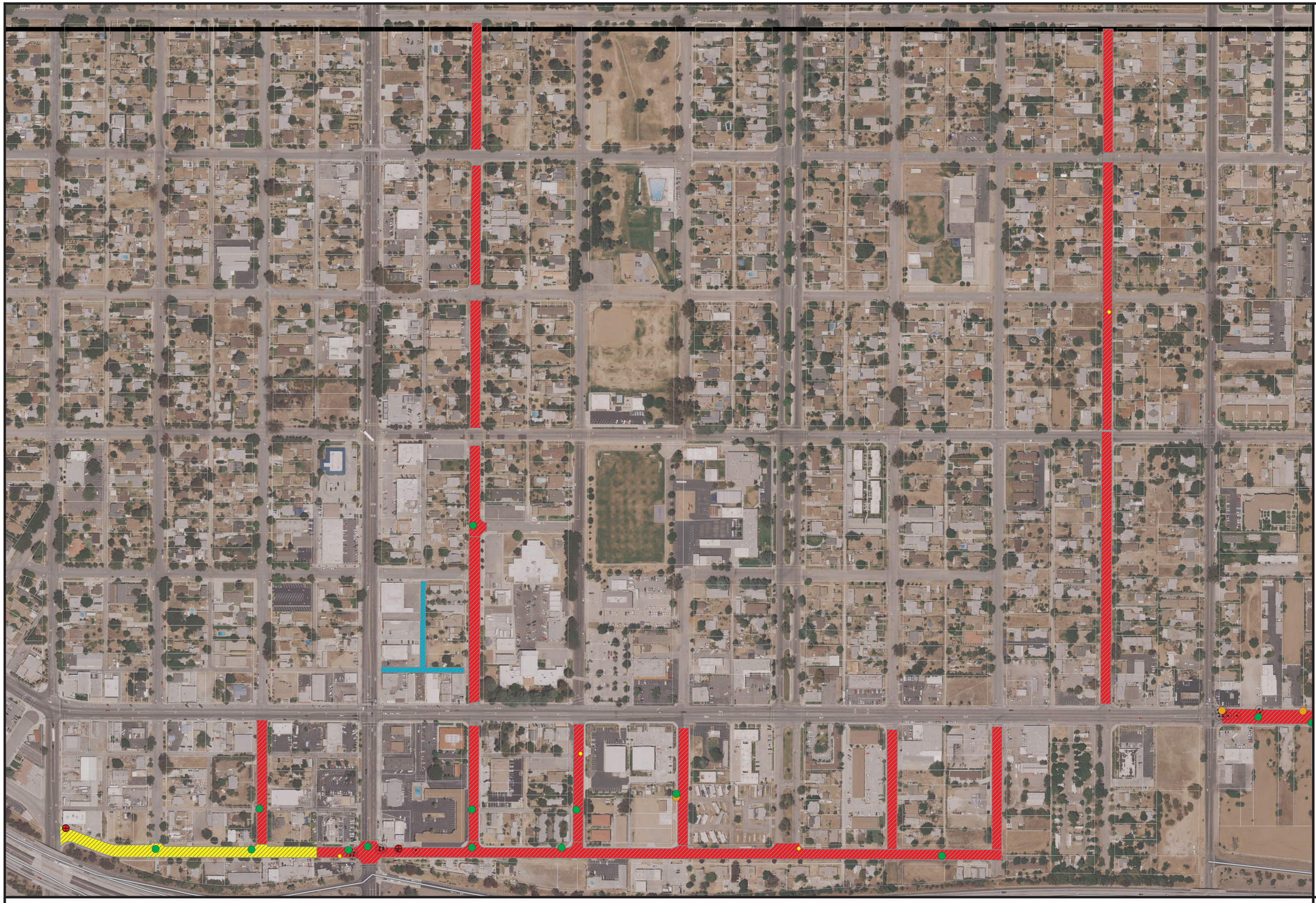


Legend

- Sewer Manhole
- Stormdrain Manhole
- Traffic Loop
- Gas Valve
- Edison Vault

2023 Street Project

- Mill
- Mill- Additive
- Slurry

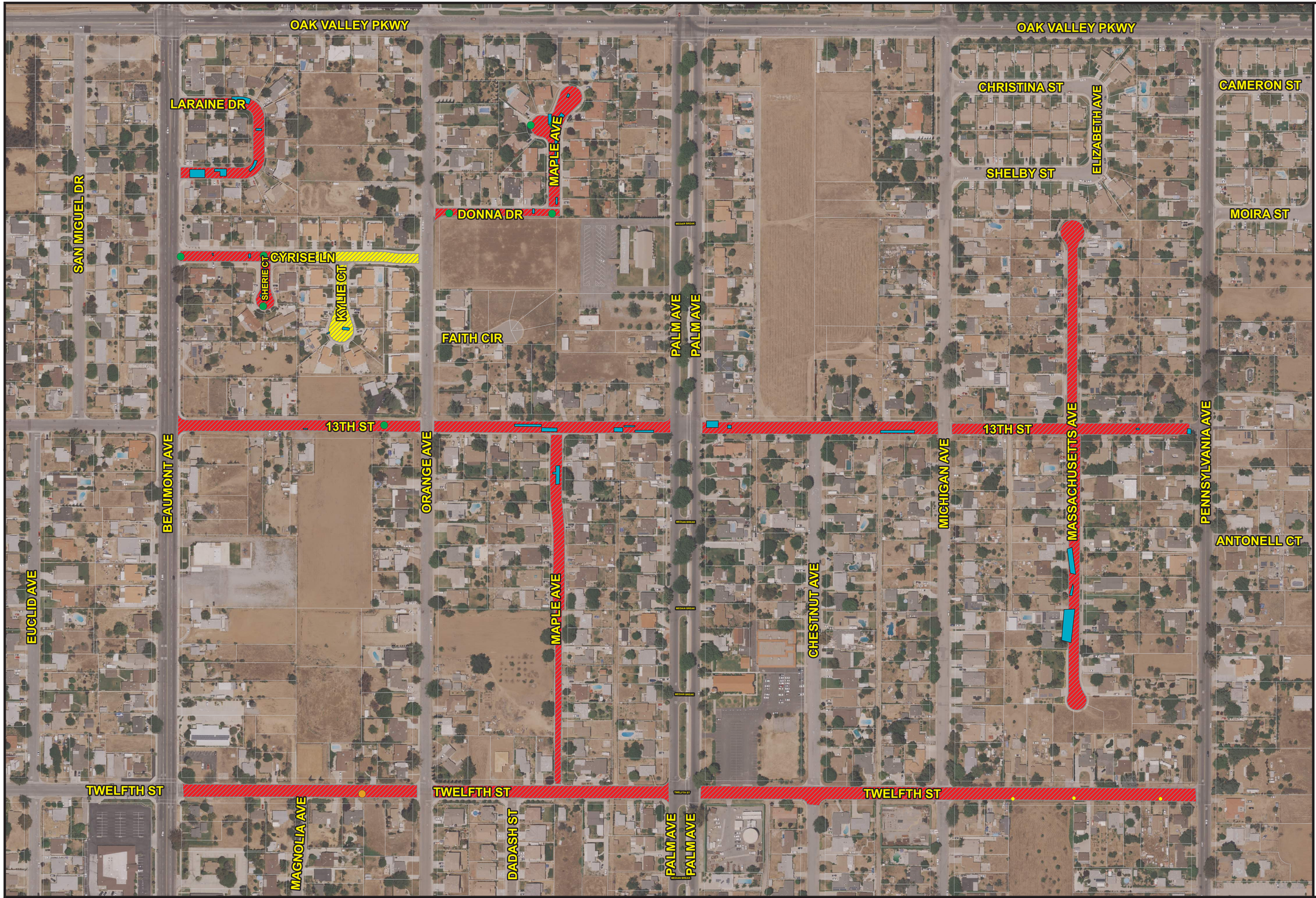
CITY OF BEAUMONT

2023 Annual Street Projects - Towncenter

PUBLIC WORKS DEPARTMENT

Date Created: 7/24/2023

Public Works Department
550 E. 6th Street
Beaumont, CA 92223
(951) 769-8522
www.beaumontca.gov



Legend

- Sewer Manhole
- Stormdrain Manhole
- Traffic Loop
- Gas Valve
- Edison Vault
- Dig Outs

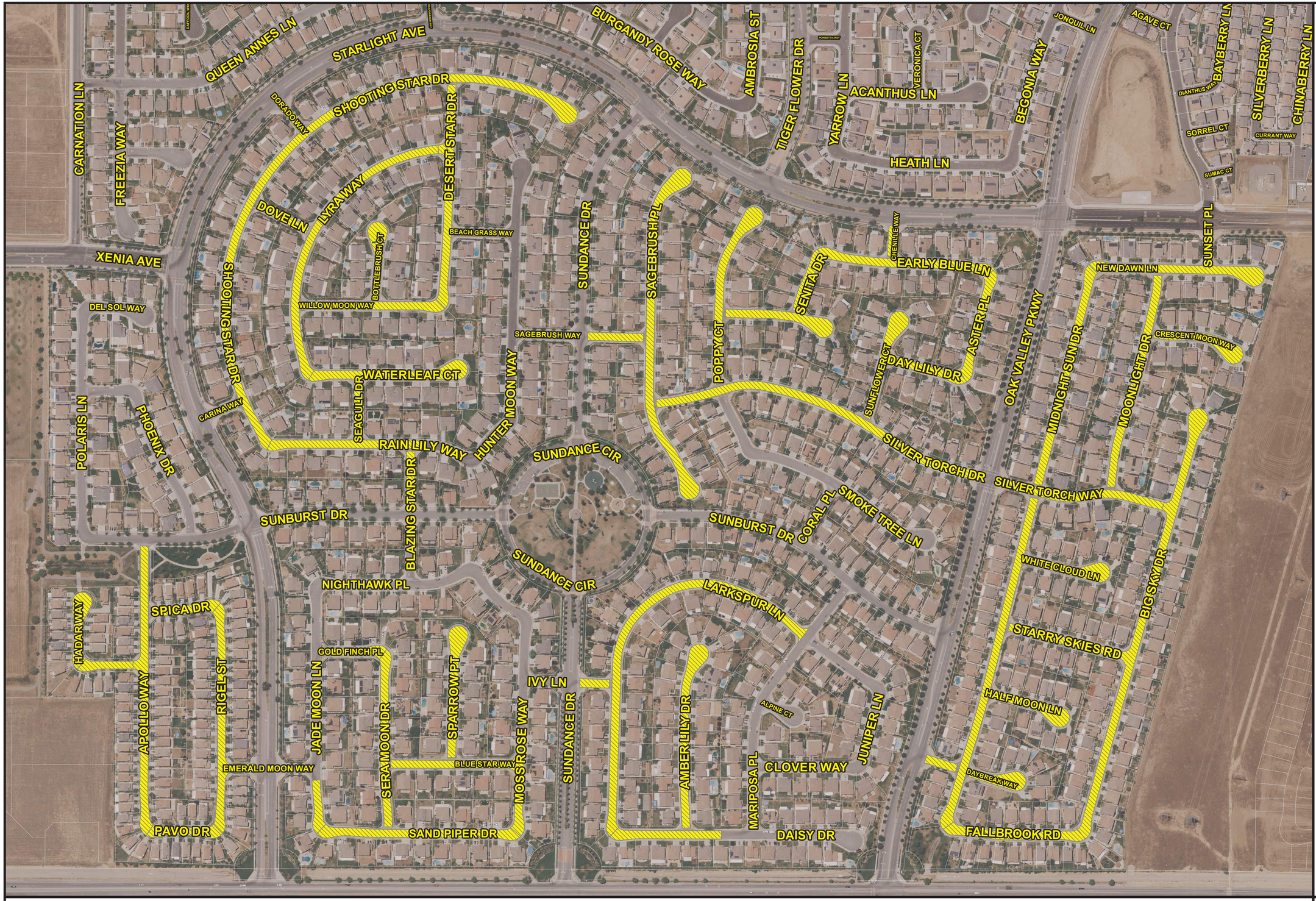
2023 Street Project

- Mill
- Slurry

CITY OF BEAUMONT
2023 Annual Street Projects - Towncenter
PUBLIC WORKS DEPARTMENT

Date Created: 7/24/2023

Public Works Department
550 E. 6th Street
Beaumont, CA 92223
(951) 769-8522
www.beaumontca.gov



Legend

- Sewer Manhole
- Stormdrain Manhole
- Traffic Loop
- Gas Valve
- Edison Vault

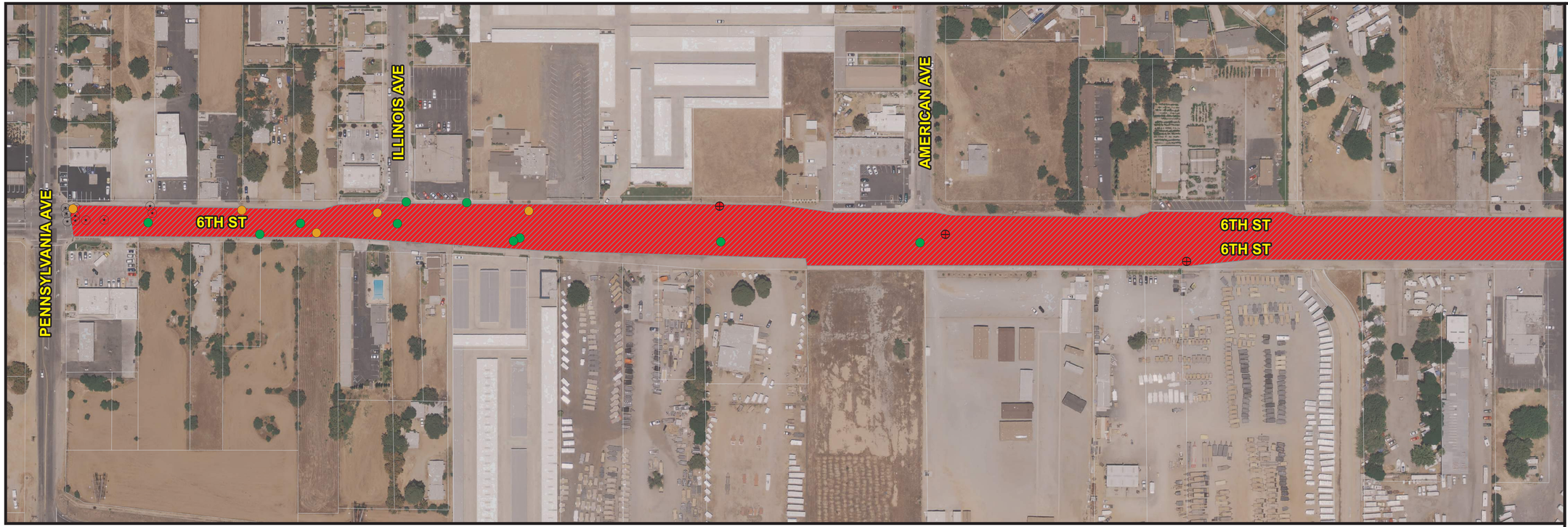
2023 Street Project

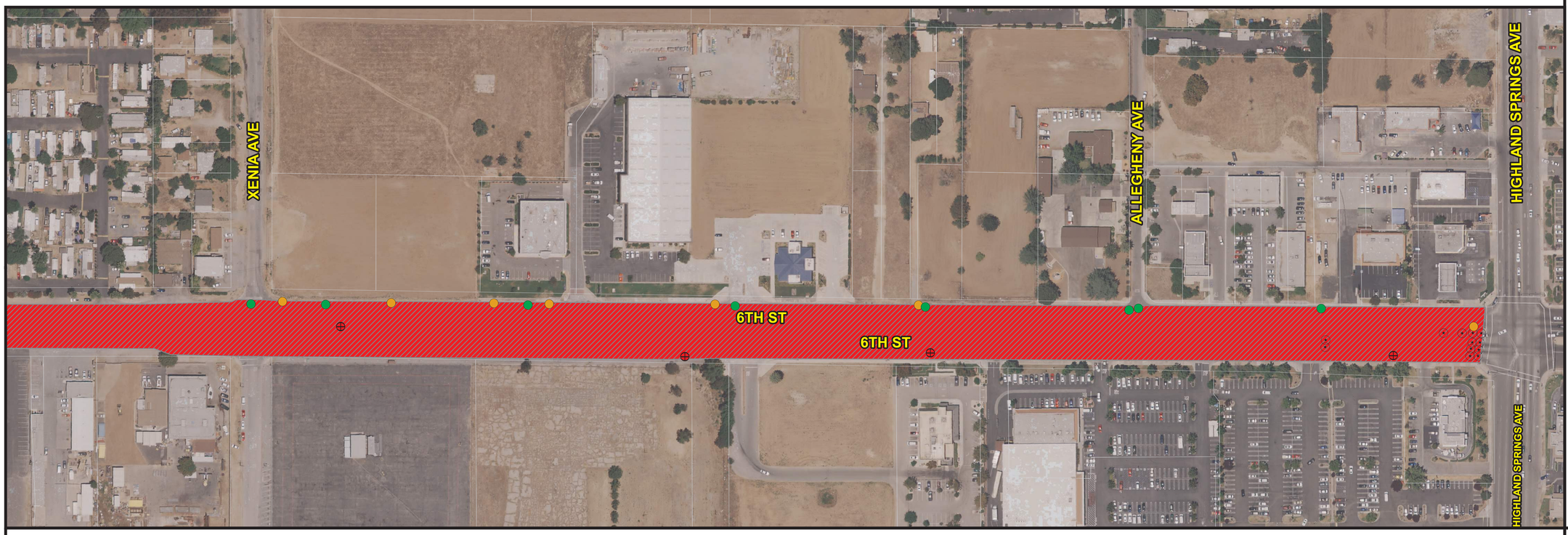
- Mill
- Slurry

CITY OF BEAUMONT
2023 Annual Street Projects - Sundance
PUBLIC WORKS DEPARTMENT

Date Created: 7/24/2023

Public Works Department
550 E. 6th Street
Beaumont, CA 92223
(951) 769-8522
www.beaumontca.gov





Legend

- Sewer Manhole
- Stormdrain Manhole
- Traffic Loop
- Gas Valve
- Edison Vault

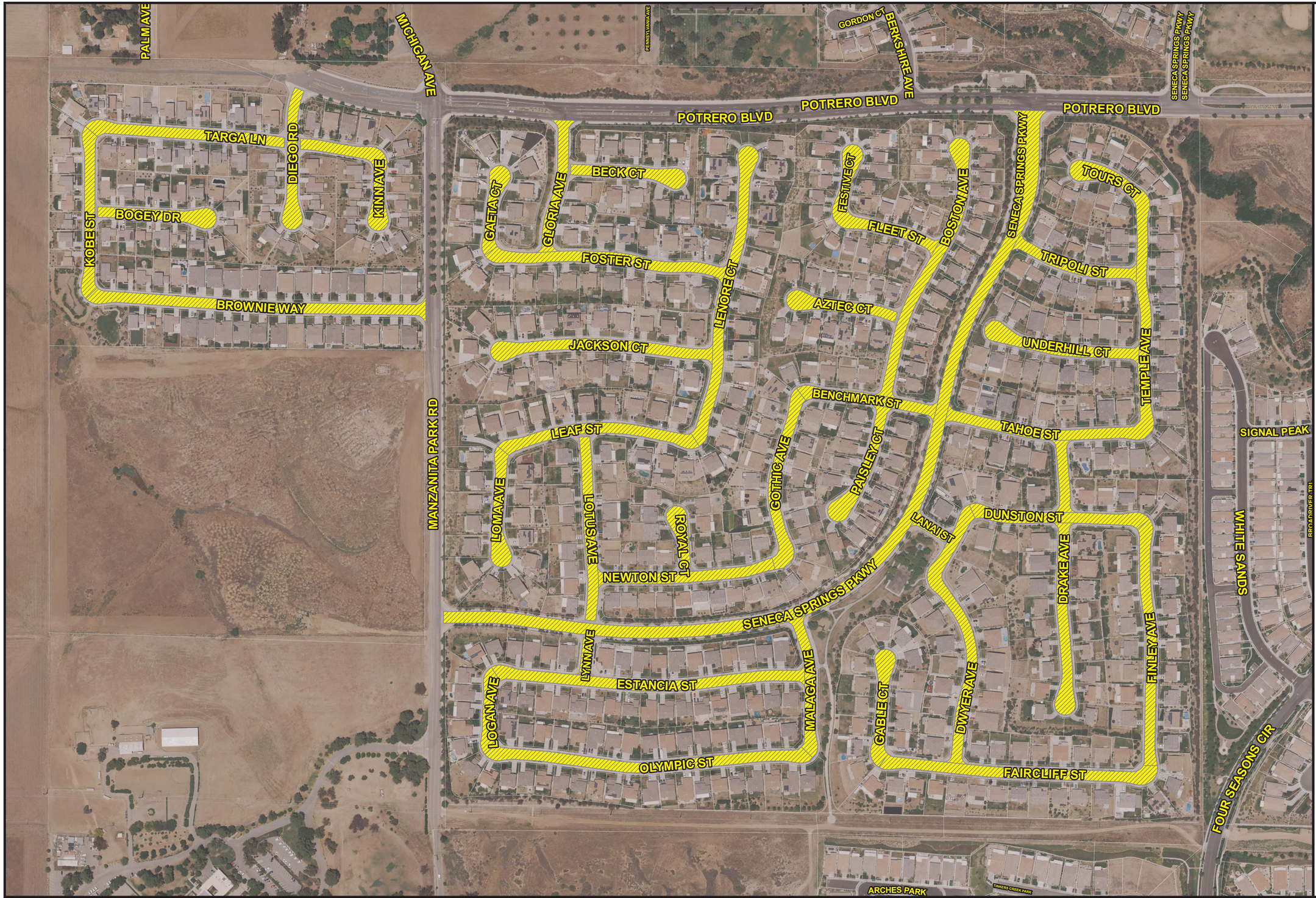
2023 Street Project

- Mill
- Slurry

CITY OF BEAUMONT
2023 Annual Street Projects - 6th Street
PUBLIC WORKS DEPARTMENT

Date Created: 7/24/2023

Public Works Department
550 E. 6th Street
Beaumont, CA 92223
(951) 769-8522
www.beaumontca.gov



Legend

- Sewer Manhole
- Stormdrain Manhole
- Traffic Loop
- Gas Valve
- Edison Vault

2023 Street Project

- Mill
- Slurry

CITY OF BEAUMONT

2023 Annual Street Projects - Seneca Springs South

PUBLIC WORKS DEPARTMENT

Date Created: 7/24/2023

Public Works Department
550 E. 6th Street
Beaumont, CA 92223
(951) 769-8522
www.beaumontca.gov

Legend

- Sewer Manhole
- Stormdrain Manhole
- Traffic Loop
- Gas Valve
- Edison Vault

2023 Street Project

- Mill
- Slurry

CITY OF BEAUMONT
2023 Annual Street Projects - Fairway Canyon
PUBLIC WORKS DEPARTMENT

Date Created: 7/24/2023

Public Works Department
550 E. 6th Street
Beaumont, CA 92223
(951) 769-8522
www.beaumontca.gov

Legend

- Sewer Manhole
- Stormdrain Manhole
- Traffic Loop
- Gas Valve
- Edison Vault

2023 Street Project

- ARAM
- Mill
- Slurry

CITY OF BEAUMONT
2023 Annual Street Projects - Curtis
PUBLIC WORKS DEPARTMENT

Date Created: 7/24/2023

Public Works Department
550 E. 6th Street
Beaumont, CA 92223
(951) 769-8522
www.beaumontca.gov

Street Name	From	To	Treatment	Area (SF)	Location
				0	
Perkins	Cul-de-sac	Rancho Vista	ARAM	15024.691421	Curtis
Rancho Vista	Perkins	Nilsen	ARAM	27336.30731	Curtis
Nilsen	Rancho Vista	Cul-de-sac	ARAM	15351.459409	Curtis
Endresen	Rancho Vista	Cul-de-sac	ARAM	8248.379243	Curtis
Gatew ay	Oak Valley	Brutus	ARAM	19039.804754	Curtis
Kelly	Rancho Vista	Brutus	ARAM	11834.15181	Curtis
Connor	Parkw ay	Cul-de-sac	ARAM	12056.152613	Curtis
Parkw ay	Cul-de-sac	Connor	ARAM	31021.602836	Curtis
Dax	Parkw ay	Brutus	ARAM	7990.254837	Curtis
Brutus	Dax	Kelly	ARAM	60969.956294	Curtis
Kelly	Brutus	High Ridge	ARAM	6676.064243	Curtis
Curtis	Brutus	High Ridge	ARAM	6753.755738	Curtis
High Ridge	Curtis	Kelly	ARAM	61937.154624	Curtis
Casey	Parkw ay	cul-de-sac	ARAM	7626.398501	Curtis
Brutus	Cul-de-sac	Dax	ARAM	10865.571376	Curtis
Brutus	Kelly	Desert Law n	ARAM	15384.262114	Curtis
High Ridge	Cul-de-sac	Curtis	ARAM	12086.796588	Curtis
High Ridge	Kelly	Cul-de-sac	ARAM	10999.142255	Curtis
Crenshaw	Cul-de-sac	Tract Boundary	Slurry	42800.855201	Fairw ay Canyon
Pepper	Crenshaw	Devlin	Slurry	27540.596362	Fairw ay Canyon
Devlin	Pepper	Tract Boundary	Slurry	22807.817806	Fairw ay Canyon
O Grady	Cul-de-sac	Pepper	Slurry	15532.375413	Fairw ay Canyon
O Grady	Pepper	Cul-de-sac	Slurry	14581.600105	Fairw ay Canyon
Demaret	Miller	Palmer	Slurry	14704.457187	Fairw ay Canyon
Kite	Cul-de-sac	Demaret	Slurry	18648.949582	Fairw ay Canyon
Miller	Cul-de-sac	Cul-de-sac	Slurry	51534.382384	Fairw ay Canyon
Jones	Palmer	Miller	Slurry	15723.434534	Fairw ay Canyon
Middlecoff	Cul-de-sac	Jones	Slurry	21745.292669	Fairw ay Canyon
Middlecoff	Jones	Cul-de-sac	Slurry	21605.140703	Fairw ay Canyon
Nicklaus	Cul-de-sac	Harmon Heights	Slurry	15885.550341	Fairw ay Canyon
Harmon Heights	Nicklaus	Palmer	Slurry	16945.515935	Fairw ay Canyon
Hogan	Harmon Heights	Trevino	Slurry	65263.57666	Fairw ay Canyon
Jacklin Terrace	Hogan	Cul-de-sac	Slurry	11990.96938	Fairw ay Canyon
Snead	Trevino	Runyan	Slurry	29052.838799	Fairw ay Canyon
Runyan	Snead	Trevino	Slurry	14569.67005	Fairw ay Canyon
Coody	Cul-de-sac	Trevino	Slurry	21830.015034	Fairw ay Canyon
Trevino	Tract Boundary	Cul-de-sac	Slurry	41455.177953	Fairw ay Canyon
Rosburg	Trevino	Anderson	Slurry	21561.293599	Fairw ay Canyon
Anderson	Rosburg	Sanders	Slurry	36075.51788	Fairw ay Canyon
Casper	Cul-de-sac	Trevino	Slurry	20220.127581	Fairw ay Canyon
Sanders	Trevino	Cherry Valley	Slurry	11912.202473	Fairw ay Canyon
Burke	Devin	Floyd	None	23980.388514	Fairw ay Canyon
Littler	Cul-de-sac	Venturi	None	20859.70597	Fairw ay Canyon
Venturi	Cul-de-sac	Boros	None	869401.919591	Fairw ay Canyon
Morris	Venturi	Palmer	None	41321.556749	Fairw ay Canyon
Boros	Cul-de-sac	Armour	None	36328.374768	Fairw ay Canyon
Armour	Cul-de-sac	Palmer	None	48702.940386	Fairw ay Canyon
Boros	Armour	Cul-de-sac	None	24475.596138	Fairw ay Canyon
Woods	Armour	Cul-de-sac	None	15538.857336	Fairw ay Canyon
Irw in	Cul-de-sac	Palmer	None	37112.407227	Fairw ay Canyon
Floyd	Cul-de-sac	Irw in	None	10134.162616	Fairw ay Canyon
Oak Valley	Potrero	Desert Law n	Slurry	252854.249349	OVP
Diego	Cul-de-sac	Potrero	Slurry	19197.421604	Seneca Springs
Kinn	Cul-de-sac	Diego	Slurry	22261.119857	Seneca Springs
Targa	Diego	Kobe	Slurry	24859.188216	Seneca Springs
Kobe	Targa	Brow nie	Slurry	21578.904351	Seneca Springs
Brow nie	Kobe	Manzanita	Slurry	42527.8961	Seneca Springs
Bogey	Kobe	Cul-de-sac	Slurry	16575.491241	Seneca Springs
Seneca Springs	Manzanita	Potrero	Slurry	139786.465431	Seneca Springs
Lynn	Seneca Springs	Estancia	Slurry	4276.98206	Seneca Springs
Estancia	Logan	Malaga	Slurry	38992.02372	Seneca Springs
Logan	Olympic	Estancia	Slurry	11087.409738	Seneca Springs
Olympic	Logan	Malaga	Slurry	40763.35134	Seneca Springs
Malaga	Seneca Springs	Olympic	Slurry	17968.135526	Seneca Springs
Lanai	Seneca Springs	Dw yer	Slurry	4880.371457	Seneca Springs
Dw yer	Duston	Faircliff	Slurry	35817.40049	Seneca Springs
Duston	Dw yer	Finley	Slurry	22928.125144	Seneca Springs
Drake	Cul-de-sac	Duston	Slurry	25976.686047	Seneca Springs
Gable	Cul-de-sac	Faircliff	Slurry	17144.452996	Seneca Springs
Faircliff	Gable	Finley	Slurry	35609.848145	Seneca Springs
Finley	Faircliff	Duston	Slurry	30832.964052	Seneca Springs
Drake	Dunston	Tahoe	Slurry	9566.439895	Seneca Springs
Tahoe	Seneca Springs	Temple	Slurry	29980.106414	Seneca Springs
Temple	Tahoe	Tours	Slurry	38082.808818	Seneca Springs
Tripoli	Seneca Springs	Temple	Slurry	15935.1341	Seneca Springs
Underhill	Cul-de-sac	Temple	Slurry	22056.655795	Seneca Springs
Paisley	Cul-de-sac	Benchmark	Slurry	18277.234798	Seneca Springs
Aztec	Cul-de-sac	Boston	Slurry	15613.137832	Seneca Springs
Fleet	Festive	Boston	Slurry	25267.427327	Seneca Springs
Boston	Benchmark	Cul-de-sac	Slurry	36172.498172	Seneca Springs
Benchmark	Seneca Springs	Gothic	Slurry	17577.281888	Seneca Springs
Gothic	Benchmark	New ton	Slurry	24442.203018	Seneca Springs
New ton	Lotus	Gothic	Slurry	22157.211449	Seneca Springs
Royal	Cul-de-sac	New ton	Slurry	10142.161456	Seneca Springs
Lotus	Seneca Springs	Leaf	Slurry	22613.288829	Seneca Springs
Loma	Cul-de-sac	Leaf	Slurry	17389.752522	Seneca Springs
Leaf	Loma	Lenore	Slurry	25425.163314	Seneca Springs
Lenore	Leaf	Cul-de-sac	Slurry	39765.443723	Seneca Springs
Jackson	Cul-de-sac	Lenore	Slurry	30016.140184	Seneca Springs
Beck	Cul-de-sac	Gloria	Slurry	16383.883154	Seneca Springs
Gloria	Foster	Potrero	Slurry	17252.510493	Seneca Springs
Foster	Lenore	Gaeta	Slurry	30263.356643	Seneca Springs
Gaeta	Cul-de-sac	Foster	Slurry	13466.88608	Seneca Springs
Sixth Street	Pennsylvania	Highland Springs	Mill	538098.865388	Sixth
Sunset	Starlight	New Daw n	Slurry	3750.84771	Sundance
New Daw n	Cul-de-sac	Midnight Sun	Slurry	24191.278676	Sundance
Midnight Sun	New Daw n	Silver Torch	Slurry	27624.969908	Sundance
Moonlight	New Daw n	Silver Torch	Slurry	26022.397865	Sundance
Crescent Moon	Moonlight	Cul-de-sac	Slurry	14474.779069	Sundance
Silver Torch	Oak Valley	Big Sky	Slurry	20370.864278	Sundance
Big Sky	Cul-de-sac	Fall Brook	Slurry	58361.090367	Sundance
Fallbrook	Big Sky	Midnight Sun	Slurry	17523.994288	Sundance
Midnight Sun	Silver Torch	Fallbrock	Slurry	41415.819599	Sundance
White Cloud	Midnight Sun	Cul-de-sac	Slurry	13416.206932	Sundance
Starry Skies	Midnight Sun	Big Sky	Slurry	13566.407677	Sundance
Half Moon	Midnight Sun	Cul-de-sac	Slurry	12791.870523	Sundance
Daybreak	Midnight Sun	Cul-de-sac	Slurry	9950.408019	Sundance
Daybreak	Oak Valley	Midnight Sun	Slurry	3958.690311	Sundance
Sagebrush	Sundance	Sagebrush	Slurry	6617.329915	Sundance
Silver Torch	Sagebrush	Oak Valley	Slurry	41167.478417	Sundance
Sunflow er	Cul-de-sac	Silvertorch	Slurry	16327.590134	Sundance
Early Blue	Aster	Sentia	Slurry	22060.411458	Sundance
Day Lilly	Sunflow er	Aster	Slurry	9787.23717	Sundance
Aster	Early Blue	Day Lily	Slurry	14569.523554	Sundance
Senita	Early Blue	Wall Flow er	Slurry	7944.62032	Sundance
Wall Flow er	Poppy	Cul-de-sac	Slurry	16119.271934	Sundance
Poppy	Silver Torch	Cul-de-sac	Slurry	25569.734237	Sundance

Street Name	From	To	Treatment	Area (SF)	Location
Sagebrush	Cul-de-sac	Cul-de-sac	Slurry	48506.046731	Sundance
Shooting Star	Cul-de-sac	Rain Lily	Slurry	79597.268952	Sundance
Rain Lily	Shooting Star	Blazing Star	Slurry	18797.617769	Sundance
Dorado	Starlight	Shooting Star	Slurry	3709.957922	Sundance
Carina	Starlight	Shooting Star	Slurry	3724.922839	Sundance
Desert Star	Shooting Star	Willow Moon	Slurry	27885.805182	Sundance
Willow Moon	Desert Star	Lyra	Slurry	17097.983299	Sundance
Lyra	Desert Star	Waterleaf	Slurry	35646.497249	Sundance
Waterleaf	Lyra	Cul-de-sac	Slurry	22587.613538	Sundance
Bottlebrush	Cul-de-sac	Willow moon	Slurry	12064.406904	Sundance
Seagull	Waterleaf	Rain Lily	Slurry	6644.025263	Sundance
Blazing Star	Rain lilly	Sunburst	Slurry	6815.121499	Sundance
Larkspur	Mariposa	Daisy	Slurry	50877.101639	Sundance
Daisy	Larkspur	Amber Lily	Slurry	13599.351663	Sundance
Amber Lily	Cul-de-sac	Daisy	Slurry	24933.837594	Sundance
Ivy	Sundance	Larkspur	Slurry	3689.982096	Sundance
Jade Moon	Emerald Moon	Sand Piper	Slurry	6605.427148	Sundance
Sand Piper	Jade Moon	Moss Rose	Slurry	24529.229496	Sundance
Moss Ross	Blue Star	Sand Piper	Slurry	7421.5284	Sundance
Blue Star	Moss Rose	Sera Moon	Slurry	17569.03389	Sundance
Gold Finch	Jade Moon	Sera Moon	Slurry	7866.773504	Sundance
Sera Moon	Gold Finch	Sand Piper	Slurry	21116.424871	Sundance
Sparrow	Cul-de-sac	Blue Star	Slurry	18847.825114	Sundance
Emerald Moon	Starlight	Rigel	Slurry	2899.169922	Sundance
Regel	Spica	Pavo	Slurry	27586.964247	Sundance
Pavo	Rigel	Apollo	Slurry	9331.858321	Sundance
Spica	Apollo	Rigel	Slurry	8539.488782	Sundance
Anser	Hadar	Apollo	Slurry	6475.090404	Sundance
Apollo	Sunburst	Pavo	Slurry	35208.255079	Sundance
Hadar	Cul-de-sac	Anser	Slurry	12388.677268	Sundance
Chenille	Starlight	Early Blue	Slurry	3624.776205	Sundance
Dove	Shooting Star	Lyra	Slurry	6628.553601	Sundance
Fifth	California	Beaumont	Slurry	48282.050341	Tow ncenter
Fifth	Beaumont	Michigan	Mill	115594.685995	Tow ncenter
Magnolia	5th	6th	Mill	19133.154572	Tow ncenter
Orange	5th	6th	Mill	19733.31299	Tow ncenter
Maple	5th	6th	Mill	19765.576621	Tow ncenter
Chestnut	5th	6th	Mill	19425.265713	Tow ncenter
Michigan	5th	6th	Mill	19686.888051	Tow ncenter
Magnolia	6th	7th	Mill	30117.93821	Tow ncenter
Magnolia	7th	8th	Mill	17140.035523	Tow ncenter
Magnolia	8th	9th	Mill	20648.414117	Tow ncenter
Magnolia	9th	10th	Mill	18938.276183	Tow ncenter
Magnolia	10th	11th	Mill	20331.714423	Tow ncenter
Tw elfth	Beaumont	Orange	Mill	30917.136295	Tow ncenter
Tw elfth	Orange	Palm	Mill	31371.141914	Tow ncenter
Tw elfth	Palm	Pennsylvania	Mill	67342.923061	Tow ncenter
Massachusetts	Sixth	Eighth	Mill	45548.623171	Tow ncenter
Massachusetts	Eighth	Tenth	Mill	42311.566338	Tow ncenter
Massachusetts	Tenth	Eleventh	Mill	19695.985594	Tow ncenter
Massachusetts	Cul-de-sac	Thirteenth	Mill	33088.257573	Tow ncenter
Massachusetts	Thirteenth	Cul-de-sac	Mill	24053.248241	Tow ncenter
Thirteenth	Beaumont	Orange	Mill	28672.527065	Tow ncenter
Thirteenth	Orange	Palm	Mill	28764.056889	Tow ncenter
Thirteenth	Palm	Michigan	Mill	31265.190985	Tow ncenter
Thirteenth	Michigan	Pennsylvania	Mill	28179.012359	Tow ncenter
Laraine	Beaumont	Beaumont	Mill	25356.984898	Tow ncenter
Cyrise	Sherie	Orange	Slurry	15743.463718	Tow ncenter
Sherie	Cyrise	Cul-de-sac	Mill	5942.45063	Tow ncenter
Kylie	Cyrise	Cul-de-sac	Slurry	11958.399644	Tow ncenter
Donna	Orange	Maple	Mill	10071.318658	Tow ncenter
Maple	Cul-de-sac	Donna	Mill	21400.761478	Tow ncenter
Maple	Tw elfth	Thirteenth	Mill	33362.222364	Tow ncenter
Cyrise	Beaumont	Sherie	Mill	9942.635491	Tow ncenter
Fifth	McDonalds	Beaumont	Mill	6385.473953	Tow ncenter
Euclid	Sixth	Fifth	Mill	20624.527269	Tow ncenter
Alley E/o Beamo	Sixth	Seventh	Mill- Additive	14220.899936	Tow nCenter

FY23 Street Project Ramp Rehabilitation

#	Street	Cross Street/Location	Corner	Case	Repair Description	Area (sf)
1	6th	Beaumont Ave	NE	A	Truncated Domes & Top Landing	81
2	6th	Beaumont Ave	NW	A	Complete Removal and Replacement	208
3	6th	Beaumont Ave	SW	A	Truncated Domes & N1/2 of Ramp Removal and Replacement	76
4	6th	Beaumont Ave	SE	A	Truncated Domes	
5	6th	Magnolia	SW	A	Complete Removal and Replacement	294
6	6th	Magnolia	SE	A	Complete Removal and Replacement	213
7	6th	Magnolia	NE	A	Complete Removal and Replacement	188
8	6th	Orange	SW	A	Complete Removal and Replacement	178
9	6th	Orange	SE	A	Complete Removal and Replacement	167
10	6th	Palm	SW	A	Complete Removal and Replacement	431
11	6th	Palm	SE	A	Truncated Domes	
12	6th	Palm	NE	A	Truncated Domes & Top Landing	15
13	6th	Palm	NW	A	Truncated Domes & Top Landing	28
14	6th	Chestnut	SW	A	Truncated Domes & Top Landing	38
15	6th	Chestnut	SE	D	Complete Removal and Replacement	161
16	6th	Michigan	SW	A	Complete Removal and Replacement	244
17	6th	Michigan	SE	A	Complete Removal and Replacement	160
18	6th	Massachusetts	SW	A	Complete Removal and Replacement	166
19	6th	Massachusetts	SE	A	Truncated Domes	
20	6th	Massachusetts	NE	A	Complete Removal and Replacement w/ 2 CB	316
21	6th	Massachusetts	NW	A	Complete Removal and Replacement w/ CB	184
22	6th	Xenia	SW	A	Complete Removal and Replacement	315
23	6th	Xenia	SE	A	Complete Removal and Replacement	293
24	6th	DWY W/O Applebee's	SW	A	Truncated Domes	
25	6th	DWY W/O Applebee's	SE	A	Truncated Domes	
26	6th	DWY E/O Applebee's	SW	A	Truncated Domes	
27	6th	Highland Springs	SW	A	Truncated Domes & Top Landing	48
28	6th	Highland Springs	NW	A	Complete Removal and Replacement	282
29	6th	DWY @ Cricket	NE	A	Truncated Domes	
30	6th	DWY @ Cricket	NW	A	Truncated Domes	
31	6th	Allegheny	NE	A	Truncated Domes & Top Landing	19
32	6th	Allegheny	NW	A	Truncated Domes	
33	6th	DWY @ Do It Best	NW	A	Truncated Domes	
34	6th	American	NW	A	Truncated Domes & Top Landing	45
35	6th	Illinois	NE	B	Complete Removal and Replacement	201
36	6th	Illinois	NW	A	Complete Removal and Replacement	311
37	6th	Pennsylvania	NE	A	Complete Removal and Replacement	236
38	6th	Pennsylvania	NW	A	Complete Removal and Replacement	324
39	6th	Maple	NE	A	Complete Removal and Replacement	200
40	6th	Maple	NW	A	Complete Removal and Replacement	195
41	5th	Magnolia	NE	A	Truncated Domes	
42	5th	Magnolia	NW	A	Truncated Domes	
43	5th	Orange	NW	A	Truncated Domes	
44	5th	Orange	NE	A	Complete Removal and Replacement	528
45	5th	Maple	NW	A	Ramp, Truncated Domes & Bottom Landing	131
46	5th	Maple	NE	A	Truncated Domes	
47	5th	Palm	NW	A	Complete Removal and Replacement	406
48	5th	Palm	NE	A	Complete Removal and Replacement	191
49	5th	Beaumont Ave	SE	D	Complete Removal and Replacement	89
50	5th	Beaumont Ave	SW	A	Complete Removal and Replacement	186
51	5th	Beaumont Ave	NW	A	Complete Removal and Replacement	332
52	5th	Beaumont Ave	NE	A	Complete Removal and Replacement	291
53	5th	California	SE	B	Complete Removal and Replacement	391
54	5th	California	NE	B	Complete Removal and Replacement	246
55	5th	Edgar	NW	D	Complete Removal and Replacement	84
56	5th	Edgar	NW	D	Complete Removal and Replacement	69
57	5th	Euclid	NW	D	Complete Removal and Replacement	60
58	5th	Euclid	NE	D	Complete Removal and Replacement	52
59	12th	Beaumont Ave	SE	A	Truncated Domes	
60	12th	Orange	SE	A	Complete Removal and Replacement	167
61	12th	Dadash	SW	A	Complete Removal and Replacement	139
62	12th	Dadash	SE	A	Complete Removal and Replacement	55
63	13th	Massachusetts	NE	D	Complete Removal and Replacement	598
64	13th	Massachusetts	NW	D	Complete Removal and Replacement	560
65	13th	Palm	NE	A	Complete Removal and Replacement	490
66	13th	Maple	SW	B	Complete Removal and Replacement	412
67	13th	Maple	SE	B	Complete Removal and Replacement	379
68	13th	Orange	SE	B	Complete Removal and Replacement	396
69	13th	Beaumont Ave	NE	B	Complete Removal and Replacement	372
70	13th	Beaumont Ave	SE	B	Complete Removal and Replacement	316
71	Cyrise	Beaumont Ave	SE	B	Truncated Domes	
72	Cyrise	Beaumont Ave	NE	A	Truncated Domes	
73	Cyrise	Sherie	SW	B	Complete Removal and Replacement	399
74	Cyrise	Sherie	SE	B	Complete Removal and Replacement	401
75	Cyrise	Kylie	SW	A	Truncated Domes	
76	Cyrise	Kylie	SE	A	Truncated Domes	
77	Cyrise	Orange	SW	A	Truncated Domes & Landings	41
78	Cyrise	Orange	NW	A	Truncated Domes	
79	Donna	Maple	NW	B	Complete Removal and Replacement	120
80	S Laraine	Beaumont Ave	SE	A	Complete Removal and Replacement	512
81	S Laraine	Beaumont Ave	NE	A	Complete Removal and Replacement	492
82	N Laraine	Beaumont Ave	SE	A	Complete Removal and Replacement	541
83	N Laraine	Beaumont Ave	NE	A	Complete Removal and Replacement	414

AC Mill and Overlay Schedule:

Sixth Street: 3" (0.25') Mill and Overlay
Intersection of 5th Street and Beaumont Ave: 3" (0.25') Mill and Overlay
All other "Mill" streets: 2" (0.17') Mill and Overlay

CITY OF BEAUMONT

2023 Annual Street Projects - Street and Curb Ramp List

PUBLIC WORKS DEPARTMENT

Date Created: 7/24/2023

Public Works Department
550 E. 6th Street
Beaumont, CA 92223
(951) 769-8522
www.beaumontca.gov

TECHNICAL PROVISIONS

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TP01. NOTIFICATION OF RESIDENTS AND BUSINESSES

The Contractor shall provide notice of the work, in person and with printed notification (in English and Spanish language), at least ten (10) working days prior to commencing construction activities, to all agencies, firms, institutions, postal service, residents, Transit Authorities, schools, stores, utilities and waste disposal service providers fronting or affected by the work. Additional printed notification (in English and Spanish language) shall be given not less than forty-eight (48) hours prior to performing any work which will restrict property access, close or partially close the street, or which will restrict or disallow street parking. All schools and churches shall receive seven (7) working days notification prior to performing any work which will restrict property access.

The Contractor shall coordinate with the school district for pick-up and drop-off of school children, with the transit authority for the pick-up and drop off of riders, with waste collection/disposal service providers, with the US postal service to ensure delivery of mail, and with churches for weekly or special activities.

The printed notices shall contain a general description of the work to be done and the date that the work is to be done. The notices shall also include a statement that parking will be restricted as called for on the "NO PARKING" signs to be posted along the street. All public notices must be reviewed and approved by the Resident Engineer prior to its distribution.

The Contractor shall also post printed "NO PARKING-TOW AWAY" signs at one-hundred-foot (100') maximum spacing along each side of the affected street for forty-eight (48) hours prior to the commencement of the street improvement work. The Contractor shall document the day, date and time the "NO PARKING" signs were posted. Posting of signs on trees and utility poles will not be allowed.

The signs shall contain the day, date, hours and vehicle code section reference that parking will be prohibited on that particular street, CVC 22651L and CVC 22654D. Signs that prohibit or restrict parking shall be removed immediately upon completion of work in the restricted or prohibited area.

The printed notices and the "NO PARKING" signs shall be furnished by the Contractor.

Payment: Full compensation for compliance with the preceding requirements shall be considered as being included in the various Contract items in the bid schedule and no additional compensation will be allowed therefor.

TP02. SOUND REQUIREMENTS

Sound control shall conform to General Conditions Article 25 and the provisions in Section 3-12.2, "Noise Control," of the Standard Specifications and these special provisions.

The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA at a distance of 50 feet. This requirement shall not relieve the Contractor from responsibility for complying with local ordinances regulating noise level.

The noise level requirement shall apply to the equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

Payment: Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

TP03. TRAFFIC CONTROL

Traffic controls, including but not limited to, vehicular and pedestrian traffic controls, maintenance of vehicular and pedestrian access through work areas, detours, and street closures shall be in accordance with these Technical Provisions, Special Provisions; Traffic Control Plans; California MUTCD, Part 6, Temporary Traffic Control, Caltrans adopted 2014; the current "Work Area Traffic Control Handbook"; and Subsection 7-10, of the current "Standard Specifications for Public Works Construction," including all its subsequent amendments. Nothing in the Special Provisions shall be construed as relieving the Contractor from its responsibility to provide for the safety and convenience of traffic and the public during construction.

In the event of conflict, the order of precedence shall be as follows:

1. Special Provisions
2. Traffic Control Plans
3. California Manual on Uniform Traffic Control Devices, Part 6, Temporary Traffic Control, Caltrans adopted 2014.
4. Work Area Traffic Control Handbook. (WATCH)
5. Standard Specifications

Traffic Control shall be in accordance with the following Special Provisions:

1. All streets shall remain open to through traffic at all times. Street closure is not allowed except as approved by the Engineer. The contractor shall obtain written permission from City Engineer at least ten (10) day prior to road closure. The Contractor shall make provisions to allow local traffic access to the closed streets. The local traffic consists of, but is not limited to, residences, church congregations, farmers, post offices, meter readers, trash pickup, school buses, and emergency vehicles. The Contractor shall provide a smooth travel way and either a flagger and/or signing to direct traffic.

2. The Contractor shall be responsible for the preparation of Traffic Control Plans as necessary for the work. The Traffic Control Plans shall be signed and stamped by a

California Registered Traffic Engineer and transmitted to the City for approval no later than fourteen (14) calendar days prior to the scheduled commencement of work. Comments and corrections shall be returned to the Contractor within five (5) working days. The Traffic Control Plans shall conform to the requirements listed in these Technical Provisions; California MUTCD Part 6, Temporary Traffic Control; the Work Area Traffic Control Handbook; and the Standard Specifications.

3. All traffic controls and safety devices, equipment and materials, including but not limited to cones, channelizers, delineators, flashing warning lights, barricades, high level warning devices (telescoping flag trees), flags, signs, markers, portable barriers, temporary railing (Type-K), temporary fencing, flashing arrow signs, changeable message sign, markings, and flagging equipment shall be provided and maintained in "like new" condition.

4. The Contractor shall furnish and properly install, construct, erect, use and continuously inspect and maintain, twenty-four (24) hours per day, seven (7) days per week, which includes holidays, all said devices, equipment and materials and all temporary and permanent pedestrian and driving surfaces as necessary to provide for the safety and convenience of, and to properly warn, guide, control, regulate, channelize and protect the vehicular traffic, pedestrian traffic, project workers, and the public throughout the entire limits of the work activity and beyond said limits as necessary to include areas affecting or affected by the work, from the date of Notice to Proceed to the completion and acceptance of the work.

5. High-level warning devices (telescoping flag trees) are required at all times for work being performed within the roadway unless otherwise specifically approved by the Engineer.

6. All barricades shall be equipped with flashing warning lights, and all traffic cones shall be no less than 711mm (28") in height, except that shorter cones, 305 mm (12") minimum height, may be permitted during striping maintenance operations where the only function of the cone is to protect the wet paint from the traffic.

7. The entire area of orange and white stripes for barricades shall be Type I, engineering grade, or Type II, super engineering grade, retro-reflective sheeting conforming to the requirements of ASTM Designation: D 4956-95.

8. Type III barricades, no less than 1.83 m (6') in length and equipped with two (2) Type "N" markers each and two (2) portable flashing beacons each, shall be used to close streets, except as otherwise specifically approved by the Engineer for minor maintenance work of no more than one (1) working day's duration, on weekdays, or on holidays only, and limited to the hours between 8:30 a.m. and 3:30 p.m. Said barricades shall be placed across the full roadway at each point of closure with the distance between barricades, or between barricades and curbs, not exceeding 3' except that one (1) 11' wide gap between barricades shall be provided at the center of the street. Barricades to the right of the street's center, facing the inbound vehicular traffic, shall also be equipped with one (1)

R11-2, "Road Closed" sign, one (1) R11-4, "Road Closed to Thru Traffic," sign, and a Type P warning sign.

9. Channelizers shall be surface mounted type and shall be furnished, placed and maintained at the locations shown on the Plans or as approved by the Engineer, and shall conform to the provisions in Subsection 12-3.07, "Channelizers," of the State of California Standard Specifications and these Special Provisions.

10. When no longer required for the work as determined by the Engineer, channelizers (except channelizers to be left in place), and underlying adhesive used to cement the channelizer bases to the pavement, shall be removed. Removed channelizers and adhesive shall become the property of the Contractor and shall be removed from the site of work.

11. Reflectorized (both sides) temporary self-adhesive markers, 100mm (4in) wide, shall be applied to unstriped pavement surface before opening the travel way to public traffic. Reflectorized temporary yellow markers shall be used for to delineate the centerline to separate opposing traffic. Reflectorized temporary white markers shall be used to delineate lanes of travel and placed in 600mm (24in) intervals transverse to the road to delineate stop bars and limit lines.

12. The reflectorized temporary markers shall be removed the same day the first coat of striping has been placed on the pavement. The removal of the markers shall be done such a way that the pavement is not damaged.

13. Except as otherwise approved by the Engineer, two-way vehicular traffic shall be maintained at all times within two (2) 11' wide lanes on streets having an effective roadway width of 44' or more with restricted parking. Other streets of lesser widths may be reduced to one (1) 12' wide lane with work activity being limited to one side at a time, and the one-way vehicular traffic being maintained at all times by properly trained and experienced flaggers. All lane closures shall have flashing arrow signs to provide additional, high level, advanced warning.

14. No reduction of the traveled way width shall be permitted on any City street before 9:00 a.m. or after 3:30 p.m., on weekends or holidays, or when active work is not being done, unless otherwise approved by the Engineer.

15. Properly trained and experienced flaggers shall be provided to direct traffic when said traffic is to be interrupted, when two-way traffic is to be reduced to one-way traffic, and at other such times as is necessary to safely pass traffic through or around the work area and when so directed by the Engineer.

16. Vehicular access to occupied residential property may be restricted on weekdays, other than holidays, between the hours of 8:30 a.m. and 3:30 p.m. while essential work activity is taking place only upon approval by the Engineer and providing the Contractor gives

the property owner or resident at least forty-eight (48) hour advance written and oral notice.

17. Convenient and safe pedestrian access to schools, churches, occupied residential and business property shall be maintained at all times. Access to mailboxes shall be maintained at all times such that the postal delivery service is not interrupted. Trash pick-up services shall not be interrupted. Access to vacant and unused property may be restricted when approved by the Engineer. Both vehicular and pedestrian access shall be maintained at all times to all other property except as otherwise specifically authorized in writing by the Engineer.

18. Vehicular access to business, school and church driveways shall be maintained at all times during construction.

19. Traffic control and safety devices and equipment being used that becomes damaged, destroyed, faded, graffitied, encrusted, soiled, misplaced, worn out, inoperative, lost, or stolen shall be promptly repaired, refurbished, or replaced. Traffic control and safety devices and equipment being used, that are displaced or not in an upright position from any cause, shall be promptly returned or restored to their proper position.

20. An unobstructed view of all signs and warning devices including, but not limited to, stop signs, stop ahead signs, street name signs, and other regulatory, warning and construction signs, markers, and warning devices shall be maintained at all times. All speed limit signs shall be black on white with signs at either end of the project notifying the motoring public that fines are doubled in construction zones. No trucks or other equipment or materials shall be stopped, parked, or otherwise placed so as to obscure said signs, markers and devices from the view of the vehicular and pedestrian traffic to which it applies.

21. When entering or leaving roadways carrying public traffic, the Contractor's equipment, whether empty or loaded, shall yield to said public traffic at all times, except where the traffic is being controlled by police officers, fire officers, properly trained and experienced flaggers, or at traffic signalized intersections.

22. Stockpiling or storage of materials on any public right-of-way or parking area will not be allowed without the specific written permission of the Engineer. Materials spilled along or on said right-of-way or parking area shall be removed completely and promptly. All stockpile and storage areas shall be maintained in a safe, neat, clean, and orderly condition, and shall be restored to equal or better than original condition upon completion of the work.

23. On projects involving work on, closure of, or partial closure of existing streets, and where vehicular access to the abutting property must be restricted, the work shall be so selected, arranged and scheduled that the person(s) requiring access to said abutting property and residents along said streets affected will be able to park within a reasonable distance of not more than 500' from their homes or destination. In addition, no two adjoining streets

shall be closed at the same time, except as otherwise approved by the Engineer. Residents must be given written notice of such restrictions a minimum of 48 hours in advance.

24. When work has been completed on a particular street or has been suspended or rescheduled, and said street is to be opened to vehicular traffic, all equipment, "NO PARKING" signs, other obstructions, and unnecessary traffic control devices and equipment shall be promptly removed from that street, except as otherwise approved by the Engineer.

25. Should the Contractor be neglectful, negligent, or refuse, fail, or otherwise be unavailable to promptly, satisfactorily, and fully comply with the provisions specified and referred to herein above, the City reserves the right to correct or mitigate any situation, that in the sole opinion of the Engineer, constitutes a serious deficiency or serious case of noncompliance, by any means at its disposal at the Contractor's or permittee's expense, and shall deduct the cost therefore from the Contractor's progress or final payments. Such corrective action taken by the City shall not reduce or abrogate the Contractor's legal obligations and liability for proper traffic control and safety measures and shall not serve to transfer said obligations and liabilities from the Contractor to the City or the City's agents.

26. Streets determined to be major thoroughfares by the Engineer shall undergo construction in stages, or as approved by the field inspector, to allow at least one 10 ft. wide traffic lane for each direction of travel at all times. The Engineer will approve street closures for construction, as necessary, based on the approved construction schedule.

27. Violations of any of the above Provisions or provisions of the referenced publications, unless promptly and completely corrected to the satisfaction of the Engineer, shall, at the sole discretion of the City, be grounds for termination of the Contract, or shut down or partial shutdown of the work, without compensation to the Contractor or permittee, or liability to the City, all as prescribed by contractual obligation or State law, whichever is applicable.

EXCEPTION: Contractor may not work on a street that is in front of a school between the hours of 7:00 AM and 3:30 PM. Monday through Friday unless written authorization is given by the City Engineer. All streets abutting a school ground can only be worked on during weekends.

Payment: Full compensation for conforming to the requirements of this section shall be considered as included in the prices **paid for the various contract items** of work involved and no additional compensation will be allowed therefore.

TP04. WATER POLLUTION CONTROL

Throughout the term of this contract, the total soil disturbance area of the project site shall be less than 1 acre. The Contractor shall comply with the Area-Wide Municipal Stormwater Permit NPDES No. CAS 618033, hereafter referred to in this section as the "Municipal Permit", issued by the California Regional Water Quality Control Board (CRWQCB) – Santa Ana Region. This

Permit regulates both stormwater and non-stormwater discharges associated with Contractor's construction activities. A copy of the Permit may be obtained on the internet at: http://www.waterboards.ca.gov/santaana/

The Contractor shall comply with the requirements of the Municipal Permit, and all other applicable federal, state and local laws, ordinances, statues, rules, and regulations concerning water pollution control.

The WPCP shall include Fact Sheets for all selected project BMPs.

Contractor's Water Pollution Control Program (WPCP) shall be prepared by a Qualified SWPPP Developer in accordance with Section 3, "Preparing a Water Pollution Control Program (WPCP)", of the Caltrans Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual (June 2011), which is available as a free download from: http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm

WATER POLLUTION CONTROL MEASURES

A. Work having the potential to cause water pollution shall not commence until the Contractor's WPCP has been reviewed and approved by the Engineer. The Engineer's review and approval of the Contractor's WPCP shall not waive any contractual requirements and shall not relieve the Contractor from achieving and maintaining compliance with all federal, state, and local laws, ordinances, statues, rules, and regulations. A copy of Contractor's WPCP shall be maintained onsite. When the WPCP or access to the construction site is requested by a representative of a federal, state, or local regulatory agency, Contractor shall make the WPCP available and Contractor shall immediately contact the Engineer. Requests from the public for the Contractor's WPCP shall be directed to the Engineer.

B. Contractor's WPCP shall describe the Contractor's plan for managing runoff during each construction phase. Contractor's WPCP shall describe the Best Management Practices (BMPs) that will be implemented to control erosion, sediment, tracking, construction materials, construction wastes, and non-stormwater flows. BMP details shall be based upon California Stormwater Quality Association's (CASQA) California Stormwater Quality BMP Handbook Subscription Portal (http://www.cabmphandbooks.com) or the Caltrans Construction Site BMP Manual
https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control/manuals-and-handbooks
Contractor's WPCP shall describe installation, operation, inspection, maintenance, and monitoring activities that will be implemented for compliance with the Municipal Permit and all applicable federal, state, and local laws, ordinances, statutes, rules, and regulations related to the protection of water quality.

C. The Contractor's WPCP preparer shall have been trained to prepare WPCPs or SWPPPs and shall have previous experience with preparing SWPPP or WPCP requirements on a previous project.

The Contractor shall designate a Water Pollution Control Manager that shall have been trained to implement WPCP or SWPPP requirements. Contractor's Water Pollution Control Manager shall:

1. Be responsible for all water pollution control work.
2. Be the Engineer's primary contact for all water pollution control work.
3. Have the authority to mobilize resources (crews, supplies, equipment, etc.) to make immediate repairs of water pollution control measures or to supplement water pollution control measures to maintain compliance with all federal, state, and local laws, ordinances, and regulations related to the protection of water quality, including the Municipal Permit.

The WPCP shall contain all required and applicable certifications and evidence of training for the Water Pollution Control Manager, WPCP Developer, and all other employees working on the project receiving formal training or certification.

D. Water Pollution Control Training: Contractor shall provide water pollution control training to Contractor's employees and subcontractors prior to their performing work on the work site. The water pollution control training shall be appropriate to the employee or subcontractor function and area of responsibility and shall address (as applicable):
   1. Erosion Control (water and wind)
   2. Sediment Control
   3. Tracking Control
   4. Materials & Waste Management
   5. Non-Stormwater Discharge Management
   6. Run-on and Run-off Control

E. Monitoring and Reporting: Observations and inspections conducted by the Contractor's Water Pollution Control Manager shall be documented on the Construction Site Inspection Checklist included in Contractor's WPCP. A copy of each completed Construction Site Inspection Checklist shall be submitted to the Engineer within 24 hours of conducting the inspection

General Requirements:

In the event the City incurs any Administrative Civil Liability (fine) imposed by the CRWQCB – Santa Ana Region, the State Water Resources Control Board, or EPA, as a result of Contractor's failure to fully implement the provisions of "Stormwater and Non-Stormwater Pollution Control", the Engineer, may, in the exercise of his sole judgment and discretion, withhold from payments otherwise due Contractor a sufficient amount to cover the Administrative Civil Liability including City staff time, legal counsel, consultant support costs and all other associated cost.

The Contractor shall be responsible for all costs and for any liability imposed by law as a result of the Contractor's failure to comply with the requirements set forth in "Water Pollution Control", including but not limited to, compliance with the applicable provisions of the Caltrans Handbooks, Municipal Permit, Federal, State, and local regulations. For the purpose of this paragraph, costs and liabilities include, but not limited to, fines, penalties, damages, and costs associated with defending against enforcement actions whether taken against the City or the Contractor, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Act.

Within fifteen (15) working days after the award of the contract, the Contractor shall submit two (2) copies and one pdf file of the WPCP to the Engineer for review and approval. The Contractor shall allow ten (10) working days for the Engineer to review the WPCP. If revisions are required as determined by the Engineer, the Contractor shall revise and resubmit the WPCP within three (3) working days of receipt of the Engineer's comments and shall allow ten (10) working days for the Engineer to review the revisions. The Contractor shall submit four (4) copies of the pproved WPCP and one pdf. file to the Engineer prior to notice to proceed. The Contractor must have an approved WPCP prior to the notice to proceed.

Unless otherwise directed by the Engineer or specified in these Special Provisions, the Contractor's responsibility for WPCP implementation shall continue throughout any temporary suspension of work.

The Engineer may withhold progress payments or order the suspension of construction operations without an extension of the contract time, if the Contractor fails to comply with the requirements of "Water Pollution Control" as determined by the Engineer.

All BMP repairs shall be implemented by the Contractor within 72 hrs of notification by engineer.

Payment: Full compensation for conforming to the requirements of this section shall be considered as included in the prices **paid for the various contract items** of work involved and no additional compensation will be allowed therefore.

TP05. MOBILIZATION

Mobilization shall conform to General Conditions, Article 45 and the following:
Mobilization shall consist of preparatory work and operations, including, but not limited to those necessary for the movement of personnel, equipment, supplies and incidentals to the project site and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site.

De-mobilization shall consist of the completion of all final construction and administrative work required to secure the project for termination and acceptance by the Engineer, including, but not limited to the following:

1. Satisfactory completion of Finishing Roadway;
2. Removal of all temporary facilities, construction office, temporary utilities, temporary BMPs, plant, equipment, surplus material, construction debris and similar from project limits and adjacent property, as required and as directed by the Engineer;
3. Restoration of all temporary roads and haul routes and construction storage and office areas, etc. to original or better condition;
4. Completion of record of drawings (as-built), to the satisfaction of the Engineer;
5. Submission of final certified payroll documents to the Engineer;

6. Completion of the requirements of permits issued by other agencies;
7. Satisfactory completion of all other contractually and legally required construction and administrative items of work.

Payment: Full compensation for conforming to the requirements of this section shall be considered as included in the prices **paid for the various contract items** of work involved and no additional compensation will be allowed therefore.

TP06. TEMPORARY CONSTRUCTION SIGN

The Contractor shall install a temporary construction sign at the project limits, as approved by the Engineer. The contractor shall relocate the signs as work transitions from area to area or as directed by the City Engineer.

Project signs shall conform to the following requirements:

- Outside sign dimensions shall be 4' x 8'; material shall be 3/4" marine grade plywood substrate painted white both sides and edges, or approved equal, with 1" wide black border
- Printing shall be black, except city logo, using latex or eco solvent UV inhibited ink
- City will provide "initial proof" layout in digital format. Contractor shall provide "final proof" layout for Public Works approval.
- Contractor shall provide photo of actual sign to city for approval prior to installation
- Contractor shall install signs at project site at locations approved by engineer
- Sign shall be securely mounted on 2 - 4"x4" wood posts set 5'(min) into stable earth. Sign shall be 18" (min) clear of vehicular and pedestrian travel ways. Bottom of sign shall be 7' (min) above finished grade.
- Contractor shall be responsible to maintain sign in good condition, graffiti free, for the duration of the project and at the completion of the project shall remove the sign and posts, restore area to pre-existing condition, and deliver sign to the Public Works Department.

Payment: Full compensation for project signs shall be made at the contract amount for **each sign**, and shall include full compensation for, but not limited to, furnishing all labor, materials, tools, equipment, relocation, and incidentals, for doing all work involved and no additional compensation will be allowed therefor.

TP07. CONSTRUCTION SURVEY AND MONUMENT PRESERVATION

Construction Survey, Staking and Monument Preservation includes qualified personnel, equipment, and supplies required for, but not limited to Project control, grading, paving, tie out of all centerline monuments, replacement of disturbed monuments, and additional items included in the contract documents.

The Contractor shall employ engineers or surveyors to perform adequate surveys and staking necessary to construct the work to the proper lines and grades. Reconstructed asphalt concrete surfaces shall have a cross slope between 1.5% and 5%. New curb & gutter shall have a minimum slope of 0.5%. Grade breaks must be spaced a minimum 25’ apart and be no greater than 0.25%.

Copies of the field notes, cut sheets or diagrams used in setting stakes shall be promptly furnished to the Engineer.

The contractor will be responsible to provide pre and post-construction corner records for the City to file with Riverside County.

Payment: Full compensation for conforming to the requirements of this section shall be considered as included in the prices **paid for the various contract items** of work involved and no additional compensation will be allowed therefore.

TP08. CONSTRUCTION WATER

The Contractor shall obtain construction water from Beaumont Cherry Valley Water District. Temporary construction water meters are available from the District. These meters will require the Developer/Contractor make application at the District offices and pay all the required deposits/fees.

Payment: Full compensation for conforming to the requirements of this section shall be considered as included in the prices **paid for the various contract items** of work involved and no additional compensation will be allowed therefore.

TP09. PAVEMENT PREPARATION FOR ALL WORK

Work shall consist of preparing the existing bituminous pavement to receive any of the designated treatments and shall include, but not be limited to, weed killing, pothole repair and surface preparation as required in the Standard Specifications and these Special Provisions. The existing AC pavement exposed after cold milling shall be evaluated by Engineer and Contractor to determine extent of crack sealing and pothole repair.

Weed Killing:

Work shall consist of killing and removing weeds and other organic materials from the existing cracks, joints and random cracks in asphalt concrete surfaces and the adjacent curbs and gutters.

Contractor shall spray weed killer in all cracks, crevices and potholes with Monsanto brand Roundup (or approved equal) in accordance with the manufacturer's instructions a minimum of fourteen (14) calendar days prior to crack sealing work. All weeds shall be re-sprayed if rain occurs within 48 hours after application. The herbicide mixture shall contain Blazon, or approved equal, a purple dye to easily confirm the herbicide has been applied. The Contractor shall remove any and all weeds that are growing through cracks from the project street located and growing within the pavement, between the concrete gutter and the pavement and in the curb and gutter to the back of curb. The contractor shall take additional care when spraying adjacent to landscape areas to assure that no overspray occurs behind the curb.

Payment for weed killing/herbicide application and weeds removal shall be included in the price **paid for other items** of work and shall include full compensation for all labor, tools, materials,

equipment, disposal of loose materials and incidentals for doing work involved and no separate or additional compensation will be allowed therefor.

Crack Sealing:

Refer to separate item for crack sealing.

Pothole Repair:

Work shall consist of cleaning and permanently repairing existing potholes in bituminous pavement beneath the areas receiving any surface treatment. For mill areas, potholes shall be assessed after milling operations. Voids in the surface of existing bituminous pavement greater than 1 inch and extending deeper than 1 inch shall be filled prior to receiving pavement treatment. Prior to Contractor placing surfacing materials Contractor shall fill or repair all potholes.

Pothole is the replacement of lost bituminous material only. Repairs shall be made where potholes are existing.

Potholes with no dimension larger than 16 inches in any direction or more than 4 inches deep may be repaired by replacing lost material with AC (HMA), D1-PG64-10 per 203-6.4 and placing such material per section 302-5 all of the Standard Specifications, except AC may be manually deposited, distributed and spread. Alternatively lost material may be replaced with "Perma-Patch", or approved equal, repair material as supplied by Perma-Patch, Inc. 6123 Oakleaf Ave Baltimore, MD 21215 and placed per manufacturer's directions. All pothole edges shall be cleaned back to sound bituminous material and pothole cleaned thoroughly as described above for crack sealing. Replaced material shall be compacted to a uniform smoothness and 95% density, level with surrounding pavement, per section 302-5.6 of the Standard Specifications by use of self-propelled roller or vibratory plate compactor.

Payment for repairing potholes in this manner shall be included in the price paid for other items of work and shall include full compensation for furnishing all labor, traffic control, materials, tools, and equipment, and incidentals for, cleaning and routing cracks, disposal of loose materials, no separate or additional compensation will be allowed therefor.

Removal of Existing Pavement Striping, Markings and Legends and Raised Pavement Markers:

Contractor shall remove all existing thermoplastic and painted pavement striping, markings and legends and raised pavement markers to a clean surface level with the adjacent pavement prior to construction of an AC overlay.

Payment for such removal shall be included in the price **paid for other items** of work and shall be full compensation for, but not limited to, furnishing all labor, materials, tools, equipment, and incidentals, for doing all work involved and no separate or additional compensation will be allowed therefor.

TP10. ROUT AND SEAL CRACKS

All cracks shall be filled with a rubberized asphalt material that has a minimum softening point temperature of 200° Fahrenheit and a safe heating temperature of 380° Fahrenheit, or as otherwise directed by the Engineer.

1. For cracks in size of 1/8 inch to 3/8 inch in width, the crack shall be widened using a router to form a sealant reservoir which is a minimum of 1/2 inch wide and 3/4 inch to 1 inch deep. The routed crack shall then be cleaned with hot compressed air to remove all dust and free moisture, and then sealed to service level. Pavement surfaces receiving the Chip seal will not require crack sealing for the crack size specified of 1/8 inch to 3/8 inch wide.
2. Cracks that are more than 3/8 inch but less than 3/4 shall be cleaned for the entire crack depth using sandblasting, brushing and hot air blowing techniques, as required to provide a crack free from all debris, dust, loose material and moisture. Gauging or plowing may be required to remove incompressible deep in the crack. The clean crack shall be filled with sealant, from the bottom up to surface level, in a manner which does not result in sealant bridging or entrapped air pockets. With deep cracks, settlement of sealant may occur, thus requiring application of a second layer of sealant material. For cracks with depressed surfaces on each side of the crack shall be over filled beyond level with pavement surface and then squeezed to fill in depressed area. No more than a 2" wide and 1/16" thick strip of material may be applied to the pavement surface. The crack seal for the specified width of 3/8 inch to 3/4 inch shall apply to all pavement surfaces

3. Cracks wider than 3/4 inch and potholes shall be cleaned using sandblasting or other cleaning technique approved by the Engineer. The cracks and/or potholes shall then be filled with pea-gravel size hot mix asphalt concrete as directed by the Engineer. Filling cracks and potholes shall apply to all pavement surfaces

4. No slurry or ARAM material shall be placed until after the crack seal and/or fill material has been in place for a minimum of five (5) calendar days.

5. Where cracks form a raised lip, ripple, or ridge the crack shall be routed or milled to remove the raised portion.

6. For mill areas, the crack seal shall be performed after the milling and prior to the placement of an ac overlay.

Payment: Payment for crack treatment shall be included in the price **paid for other items** of work and shall include full compensation for all the work performed including crack cleaning, crack filling, as specified in these technical Provisions, and as directed by the Engineer and no additional compensation will be allowed therefor.

TP11. DIG OUTS

The inspector and Engineer are to field verify each asphalt dig out location. All asphalt dig-out areas are to be field marked by the inspector and approved by the engineer.

Upon identification of the dig out locations, the contractor shall be responsible for;

1. grinding or full depth saw cutting and excavating the existing pavement/ to a minimum of four inches (4") below the treatment method surface. No additional compensation will be made for excavation beyond the 4".
2. For Slurry Seal treatment areas: Cold milling all edges of dig out area a minimum of 12" beyond edge a depth of 0.1'.
3. For mill and overlay areas: no edge milling necessary. The minimum thickness shall not include the overlay thickness.
4. Contractor shall place 4" of AC B-PG 64-10 Base course. The contractor shall notify the inspector for any areas unable to meet compaction requirements.
5. Placement of 4" of asphaltic concrete per Hot Mix Asphalt technical provision. Sides at all patching locations shall be tack-coated immediately prior to placement of asphalt concrete.

Asphalt concrete used for dig outs shall be included in the digout unit cost and not included in any other item.

Payment: Full compensation for fixing pavement failures in this manner shall be made at the contract unit price paid per **square foot** for dig outs, and shall include full compensation for, but not limited to, furnishing all labor, materials, tools, equipment, and incidentals, for doing all work involved.

TP12. ASPHALT RUBBER AND AGGREGATE MEMBRANE (ARAM)

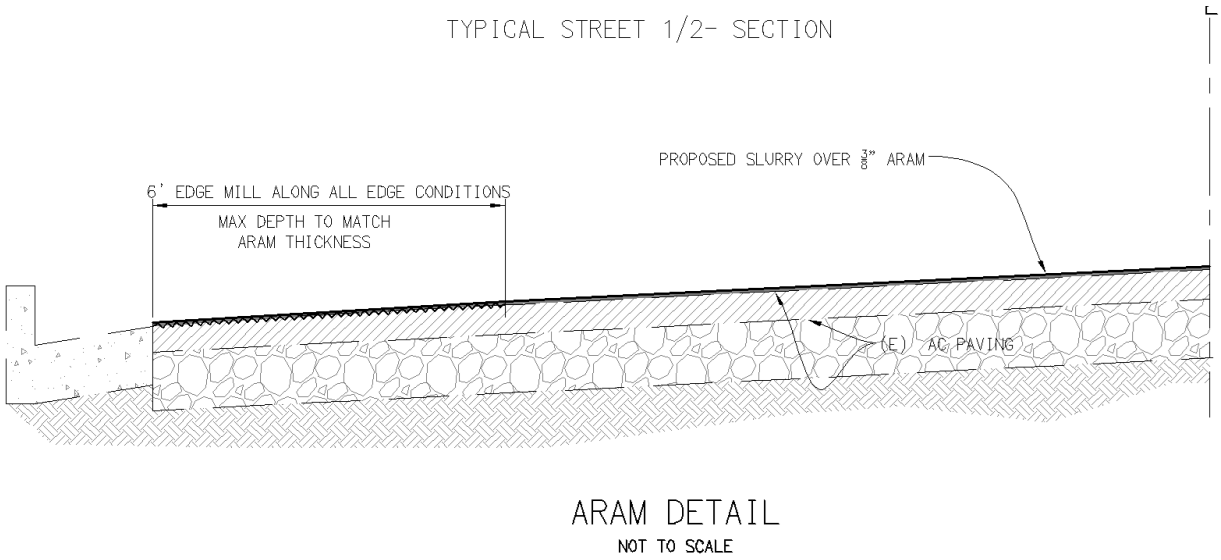
ARAM shall be in conformance with section 302-11 "Asphalt Rubber and Aggregate Membrane", section 203-12 "Asphalt Rubber and Aggregate Membrane (ARAM), and section 302-10 "Asphalt Rubber and Aggregate Membrane (ARAM)", and all subsequent sections of the Standard Specifications.

Cul-de-sacs, up to the beginning of the curb radius, stop points and other areas as designated, shall have a modified asphalt rubber binder applied pursuant to the application rates set forth in these specifications, modified with a polyethylene polymer additive added to the asphalt rubber binder between 2 percent and 4 percent by weight of the asphalt rubber binder.
The modified asphalt rubber binder shall have a Performance Grade (PG) rating of between 88 and 94. The modified asphalt rubber binder specified above is subject to the provisions of United States Patent No. 9,828,505 B2.

Pavement heaters shall be utilized after cover aggregate application and before rolling on all surfacing receiving the modified asphalt rubber binder to ensure complete embedment and adhesion of the cover aggregate to the modified asphalt rubber binder. In no event, shall the surface temperature of the cover aggregate and modified asphalt rubber binder be heated to above 275˚F. The process method for heating specified above is subject to the provisions of United States Patent No. 7,033,104 B2.

Type 2 slurry seal shall be applied to ARAM a minimum of five days after initial placement of ARAM. Final sweeping of ARAM shall occur prior to slurry.

All areas of



Payment: Full compensation for ARAM shall be made at the contract unit price paid per square foot and shall include full compensation for furnishing all labor, edge milling, materials, tools, and equipment, and for doing all the work involved, complete in place, and no additional compensation will be allowed therefor.

Compensation for slurry seal shall be made per separate slurry seal bid item.

TP13. SLURRY SEAL

Slurry seal shall be performed in accordance with sections 203-5 and 302-4 "Emulsion-Aggregate Slurry," of the Standard Specifications and the following provisions:

Slurry over ARAM shall be applied at the application rate of 15lbs/yd^2 minimum and 18lbs/yd^2 maximum.

Materials:

Emulsion aggregate slurry shall be Type II. Emulsified asphalt shall be CQS-1h.

Subsection 203-5.4.2, "Materials" of the Standard Specifications is modified as follows -

(2) Admixtures, such as Portland Cement or aluminum sulfate may be mixed into the slurry material to adjust the curing time such that the applied slurry can support vehicular traffic within 2 hours.
(5) Use of slag shall not be permitted.
(6) Deliveries of aggregate and emulsion shall not be made without the Engineer present.

Modify the first paragraph of Subsection 203-5.2, "Mix Design," of the Standard Specifications to include the following:

The Contractor shall provide materials for verification of the Mix Design. Periodically throughout the project, at the direction of the City Engineer, will perform further testing as necessary to provide assurance of the Mix Design.

If the Contractor changes sources of material, i.e. aggregate and/or oil, a new Mix Design shall be resubmitted. The cost of all Mix Design retest and testing as a result of changes to the Mix Design shall be borne by the Contractor.

Prior to a change of emulsion, the Contractor shall thoroughly clean all emulsion tanks and mixing units to prevent any chemical reaction between the two emulsions.

The latex additive shall be Ultra Pave 65 K (for cationic) or an approved equal. The latex shall be added at the emulsion plant after weighing the asphalt and before the addition of mixing water. The latex shall be added at a rate of two and a half (2.5) parts to one-hundred (100) parts of emulsion by volume (or 2.5%).

Stockpile:

Prior to the beginning of slurry operations, the Contractor shall furnish, at no cost to the City, current licensed weigh master's certificates indicating the net weight capacity of the aggregate bin.

Prior to storing aggregate on private property, the Contractor shall submit to the Engineer written permission from the property owner for such stockpiling.

Precautions shall be taken to ensure that stockpiles do not become contaminated with oversized rock, clay, silt, or excessive amounts of moisture. The stockpiles shall be kept in areas that drain readily. Segregation of the aggregate will not be permitted.

The stockpile areas shall be thoroughly cleaned of all excess material and left in a neat, orderly appearance upon completion of slurry operations in any area.

Application:

The pavement surface shall be cleaned by sweeping, flushing, or other means necessary to remove loose particles of paving, dirt, aggregate, and any other extraneous materials. This must be performed to the satisfaction of the Engineer before any slurry seal material is placed; including the placement of slurry seal test strips.

Surface oil and grease shall be removed prior to the application of the slurry seal.

Subsection 302-4.3, "Continuous-Flow Mixers," of the Standard Specifications shall be revised to include the following:

All slurry mixing machines shall be equipped with a Fines Feeder for the adding of cement or granular Aluminum Sulfate.

Transit mix trucks shall not be used.

The slurry shall be applied in such a manner that no ripples or waves exist. If ripples or waves occur in the slurry during the application, the work shall cease and the Contractor shall correct the situation. The Contractor may use a drag to knock down ridges. If ripples or waves are not corrected to the Engineer's satisfaction, the street shall be reslurried at the Contractor's expense.

No slurry seal shall be placed on a wet street or crossing without the Engineer's consent.

Intersections and commercial driveways shall be completed in two parts to allow ingress and egress to traffic. Sand may be spread over the fresh slurry only with the permission of the Engineer.

The Contractor shall be required to work around all existing utility facilities and to seal up to the edge of such facilities. Slurry shall not be applied over any manhole, valve, survey monument, or miscellaneous frames and covers. It shall be the Contractor's responsibility to cooperate with the owner of the facility and to place protective covering over, or to otherwise avoid slurry seal coating of manholes, utility covers, concrete gutters, concrete cross gutters, and drainage facilities, and survey monuments. Any material used to protect such devices shall be removed and disposed of lawfully by the Contractor.

All thermoplastic pavement striping, markings, legends and raised pavement markers (reflective and non-reflective) shall be removed prior to construction slurry seal.

Rubber Tire Rolling - Rolling shall be performed with two complete coverages by a 12-ton nine-wheel rubber tired roller with a tire pressure of 50 psi. Rolling shall be performed after slurry and as soon as it sets up enough to support the roller and not pick up on the tires.

Areas of shade on the pavement that set up more than 10 minutes later than other areas shall be rolled separately, but as soon as they set up sufficiently to meet the requirements herein. Insufficient rubber-tire rollers to meet these requirements shall be cause for termination of slurry operations until rolling can keep pace with slurry spread.

Contractor shall sweep the streets for two (2) consecutive days after the application of the slurry. A third and final sweeping shall be done five to eight days after the slurry is complete. Residual material picked up from the sweepings shall be removed to a legal disposal site.

The Contactor shall protect the wet slurry from traffic at all times and if damaged or defaced, the Contractor shall repair said damage at no additional cost to the City.

The placement of slurry seal may be suspended with the concurrence of the Engineer due to unsuitable weather, temperature conditions, or other conditions that are considered unfavorable

for the prosecution of the work. The Contractor shall immediately comply with the order of suspension by the Engineer, and work shall not be resumed until authorized by the Engineer.

The days during which the suspension of work is in effect due to unsuitable weather shall not be considered working days and the date of completion shall be extended to allow for work and notification. In the event of a suspension of work, the Contractor shall remove all barricades, equipment and "No Parking" signs (if appropriate) upon the curing of the completed portion of slurry. No adjustment of unit prices of any items shall be allowed due to a suspension of work as described above.

It is anticipated that nuisance water, such as storm water runoff and irrigation water, will run in and across the right-of-way at various time throughout the period of construction. It shall be the responsibility of the Contractor, at its own expense, to provide for and protect the work from such water.

In addition, the Contactor's responsibility shall include handling nuisance waters such that their operations do not cause them to damage existing improvements or properties adjacent to or near the site of work.

The Contractor shall, at the direction of the Engineer, repair or reseal to the entire street, or complete section thereof, as determined by the Engineer, which have not been sealed properly (includes areas that have failed to meet yield and mix design specifications) and completely. No compensation will be provided for slurry seal used in repair and reseal work.

The start and finish of slurry application shall be a straight line which, unless otherwise approved by the Engineer, shall be obtained by laying a strip of building paper or other material approved by the Engineer on the pavement surface. After application of slurry, the paper is to be removed leaving a straight edge. The entire street surface area shall be sealed the same day.

The Contractor shall sweep any raveled material on the street one (1) week after the initial placement. If the Engineer determines the raveling is excessive, the frequency of sweeping shall be adjusted to the field conditions of the raveling. If raveling continues within two (2) weeks of the initial placement, the street shall be swept and re-slurry sealed at no cost to the City. Raveling can be identified by the presence of "black pebbles" in the gutter.

Payment: The contract unit price bid per **square foot** for the item "Slurry Seal, Type II" shall include full compensation for all labor, tools, equipment, loading, hauling, disposing of materials, import of material, compaction and incidentals for doing work involved. Adjustment of compensation will be made for any increase or decrease in the quantities at the stipulated unit price.

TP14. COLD MILLING ASPHALT CONCRETE SURFACING

For the areas of existing asphalt pavement to be removed by cold milling, the cold milling work shall be in accordance with section 404, "Cold Milling," of the Standard Specifications and these Special Provisions and to a minimum depth as stated on the plans.

Add to Subsection 404-2, "Milling Machine," of the Standard Specifications the following:

Asphalt fabric may be encountered during the milling and removal phase. The pavement fabric shall be removed and disposed as part of this bid item.

All cold milling shall conform to these Special Provisions. All temporary striping required after cold milling operations shall be installed per City Standards. All required temporary striping shall be considered paid for under other related bid items and no additional compensation will be allowed.

The Contractor shall be responsible for furnishing, placing and maintaining barricades and lights as necessary to protect the public from danger due to the work being done. The machine used for cold planing shall have performed satisfactorily on similar work and meet the following requirements:

The Planing Machine shall be specially designed and built to perform cold planing of bituminous pavement with the ability to plane concrete patches. The cutting drum shall be a minimum of sixty (60”) inches wide with carbide tip cutting placed in variable lacing patterns to provide various finishes. The machine shall be capable of operation at speeds ranging from 0 to 40 FPM. It shall be self-propelled and have a water spray at the cutting drum to minimize dust. The machine shall be capable of removing the material next to the gutter of the pavement being reconditioned and so designed and the operator thereof can at all times observe the planning operation without leaving the controls. The cutting drum shall be adjustable as to slope and shall deep cut in one pass a maximum of three (3”) inches without producing fumes or smoke.

Ski arms to improve smoothness of grinding operations are required with a minimum 30 foot long arm.

The Contractor shall provide a smaller machine to trim areas inaccessible to the larger machine at manholes, curb returns and intersections. The smaller machine shall be equipped with a twelve (12”) inch wide cutting drum mounted upon a three (3) wheel chassis allowing it to be positioned without interrupting traffic and pedestrian flow.

During the operation the Contractor shall sweep the street with mechanical equipment and remove all loose material from planed areas. In addition, all existing asphalt/slurry buildup on the concrete gutter shall be removed and the cost thereof shall be included in the unit price of cold plaining cost, no additional compensations shall be paid. The Contractor shall abate dust nuisance by cleaning, sweeping and sprinkling with water or other means as necessary.

Residue from grinding shall not be permitted to flow or travel into gutters, onto adjacent street surfaces or parkways. All residues shall be completely removed by a vacuum sweeper and properly disposed. Sweeping is to take place immediately after the grinding has been completed and as directed by the Engineer. No washing of any residue into gutters and/or drainage structures shall be allowed. The Contractor shall cover and protect all storm drain inlets prior to the start of cold milling operations.

All pavement transitions and temporary striping/markings shall be in place prior to the opening of a lane for traffic. Any pavement grade differential between adjacent lanes that will, with the permission of the Engineer, remain during non-working hours shall be indicated with the appropriate warning signage. Cold mix A.C. shall be placed and maintained at the interface between milled and non-milled areas to eliminate the hazard caused by sudden elevation differences, especially in pedestrian path of travel areas adjacent to wheelchair ramps, and shall be removed prior to placement of surface course pavement.

The Contractor shall provide access and detours at all times for pedestrian facilities when cold milling. The Contractor is to notify the Engineer at least two (2) working days prior to and immediately after the cold mill operations so that observations and measurements may be made of areas before the placement of permanent asphalt.

Existing pavement thicknesses, as measured by the City's geotechnical investigation, have been provided on the plans and in these specifications for reference purposes only. It shall be the contractor's
responsibility to verify the existing pavement thickness and to adjust field operations accordingly in order to properly construct the proposed improvements.

Section 401, "Removal" of the Standard Specifications is supplemented by the following:

Removals shall include the removal of all materials to the depths shown on the plans.

Sawcut, excavation, removals, haul away, and fill necessary for these bid items shall be included and no additional compensation will be made thereof. Existing surfaces to be joined shall be sawcut on a neat, straight line at the join location.

At least two full time flag persons shall be assigned to the milling machine for traffic control when working on streets that are open to traffic.

If the milling operations results in the further degradation of the payment, the Contractor shall not continue the milling progress until the Engineer can address the issue. If the contractor fails to stop, the contractor will be liable for the damaged milled pavement and replace the failed section at their expense.

Milling depth at critical edges shall be adjusted to maintain a 3/8" lip from the finished surface of the proposed AC overlay to the critical edge. i.e. the AC surface shall not be greater the 3/8" higher than the edge of gutter

Payment: The contract unit bid price paid per **square foot** for Cold Milling Asphalt Concrete Surfacing shall include full compensation for furnishing all labor, materials, tools, equipment, grinding, loading, hauling, recycling, providing recycling weight certification, reports, and incidentals, and for doing all work involved in cold milling asphalt concrete surfacing, and no additional compensation will be allowed therefor.

TP15. EDGE MILLING ASPHALT CONCRETE SURFACING

Edge milling shall be performed in accordance with "Cold Milling Asphalt Concrete Surfacing". Edge milling shall occur along all edges where overlay and ARAM will occur.

Milling depth at critical edges shall be adjusted to maintain a 3/8" lip from the finished surface of the proposed ac overlay to the critical edge. i.e. the ac surface shall not be greater the 3/8" higher than the edge of gutter.

Edge milling shall be six feet wide, and may taper from a zero-inch mill to the necessary depth discussed above.

Payment for conforming to the requirements of this section shall be included in the price **paid for other items** of work and shall include full compensation for all labor, materials, tools, equipment, grinding, loading, hauling, recycling, and incidentals, and for doing all work involved in edge milling asphalt concrete surfacing.

TP16. HOT MIX ASPHALT

HMA shall conform to Green Book section 203-6, "Asphalt Concrete". HMA shall be install/ placed in accordance with Green Book section 302-5, "Asphalt Concrete Pavement."

Project Mix: C2-PG 64-10-R05

Existing pavement markers shall be removed flush with the existing pavement prior to constructing asphalt concrete pavement.

Where asphalt concrete pavement is designated to be constructed on existing aggregate base, the existing base shall be compacted and graded in accordance with Subsection 301-2.3, "Compacting," of the Standard Specifications.

The asphalt concrete pavement shall be spread with a self-propelled mechanical spreading and finishing machine.
The Contractor shall have sufficient workers and equipment necessary to accomplish proper placement and compaction of the asphalt concrete pavement to the satisfaction of the Engineer.

Ski arms to improve smoothness of paving operations are required on all paved streets with a 30 foot minimum length arm for paving.

TACK COAT:

Section 302-5.4 "Tack Coat" of the Standard Specifications are supplemented by the following:

A tack coat shall be applied uniformly upon the existing pavement planes and joints, gutters, inlets, manholes, etc. prior to placing the asphalt concrete. The tack coat shall be SS-1h emulsified asphalt per Section 203-3. The surface to be covered shall be free of water, foreign material, vegetation

or dust before application of the tack coat.

The area to which tack coat has been applied shall be closed to public traffic. Care shall be taken to avoid tracking tack material onto existing pavement surfaces beyond the limits of construction. Existing striping and pavement markings which have been tacked with tack coat shall be repainted at the Contractor's expense. Certain driveways which are heavily used during hours of construction as determined by the Engineer, shall remain open as long as possible, and tack shall be applied to areas along said driveways as soon as possible before the asphalt is placed, or the Contractor may provide some means of protecting the tack coat while traffic passes over it. The means of protection shall be utilized only after approval by the Engineer.

The Contractor shall clean existing concrete and asphalt surfaces of any tack coat tracked onto them, to the satisfaction of the Engineer.

A tack coat **shall** be applied between each course of paving regardless of when the previous course of asphalt was laid. The contractor shall not be allowed to omit the tack coat for any circumstance unless approved by the Engineer.

Payment: The contract unit bid price paid **per ton** for Hot Mix Asphalt shall include full compensation for all items of the work and all appurtenant work, including furnishing all materials, labor, equipment, tools and incidentals.

Full compensation for furnishing and applying emulsion (paint binder/ tack coat) shall be considered as included in the contract price paid for Hot Mix Asphalt.

TP17. TRAFFIC STRIPING AND PAVEMENT MARKINGS

All traffic stripes and markings shall be thermoplastic. Application of thermoplastic traffic stripes (lane lines, centerlines) and thermoplastic pavement markings (word and symbol markings, limit lines, crosswalk, etc.) shall conform to the provisions in Section 84, "Pavement Markings," of the latest State Standard Specifications and these Special Provisions.

The Contractor shall layout and "cat-track" the alignment of the proposed striping at 15-foot intervals and "spot" the proposed pavement markings as called for on the Plans or match the exisitng. Striping shall vary no more than 2 inches in 50 feet from the specified alignment. The Engineer may waive minor variations.

The Contractor shall not proceed with applying any thermoplastic pavement striping and markings until the Engineer has checked and approved the cat-tracking and spotting, and has authorized the Contractor to proceed.

All traffic striping shall be performed with a road liner type striping machine. Where the configuration or location of a traffic stripe is such that the use of a road liner type striping machine is unsuitable, thermoplastic may be applied by other methods and equipment approved by the Engineer. The Engineer shall determine if the road liner type striping machine is unsuitable for a particular use.

Except as otherwise noted on the Plans or as directed by the Engineer, all angle points shall be painted as a smooth, tangent curve with a radius and length as approved in the field.

Temporary tape or reflective markers utilized for the purposes of interim delineation for centerline, lane lines, and crosswalk lines shall be placed to the side of the final striping pattern in such a way so that it will not interfere with the first coat of paint. All temporary tape and reflective markers applied for the purpose of interim delineation shall be removed by the Contractor at no additional cost to the City upon completion of the first coat of striping and prior to the final striping.

Stencils used for pavement markings must conform to the latest Caltrans approved Stenciling Standards.

Newly applied or existing striping or markings which are damaged as a result of the construction, including wheel markings by public traffic and the construction equipment, shall be replaced in kind, and any associated removals shall be performed as outlined in these Technical Provisions at the sole expense of the Contractor and no separate compensation will be allowed therefore.

Existing traffic striping and pavement markings that do not conform to the approved Plans shall be removed by wet sandblasting. Other methods may be requested by the Contractor, but shall be submitted in writing to the Engineer for approval. Blackout of existing traffic striping or pavement markings, which do not conform to the approved Plan, shall not be allowed.

Payment for all thermoplastic traffic striping, pavement markings, legends and markings shall be included in the contract **lump sum** price paid for Traffic Striping And Pavement Markings. Said payment shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in reestablishing all traffic stripes and applying thermoplastic pavement markings including establishing alignment for stripes, layout work, sandblasting all conflicting markings (including existing paint and thermoplastic on existing adjacent PCC gutters and spandrels), removing all conflicting raised pavement markers, and performing all work, complete in place, as shown on the Plans, as specified in the Standard Specifications and these Technical Provisions and as approved by the Engineer, and no separate or additional compensation will be allowed therefor.

TP18. PAVEMENT MARKERS

Pavement markers shall conform to the provisions in Section 82, "Signs and Markers," of the State of California Standard Specifications and these Special Provisions.

Certificates of compliance shall be furnished for pavement markers as specified in "Prequalified and Tested Signing and Delineation Materials," elsewhere in these Special Provisions.

Reflective pavement markers shall comply with the specific intensity requirements for reflectance after abrading the lens surface in accordance with California Test 669 specified for pavement markers placed in pavement recesses in Section 81-3.02C, "Reflective Pavement Markers," of the State of California Standard Specifications.

Non-reflective pavement markers shall conform to the requirements of the Section 85-1.02B, "Non-Reflective Pavement Markers," of the State of California Standard Specifications.

The bituminous adhesive used to install both reflective and non-reflective markers shall be a hot melt bituminous adhesive asphaltic material with homogeneously mixed mineral filler and shall conform to the requirements specified in Section 81-3.03B, "Hot Melt Bituminous Adhesive," of the Standard Specifications. Epoxy adhesive shall comply with Section 81-3.03C, "Epoxy Adhesive" of the Standard Specifications.

Reflective pavement markers shall be installed to match existing or as approved by the Engineer. The composition of the material shall be such that its properties shall not deteriorate when heated to and applied at temperatures up to 425°F, using either air or oil jacketed melters.

Reflective pavement markers shall be placed at locations as established by the applicable Caltrans striping detail to match the existing which includes, but is not limited to temporary painted line(s), new striping, or existing striping. There shall be one marker for each location. The Contractor shall perform all work necessary to establish satisfactory locations for markers.

The Contractor shall remove existing reflective pavement markers that do not conform to the plan.

Reflective pavement markers shall be of the prismatic reflector type (3M model white 290-W and yellow 291-2Y) as outlined in Subsection 81-3.02C, "Reflective Pavement Markers," of the State of California Standard Specifications.

In accordance with Public Contract Code Section 3400, the City has made all necessary findings, and hereby declares that the 3M brand product shall exclusively be supplied for use on this project in order to match other reflective pavement marker equipment already in use throughout the City. In addition, the 3M product is the only product that has been found to achieve sufficient retro reflectivity and durability performance. Therefore, no substitutions will be allowed.

Existing pavement markers (blue) designating location of the fire hydrants shall be replaced "in kind" and proposed pavement markers (blue) designating location of the fire hydrants shall be installed, where they previously existed, after the paving is completed.

Payment: The compensation of Pavement Markers shall be included in the price **paid for other items** of work involved and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, for doing all the work involved in removing and replacing in-kind raised pavement markers and the items specified herein and no additional compensation shall be allowed therefor.

TP19. ADJUST VALVE TO GRADE

For all existing water valve and gas valve covers and for utility vaults, the Contractor shall notify the owners to adjust their facilities to grade. The Contractor shall loosen all valve covers immediately after paving. The Contractor shall paint all water valve covers blue and all gas valve covers yellow.

Payment: Loosening valve covers after paving and painting the covers shall be included in the **price paid for other items**. No compensation is proposed for adjusting valves to grade.

TP20. ADJUST MANHOLE TO GRADE

Adjustment of storm drain/sewer manhole frames and covers to grade shall be in accordance with the plans and section 403 "Manhole Adjustment and Reconstruction" of the Standard Specifications and the agency or utility standards and policies that owns or has control of the manhole.

The contractor is responsible for obtaining timely written approval from other applicable agencies that have jurisdiction over other manholes found within the work area.

In areas where AC leveling course, and/or AC over milled pavement is constructed the Contractor shall adjust manhole frames and covers to grade when the finished surface of the newly constructed pavement is greater than one-half (1/2) inch higher than the existing manhole frame.
Raised manhole rings and covers shall have a Type II barricade with two flashing lights placed over each manhole until it is paved.

After the pavement has been completed, the necessary portions of the sub-grade, base, and pavement shall be neatly removed, the structure built-up, and the manhole frame set to be backfilled with PCC concrete and Type III-C3-PG 64-10 asphalt concrete. The asphalt concrete shall be placed and compacted in a workmanlike manner to conform to the appearance of the surrounding pavement. The asphalt concrete shall be placed within two (2) days after the manhole ring and cover has been adjusted to final grade, unless otherwise approved by the Engineer.

Payment: Full compensation for adjusting manholes to grade shall be made at the contract unit price paid **per each** and shall include full compensation for furnishing all labor, materials, tools, and equipment, and for doing all the work involved, complete in place, and no additional compensation will be allowed therefor. Adjustment of compensation will be made for any increase or decrease in the quantities of manholes at the stipulated unit price.

TP21. CONCRETE REMOVAL AND REPLACEMENT

For ramp locations identified are not complied with the required grade on the landing area (top or bottom of the ramp) and shall be removed, disposed of and replaced with PCC in accordance with applicable Americans with Disabilities Act (ADA) requirements. After concrete is removed, the affected area shall be graded and compacted before pouring the new concrete.

Payment: The contract unit price bid per **square feet** for the item "CONCRETE REMOVAL AND REPLACEMENT" shall include full compensation for all labor, tools, equipment, loading, hauling, disposing of materials, import of material, compaction, replacement of new PCC, and incidentals for doing work involved. Adjustment of compensation will be made for any increase or decrease in the quantities at the stipulated unit price.

TP22. MINOR CONCRETE (RAMPS)

Concrete Curb Ramps shall be per SPPWC Standard Plan 111and County of Riverside Standard Plans, case and type per plans. Concrete shall be Class 520-C-2500.

The geometry shown on the plans is representational. The final limits and geometry of the required curb ramp shall be verified and placed in the field by the contractor in order to ensure the required grades and clearances are obtained.

Curb and Gutter Shall be included in the limits of the Curb Ramp which includes the sawcutting and full AC reconstruction of a 3' wide (slot pavement with 2-sack PCC slurry) portion of AC pavement adjacent to the curb and gutter in order to achieve the required 5% maximum grade for 4' adjacent to the curb face. **A minimum of a 3' saw cut and pavement replacement will be required in all areas of curb return replacements adjacent to existing pavement not slated for grind and overlay.** In locations for a 3' slot pave with 2-sack PCC slurry is inadequate at achieving the required 5% maximum grade and would create adverse driving conditions for the 1' transition, each location shall be individually documented in the construction project files justifying the reason for non-compliance. The proposed pavement section shall be full depth asphalt paving to match the existing pavement section thickness.

Construction of any necessary retaining curbs at the back of ramp or wings of the ramp are included as part of this bid item. The contractor shall install retaining curbs within the ramps to ensure that the constructed ramp is fully ADA compliant while joining existing grades at the back of walk/ramp.

When curb ramp removal and installation is adjacent to PCC cross gutters that are not abandoned/buried then the concrete shall be sawcut 4" off the existing curb face, and the new concrete shall be doweled and epoxied into the existing cross gutter spandrel at 12" on center using 18" #4 bars.

All work within the 1' rumble strip at grade breaks of the sidewalk shall be considered as part of the curb ramp. All work past the 1' rumble strip, which has been approved by the engineer, shall be considered as extra sidewalk or curb and gutter items and will be paid for per the respective unit price.

Existing surfaces to be joined shall be sawcut on a neat, straight line at the join location. All sawcut locations along existing cross gutters shall be cut in a curve conforming to the existing curb return and shall be cut at a set offset from the flow line as approved by the City Engineer. The flow line shall be maintained, ensuring that ponding does not occur in the existing cross gutter.

Any and all Traffic Signals, or pedestrian push button poles, traffic signal poles and other surface mounted appurtenances shall be protected in place and/or re-attached as part of this bid item.

All pull boxes within curb ramp limits shall also be adjusted to the finished grade of the new curb ramp and shall be paid for per the unit price for each respective bid item.

All water or gas valve can and lids within curb ramp limits shall also be adjusted to the finished grade of the new curb ramp and shall be paid for per the unit price for each respective bid item.

The City Engineer shall have final say regarding the case and type of curb ramp to be installed and shall retain the right to revise the ramp designation at any point prior to construction.

The contractor shall verify existing grades in order to ensure full ADA compliance

Curb ramps shall be constructed with detectable warning surfacing complying with California Building Code Title 24. Detectable warning surfacing shall consist of vitrified polymer composite, with at least 25% by weight aluminum oxide, nominally 0.20" thick, colorfast and UV stable. Panels must be embedded in new ramps. Embedded panels shall have perforated embedment ribs at 3" on center, at least 1" deep.

Other physical characteristics shall be as follows:

Compressive Strength	Greater than 18,000 psi	ASTM D 695
Flexural Strength	Greater than 24,000 psi	ASTM D 790
Tensile Strength	Greater than 10,000 psi	ASTM D 638
131		
Water Absorption	Less than 0.35%	ASTM D 570
Slip Resistance	Greater than 0.80	ASTM C 1028
Flame Spread	Index Less than 25	ASTM E 84
Salt Spray	No Change (200 hours)	ASTM B 117
Chemical Stain Testing	No Deterioration	ASTM 1308
Abrasion Resistance	Less than 0.030 (1,000 cycles)	ASTM D 2386
Accelerated Weathering	No Damage (2,000 hours)	ASTM G 29
Load Bearing at 16,000 lbs.	No Damage	AASHTO-H20
Freeze / Thaw / Heat	No Disintegration	ASTM C 1026

The color of the panels shall be yellow complying with the Federal Standard 595B, color No. 33538. truncated domes. The Contractor shall install panels in accordance with manufacturer's recommendations. The cost of installing detectable warning service panels on new ramps shall be included in the cost of the curb ramp.

All landscaping, irrigation lines, if any, and related work to return the area to its original condition.

Retrofitting detectable warning surfaces on existing ramp or walkway surfaces shall be paid for as part of their respective bid items.

Payment: The contract unit price bid per **each** for the item "MINOR CONCRETE (RAMPS)" shall include full compensation for all labor, tools, equipment, loading, hauling, disposing of materials, import of material, compaction and incidentals for doing work involved.

TP23. CURB RAMP DETECTABLE WARNING SURFACE

This work includes installing detectable warning surfaces on the curb ramps or as necessary to bring the ramp into compliance.

Curb ramps shall be constructed with detectable warning surfacing complying with California Building Code Title 24. Detectable warning surfacing shall consist of vitrified polymer composite, with at least 25% by weight aluminum oxide, nominally 0.20" thick, colorfast and UV stable. Panels must be embedded in new ramps. Embedded panels shall have perforated embedment ribs at 3" on center, at least 1" deep.

Other physical characteristics shall be as follows:

Compressive Strength	Greater than 18,000 psi	ASTM D 695
Flexural Strength	Greater than 24,000 psi	ASTM D 790
Tensile Strength	Greater than 10,000 psi	ASTM D 638
131		
Water Absorption	Less than 0.35%	ASTM D 570
Slip Resistance	Greater than 0.80	ASTM C 1028
Flame Spread	Index Less than 25	ASTM E 84
Salt Spray	No Change (200 hours)	ASTM B 117
Chemical Stain Testing	No Deterioration	ASTM 1308
Abrasion Resistance	Less than 0.030 (1,000 cycles)	ASTM D 2386
Accelerated Weathering	No Damage (2,000 hours)	ASTM G 29
Load Bearing at 16,000 lbs.	No Damage	AASHTO-H20
Freeze / Thaw / Heat	No Disintegration	ASTM C 1026

The color of the panels shall be yellow complying with the Federal Standard 595B, color No. 33538. truncated domes. The Contractor shall install panels in accordance with manufacturer's recommendations. The cost of installing detectable warning service panels on new ramps shall be included in the cost of the curb ramp.

The manufacturer must provide a written 5-year warranty for detectable warning surface, guaranteeing replacement when there is a defect in the dome shape, color fastness sound-on-cane acoustic quality, resilience, or attachment. The warranty period shall begin upon acceptance of the contract.

Payment: "CURB RAMP DETECTABLE WARNING SURFACE" for new ramps shall be considered as included with the contract unit price paid for the MINOR CONCRETE (RAMPS). For existing ramps the contract unit bid price **per each** for the item "CURB RAMP ETECTABLE WARNING SURFACE" shall include full compensation for all labor, tools, equipment, loading, hauling, disposing of materials, import of material, compaction and incidentals for doing work involved. Adjustment of compensation will be made for any increase or decrease in the quantities at the stipulated unit price.

TP24. GUARANTEE

In addition to guarantees required elsewhere, the contractor shall and hereby does guarantee all Work for a period of one (1) year after the date of acceptance of the Work by the City and shall repair and replace any and all such Work, together with any other work which may be displaced in so doing that may prove defective in workmanship and/or materials within the one (1) year period from the date of acceptance, without expense whatsoever to the City, ordinary wear and tear and usual abuse or neglect excepted. In the event of failure to comply with the above mentioned conditions within five (5) days after being notified in writing, the City is hereby authorized to proceed to have the defects repaired and made good at the expense of the Contractor, who shall pay the cost and charges therefore immediately upon demand.

APPENDIX A-CONSTRUCTION PLANS