1.05 WORK SEQUENCE

- A. Construct the Work in Phases in accordance with the following sequence and coordinate construction schedule and operations with the City. The work of this project shall be performed in phases in the order described below to ensure that excessive disruption to the neighborhood does not occur. Roadway construction shall be limited to two blocks at a time. Streetlight conduit or other facilities may be present in the right-of-way. Contractor shall use caution while working near these facilities. Repair or replacement of these facilities damaged by construction activities will be the contractor's responsibility and at no cost to the City.

1. Place advance signing on cross streets and work area street's approaches. Place detour signing appropriate for the work zones. Place traffic control measures including barricades, vertical panels, drums, concrete barriers, signing, striping, flaggers, etc. appropriate for the phase of the work, in accordance with the contract documents, and in compliance with the requirements of the Texas Manual on Uniform Traffic Control Devices, latest edition. Install SW3P and tree protection.
2. Construct water lines by trenchless methods and install water valves and fire hydrants and construct the sanitary sewer system according to the plans. Reconnect water and sanitary sewer services at the property line from the existing lines and to the new lines. Due to conflicts between the proposed storm sewer and the existing water and sanitary sewer lines, the proposed water and sanitary sewer lines will need to be in service prior to the construction of the storm sewer.
3. Construct temporary detour pavement on south side of W. Alabama from west of Brandt Street to west of Day Street. Shift traffic to the detour and close the north lane on W. Alabama Street from Brandt Street to Milam Street. Construct the storm sewer system along that corridor while maintaining one-lane each direction along the south side of West Alabama. Upon completion of the storm sewer installation, replace the pavement and curbing damaged or removed and return the right of way to its pre-construction condition in accordance with the plans and specifications.
4. Construct the sanitary sewer mains, manholes, and services, followed by the construction of the storm sewer mains, laterals, inlets, and manholes for the section of Brandt Street from W. Alabama Street to Sul Ross Street and the section of Sul Ross Street from Brandt Street to and including the intersection at Bute Street. Use diversion pumping for continuation of sanitary sewer service during construction. Construct one-half of Brandt Street at a time while maintaining one-lane, two-way traffic with flagger operations from W. Alabama Street to the end of the street near Spur 527. Construct one-half of Sul Ross Street at a time while maintaining one-lane, two-way traffic with flagger operations from Brandt Street to and including the intersection at Bute Street. Intersections shall be constructed one-quarter of the intersection at a time while maintaining one-lane, two-way traffic with flagger operation along street being reconstructed. Contractor shall temporarily eliminate on-street parking along the portion of street under construction in coordination with and with the approval from the City Traffic Operations Section and/or City Engineer and notify the residents and business owners affected 72 hours in advance of parking removal by the use of door hangers and, if possible, verbal notification in addition to "No Parking" signs. The communications, door hangers, and "No Parking" signs shall not be paid for directly, but shall be considered subsidiary to payment under the bid item for Traffic Control.
5. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Bute Street from the intersection at W. Alabama Street to Sul Ross Street and on Sul Ross Street from near Garrott Street to near Bute Street.
6. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Bute Street from near the intersection at Sul Ross Street to near the intersection at Branard Street.
7. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Branard Street from near the Garrott Street intersection to and including the Bute Street intersection.
8. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Garrott Street from near the W. Main intersection to and including the Branard Street intersection.
9. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Bute Street from near the intersection at W. Main Street to near the intersection at Branard Street.
10. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Branard Street from near the intersection at Bute Street to Spur 527.
11. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Sul Ross Street from and including the intersection at Garrott Street to and including the storm sewer system west of the intersection at Jack Street.

12. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Jack Street from the intersection at W. Alabama to the intersection at Sul Ross and on Sul Ross from near the Greeley Street intersection to near the Jack Street intersection.
13. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Garrott Street from near the intersection at W. Alabama to near the intersection at Sul Ross Street and from near the Sul Ross Street intersection to the Branard Street intersection.
14. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on W. Main Street from near the Greeley Street intersection to and including the intersections at Jack Street and Garrott Street.
15. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on W. Main Street east of the Garrott Street intersection to and including the intersection at Bute Street.
16. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Stanford Street from near the W. Alabama intersection to and including the Sul Ross St. intersection.
17. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Sul Ross Street from and including the intersection at Roseland Street to the intersection at Stanford Street and on Sul Ross Street from near the Stanford Street intersection to and including the Greeley Street intersection.
18. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Greeley Street from near the intersection at Sul Ross Street to and including the intersection at Branard Street and on Branard Street from the Greeley Street intersection to the Jack Street intersection.
19. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Jack Street from near the intersection at Sul Ross Street through and including the intersection at Branard Street and to the W. Main Street intersection.
20. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Branard Street from the Jack Street intersection to the Garrott Street intersection.
21. In a similar sequence to 4 above, construct the sanitary sewer, storm sewer, and roadway improvements on Sul Ross Street from near the intersection at Montrose Blvd. to near the intersection at Roseland Street and on Roseland Street from the W. Alabama Street intersection to the Sul Ross St. intersection.
22. After AT&T completes relocation of their facilities along Colquitt, the Contractor shall submit a modified schedule for the construction of the remaining roadway and utility improvements. The modified schedule is to be approved by the City Engineer prior to implementation for the construction of the remaining roadway and utility improvements. Work on Colquitt and Sul Ross includes removal of abandoned AT&T manholes in addition to duct banks where conflicts are identified with proposed water, sanitary sewer, and storm sewer improvements.
23. When needed and upon approval of the City Engineer, close northernmost lane of Richmond Avenue while maintaining one-lane west bound traffic along Richmond and construct intersection tie-ins along Richmond Avenue. No more than one intersection connection to Richmond shall be under construction at any one time.
24. When determined to be needed by and upon approval of the City Engineer, close easternmost lane of Montrose Boulevard while maintaining one-lane northbound traffic along Montrose Blvd. No more than one intersection connection to Montrose Blvd shall be under construction at any one time.
25. When determined to be needed by and upon approval of the City Engineer, close southernmost lane of W. Alabama and shift eastbound traffic to center lane maintaining one-lane east bound and one-lane

westbound traffic along W Alabama. No more than one intersection connection to W. Alabama shall be under construction at any one time.

26. When determined to be needed by and upon approval of the City Engineer, close westernmost lane of Spur 527 and shift southbound traffic to left lane maintaining one-lane south bound traffic along Spur 527. No more than one intersection connection to Spur 527 shall be under construction at any one time. These lane closures shall be in accordance with TxDOT permit requirements, and the contractor shall notify TxDOT 48 hours in advance of any closure or work in the TxDOT ROW.

27. Upon completion of the intersection improvements, install replacement pavement markings and markers modified during construction with new and return traffic to appropriate lanes. Install signs as required.

**B. Coordination of the Work: Refer to Section 01312 - Coordination and Meetings.**

Contractor is responsible for scheduling and coordinating construction activities associated with private utility construction so as not to adversely impact the construction schedule. Only one mobilization is allowed for this contract. Contractor will notify the City's representative once the utility relocation schedule has been established. See below for contact information for the private utility companies.

- CenterPoint Energy Electric: Contact Cynthia Martinez, Tel: (713) 207-6555.
- CenterPoint Energy Gas: Contact Oscar Juria Tel: (713) 207-4884.
- AT&T: Contact James Manahl, Tel: (713) 918-0043.
- Comcast: Contact Helbert Salandanan Tel: (281) 624-3024
- Zayo / Level III: Contact Dean Lippe Tel: (713) 344-2171
- Phonoscope: Contact Hugo Espinosa Tel: (832) 892-8930

The contractor shall coordinate work in the vicinity of the High School for the Performing and Visual Arts.

- Contact R. Scott Allen, Principal, 4001 Stanford Street Houston, Tx 77006-4948 Tel: 713-942-1960

**1.06 CONTRACTOR USE OF PREMISES**

A. Comply with procedures for access to the site and Contractor's use of rights-of-way as specified in Section 01145 - Use of Premises.

B. Construction Operations: Limited to the City's rights-of-way provided by the City and areas shown or described in the Contract documents.

C. Utility Outages and Shutdown: Provide a minimum of 48 hours' notice to the City and private utility companies (when applicable), excluding weekends and holidays, in advance of required utility shutdown. Coordinate all work as required.

D. Private Utility Relocations: Pursuant to Section 40-395 of the City of Houston (City) Utility Relocation Ordinance Program (URO), the following private utilities were identified and scheduled for relocation within the scope of the project limits. Based upon the relocation schedules provided by the utility owners, the City anticipates these relocations to be completed by the dates listed below and, unless otherwise stated, clearance of these potential obstructions will be performed by their respective owners. The following is a description of the private utilities identified for relocation within the project limits:

Private Utility Owner: AT&T*			
Location	Type of Facility	Estimated Clearance Date	Anticipated Effect on Construction
Colquitt	U/G duct bank and manholes	November 2016	Delay start of Colquitt utility / road construction
Project - Wide	Aerial lines on poles	September 2016	Minimal, if any
*Verizon / MCI lines	are located in AT&T duct bank		

**SUMMARY OF WORK**

Private Utility Owner: CenterPoint Energy Electric			
Location	Type of Facility	Estimated Clearance Date	Anticipated Effect on Construction
Project - Wide	Aerial lines on CNP Energy poles	July 2016	Minimal, if any

Private Utility Owner: CenterPoint Energy Gas			
Location	Type of Facility	Estimated Clearance Date	Anticipated Effect on Construction
Project - Wide	U/G gas lines of various sizes	May 2016	Minimal, if any

Private Utility Owner: Zayo / Level 3			
Location	Type of Facility	Estimated Clearance Date	Anticipated Effect on Construction
Project - Wide	U/G communication lines	February 2016	Minimal, if any

Private Utility Owner: Phonoscope			
Location	Type of Facility	Estimated Clearance Date	Anticipated Effect on Construction
Project - Wide	Aerial lines on CNP Energy poles	July 2016	Minimal, if any

Private Utility Owner: Comcast			
Location	Type of Facility	Estimated Clearance Date	Anticipated Effect on Construction
Project - Wide	Aerial lines on CNP Energy poles	July 2016	Minimal, if any

Private Utility Owner: Wavevision			
Location	Type of Facility	Estimated Clearance Date	Anticipated Effect on Construction
Project - Wide	Aerial lines on CNP Energy poles	July 2016	Minimal, if any

1.07 STREET CUT ORDINANCE

- A. Excavations on or under pavement in the City's right-of-way must have a permit. Comply with City of Houston, Texas Ordinance No. 2000-1115, an ordinance amending Chapter 40 of the Code of Ordinances, Houston, Texas, relating to excavating in the Public right-of-way.
- B. Comply with the latest edition of street cut New Pavement Repair and Pavement Replacement details.
- C. Quantities are included for street cut pavement repair and replacement in applicable Specification sections for Unit Price contracts.

1.08 WARRANTY

- A. Comply with warranty requirements in accordance with Document 00700 - General Conditions.

1.09 ADDITIONAL CONDITIONS FOR SUBSTANTIAL COMPLETION

- A. In addition to requirements outlined in Document 00700 – General Conditions, for Contractor to be substantially complete with the Work and call for inspection by Project Manager to confirm, the following conditions must be met or completed:
1. All testing shall be completed and accepted by Project Manager.
  2. All safety-related systems and equipment shall be installed, accepted by manufacturer's representative and approved for use.
  3. All pay items complete report.
  4. Contractor shall contact Construction Project Manager to complete Texas Department of Licensing and Regulation post-construction inspection of pedestrian elements for Texas Accessibility Standards.
- B. No additional condition described in Paragraph 1.09 may be included in Contractor's punch list.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

**END OF SECTION**

(SEE SHEET 70)  
 MATCH LINE STA. 5+00

PROP. 6" STUB  
 STA. 5+20.32

PROP. 6" STUB  
 STA. 6+95.52

PROP. 6" STUB  
 STA. 7+13.50

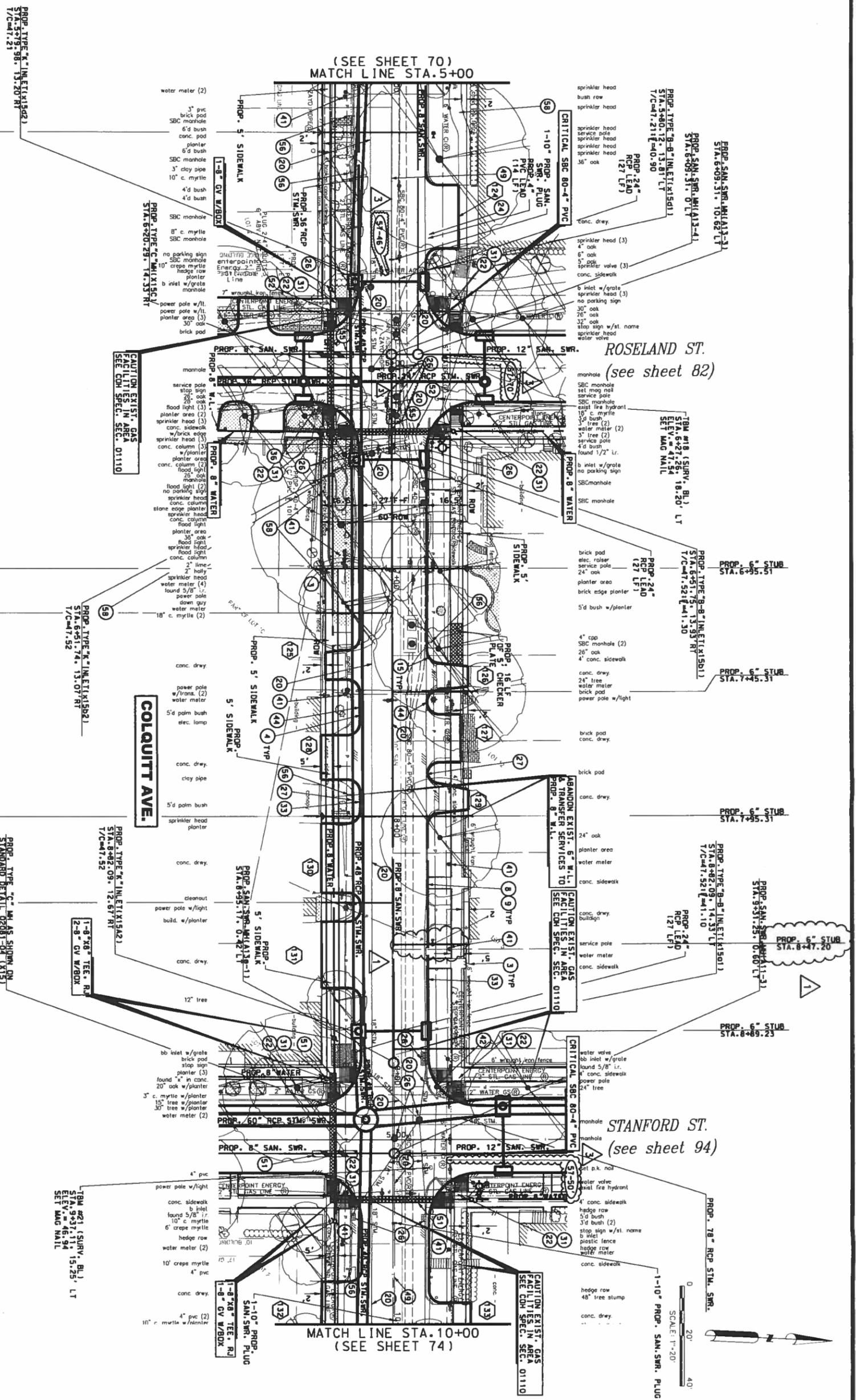
PROP. 6" STUB  
 STA. 7+95.32

PROP. 6" STUB  
 STA. 8+30.15

PROP. 6" STUB  
 STA. 8+47.20

PROP. 6" STUB  
 STA. 8+89.25

PROP. 6" STUB  
 STA. 5+00 TO STA. 10+00



MATCH LINE STA. 10+00  
 (SEE SHEET 74)

ROSELAND ST.  
 (see sheet 82)

STANFORD ST.  
 (see sheet 94)



**REVISIONS**

NO.	DATE	DESCRIPTION
1	3/11	ADDENDUM #3 TELECOM REMOVAL
2	3/11	ADDENDUM #4 WATER LINE REMOVAL
3	3/11	ADDENDUM #5 SERVICE STUB REMOVAL

**NOTES:**

- AT&T TEXAS/SMBT MANHOLES TO BE ADJUSTED TO NEW GRADE BY AT&T. CONTRACTOR TO COORDINATE.
- LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. CONTRACTOR TO CONFIRM LOCATIONS IN THE FIELD. ALL CONTRACTORS TO RECONNECT ALL EXISTING SERVICES TO PROPOSED SANITARY SEWER AND WATER LINES.
- EXISTING PVC YARD DRAINAGE AND SPRINKLERS TO BE REMOVED AND REPLACED.
- ROADWAY INTERSECTION RADIUS SHALL BE 50 FEET UNLESS OTHERWISE NOTED, UNLESS OTHERWISE NOTED ON THE TYPICAL DETAIL PLAN.
- EXISTING SIGNS EXCEPT STOP SIGNS TO BE REMOVED. SALVAGED AND REPLACED.

**City of Houston**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
 NEIGHBORHOOD STREET RECONSTRUCTION PROJECT 467  
 PLAN  
 COLQUITT AVENUE  
 STA. 5+00 TO STA. 10+00

**Vandewiele & Vogler Incorporated**  
 2325 Briarwood, Suite 275  
 Houston, Texas 77042-3178  
 Tel: 713-865-1100  
 Fax: 713-865-1101  
 www.vandewiele.com

**City of Houston**  
 C.O.H. FB No. P-5397

**Contractor:** [Signature]  
 Date: 12-1-15

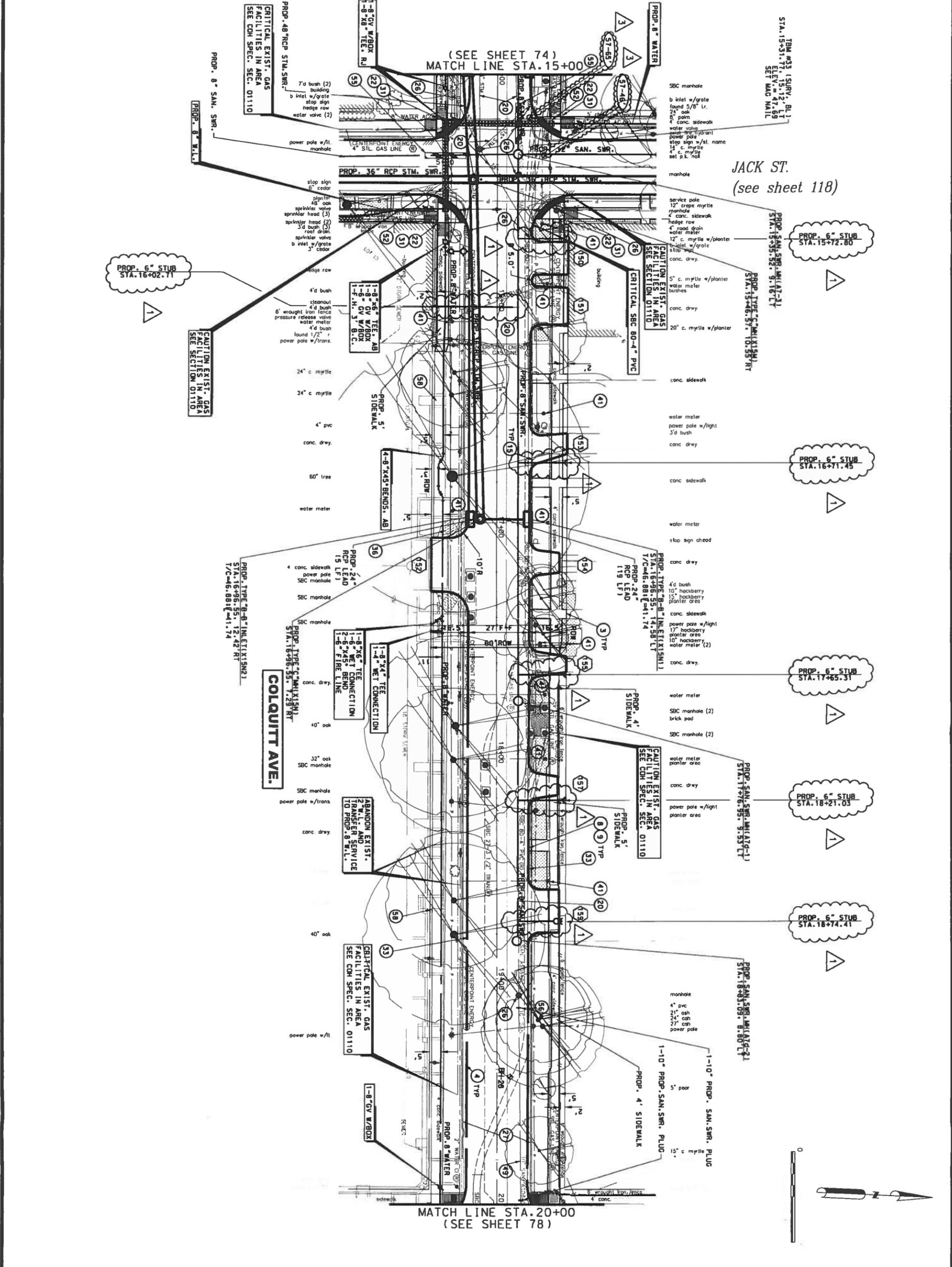
**Inspector:** [Signature]  
 Date: 12-1-15

**Scale:** 1"=20'

**Sheet No.:** 72 OF 225

WBS NUMBER: N-000400-0001-4  
 DRAWING SCALE: VERT. 1"=2' HORIZ. 1"=40'  
 CITY OF HOUSTON P.M.  
 BEN BARDAU, P.E.  
 SHEET NO. 72 OF 225





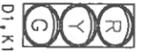
<b>TEMPORARY BENCHMARKS</b> <table border="1"> <thead> <tr> <th>BM #</th> <th>STA. / RT.</th> <th>DESC.</th> <th>ELEV.</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			BM #	STA. / RT.	DESC.	ELEV.						
BM #	STA. / RT.	DESC.	ELEV.									
<b>NOTES:</b> 1. ALL TEXAS/SWRI MANHOLES TO BE ADJUSTED TO NEI GRADE BY AT&T CONTRACTOR TO COORDINATE. 2. LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. CONTRACTOR TO CONFIRM LOCATIONS IN THE FIELD. CONTRACTOR TO RECONNECT ALL EXISTING SERVICES TO PROPOSED SANITARY SEWER AND WATER LINES. 3. EXISTING PVC YARD DRAINAGE AND SPRINKLERS TO BE REMOVED AND REPLACED. 4. ROADWAY INTERSECTION RADIUS SHALL BE 20' UNLESS OTHERWISE NOTED ON THE PLAN. DRIVEWAY RADIUS SHALL BE 10' UNLESS OTHERWISE NOTED ON THE TYPICAL DETAIL PLAN. 5. EXISTING SIGNS EXCEPT STOP SIGNS TO BE REMOVED. SALVAGED AND REPLACED.												
<b>REVISIONS</b> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>BY</th> <th>APP.</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			NO.	DESCRIPTION	DATE	BY	APP.					
NO.	DESCRIPTION	DATE	BY	APP.								
<b>PROJECT INFORMATION</b> SHEET NO. 76 OF 226 PROJECT: COLQUITT AVENUE RECONSTRUCTION PROJECT 467 CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING DATE: 12-1-15 DRAWN BY: [Signature] CHECKED BY: [Signature]												
<b>CONTRACTOR INFORMATION</b> Vandewiele & Vogler Incorporated 3525 Briarcliff, Suite 215 Houston, Texas 77042-3778 713-782-0042 713-782-0042 Fax: 713-782-0042 Email: info@vandewiele.com License No. 63282 State Professional Engineer License No. 7148 State Professional Engineer License No. 5397												
<b>CITY OF HOUSTON</b> DEPARTMENT OF PUBLIC WORKS AND ENGINEERING NEIGHBORHOOD STREET RECONSTRUCTION PROJECT 467 PLAN COLQUITT AVENUE STA. 15+00 TO STA. 20+00 WBS NUMBER: N-000400-0001-4 DRAWING SCALE: HORIZ. 1"=20' VERT. 1"=20' CITY OF HOUSTON PM: BEN BASKA, P.E. SHEET NO. 76 OF 226												



EXISTING SIGNAL HEAD DETAILS



A, B, D, E,  
G, H, L, K



D1, K1

EXISTING PEDESTRIAN SIGN  
AND SIGNAL HEAD DETAILS



W/ PEDESTRIAN  
PUSH BUTTON  
PB1, PB2, PB5

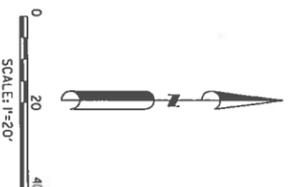
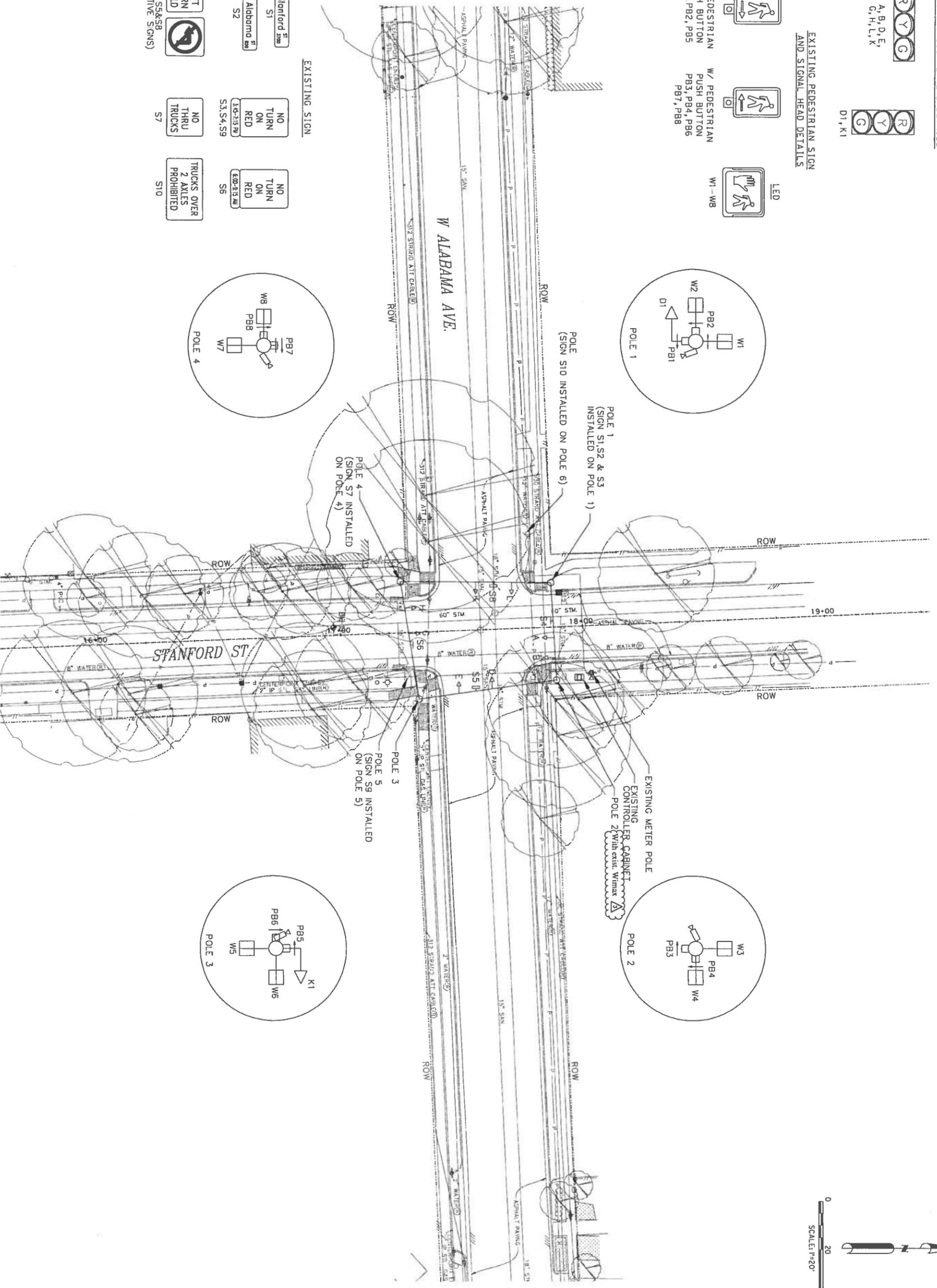


W/ PEDESTRIAN  
PUSH BUTTON  
PB3, PB4, PB6  
PB7, PB8



LED

- EXISTING SIGN**
- Stanford St  
S1
  - W Alabama St  
S2
  - NO TURN ON RED  
S3, S4, S9
  - NO TURN ON RED  
S6
  - LEFT TURN YIELD (ACTIVE SIGNS)  
S5, S8
  - NO THRU TRUCKS  
S7
  - TRUCKS OVER 2 AXLES PROHIBITED  
S10



BENCHMARK:  
 FLUOROPALIN REFERENCE MARK NUMBER 050025 IS A  
 CONCRETE MARK LOCATED ON THE EAST SIDE OF THE  
 OAK AVENUE LOCATED ON UPSTREAM CONCRETE WALK  
 ON SW CORNER OF 5-ROUND BRIDGE, 5' OF STREAM  
 CENTER IN KEYWAY 493E IN THE WHITE OAK WATERSHED  
 NEAR STREAM E100-00-00  
 ELEV. +29.93 FEET NAVD 1988, 2001 ADJUSTED

TEMPORARY REMARKS:	STA / DEF	DESC	ELEV

NO.	DATE	REVISIONS	APP.
330		IDENTIFY EXIST WIMAX	MAAM

**Vandewiele & Vogler Incorporated**  
 2825 Br. Icorp., Suite 215  
 Houston, Texas 77042-3718  
 www.vandewiele.com  
 C.O.H. FB NO. P-5397

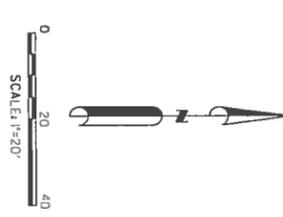
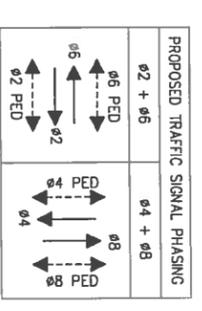
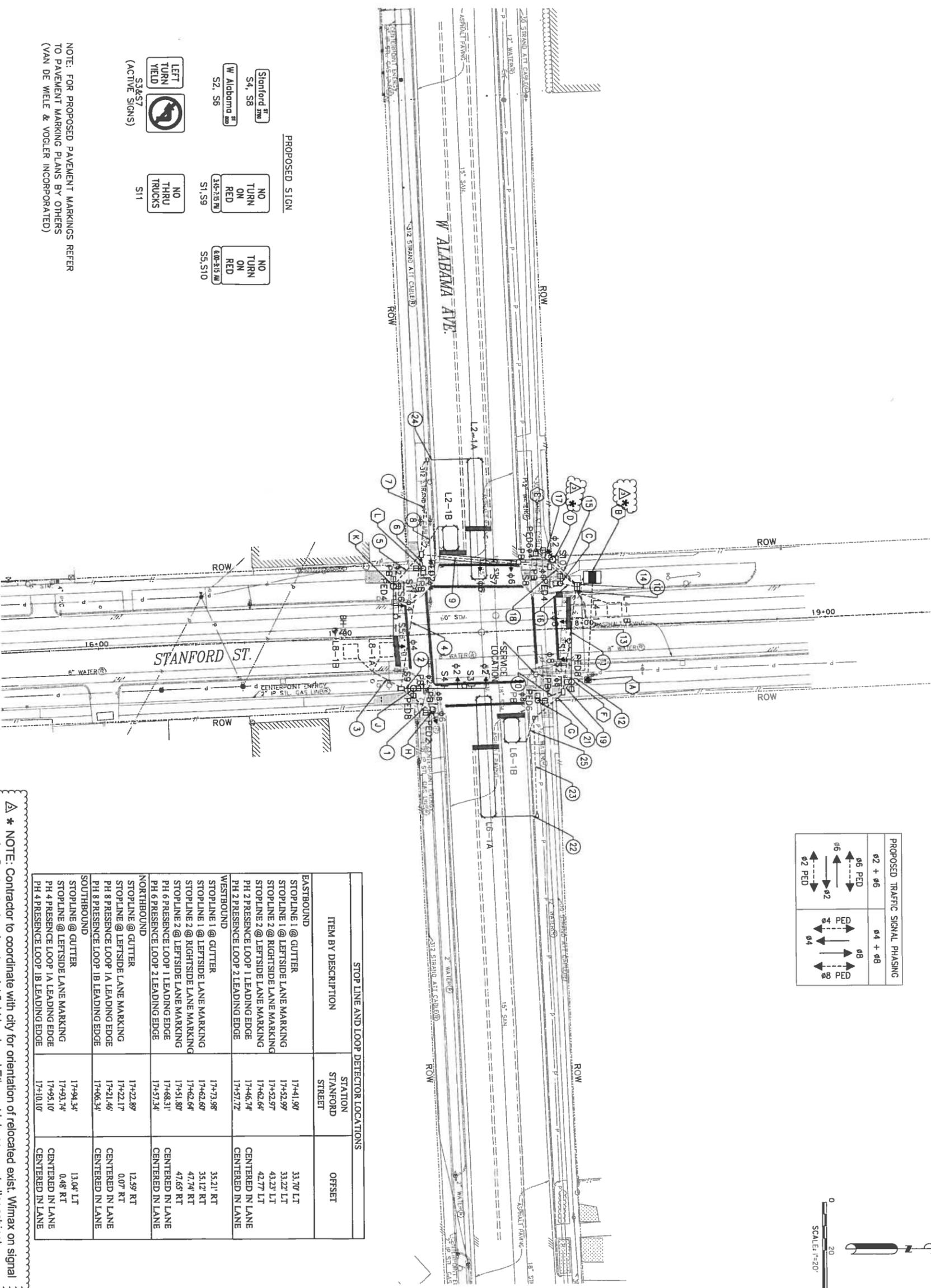


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 C.O.H. FB NO. P-5397



**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
 NEIGHBORHOOD STREET  
 RECONSTRUCTION PROJECT No. 467  
 W ALABAMA AVE @ STANFORD ST  
 EXISTING TRAFFIC SIGNAL PLAN SHEET

WBS NUMBER	M-0000290-0001-4
DRAWING SCALE	E-20'
CITY OF HOUSTON PL	52049
SHEET No. 175 OF 226	P-1576



ITEM BY DESCRIPTION	STATION STANFORD STREET	OFFSET
<b>EASTBOUND</b>		
STOPLINE 1 @ GUTTER	17+41.90	33.70 LT
STOPLINE 1 @ LEFTSIDE LANE MARKING	17+42.99	33.22 LT
STOPLINE 2 @ RIGHTSIDE LANE MARKING	17+42.97	43.23 LT
STOPLINE 2 @ LEFTSIDE LANE MARKING	17+42.64	42.77 LT
PH 2 PRESENCE LOOP 1 LEADING EDGE	17+46.74	CENTERED IN LANE
PH 2 PRESENCE LOOP 2 LEADING EDGE	17+51.72	CENTERED IN LANE
<b>WESTBOUND</b>		
STOPLINE 1 @ GUTTER	17+73.98	35.21 RT
STOPLINE 1 @ LEFTSIDE LANE MARKING	17+62.60	35.12 RT
STOPLINE 2 @ RIGHTSIDE LANE MARKING	17+62.64	47.74 RT
STOPLINE 2 @ LEFTSIDE LANE MARKING	17+51.80	47.65 RT
PH 6 PRESENCE LOOP 1 LEADING EDGE	17+68.31	CENTERED IN LANE
PH 6 PRESENCE LOOP 2 LEADING EDGE	17+51.34	CENTERED IN LANE
<b>NORTHBOUND</b>		
STOPLINE @ GUTTER	17+22.89	12.99 RT
STOPLINE @ LEFTSIDE LANE MARKING	17+22.17	0.07 RT
PH 8 PRESENCE LOOP 1A LEADING EDGE	17+21.46	CENTERED IN LANE
PH 8 PRESENCE LOOP 1B LEADING EDGE	17+46.34	CENTERED IN LANE
<b>SOUTHBOUND</b>		
STOPLINE @ GUTTER	17+94.34	13.04 LT
STOPLINE @ LEFTSIDE LANE MARKING	17+93.74	0.48 RT
PH 4 PRESENCE LOOP 1A LEADING EDGE	17+95.10	CENTERED IN LANE
PH 4 PRESENCE LOOP 1B LEADING EDGE	17+10.10	CENTERED IN LANE

NOTE: Contractor to coordinate with city for orientation of relocated exist. Wimax on signal pole. Contractor to relocate exist field-hardened Ethernet into new controller cabinet.

BENCHMARK:  
 FLOODPLAIN REFERENCE MARK NUMBER 050025 IS A  
 FLOOD DISK ON BRIDGE AT HELTON'S BRIDGE AND WHITE  
 OAK CREEK. THE DISK IS LOCATED AT THE CORNER  
 ON SW CORNER OF 5-ROUND BRIDGE, S. OF STREAM  
 CENTER IN KEYMAP 493E, IN THE WHITE OAK WATERSHED  
 NEAR STREAM E100-00-00  
 ELEV. +39.93 FEET NAVD 1988, 2001 ADJUSTED

TEMPORARY ENCUMBRANCES	SIT / OF	DESC	DATE

310	Utility Test, Wimax and Ethernet Relocations	M.A.M.

**Vandewiele & Vogler Incorporated**  
 2823 Br Lorenz, Suite 215  
 Houston, Texas 77024-2118  
 Tel: 281-415-1100  
 Fax: 281-415-1101  
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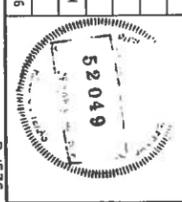


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**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
 NEIGHBORHOOD STREET  
 RECONSTRUCTION PROJECT NO. 467  
 W ALABAMA AVE @ STANFORD ST  
 TRAFFIC SIGNAL PLAN SHEET

WBS NUMBER: H-0000290-0001-4  
 DRAWING SCALE: 1"=20'  
 CITY OF HOUSTON PH  
 SHEET NO. 116 OF 226



PROPOSED POLE SCHEDULE

POLE NUMBER	POLE TYPE	MAST ARM SIGNAL	LUMIN	SIGNALS		LUMINAIRE TYPE	PED PB TYPESIGN	REMARKS	LOCATION	STANDARDS	
				MT.	FACE						
(C)	15	-	-	1 - PED	1 - CDP	-	POLARA NAVIGATOR R10-3E(R)	-	BY ENGINEER IN FIELD AT APPROX. POLE C - STA. 17+91.17, 18.72 LT STANFORD ST CONST. CL	02893-02 02893-03 02893-07	
(D)	30	-	-	3 - ASTROBRAC	2 - H3 1 - V3	-	-	R10-11A SIGN PRE-EMPT SENSOR STREET NAME SIGN ACTIVE SIGN	BY ENGINEER IN FIELD AT APPROX. POLE D - STA. 17+88.48, 28.72 LT STANFORD ST CONST. CL	02893-02 02893-03 02893-04A 02893-04B 02893-05 02893-09	
(E)	15	-	-	1 - PED	1 - CDP	-	POLARA NAVIGATOR R10-3E(L)	-	BY ENGINEER IN FIELD AT APPROX. POLE E - STA. 17+81.75, 32.95 LT STANFORD ST CONST. CL	02893-02 02893-03 02893-06	
(F)	25	-	-	2 - ASTROBRAC 1 - PED	2 - H3 1 - CDP	-	POLARA NAVIGATOR R10-3E(L)	PRE-EMPT SENSOR STREET NAME SIGN R10-11A SIGN	BY ENGINEER IN FIELD AT APPROX. POLE F - STA. 17+94.00, 22.29 RT STANFORD ST CONST. CL	02893-02 02893-03 02893-04A 02893-04B 02893-05 02893-09	
(G)	15	-	-	1 - PED	1 - CDP	-	POLARA NAVIGATOR R10-3E(R)	-	BY ENGINEER IN FIELD AT APPROX. POLE G - STA. 17+79.60, 29.45 RT STANFORD ST CONST. CL	02893-02 02893-03 02893-07	
(H)	15	-	-	1 - ASTROBRAC 1 - PED	1 - V3 1 - CDP	-	POLARA NAVIGATOR R10-3E(L)	-	BY ENGINEER IN FIELD AT APPROX. POLE H - STA. 17+36.05, 32.51 RT STANFORD ST CONST. CL	02893-02 02893-03 02893-06	
(J)	30	-	-	2 - ASTROBRAC 1 - PED	2 - H3 1 - CDP	-	POLARA NAVIGATOR R10-3E(R)	R10-11A SIGN PRE-EMPT SENSOR STREET NAME SIGN ACTIVE SIGN	BY ENGINEER IN FIELD AT APPROX. POLE J - STA. 17+28.51, 22.08 RT STANFORD ST CONST. CL	02893-02 02893-03 02893-04A 02893-04B 02893-05 02893-09	
(K)	25	-	-	2 - ASTROBRAC 1 - PED	2 - H3 1 - CDP	-	POLARA NAVIGATOR R10-3E(L)	PRE-EMPT SENSOR STREET NAME SIGN R10-11A SIGN RS-2A SIGN	BY ENGINEER IN FIELD AT APPROX. POLE K - STA. 17+22.15, 20.67 LT STANFORD ST CONST. CL	02893-02 02893-03 02893-04A 02893-04B 02893-05 02893-09	
(L)	15	-	-	1 - PED	1 - CDP	-	POLARA NAVIGATOR R10-3E(R)	-	BY ENGINEER IN FIELD AT APPROX. POLE L - STA. 17+34.88, 27.50 LT STANFORD ST CONST. CL	02893-02 02893-03 02893-07	
TRAFFIC SIGNAL CONTROLLER											
CABINET		TYPE	CONTROLLER	AUX CONTROL	REMARKS						STANDARDS
(B)	TYPE 340 ITS	2070L W/GPS SERIAL COMMUNICATION MODULE & UPS BATTERY BACK-UP SYSTEM	-	-	STANDARD SPECIFICATION 16730, 16731, 16732, 16785, 16733 & 16734						02893-10C
(A)	UL TYPE 3R	METERED SERVICE PEDESTAL WITH 30 AMP & 60 AMP BREAKERS	-	-	BY ENGINEER IN FIELD AT APPROX. STA. 18+04.52, 20.70 LT (TO CENTER OF THE CABINET) W STANFORD ST CONST. CL						02893-14

BENCHMARK:  
 FLOODPLAIN REFERENCE MARK NUMBER 050029, 15.1' HIGH, CONCRETE, 10' DIAMETER, 10' LONG, 10' WIDE, OAK BAYOU LOCATED ON UPSTREAM, CONCRETE WALL, ON SW CORNER OF 5-BOUND BRIDGE, S. OF STREAM CENTER IN RETAIN 493E IN THE WHITE OAK WATERSHED NEAR STREAM E100-00-00  
 ELEV. +39.53 FEET NAVD 1988, 2001 ADJUSTED

TEMPORARY BENCHMARKS	STA. / OFF.	DESC.	DATE

NO.	DATE	REVISIONS	APP.
300		ADDED SPECIFICATIONS	M.A.M.

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WBS NUMBER: W-0000290-0001-4  
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