

Engineer's Summary of Infrastructure Cost

Name of Project: Mar Bella Sec. 13B – Water, Sanitary Sewer & Drainage Facilities and Paving Improvements

Owner of Project: Taylor Morrison

Owner's Address: 5353 W. Sam Houston Pkwy. North
Houston, TX 77041

General description of infrastructure improvements: Construction of water, sanitary sewer and drainage facilities and paving improvements to serve the section.

Date of Construction Completion: Final Inspection held

Summary of Costs:

Municipal Water System:

Engineering Service: \$6,842

Construction: \$64,145

Municipal Wastewater System:

Engineering Service: \$18,366

Construction: \$172,171

Municipal Storm Sewer and Drainage System:

Engineering Service: \$28,197

Construction: \$264,333

Municipal Street Improvements:

Engineering Service: \$34,858

Construction: \$385,475

Private Street Improvement: N/A

Engineering Service:

Construction:

Private Drainage Improvements: N/A

Engineering Service:

Construction:

I certify that to the best of my knowledge the above information represents the final costs of Infrastructure improvements within the project

Signature and Title: Sam J. [Signature], P.E., SR PROJ MGR

Date: 9/16/15

Attachments: spread sheet of final unit quantities and unit costs of construction

Construction of the Water, Sanitary Sewer & Drainage Facilities to Serve Mar Bella Section 13-B
 Job No. 0074-0546D (1112)

ITEM DESCRIPTION	UNIT	COMPLETE	
		CONTRACT UNIT COST	TOTAL QTY. TOTAL AMT. TO DATE

WATER ITEMS

1. 8" PVC WATER PIPE, C-900, DR 18, ALL DEPTHS, INCLUDING FITTINGS, COMPLETE IN PLACE	LF	\$23.00	1682	\$38,686.00
2. 6" PVC WATER PIPE, C-900, DR 18, ALL DEPTHS, INCLUDING FITTINGS, COMPLETE IN PLACE	LF	\$20.00	350	\$7,000.00
3. FLUSHING VALVE UNIT, ALL DEPTHS, INCLUDES APPROPRIATE TEE, 6" GATE VALVE & BOX, 8" LEAD, AND FLUSHING VALVE, PER TECHNICAL SPECIFICATION, COMPLETE IN PLACE	EA	\$3,712.00	2	\$7,424.00
4. REMOVE AND RELOCATE EXISTING FLUSHING VALVE UNIT PAINTED BLUE, INCLUDES SUPPLYING APPROPRIATE TEE, 6" GATE VALVE & BOX, (TO BE REPAINTED IN ACCORDANCE WITH CITY OF LEAGUE CITY GENERAL DESIGN AND CONSTRUCTION STANDARDS), REMOVE AND DISPOSE EXISTING REDUCER, AND CONNECT PROPOSED WATER LINE, ALL DEPTHS, INCLUDES ALL FITTINGS AND REPAIR, COMPLETE IN PLACE	EA	\$786.00	1	\$786.00
5. REMOVE AND RELOCATE EXISTING FLUSHING VALVE UNIT PAINTED BLUE, REDUCER, AND CONNECT PROPOSED WATER LINE, ALL DEPTHS, INCLUDES ALL FITTINGS, COMPLETE IN PLACE	EA	\$1,472.00	1	\$1,472.00
6. TRENCH SAFETY, ALL DEPTHS, COMPLETE IN PLACE	EA	\$0.40	2032	\$812.80
7. 8" AWWA GATE VALVE AND BOX, ALL DEPTHS, COMPLETE IN PLACE	EA	\$1,254.00	5	\$6,270.00
8. 6" AWWA GATE VALVE AND BOX, ALL DEPTHS, COMPLETE IN PLACE	EA	\$947.00	2	\$1,894.00

SUBTOTAL WATER ITEMS

\$64,144.80

SANITARY SEWER ITEMS

1. 8" PVC SEWER PIPE, ASTM D-2241, SDR 26, 8'-12' CUT, COMPLETE IN PLACE	LF	\$40.00	969	\$38,760.00
2. 8" PVC SEWER PIPE, ASTM D-2241, SDR 26, 12'-16' CUT, COMPLETE IN PLACE	LF	\$40.00	596	\$23,940.00
3. STANDARD SANITARY SEWER MANHOLE FOR 6'-24" SANITARY SEWER PIPES (8' DEPTH), COMPLETE IN PLACE	EA	\$3,424.00	14	\$47,936.00
4. EXTRA DEPTH OF SANITARY SEWER MANHOLE, OVER 8' DEPTH, COMPLETE IN PLACE	VF	\$352.00	47.1	\$16,579.20
5. "LONG SIDE" DOUBLE OR SINGLE 6" PVC PIPE SERVICE LEADS, ASTM D2241, SDR 26, ALL DEPTHS, INCLUDING DROPS, CEMENT STABILIZED BACKFILL, RISER, WYE, PLUG, MARKER, AND ANY NECESSARY FITTINGS, ETC., COMPLETE IN PLACE	LF	\$48.00	500	\$24,000.00
6. "SHORT SIDE" DOUBLE OR SINGLE 6" PVC PIPE SERVICE LEADS, ASTM D2241, SDR 26, ALL DEPTHS, INCLUDING DROPS, CEMENT STABILIZED BACKFILL, RISER, WYE, PLUG, MARKER, AND ANY NECESSARY FITTINGS, ETC., COMPLETE IN PLACE	EA	\$415.00	10	\$4,150.00
7. STANDARD 6" SANITARY SEWER STACK, COMPLETE IN PLACE	EA	\$241.00	2	\$482.00
8. EXTRA DEPTH OF 6" SANITARY SEWER STACK (OVER 3' DEPTH), COMPLETE IN PLACE	VF	\$299.00	1.1	\$328.90
9. T.V. INSPECTION FOR 8'-12" SANITARY SEWER, PER CITY OF LEAGUE CITY REQUIREMENTS, COMPLETE IN PLACE	LF	\$2.00	1565	\$3,130.00

ITEM DESCRIPTION	UNIT	CONTRACT		COMPLETE	
		UNIT COST	TOTAL QTY.	TOTAL AMT.	TOTAL QTY.
			TO DATE	TO DATE	TO DATE
10. TRENCH SAFETY SYSTEM, ALL DEPTHS, COMPLETE IN PLACE	LF	\$0.40	2065	\$826.00	
11. CORE INTO EXISTING SANITARY SEWER MANHOLE AND CONNECT SANITARY SEWER, COMPLETE IN PLACE	EA	\$1,033.00	1	\$1,033.00	
12. SANITARY SEWER PLUG (ALL SIZES AND DEPTHS), COMPLETE IN PLACE	EA	\$71.00	1	\$71.00	
13. ADJUST EXISTING SANITARY SEWER MANHOLE, BY EITHER CONE OR RING, 3" ABOVE FINISHED GRADE, COMPLETE IN PLACE	EA	\$326.00	2	\$652.00	
14. REMOVE AND DISPOSE EXISTING SANITARY SEWER PLUG (ALL SIZES) AND CONNECT SANITARY SEWER, COMPLETE IN PLACE	EA	\$22.00	1	\$22.00	
SUBTOTAL SANITARY SEWER ITEMS				\$161,610.10	
STORM SEWER ITEMS					
1. 24" RCP STORM SEWER, ASTM C-76, CLASS III, ALL DEPTHS, COMPLETE IN PLACE	LF	\$67.00	961	\$64,367.00	
2. 30" RCP STORM SEWER, ASTM C-76, CLASS III, ALL DEPTHS, COMPLETE IN PLACE	LF	\$96.00	61	\$5,856.00	
3. 36" RCP STORM SEWER, ASTM C-76, CLASS III, ALL DEPTHS, COMPLETE IN PLACE	LF	\$117.00	357	\$41,769.00	
4. 54" RCP STORM SEWER, ASTM C-76, CLASS III, ALL DEPTHS, COMPLETE IN PLACE	LF	\$306.00	14	\$4,284.00	
5. 60" RCP STORM SEWER, ASTM C-76, CLASS III, ALL DEPTHS, COMPLETE IN PLACE	LF	\$280.00	128	\$35,840.00	
6. TYPE "C" MANHOLE FOR 42" STORM SEWERS AND SMALLER, COMPLETE IN PLACE	EA	\$2,823.00	11	\$31,053.00	
7. TYPE "C" MANHOLE FOR 48" STORM SEWERS AND LARGER, COMPLETE IN PLACE	EA	\$10,143.00	2	\$20,286.00	
8. STAGE I - STANDARD 5' PRECAST INLET (7H-2), ALL DEPTHS, INCLUDES TEMPORARY SILT BARRIER FENCE FOR STAGE I INLETS, COMPLETE IN PLACE	EA	\$1,588.00	8	\$12,704.00	
9. STAGE II - STANDARD 5' PRECAST INLET (7H-2), COMPLETE IN PLACE	EA	\$1,240.00	8	\$9,920.00	
10. STAGE I - STANDARD 10' CURB INLET, ALL DEPTHS, INCLUDES TEMPORARY SILT BARRIER FENCE FOR STAGE I INLETS, COMPLETE IN PLACE	EA	\$3,467.00	4	\$13,868.00	
11. STAGE II - STANDARD 10' CURB INLET, COMPLETE IN PLACE	EA	\$1,390.00	4	\$5,560.00	
12. T.V. INSPECTION FOR STORM SEWER, PER CITY OF LEAGUE CITY REQUIREMENTS, COMPLETE IN PLACE	LF	\$2.00	1521	\$3,042.00	
13. TRENCH SAFETY, (ALL DEPTHS), COMPLETE IN PLACE	LF	\$0.40	1521	\$608.40	
14. REMOVE & DISPOSE EXIST 8" THICK BRICK PLUG AND CONNECT PROPOSED STORM SEWER (ALL SIZES), COMPLETE IN PLACE	EA	\$808.00	2	\$1,616.00	

Construction of the Water, Sanitary Sewer & Drainage Facilities to Serve Mar Bella Section 13-B
 Job No. 0074-0546D (11.2)

ITEM DESCRIPTION	UNIT	CONTRACT		COMPLETE	
		UNIT COST	TOTAL QTY.	TOTAL AMT.	TOTAL AMT.
			TO DATE	TO DATE	TO DATE
15. ADJUST EXISTING STORM SEWER MANHOLE, BY EITHER CONE OR RING, 3" ABOVE FINISHED GRADE, COMPLETE IN PLACE	EA	\$167.00	2	\$334.00	
16. 1" V" BOTTOM SWALE WITH 3:1 SIDE SLOPES, INCLUDES REPLACEMENT OF ESTABLISHED VEGETATION, COMPLETE IN PLACE	LF	\$11.00	210	\$2,310.00	
17. 8" THICK BRICK PLUG (ALL SIZES), COMPLETE IN PLACE	EA	\$534.00	1	\$534.00	
SUBTOTAL STORM SEWER ITEMS				\$233,971.40	
MISCELLANEOUS ITEMS					
1. BEDDING AND BACKFILL FOR WET SAND CONSTRUCTION AND UNSATISFACTORY SOIL CONDITIONS (PER DETAIL) (TO BE USED ONLY AS DIRECTED BY THE ENGINEER), COMPLETE IN PLACE	LF	\$5.00	0	\$0.00	
2. EXTRA CEMENT STABILIZED SAND BACKFILL, (1.5 SACKS PER TON), (TO BE USED ONLY AS DIRECTED BY THE ENGINEER), COMPLETE IN PLACE	CY	\$25.00	0	\$0.00	
3. DEWATERING, (TO BE USED ONLY AS DIRECTED BY THE ENGINEER), COMPLETE IN PLACE	LF	\$22.50	921	\$20,722.50	
4. HYDROMULCH SEEDING FROM BACK OF CURB/EDGE OF PAVEMENT TO R.O.W., (TO BE USED ONLY AS DIRECTED BY THE ENGINEER), COMPLETE IN PLACE	AC	\$750.00	0	\$0.00	
SUBTOTAL MISCELLANEOUS ITEMS				\$20,722.50	
TOTALS TO DATE:				\$500,648.80	

Construction of the Paving and Appurtenances to Serve Mar Bella Section 13-B

Job No. 0074-0546 (14.2)

ITEM DESCRIPTION	CONTRACT		COMPLETE	
	UNIT	UNIT COST	TOTAL QTY. TO DATE	TOTAL AMT. TO DATE

PAVING IMPROVEMENT ITEMS

1. ROADWAY EXCAVATION, COMPLETE IN PLACE	CY	\$3.75	5500	\$20,625.00
2. ROADWAY FILL, COMPLETE IN PLACE	CY	\$3.75	139	\$521.25
3. HYDRATED LIME FOR STABILIZED SUB-GRADE, (6% LIME BY WEIGHT) AS REQUIRED BY SOIL CONDITIONS AND APPROVED BY ENGINEER, COMPLETE IN PLACE	TON	\$190.00	102	\$19,380.00
4. 6" LIME STABILIZED SUB-GRADE (MANIPULATION), COMPLETE IN PLACE	SY	\$3.00	6788	\$20,364.00
5. 6" REINFORCED CONCRETE PAVEMENT, COMPLETE IN PLACE	SY	\$43.50	6036	\$262,566.00
6. 6" REINFORCED CONCRETE CURB, COMPLETE IN PLACE	LF	\$2.60	462	\$1,201.20
7. 4' X 12" REINFORCED CONCRETE CURB, COMPLETE IN PLACE	LF	\$2.60	2888	\$7,508.80
8. STANDARD PAVING HEADER, COMPLETE IN PLACE	LF	\$20.00	28	\$560.00
9. PERMANENT TRAFFIC CONTROL DEVICES (INCLUDING ALL TRAFFIC BUTTONS, PAVEMENT STRIPING, STREET SIGNS, TRAFFIC SIGNS, AND REMOVAL OF EXISTING STRIPING), COMPLETE IN PLACE	LS	\$5,000.00	1	\$5,000.00
10. TEMPORARY TRAFFIC CONTROL DEVICES, COMPLETE IN PLACE	LS	\$3,500.00	1	\$3,500.00
11. LOT AND R.O.W. GRADING, INCLUDING MANIPULATION AND COMPACTION OF EXISTING FILL TO REQUIRED ELEVATIONS AS SHOWN ON LOT GRADING PLAN, COMPLETE IN PLACE	LS	\$9,900.00	1	\$9,900.00
12. 5' SIDEWALK (PER DETAIL IN CONSTRUCTION PLANS), COMPLETE IN PLACE	LF	\$38.00	698	\$26,524.00
13. WHEELCHAIR RAMPS AND 5' X 5' LANDING PAD (AS SHOWN ON PAVEMENT DETAIL SHEETS), COMPLETE IN PLACE	EA	\$1,250.00	4	\$5,000.00
14. REMOVE AND RELOCATE EXISTING TYPE III BARRICADE, COMPLETE IN PLACE	EA	\$500.00	1	\$500.00
15. FULL DEPTH SAWCUT AND REMOVE CONCRETE CURB, COMPLETE IN PLACE	LF	\$25.00	93	\$2,325.00

SUBTOTAL PAVING IMPROVEMENT ITEMS

\$385,475.25

MISCELLANEOUS ITEMS

1. STRIPING (ALL STRIPING TO BE APPLIED ON SITE AFTER THE FINAL GRADE) (TO BE USED ONLY AS DIRECTED BY THE ENGINEER), COMPLETE IN PLACE	AC	\$300.00	0	\$0.00
2. HYDRATED LIME FOR STABILIZED SUB-GRADE, (6% LIME BY WEIGHT) AS REQUIRED BY SOIL CONDITIONS AND APPROVED BY ENGINEER, COMPLETE IN PLACE	TON	\$190.00	0	\$0.00
3. 6" LIME STABILIZED SUB-GRADE (MANIPULATION), COMPLETE IN PLACE	SY	\$3.00	0	\$0.00

SUBTOTAL MISCELLANEOUS ITEMS

\$0.00

TOTALS TO DATE:

\$385,475.25