



CITY OF SUGAR LAND

APPROVED PRODUCTS LIST

(Revised March 2023)

APPROVED WATER PRODUCTS LIST

All Products must conform to NSF/ANSI standards 60 or 61, if available.

1. Fire Hydrants (Flushing Valves, AWWA C 502) (Pumper Nozzle 4.125", Hose Nozzle 2.5")

- A. Mueller - Super Centurion 250, Option 110
- B. Kennedy Valve - Guardian K 81-A
- C. Clow – 5 ¼" Medallion (w/ grade 304 stainless steel bolts)
- D. East Jordan Iron Works -WaterMaster – 5CD250
- E. American AVK – Series 2780 Nostalgic
- F. American AVK – Series 65,45, and 55
- G. American Flow Control – 5¼ B-84-B

2. Gate Valves (3/4" – 2", AWWA Approved, Bronze)

- A. Hammond Valve
- B. Watts
- C. Red and White
- D. Matco Norca
- E. Eagle America
- F. Cambridge Brass
- G. Mueller
- H. Municipal Valve & Equipment Company

3. Gate Valves (3" and larger, AWWA C 509, Resilient Wedge Type)

- A. Mueller
- B. American Cast Iron Pipe Company (Waterous)
- C. American Flow Control (American Darling)

- D. Kennedy Valve
- E. M & H Valve Company
- F. US Pipe-Valve & Hydrant Division
- G. Clow Product Reinstated 11/2011
- H. EJ Flowmaster® Resilient Wedge Gate Valve. (MAY 2020).

4. Butterfly Valves (16-inch and Lager)

- A. Pratt
- B. Crispin Valve
- C. Municipal Valve & Equipment Company

5. PVC Pipe (AWWA C 900, C 905, C909)

- A. All manufacturers compliant with AWWA and/or ASTM standards.

6. Restraint Joint Pipe

- A. CertainTeed – Certa-Lok C905/RJ Certa-Lok
- B. APS Casing Spacer and Insulators
- C. EBAA Iron Inc – Mega Stop 5000 Series (SEP 2020)

7. Ductile Iron Fittings for C 900, C 905 or C 909 Pipe (AWWA C110, C153 or C151)

- A. All manufacturers compliant with AWWA and/or ASTM standards.
 - 1. SIP Industries
 - 2. Star Pipe – DI Compact MJ Fittings 2”-64”
 - 3. Sigma Corp - DI Compact MJ Fittings 2”-64”
 - 4. Sigma Corp - DI Compact Flanged Fittings 2”-64”
 - 5. Smith Blair – Camlock 111 4”-24”

8. Pipe & Fitting Restraints

- A. EBAA Iron Inc. – Megalug Series
- B. Star Pipe – Pipe Restraints Stargrip Series 1100 for PVC
- C. Star Pipe – PVC Stargrip Series 4000 MJ Wedge Restraint
- D. Smith Blair – Camlock 111 – 4”-24”
- E. Sigma – One-Lock Series SLCE for PVC Pipe
- F. Sigma – One-Lock Series SLDE for Ductile Iron Pipe
- G. SIP Industries – EZ Grip Joint Restraint for PVC Pipe

- H. Star Pipe – Ductile Iron Mechanical Wedge Restraint Joint
- I. RTC – Flange Adaptor RCT DI C900
- J. RTC – Flex-Tite Bends (90, 45, 22.5, 11.25)
- K. RTC – Flex-Tite Tees/Reducing Tees
- L. RTC – Flex-Tite Reducers/Wyes
- M. RTC – Flex-Tite Caps
- N. RTC – Flex-Tite Tees
- O. Romac Alpha Joint (JUN 2021)

9. Steel Pipe (AWWA C 200, TCEQ, NSF 61)

- A. All manufacturers compliant with AWWA, NSF 61 and/or ASTM standards.

10. Steel Pipe Coatings, Exterior (AWWA C 203, TCEQ, NSF 61)

- A. All manufacturers compliant with AWWA, NSF 61 and/or ASTM standards.

11. Steel Pipe Coatings, Interior (AWWA C 210, D 102, TCEQ, NSF 61)

- A. All manufacturers compliant with AWWA, NSF 61 and/or ASTM standards. Bituminous interior coatings are not allowed.

12. Curb Stop - (1" - 2", Ball Valve, Full Port, 360 turn, Locking Wing, Pack Joint CTS O.D. tubing x FIP)

- A. Ford Meter Box Company – BF43
 - 1. 1" – B43-444-WR-NL (DEC 2021)
 - 2. 1 ½" – BF43-666-WR-NL (DEC 2021)
 - 3. 2" – BF43-777-NL (DEC 2021)
- B. Jones Brand (James Jones)
- C. A.Y. McDonald
- D. Cambridge Brass
- E. Mueller – P25008
 - 1. 1" – P25008-330N (DEC 2021)
 - 2. 1 ½" – P25008-500N (DEC 2021)
 - 3. 2" – P25008-550N (DEC 2021)

13. Curb Stop - (3/4", Ball Valve, Full Port, 360 turn, Locking Wing, FIP x FIP)

- A. Ford Meter Box Company – B11-333WR-NL (DEC 2021)
- B. Cambridge

C. Mueller – B2020 -3250N (DEC 2021)

14. Compression Coupling (1"-2", Pack Joint for CTS O.D. tubing connections)

- A. Cambridge
- B. Ford Meter Box Company
- C. Mueller

15. NOT USED

16. Corporation Stop – Bronze

- A. Ford Meter Box Company - F1000
 - 1. 1" - FB1000-4-NL (DEC 2021)
 - 2. 1 ½" – FB1000-6-NL (DEC 2021)
 - 3. 2" – FB1000-7-NL (DEC 2021)
- B. Mueller - 1 - 1" – P25170-3330N (DEC 2021)
 - 2. 1 ½" – P24335-3500N (DEC 2021)
 - 3. 2" – P24335-550N (DEC 2021)
- C. Jones Product (James Jones)
- D. McDonald
- E. Cambridge

17. Service Saddle – Single Wide-Band Strap, Stainless Steel, Epoxy Coated Saddle

- A. Romac 101NS (2' – 12") or pre-approved equal (MAY 2020)
- B. Ford Meter Box Company
- C. Mueller Company
- D. Jones Product (James Jones)
- E. McDonald
- F. JCM Industries Inc
- G. Pipeline Products Incorporate (Power Seal)
- H. Dresser
- I. Smith & Blair

18. Service Saddle - Single Wide-Band Strap, Stainless Steel, Epoxy Coated Saddle

- A. Romac 202NS (16" – 30") or pre-approved equal (MAY 2020)

19. Water Meters (AWWA Approved) – (DEC 2021)

- A. Neptune
 - 1. 5/8" x 3/4" –Model T10
 - 2. 1" - Model T10
 - 3. 1 1/2" - Model T10
 - 4. 2" - Model T10
 - 5. 1 1/2" - HP Turbine
 - 6. 2" – HP Turbine
- B. Badger
 - 1. 5/8" Recordall Model 25
 - 2. 1" Recordall Model 55
 - 3. 1.5" Recordall Model 120
 - 4. 1.5" turbine Recordall Model T-160
 - 5. 2" Recordall Model 170
 - 6. 2" turbine Recordall Model T-200
- C. Sensus (old Rockwell)
- D. Zenner Positive Displacement Meters – sizes 5/8" x 3/4" (PPD02US); 1" (PPD07US); 1-1/2" (PPD09UST); 2" (PPD12US) (PENDING APPROVAL MAR20)

20. Service Tubing (1" - 2" Type "K" Annealed, Seamless Copper Tubing, AWWA B 88)

- A. Cerro Flow Products
- B. Great Lakes Copper Inc. (Formerly Wolverine Tube)
- C. Mueller Industries Inc. (Mueller-Streamline)
- D. Holstad

21. Service Tubing (1" - 2" Polyethylene Tubing) (ASTM D3350, ASTM D2239 and NSF-14)

- A. Endot Industries (Endopure Pure Virgin Polyethylene)

22. Air Release Valve, 2"

- A. APCO - No. 200
- B. GA Industries – Fig. 2-AR
- C. Val-matic, 2"
- D. ARI Model D-040, D-040-C, D-060-C HF, D-062HF
- E. Crispin Valve PL, AR, UL Series (7/20)

23. Combination Air Valves (Air Release-Air/Vacuum)

- A. APCO – 145-C
- B. Crispin Valve C Series
- C. H-TEC Model 986 (Stainless) 2”-6”

24. Meter Boxes

- A. Plastic
 - 1. DFW Plastic Inc.
 - a. DFW1300.12.1 (DEC 2021)
 - b. DFW1300.12.1T (DEC 2021)
 - c. DFW1600.12.1 (DEC 2021)
 - d. DFW1600.12.1T (DEC 2021)

25. Pipe Casing Spacers & End Seals for Bored Crossings

- A. Pipeline Seal and Insulator (PSI)
- B. GPT Industries Ranger II Series (SEP 2020)

26. Tapping Sleeves & Valves

- A. Tapping Sleeves – All Stainless Steel w/ Full Circumference Gasket
 - 1. JCM – Stainless Steel Tapping Sleeve 432 & 462
 - 2. Ford Meter Box Company
 - 3. TPS 4” – 16” (7/2015)
- B. Tapping Valve
 - 1. All Approved Gate Valve Manufacturers in Section 3
 - 2. East Jordan Iron Works 2” – 16”

27. Automatic Flushing Station

- A. Automatic Flushing Valve.
 - 1. Kupferle – Eclipse #9800WC (MAY 2020).
 - 2. Hydro-Guard – HG-2 High Profile Direct Discharge Unit. (MAY 2020)

APPROVED SANITARY SEWER PRODUCTS LIST

1. Gravity Flow Pipes -- Fusible C900/C905/PVC (All manufactures meeting the following specifications)

- A. PVC, 12" and smaller to max. depth of 12' – SDR 26, min. 160 PSI rating, ASTM D 2241 pipe, D3212 joint with F477 rubber gasket, F679 fittings
- B. PVC, 12" and smaller exceeding 12' in depth – AWWA C 900, DR 18, Class 150 pipe, joined per ASTM 3139 with F477 rubber gasket
- C. PVC, Larger than 12" and smaller than 24" to max. depth of 12' – DR 25, min. 165 PSI rating, D3212 joint with F477 rubber gasket
- D. PVC, Larger than 12" and smaller than 24" exceeding 12' in depth - AWWA C 905, DR 18, Class 235 pipe, joined per ASTM 3139 with F477 rubber gasket
- E. PVC, 24" and larger at all depths – AWWA C 905, DR 18, Class 235 pipe, joined per ASTM 3139 with F477 rubber gasket
- F. Fiberglass Reinforced Polyester (FRP) sewer pipe (Transmission only – No service leads allowed) – ASTM D 3262, ASTM D 3517, ASTM 3754 or AWWA C 950 – Depths per Manufacturers Recommendations.
- ~~G. ADS SaniTite HP, Single/Double Wall 6"–30" (Suspending Pending TCEQ Approval)~~
- ~~H. ADS SaniTite HP, Triple Wall 30"–60" (Suspending Pending TCEQ Approval)~~

2. Force Mains-- Fusible C900/C905/PVC (All manufactures meeting the following specifications)

- A. PVC, 12" and smaller at all depths – AWWA C 900, DR 18, Class 150 pipe, joined per ASTM 3139 with F477 rubber gasket
- B. PVC, Larger than 12" at all depths - AWWA C 905, DR 18, Class 235 pipe, joined per ASTM 3139 with F477 rubber gasket
- C. Fiberglass Reinforced Polyester (FRP) sewer pipe – ASTM D 3517, ASTM 3754 or AWWA C 950 – Depths per Manufacturers Recommendations

3. Ductile Iron Fittings for C 900, C 905 Pipe (AWWA C 110, AWWA C 153)

- A. All manufacturers compliant with AWWA and/or ASTM standards.

4. PVC Drainage Pattern Fittings for SDR 26 and DR 25 Pipe (ASTM D 3034)

- A. GPK
- B. JM Eagle
- C. Vassallo
- D. Plastic Trends

5. Pipe Connectors / Adapters / Flexible Couplings

- A. Fernco Inc.
- B. Indiana Seal
- C. Flow Control
- D. Flow Seal
- E. DFW

6. Manhole & Lift Station Coatings (Reformatted to Address Various Applications)

- A. New Manhole Installations – H₂S Corrosion Prevention
 - 1. IPA Systems (Ipagard Epoxy)
 - 2. Thane Coat FE 100
 - 3. Polyurea Coatings and Linings Industry (Polyurea)
 - 4. Aquatapoxy A-6
 - 5. Tnemec Series 66 epoxy coating
 - 6. Aegis Coating Technologies epoxy coating
 - 7. Lotus Chemicals epoxy coating
 - 8. Raven 405
 - 9. Quadex Structure Guard Epoxy
- B. Manhole Rehabilitation – Inflow/Infiltration Only
 - 1. Quadex Aluminaliner calcium aluminate sewer rehabilitation mortar (min. 1”/ max. 3” thickness)
 - 2. Strong Seal MS-2
 - 3. Kernos Sewpercoat
 - 4. Standard Cement – Reliner MSP or Maximum CA Cement
 - 5. ECO Cast GeoSpray
- C. Manhole Rehabilitation – H₂S Corrosion & Inflow/Infiltration
 - 1. Kernos Sewpercoat
 - 2. Standard Cement - Reliner MSP or Maximum CA Cement w/ Standard Shield Epoxy (Acropoxy 4582)
 - 3. Quadex Aluminaliner calcium aluminate sewer rehabilitation mortar (min. 1”/ max. 3” thickness) w/ Quadex Structure Guard Epoxy or Raven 405
- D. New Lift Station Wet Well Installation
 - 1. Standard Cement Materials, Inc (Acropoxy 4582 epoxy coating)
 - 2. Poly-Triplex Technologies, Inc. (Poly-Triplex Liner System)
 - 3. Kernos Sewpercoat
 - 4. Raven 405 Epoxy
 - 5. Quadex Structure Guard Epoxy
- E. Lift Station Wet Well Rehabilitation
 - 1. Kernos Sewpercoat

2. Standard Cement - Reliner MSP or Maximum CA Cement w/Standard Shield Epoxy (Acropoxy 4582)
3. Quadex Aluminaliner calcium aluminate sewer rehabilitation mortar (min. 1"/ max. 3" thickness) w/ Quadex Structure Guard Epoxy

7. Lift Station Submersible Pumps

- A. Flyght
- B. ABS
- C. Gorman Rupp
- D. Hydromatic (SEP 2020)

8. Lift Station Dry Pit Pumps

- A. Crown
- B. Gorman-Rupp
- C. PACO

9. Lift Station Plug Valves

- A. Pratt
- B. Crispin Valve
- C. Kennedy (SEP 2020)
- D. Mueller (SEP 2020)
- E. Municipal Valve & Equipment Company

10. Check Valve

- A. Stockman
- B. Watts
- C. Sepco
- D. Mission
- E. Val-matic
- F. Crispin Valve
- G. Municipal Valve & Equipment Company

11. Lift Station Control Panels – Various Manufacturers

Motor Control Components as Follows:

Duplex Controller

QTY	PART NUMBER	DESCRIPTION
1	A48H3612SSLP	Enclosure Nema 4X 48x36x12 Stainless Steel, Hoffman (OR EQUIVALENT)
1	A48P36	Backplane, Hoffman
1	Shof.I Made	Inner Door Painted Medium Blue
1	63133	Power Distribution Block, Gould-Shawmut
1	63131	Power Distribution Block, Gould-Shawmut
1	30323	3-Pole Fuse Block, Gould-Shawmut
3	DFC3M	Safety Fuse Puller, Gould-Shawmut
1	Q08-16L100F	8-Space Lightning Panel, Sq. D
1	PK7-GTA	Ground Bar Kit, Sq. D
1	00230	2-Pole Circuit Breaker, Sq. D
6	00120	Single-Pole Circuit Breaker, Sq. D
1	PBD-230-ALE	Phase Monitor Relay, Diversified
1	ARB-120-AEA	2-Pump Alternator, Diversified
2	HJL36030-71M	Motor Circuit Protector, Sq. D
2	8536SC03V02S	Starters Nema Size 1, Sq. D
2	S04	Overload Module, Sq. D
2	9066 RA1	Starter Reset Pushbutton, Sq. D
11	RR3-PUL-120VAC	Blade Base Relays 120V, Idee
2	RR2-PUL-24VAC	Pin Base Relay 24VAC, Idee
16	SR3B05	Blade Base Relay, Idee
2	SR3P06	Pin Base Relay, Idee
3	SR2P06	Pin Base Relay, Idee
4	RTE-B1AF20	Time Delay Relays with Sockets, Idee
1	EDAW-N1-E1-02-TO	Pressure Switch, Mercoid
2	HR10WB3	Air Compressor, Ingram
1	MPL-502	Air Switch, Micromatic
2	2963860	Single receptacle, Phoenix Contact
AR		Miscellaneous Fittings and piping for pressure switch
1	010100C1	Heater 50W 120V, Watlow
1	FLZ520	Thermostat, Pfannenberg
2	635G	Elapsed Time Meter, Cramer
2	9001 KS43B	Hand/Off/Auto Switch, Sq. D
2	KN260	Legend Plate, Sq. D
4	9001 KS11B	2-Position Switch, Sq. D
4	9001 KR1U	Pushbutton, Sq. D
3	9001KA1	Contact Blocks for Switches and Pushbuttons, Sq. D
5	9001KA2	Contact Blocks for Switches and Pushbuttons, Sq. D
3	9001KA3	Contact Blocks for Switches and Pushbuttons, Sq. D
7	ALD29911NR120V	Push-To-Test Pilot Light 30MM Full Voltage, Idee
3	ALD29911NA120V	Push-To-Test Pilot Light 30MM Full Voltage, Idee
2	ALD29911NG120V	Push-To-Test Pilot Light 30MM Full Voltage, Idee
1	7599-1	GFCI, Leviton
1	52R-N5-40W	Rotating Alarm Beacon, Edwards
1	504-120	Alarm Bell, Federal Signal Vibratone
1	LA303	Lightning Protector 480V, Delta
1	CA603R	Surge Protector 480V, Delta
2	9421LJ4	Door Operator, Sq. D
2	9421LH3	Door Operator Handle, Sq. D
1	9070T1OOD23	Transformer 120-24V 100VA, Sg. D
1	9070SF25A	Transformer Fuse Kit, Sq. D
1	SDP06-24-100T	Power Supply, Sola
56	UT6	Terminals, Phoenix Contact

SHIPPED SEPARATELY

SHOP MADE Sunshield (shipped loose)

SUPPLIED BY VENDOR

2		Mini Cas Relay, Flygt
2		Float Relay Switches
1	SHOP MADE	PVC Air Cell

TRIPLEX LIFT STATION

QTY	PART NUMBER	DESCRIPTION
1	SHOP MADE	Inner Door Painted Medium Blue
1	63133	Power Distribution Block, Ferraz Shawmut
1	63131	Power Distribution Block, Ferraz Shawmut
1	30323	3-Pole Circuit Breaker, Sq. D
3	DFC3M	Safety Fuse Puller, Ferraz Shawmut
1	Q08-16L100F	8-Space Lightning Panel, Sq. D
1	PK7-GTA	Ground Bar Kit, Sq. D
1	00230	2-Pole Circuit Breaker, Sq. D
6	00120	Single-Pole Circuit Breaker, Sq. D
1	PBD-230-ALE	Phase Monitor Relay, Diversified
2	ARA-120-AHE	3-Pumps Alternator, Diversified
3	HJL36100M73	Motor Circuit Protector, Sq. D
3	8536SC03V02S	Starters Nema Size 1, Sq. D
2	S04	Overload Module, Sq. D
2	9066 RA1	Starter Reset Pushbutton, Sq. D
14	RR3-PUL-120VAC	Blade Base Relays 120V, Idee
16	SR3B05	Blade Base Relay, Idee
2	SR3P06	Pin Base Relay, Idee
3	SR2P06	Pin Base Relay, Idee
3	RTE-B1AF20	Time Delay Relay with Sockets, Idee
2	EDAW-N1-E1-02-TO	Pressure Switch, Mercoid
2	HR10WB3	Air Compressor, Ingram
1	MPL-502	Air Switch, Micromatic
2	2963860	Single Receptacle, Phoenix Contact
AR		Miscellaneous Fittings and Piping for Pressure Switch
1	010100C1	Heater SOW 10V, Watlow
1	FLZ520	Thermostat, Pfannenberg
3	635G	Elapsed Time Meter, Cramer
3	9001KS43B	Hand/Off/Auto Switch, Sq. D
2	KN260	Legend Plate, Sq. D
4	9001KS11B	2-Position Switch, Sq. D
9	9001KR1U	Pushbutton, Sq. D
3	9001KA1	Contacts Blocks for Switches and Pushbuttons, Sq. D
5	9001KA2	Contacts Blocks for Switches and Pushbuttons, Sq. D
3	9001KA3	Contacts Blocks for Switches and Pushbuttons, Sq. D
10	ALD29911NR10V	Push-To-Test Polor Light 30MM Full Voltage, Idee
4	ALD29911NA120V	Push-To-Test Polor Light 30MM Full Voltage, Idee
3	ALD29911NG120V	Push-To-Test Polor Light 30MM Full Voltage, Idee
1	7599-1	GFCI, Leviton
1	52R-N5-40W	Rotating Alarm Beacon, Edwards
1	504-120	Alarm Bell, Federal Signal Vibratone
1	LA303	Lightning Protector 480V, Delta
1	CA603R	Surge Protector 480V, Delta
3	9421LJ4	Door Operator, Sq. D
3	9421LH3	Door Operator, Sq. D
1	9070T100D23	Transformer 120-24V 100VA, s_q. D
1	9070SF25A	Transformer Fuse Kit, Sq. D
1	SDP06-24-100T	Power Supply, Sola

56 UT6 Terminals, Phoenix Contact

SHIPPED SEPARATELY

SHOP MADE sunshield (shipped loose)

SUPPLIED BY VENDOR

2 Mini Cas Relay, Flygt
2 Float Relay Switches
1 SHOP MADE PVC Air Cell

AR: As Required

12. Air Release Valves

- A. ARI Model D-025, D-020 (Stainless Steel)
- B. Crispin Valve (7/2015) All Sizes
- C. Municipal Valve & Equipment Company

13. Manhole Covers and Rings, CITY OF SUGAR LAND Specs, (ASTM A 48, AASHTO H-20 Load Rating, Ductile Iron ring and cover – 32” diameter)

- A. Vulcan Foundry – 32” diameter, Model V-2420
- B. Neenah Foundry – 32” diameter, Model R-1741-F
- C. EJ. - 32” diameter, Model V-1420
- D. Star Pipe Products – 32” diameter, COMC Spec.
- E. SIP – 32” diameter Manhole cover – Item 2250
- F. EJ – 32” diameter, 3200 Durostreet (SEP 2022)

14. Manhole Inserts (No Flow/In-Flow Protector)

- A. Various Mfgs.

15. Manholes (Precast Concrete, CITY OF SUGAR LAND Specifications)

- A. More-Tex
- B. Southern Precast
- C. Calvert
- D. Gifford Hill
- E. Old Castle Pre-cast (Formerly Brooks Products)

- F. Concrete Products, Inc. (Dalworth)
- G. Old Castle Pre-cast (Precast Systems, Inc.)
- H. Koastal Precast, Inc.
- I. Hanson Pipe & Products
- J. JS Concrete Products – 48” Pre-cast concrete manholes all types
- K. Rinker
- L. Rock Solid Precast
- M. AmeriTex Pipe & Products LLC (SEP 2022)

16. Manholes (Corrosion-Resistant Polymer, CITY OF SUGAR LAND Specifications - Requires Specific Approval)

17. Geotextile Fabric Wrap

- A. Trevira S1114

18. Pipe Casing Spacers & End Seals for Bored Crossings

- A. Pipeline Seal and Insulator (PSI)
- B. GPT Industries Ranger II Series (SEP 2020)

APPROVED STORM SEWER PRODUCTS LIST

1. **Manhole Covers and Rings, CITY OF SUGAR LAND Specifications, (ASTM A 48, AASHTO H-20 Load Rating)**
 - A. Vulcan Foundry – 32” diameter, Model V-2420
 - B. Neenah Foundry – 32” diameter, Model R-1741-F
 - C. East Jordan Iron Works, Inc. - 32” diameter, Model V-1420
 - D. Star Pipe Products – 32” diameter, COMC Spec.
 - E. EJ CO – MH cover Assembly Catch Basin V3419 (1495ZPT) (MAY 2020)

2. **Storm Inlet Grates and Frames, CITY OF SUGAR LAND Specs, (ASTM A 48, AASHTO H-20 Load Rating)**
 - A. Vulcan Foundry
 - B. Neenah Foundry
 - C. East Jordan Iron Works, Inc.
 - D. N.C. Pipe and Precast Products
 - E. D&L Supply A-4000 Series Frames and Grates (MAY 2020)

3. **Pipe Materials**
 - A. RCP, 24” and larger at all depths – ASTM C 76 with rubber gasketed joints conforming to ASTM 433 (Various Manufacturers)

4. **HDPE PIPE (not approved under pavement)**
 - A. HDPE, 24” and larger at all depths - AASHTO M-294 (Various Manufacturers)
 - B. ADS HP Storm Pipe Dual Wall 12” – 60” all depth. (Non-Pressure)
 - C. Contech Profile Wall PVC Storm Sewer, 24” and larger – ASTM F949-03
 - D. DuroMaxx HP Pipe. 24” or larger

5. **Reinforced Concrete Box Culverts (ASTM C 789, C 850, C1577, C1677, AASHTO M259, M 273 – Various Manufacturers)**
 - A. RCB, 24” X 24” and larger having min. 2’ to max. 12’ of cover – ASTM C 789/AASHTO M 259 joined with “Ramnek” joint sealing compound by K.T. Snyder Co.
 - B. RCB, 24” X 24” and larger having less than 2’ cover or greater than 12’ of cover – ASTM C 850/AASHTO M 276 joined with “Ramnek” joint sealing compound by K.T. Snyder Co.
 - C. RCB, 3’ X 2’ and larger – ASTM C1577 & C1677 joined with pre-lubricated rubber gaskets. (Revised 3/2012)
 - D. Hanson 10’x 6’ RCB – RAMNEK Joint Sealing Method.

**6. Corrugated Metal Outfall Pipes to Receiving Channels in Drainage Easements
(ASTM A762, A742, – Various Manufacturers)**

- A. CGMP, 24” and larger to max. depths recommended by manufacturer – polymer coated corrugated steel pipe joined with coupling bands as per manufacturer's recommendations. Minimum thickness required is 12 gauge.

7. Manholes and Storm Inlets (Precast Concrete, CITY OF SUGAR LAND Specifications)

- A. More-Tex
- B. Southern Pre-cast and Concrete Products Inc (Southern Precast)
- C. Calvert
- D. Gifford Hill
- E. Old Castle (Brooks Products)
- F. Concrete Products Inc (Dalworth)
- G. Precast Systems, Inc. (Old Castle)
- H. Koastal Precast, Inc.
- I. JS Concrete Products – 48” Pre-cast concrete manholes all types
- J. N.C. Precast Pipe and Precast
- K. AmeriTex Pipe & Products LLC (MAY 2020)
- L. Rock Solid Precast

8. Manholes (Corrosion-Resistant Polymer, CITY OF SUGAR LAND Specifications – Requires Specific Approval)

- A. United Polymer Technology - Fabri-Kast Solid Cast Polymer (SCP)

9. Geotextile Fabric Wrap

- A. Trevira S1114
- B. Tensar/Contech – Tensar TX140 Geogrid

10. Pipe Casing Spacers & End Seals for Bored Crossings

- A. Pipeline Seal and Insulator (PSI)

11. Storm Sewer Manhole and Line Rehabilitation

- A. ECO Cast GeoSpray

12. Culvert Lining

- A. Flexamat from Hill Country Culverts

APPROVED TRAFFIC/STREET PRODUCTS LIST

1. Raised Pavement Markers

- A. Reflectorized Raised Pavement Markers (3M): Type I-A, Type I-C, Type I-R, Type II-AA, and Type II-CR raised markers (MAY 2020)

2. Type Y and Type W Traffic Buttons (ceramic only)

- A. TxDOT approved ceramic traffic buttons. (MAY 2020)

3. Raised Pavement Marker Adhesive

- A. TxDOT approved A&B epoxies (MAY 2020)

4. Pavement Markings

- A. Thermoplastic Pavement Markings (Ennis Flint markings with TxDOT Type 1 materials).
- B. Water Base Reflectorized Paint Pavement Markings (TxDOT Approved)
- C. Marking Removal Paint (sandstone color.
- D. In Pavement Lights (ITEM)

5. Crack Sealant

- A. Sikadur 55

6. Joint Sealant (Various Manufacturers)

- A. Elastometric-type, Hot-pour Joint Sealant conforming to TxDOT Item 433 and TxDOT Departmental Material Specification D-9-6310

7. Not USED (MAY 2020)

8. Road Marker Posts

A. Carsonite # CRM-375 (or equivalent)

9. Delineator Post w/ Base (Boltdown) (MAY 2020)

A. Pexco FG-300 or similar Davidson product. (MAY 2020)

10. Concrete Curing Membranes (Various Manufacturers)

A. Liquid membrane-forming Curing Compound conforming to TXDOT DMS-8120.

11. Chemical Stain for Use On Ramps for Handicapped Access, Cola Color (A.D.A., Texas Accessibility Standards.)

A. Kemiko Concrete Products – “Cola” color (or equivalent)

12. Not USED (MAY 2020)

13. Curb Drains

A. ‘ADDA’ Curb Drain – Galvanized Model (or Equivalent)

14. Traffic Signal Hardware (ALL material and manufacture products pertaining to traffic control signal, lighting, and associated appurtenances shall conform with the City of Sugar Land Specifications) (MAY 2020)

- A. Vehicle Signal Heads (Trafficware or McCain) (polycarbonate) (black or match existing) (MAY 2020)
- B. Vehicle Signal LEDs (GE GTx) (12-inch) (incandescent) (clear)
- C. Vehicle Signal Backplates (Trafficware or McCain) (0.125-inch vacuum-formed ABS plastic) (black) (MAY 2020)
- D. Vehicle Signal Visors (TxDOT-approved products list) (geometrically-programmed) (12-inch) (polycarbonate) (black or match existing) (MAY 2020)
- E. Signal Mast Arm clamp kits (Sky Bracket)

- F. Pedestrian Signal Heads (TxDOT-approved products list) (aluminum) (clamshell and zigzag visor) (black)
- G. Pedestrian Signal LEDs (TxDOT-approved products list) (Countdown) (clamshell and zigzag visor) (incandescent)
- H. Pedestrian Push Buttons (Polara Bulldog III with model #APBC-x aluminum cup) (piezo) (black)
- I. Audible Push Button System (Campbell Guardian APS System) (black) (MAY 2020)

15. Traffic Signal Poles

- A. Vehicle signal mast poles and arms (KW) (supplied by the City for City funded projects) (MAY 2020)
- B. Pedestrian signal poles (KW) (supplied by the City for City funded project) (MAY 2020)

16. Signs (MAY 2020)

- A. Sign Sheeting (3M Diamond Grade DG3 Reflective sheeting only) (MAY 2020)

17. Traffic Cabinet Equipment

- A. Traffic Cabinet (Trafficware) (see city specification) (MAY 2020)
- B. NEMA TS2 Traffic Cabinet (Trafficware) (2, 16-channel detection racks) (double doors)
- C. 980 ATC Controller (Trafficware) (Ethernet & USB faceplate)
- D. EDI MMU2-16LEip (Trafficware) (SEP 2021)
- E. UPS Module (Alpha FXM 2000)
- F. UPS Batteries (Alpha 240 XTV) (MAY 2020)
- G. UPS Automatic Bypass Switch (Alpha UATS)
- H. UPS Battery Charge Management System (Alpha Guard) (48V)

18. Communications Hardware

- A. Wireless / Fiber Communications Switch (Cisco IE-4000) (MAY 2020)
- B. Wireless Subscriber Module (Cambium PMP 400) (4.9 GHz)
- C. Wireless Access Point (Motorola 7161) (5.8 GHz)
- D. Wireless system surge protector (Citel MJ8-POE-B)
- E. Pan-tilt-zoom cameras (Bosch Autodome Starlight 5000i) (clear glass) (Bosch NDA-U pendant wall mount equipment) (MAY 2020)

19. Signal Luminaire

- A. LED luminaire (Holophane Acrylic Washington Postlite II) (Type III optics) (500ma) (clear acrylic diffuser) (black finish) (neutral white color) (MAY 2020)

20. Emergency Preemption System

- A. Preemption Detectors (Global Traffic Technologies) (Opticom Model 721)
- B. Preemption Detection Card (Global Traffic Technologies) (Opticom Model 764)

21. School Zone Flasher System

- A. Solar Flasher Batteries (UB 121000, 12-volt, 100-amp)
- B. Battery Charge Controllers (MorningStar ProStar PS-15M)
- C. School Zone Flasher Processor (AI-500-070)

22. Vehicle Detection Systems

- A. Pod Magnetometer Detection System (Trafficware)
- B. Loop Detection wire lead-in (TxDOT-approved products list) (2/C #14 AWG)
- C. Loop Detection cards (TxDOT-approved products list)
- D. Wavetronix Smart Matrix Sensor System (MAY 2020)

23. Traffic Signal Cables

- A. 7/C #12 AWG signal cable (TxDOT-approved products list) (stranded)
- B. 4/C #12 AWG signal cable (TxDOT-approved products list) (stranded)
- C. 2/C #12 AWG signal cable (TxDOT-approved products list) (stranded)
- D. 2/C #12 AWG tray cable for base lights (TxDOT-approved products list)
- E. 1/C #4 XHHW power cable (TxDOT-approved products list)
- F. 1/C #4 AWG bare – power ground (TxDOT-approved products list)
- G. 1/C #6 AWG bare – conduit ground (TxDOT-approved products list)
- H. 4/C #12 AWG tray cable for luminaires (TxDOT-approved products list)
- I. 3/C #20 AWG preemption cable (Opticom Model 138)
- J. 19/C #14 AWG wayside horn cable (Belden 28097A)
- K. Cat 5E cable (Belden 7919A)

24. Traffic Signal Conduit

- A. Rigid metal conduit (TxDOT-approved products list) (galvanized) (underground)
- B. PVC conduit (TxDOT-approved products list) (schedule 80) (underground)

25. Signal Pull Boxes

- A. Detection loops box (TxDOT-approved products list) (Type A) (11.5" x 21.0" x 20.0" ID)
- B. Signal cable / detection box (TxDOT-approved products list) (Type D) (15.25" x 28.25" x 20.0" ID)
- C. Signal / communications box (TxDOT-approved products list) (19.5" x 31.0" x 20.0" ID)

26. Electrical Service

- A. Electrical service (COSL specifications) [Type D 120/240 070 (NS) SS (E) SP (U)] (2195 key)

27. Railroad Systems (MAY 2020)

- A. CTC, Inc. Wayside Horn System
- B. Doppler Unit (Decatur SI-3)
- C. Railroad monitor processor (Wilke Icon 201)
- D. Power Supply (MDR-40 series)
- E. Terminal Server (Digi TS1)
- F. Preempt Relay (Magnecraft 120 VAC)
- G. RS 232 surge suppressor (B&B Electronics 232HESP)
- H. ADAM-6060 ethernet I/O unit

28. Pavement Reinforcement Alternatives

- A. GatorBar (#3 Bar) (Sidewalk Application Only)

29. Pavement

- A. Tex-Trude, TEX-CAP (PVC Joint Cap) (MAY 2020)

30. Detectable Warning Surfaces

- A. Truncated Dome Pavers
- B. ADA Solutions Cast-In-Place Replaceable
- C. Access Tile Cast-In-Place Replaceable
- D. Access Tile Surface Mount

ATTACHMENT A

CITY OF SUGAR LAND ENGINEERING DEPARTMENT

PRODUCT APPROVAL APPLICATION

Instructions

All information requested below must be submitted in full. Please label each section with the item number conforming to the list below. The Committee will review no application until the submittal is complete. Failure to provide full disclosure may be grounds for disapproval of product.

Revisions to the City of Sugar Land's Approved Product List are issued at the end of each calendar quarter. Applications must be received a minimum of 4-weeks prior to the end of each quarter to be considered for approval for that quarter.

Provide One (1) Electronic Copy, via email, or drop box link. Contact Engineering Department at 281.275.2780 for directions in how to submit.

And/or

One (1) Copy in a USB, or thumb drive to.

City Engineer
Attn: Product Approval Application
City of Sugar Land
2700 Town Center Blvd. N.
Sugar Land, TX 77478

Item

1. Basic general information - Provide all information requested on attached form (Item 1, below).
2. Existing Installations of Product - The following data is requested on representative installations of your product. A sample form (Item 2) is attached or you may use your own tabular format. Failure to disclose representative installations can be grounds for disapproval of product.
3. Describe materials of construction (including relevant industry standards - e.g., ASTM, ANSI, AWWA, etc.), special manufacturing processes and quality control measures used in the manufacture and installation of your product. Include copies of relevant referenced

specifications or standards. Also include Material Safety Data Sheets (MSDS) and National Sanitary Foundation (NSF) testing results in all products in contact with potable water or otherwise providing an exposure to operations or maintenance personnel.

4. Indicate if there are any special conditions (such as pipe size) for optimal performance of the product. Specify conditions or requirements for optimal performance. Where appropriate, include the engineering data required for proper application of the product. Indicate relevant safety factors, and pressure, temperature, or environmental limits.
5. Are current City of Sugar Land technical specifications adequate for inclusion of the product? Are exceptions to the City specifications being requested?
6. Provide Certifications of Compliance to applicable City of Sugar Land standards and codes.
7. Engineering Design Guide - Attach a copy of the Engineering Design Guide or Installation Guide for the proposed product. This document should indicate that it was prepared under the supervision of a Registered Professional Engineer in the state of the manufacturer. Should engineering certification not be a part of the standard printed documents, a letter should be provided from the manufacturer that the Engineering Design Guide was prepared under the supervision of a Registered Professional Engineer. The name, seal, registration number and expiration date of the supervising engineer should be included in either the design guide as the accompanying letter.
8. Client References - Provide names, addresses, phone numbers and job identification of current and past clients. The City will contact selected references concerning product performance.
9. Provide copies of tests conducted by independent testing companies showing conformance with industry standard and City's specification established for the product.
10. Provide information relating to patents, licenses and/or franchises held on the product. Include specific descriptions and relevant data such as patent (license) number and date issued.
11. Provide any other related information. Although not required, our application submittal may include other data to assist the Committee in evaluating the product for use on City of Sugar Land projects. This information could include brochures, videotapes, product samples and/or photographs. The Committee cannot be responsible for return of these materials. One (1) copy of video tapes and product samples is sufficient for committee review.

CITY OF SUGAR LAND
ENGINEERING DEPARTMENT

PRODUCT APPROVAL APPLICATION

Application Number _____

Date Received _____

Submittal Complete _____

(Do not write above this line for City use only)

ITEM 1. General Information

Product Name _____

Representative Company Name _____

Individual Contact(s) _____

Street Address _____

City, State, Zip Code _____

Telephone _____ Fax _____

E-Mail Address _____

Manufacturer Company Name _____

Individual Contact(s) _____

Street Address _____

City, State, Zip Code _____

Telephone _____ Fax _____

E-Mail Address _____

Product Application(s)
