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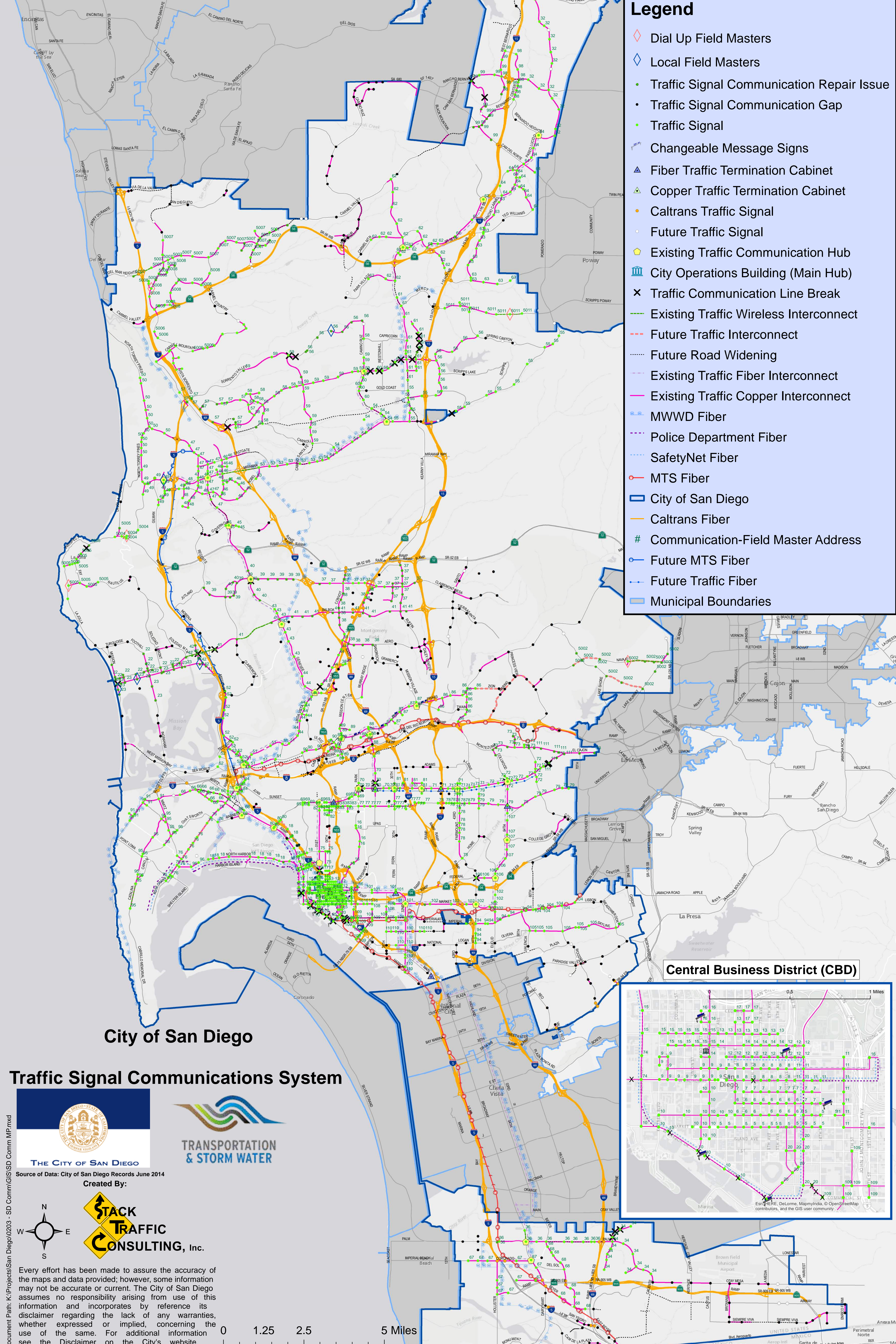
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APPENDIX A

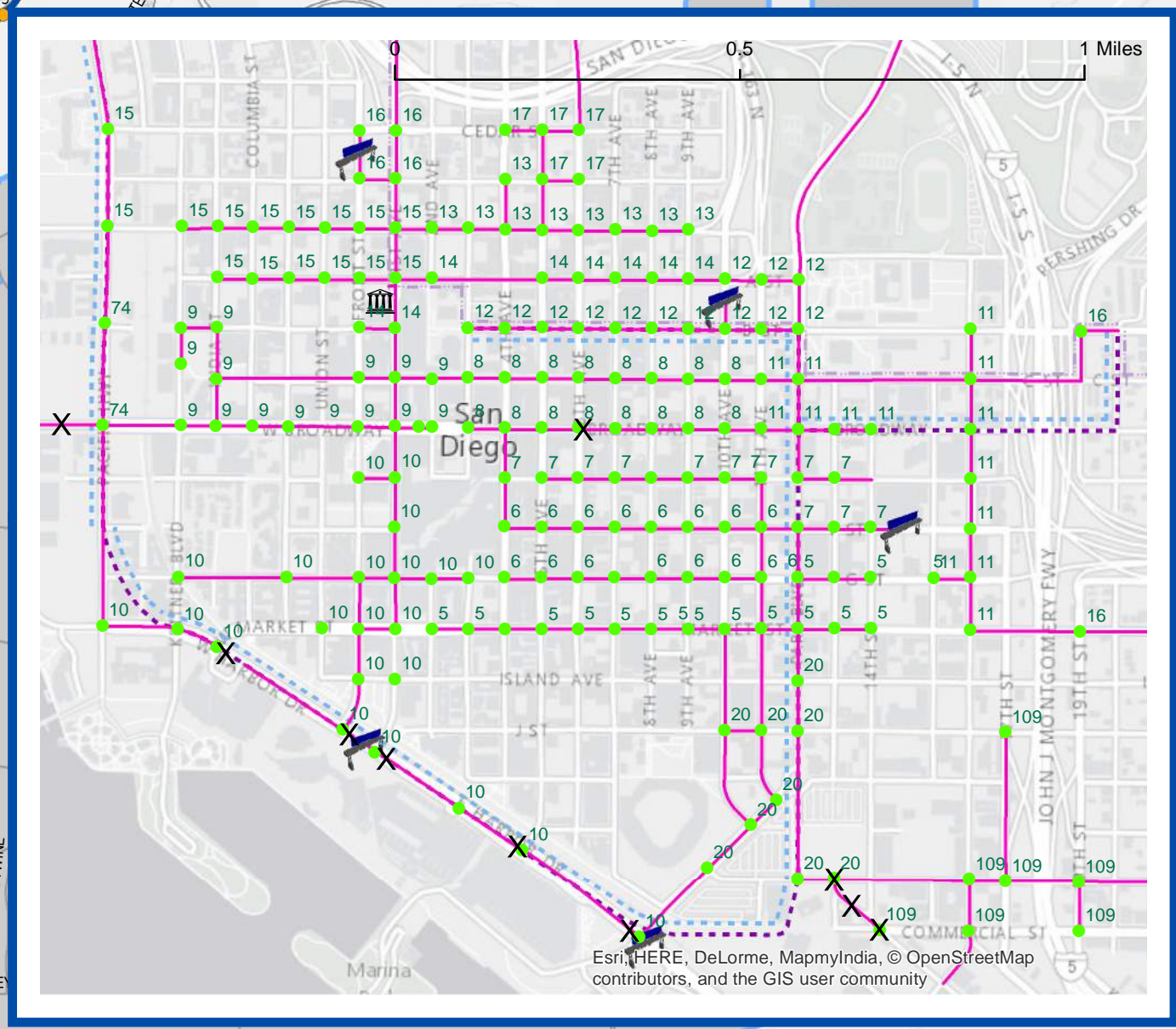
TRAFFIC SIGNAL COMMUNICATIONS MASTER
PLAN MAP

Legend

- ◇ Dial Up Field Masters
- ◇ Local Field Masters
- Traffic Signal Communication Repair Issue
- Traffic Signal Communication Gap
- Traffic Signal
- Changeable Message Signs
- ▲ Fiber Traffic Termination Cabinet
- ▲ Copper Traffic Termination Cabinet
- Caltrans Traffic Signal
- Future Traffic Signal
- ◊ Existing Traffic Communication Hub
- 🏢 City Operations Building (Main Hub)
- ✕ Traffic Communication Line Break
- Existing Traffic Wireless Interconnect
- - - Future Traffic Interconnect
- ⋯ Future Road Widening
- - - Existing Traffic Fiber Interconnect
- - - Existing Traffic Copper Interconnect
- MWWWD Fiber
- - - Police Department Fiber
- SafetyNet Fiber
- MTS Fiber
- ▭ City of San Diego
- ▭ Caltrans Fiber
- # Communication-Field Master Address
- Future MTS Fiber
- Future Traffic Fiber
- ▭ Municipal Boundaries



Central Business District (CBD)

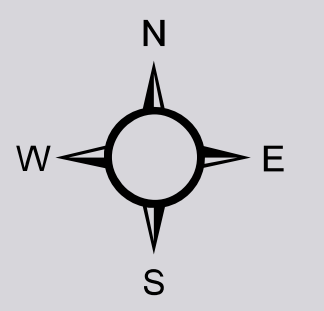


Traffic Signal Communications System

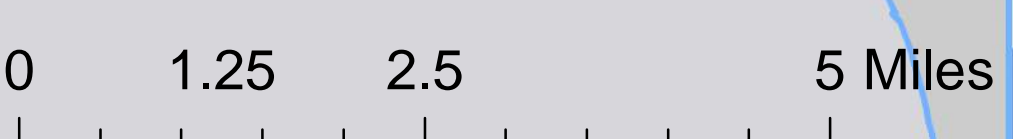


Source of Data: City of San Diego Records June 2014

Created By:



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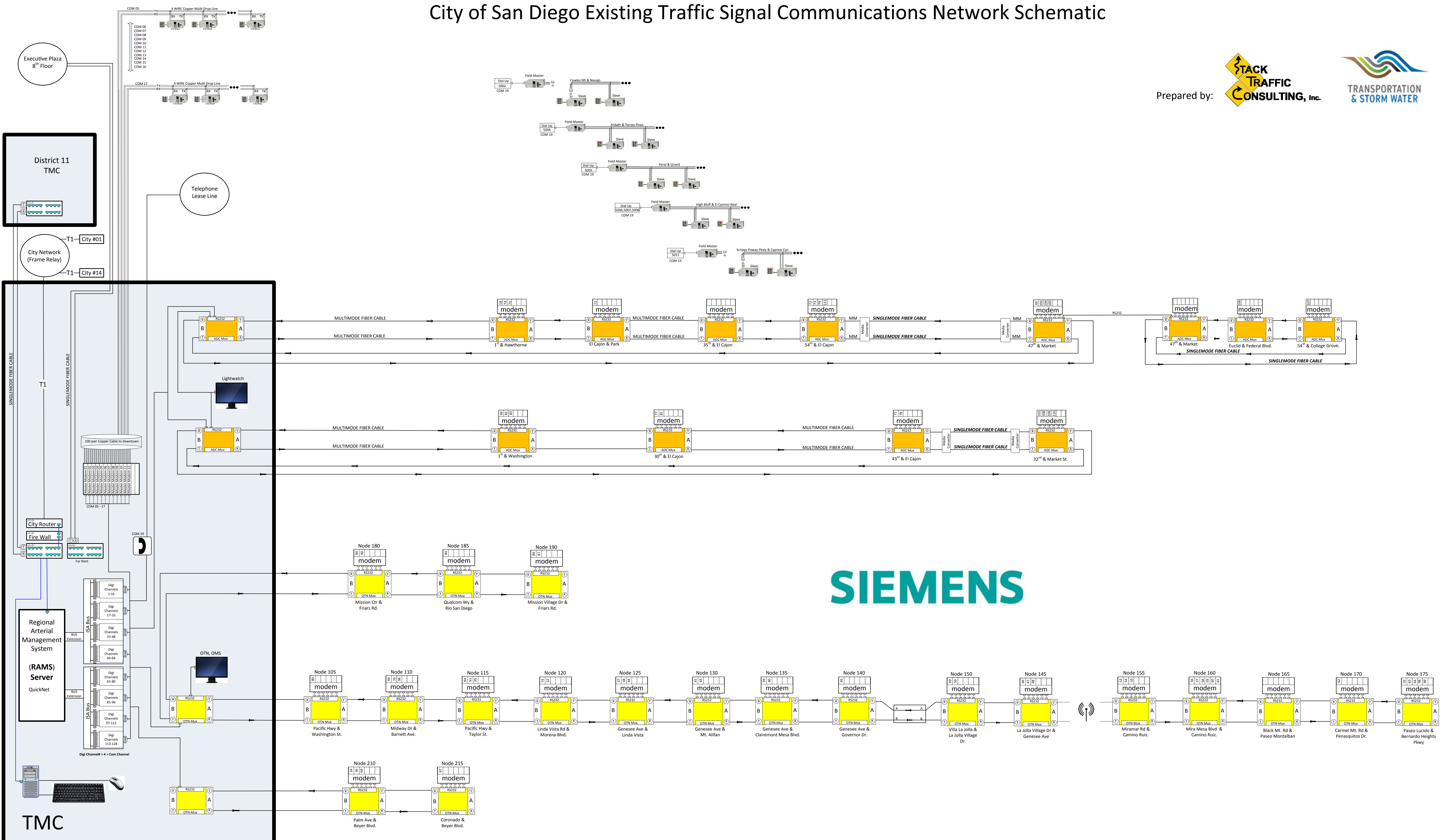
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APPENDIX B

EXISTING TRAFFIC SIGNAL COMMUNICATIONS
ARCHITECTURE

City of San Diego Existing Traffic Signal Communications Network Schematic

Prepared by: **STACK TRAFFIC CONSULTING, Inc.** **TRANSPORTATION & STORM WATER**



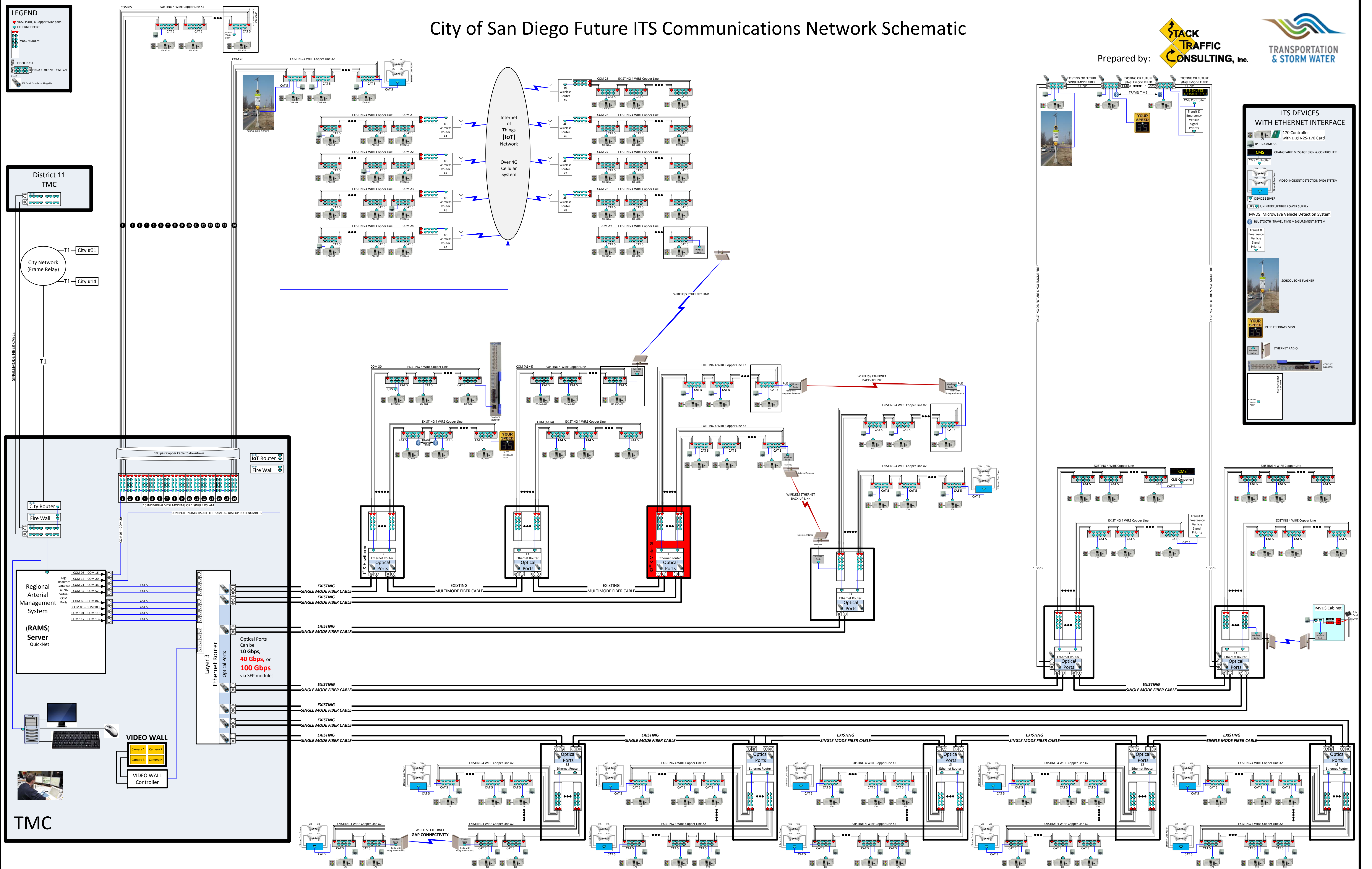
APPENDIX C

FUTURE TRAFFIC SIGNAL COMMUNICATIONS
ARCHITECTURE

City of San Diego Future ITS Communications Network Schematic



Prepared by:



LEGEND

- VDSL PORT, X Copper Wire pairs
- ETHERNET PORT
- VDSL MODEM
- FIBER PORT
- FIELD ETHERNET SWITCH
- Small form factor Plugstack

District 11 TMC

City Network (Frame Relay)

- T1 - City #01
- T1 - City #14

Regional Arterial Management System (RAMS) Server QuickNet

100 pair Copper Cable to downtown

16 individual VDSL MODEMS OR 1 SINGLE DSLAM

COM PORT NUMBERS ARE THE SAME AS DIAL UP PORT NUMBERS

VIDEO WALL

- Camera 1
- Camera 2
- Camera 3

VIDEO WALL Controller

TMC

ITS DEVICES WITH ETHERNET INTERFACE

- 170 Controller with Digi N25-170 Card
- IP PTZ CAMERA
- CMIS CHANGEABLE MESSAGE SIGN & CONTROLLER
- CMIS Controller
- VIDEO INCIDENT DETECTION (VID) SYSTEM
- DEVICE SERVER
- UNINTERRUPTIBLE POWER SUPPLY
- MVDS: Microwave Vehicle Detection System
- BLUETOOTH TRAVEL TIME MEASUREMENT SYSTEM
- Transit & Emergency Vehicle Signal Priority
- SCHOOL ZONE FLASHER
- SPEED FEEDBACK SIGN
- ETHERNET RADIO

APPENDIX D

SUBAREA LOCATIONS, ORDER OF MAGNITUDE
COST ESTIMATES, INTERSECTION SUMMARY

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Scenario: Phases and Subareas Combined
 Prepared By: Stack Traffic Consulting- YF, AA
 Date: 12/2/2014

Subarea/ Item No.	Subarea	Phase 1		Phase 2	Phase 3	Total
		Option A	Option B			
1	Kearny Mesa/Clairemont Mesa	\$1,246,500	\$1,693,500	\$0	\$1,137,000	\$2,830,500
2	Pacific Beach/Mission Bay	\$1,462,500		\$0	\$90,750	\$1,553,250
3	Mid City	\$1,465,500	\$2,512,500	\$3,099,750	\$0	\$5,612,250
4	Mission Gorge/Navajo	\$767,250		\$0	\$0	\$767,250
5	Tierrasanta/Murphy Canyon	\$441,750		\$0	\$0	\$441,750
6	Carmel Valley	\$525,750		\$0	\$66,000	\$591,750
7	Southeast San Diego	\$927,000	\$1,074,000	\$432,000	\$0	\$1,506,000
8	Logan Heights/Barrio Logan	\$417,000	\$564,000	\$780,750	\$0	\$1,344,750
9	Del Mar Heights	\$627,750		\$0	\$478,500	\$1,106,250
10	San Ysidro	\$381,000	\$678,000	\$0	\$2,300,250	\$2,978,250
11	Otay Mesa	\$426,000		\$0	\$115,500	\$541,500
12	Mission Valley/Linda Vista	\$1,130,250	\$1,877,250	\$0	\$1,781,250	\$3,658,500
13	Rancho Bernardo	\$353,250	\$650,250	\$0	\$990,750	\$1,641,000
14	Mira Mesa	\$426,750	\$723,750	\$0	\$884,250	\$1,608,000
15	Sorrento Valley	\$314,250	\$461,250	\$0	\$763,500	\$1,224,750
16	La Jolla	\$218,250	\$515,250	\$0	\$1,155,750	\$1,671,000
17	Airport/Point Loma	\$327,000	\$969,000	\$2,112,000	\$0	\$3,081,000
18	Scripps Poway	\$337,500	\$484,500	\$0	\$1,087,500	\$1,572,000
19	Central Business District	\$461,250	\$1,058,250	\$2,887,500	\$0	\$3,945,750
	Total Communications	\$12,256,500	\$17,512,500	\$9,312,000	\$10,851,000	\$37,675,500
20	TMC	\$780,000		-	-	\$780,000
21	ITS O&M Staffing	\$180,000		\$270,000	\$270,000	\$720,000
22	ITS Elements	-		\$62,302,500	\$62,296,000	\$124,598,500
	Grand Total	\$18,472,500		\$71,884,500	\$73,417,000	\$163,774,000

Phase 1 (Option A): Cellular Modem Communications
 Phase 1 (Option B): Layer 3 Hub Communications
 Phase 2: Central Subareas
 Phase 3: Pheripheral Subareas

List of Subareas		# Deficient Signals	# of TS Comm Gap	# of TS Comm Repair Issue Signals	# Maintenance Locations	# of Conversion Signals	Total Signals
Area 1	Kearny Mesa/ Clairemont Mesa	72	18	54	1	30	102
Area 2	Pacific Beach/Mission Bay	71	29	42	1	11	82
Area 3	Mid City	50	30	20	1	129	179
Area 4	Mission Gorge/Navajo	33	20	13	0	2	35
Area 5	Tierrasanta/Murphy Canyon	30	30	0	1	0	30
Area 6	Carmel Valley	28	28	0	0	8	36
Area 7	Southeast San Diego	28	28	0	0	34	62
Area 8	Logan Heights/Barrio Logan	24	23	1	0	49	73
Area 9	Del Mar Heights	21	13	8	0	58	79
Area 10	San Ysidro	21	20	1	0	33	54
Area 11	Otay Mesa	19	19	0	0	14	33
Area 12	Mission Valley/Linda Vista	19	18	1	0	75	94
Area 13	Rancho Bernardo	14	2	12	1	47	61
Area 14	Mira Mesa	12	1	11	2	45	57
Area 15	Sorrento Valley	12	1	11	1	66	78
Area 16	La Jolla	12	10	2	1	67	79
Area 17	Airport/Point Loma	10	9	1	0	128	138
Area 18	Scripps Poway	8	8	0	0	68	76
Area 19	Central Business District	1	0	1	0	182	183
		485	307	178	9	1046	1531

NOTES

Subareas are broken into areas that are separated by community

TS Comm gap signals designate traffic signals that have no communication due to a gap that exists between the signal and existing interconnect infrastructure

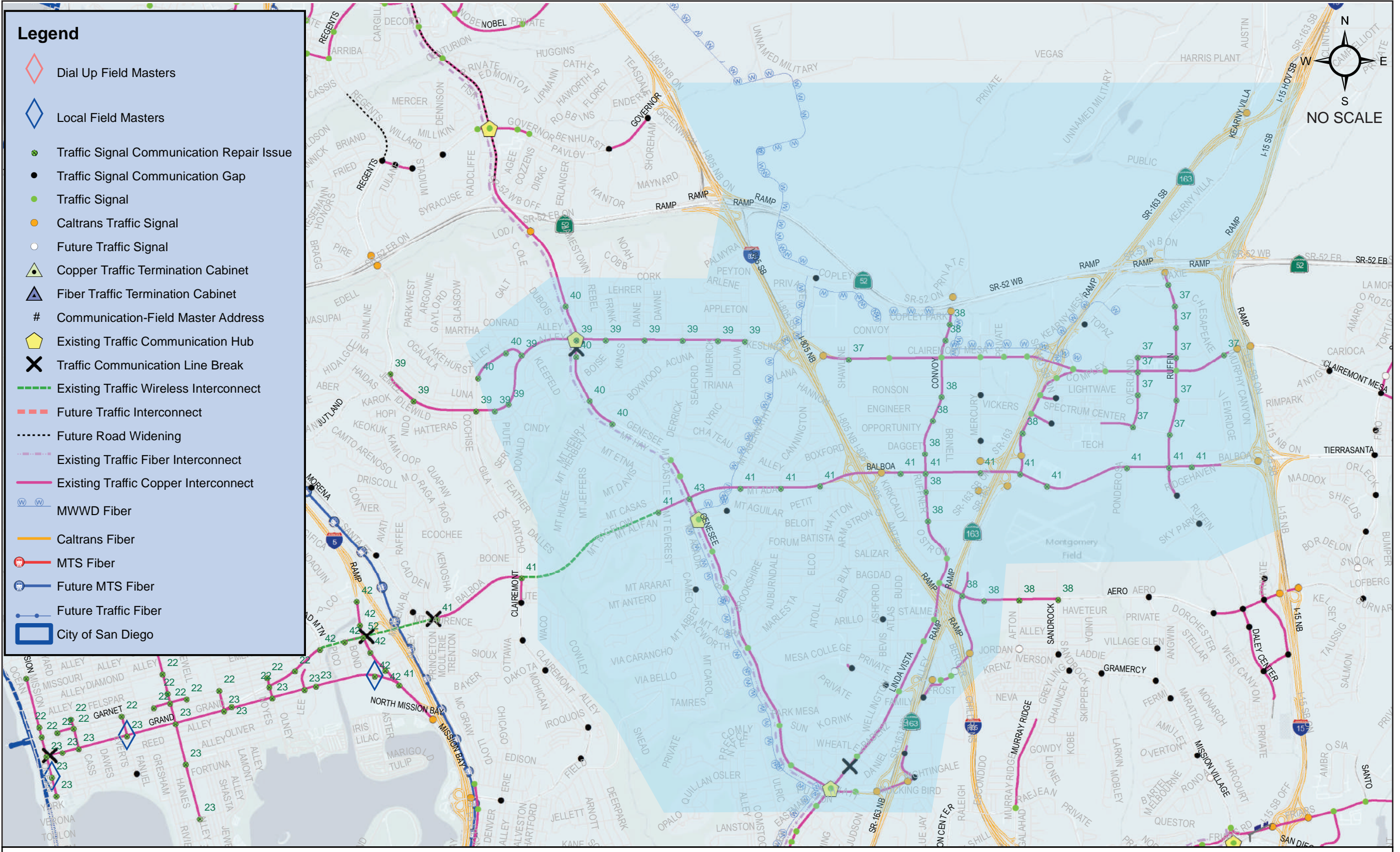
TS Comm Repair Issue signals designate traffic signals that currently have existing interconnect infrastructure but are not communicating due to repair issues

Maintenance locations designate areas requiring repairs or maintenance per information provided by City of San Diego staff

Conversion signals designate traffic signals that will require conversion to ethernet compatibility

SUBAREA 1

KEARNY MESA / CLAIREMONT MESA



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City of San Diego Traffic Signal Communications Master Plan Subarea 1: Clairemont/Kearny Mesa

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Clairemont/ Kearny Mesa (72 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	22	EA	\$5,000.00	\$110,000.00
2	Furnish and Install Dual Radio	6	EA	\$7,500.00	\$45,000.00
3	Furnish and Install Sectoral Antenna for Dual Radios	6	EA	\$2,000.00	\$12,000.00
4	Furnish and Install 170E Serial to Ethernet cards	72	EA	\$500.00	\$36,000.00
5	Furnish and Install VDSL Layer 2 Switch	54	EA	\$5,000.00	\$270,000.00
6	Furnish and Install Layer 2 Switch	18	EA	\$2,000.00	\$36,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	32,000	LF	\$10.00	\$320,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	3	EA	\$100,000.00	\$300,000.00
Option A Sub Total:					\$831,000.00
Soft Costs (25%):					\$207,750.00
Construction Contingency (25%):					\$207,750.00
Option A Total:					\$1,246,500.00
Option B Sub Total:					\$1,129,000.00
Soft Costs (25%):					\$282,250.00
Construction Contingency (25%):					\$282,250.00
Option B Total:					\$1,693,500.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Clairemont/ Kearny Mesa (30 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	30	EA	\$500.00	\$15,000.00
5	Furnish and Install VDSL Layer 2 Switch	30	EA	\$5,000.00	\$150,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	29,000	LF	\$10.00	\$290,000.00
8	Furnish and Install 12 SMFO Cable	600	LF	\$5.00	\$3,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	3	EA	\$100,000.00	\$300,000.00
Sub Total:					\$758,000.00
Soft Costs (25%):					\$189,500.00
Construction Contingency (25%):					\$189,500.00
Total:					\$1,137,000.00

AREA 1 - Kearny Mesa/Clairemont Mesa	
18 TS Communication Gap	
Number	Intersection
1	Aero Dr & Ruffin Rd
2	Ashford St & Beagle St
3	Copley Dr & Hickman Field Dr
4	Health Center Dr & Frost St
5	Health Center Dr & Starling Dr
6	Health Center Dr & Vista Hill Ave
7	Kearny Villa Rd & Topaz Way
8	Lightwave Ave & Sunroad Centrum Ln
9	Mercury St & Engineer Rd
10	Mercury St & Ronson Rd
11	Mesa College Dr & Armstrong St
12	Mesa College Dr & Ashford St
13	Mt Acadia Blvd & Mt Ararat Dr
14	Mt Alifan Dr & Mt Aguilar Dr
15	Murray Ridge Rd/Hammond Dr & Sandrock Rd
16	Ruffin Rd & Ridgehaven Ct
17	Ruffin Rd & Sky Park Ct
18	Spectrum Center Blvd & Sunroad Centrum Ln













54 TS Communication Repair Issue	
Number	Intersection
1	Aero Drive & Aero Court
2	Aero Drive & Afton Road
3	Aero Drive & Kearny Villa Road
4	Aero Drive & Sandrock Road
5	Balboa Avenue & Cannington Drive
6	Balboa Avenue & Charger Boulevard
7	Balboa Avenue & Convoy Street
8	Balboa Avenue & Genesee Avenue
9	Balboa Avenue & Kearny Villa Road
10	Balboa Avenue & Mercury Street
11	Balboa Avenue & Mt. Abernathy Avenue
12	Balboa Avenue & Mt. Everest Boulevard
13	Balboa Avenue & Pennisi Driveway
14	Balboa Avenue & Ponderosa Avenue
15	Balboa Avenue & Ruffin Road
16	Balboa Avenue & Shopping Center Driveway
17	Balboa Avenue & Viewridge Avenue
18	Chesapeake Drive & Ruffin Road
19	Clairemont Drive & Lakehurst Avenue
20	Clairemont Drive & Merrimac Avenue
21	Clairemont Mesa Boulevard & Burlington Driveway
22	Clairemont Mesa Boulevard & Clairemont Drive
23	Clairemont Mesa Boulevard & Diane Avenue
24	Clairemont Mesa Boulevard & Doliva Drive
25	Clairemont Mesa Boulevard & Frink Avenue
26	Clairemont Mesa Boulevard & Genesee Avenue
27	Clairemont Mesa Boulevard & Kleefeld Avenue
28	Clairemont Mesa Boulevard & Limerick Avenue
29	Clairemont Mesa Boulevard & Longford Street
30	Clairemont Mesa Boulevard & Luna Avenue
31	Clairemont Mesa Boulevard & Moraga Avenue
32	Clairemont Mesa Boulevard & Murphy Canyon Road
33	Clairemont Mesa Boulevard & Overland Avenue
34	Clairemont Mesa Boulevard & Rolfe Road
35	Clairemont Mesa Boulevard & Shawline Street
36	Convoy Street & Armour Street
37	Convoy Street & Convoy Court
38	Convoy Street & Copley Park Place
39	Convoy Street & Dagget Street
40	Convoy Street & Engineer Road
41	Convoy Street & Othello Avenue
42	Convoy Street & Ronson Road
43	Genesee Avenue & Appleton Street
44	Genesee Avenue & Chateau Drive
45	Genesee Avenue & Mount Herbert
46	Genesee Avenue & Bannock Avenue
47	Lightwave Avenue & Overland Avenue
48	Overland Avenue & Farnham Street
49	Ruffin Rd & Waxie Wy
50	Ruffin Road & Farnham Street
51	Ruffin Road & Hazard Way
52	Ruffin Road & Ruffin Court
53	Ruffin Road & Spectrum Center Boulevard
54	Spectrum Center Boulevard & Overland Avenue

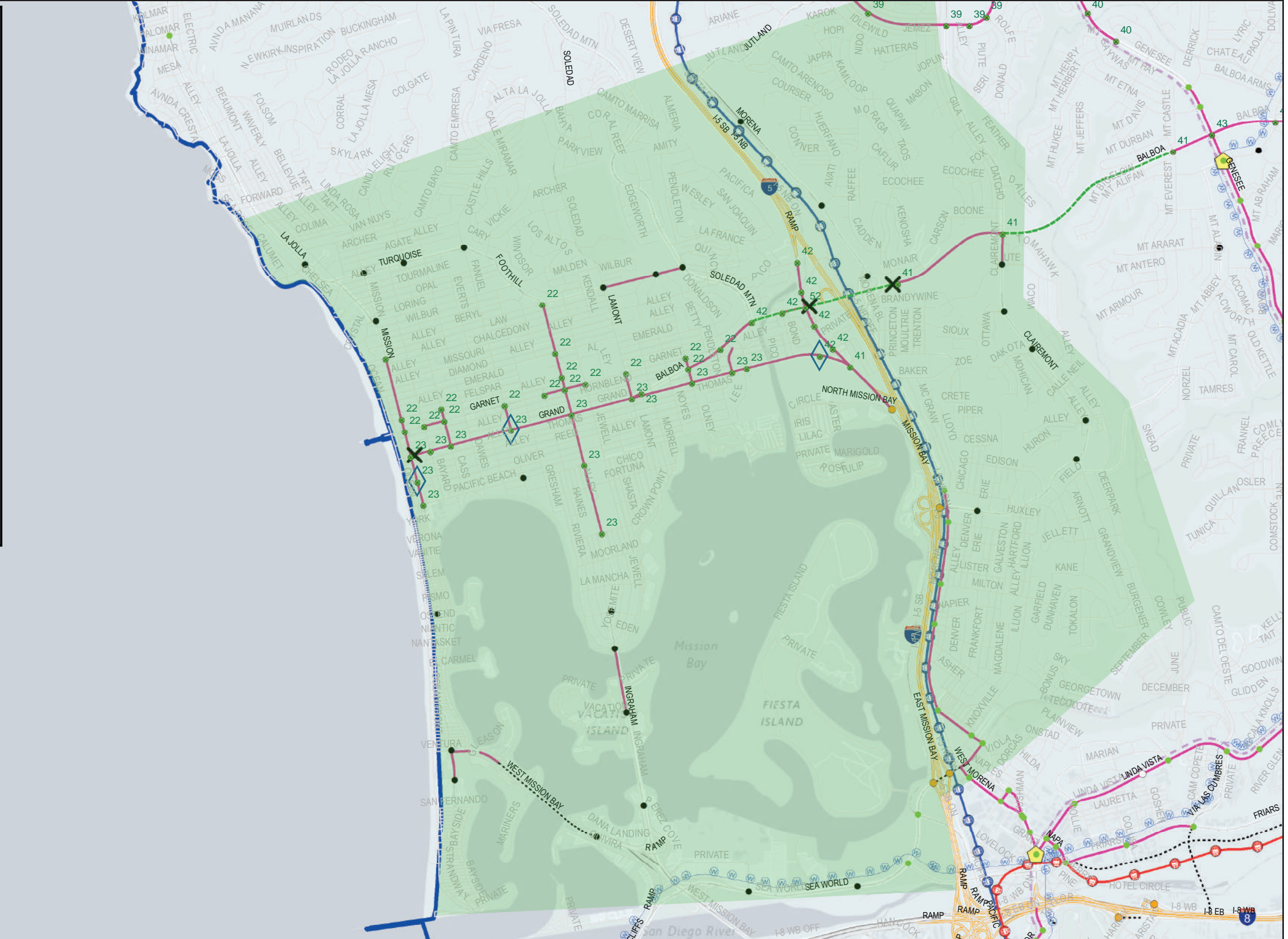
1 Maintenance Location	
Number	Intersection
1	Genesee Ave & Manitou St
Maintenance Summary	
Old but working; Linda Vista needs to be updated, goes from 6 pairs to 25 pairs; Damaged conduit on the west side of street at Genesee Ave & Manitou St	
30 Conversion Signals	
Number	Intersection
1	Aero Drive & Convoy Street
2	Clairemont Mesa Boulevard & Complex Drive
3	Clairemont Mesa Boulevard & Convoy Street
4	Clairemont Mesa Boulevard & Kearny Mesa Road
5	Clairemont Mesa Boulevard & Kearny Park
6	Clairemont Mesa Boulevard & Kearny Villa Road
7	Clairemont Mesa Boulevard & Mercury Street
8	Clairemont Mesa Boulevard & Ruffin Road
9	Clairemont Mesa Boulevard & Ruffner Street
10	Convoy Street & Ostrow Street
11	Frazer Road & Shop Center (W)
12	Genesee Avenue & Boyd Avenue
13	Genesee Avenue & Derrick Drive
14	Genesee Avenue & Genesee Courte
15	Genesee Avenue & Marlesta Drive
16	Genesee Avenue & Mount Alifan
17	Genesee Avenue & Mount Etna Drive
18	Genesee Avenue & Osler Street
19	Genesee Avenue & Park Mesa Way
20	Genesee Avenue & Richland Street
21	Kearny Villa Road & Kearny Villa Way
22	Kearny Villa Road & Lightwave Avenue
23	Kearny Villa Road & Spectrum Center Boulevard
24	Linda Vista Road & Baltic Street
25	Linda Vista Road & Genesee Avenue
26	Linda Vista Road & Mesa College Drive
27	Linda Vista Road & Stalmer Street
28	Linda Vista Road & Wheatley Street
29	Mesa College Drive & Berger Avenue
30	Mesa College Drive & Health Center Drive

SUBAREA 2

PACIFIC BEACH / MISSION BAY

Legend

-  Dial Up Field Masters
-  Local Field Masters
-  Traffic Signal Communication Repair Issue
-  Traffic Signal Communication Gap
-  Traffic Signal
-  Caltrans Traffic Signal
-  Communication-Field Master Address
-  Existing Traffic Communication Hub
-  Traffic Communication Line Break
-  Existing Traffic Wireless Interconnect
-  Future Traffic Interconnect
-  Future Road Widening
-  Existing Traffic Fiber Interconnect
-  Existing Traffic Copper Interconnect
-  MWWF Fiber
-  Caltrans Fiber
-  Future MTS Fiber
-  City of San Diego



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City of San Diego Traffic Signal Communications Master Plan Subarea 1: Pacific Beach/Mission Bay

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Pacific Beach/Mission Bay (71 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	24	EA	\$5,000.00	\$120,000.00
2	Furnish and Install Dual Radio	21	EA	\$7,500.00	\$157,500.00
3	Furnish and Install Sectoral Antenna for Dual Radios	21	EA	\$2,000.00	\$42,000.00
4	Furnish and Install 170E Serial to Ethernet cards	71	EA	\$500.00	\$35,500.00
5	Furnish and Install VDSL Layer 2 Switch	42	EA	\$5,000.00	\$210,000.00
6	Furnish and Install Layer 2 Switch	29	EA	\$2,000.00	\$58,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	35,000	LF	\$10.00	\$350,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	0	EA	\$100,000.00	\$0.00
Sub Total:					\$975,000.00
Soft Costs (25%):					\$243,750.00
Construction Contingency (25%):					\$243,750.00
Total:					\$1,462,500.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Pacific Beach/ Mission Bay (11 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	11	EA	\$500.00	\$5,500.00
5	Furnish and Install VDSL Layer 2 Switch	11	EA	\$5,000.00	\$55,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	0	EA	\$100,000.00	\$0.00
Sub Total:					\$60,500.00
Soft Costs (25%):					\$15,125.00
Construction Contingency (25%):					\$15,125.00
Total:					\$90,750.00
























AREA 2 - Pacific Beach/Mission Bay	
29 TS Communication Gap	
Number	Intersection
1	Beryl St & Lamont St
2	Beryl St & Noyes St
3	Cardeno Dr & Turquoise St/Foothill Blvd
4	Clairemont Dr & Burgener Blvd
5	Clairemont Dr & Dakota Dr
6	Clairemont Dr & Denver St
7	Clairemont Dr & Iroquois Ave
8	Clairemont Dr & Rappahannock Ave
9	Clairemont Dr & Ute Dr
10	Ingraham Dr & Riviera Dr/Crown Pt Dr
11	Ingraham St & Crown Point Dr
12	Ingraham St & Perez Cove Wy
13	Ingraham St & Vacation Rd
14	La Jolla Blvd & Sea Ridge Dr
15	La Jolla Mesa Dr & Turquoise St
16	Mission Blvd & Loring St
17	Mission Blvd & Santa Clara Pl
18	Mission Blvd & Ventura Pl/West Mission Bay Dr
19	Mission Blvd/Private Drwy
20	Morena Blvd & Avati Dr
21	Morena Blvd & Balboa Ave Ramp
22	Morena Blvd & Costco Drwy
23	Pacific Beach Dr & Fanuel St
24	Sea World Dr & Sea World Way
25	Sea World Dr & Shores Park
26	Soledad Mountain Rd & Ridgeway Row
27	Soledad Mtn Rd & Beryl St
28	Turquoise St & Cass St
29	West Mission Bay Dr & Quivira Access

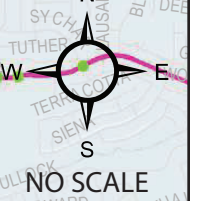
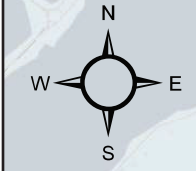
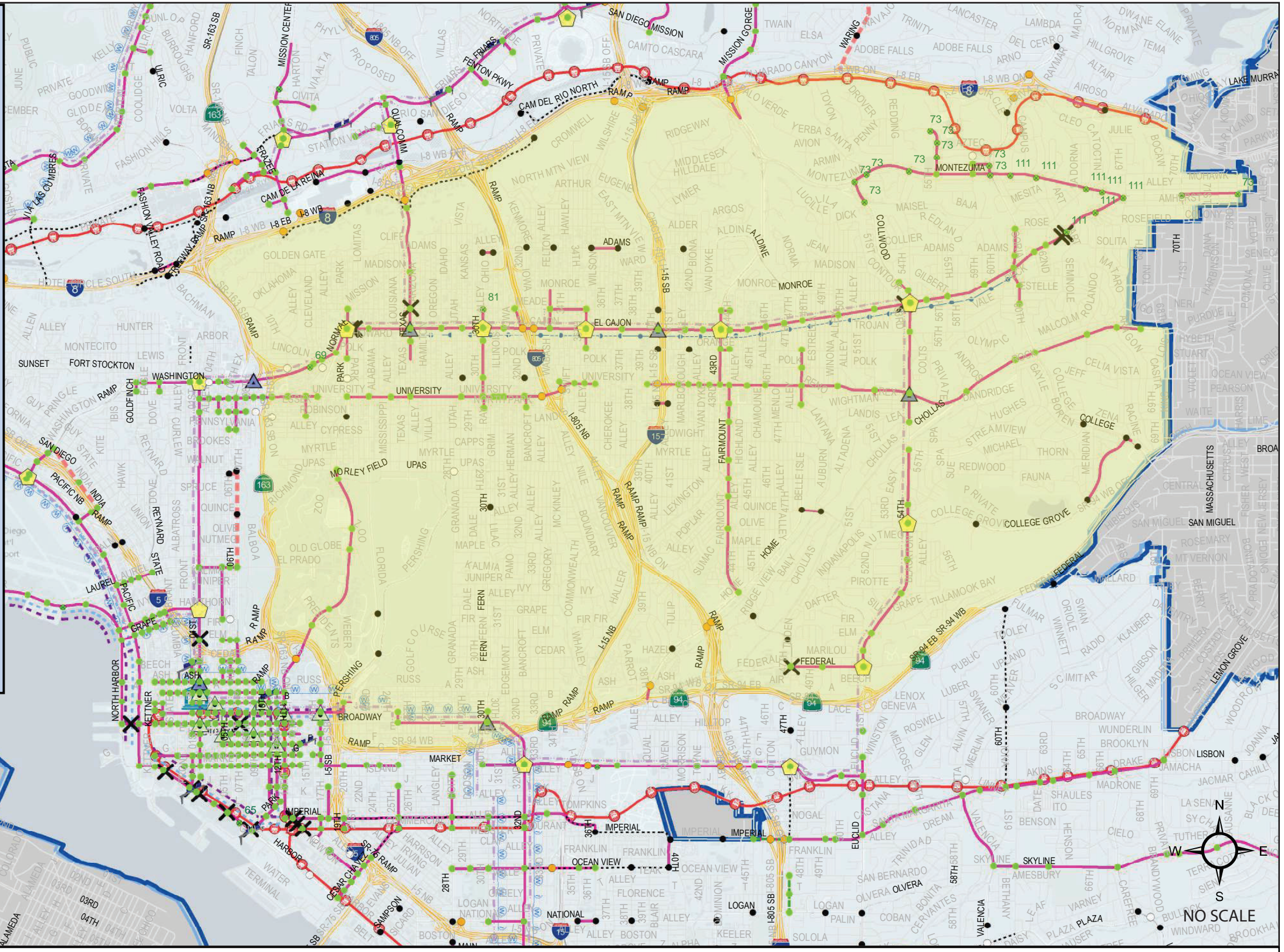
42 TS Communication Repair Issue	
Number	Intersection
1	Balboa Avenue & Clairemont Drive
2	Balboa Avenue & Moraga Avenue
3	Balboa Avenue & Olney Street
4	Beryl Street & Ingraham Street
5	Cass Street & Felspar Street
6	Cass Street & Garnet Avenue
7	Garnet Avenue & Balboa Avenue
8	Garnet Avenue & Bayard Street
9	Garnet Avenue & Bond Street
10	Garnet Avenue & Fanuel Street
11	Garnet Avenue & Haines Street
12	Garnet Avenue & Ingraham Street
13	Garnet Avenue & Jewell Street
14	Garnet Avenue & Lamont Street
15	Garnet Avenue & Mission Boulevard
16	Garnet Avenue & Olney Street
17	Garnet Avenue & Soledad Mountain Road
18	Grand Avenue & Balboa Avenue
19	Grand Avenue & Bayard Street
20	Grand Avenue & Cass Street
21	Grand Avenue & Culver Street
22	Grand Avenue & Fanuel Street
23	Grand Avenue & Figueroa Boulevard
24	Grand Avenue & Ingraham Street
25	Grand Avenue & Lamont Street
26	Grand Avenue & Lee Street
27	Grand Avenue & Mission Boulevard
28	Grand Avenue & Olney Street
29	Ingraham Street & Diamond Street
30	Ingraham Street & Felspar Street
31	Ingraham Street & La Playa Avenue
32	Mission Bay Drive & Bluffside Avenue
33	Mission Bay Drive & Bunker Hill Street
34	Mission Bay Drive & Damon Avenue
35	Mission Bay Drive & Garnet Street
36	Mission Bay Drive & Grand Avenue
37	Mission Bay Drive & Magnolia Avenue
38	Mission Blvd & Law St
39	Mission Boulevard & Felspar Street
40	Mission Boulevard & Pacific Beach Drive
41	Mission Boulevard & Reed Avenue
42	Pacific Beach Drive & Ingraham Street

2 Maintenance Locations	
Number	Intersection
1	Balboa Ave & Moraga Ave
2	Mission Blvd & Grand Ave
Maintenance Summary	
Balboa Ave & Moraga Ave the wireless never worked; Copper IC damaged at Mission Blvd & Grand Ave; Radio at Balboa & Mt Everest repeats to Balboa & Clairemont Dr, Issue runs to Massion Bay & Garnet; Questionable Wiring; 3 Masters but only needs 2; Rearrange Pairs; Fiber optic ends at Clairemont Mesa & Genesee; Ethernet to Serial	
11 Conversion Signals	
Number	Intersection
1	Friars Road & Sea World Drive
2	Morena Boulevard & Ashton Street
3	Morena Boulevard & Gesner Street
4	Morena Boulevard & Ingulf Street
5	Morena Boulevard & Knoxville Street
6	Morena Boulevard & Milton Street
7	Morena Boulevard & Tecolote Road
8	Morena Boulevard & W. Morena Boulevard
9	Morena Boulevard & W. Morena Boulevard (N)
10	Pacific Highway & Sea World Drive
11	W. Morena Boulevard & Vega Street

SUBAREA 3

MID CITY

- Legend**
-  Dial Up Field Masters
 -  Local Field Masters
 -  Traffic Signal Communication Repair Issue
 -  Traffic Signal Communication Gap
 -  Traffic Signal
 -  Caltrans Traffic Signal
 -  Future Traffic Signal
 -  Copper Traffic Termination Cabinet
 -  Fiber Traffic Termination Cabinet
 -  Communication-Field Master Address
 -  Existing Traffic Communication Hub
 -  Traffic Communication Line Break
 -  Existing Traffic Wireless Interconnect
 -  Future Traffic Interconnect
 -  Future Road Widening
 -  Existing Traffic Fiber Interconnect
 -  Existing Traffic Copper Interconnect
 -  MWWF Fiber
 -  Police Department Fiber
 -  Caltrans Fiber
 -  MTS Fiber
 -  Future MTS Fiber
 -  City of San Diego



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City of San Diego Traffic Signal Communications Master Plan Subarea 3: Mid City

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Mid City (50 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	30	EA	\$5,000.00	\$150,000.00
2	Furnish and Install Dual Radio	20	EA	\$7,500.00	\$150,000.00
3	Furnish and Install Sectoral Antenna for Dual Radios	20	EA	\$2,000.00	\$40,000.00
4	Furnish and Install 170E Serial to Ethernet cards	50	EA	\$500.00	\$25,000.00
5	Furnish and Install VDSL Layer 2 Switch	20	EA	\$5,000.00	\$100,000.00
6	Furnish and Install Layer 2 Switch	30	EA	\$2,000.00	\$60,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	45,000	LF	\$10.00	\$450,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	7	EA	\$100,000.00	\$700,000.00
Option A Sub Total:					\$977,000.00
Soft Costs (25%):					\$244,250.00
Construction Contingency (25%):					\$244,250.00
Option A Total:					\$1,465,500.00
Option B Sub Total:					\$1,675,000.00
Soft Costs (25%):					\$418,750.00
Construction Contingency (25%):					\$418,750.00
Option B Total:					\$2,512,500.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Mid City (129 Signals)
Scenario: TSCMP Phase 2
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	129	EA	\$500.00	\$64,500.00
5	Furnish and Install VDSL Layer 2 Switch	129	EA	\$5,000.00	\$645,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	65,000	LF	\$10.00	\$650,000.00
8	Furnish and Install 12 SMFO Cable	1,400	LF	\$5.00	\$7,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	7	EA	\$100,000.00	\$700,000.00
Sub Total:					\$2,066,500.00
Soft Costs (25%):					\$516,625.00
Construction Contingency (25%):					\$516,625.00
Total:					\$3,099,750.00

AREA 3 - Mid City	
30 TS Communication Gap	
Number	Intersection
1	Adams Ave & 30th St
2	Adams Ave & 32nd St
3	Adams Ave & 35th St
4	Adams Ave & Cherokee Ave
5	Adams Ave & Felton St
6	Adams Ave & Marlborough Dr
7	Adams Ave & Ohio St
8	College Ave & Billman St/Streamview Dr
9	College Ave & Canyon Crest Dr
10	College Ave & College Grove Dr
11	College Ave & Judy McCarty Wy
12	College Grove Dr & Caminito Chollas
13	College Grove Dr & College Grove Wy
14	Euclid Ave & Altadena Ave/Ridgeview Dr
15	Euclid Ave & Home Ave
16	Fairmont Ave & 47th St
17	Fairmount Ave & Ridge View Dr
18	Florida Dr & Bob Wilson Dr
19	Home Ave & Gateway Dr
20	Lincoln Ave & 32nd St
21	Lincoln Ave & Utah St
22	Meade Ave & 40th St
23	Orange Ave & 40th St
24	Orange Ave & Marlborough Ave
25	Pershing Dr & Florida Dr/26th St
26	Redwood St & 30th St
27	Reservoir Dr & Alvarado Rd
28	Robinson Ave & Park Blvd
29	Wightman St & 40th St
30	Wightman St & Central Ave

20 TS Communication Repair Issue	
Number	Intersection
1	30th Street & Meade Avenue
2	55th Street & Hardy Avenue
3	55th Street & Remington Road
4	55th Street & SDSU Activity Center
5	College Avenue & Lindo Paseo
6	Collwood Boulevard & Collwood Way
7	El Cajon Blvd & 70th St
8	El Cajon Boulevard & 73rd Street
9	El Cajon Boulevard & Art Street
10	El Cajon Boulevard & Montezuma Road
11	El Cajon Boulevard & Rolando Boulevard
12	Montezuma Road & 54th Street
13	Montezuma Road & 63rd Street
14	Montezuma Road & Catocin Drive
15	Montezuma Road & College Avenue
16	Montezuma Road & Collwood Boulevard
17	Montezuma Road & East Campus Drive
18	Montezuma Road & Reservoir Drive
19	Montezuma Road & Yerba Santa Drive
20	Washington Street & Richmond Street
1 Maintenance Locations	
Art St & El Cajon Blvd	
Maintenance Summary	
Between Art St & El Cajon and Choctaw & El Cajon there is damaged conduit resulting in 20-25 signals offline; Copper is duppled up; Upgrade; El Cajon Blvd has rotted metal pipe, fiber optic hit and should be replaced, cable kinked badly in many places	

129 Conversion Signals	
Number	Intersection
1	10th Avenue & University Avenue
2	30th Avenue & University Avenue
3	32nd Street & University Avenue
4	33rd Street & Meade Avenue
5	35th Street & Meade Avenue
6	35th Street & University Avenue
7	39th Street & University Avenue
8	41st Street & University Avenue
9	42nd Street & University Avenue
10	43rd Street & Meade Avenue
11	43rd Street & University Avenue
12	47th Street & Federal Boulevard
13	49th Street & Federal Boulevard
14	52nd Street & University Avenue
15	54th Street & Biloxi Street
16	54th Street & College Grove Drive
17	54th Street & Euclid Avenue
18	54th Street & Lea Street
19	54th Street & Pirotte Drive
20	54th Street & Redwood Street
21	54th Street & Streamview Drive
22	54th Street & University Avenue
23	54th Street & Westover Place
24	58th Street & University Avenue
25	60th Street & University Avenue
26	Adams Avenue & College Avenue
27	Broadway & 25th Avenue
28	Broadway & 30th Avenue
29	C Street & 25th Avenue
30	C Street & 30th Avenue
31	Campanile Drive & Lindo Paseo Road
32	College Avenue & Acorn Street
33	College Avenue & Adelaide Avenue
34	College Avenue & Arosa Street
35	Collwood Boulevard & 54th Street
36	Collwood Boulevard & Monroe Avenue
37	El Cajon Boulevard & 30th Street
38	El Cajon Boulevard & 33rd Street
39	El Cajon Boulevard & 35th Street
40	El Cajon Boulevard & 37th Street
41	El Cajon Boulevard & 40th Street (Caltrans)
42	El Cajon Boulevard & 43rd Street
43	El Cajon Boulevard & 52nd Street
44	El Cajon Boulevard & 54th Street
45	El Cajon Boulevard & 56th Street
























129 Conversion Signals Contd.	
46	El Cajon Boulevard & 59th Street
47	El Cajon Boulevard & 62nd Street
48	El Cajon Boulevard & 63rd Street
49	El Cajon Boulevard & Chamoune Avenue
50	El Cajon Boulevard & College Avenue
51	El Cajon Boulevard & Copeland Avenue
52	El Cajon Boulevard & Dayton Street
53	El Cajon Boulevard & Euclid Avenue
54	El Cajon Boulevard & Fairmount Avenue
55	El Cajon Boulevard & Florida Street
56	El Cajon Boulevard & Highland Avenue
57	El Cajon Boulevard & Illinois Street
58	El Cajon Boulevard & Marlborough Avenue
59	El Cajon Boulevard & Menlo Avenue
60	El Cajon Boulevard & Oregon Street
61	El Cajon Boulevard & Park Boulevard
62	El Cajon Boulevard & Texas Street
63	El Cajon Boulevard & Utah Street
64	El Cajon Boulevard & Winona Avenue
65	Euclid Avenue & Federal Boulevard
66	Euclid Avenue & Orange Avenue
67	Euclid Avenue & Polk Avenue
68	Euclid Avenue & Wightman Street
69	Fairmount Avenue & Home Avenue
70	Fairmount Avenue & Landis Street
71	Fairmount Avenue & Myrtle Avenue
72	Fairmount Avenue & Olive Street
73	Fairmount Avenue & Redwood Street
74	Fairmount Avenue & Thorn Street
75	Fairmount Avenue & Wightman Street
76	Howard Avenue & 30th Street
77	Howard Avenue & Texas Street
78	Lincoln Avenue & 30th Street
79	Lincoln Avenue & Wabash Avenue
80	Lincoln Avenue & Wabash Street
81	Madison Avenue & Texas Street
82	Meade Avenue & Fairmount Avenue
83	Meade Avenue & Iowa Street
84	Meade Avenue & Park Boulevard
85	Meade Avenue & Texas Street
86	Montezuma Rd & 55th Street
87	Montezuma Road & Campanile Drive
88	North Park Way & 30th Street
89	North Park Way & 32nd Street
90	Orange Avenue & 35th Street
91	Orange Avenue & 43rd Street

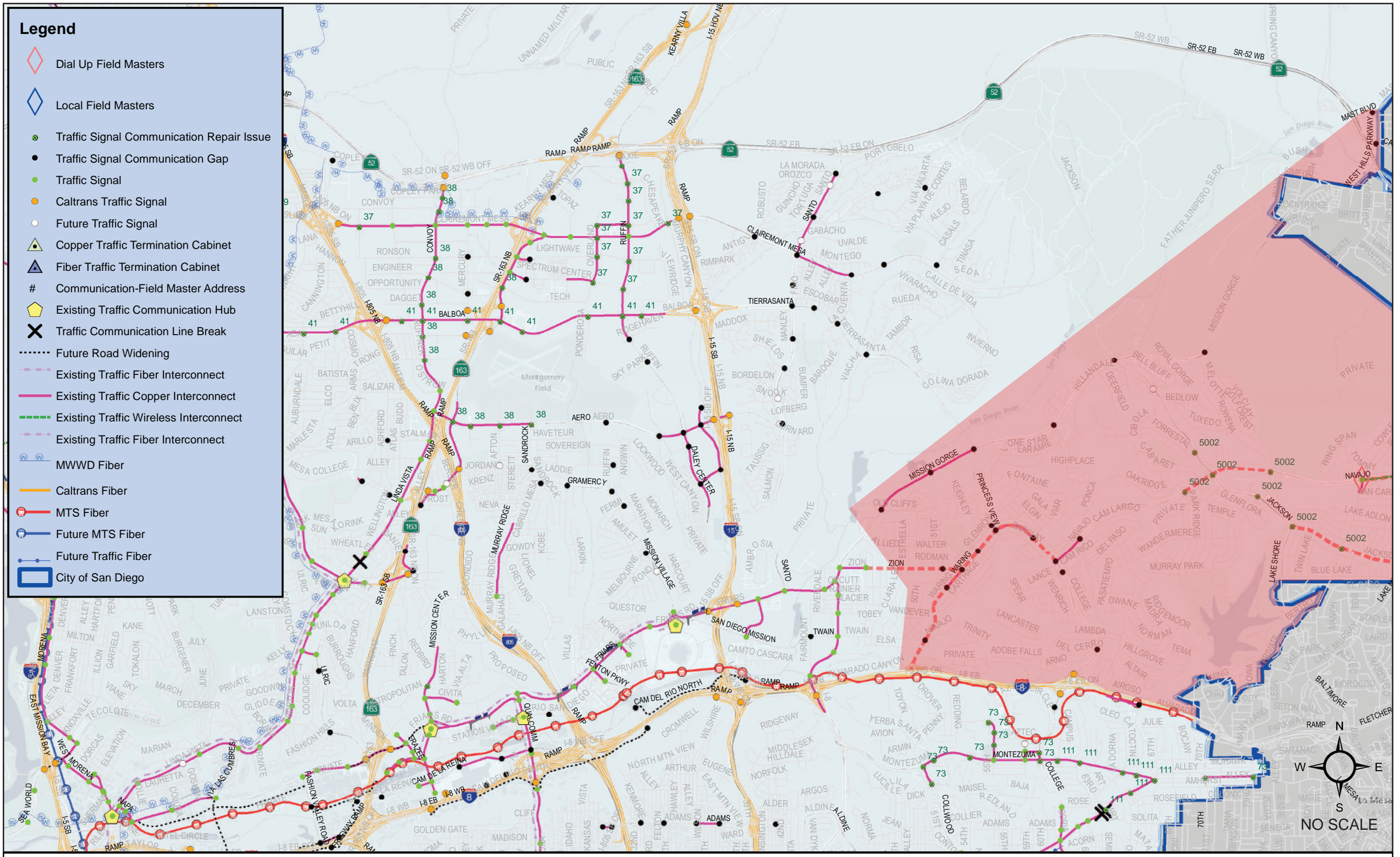
129 Conversion Signals Contd.	
92	Orange Avenue & Fairmount Avenue
93	Park Boulevard & Inspiration Point
94	Park Boulevard & Morley Field Drive
95	Park Boulevard & Polk Avenue
96	Park Boulevard & Presidents Way
97	Park Boulevard & Upas Street
98	Park Boulevard & Village Place
99	Park Boulevard & Zoo Place
100	Robinson Avenue & Richmond Street
101	Texas Street & Camino Del Rio South
102	Trojan Avenue & 54th Street
103	University Avenue & Aragon Drive
104	University Avenue & Chamoune Avenue
105	University Avenue & College Avenue
106	University Avenue & Euclid Avenue
107	University Avenue & Fairmount Avenue
108	University Avenue & Florida Street
109	University Avenue & Grim Avenue
110	University Avenue & Highland Avenue
111	University Avenue & Illinois Street
112	University Avenue & Marlborough Avenue
113	University Avenue & Mississippi Street
114	University Avenue & Normal Street
115	University Avenue & Ohio Street
116	University Avenue & Park Boulevard
117	University Avenue & Richmond Street
118	University Avenue & Rolando Boulevard
119	University Avenue & Salvation Army Driveway
120	University Avenue & Swift Avenue
121	University Avenue & Texas Street
122	University Avenue & Utah Street
123	University Avenue & Van Dyke Avenue
124	University Avenue & Vermont Street
125	University Avenue & Wilson Avenue
126	University Avenue & Winona Avenue
127	Washington Street & Campus Avenue
128	Washington Street & Cleveland Avenue
129	Washington Street & Lincoln Avenue

SUBAREA 4

MISSION GORGE/ NAVAJO

Legend

-  Dial Up Field Masters
-  Local Field Masters
-  Traffic Signal Communication Repair Issue
-  Traffic Signal Communication Gap
-  Traffic Signal
-  Caltrans Traffic Signal
-  Future Traffic Signal
-  Copper Traffic Termination Cabinet
-  Fiber Traffic Termination Cabinet
-  Communication-Field Master Address
-  Existing Traffic Communication Hub
-  Traffic Communication Line Break
-  Future Road Widening
-  Existing Traffic Fiber Interconnect
-  Existing Traffic Copper Interconnect
-  Existing Traffic Wireless Interconnect
-  Existing Traffic Fiber Interconnect
-  MWWF Fiber
-  Caltrans Fiber
-  MTS Fiber
-  Future MTS Fiber
-  Future Traffic Fiber
-  City of San Diego



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City of San Diego Traffic Signal Communications Master Plan Subarea 4: Mission Gorge/Navajo

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Mission Gorge/Navajo (33 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	8	EA	\$5,000.00	\$40,000.00
2	Furnish and Install Dual Radio	28	EA	\$7,500.00	\$210,000.00
3	Furnish and Install Sectoral Antenna for Dual Radios	28	EA	\$2,000.00	\$56,000.00
4	Furnish and Install 170E Serial to Ethernet cards	35	EA	\$500.00	\$17,500.00
5	Furnish and Install VDSL Layer 2 Switch	22	EA	\$5,000.00	\$110,000.00
6	Furnish and Install Layer 2 Switch	13	EA	\$2,000.00	\$26,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	5,000	LF	\$10.00	\$50,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	0	EA	\$100,000.00	\$0.00
Sub Total:					\$511,500.00
Soft Costs (25%):					\$127,875.00
Construction Contingency (25%):					\$127,875.00
Total:					\$767,250.00

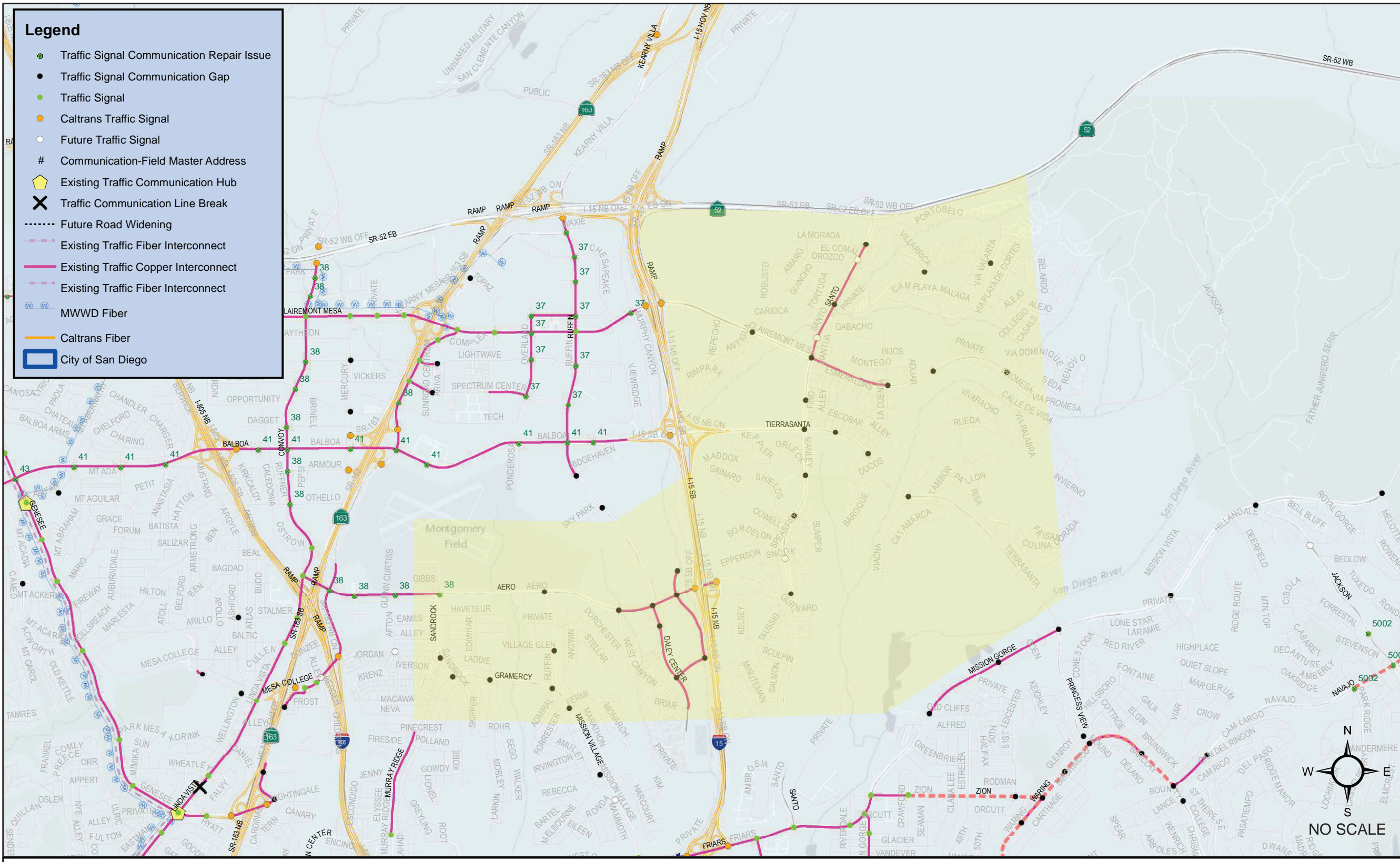
AREA 4 - Mission Gorge/Navajo	
20 TS Communication Gap	
Number	Intersection
1	Carlton Oaks Dr & W Hills Pkwy
2	College Ave & Del Cerro Blvd
3	College Ave & Lance St/Camino Rico
4	College Ave & Navajo Rd
5	Mast Blvd & Sycamore Landfill
6	Mission Gorge Rd & Golfcrest Dr
7	Mission Gorge Rd & Jackson Dr
8	Mission Gorge Rd & Katelyn Ct
9	Mission Gorge Rd & Margerum Ave
10	Mission Gorge Rd & Old Cliffs Rd
11	Mission Gorge Rd & Princess View Dr
12	Navajo Rd & Margerum Ave/Camino Estrellado
13	Princess View Dr & Glenroy St
14	Waring Rd & Adobe Falls
15	Waring Rd & Eldridge St
16	Waring Rd & Greenbrier Ave
17	Waring Rd & Orcutt Ave
18	Waring Rd & Princess View Dr/Mound Ave
19	Waring Rd & Zion Ave
20	Zion Ave & 51st St
13 TS Communication Repair Issue	
Number	Intersection
1	Jackson Drive & Cowles Mountain Boulevard
2	Jackson Drive & Golfcrest Drive
3	Jackson Drive & Lake Murray Boulevard
4	Jackson Drive & Lake Shore Drive
5	Jackson Drive & Park Ridge
6	Lake Murray Boulevard & San Carlos Boulevard
7	Lake Murray Boulevard & Turnbridge Way
8	Navajo Road & Bisby Lake Avenue
9	Navajo Road & Boulder Lake Avenue
10	Navajo Road & Golfcrest Drive
11	Navajo Road & Jackson Drive
12	Navajo Road & Lake Murray Boulevard
13	Navajo Road & Park Ridge Boulevard
0 Maintenance Locations	
Maintenance Summary	
At Cowles Mountain Blvd & Navajo Rd: all wireless	
2 Conversion Signals	
Number	Intersection
1	Mission Gorge Road & Mission Gorge Place
2	Navajo Road & Cowles Mountain Boulevard

SUBAREA 5

TIERRASANTA/ MURPHY CANYON

Legend

- Traffic Signal Communication Repair Issue
- Traffic Signal Communication Gap
- Traffic Signal
- Caltrans Traffic Signal
- Future Traffic Signal
- Communication-Field Master Address
- Existing Traffic Communication Hub
- Traffic Communication Line Break
- Future Road Widening
- Existing Traffic Fiber Interconnect
- Existing Traffic Copper Interconnect
- Existing Traffic Fiber Interconnect
- MWWF Fiber
- Caltrans Fiber
- City of San Diego



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City of San Diego Traffic Signal Communications Master Plan Subarea 5: Tierrasanta

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

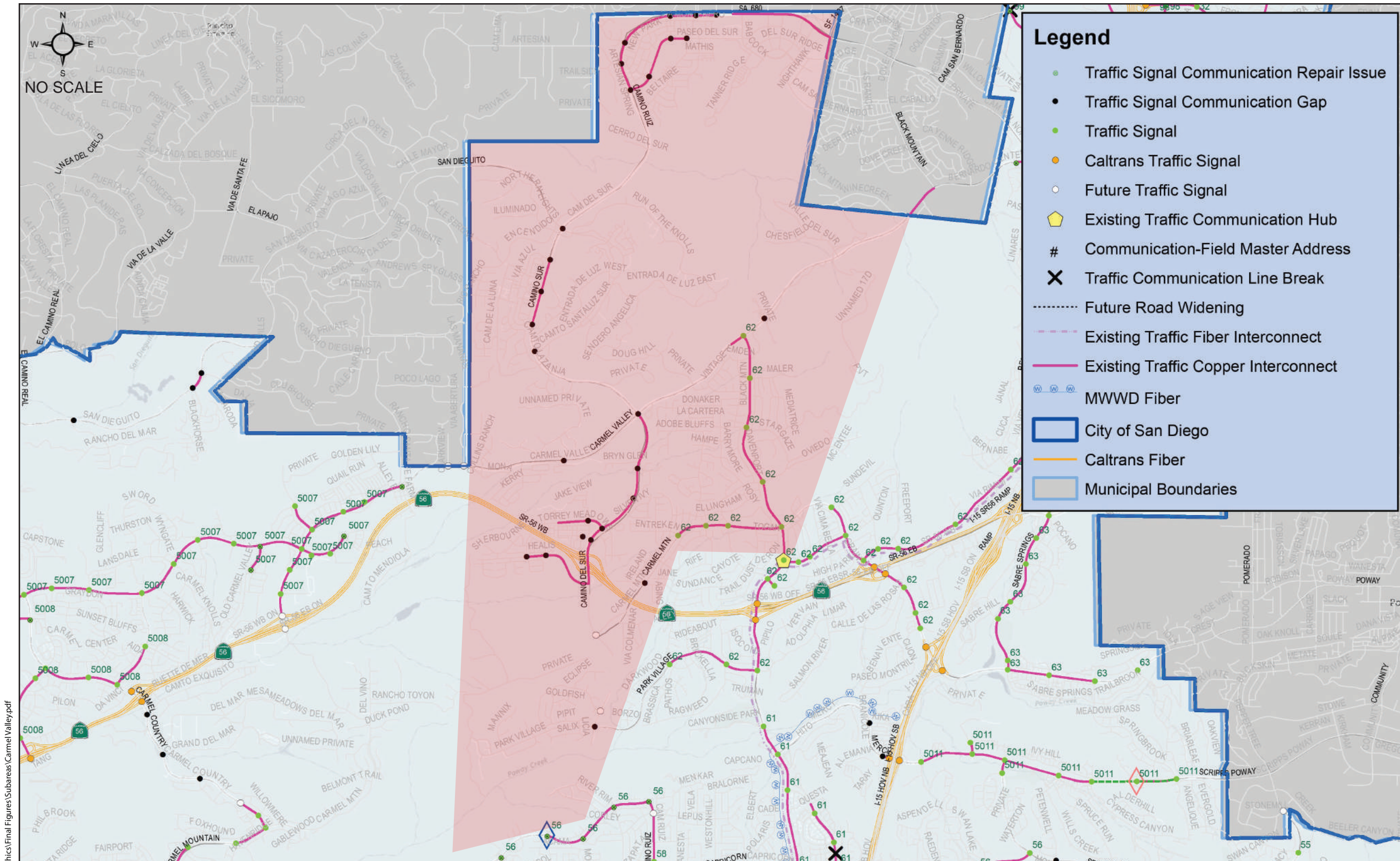
Subarea: Tierrasanta/Murphy Canyon (30 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	15	EA	\$5,000.00	\$75,000.00
2	Furnish and Install Dual Radio	15	EA	\$7,500.00	\$112,500.00
3	Furnish and Install Sectoral Antenna for Dual Radios	15	EA	\$2,000.00	\$30,000.00
4	Furnish and Install 170E Serial to Ethernet cards	30	EA	\$500.00	\$15,000.00
5	Furnish and Install VDSL Layer 2 Switch	0	EA	\$5,000.00	\$0.00
6	Furnish and Install Layer 2 Switch	30	EA	\$2,000.00	\$60,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	0	EA	\$100,000.00	\$0.00
Sub Total:					\$294,500.00
Soft Costs (25%):					\$73,625.00
Construction Contingency (25%):					\$73,625.00
Total:					\$441,750.00

AREA 5 - Tierrasanta/Murphy Canyon	
30 TS Communication Gap	
Number	Intersection
1	Aero Dr & Canyon Ave
2	Aero Dr & Murphy Canyon Rd
3	Aero Dr & Ruffin Rd/Daley Center Dr
4	Antigua Blvd & Santo Rd
5	Antigua Blvd & Via Valarta
6	Antigua Blvd & Villarrica Wy
7	Clairemont Mesa Blvd & Antigua Blvd
8	Clairemont Mesa Blvd & Deportola School Drwy
9	Clairemont Mesa Blvd & La Cuenta Dr
10	Clairemont Mesa Blvd & Via Valarta
11	Daley Center Dr & Granite Ridge Dr
12	Gramercy Dr & Mobley St
13	Gramercy Dr & Ruffin Rd
14	Mission Village Dr & Fermi Ave
15	Mission Village Dr & Shawn Ave
16	Murphy Canyon Rd & Daley Square
17	Murphy Canyon Rd & Stonecrest Blvd
18	Ruffin Rd & Village Glen Dr
19	Sandrock Rd & Greyling Dr/Gramercy Dr
20	Santo Rd & Aero Dr
21	Santo Rd & Clairemont Mesa Blvd
22	Santo Rd & Orleck St
23	Santo Rd & Porto Ct
24	Santo Rd & Portobelo Dr
25	Santo Rd & Shields St
26	Stonecrest Blvd & Daley Center Dr
27	Tierrasanta Blvd & Esplendente Blvd
28	Tierrasanta Blvd & La Cuenta Dr
29	Tierrasanta Blvd & Rueda Dr
30	Tierrasanta Blvd & Santo Rd
0 TS Communication Repair Issue	
Maintenance Summary	
Broken interconnect; lacks interconnect resulting in many traffic signals with no communication	
0 Conversion Signals	

SUBAREA 6

CARMEL VALLEY



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City of San Diego Traffic Signal Communications Master Plan Subarea 6: Carmel Valley

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Carmel Valley (28 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	15	EA	\$5,000.00	\$75,000.00
2	Furnish and Install Dual Radio	13	EA	\$7,500.00	\$97,500.00
3	Furnish and Install Sectoral Antenna for Dual Radios	13	EA	\$2,000.00	\$26,000.00
4	Furnish and Install 170E Serial to Ethernet cards	28	EA	\$500.00	\$14,000.00
5	Furnish and Install VDSL Layer 2 Switch	0	EA	\$5,000.00	\$0.00
6	Furnish and Install Layer 2 Switch	28	EA	\$2,000.00	\$56,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	8,000	LF	\$10.00	\$80,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	0	EA	\$100,000.00	\$0.00
Sub Total:					\$350,500.00
Soft Costs (25%):					\$87,625.00
Construction Contingency (25%):					\$87,625.00
Total:					\$525,750.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

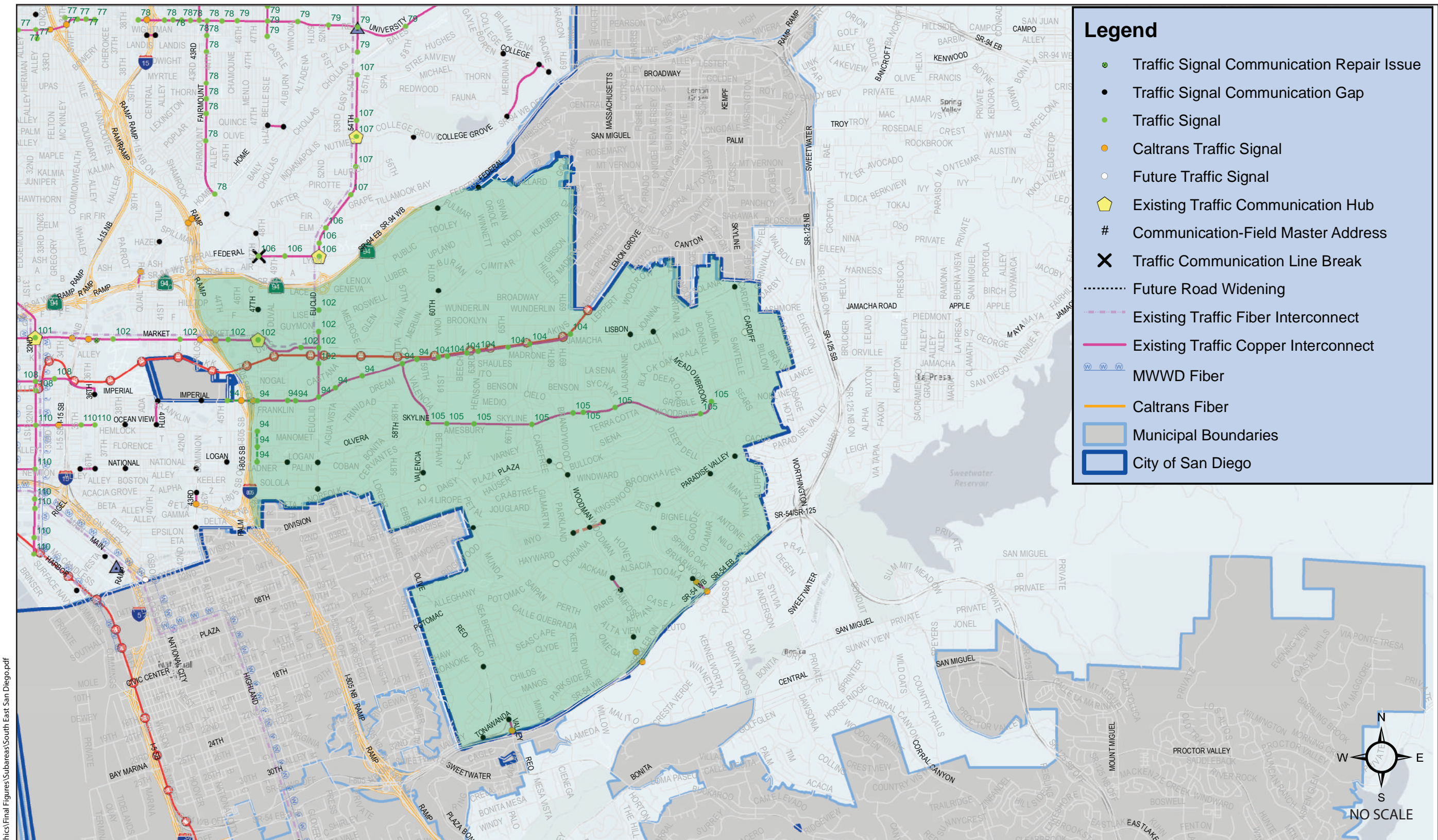
Subarea: Carmel Valley (8 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	8	EA	\$500.00	\$4,000.00
5	Furnish and Install VDSL Layer 2 Switch	8	EA	\$5,000.00	\$40,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	0	EA	\$100,000.00	\$0.00
Sub Total:					\$44,000.00
Soft Costs (25%):					\$11,000.00
Construction Contingency (25%):					\$11,000.00
Total:					\$66,000.00

AREA 6 - Carmel Valley	
28 TS Communication Gap	
Number	Intersection
1	Camino Del Sur & Artesian Rd
2	Camino Del Sur & Bing Crosby Blvd
3	Camino Del Sur & Caminito Santaluz Sur
4	Camino Del Sur & Carmel Valley Rd
5	Camino Del Sur & Casey Glen
6	Camino Del Sur & Highlands Village Pl
7	Camino Del Sur & Lazanja Dr
8	Camino Del Sur & Maranatha Dr
9	Camino Del Sur & Old Course Rd
10	Camino Del Sur & Park Village Rd
11	Camino Del Sur & Paseo Del Sur
12	Camino Del Sur & San Dieguito Rd
13	Camino Del Sur & Torrey Meadows Dr
14	Camino Del Sur & Via Azul
15	Camino Del Sur & Via Verrazano
16	Camino Del Sur & Watson Ranch Rd
17	Camino Del Sur & Wolverine Way
18	Carmel Country Rd & Cloverhurst Way
19	Carmel Mountain Rd & Sundance Ave
20	Carmel Valley Rd & Black Mountain Pkwy
21	Carmel Valley Road & Caminito Vistana
22	Highlands Village Pl & Villa Dalarsa Drwy
23	Paseo Del Sur & Haaland Glen
24	Paseo Del Sur & Paseo Montenero
25	Paseo Del Sur & Tierney Glen
26	Torrey Meadows Dr & Torrey Meadows Ct
27	Torrey Santa Fe Rd & Torrey Meadows Dr
28	Torrey Santa Fe Rd & Torrey Santa Fe Ct
0 TS Communication Repair Issue	
0 Maintenance Locations	
Maintenance Summary	
Existing interconnect but the signals are not communicating	
8 Conversion Signals	
Number	Intersection
1	Black Mountain Road & Carmel Mountain Road
2	Black Mountain Road & Carmel Valley Road
3	Black Mountain Road & Maler Road
4	Black Mountain Road & Oviedo Street
5	Black Mountain Road & Stargaze Avenue
6	Carmel Mountain Road & Entreken Way
7	Carmel Mountain Road & Sparren Avenue
8	Carmel Mountain Road & Twin Trails Drive

SUBAREA 7

SOUTHEAST SAN DIEGO



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City of San Diego Traffic Signal Communications Master Plan Subarea 7: South East San Diego

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: South East San Diego (28 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	17	EA	\$5,000.00	\$85,000.00
2	Furnish and Install Dual Radio	42	EA	\$7,500.00	\$315,000.00
3	Furnish and Install Sectoral Antenna for Dual Radios	42	EA	\$2,000.00	\$84,000.00
4	Furnish and Install 170E Serial to Ethernet cards	0	EA	\$500.00	\$0.00
5	Furnish and Install VDSL Layer 2 Switch	0	EA	\$5,000.00	\$0.00
6	Furnish and Install Layer 2 Switch	1	EA	\$2,000.00	\$2,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	13,000	LF	\$10.00	\$130,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	1	EA	\$100,000.00	\$100,000.00
Option A Sub Total:					\$618,000.00
Soft Costs (25%):					\$154,500.00
Construction Contingency (25%):					\$154,500.00
Option A Total:					\$927,000.00
Option B Sub Total:					\$716,000.00
Soft Costs (25%):					\$179,000.00
Construction Contingency (25%):					\$179,000.00
Option B Total:					\$1,074,000.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: South East San Diego (34 Signals)
Scenario: TSCMP Phase 2
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

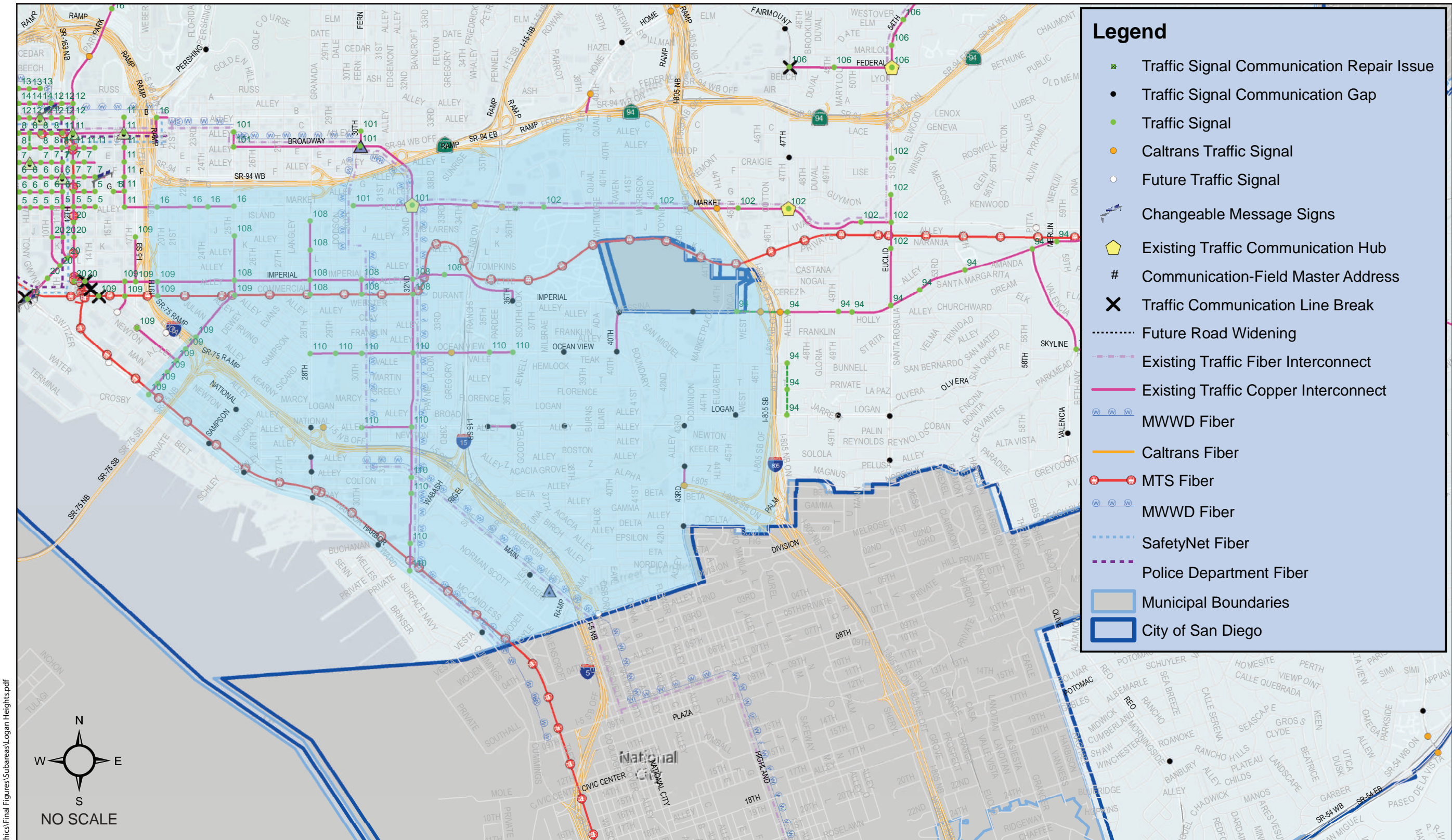
Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	34	EA	\$500.00	\$17,000.00
5	Furnish and Install VDSL Layer 2 Switch	34	EA	\$5,000.00	\$170,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	200	LF	\$5.00	\$1,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	1	EA	\$100,000.00	\$100,000.00
Sub Total:					\$288,000.00
Soft Costs (25%):					\$72,000.00
Construction Contingency (25%):					\$72,000.00
Total:					\$432,000.00

AREA 7 - Southeast San Diego	
28 TS Communication Gap	
Number	Intersection
1	47th St & Hilltop Dr
2	60th St & Weaver St
3	Briarwood Rd & Alta View Dr
4	Briarwood Rd & Nebraska Ave
5	Euclid Ave & Solola Ave
6	Federal Blvd & 60th St
7	Federal Blvd & Oriole St
8	Jamacha Rd & Cardiff St/Skyline Dr
9	Lisbon St & Woodrow Ave
10	Logan Ave & 49th St
11	Logan Ave & Euclid Ave
12	Meadowbrook Dr & Lisbon St/Jamacha Rd
13	Paradise Valley and Munda Rd
14	Paradise Valley Rd & Briarwood Rd
15	Paradise Valley Rd & Deep Dell Rd
16	Paradise Valley Rd & Meadowbrook Dr
17	Paradise Valley Rd & Potomac St
18	Paradise Valley Rd & Woodman St
19	Paradise Valley Rd & Woodman Village
20	Ramos Place & Tooma Street & Woodsman Street
21	Rancho Hills Dr & Reo Dr
22	Reo Dr & Tonawanda Dr/Parkside Ave
23	Reo Dr & Valley Rd/Tonawanda Dr
24	Valencia Pkwy & Wesmead St
25	Woodman St & Alsacia St
26	Woodman St & Alta View Dr
27	Woodman St & Bullock Dr
28	Woodman St & Plaza Blvd
0 Communication Repair Issue	
0 Maintenance Locations	
Maintenance Summary	

34 Conversion Signals	
Number	Intersection
1	47th Street & Logan Avenue
2	47th Street & Ocean View Boulevard
3	47th Street & T Street
4	61st Street & Skyline Drive
5	69th Street & Skyline Drive
6	Euclid Avenue & Guymon Street
7	Euclid Avenue & Hilltop Drive
8	Euclid Avenue & Market Street
9	Euclid Avenue & Naranja Street
10	Imperial Avenue & 47th Avenue
11	Imperial Avenue & 49th Avenue
12	Imperial Avenue & 54th Avenue
13	Imperial Avenue & 60th Avenue
14	Imperial Avenue & 61st Avenue
15	Imperial Avenue & 62nd Avenue
16	Imperial Avenue & 63rd Avenue
17	Imperial Avenue & 65th Avenue
18	Imperial Avenue & 69th Avenue
19	Imperial Avenue & Euclid Avenue
20	Imperial Avenue & Linnet/Merlin
21	Imperial Avenue & San Jacinto Drive
22	Imperial Avenue & Valencia Parkway
23	Imperial Avenue & Willie James Jones Avenue
24	Imperial Avenue & Woodman Street
25	Market Street & 45th Avenue
26	Market Street & 47th Avenue
27	Market Street & Market Creek Place
28	Skyline Drive & Greenlawn Drive
29	Skyline Drive & Meadowbrook Drive
30	Skyline Drive & Omeara Street
31	Skyline Drive & Sychar Road
32	Skyline Drive & Tuther Way
33	Skyline Drive & Valencia Parkway
34	Skyline Drive & Woodman Street

SUBAREA 8

LOGAN HEIGHTS/ BARRIO LOGAN



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City of San Diego Traffic Signal Communications Master Plan Subarea 8: Logan Heights

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Logan Heights/ Barrio Logan (24 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	10	EA	\$5,000.00	\$50,000.00
2	Furnish and Install Dual Radio	14	EA	\$7,500.00	\$105,000.00
3	Furnish and Install Sectoral Antenna for Dual Radios	14	EA	\$2,000.00	\$28,000.00
4	Furnish and Install 170E Serial to Ethernet cards	24	EA	\$500.00	\$12,000.00
5	Furnish and Install VDSL Layer 2 Switch	1	EA	\$5,000.00	\$5,000.00
6	Furnish and Install Layer 2 Switch	23	EA	\$2,000.00	\$46,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	3,000	LF	\$10.00	\$30,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	1	EA	\$100,000.00	\$100,000.00
Option A Sub Total:					\$278,000.00
Soft Costs (25%):					\$69,500.00
Construction Contingency (25%):					\$69,500.00
Option A Total:					\$417,000.00
Option B Sub Total:					\$376,000.00
Soft Costs (25%):					\$94,000.00
Construction Contingency (25%):					\$94,000.00
Option B Total:					\$564,000.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Logan Heights/ Barrio Logan (49 Signals)
Scenario: TSCMP Phase 2
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

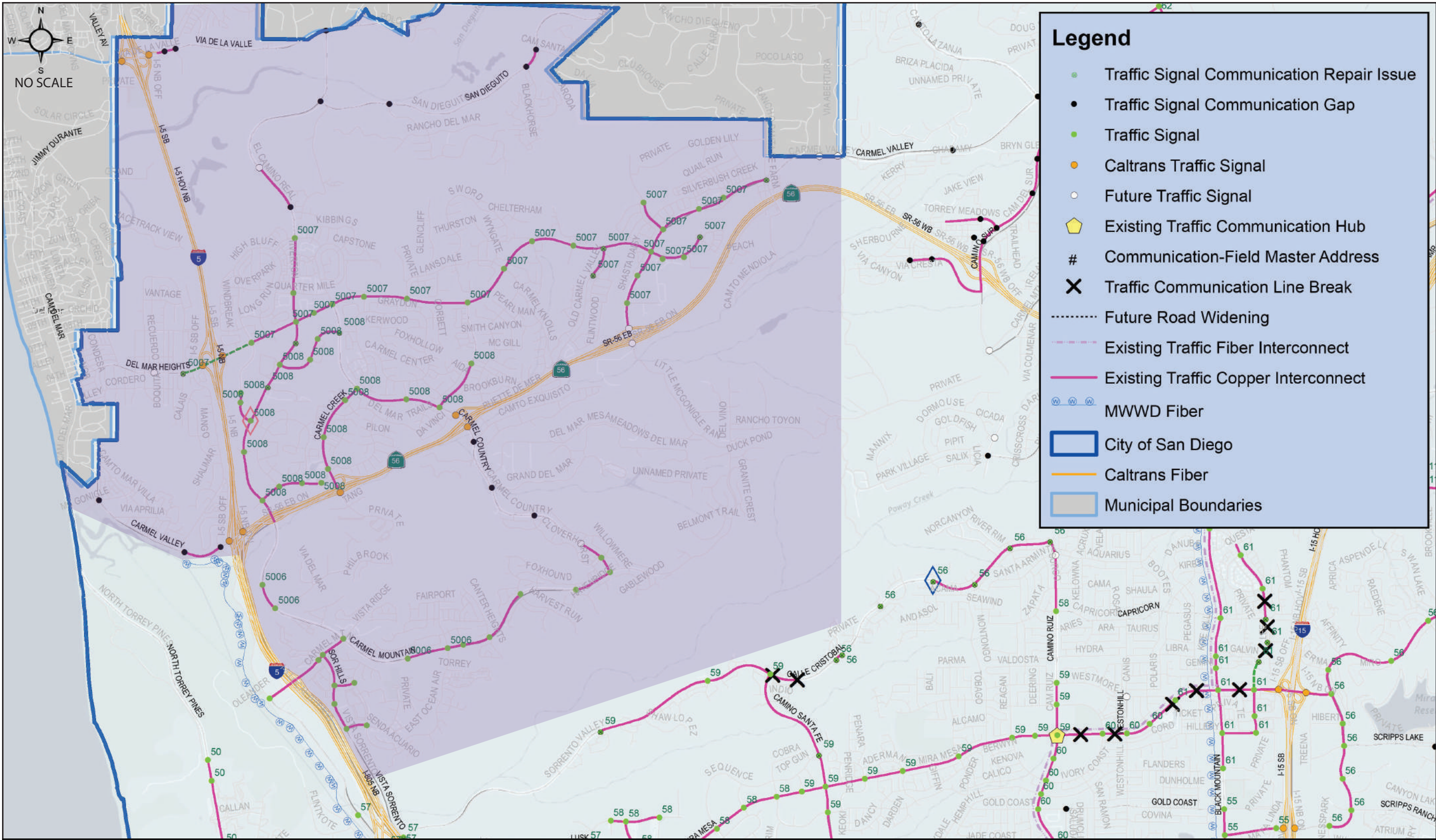
Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	49	EA	\$500.00	\$24,500.00
5	Furnish and Install VDSL Layer 2 Switch	49	EA	\$5,000.00	\$245,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	15,000	LF	\$10.00	\$150,000.00
8	Furnish and Install 12 SMFO Cable	200	LF	\$5.00	\$1,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	1	EA	\$100,000.00	\$100,000.00
Sub Total:					\$520,500.00
Soft Costs (25%):					\$130,125.00
Construction Contingency (25%):					\$130,125.00
Total:					\$780,750.00

AREA 8 - Logan Heights/ Barrio Logan	
23 TS Communication Gap	
Number	Intersection
1	43rd St & Alpha St
2	Boston Ave & 28th St
3	Delta St & 43rd St
4	Harbor Dr & 28th St
5	Harbor Dr & Belt St
6	Harbor Dr & Sampson St
7	Harbor Dr & Schley St
8	Harbor Dr & Vesta St
9	Imperial Ave & 36th St
10	Imperial Ave & 40th St
11	Imperial Ave & Redworks Driveway
12	Logan Ave & 45th St
13	Main St & 28th St
14	Main St & Vesta St
15	National Ave & 28th St
16	National Ave & 35th St
17	National Ave & 36th St
18	National Ave & 38th St
19	National Ave & 43rd St
20	National Ave & Sampson St
21	Ocean View Blvd & 38th St
22	Ocean View Blvd & 40th St
23	Otay Mesa Rd & Otay Mesa Center Rd
1 Communication Repair Issue	
Number	Intersection
1	Market St & 36th St
0 Maintenance Locations	
Maintenance Summary	

49 Conversion Signals	
Number	Intersection
1	25th Avenue & J Street
2	28th Street & Island Ave
3	28th Street & K Street
4	32nd Street & Harbor Drive
5	32nd Street & Main Street
6	32nd Street & Navy Commissary
7	32nd Street & Norman Scott/Wabash
8	B Street & 19th Avenue
9	Cesar E. Chavez Parkway & Kearney Avenue
10	Cesar E. Chavez Parkway & Logan Avenue
11	Cesar E. Chavez Parkway & Main Street
12	Cesar E. Chavez Parkway & National Avenue
13	Cesar E. Chavez Parkway & Newton Avenue
14	Commercial Street & 14th Street/National Avenue
15	Commercial Street & 16th Street
16	Commercial Street & 19th Street
17	Commercial Street & 25th Street
18	Commercial Street & 28th Street
19	Commercial Street & 30th Street
20	Commercial Street & 32nd Street
21	Harbor Dr & Convention Center Ct
22	Harbor Dr & Park Blvd
23	Harbor Drive & Cesar E. Chavez Parkway
24	Imperial Avenue & 16th Avenue
25	Imperial Avenue & 17th Avenue
26	Imperial Avenue & 19th Avenue
27	Imperial Avenue & 25th Avenue
28	Imperial Avenue & 28th Avenue
29	Imperial Avenue & 30th Avenue
30	Imperial Avenue & 32nd Avenue
31	Imperial Avenue & 33rd Avenue
32	Imperial Avenue & 45th Avenue
33	Imperial Avenue & Park Boulevard
34	Market Street & 22nd Avenue
35	Market Street & 24th Avenue
36	Market Street & 25th Avenue
37	Market Street & 30th Avenue
38	Market Street & 32nd Avenue
39	Market Street & 42nd Avenue
40	Market Street & Gateway Center
41	National Avenue & 30th Street
42	National Avenue & 32nd Street
43	National Avenue & Sigsbee Street
44	Ocean View Boulevard & 28th Street
45	Ocean View Boulevard & 29th Street
46	Ocean View Boulevard & 30th Street
47	Ocean View Boulevard & 32nd Street
48	Ocean View Boulevard & 35th Street
49	Ocean View Boulevard & 36th Street

SUBAREA 9

DEL MAR HEIGHTS



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City of San Diego Traffic Signal Communications Master Plan Subarea 9: Del Mar Heights

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Del Mar Heights (21 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	15	EA	\$5,000.00	\$75,000.00
2	Furnish and Install Dual Radio	10	EA	\$7,500.00	\$75,000.00
3	Furnish and Install Sectoral Antenna for Dual Radios	10	EA	\$2,000.00	\$20,000.00
4	Furnish and Install 170E Serial to Ethernet cards	21	EA	\$500.00	\$10,500.00
5	Furnish and Install VDSL Layer 2 Switch	8	EA	\$5,000.00	\$40,000.00
6	Furnish and Install Layer 2 Switch	13	EA	\$2,000.00	\$26,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	17,000	LF	\$10.00	\$170,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	0	EA	\$100,000.00	\$0.00
Sub Total:					\$418,500.00
Soft Costs (25%):					\$104,625.00
Construction Contingency (25%):					\$104,625.00
Total:					\$627,750.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Del Mar Heights (58 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	58	EA	\$500.00	\$29,000.00
5	Furnish and Install VDSL Layer 2 Switch	58	EA	\$5,000.00	\$290,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	0	EA	\$100,000.00	\$0.00
Sub Total:					\$319,000.00
Soft Costs (25%):					\$79,750.00
Construction Contingency (25%):					\$79,750.00
Total:					\$478,500.00

AREA 9 - Del Mar Heights	
13 TS Communication Gap	
Number	Intersection
1	Carmel Country Rd & Caminito Classica
2	Carmel Country Rd & Grand Del Mar Wy
3	Carmel Valley Rd/Del Mar Scenic Pkwy
4	Carmel Valley Rd/Portofino Dr
5	El Camino Real & Derby Downs Rd
6	El Camino Real & San Dieguito Rd
7	El Camino Real & Via De La Valle
8	San Dieguito Rd & Caminito Pacifica Trail
9	San Dieguito Rd & Camino Santa Fe
10	San Dieguito Rd & Derby Farms Rd
11	Sorrento Valley Rd & Carmel Valley Rd
12	Via De La Valle & Private Driveway
13	Via De La Valle and San Andres Dr
8 TS Communication Repair Issue	
Number	Intersection
1	Carmel Country Road & Townsgate Drive
2	Carmel Valley Road & Rancho Santa Fe Farm
3	Del Mar Heights Road & Mango Drive
4	Del Mar Heights Road & Old Carmel Valley Road
5	El Camino Real & Del Mar Highlands Driveway
6	El Camino Real & Elijah Court
7	Old Carmel Valley Road & Gamay Way
8	Village Center Loop & Peppergrass Creek Gate
Maintenance Summary	
Communicating but the phasing/timing is not in order; not coordinated; incorporate the sub-developer to fix problems for less City cost	

58 Conversion Signals	
1	Carmel Canyon Road & Carmel Knolls Drive
2	Carmel Country Road & Carmel Canyon Road
3	Carmel Country Road & Carmel Mission Road
4	Carmel Country Road & Carmel Mountain Road
5	Carmel Country Road & Del Mar Heights Road
6	Carmel Country Road & Stone Haven Way
7	Carmel Creek Road & Carmel Country Road
8	Carmel Creek Road & Carmel Grove Road
9	Carmel Creek Road & Mykonos Lane
10	Carmel Creek Road & Piazza Carmel Driveway
11	Carmel Mountain Road & Amberglades Lane
12	Carmel Mountain Road & Canter Heights Drive
13	Carmel Mountain Road & East Ocean Air
14	Carmel Mountain Road & Gateway Ridge Court
15	Carmel Mountain Road & Harvest Run
16	Carmel Mountain Road & Senda Luna Llena
17	Carmel Mountain Road & Vereda Mar del Coraz
18	Carmel Mountain Road & Vista Sorrento Parkway
19	Carmel Valley Road & Edgewood Bend Court
20	Carmel Valley Road & Lopelia Meadows Place
21	Carmel Valley Road & Pacific Highlands Ranch Pkwy
22	Carmel Valley Road & Shasta Daisy Trail
23	Carmel Valley Road & Zinnia Hills Place
24	Carmel Vista Road & Valley Centre Drive
25	Del Mar Heights Road & Ashley Falls Drive
26	Del Mar Heights Road & Carmel Canyon Road
27	Del Mar Heights Road & Carmel Valley Road
28	Del Mar Heights Road & El Camino Real
29	Del Mar Heights Road & High Bluff Drive
30	Del Mar Heights Road & Lansdale Drive
31	Del Mar Heights Road & Seagrove Street
32	Del Mar Heights Road & Signature Point
33	Del Mar Heights Road & Torrey Ridge Drive
34	Del Mar Heights Road & Valerio Gate
35	El Camino Real & Arroyo Sorrento Road
36	El Camino Real & Half Mile Drive
37	El Camino Real & High Bluff Drive
38	El Camino Real & Paseo View Ct
39	El Camino Real & Quarter Mile Drive
40	El Camino Real & Quarter Mile Drive
41	El Camino Real & Quarter Mile Drive
42	El Camino Real & Torrey Reserve Drwy
43	El Camino Real & Townsgate Drive
44	El Camino Real & Valley Centre Drive
45	High Bluff Dr & Plaza Del Mar
46	High Bluff Drive & Del Mar Bluffs Lane

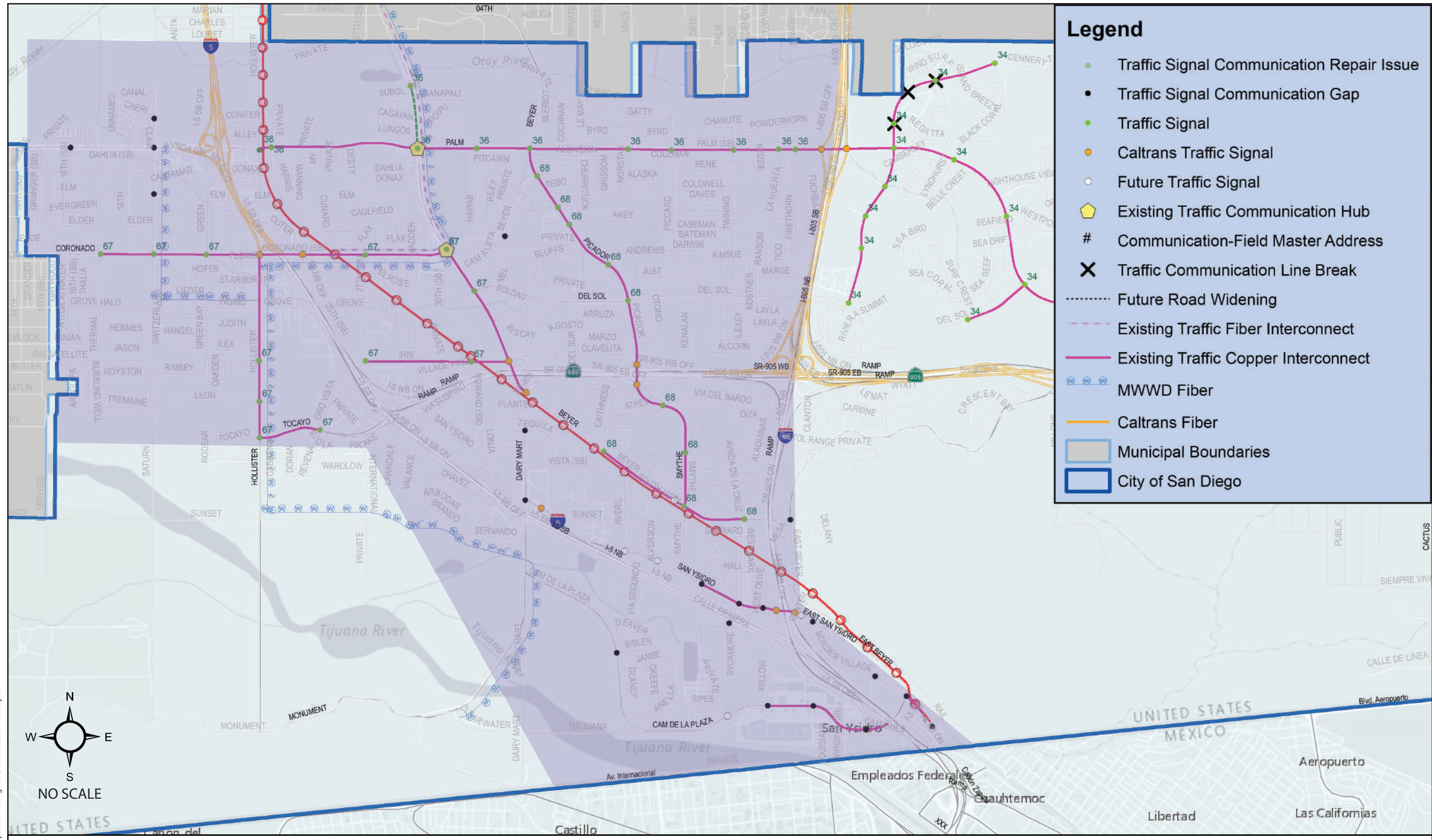
58 Conversion Signals Contd.	
47	Pacific Highlands Ranch Parkway & Blazing Star Ln
48	Townsgate Drive & Kelsford Place
49	Townsgate Drive & Pell Place
50	Valley Center Drive & Carmel View Road
51	Valley Centre & Kilroy Driveway
52	Village Center Loop & Canyon Crest Academy Pointe
53	Village Center Loop & Community Park Pointe
54	Vista Sorrento Parkway & Calle Mar de Mariposa
55	Vista Sorrento Parkway & Ocean Bluff Avenue
56	Vista Sorrento Parkway & Pacific Plaza Drive
57	W. Ocean Air Drive & Calle Mar de Mariposa
58	W. Ocean Air Drive & Ocean Bluff

SUBAREA 10

SAN YSIDRO

Legend

- Traffic Signal Communication Repair Issue
- Traffic Signal Communication Gap
- Traffic Signal
- Caltrans Traffic Signal
- Future Traffic Signal
- Existing Traffic Communication Hub
- # Communication-Field Master Address
- ✕ Traffic Communication Line Break
- - - - - Future Road Widening
- Existing Traffic Fiber Interconnect
- Existing Traffic Copper Interconnect
- MWWD Fiber
- Caltrans Fiber
- Municipal Boundaries
- City of San Diego



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City of San Diego Traffic Signal Communications Master Plan Subarea 10: San Ysidro

**TRAFFIC SIGNAL COMMUNICATION MASTER PLAN
ORDER OF MAGNITUDE COST ESTIMATE**

Subarea: San Ysidro (21 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	22	EA	\$5,000.00	\$110,000.00
2	Furnish and Install Dual Radio	7	EA	\$7,500.00	\$52,500.00
3	Furnish and Install Sectoral Antenna for Dual Radios	7	EA	\$2,000.00	\$14,000.00
4	Furnish and Install 170E Serial to Ethernet cards	21	EA	\$500.00	\$10,500.00
5	Furnish and Install VDSL Layer 2 Switch	1	EA	\$5,000.00	\$5,000.00
6	Furnish and Install Layer 2 Switch	20	EA	\$2,000.00	\$40,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	2,000	LF	\$10.00	\$20,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	2	EA	\$100,000.00	\$200,000.00
Option A Sub Total:					\$254,000.00
Soft Costs (25%):					\$63,500.00
Construction Contingency (25%):					\$63,500.00
Option A Total:					\$381,000.00
Option B Sub Total:					\$452,000.00
Soft Costs (25%):					\$113,000.00
Construction Contingency (25%):					\$113,000.00
Option B Total:					\$678,000.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: San Ysidro (33 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

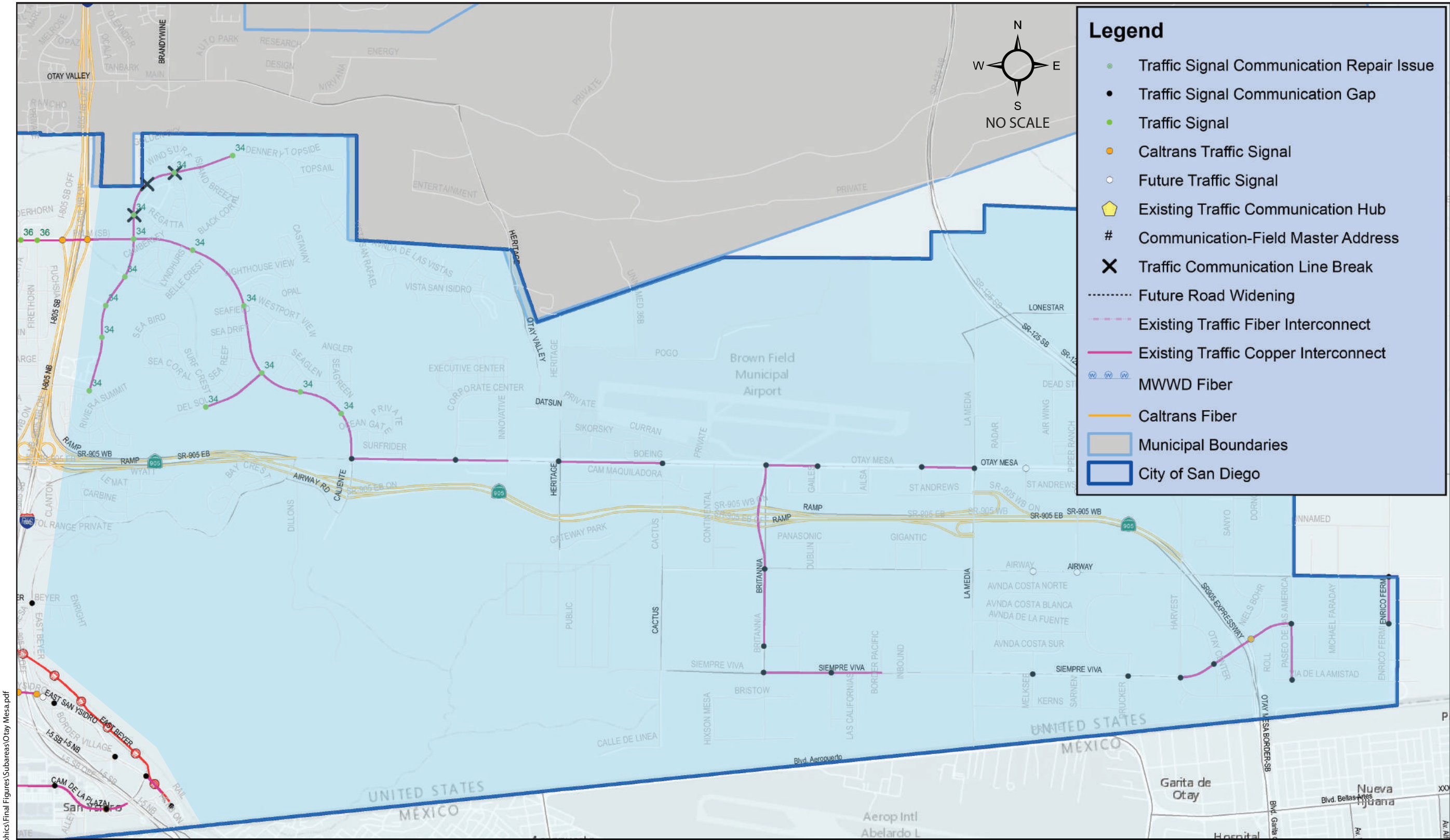
Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	33	EA	\$500.00	\$16,500.00
5	Furnish and Install VDSL Layer 2 Switch	33	EA	\$5,000.00	\$165,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	115,000	LF	\$10.00	\$1,150,000.00
8	Furnish and Install 12 SMFO Cable	400	LF	\$5.00	\$2,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	2	EA	\$100,000.00	\$200,000.00
Sub Total:					\$1,533,500.00
Soft Costs (25%):					\$383,375.00
Construction Contingency (25%):					\$383,375.00
Total:					\$2,300,250.00

AREA 10 - San Ysidro	
20 TS Communications Gap	
Number	Intersection
1	Beyer Wy & Coronado Ave
2	Camino De La Plaza & Bibler Dr
3	Camino De La Plaza & Via Nacional
4	Camino De La Plaza & Willow Rd
5	Dairy Mart Rd & Tequila Wy
6	Main St & Hollister St/Industrial Bl
7	Otay Mesa Rd & Beyer Blvd
8	Palm Ave & 16th St
9	Palm Ave & Saturn Blvd
10	San Ysidro Blvd & Border Village Rd
11	San Ysidro Blvd & Camino De La Plaza/E Beyer Blvd
12	San Ysidro Blvd & Cottonwood Rd
13	San Ysidro Blvd & E Border Village Rd
14	San Ysidro Blvd & Rail Ct
15	San Ysidro Blvd & Via De San Ysidro
16	San Ysidro Blvd & W Olive Dr
17	Saturn Blvd & Elm Ave
18	Saturn Blvd & Southland Plaza Drwy
19	Via De San Ysidro & Calle Primera
20	W San Ysidro Blvd & Dairy Mart Rd
1 TS Communication Issue	
Number	Intersection
1	Palm Ave & Hollister St
0 Maintenance Locations	
Maintenance Summary	
Traffic signals have no communication; existing interconnect there	

33 Conversion Signals	
Number	Intersection
1	27th Street & Iris Avenue
2	Beyer Boulevard & Alaquinas Drive/W Park Avenue
3	Beyer Boulevard & Del Sol Boulevard
4	Beyer Boulevard & Del Sur Boulevard
5	Beyer Boulevard & Otay Regional Park
6	Beyer Boulevard & Palm Avenue
7	Beyer Boulevard & Smythe Avenue
8	Coronado Ave & Green Bay Street
9	Coronado Avenue & 27th Street
10	Coronado Avenue & Beyer Boulevard
11	Coronado Avenue & Saturn Boulevard
12	Coronado Avenue & Thermal Avenue
13	Hollister Street & Iris Avenue
14	Hollister Street & Leon Avenue
15	Hollister Street & Tocayo Avenue
16	Imperial Avenue & 13th Avenue
17	Iris Avenue & Howard Avenue
18	Palm Avenue & Del Cardo
19	Palm Avenue & Firethorn Street
20	Palm Avenue & Harris Avenue
21	Palm Avenue & Hawaii Avenue
22	Palm Avenue & Norstad Avenue
23	Palm Avenue & Picador Boulevard/Beyer Way
24	Palm Avenue & Piccard Avenue
25	Palm Avenue & Twining Avenue
26	Picador Boulevard & Arey Drive
27	Picador Boulevard & Athey Avenue
28	Picador Boulevard & Beyer Way
29	Picador Boulevard & Cedar Glen Way
30	Picador Boulevard & Del Sol Boulevard
31	Picador Boulevard & Via Tonga
32	Smythe Avenue & Avenida de la Madrid
33	Tocayo Avenue & Oro Vista Road

SUBAREA 11

OTAY MESA



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City of San Diego Traffic Signal Communications Master Plan Subarea 11: Otay Mesa

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Otay Mesa (19 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	14	EA	\$5,000.00	\$70,000.00
2	Furnish and Install Dual Radio	5	EA	\$7,500.00	\$37,500.00
3	Furnish and Install Sectoral Antenna for Dual Radios	5	EA	\$2,000.00	\$10,000.00
4	Furnish and Install 170E Serial to Ethernet cards	19	EA	\$500.00	\$9,500.00
5	Furnish and Install VDSL Layer 2 Switch	19	EA	\$5,000.00	\$95,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	6,000	LF	\$10.00	\$60,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	0	EA	\$100,000.00	\$0.00
Sub Total:					\$284,000.00
Soft Costs (25%):					\$71,000.00
Construction Contingency (25%):					\$71,000.00
Total:					\$426,000.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Otay Mesa (14 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014


























Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	14	EA	\$500.00	\$7,000.00
5	Furnish and Install VDSL Layer 2 Switch	14	EA	\$5,000.00	\$70,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	0	EA	\$100,000.00	\$0.00
Sub Total:					\$77,000.00
Soft Costs (25%):					\$19,250.00
Construction Contingency (25%):					\$19,250.00
Total:					\$115,500.00

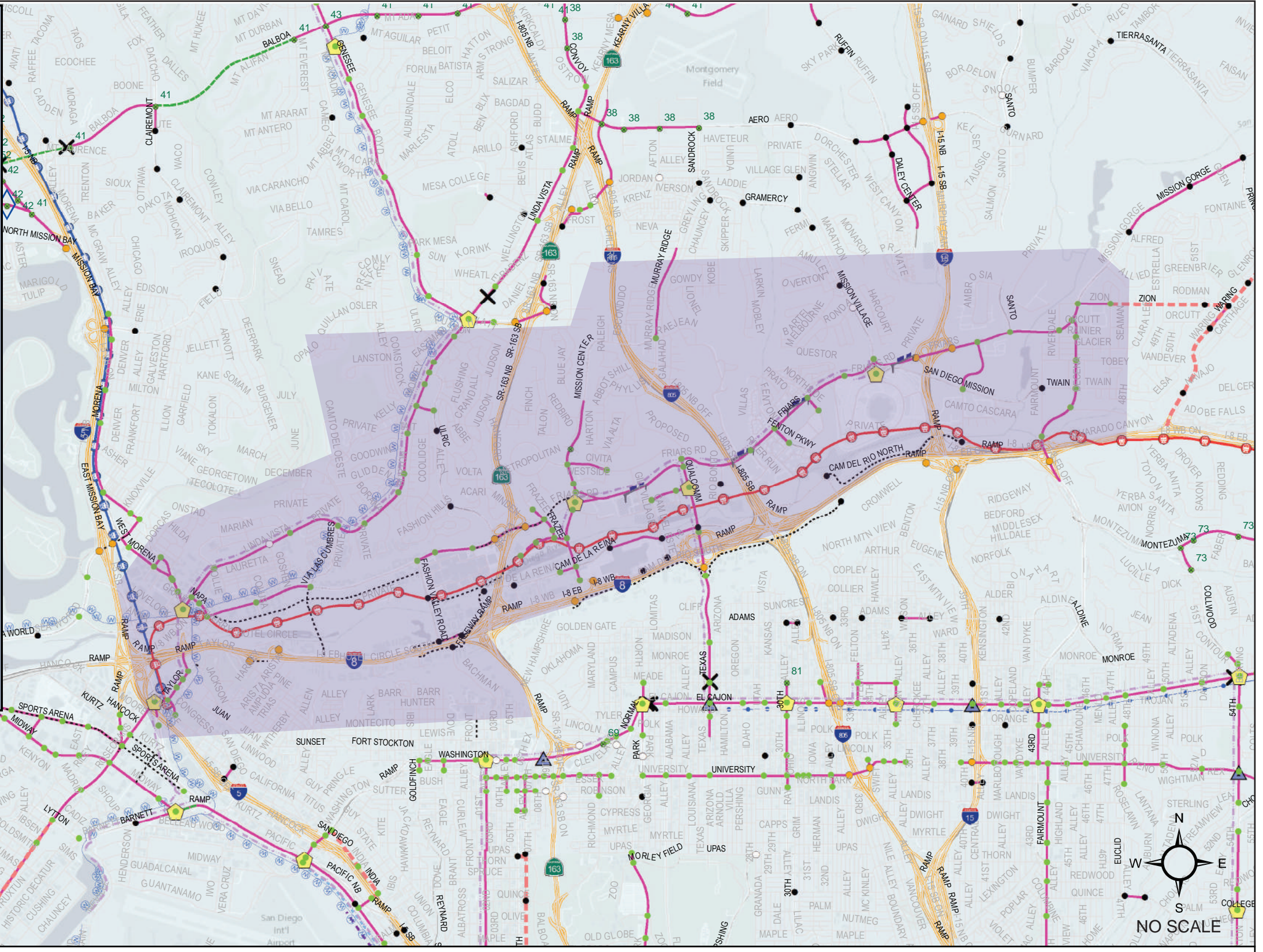
AREA 11 - Otay Mesa	
19 TS Communication Gap	
Number	Intersection
1	Airway Rd & Enrico Fermi Dr
2	Britannia Blvd & Airway Rd
3	Britannia Blvd & Britannia Park
4	Britannia Blvd & Siempre Viva Rd
5	Otay Mesa Rd & Britannia Blvd
6	Otay Mesa Rd & Cactus Rd
7	Otay Mesa Rd & Corporate Center Dr
8	Otay Mesa Rd & Gailles Blvd
9	Otay Mesa Rd & Heritage Rd
10	Otay Mesa Rd & La Media Rd
11	Otay Mesa Rd & Ocean View Hills Pkwy
12	Paseo De Las Americas & Via De Las Amistad
13	Siempre Viva Rd & Drucker Ln
14	Siempre Viva Rd & Enrico Fermi Dr
15	Siempre Viva Rd & Harvest Rd
16	Siempre Viva Rd & Melksee St
17	Siempre Viva Rd & Otay Center Dr
18	Siempre Viva Rd & Otay Pacific Dr
19	Siempre Viva Rd & Paseo De Las Americas
0 TS Communication Repair Issue	
0 Maintenance Locations	
Maintenance Summary	
14 Conversion Signals	
Number	Intersection
1	Del Sol Boulevard & Dennery Road
2	Del Sol Boulevard & Ocean View Hills Parkway
3	Del Sol Boulevard & Surf Crest Drive
4	Dennery Road & Black Coral Way
5	Dennery Road & Home Depot Driveway
6	Dennery Road & Palm Promenade
7	Dennery Road & Red Coral Lane
8	Dennery Road & Regatta Lane
9	Dennery Road & Walmart Driveway
10	Ocean View Hills Parkway & Hidden Trails Road
11	Ocean View Hills Parkway & Lyndhurst Terrace
12	Ocean View Hills Parkway & Sea Fire Point
13	Ocean View Hills Parkway & Starfish Way
14	Palm Avenue & Dennery Road

SUBAREA 12

MISSION VALLEY/ LINDA VISTA

Legend

-  Dial Up Field Masters
-  Local Field Masters
-  Traffic Signal Communication Repair Issue
-  Traffic Signal Communication Gap
-  Traffic Signal
-  Caltrans Traffic Signal
-  Future Traffic Signal
-  Copper Traffic Termination Cabinet
-  Fiber Traffic Termination Cabinet
-  Communication-Field Master Address
-  Existing Traffic Communication Hub
-  Traffic Communication Line Break
-  Existing Traffic Wireless Interconnect
-  Future Traffic Interconnect
-  Future Road Widening
-  Existing Traffic Fiber Interconnect
-  Existing Traffic Copper Interconnect
-  MWWWD Fiber
-  Police Department Fiber
-  SafetyNet Fiber
-  Caltrans Fiber
-  MTS Fiber
-  Future MTS Fiber
-  Future Traffic Fiber
-  City of San Diego



City of San Diego
Traffic Signal Communications Master Plan
Subarea 12: Mission Valley/Linda Vista

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Mission Valley/Linda Vista (19 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	13	EA	\$5,000.00	\$65,000.00
2	Furnish and Install Dual Radio	8	EA	\$7,500.00	\$60,000.00
3	Furnish and Install Sectoral Antenna for Dual Radios	8	EA	\$2,000.00	\$16,000.00
4	Furnish and Install 170E Serial to Ethernet cards	19	EA	\$500.00	\$9,500.00
5	Furnish and Install VDSL Layer 2 Switch	1	EA	\$5,000.00	\$5,000.00
6	Furnish and Install Layer 2 Switch	18	EA	\$2,000.00	\$36,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	56,000	LF	\$10.00	\$560,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	5	EA	\$100,000.00	\$500,000.00
Option A Sub Total:					\$753,500.00
Soft Costs (25%):					\$188,375.00
Construction Contingency (25%):					\$188,375.00
Option A Total:					\$1,130,250.00
Option B Sub Total:					\$1,251,500.00
Soft Costs (25%):					\$312,875.00
Construction Contingency (25%):					\$312,875.00
Option B Total:					\$1,877,250.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Mission Valley/ Linda Vista (75 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	75	EA	\$500.00	\$37,500.00
5	Furnish and Install VDSL Layer 2 Switch	75	EA	\$5,000.00	\$375,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	27,000	LF	\$10.00	\$270,000.00
8	Furnish and Install 12 SMFO Cable	1,000	LF	\$5.00	\$5,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	5	EA	\$100,000.00	\$500,000.00
Sub Total:					\$1,187,500.00
Soft Costs (25%):					\$296,875.00
Construction Contingency (25%):					\$296,875.00
Total:					\$1,781,250.00

AREA 12 - Mission Valley/Linda Vista	
18 TS Communication Gap	
Number	Intersection
1	Camino De La Reina & Avenida Del Rio
2	Camino De La Reina & Camino De La Siesta
3	Camino De La Reina & Camino Del Este
4	Camino De La Reina & Qualcomm Wy
5	Camino De La Reina & Westfield Drwy
6	Camino Del Rio & Mission City Pkwy
7	Camino Del Rio & Ward Rd
8	Camino Del Rio N & Camino Del Este
9	Camino Del Rio North & Theatre Drwy
10	Camino Del Rio S & Mission City Pkwy
11	Fairmount Ave & Twain Ave
12	Fashion Valley Rd & Riverwalk Dr
13	Hotel Circle North & Camino De La Reina
14	Hotel Circle North & Fashion Valley Rd
15	Hotel Circle South & Bachman Pl
16	Rio San Diego Dr & Rio Bonito Way
17	Ulric St & Fashion Hills Blvd
18	Ulric St & Tait St
1 Communication Repair Issue	
Mission Center Dr & Aquatera Drwy	
0 Maintenance Locations	
Maintenance Summary	

75 Conversion Signals	
Number	Intersection
1	Camino de la Reina & Condo Driveway
2	Camino del Este & Rio San Diego Drive
3	Camino del la Reina & Mission Center Road
4	Camino del Rio N & Mission Center Road
5	Camino del Rio N & Qualcomm Way
6	Civita Boulevard & Via Alta
7	Comstock Street & Ulric Street
8	Congress Street & Trolley
9	E/B Friars Road & Mission Village Drive
10	Fenton Parkway & Fenton Market Place
11	Frazees Road & Hazard Center Drive
12	Frazees Road & Hazard Center Driveway
13	Friars Road & Avenida De las Tiendas
14	Friars Road & Colusa Street
15	Friars Road & Fashion Valley Road
16	Friars Road & Frazee Road
17	Friars Road & Mission City Parkway
18	Friars Road & Mission Gorge Road
19	Friars Road & Napa Street
20	Friars Road & Northside Drive
21	Friars Road & Qualcomm E/B Ramp
22	Friars Road & Qualcomm W/B Ramp
23	Friars Road & Rancho Mission Road
24	Friars Road & River Run Drive
25	Friars Road & Riverdale Street
26	Friars Road & Santo Road
27	Friars Road & Via De La Moda
28	Friars Road & Via Las Cumbres
29	Friars Road & West Stadium Entrance
30	Hazard Center Drive & Hazard Driveway
31	Hazard Center Road & Hazard Driveway E
32	Linda Vista Road & Alcalá Knolls Drive
33	Linda Vista Road & Comstock Street
34	Linda Vista Road & Fulton Street
35	Linda Vista Road & Glidden Street
36	Linda Vista Road & Kramer Street
37	Linda Vista Road & Marina Way
38	Linda Vista Road & Morena Boulevard
39	Linda Vista Road & Napa Street
40	Linda Vista Road & Ped Xing (N)
41	Linda Vista Road & Ped Xing (S)
42	Linda Vista Road & Santa Ana Street
43	Linda Vista Road & Tait Street
44	Linda Vista Road & Ulric Street
45	Linda Vista Road & Via Las Cumbres

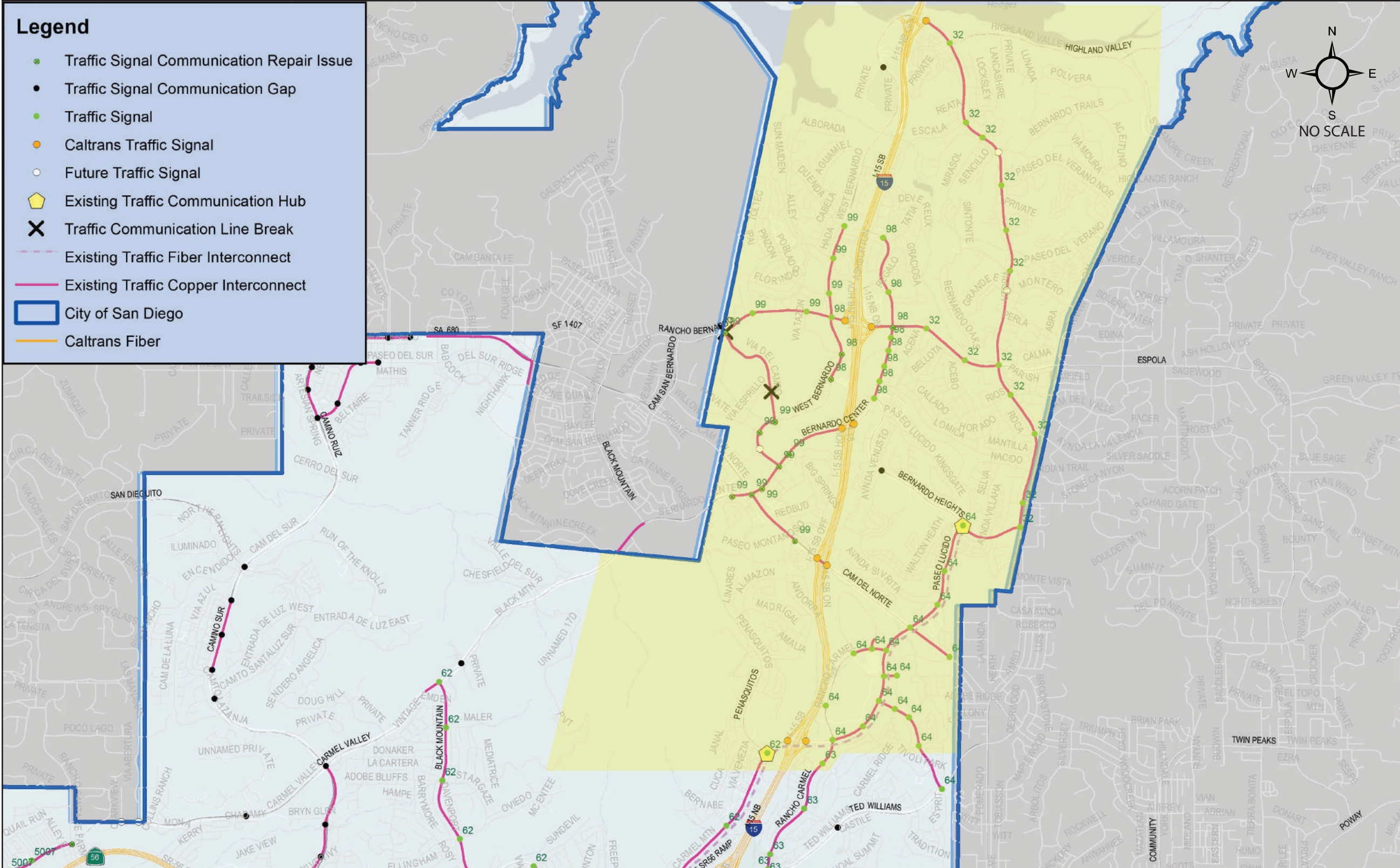
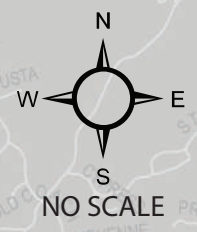
75 Conversion Signals	
46	Mission Center Rd & Murray Ridge Rd
47	Mission Center Road & E/B Friars Road
48	Mission Center Road & Hazard Center Drive
49	Mission Center Road & Mission Center Court
50	Mission Center Road & Mission Valley Road
51	Mission Center Road & Ralphs Driveway
52	Mission Center Road & W/B Friars Road
53	Mission Gorge Road & Fairmount Avenue
54	Mission Gorge Road & Rainier Avenue
55	Mission Gorge Road & Twain Avenue
56	Mission Gorge Road & Vandever Avenue
57	Mission Gorge Road & Zion Avenue
58	Mission Village Drive & W/B Friars Road
59	Morena Boulevard & Buenos Avenue
60	Morena Boulevard & Napa Street
61	Morena Boulevard & W. Morena Boulevard (S)
62	Napa Street & Riley Street
63	Pacific Highway & Trolley Driveway
64	Pacific Highway NB & Washington Street
65	Rio San Diego & Mission City Parkway
66	Rio San Diego Drive & Qualcomm Way
67	Rio San Diego Drive & Station Village Way
68	San Diego Mission Road & Rancho Mission Road
69	Taylor Street & Congress Street
70	Taylor Street & Juan Street
71	Taylor Street & Morena Boulevard
72	Taylor Street & Pacific Highway
73	Taylor Street & Sunset Street
74	W. Morena Boulevard & Buenos Avenue
75	Zion Avenue & Crawford Street

SUBAREA 13

RANCHO BERNARDO

Legend

- Traffic Signal Communication Repair Issue
- Traffic Signal Communication Gap
- Traffic Signal
- Caltrans Traffic Signal
- Future Traffic Signal
- ⬡ Existing Traffic Communication Hub
- ✕ Traffic Communication Line Break
- Existing Traffic Fiber Interconnect
- Existing Traffic Copper Interconnect
- ▭ City of San Diego
- Caltrans Fiber



City of San Diego
 Traffic Signal Communications Master Plan
 Subarea 13: Rancho Bernardo

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TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Rancho Bernardo (14 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	7	EA	\$5,000.00	\$35,000.00
2	Furnish and Install Dual Radio	5	EA	\$7,500.00	\$37,500.00
3	Furnish and Install Sectoral Antenna for Dual Radios	5	EA	\$2,000.00	\$10,000.00
4	Furnish and Install 170E Serial to Ethernet cards	14	EA	\$500.00	\$7,000.00
5	Furnish and Install VDSL Layer 2 Switch	12	EA	\$5,000.00	\$60,000.00
6	Furnish and Install Layer 2 Switch	2	EA	\$2,000.00	\$4,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	8,000	LF	\$10.00	\$80,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	2	EA	\$100,000.00	\$200,000.00
Option A Sub Total:					\$235,500.00
Soft Costs (25%):					\$58,875.00
Construction Contingency (25%):					\$58,875.00
Option A Total:					\$353,250.00
Option B Sub Total:					\$433,500.00
Soft Costs (25%):					\$108,375.00
Construction Contingency (25%):					\$108,375.00
Option B Total:					\$650,250.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN

Subarea: Rancho Bernardo (47 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

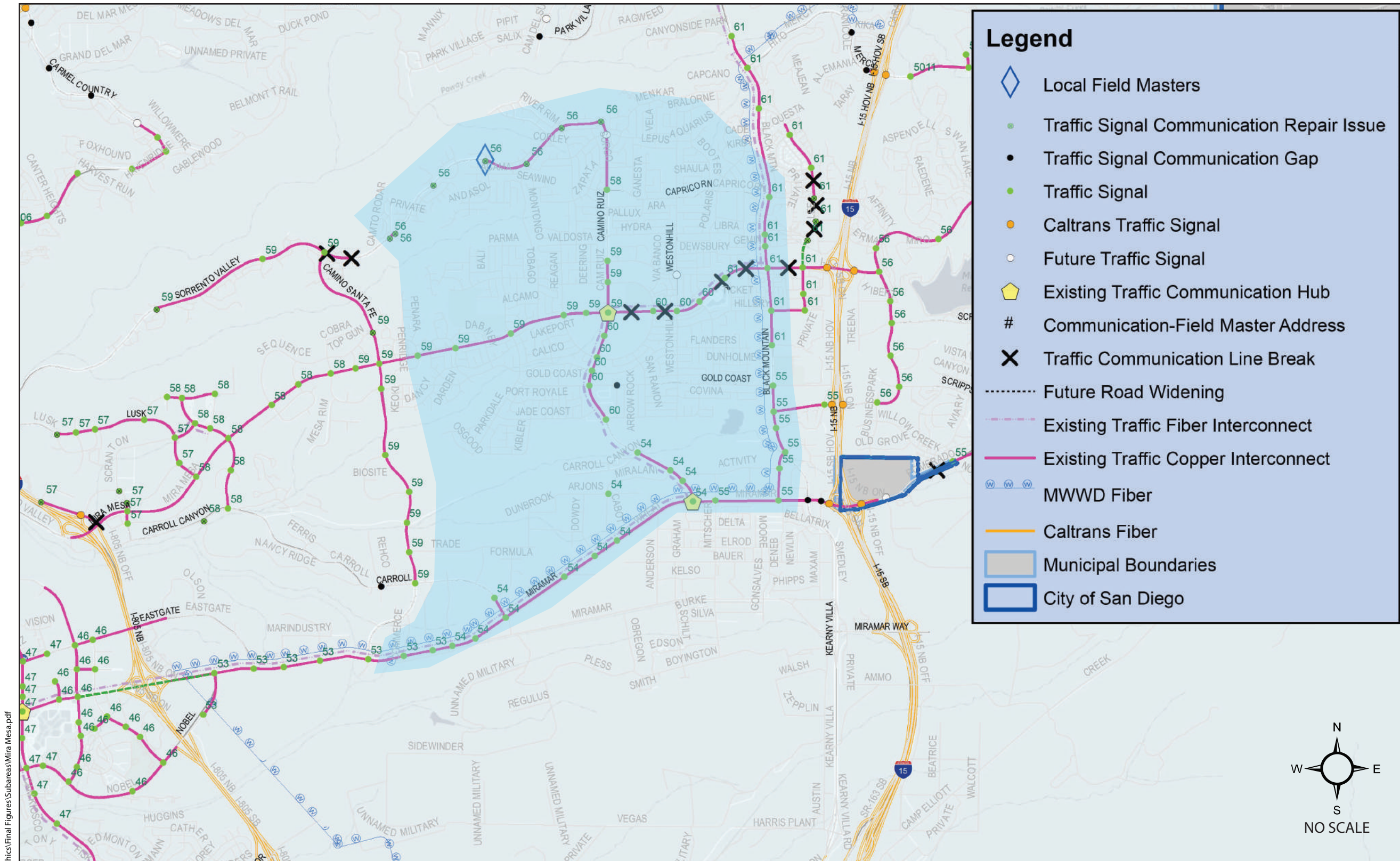
Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	47	EA	\$500.00	\$23,500.00
5	Furnish and Install VDSL Layer 2 Switch	47	EA	\$5,000.00	\$235,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	20,000	LF	\$10.00	\$200,000.00
8	Furnish and Install 12 SMFO Cable	400	LF	\$5.00	\$2,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	2	EA	\$100,000.00	\$200,000.00
Sub Total:					\$660,500.00
Soft Costs (25%):					\$165,125.00
Construction Contingency (25%):					\$165,125.00
Total:					\$990,750.00

AREA 13 - Rancho Bernardo	
2 TS Communication Gap	
Number	Intersection
1	Bernardo Heights Pkwy & Avenida Venusto
2	West Bernardo Dr & Rancho Bernardo Community Park
12 TS Communication Repair Issue	
Number	Intersection
1	Bernardo Center Drive & Avenida Abeja
2	Bernardo Center Drive & Cloudcrest Drive
3	Bernardo Center Drive & Maturin Drive
4	Bernardo Center Drive & W. Bernardo Drive
5	Bernardo Center Road & Camino del Norte
6	Camino del Norte & Paseo Montanoso
7	Rancho Bernardo Road & Bernardo Center Drive
8	Rancho Bernardo Road & Via del Campo
9	W. Bernardo Drive & George Cook Express Drive
10	W. Bernardo Drive & Via del Campo
11	W. Bernardo Drive & Via Frontera
12	W. Bernardo Drive & W. Bernardo Court
1 Maintenance Locations	
Missing interconnect cables along Via del Campo	
Maintenance Summary	
Missing interconnect results in 7-8 signals offline	

47 Conversion Signals	
Number	Intersection
1	Bernardo Center Dr & Rancho Bernardo Town Dr
2	Bernardo Center Drive & Bernardo Plaza Drive
3	Bernardo Center Drive & Fire Station 33 Driveway
4	Bernardo Center Drive & Regalo Lane
5	Bernardo Center Road & Bernardo Heights
6	Bernardo Center Road & Escala Drive
7	Bernardo Center Road & Lomica Drive
8	Bernardo Heights Parkway & Paseo Lucido
9	Bernardo Heights Parkway & Pomerado Road
10	Camino del Norte & World Trade Drive
11	Carmel Mountain Road & Camino del Norte
12	Carmel Mountain Road & Conference Way
13	Carmel Mountain Road & Highland Ranch Road
14	Carmel Mountain Road & Penasquitos Drive
15	Carmel Mountain Road & Rancho Carmel Drive W
16	Carmel Mountain Road & Stoney Creek Road
17	Carmel Mountain Road & Stoney Peak Drive
18	El Camino Real & Carmel Mountain Road
19	Highland Ranch Road & Carmel Ridge Road
20	Highland Ranch Road & Eastbourne Road
21	Highland Ranch Road & World Trade Drive
22	Paseo Lucido & Avenida Venusto
23	Paseo Lucido & Calle Saucillo
24	Pomerado Road & Escala Drive
25	Pomerado Road & Greens East Road
26	Pomerado Road & Higa Place
27	Pomerado Road & Highland Valley Road
28	Pomerado Road & Mirasol Drive
29	Pomerado Road & Oaks North Drive
30	Pomerado Road & Paseo del Verano North
31	Pomerado Road & Rios Road
32	Pomerado Road & Stone Canyon Road
33	Rancho Bernardo Road & Acena Drive
34	Rancho Bernardo Road & Bernardo Oaks Drive
35	Rancho Bernardo Road & Matinal Road
36	Rancho Bernardo Road & Pomerado Road
37	Rancho Bernardo Road & Via Tazon
38	Rancho Bernardo Road & W. Bernardo Drive
39	Rancho Carmel Drive & Avenue of Science
40	Rancho Carmel Drive & Innovation Drive
41	Rancho Carmel Drive & Seller Post Driveway
42	Rancho Carmel Drive & Windcrest Lane
43	Rancho Carmel Drive East & Carmel Mountain
44	W. Bernardo Drive & Duenda
45	W. Bernardo Drive & Matinal Road
46	W. Bernardo Drive & Poblado Road
47	World Trade Drive & Conference Way

SUBAREA 14

MIRA MESA



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City of San Diego
 Traffic Signal Communications Master Plan
 Subarea 14: Mira Mesa

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Mira Mesa (12 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	6	EA	\$5,000.00	\$30,000.00
2	Furnish and Install Dual Radio	1	EA	\$7,500.00	\$7,500.00
3	Furnish and Install Sectoral Antenna for Dual Radios	1	EA	\$2,000.00	\$2,000.00
4	Furnish and Install 170E Serial to Ethernet cards	12	EA	\$500.00	\$6,000.00
5	Furnish and Install VDSL Layer 2 Switch	11	EA	\$5,000.00	\$55,000.00
6	Furnish and Install Layer 2 Switch	1	EA	\$2,000.00	\$2,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	18,000	LF	\$10.00	\$180,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	2	EA	\$100,000.00	\$200,000.00
Option A Sub Total:					\$284,500.00
Soft Costs (25%):					\$71,125.00
Construction Contingency (25%):					\$71,125.00
Option A Total:					\$426,750.00
Option B Sub Total:					\$482,500.00
Soft Costs (25%):					\$120,625.00
Construction Contingency (25%):					\$120,625.00
Option B Total:					\$723,750.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Mira Mesa (45 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

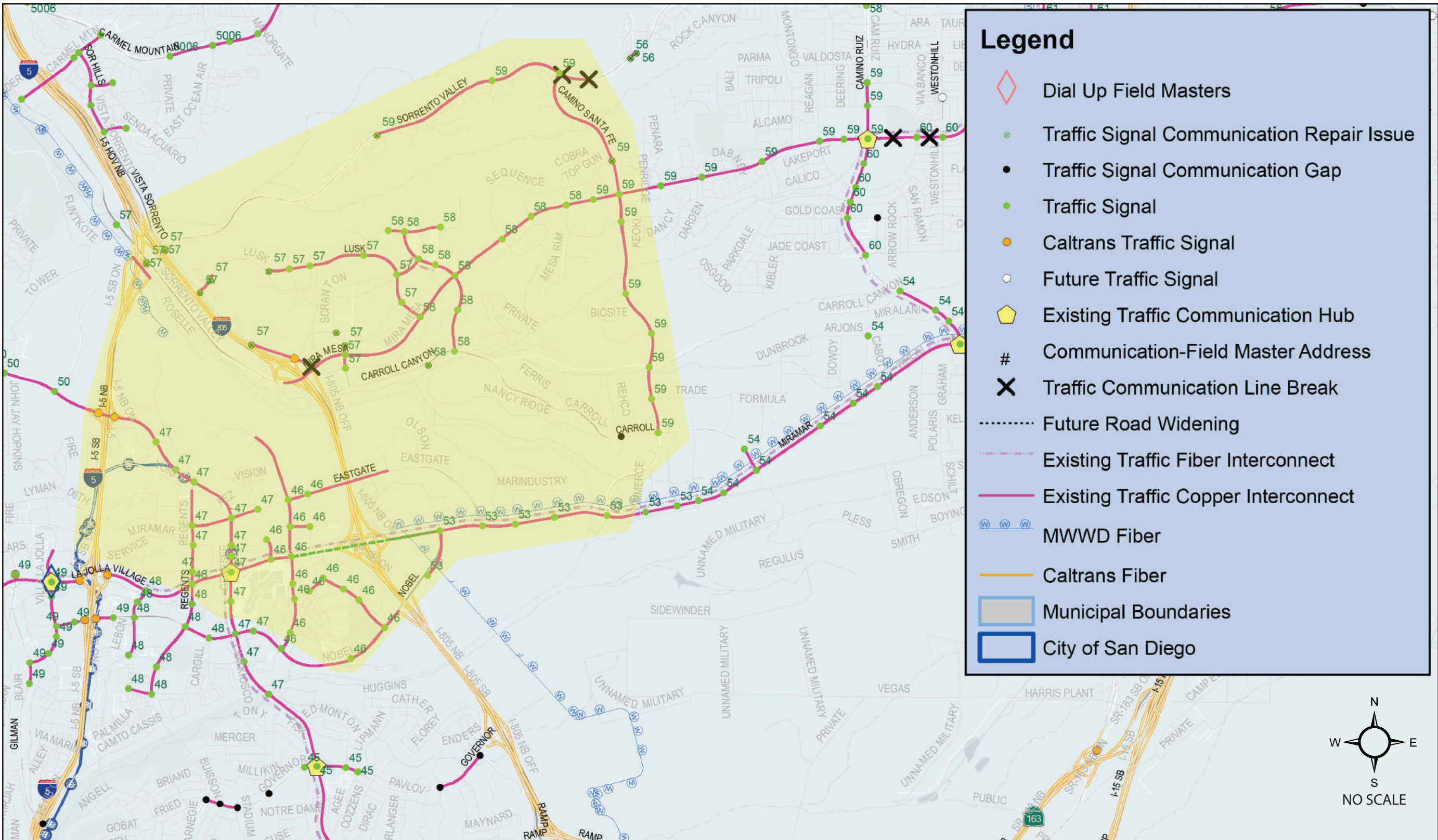
Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	45	EA	\$500.00	\$22,500.00
5	Furnish and Install VDSL Layer 2 Switch	45	EA	\$5,000.00	\$225,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	14,000	LF	\$10.00	\$140,000.00
8	Furnish and Install 12 SMFO Cable	400	LF	\$5.00	\$2,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	2	EA	\$100,000.00	\$200,000.00
Sub Total:					\$589,500.00
Soft Costs (25%):					\$147,375.00
Construction Contingency (25%):					\$147,375.00
Total:					\$884,250.00

AREA 14 - Mira Mesa	
1 TS Communication Gap	
Number	Intersection
1	Gold Cost Dr & Saluda Ave
11 TS Communication Repair Issue	
Number	Intersection
1	Calle Cristobal & Avenida del Gato
2	Calle Cristobal & Camino Miranda
3	Calle Cristobal & Camino Propico
4	Calle Cristobal & Lopez Ridge
5	Calle Cristobal & Prairie Wood Drive
6	Calle Cristobal & Windy Ridge
7	Camino Ruiz & Calle Cristobal
8	Sorrento Valley Boulevard & Juniper Park Lane
9	Westview Parkway & Capricorn Way
10	Westview Parkway & Galvin Avenue
11	Westview Parkway & Levi Driveway
2 Maintenance Locations	
Number	Intersection
1	Camino Santa Fe & Calle Cristobal
2	Lopez Park & Calle Cristobal
Maintenance Summary	
Conduit needs to be installed as well as copper interconnect. Copper interconnect is broken at Lopez and Calle Cristobal	

45 Conversion Signals	
1	Arjons Drive & Cabot Drive
2	Black Mountain Road & Activity Road
3	Black Mountain Road & Capricorn Way
4	Black Mountain Road & Carroll Canyon Road
5	Black Mountain Road & Galvin Avenue
6	Black Mountain Road & Gemini Avenue
7	Black Mountain Road & Gold Coast Drive
8	Black Mountain Road & Hillery Drive
9	Black Mountain Road & Kearny Villa Road
10	Black Mountain Road & Maya Linda Road
11	Black Mountain Road & Miramar College Driveway
12	Camino Ruiz & Activity Road
13	Camino Ruiz & Capricorn Way
14	Camino Ruiz & Carroll Canyon
15	Camino Ruiz & Flanders Drive
16	Camino Ruiz & Gold Coast Drive
17	Camino Ruiz & Jade Coast Drive
18	Camino Ruiz & Miralani
19	Camino Ruiz & New Salem Street
20	Camino Ruiz & Reagan Road
21	Camino Ruiz & Target Driveway
22	Camino Ruiz & Westmore Road
23	Carroll Road & Kenamar Drive
24	Mira Mesa Boulevard & Aderman Avenue
25	Mira Mesa Boulevard & Black Mountain Road
26	Mira Mesa Boulevard & Camino Ruiz
27	Mira Mesa Boulevard & Greenford Drive
28	Mira Mesa Boulevard & New Salem Street
29	Mira Mesa Boulevard & Parkdale Avenue
30	Mira Mesa Boulevard & Reagan Road
31	Mira Mesa Boulevard & Schilling Avenue
32	Mira Mesa Boulevard & Target
33	Mira Mesa Boulevard & Westmore Road/Marbury
34	Mira Mesa Boulevard & Westonhill Drive
35	Miramar Road & Black Mountain Road
36	Miramar Road & Cabot Drive
37	Miramar Road & Camino Ruiz
38	Miramar Road & Carroll Road
39	Miramar Road & Clayton Drive
40	Miramar Road & Commerce Avenue
41	Miramar Road & Distribution Avenue
42	Miramar Road & Dowdy Drive
43	Miramar Road & Empire Street
44	Miramar Road & Miramar Way
45	Miramar Road & Production Avenue

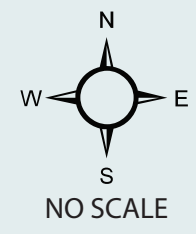
SUBAREA 15

SORENTO VALLEY



Legend

- Dial Up Field Masters
- Traffic Signal Communication Repair Issue
- Traffic Signal Communication Gap
- Traffic Signal
- Caltrans Traffic Signal
- Future Traffic Signal
- Existing Traffic Communication Hub
- Communication-Field Master Address
- Traffic Communication Line Break
- Future Road Widening
- Existing Traffic Fiber Interconnect
- Existing Traffic Copper Interconnect
- MWWD Fiber
- Caltrans Fiber
- Municipal Boundaries
- City of San Diego



City of San Diego Traffic Signal Communications Master Plan Subarea 15: Sorrento Valley

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Sorrento Valley (12 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	5	EA	\$5,000.00	\$25,000.00
2	Furnish and Install Dual Radio	1	EA	\$7,500.00	\$7,500.00
3	Furnish and Install Sectoral Antenna for Dual Radios	1	EA	\$2,000.00	\$2,000.00
4	Furnish and Install 170E Serial to Ethernet cards	12	EA	\$500.00	\$6,000.00
5	Furnish and Install VDSL Layer 2 Switch	11	EA	\$5,000.00	\$55,000.00
6	Furnish and Install Layer 2 Switch	1	EA	\$2,000.00	\$2,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	11,000	LF	\$10.00	\$110,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	1	EA	\$100,000.00	\$100,000.00
Option A Sub Total:					\$209,500.00
Soft Costs (25%):					\$52,375.00
Construction Contingency (25%):					\$52,375.00
Option A Total:					\$314,250.00
Option B Sub Total:					\$307,500.00
Soft Costs (25%):					\$76,875.00
Construction Contingency (25%):					\$76,875.00
Option B Total:					\$461,250.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Sorrento Valley (66 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	66	EA	\$500.00	\$33,000.00
5	Furnish and Install VDSL Layer 2 Switch	66	EA	\$5,000.00	\$330,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	4,500	LF	\$10.00	\$45,000.00
8	Furnish and Install 12 SMFO Cable	200	LF	\$5.00	\$1,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	1	EA	\$100,000.00	\$100,000.00
Sub Total:					\$509,000.00
Soft Costs (25%):					\$127,250.00
Construction Contingency (25%):					\$127,250.00
Total:					\$763,500.00

AREA 15 - Sorrento Valley	
1 TS Communication Gap	
Number	Intersection
1	Carroll Rd & Recho Rd
11 TS Communication Repair Issue	
Number	Intersection
1	Camino Santa Fe & Top Gun Street
2	Carroll Canyon Road & Nancy Ridge Drive
3	Kearny Villa Road & Tech Way
4	Lusk Boulevard & Elan Pharmaceutical Driveway
5	Lusk Boulevard & Vista Sorrento Parkway
6	Lusk Boulevard & Wateridge Circle W
7	Scranton Road & Mira Sorrento Place
8	Scranton Road & Morehouse Drive
9	Sorrento Valley Boulevard & Sorrento Valley Rd
10	Sorrento Valley Road & Vista Sorrento Parkway
11	Vista Sorrento Parkway & Directors Place
1 Maintenance Locations	
Number	Intersection
1	Sorrento Valley & Vista Sorrento
Maintenance Summary	
Damaged conduit and interconnect	



















66 Conversion Signals	
Number	Intersection
1	Camino Santa Fe & Carroll Canyon Road
2	Camino Santa Fe & Carroll Road
3	Camino Santa Fe & Flanders Drive
4	Camino Santa Fe & Miratech Drive
5	Camino Santa Fe & Summers Ridge Road
6	Camino Santa Fe & Trade Street
7	Carroll Canyon Road & Pacific Heights Boulevard
8	Eastgate Mall & Judicial Drive
9	Eastgate Mall and Easter Way
10	Executive Drive & Executive Way
11	Executive Drive & Judicial Drive
12	Genesee Ave & Scripps Hospital
13	Genesee Avenue & Campus Point Drive
14	Genesee Avenue & Eastgate Mall
15	Genesee Avenue & Esplanade Court
16	Genesee Avenue & Executive Drive
17	Genesee Avenue & Executive Square
18	Genesee Avenue & Regents Road
19	Genesee Avenue & La Jolla Village Drive
20	Golden Haven Drive & Renaissance Avenue
21	Judicial Drive & Golden Haven Drive
22	Judicial Drive & Nobel Drive
23	Judicial Drive & Research Place
24	Judicial Drive & Sydney Court
25	La Jolla Village Drive & Executive Way
26	La Jolla Village Drive & Regents Road
27	La Jolla Village Drive & Towne Centre Drive
28	Lusk Boulevard & Barnes Canyon Road
29	Lusk Boulevard & Mira Mesa Boulevard
30	Lusk Boulevard & Morehouse Drive
31	Lusk Boulevard & Pacific Center Boulevard
32	Lusk Boulevard & Telesis Court
33	Lusk Boulevard & Wateridge Circle E
34	Mira Mesa Boulevard & Camino Santa Fe
35	Mira Mesa Boulevard & Flanders Drive
36	Mira Mesa Boulevard & Huennekens Street
37	Mira Mesa Boulevard & Pacific Heights Boulevard
38	Mira Mesa Boulevard & Scranton Road
39	Mira Mesa Boulevard & Steadman Street
40	Mira Mesa Boulevard & Viper Way
41	Miramar Road & Camino Santa Fe
42	Miramar Road & Eastgate Mall
43	Miramar Road & Miramar Mall
44	Miramar Road & Miramar Place
45	Miramar Road & Nobel Drive

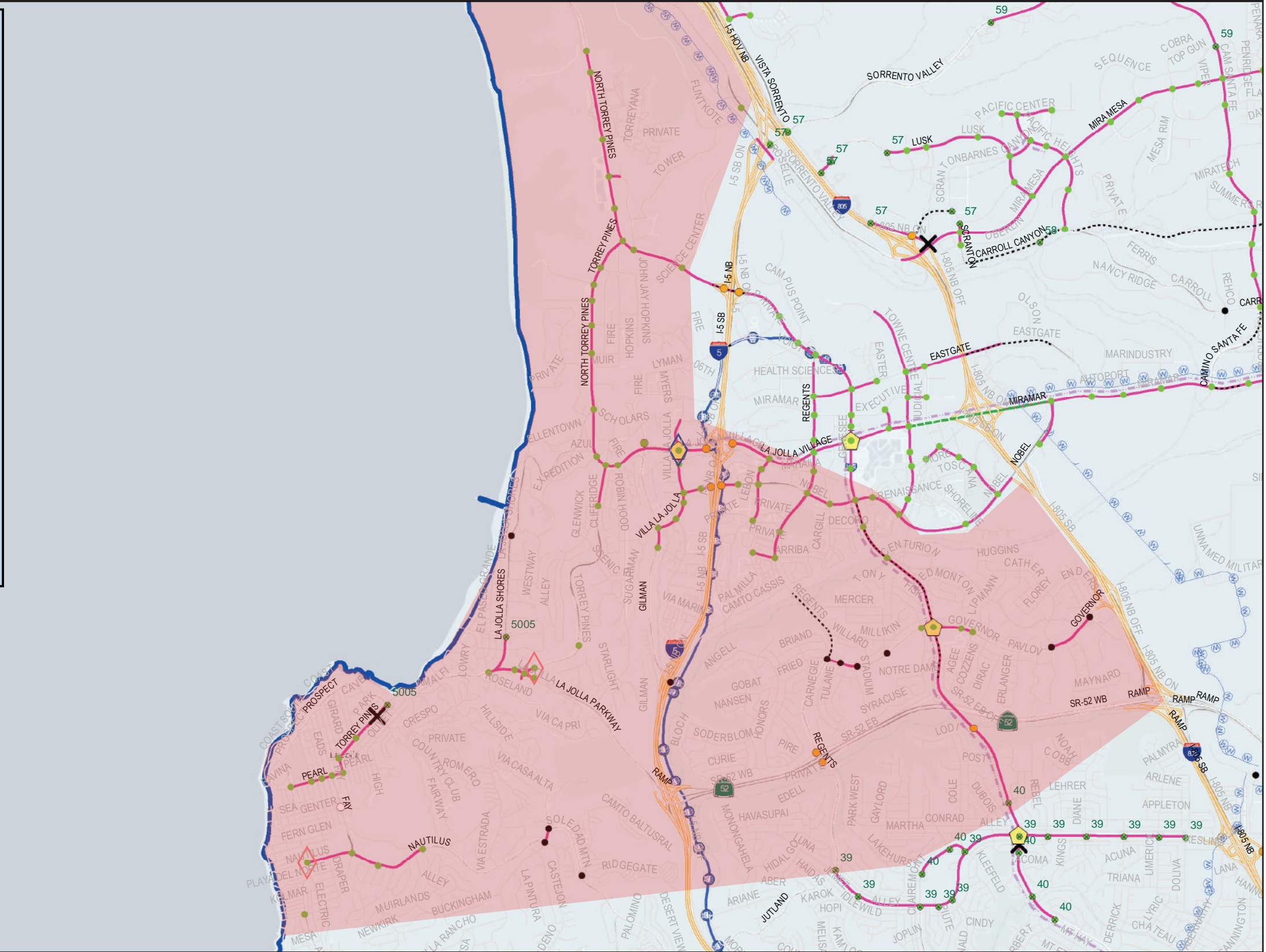
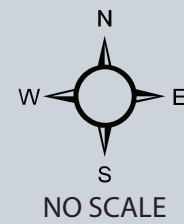
66 Conversion Signals Contd.	
46	Nobel Drive & Avenue of Flags
47	Nobel Drive & Shoreline Drive
48	Oberlin Drive & Scranton Road
49	Pacific Center Boulevard & Pacific Heights Bl
50	Pacific Center Boulevard & Pacific Mesa Boulevard
51	Pacific Center Boulevard & Wireless Way
52	Pacific Heights Boulevard & Barnes Canyon Road
53	Pacific Heights Boulevard & Cornerstone Court
54	Pacific Heights Boulevard & Pacific Mesa Blvd
55	Regents Road & Eastgate Mall
56	Regents Road & Executive Drive
57	Regents Road & Regents Park Row
58	Sorrento Valley Boulevard & Camino Santa Fe
59	Sorrento Valley Boulevard & Sorrento Valley Rd
60	Sorrento Valley Boulevard & Sunny Mesa Road
61	Sorrento Valley Road & Vista Sorrento Parkway
62	Towne Center Drive & Towne Center Gateway
63	Towne Centre Drive & Eastgate Mall
64	Towne Centre Drive & Executive Drive
65	Towne Centre Drive & Golden Haven Drive
66	Towne Centre Drive & Renaissance Avenue

SUBAREA 16

LA JOLLA

Legend

-  Dial Up Field Masters
-  Local Field Masters
-  Traffic Signal Communication Repair Issue
-  Traffic Signal Communication Gap
-  Traffic Signal
-  Caltrans Traffic Signal
-  Communication-Field Master Address
-  Existing Traffic Communication Hub
-  Traffic Communication Line Break
-  Existing Traffic Wireless Interconnect
-  Future Traffic Interconnect
-  Future Road Widening
-  Existing Traffic Fiber Interconnect
-  Existing Traffic Copper Interconnect
-  MWWF Fiber
-  Caltrans Fiber
-  Future MTS Fiber
-  City of San Diego



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City of San Diego Traffic Signal Communications Master Plan Subarea 16: La Jolla

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: La Jolla (12 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	10	EA	\$5,000.00	\$50,000.00
2	Furnish and Install Dual Radio	5	EA	\$7,500.00	\$37,500.00
3	Furnish and Install Sectoral Antenna for Dual Radios	5	EA	\$2,000.00	\$10,000.00
4	Furnish and Install 170E Serial to Ethernet cards	12	EA	\$500.00	\$6,000.00
5	Furnish and Install VDSL Layer 2 Switch	2	EA	\$5,000.00	\$10,000.00
6	Furnish and Install Layer 2 Switch	10	EA	\$2,000.00	\$20,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	1,000	LF	\$10.00	\$10,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	2	EA	\$100,000.00	\$200,000.00
Option A Sub Total:					\$145,500.00
Soft Costs (25%):					\$36,375.00
Construction Contingency (25%):					\$36,375.00
Option A Total:					\$218,250.00
Option B Sub Total:					\$343,500.00
Soft Costs (25%):					\$85,875.00
Construction Contingency (25%):					\$85,875.00
Option B Total:					\$515,250.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: La Jolla (67 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	67	EA	\$500.00	\$33,500.00
5	Furnish and Install VDSL Layer 2 Switch	67	EA	\$5,000.00	\$335,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	20,000	LF	\$10.00	\$200,000.00
8	Furnish and Install 12 SMFO Cable	400	LF	\$5.00	\$2,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	2	EA	\$100,000.00	\$200,000.00
Sub Total:					\$770,500.00
Soft Costs (25%):					\$192,625.00
Construction Contingency (25%):					\$192,625.00
Total:					\$1,155,750.00

AREA 16 - La Jolla	
10 TS Communication Gap	
Number	Intersection
1	Gilman Dr & La Jolla Colony Dr
2	Governor Dr & Mercer St
3	Governor Dr & Greenwich Dr
4	Governor Dr & Gullstrand St
5	Governor Dr & Scripps St
6	Governor Dr & Stadium St
7	La Jolla Scenic Dr & Nautilus St
8	La Jolla Scenic Dr & Soledad Mountain Rd
9	La Jolla Shores Dr & El Paseo Grande
10	Regents Rd & Governor Dr
2 TS Communication Repair Issue	
Number	Intersection
1	La Jolla Shores & Avenida de la Playa
2	Torrey Pines Road & Prospect Place
1 Maintenance Locations	
Torrey Pines Rd & Ivanhoe Ave	
Maintenance Summary	
COMM/Adaptive; Dial-ups are bad and difficult to work with; Damaged Interconnect, 1 to 2 blocks east of Ivanhoe	
























67 Conversion Signals	
Number	Intersection
1	Arriba Street & Palmilla Drive
2	Carmel Mountain Road & Sorrento Valley Road
3	Draper Avenue & Pearl Street
4	Fay Avenue & Pearl Street
5	Genesee Avenue & Centurion Square
6	Genesee Avenue & Decoro Street
7	Genesee Avenue & Governor Drive
8	Genesee Avenue & John Jay Hopkins
9	Genesee Avenue & N. Torrey Pines Road
10	Genesee Avenue & Nobel Drive
11	Genesee Avenue & Science Center Drive
12	Gilman Drive & Via Alicante
13	Gilman Drive & Villa La Jolla Drive
14	Girard Avenue & Pearl Street
15	Governor Drive & Agee Street
16	Governor Drive & Edmonton Avenue
17	Governor Drive & Radcliffe Drive
18	La Jolla Boulevard & Palomar Ave
19	La Jolla Boulevard & Pearl Street
20	La Jolla Parkway & Ardath Lane
21	La Jolla Villa Drive & Lebon Drive
22	La Jolla Village Drive & La Jolla Scenic Drive
23	La Jolla Village Drive & Torrey Pines Road
24	La Jolla Village Drive & Villa La Jolla Drive
25	La Jolla Village WB Ramp & Gilman Drive
26	Lebon Drive & Charmant Drive
27	Lebon Drive & Univeristy Center Lane
28	N. Torrey Pines Drive & John J Hopkins Drive
29	N. Torrey Pines Drive & La Jolla Shores Drive
30	N. Torrey Pines Road & Almahurst Row
31	N. Torrey Pines Road & Expedition Way
32	N. Torrey Pines Road & Pangea Drive
33	N. Torrey Pines Road & Salk Institute Road
34	N. Torrey Pines Road & Science Park Road
35	N. Torrey Pines Road & Scripps Clinic S. Driveway
36	N. Torrey Pines Road & Torrey Pines Scenic Drive
37	N. Torrey Pines Road & UCSD Northpoint Driveway
38	Nautilus Street & Avenida Mirola
39	Nautilus Street & Fay Avenue
40	Nautilus Street & La Jolla Boulevard
41	Nobel Drive & Caminito Plaza Centro
42	Nobel Drive & Cargill Avenue
43	Nobel Drive & La Jolla Village Square
44	Nobel Drive & Lebon Drive
45	Nobel Drive & Lombard Place

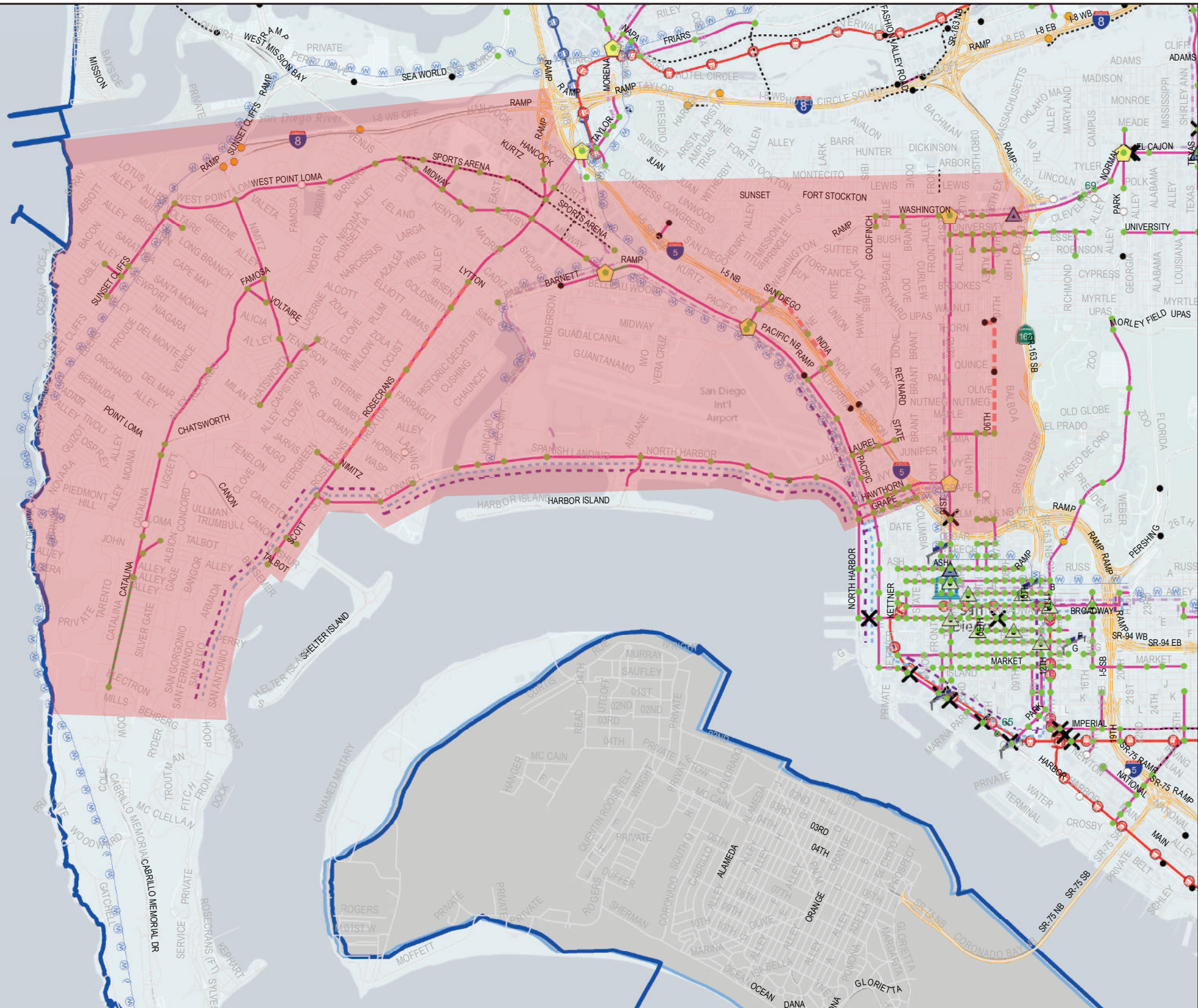
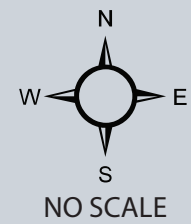
67 Conversion Signals Contd.	
46	Nobel Drive & Towne Centre Drive
47	Nobel Drive & Villa La Jolla
48	North Torrey Pines Rd & NU System Drwy
49	North Torrey Pines Rd & Torrey Pines Science Park
50	Pearl Street & Eads Avenue
51	Regents Road & Arriba Street
52	Regents Road & Berino Court
53	Regents Road & Mahaila Avenue
54	Regents Road & Nobel Drive
55	Sorrento Valley Road & Railroad Station
56	Torrey Pines Road & Ardath Lane
57	Torrey Pines Road & Dunaway Drive
58	Torrey Pines Road & Girard Avenue
59	Torrey Pines Road & Ivanhoe Avenue
60	Torrey Pines Road & La Jolla Parkway
61	Torrey Pines Road & La Jolla Shores Drive
62	Torrey Pines Road & Pottery Canyon Park
63	Torrey Pines Road/Hidden Valley Rd & La Jolla Pkwy
64	Villa La Jolla Dr & Villa La Jolla Drwy
65	Villa La Jolla Drive & Holiday Court
66	Villa La Jolla Drive & Via Mallorca
67	W. Murilands Drive & Nautilus Street

SUBAREA 17

AIRPORT/ POINT LOMA

Legend

-  Dial Up Field Masters
-  Local Field Masters
-  Traffic Signal Communication Repair Issue
-  Traffic Signal Communication Gap
-  Traffic Signal
-  Caltrans Traffic Signal
-  Future Traffic Signal
-  Copper Traffic Termination Cabinet
-  Fiber Traffic Termination Cabinet
-  Communication-Field Master Address
-  Existing Traffic Communication Hub
-  Traffic Communication Line Break
-  Existing Traffic Wireless Interconnect
-  Future Traffic Interconnect
-  Future Road Widening
-  Existing Traffic Fiber Interconnect
-  Existing Traffic Copper Interconnect
-  MWWd Fiber
-  Police Department Fiber
-  Caltrans Fiber
-  MTS Fiber
-  Future MTS Fiber
-  City of San Diego



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City of San Diego Traffic Signal Communications Master Plan Subarea 17: Airport/ Point Loma

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Airport/ Point Loma (10 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	6	EA	\$5,000.00	\$30,000.00
2	Furnish and Install Dual Radio	4	EA	\$7,500.00	\$30,000.00
3	Furnish and Install Sectoral Antenna for Dual Radios	4	EA	\$2,000.00	\$8,000.00
4	Furnish and Install 170E Serial to Ethernet cards	10	EA	\$500.00	\$5,000.00
5	Furnish and Install VDSL Layer 2 Switch	1	EA	\$5,000.00	\$5,000.00
6	Furnish and Install Layer 2 Switch	9	EA	\$2,000.00	\$18,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	15,000	LF	\$10.00	\$150,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	4	EA	\$100,000.00	\$400,000.00
Option A Sub Total:					\$218,000.00
Soft Costs (25%):					\$54,500.00
Construction Contingency (25%):					\$54,500.00
Option A Total:					\$327,000.00
Option B Sub Total:					\$646,000.00
Soft Costs (25%):					\$161,500.00
Construction Contingency (25%):					\$161,500.00
Option B Total:					\$969,000.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Airport/ Point Loma (128 Signals)
Scenario: TSCMP Phase 2
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	128	EA	\$500.00	\$64,000.00
5	Furnish and Install VDSL Layer 2 Switch	128	EA	\$5,000.00	\$640,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	30,000	LF	\$10.00	\$300,000.00
8	Furnish and Install 12 SMFO Cable	800	LF	\$5.00	\$4,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	4	EA	\$100,000.00	\$400,000.00
Sub Total:					\$1,408,000.00
Soft Costs (25%):					\$352,000.00
Construction Contingency (25%):					\$352,000.00
Total:					\$2,112,000.00

AREA 17 - Airport/Point Loma	
9 TS Communication Gap	
Number	Intersection
1	6th Ave & Quince Dr
2	6th Ave & Upas St
3	Barnett Ave & Tuscaloosa St
4	India St & Palm St
5	Kettner Blvd & Palm St
6	Old Town Ave & Moore St
7	Pacific Highway & Sassafras St
8	San Diego Ave & Old Town Ave
9	Upas St & 5th Ave
1 TS Communication Repair Issue	
Number	Intersection
1	North Harbor Dr & Laurel St
0 Maintenance Locations	
Maintenance Summary	

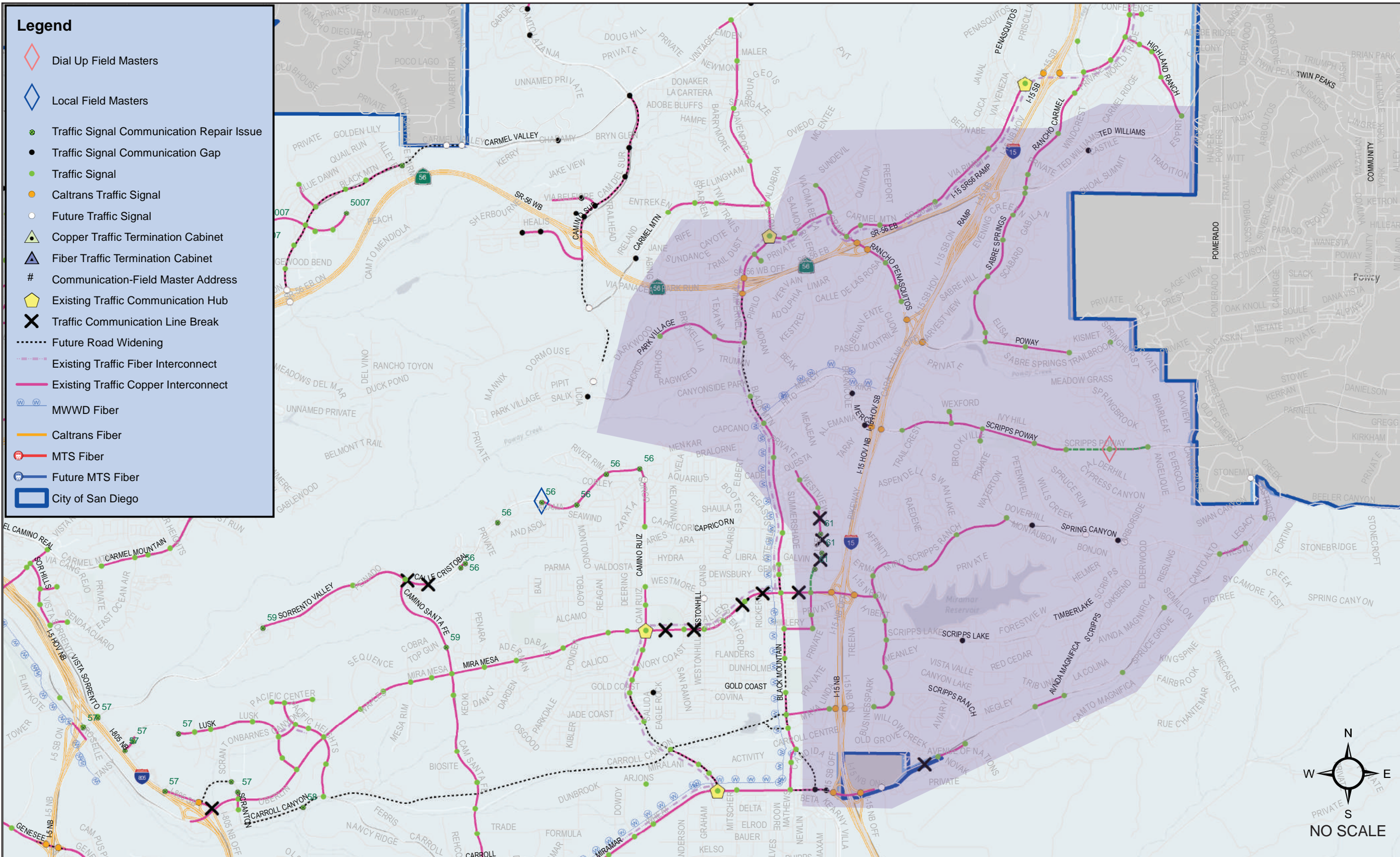
128 Conversion Signals	
Number	Intersection
1	1st Avenue & University Avenue
2	3rd Avenue & University Avenue
3	4th Avenue & University Avenue
4	5th Avenue & University Avenue
5	6th Avenue & University Avenue
6	7th Avenue & University Avenue
7	8th Avenue & University Avenue
8	9th Avenue & University Avenue
9	Barnett Avenue & Lytton Street
10	California Street & Grape Street
11	California Street & Laurel Street
12	Camino del Rio W & Hancock Street
13	Camino del Rio W & Kurtz Street/Gaines Street
14	Canon Street & Talbot Street
15	Catalina Boulevard & Canon Street
16	Catalina Boulevard & Chatsworth Boulevard
17	Catalina Boulevard & Electron Drive
18	Catalina Boulevard & Narragansett Avenue
19	Catalina Boulevard & Talbot Street
20	Catalina Boulevard & Voltaire Street
21	Catalina Boulevard & Wilcox Street
22	Chatsworth Boulevard & Narragansett Avenue
23	Chatsworth Boulevard & Poinsettia Drive
24	Chatsworth Boulevard & Voltaire Street
25	Grape Street & 4th Avenue
26	Grape Street & Columbia Street
27	Grape Street & India Street
28	Grape Street & Kettner Boulevard
29	Grape Street & Pacific Highway
30	Grape Street & State Street
31	Harbor Dr & Spanish Landing/Lee Ct
32	Harbor Drive & Grape Street
33	Harbor Drive & Hawthorn Street
34	Hawthorn Street & Columbia Street
35	Hawthorn Street & India Street
36	Hawthorn Street & Kettner Boulevard
37	Hawthorn Street & Pacific Highway
38	Hawthorn Street & State Street
39	India Street & Vine Street
40	Kettner Boulevard & Sassafras Street
41	Laurel Street & 1st Avenue
42	Laurel Street & 4th Avenue
43	Laurel Street & 5th Avenue
44	Laurel Street & 6th Avenue
45	Laurel Street & India Street

128 Conversion Signals Contd.	
46	Laurel Street & Kettner Boulevard
47	Laurel Street & State Street
48	Midway Drive & Barnett Avenue
49	Midway Drive & Duke Street
50	Midway Drive & East Drive
51	Midway Drive & Fordham Street
52	Midway Drive & Kemper Street
53	Midway Drive & US Post Office
54	Midway Drive & Wing Street
55	N. Harbor Drive & Coastguard
56	N. Harbor Drive & Harbor Island Drive
57	N. Harbor Drive & Laning Road
58	N. Harbor Drive & Laurel Street
59	N. Harbor Drive & Lee Court
60	N. Harbor Drive & McCain Road
61	N. Harbor Drive & Rental Car Access
62	N. Harbor Drive & Ryan Gate 2
63	N. Harbor Drive & Scott Street
64	N. Harbor Drive & Spanish Landing
65	N. Harbor Drive & Winship Lane
66	Newport Avenue & Cable Street
67	Nimitz Boulevard & Atascadero Drive
68	Nimitz Boulevard & Chatsworth Boulevard
69	Nimitz Boulevard & Evergreen Street
70	Nimitz Boulevard & Famosa Boulevard
71	Nimitz Boulevard & N. Harbor Drive
72	Nimitz Boulevard & Rosecrans Street
73	Nimitz Boulevard & W. Point Loma Boulevard
74	Pacific Highway & Enterprise Street
75	Pacific Highway & Juniper Street
76	Pacific Highway & Laurel Street
77	Pacific Highway & Palm Street
78	Pacific Highway & Sassafras Street
79	Pacific Highway SB & Washington Street
80	Pennsylvania Avenue & 5th Avenue
81	Pennsylvania Avenue & 6th Avenue
82	Point Loma Avenue & Catalina Boulevard
83	Robinson Avenue & 1st Avenue
84	Robinson Avenue & 4th Avenue
85	Robinson Avenue & 5th Avenue
86	Robinson Avenue & 6th Avenue
87	Robinson Avenue & 7th Avenue
88	Rosecrans Street & Canon Street
89	Rosecrans Street & Farragut Road
90	Rosecrans Street & Kurtz Street
91	Rosecrans Street & Lytton Street

128 Conversion Signals Contd.	
92	Rosecrans Street & Midway Drive
93	Rosecrans Street & N. Evergreen Street
94	Rosecrans Street & N. Harbor Drive
95	Rosecrans Street & NTC Gate 3
96	Rosecrans Street & Russell Street
97	Rosecrans Street & Shelter Island Drive
98	Rosecrans Street & Sports Arena Boulevard
99	Rosecrans Street & Talbot Street
100	Rosecrans Street & Womble Road
101	Sassafras Street & India Street
102	Shelter Island Drive & Scott Street
103	Sports Arena Boulevard & Hancock Street
104	Sports Arena Boulevard & Kemper Street
105	Sports Arena Boulevard & Midway Drive
106	Sports Arena Boulevard & Ralph's Driveway
107	Sports Arena Boulevard & Target Driveway
108	Sunset Cliffs Boulevard & Narragansett Avenue
109	Sunset Cliffs Boulevard & Newport Avenue
110	Sunset Cliffs Boulevard & Santa Monica Avenue
111	Sunset Cliffs Boulevard & Voltaire Street
112	Sunset Cliffs Boulevard & W. Point Loma Blvd
113	University Avenue & Dove Street
114	University Avenue & Goldfinch Street
115	Voltaire Street & Ebers Street
116	Voltaire Street & Wabaska Drive
117	W. Point Loma Boulevard & Adrian Street
118	W. Point Loma Boulevard & Groton Street
119	Washington Street & 1st Avenue
120	Washington Street & 4th Avenue
121	Washington Street & 5th Avenue
122	Washington Street & Dove Street
123	Washington Street & Falcon Street
124	Washington Street & Front Street
125	Washington Street & Goldfinch Street
126	Washington Street & Hancock Street
127	Washington Street & India Street
128	Washington Street & San Diego Avenue

SUBAREA 18

SCRIPPS POWAY



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City of San Diego Traffic Signal Communications Master Plan Subarea 18: Scripps Poway

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Scripps Poway (8 Signals)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	6	EA	\$5,000.00	\$30,000.00
2	Furnish and Install Dual Radio	2	EA	\$7,500.00	\$15,000.00
3	Furnish and Install Sectoral Antenna for Dual Radios	2	EA	\$2,000.00	\$4,000.00
4	Furnish and Install 170E Serial to Ethernet cards	8	EA	\$500.00	\$4,000.00
5	Furnish and Install VDSL Layer 2 Switch	8	EA	\$5,000.00	\$40,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	13,000	LF	\$10.00	\$130,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	1	EA	\$100,000.00	\$100,000.00
Option A Sub Total:					\$225,000.00
Soft Costs (25%):					\$56,250.00
Construction Contingency (25%):					\$56,250.00
Option A Total:					\$337,500.00
Option B Sub Total:					\$323,000.00
Soft Costs (25%):					\$80,750.00
Construction Contingency (25%):					\$80,750.00
Option B Total:					\$484,500.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Scripps Poway (68 Signals)
Scenario: TSCMP Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	68	EA	\$500.00	\$34,000.00
5	Furnish and Install VDSL Layer 2 Switch	68	EA	\$5,000.00	\$340,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	25,000	LF	\$10.00	\$250,000.00
8	Furnish and Install 12 SMFO Cable	200	LF	\$5.00	\$1,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	1	EA	\$100,000.00	\$100,000.00
Sub Total:					\$725,000.00
Soft Costs (25%):					\$181,250.00
Construction Contingency (25%):					\$181,250.00
Total:					\$1,087,500.00

AREA 18 - Scripps Poway	
8 TS Communication Gap	
Number	Intersection
1	Mercy Rd & Alemania Rd
2	Mercy Rd & Kika Ct
3	Miramar Rd & Kearny Mesa Rd
4	Miramar Rd & Kearny Villa Rd
5	Scripps Lake Dr & Red Cedar Dr
6	Spring Canyon Rd & Blue Cypress Dr
7	Spring Canyon Rd & Scripps Creek Dr
8	Ted William Pkwy & Shoal Creek Dr
0 TS Communication Repair Issue	
0 Maintenance Locations	
Maintenance Summary	

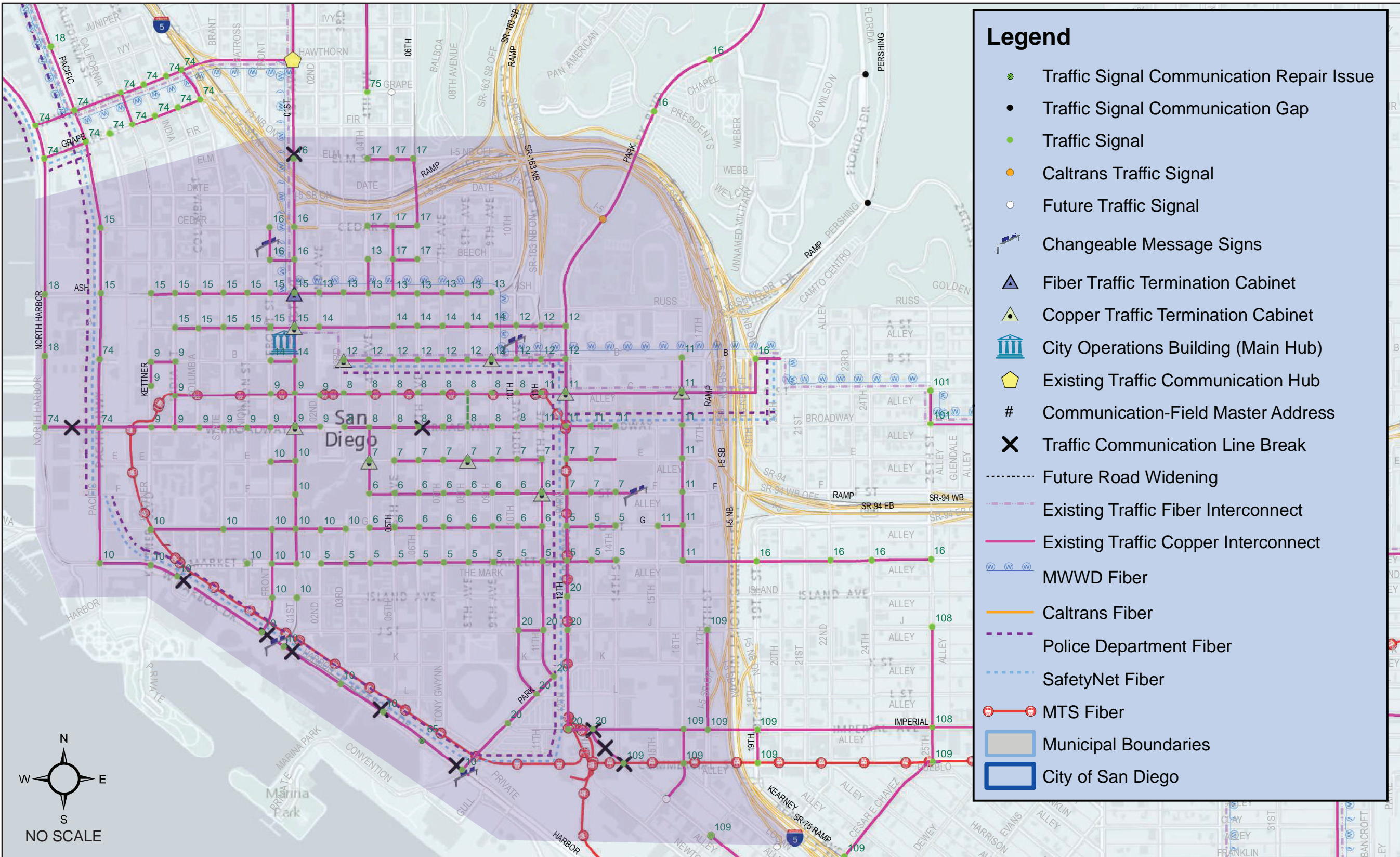
68 Conversion Signals	
Number	Intersection
1	Black Mountain Road & Canyonside Park Drive
2	Black Mountain Road & Mercy Road
3	Black Mountain Road & Park Village Road
4	Black Mountain Road & Paseo Montalban
5	Black Mountain Road & Twin Trails Drive
6	Black Mountain Road & Westview Parkway
7	Campus Point North & Westview Parkway
8	Campus Point South & Westview Parkway
9	Carmel Mountain Road & Cuca Street
10	Carmel Mountain Road & Freeport Road
11	Carmel Mountain Road & Paseo Cardiel
12	Carmel Mountain Road & Paseo Montalban
13	Carmel Mountain Road & Rancho Penesquitos Blvd.
14	Carmel Mountain Road & Sundevil Way
15	Carrol Canyon Rd & Businesspark Ave
16	Carroll Canyon Road & Maya Linda Road
17	Evening Creek Drive S & Sabre Springs Parkway
18	Mira Mesa Boulevard & Scripps Ranch Boulevard
19	Mira Mesa Boulevard & Westview Parkway
20	Morning Creek Drive South & Sabre Springs Pkwy
21	Morning Creek North & Sabre Springs
22	Park Village Road & Ragweed Street
23	Park Village Road & Rumex Lane
24	Paseo Montalban & Salmon River Road
25	Paseo Montalban & Twin Trails Drive
26	Pomerado Road & Avenida Magnifica
27	Pomerado Road & Chabad Center Driveway
28	Pomerado Road & Fairbrook Road
29	Pomerado Road & Legacy Road
30	Pomerado Road & Scripps Ranch Boulevard
31	Pomerado Road & Semillon Boulevard
32	Pomerado Road & Spring Canyon Road
33	Pomerado Road & Stonebridge Parkway
34	Pomerado Road & Willow Creek Road
35	Poway Road & Creekview Drive
36	Poway Road & Sabre Springs Parkway
37	Poway Road & Springbrook Drive
38	Poway Road & Springhurst Drive
39	Rancho Carmel Drive & E/B Ted Williams Parkway
40	Rancho Carmel Drive & Provencal Place
41	Rancho Carmel Drive & Shoal Creek Drive
42	Rancho Carmel Drive & W/B Ted Williams Parkway
43	Rancho Penasquitos Boulevard & Calle De Las Rosas
44	Rancho Penasquitos Boulevard & Paseo Montril
45	Rancho Penasquitos Boulevard & Via del Sud

68 Conversion Signals Contd.	
46	Sabre Springs Parkway & Evening Creek Drive N
47	Sabre Springs Parkway & Savannah Creek Drive
48	Scripps Poway Parkway & Angelique Street
49	Scripps Poway Parkway & Cypress Canyon Road
50	Scripps Poway Parkway & Scripps Creek Drive
51	Scripps Poway Parkway & Scripps Highlands Drive
52	Scripps Poway Parkway & Scripps Summit Drive
53	Scripps Poway Parkway & Spring Canyon Road
54	Scripps Poway Parkway & Sunshine Peak Court
55	Scripps Ranch Boulevard & Carroll Canyon Road
56	Scripps Ranch Boulevard & Erma Road
57	Scripps Ranch Boulevard & Farmingdale Street
58	Scripps Ranch Boulevard & Hibert Street
59	Scripps Ranch Boulevard & Meanley Drive
60	Scripps Ranch Boulevard & Miro Circle
61	Scripps Ranch Boulevard & Scripps Lake Drive
62	Scripps Ranch Boulevard & Spring Canyon Road
63	Scripps Summit Drive & Wexford Street
64	Spring Canyon Road & North Brookville Drive
65	Ted Williams Parkway & Highland Ranch Road
66	Twin Trails Drive & Post Office
67	Westview Parkway & Hillery Drive
68	Westview Parkway & Market Center Driveway

SUBAREA 19

CENTRAL BUSINESS DISTRICT

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Legend

- Traffic Signal Communication Repair Issue
- Traffic Signal Communication Gap
- Traffic Signal
- Caltrans Traffic Signal
- Future Traffic Signal
- Changeable Message Signs
- Fiber Traffic Termination Cabinet
- Copper Traffic Termination Cabinet
- City Operations Building (Main Hub)
- Existing Traffic Communication Hub
- Communication-Field Master Address
- Traffic Communication Line Break
- Future Road Widening
- Existing Traffic Fiber Interconnect
- Existing Traffic Copper Interconnect
- MWWF Fiber
- Caltrans Fiber
- Police Department Fiber
- SafetyNet Fiber
- MTS Fiber
- Municipal Boundaries
- City of San Diego



City of San Diego Traffic Signal Communications Master Plan Subarea 19: Central Business District

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Central Business District (1 Signal)
Scenario: TSCMP Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	1	EA	\$500.00	\$500.00
5	Furnish and Install VDSL Layer 2 Switch	1	EA	\$5,000.00	\$5,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	30,000	LF	\$10.00	\$300,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	4	EA	\$100,000.00	\$400,000.00
Option A Sub Total:					\$307,500.00
Soft Costs (25%):					\$76,875.00
Construction Contingency (25%):					\$76,875.00
Option A Total:					\$461,250.00
Option B Sub Total:					\$705,500.00
Soft Costs (25%):					\$176,375.00
Construction Contingency (25%):					\$176,375.00
Option B Total:					\$1,058,250.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Subarea: Central Business District (182 Signals)
Scenario: TSCMP Phase 2
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	182	EA	\$500.00	\$91,000.00
5	Furnish and Install VDSL Layer 2 Switch	182	EA	\$5,000.00	\$910,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	52,000	LF	\$10.00	\$520,000.00
8	Furnish and Install 12 SMFO Cable	800	LF	\$5.00	\$4,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	4	EA	\$100,000.00	\$400,000.00
Sub Total:					\$1,925,000.00
Soft Costs (25%):					\$481,250.00
Construction Contingency (25%):					\$481,250.00
Total:					\$2,887,500.00

AREA 19 - Central Business District	
0 TS Communication Gap	
1 TS Communication Repair Issue	
Number	Intersection
1	Harbor Dr & Salida Loop
0 Maintenance Locations	
Maintenance Summary	

182 Conversion Signals	
Number	Intersection
1	10th Avenue & J Street
2	11th & J St
3	17th Avenue & J Street
4	1st Ave & Cedar Street
5	3rd Street & Market Street
6	9th Avenue & Market Street
7	A Street & 10th Avenue
8	A Street & 11th Avenue
9	A Street & 12th Avenue
10	A Street & 1st Avenue
11	A Street & 2nd Avenue
12	A Street & 5th Avenue
13	A Street & 6th Avenue
14	A Street & 7th Avenue
15	A Street & 8th Avenue
16	A Street & 9th Avenue
17	A Street & Columbia Street
18	A Street & Front Street
19	A Street & India Street
20	A Street & State
21	A Street & Union Street
22	Ash Street & 1st Avenue
23	Ash Street & 2nd Avenue
24	Ash Street & 3rd Avenue
25	Ash Street & 4th Avenue
26	Ash Street & 5th Avenue
27	Ash Street & 6th Avenue
28	Ash Street & 7th Avenue
29	Ash Street & 8th Avenue
30	Ash Street & 9th Avenue
31	Ash Street & Columbia Street
32	Ash Street & Front Street
33	Ash Street & India Street
34	Ash Street & Kettner Boulevard
35	Ash Street & N. Harbor Drive
36	Ash Street & Pacific Highway
37	Ash Street & State Street
38	Ash Street & Union Street
39	B Street & 10th Avenue
40	B Street & 11th Avenue
41	B Street & 12th Avenue
42	B Street & 16th Avenue
43	B Street & 1st Avenue
44	B Street & 3rd Avenue
45	B Street & 4th Avenue

182 Conversion Signals Contd.	
46	B Street & 5th Avenue
47	B Street & 6th Avenue
48	B Street & 7th Avenue
49	B Street & 8th Avenue
50	B Street & 9th Avenue
51	B Street & Front Street
52	B Street & India Street
53	B Street & Kettner Boulevard
54	B Street & N. Harbor Dr
55	Beech Street & 1st Avenue
56	Beech Street & 4th Avenue
57	Beech Street & 5th Avenue
58	Beech Street & 6th Avenue
59	Beech Street & Front Street
60	Broadway & 10th Avenue
61	Broadway & 11th Avenue
62	Broadway & 12th Avenue
63	Broadway & 13th Avenue
64	Broadway & 14th Avenue
65	Broadway & 16th Avenue
66	Broadway & 1st Avenue
67	Broadway & 2nd Avenue
68	Broadway & 3rd Avenue
69	Broadway & 4th Avenue
70	Broadway & 5th Avenue
71	Broadway & 6th Avenue
72	Broadway & 7th Avenue
73	Broadway & 8th Avenue
74	Broadway & 9th Avenue
75	Broadway & Columbia Street
76	Broadway & Front Street
77	Broadway & India Street
78	Broadway & Kettner Boulevard
79	Broadway & N. Harbor Drive
80	Broadway & Pacific Highway
81	Broadway & State Street
82	Broadway & Union Street
83	C Street & 10th Avenue
84	C Street & 11th Avenue
85	C Street & 12th Avenue
86	C Street & 16th Avenue
87	C Street & 1st Avenue
88	C Street & 2nd Avenue
89	C Street & 3rd Avenue
90	C Street & 4th Avenue
91	C Street & 5th Avenue

182 Conversion Signals Contd.	
92	C Street & 6th Avenue
93	C Street & 7th Avenue
94	C Street & 8th Avenue
95	C Street & 9th Avenue
96	C Street & Front Street
97	C Street & India Street
98	Cedar Street & 4th Avenue
99	Cedar Street & 6th Avenue
100	Cedar Street & Front Street
101	Cedar Street & Pacific Highway
102	E Street & 10th Avenue
103	E Street & 11th Avenue
104	E Street & 12th Avenue
105	E Street & 13th Avenue
106	E Street & 16th Avenue
107	E Street & 1st Avenue
108	E Street & 4th Avenue
109	E Street & 5th Avenue
110	E Street & 6th Avenue
111	E Street & 7th Avenue
112	E Street & 8th Avenue
113	E Street & 9th Avenue
114	E Street & Front Street
115	Elm Street & 1st Avenue
116	Elm Street & 4th Avenue
117	Elm Street & 5th Avenue
118	Elm Street & 6th Avenue
119	F Street & 10th Avenue
120	F Street & 11th Avenue
121	F Street & 12th Avenue
122	F Street & 13th Avenue
123	F Street & 14th Avenue
124	F Street & 16th Avenue
125	F Street & 1st Avenue
126	F Street & 4th Avenue
127	F Street & 5th Avenue
128	F Street & 6th Avenue
129	F Street & 7th Avenue
130	F Street & 8th Avenue
131	F Street & 9th Avenue
132	Fifth Avenue & Cedar Street
133	First Avenue & Island Avenue
134	Front Street & G Street
135	Front Street & Island Avenue
136	G Street & 10th Avenue
137	G Street & 11th Avenue

182 Conversion Signals Contd.	
138	G Street & 12th Avenue
139	G Street & 13th Avenue
140	G Street & 14th Avenue
141	G Street & 15th Avenue
142	G Street & 16th Avenue
143	G Street & 1st Avenue
144	G Street & 2nd Avenue
145	G Street & 3rd Avenue
146	G Street & 4th Avenue
147	G Street & 5th Avenue
148	G Street & 6th Avenue
149	G Street & 7th Avenue
150	G Street & 8th Avenue
151	G Street & 9th Street
152	G Street & Kettner Boulevard
153	G Street & State Street
154	Harbor Drive & 5th Avenue
155	Harbor Drive & First Avenue
156	Harbor Drive & Front Street
157	Harbor Drive & Pacific Highway
158	Harbor Drive & W. Market Street
159	Imperial Avenue & 12th Avenue
160	Kettner Boulevard & Great American Plaza
161	Kettner Boulevard & West Harbor Drive
162	Market Street & 10th Avenue
163	Market Street & 11th Avenue
164	Market Street & 12th Avenue
165	Market Street & 13th Avenue
166	Market Street & 14th Avenue
167	Market Street & 16th Avenue
168	Market Street & 19th Avenue
169	Market Street & 1st Avenue
170	Market Street & 2nd Avenue
171	Market Street & 4th Avenue
172	Market Street & 5th Avenue
173	Market Street & 6th Avenue
174	Market Street & 7th Avenue
175	Market Street & 8th Avenue
176	Market Street & Front Street
177	Market Street & Union Street
178	Pacific Highway & Grande Palm Driveway
179	Park Boulevard & 10th Avenue
180	Park Boulevard & 11th Avenue
181	Park Boulevard & Island Avenue
182	Park Boulevard & J Street

ITS ELEMENTS + STAFFING

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Scenario: ITS Elements & Staffing Phase 1
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Traffic Management Center (Complete)	1	LS	\$600,000.00	\$600,000.00
Sub Total:					\$600,000.00
Soft Cost (15%):					\$90,000.00
Construction and Contingency (15%)					\$90,000.00
Sub Total:					\$780,000.00
2	TMC Staffing	2	EA	\$90,000.00	\$180,000.00
Total:					\$960,000.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Scenario: ITS Elements & Staffing Phase 2
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	ITS Traffic Signal Cabinet	765	EA	\$12,000.00	\$9,180,000.00
2	2070 Controller	765	EA	\$3,000.00	\$2,295,000.00
3	Conflict Monitors	765	EA	\$1,000.00	\$765,000.00
4	Detection System	765	EA	\$10,000.00	\$7,650,000.00
5	EVPE System	765	EA	\$8,000.00	\$6,120,000.00
6	EVPE System Vehicle Fleet	50	EA	\$2,000.00	\$100,000.00
7	Battery Back Up System	765	EA	\$5,000.00	\$3,825,000.00
8	CCTV Cameras	765	EA	\$6,000.00	\$4,590,000.00
9	Adaptive Signal Control	255	EA	\$50,000.00	\$12,750,000.00
10	Changeable Message Signs	4	EA	\$150,000.00	\$600,000.00
11	Web Portal	1	LS	\$50,000.00	\$50,000.00
Sub Total:					\$47,925,000.00
Soft Cost (15%):					\$7,188,750.00
Construction and Contingency (15%)					\$7,188,750.00
Sub Total:					\$62,302,500.00
12	TMC Staffing	3	EA	\$90,000.00	\$270,000.00
Total:					\$62,572,500.00

TRAFFIC SIGNAL COMMUNICATION MASTER PLAN ORDER OF MAGNITUDE COST ESTIMATE

Scenario: ITS Elements & Staffing Phase 3
Prepared By: Stack Traffic Consulting- YF, AA
Date: 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	ITS Traffic Signal Cabinet	766	EA	\$12,000.00	\$9,192,000.00
2	2070 Controller	766	EA	\$3,000.00	\$2,298,000.00
3	Conflict Monitors	766	EA	\$1,000.00	\$766,000.00
4	Detection System	766	EA	\$10,000.00	\$7,660,000.00
5	EVPE System	766	LS	\$8,000.00	\$6,128,000.00
6	EVPE System Vehicle Fleet	50	EA	\$2,000.00	\$100,000.00
7	Battery Back Up System	766	EA	\$5,000.00	\$3,830,000.00
8	CCTV Cameras	766	EA	\$6,000.00	\$4,596,000.00
9	Adaptive Signal Control	255	EA	\$50,000.00	\$12,750,000.00
10	Changeable Message Signs	4	EA	\$150,000.00	\$600,000.00
11	Web Portal	0	EA	\$50,000.00	\$0.00
Sub Total:					\$47,920,000.00
Soft Cost (15%):					\$7,188,000.00
Construction and Contingency (15%)					\$7,188,000.00
Sub Total:					\$62,296,000.00
12	TMC Staffing	3	EA	\$90,000.00	\$270,000.00
Total:					\$62,566,000.00

APPENDIX E

FUTURE TRANSPORTATION PROJECTS

Future Road Network

Project Name	Project Description	Year Anticipated	Source
El Camino Real	From San Dieguito Road to Via de la Valle, reconstruct and widen from 2 to 4 lanes and extend transition lane and additional grading to avoid biological impacts (CIP 52-479.0)	2018	SANDAG 2050 RTP, Table A.8 - Phased Arterial Projects - Revenue Constrained Plan
West Mission Bay Drive Bridge	Replace bridge and increase from 4- to 6-lane bridge including Class II bike lane (52-643)	2018	SANDAG 2050 RTP, Table A.8 - Phased Arterial Projects - Revenue Constrained Plan
SR 163/Friars Road Interchange Modification	Friars Road from Avenida de las Tiendas to Mission Center Road, widen and improve Friars Road and overcrossing; reconstruct interchange including improvements to ramp intersections (Phase 1). Construct new connector roadways and structures (Phase 2). Construct auxiliary lanes along northbound and southbound SR 163 (Phase 3)	2018	SANDAG 2050 RTP, Table A.8 - Phased Arterial Projects - Revenue Constrained Plan
SR 163/Clairemont Mesa Boulevard Interchange	Widen from 4- to 6-lane prime arterial; Phase II of the project - west ramps (CIP 52-745.0)	2018	SANDAG 2050 RTP, Table A.8 - Phased Arterial Projects - Revenue Constrained Plan
Otay Truck Route Widening	From Drucker Lane to La Media, add one lane (total 3 lanes) for trucks; from Britannia to La Media, add one lane for trucks and one lane for emergency vehicles (Border Patrol/fire department access); along Britannia from Britannia Court to the Otay Truck Route - add one lane for trucks	2018	SANDAG 2050 RTP, Table A.8 - Phased Arterial Projects - Revenue Constrained Plan
I-5/Genesee Avenue Interchange	Replace Genesee Avenue over crossing from 4-lane bridge with 6-lane bridge; construct auxiliary lanes and replace Voigt Drive bridge; add additional lane at on/off ramp to Sorrento Valley Rd.; add one carpool lane and one general purpose lane to on ramp from Sorrento Valley Road to southbound I-5; install ramp meters at on ramp and construct a southbound auxiliary lane between Sorrento Valley Road and Genesee Avenue	2018	SANDAG 2050 RTP, Table A.8 - Phased Arterial Projects - Revenue Constrained Plan
Mira Sorrento Place	Mira Sorrento Place from Scranton Road to Vista Sorrento Parkway in San Diego widen the existing 2-lane 560-foot portion of Mira Sorrento Place (40-foot road width, 55-foot right of way) to a 4-lane collector (72-foot road width, 92-foot right of way), and extend the road to intersect with Vista Sorrento Parkway at the existing on/off ramps to I-805	2018	SANDAG 2050 RTP, Table A.8 - Phased Arterial Projects - Revenue Constrained Plan

Future Road Network

Project Name	Project Description	Year Anticipated	Source
Sea World Drive Widening and I-5 Interchange Improvements	In San Diego, replace existing 4-lane bridge with an 8-lane bridge with new on/off ramps; widen approachways to add right turn lanes to improve access to I-5 (CIP 52-706.0)	2020	SANDAG 2050 RTP, Table A.8 - Phased Arterial Projects - Revenue Constrained Plan
Palm Avenue/I-805 Interchange	Future widening of Palm Avenue Bridge including providing for repairs to the bridge approaches and abutments, installing sidewalks, signals, and striping. Phase II of the project will widen the bridge on the north side; in addition to this the scope of work will also contain restriping of the lanes and modifications to the on/off ramps. Phase III of the project will widen the bridge on the south side; in addition to this the scope of work will also contain restriping of the lanes and modifications to the on/off ramps.	2020	SANDAG 2050 RTP, Table A.8 - Phased Arterial Projects - Revenue Constrained Plan
Genesee Avenue - Nobel Drive to SR 52	Future widening to 6-lane major street north of Decoro Street and to a 6-lane primary arterial south of Decoro Street and included Class II bicycle lanes (CIP 52-458.0)	2030	SANDAG 2050 RTP, Table A.8 - Phased Arterial Projects - Revenue Constrained Plan
Caliente Rd	CONSTRUCT CALIENTE ROAD IN 2 PHASES FROM OTAY MESA ROAD SOUTHERLY TO SIEMPRE VIVA ROAD. THIS INCLUDES APPROXIMATELY 800 LINEAR FEET OF A 6-LANE MAJOR STREET AND 6,600 LINEAR FEET OF A 4-LANE MAJOR STREET. Phase II: North Vista Rd to Siempre Viva Rd.	2020-2021	Otay Mesa PFFP FY 2007, Project T-51
Airway Rd	CONSTRUCT AIRWAY ROAD FROM OLD OTAY MESA ROAD TO THE INTERSECTION OF HERITAGE ROAD. THIS INCLUDES APPROXIMATELY 1,600 LINEAR FEET OF A 4-LANE COLLECTOR, AND 5,800 LINEAR FEET OF A 4-LANE MAJOR ROADWAY, OF WHICH APPROXIMATELY 4,350 LINEAR FEET WILL CROSS MSCP OPEN SPACE. ALSO INCLUDES A 450 LINEAR FOOT BRIDGE TO SPAN PORTIONS OF SPRING CANYON (FBA FUNDED)	Built in phases as development occurs	Otay Mesa PFFP FY 2007, Project T-54
Airway Rd	CONSTRUCT AIRWAY ROAD FROM HERITAGE ROAD TO A POINT 18,000 FEET EASTERLY (La Media Rd) AS A 4-LANE MAJOR STREET.	2008-2018	Otay Mesa PFFP FY 2007, Project T-27

Future Road Network

Project Name	Project Description	Year Anticipated	Source
Heritage Rd	CONSTRUCT HERITAGE ROAD FROM AIRWAY ROAD SOUTHERLY TO SIEMPRE VIVA ROAD. THIS INCLUDES APPROXIMATELY 2,000 LINEAR FEET OF A 6-LANE MAJOR STREET AND A 600 LINEAR FEET 4-LANE BRIDGE (FBA FUNDED)	2021-2030	Otay Mesa PFFP FY 2007, Project T-21.6
New Heritage Rd (Otay Valley Rd) - North	WIDEN OTAY VALLEY ROAD TO A 6-LANE PRIMARY ARTERIAL STREET ALONG THE FRONTAGE OF THE EXISTING "OTAY RIO BUSINESS PARK", APPROXIMATELY 2,000 LINEAR FEET (ASSUMING THAT ONLY 1/2 WIDTH WIDENING IS REQUIRED) AND APPROXIMATELY 900 LINEAR FEET NORTHERLY OF OTAY RIO VISTA BUSINESS PARK TO THE INTERSECTION OF OTAY VALLEY ROAD (370 LINEAR FEET OF THIS 900 LINEAR FEET IS PROGRAMMED AS A BRIDGE CROSSING OVER THE OTAY RIVER AND IS A SEPARATE PROJECT)	2017-2021	Otay Mesa PFFP FY 2007, Project T-21.1
New Heritage Rd (Otay Valley Rd) - Central	CONSTRUCT NEW HERITAGE ROAD FROM THE SOUTHERLY TERMINUS OF COMPANION PROJECT T-21.1 TO A POINT 5,000 FEET SOUTH AS A 6-LANE PRIMARY ARTERIAL STREET. (THIS PROJECT CONSISTS OF OPEN SPACE; BEGINS AT OTAY RIO BUSINESS PARK ON THE NORTH AND TERMINATES AT THE TOP OF THE CANYON IN THE SOUTH.)	2001-2020	Otay Mesa PFFP FY 2007, Project T-21.3
New Heritage Rd (Otay Valley Rd) - South	CONSTRUCT NEW HERITAGE ROAD FROM THE SOUTHERLY TERMINUS OF COMPANION PROJECT NO. T-21.3 TO OTAY MESA ROAD AS 1,450 LINEAR FEET OF A 6-LANE MAJOR STREET. INCLUDED ARE 1/2 WIDTH IMPROVEMENTS FRONTING THE CITY OF SAN DIEGO'S BROWN FIELD AIRPORT.	2019-2020	Otay Mesa PFFP FY 2007, Project T-21.4
Siempre Viva Rd - West (Phase I)	CONSTRUCT SIEMPRE VIVA ROAD FROM EAST BEYER BOULEVARD TO THE INTERSECTION OF CALIENTE ROAD. THIS INCLUDES APPROXIMATELY 4,000 LINEAR FEET OF A 4-LANE MAJOR ROADWAY.	2008-2019	Otay Mesa PFFP FY 2007, Project T-53.1
Siempre Viva Rd - West (Phase I)	CONSTRUCT SIEMPRE VIVA ROAD FROM CALIENTE ROAD TO THE WESTERLY LIMITS OF SPRING CANYON. THIS INCLUDES APPROXIMATELY 2,500 LINEAR FEET OF A 4-LANE MAJOR ROADWAY	2023-2024	Otay Mesa PFFP FY 2007, Project T-53.2

Future Road Network

Project Name	Project Description	Year Anticipated	Source
Beyer Blvd (Formerly N Vista Rd)	CONSTRUCT BEYER BOULEVARD AS A 2-LANE COLLECTOR, IN SEGMENTS, TO SERVE LOCAL TRAFFIC WHILE AVOIDING INTRUSION INTO MSCP OPEN SPACE AND MITIGATION LAND. THESE SEGMENTS ARE FROM EAST BEYER BOULEVARD TO THE OPEN SPACE, FROM THE OPEN SPACE TO CALIENTE BOULEVARD AND ACCESS AREAS EAST OF CALIENTE.	2016-2023	Otay Mesa PFFP FY 2007, Project T-52
Carroll Canyon Rd - Western Fenton Boundary to Carroll Rd	THIS PROJECT PROVIDES FOR THE CONSTRUCTION OF CARROLL CANYON ROAD AS A FOUR-LANE MAJOR STREET WITH CLASS II BIKE LANES FROM THE WESTERN FENTON PROPERTY BOUNDARY WESTERLY TO CARROLL ROAD.	2025	Mira Mesa PFFP FY 2014, Project T-5A
Carroll Canyon Rd - Camino Santa Fe to Western Fenton Boundary	THIS PROJECT PROVIDES FOR THE CONSTRUCTION OF CARROLL CANYON ROAD AS A FOUR LANE MAJOR STREET WITH CLASS II BIKE LANES FROM CAMINO SANTA FE WESTERLY TO FENTON PROPERTY BOUNDARY.	2025	Mira Mesa PFFP FY 2014, Project T-5B
Carroll Canyon Rd - Camino Ruiz to Camino Santa Fe	THIS PROJECT PROVIDES FOR THE CONSTRUCTION OF CARROLL CANYON ROAD AS A SIX-LANE PRIMARY ARTERIAL WITH CLASS II BIKE LANES FROM CAMINO RUIZ WESTERLY TO CAMINO SANTA FE.	2025	Mira Mesa PFFP FY 2014, Project T-5C
Carroll Canyon Rd - Camino Ruiz to Black Mountain Rd	THIS PROJECT PROVIDES FOR THE CONSTRUCTION OF CARROLL CANYON ROAD FROM CAMINO RUIZ TO BLACK MOUNTAIN ROAD. CONSTRUCT AS A SIX-LANE MAJOR STREET WITH CLASS II BIKE LANES FROM CAMINO RUIZ TO MAYA LINDA ROAD. CONSTRUCT AS A FOUR-LANE MAJOR STREET WITH CLASS II BIKE LANES FROM MAYA LINDA ROAD TO BLACK MOUNTAIN ROAD. INCLUDE MEDIANS CONSISTENT WITH COMMUNITY PLAN.	Subdivider funded project.	Mira Mesa PFFP FY 2014, Project T-6
Maya Linda Rd - Carroll Canyon Rd to Black Mountain Rd	THIS PROJECT WILL WIDEN CAMINO RUIZ FROM GOLD COAST DRIVE TO THE EAST LEG OF JADE COAST AND FROM THE NORTHERN MOST BOUNDARIES OF MIRALANI BUSINESS PARK TO MIRAMAR ROAD TO A MODIFIED SIX-LANE MAJOR STREET. THE PROJECT INCLUDES CLASS II BICYCLE LANES BETWEEN MIRA MESA BOULEVARD AND GOLD COAST DRIVE AND WITHIN THE PROJECT LIMITS.	Subdivider funded project.	Mira Mesa PFFP FY 2014, Project T-6B

Future Road Network

Project Name	Project Description	Year Anticipated	Source
Camino Ruiz - Gold Coast Dr to East Leg of Jade Coast Dr and from Miralani Dr to Miramar Rd	THIS PROJECT WILL WIDEN CAMINO RUIZ FROM GOLD COAST DRIVE TO THE EAST LEG OF JADE COAST AND FROM THE NORTHERN MOST BOUNDARIES OF MIRALANI BUSINESS PARK TO MIRAMAR ROAD TO A MODIFIED SIX-LANE MAJOR STREET. THE PROJECT INCLUDES CLASS II BICYCLE LANES BETWEEN MIRA MESA BOULEVARD AND GOLD COAST DRIVE AND WITHIN THE PROJECT LIMITS.	2019	Mira Mesa PFFP FY 2014, Project T-10
Camino Ruiz - Jade Coast to Miralani Dr	THIS PROJECT PROVIDES FOR THE CONSTRUCTION OF CAMINO RUIZ FROM THE EAST LEG OF JADE COAST DRIVE TO MIRALANI DRIVE FOR THE NORTHBOUND SIDE AND SOUTHBOUND SIDE, FROM JADE COAST DRIVE TO THE NORTHERN MOST BOUNDARIES OF THE MIRALANI BUSINESS PARK. THE PROJECT PROVIDES FOR THE WIDENING OF CAMINO RUIZ FROM A FOUR-LANE TO A SIX-LANE MAJOR STREET WITH A 14-FT WIDE, LANDSCAPED, RAISED-CENTER-MEDIAN (WITH DUAL 10-FT LEFT-TURN LANES AT CARROLL CANYON ROAD), STREETLIGHTS AND CLASS II BIKE LANES. THE PROJECT WILL ALSO RECONSTRUCT EXISTING CURVE TO INCREASE STOP/SIGHT DISTANCE.	Subdivider funded project.	Mira Mesa PFFP FY 2014, Project T-10A
Black Mountain Rd - Widen from South of Mira Mesa Blvd to Gemini Ave	THIS PROJECT WILL WIDEN BLACK MOUNTAIN ROAD FROM GEMINI AVENUE TO JUST SOUTH OF MIRA MESA BLVD TO PROVIDE RIGHT TURN LANES TO MIRA MESA BOULEVARD. CLASS II BIKE LANES ARE INCLUDED.	Subdivider funded project.	Mira Mesa PFFP FY 2014, Project T-34
Traffic Signals - Various Locations	THIS PROJECT PROVIDES FOR THE INSTALLATION OF TRAFFIC SIGNALS AT VARIOUS LOCATIONS WITHIN THE MIRA MESA COMMUNITY, SUBJECT TO CITY DETERMINING NEED FOR THE SIGNALS - CAMINO RUIZ & AQUARIUS DR (2016), WESTMORE & WESTONHILL (2016)	2020	Mira Mesa PFFP FY 2014, Project T-40
Black Mountain Rd - Gemini Ave to Mira Mesa Blvd	THIS PROJECT WIDENS THE EAST SIDE OF BLACK MOUNTAIN ROAD FROM GEMINI AVENUE TO MIRA MESA BOULEVARD FOR A THIRD NORTHBOUND LANE. CLASS II BIKE LANES ARE INCLUDED	2020-2022	Mira Mesa PFFP FY 2014, Project T-81

Future Road Network

Project Name	Project Description	Year Anticipated	Source
Black Mountain Rd - Hillery Dr to Gold Coast Dr	THIS PROJECT PROVIDES FOR THE WIDENING OF BLACK MOUNTAIN ROAD FROM HILLERY DRIVE TO GOLD COAST DRIVE TO A SIX-LANE PRIMARY ARTERIAL WITH CLASS II BIKE LANES.	Subdivider funded project.	Mira Mesa PFFP FY 2014, Project T-83
Camino Santa Fe - Carrol Rd to 350 ft South of Commerce Ave	THIS PROJECT PROVIDES FOR THE CONSTRUCTION OF CAMINO SANTA FE FROM CARROLL ROAD TO 350 FEET SOUTH OF COMMERCE AVENUE. WIDEN TO A SIX-LANE MAJOR STREET WITH CLASS II BIKE LANES.	Subdivider funded project.	Mira Mesa PFFP FY 2014, Project T-85
Camino Santa Fe/Miramar Rd Intersection Improvements	THIS PROJECT WILL RESTRIPE THE NORTH LEG OF CAMINO SANTA FE AND WIDEN THE EAST LEG OF MIRAMAR ROAD BY ADDING A SOUTHBOUND TO WESTBOUND RIGHT TURN LANE AND A WESTBOUND TO NORTHBOUND RIGHT TURN LANE. ACQUISITION OF RIGHT-OF-WAY IS NECESSARY	2025	Mira Mesa PFFP FY 2014, Project T-87
Kearny Villa Rd/Miramar Rd Intersection Improvements	THIS PROJECT WILL WIDEN BOTH THE EAST AND WEST LEGS OF MIRAMAR ROAD AT THE KEARNY VILLA ROAD INTERSECTION BY ADDING ADDITIONAL LEFT HAND AND RIGHT HAND TURN LANES	2024	Mira Mesa PFFP FY 2014, Project T-89
Black Mountain Rd - Gold Coast Dr to Maya Linda Rd	THIS PROJECT PROVIDES FOR THE WIDENING OF BLACK MOUNTAIN ROAD TO A SIX-LANE PRIMARY ARTERIAL WITH CLASS II BIKE LANES BETWEEN GOLD COAST DRIVE AND MAYA LINDAROAD	Subdivider funded project.	Mira Mesa PFFP FY 2014, Project T-91
Kearny Villa Rd - Black Mountain Rd to 600 ft S/O Miramar Rd	THIS PROJECT PROVIDES FOR THE WIDENING OF KEARNY VILLA ROAD TO A MODIFIED SIX-LANE PRIMARY MAJOR WITH CLASS II BIKE LANES BETWEEN BLACK MOUNTAIN ROAD AND MIRAMAR ROAD. ASSUME NO SIDEWALK ON WEST SIDE OF KEARNY VILLA ROAD SOUTH OF MIRAMAR ROAD	2024-2025	Mira Mesa PFFP FY 2014, Project T-92
Carroll Canyon Rd - Scranton Rd to El Camino Memorial Park	PROVIDES ALL NECESSARY IMPROVEMENTS TO UPGRADE CARROLL CANYON ROAD BETWEEN SCRANTON ROAD AND EL CAMINO MEMORIAL PARK'S WESTERN ENTRANCE TO A MODIFIED FOUR-LANE COLLECTOR STREET, WHICH INCLUDES NO PARKING ON NORTH OR SOUTH SIDE. A TRAFFIC SIGNAL AT YOUNGSTOWN WAY IS INCLUDED	2025	Mira Mesa PFFP FY 2014, Project T-96

Future Road Network

Project Name	Project Description	Year Anticipated	Source
Camino Del La Plaza; I-5 to Willow Rd	THIS PROJECT PROVIDES FUNDING FOR THE INSTALLATION OF TRAFFIC SIGNALS IDENTIFIED IN THE COMMUNITY PLAN THIS PROJECT PROVIDES FUNDING FOR THE INSTALLATION OF TRAFFIC SIGNALS IDENTIFIED IN THE COMMUNITY PLAN: CAMINO DE LA PLAZA AT SIPES LANE, WEST SAN YSIDRO BLVD AT AVERIL RD, NEAR SOUTHWESTERN COLLEGE, WEST SAN YSIDRO BLVD AT ALVERSON RD, EAST SAN YSIDRO BOULEVARD AT CENTER ST, BEYER BLVD AT SMYTHE CROSSING	n/a	San Ysidro PFFP FY 2008, PROJECT T-15
Street "A": from West Calle Primera to Camino De La Plaza	THIS PROJECT PROVIDES FOR THE CONSTRUCTION OF STREET "A" FROM WEST CALLE PRIMERA TO CAMINO DE LA PLAZA AS A TWO-LANE COLLECTOR	n/a	San Ysidro PFFP FY 2008, PROJECT T-3
West Calle Primera - Street "A" to Via De San Ysidro	THIS PROJECT PROVIDES FOR WIDENING WEST CALLE PRIMERA FROM STREET "A" TO VIA DE SAN YSIDRO TO A MODIFIED FOUR-LANE COLLECTOR WITH ALL SUBSTANDARD CONDITIONS RECONSTRUCTED TO CURRENT DESIGN STANDARDS	n/a	San Ysidro PFFP FY 2008, PROJECT T-4
Camino Del Rio South Widening from Mission Center Rd to I-805	THIS PROJECT WOULD WIDEN CAMINO DEL RIO SOUTH TO A FOUR LANE COLLECTOR FROM MISSION CENTER ROAD TO I-805. INCLUDES A GRADE SEPARATION OF CAMINO DEL RIO SOUTH FROM TEXAS STREET	TBD	Mission Valley PFFP FY 2013, PROJECT T-2
Camino De La Reina - Fashion Valley to Napa St	THIS PROJECT WOULD PROVIDE FOR THE CONSTRUCTION OF 8,000 LINEAR FEET OF CAMINO DE LA REINA AS A FOUR LANE MAJOR STREET BETWEEN NAPA STREET AND FASHION VALLEY ROAD.	Subdivider funded project.	Mission Valley PFFP FY 2013, PROJECT T-7
Hotel Circle South-Widen between E/B I-8 and Camino De La Reina	THIS PROJECT WOULD WIDEN HOTEL CIRCLE SOUTH BETWEEN THE EASTBOUND I-8 AND CAMINO DE LA REINA TO A FOUR LANE COLLECTOR FROM TWO LANES	Subdivider funded project.	Mission Valley PFFP FY 2013, PROJECT T-8B

Future Road Network

Project Name	Project Description	Year Anticipated	Source
Taylor St-Widen between E/B Presidio Ramps and I-8 Presidio Overcrossing	THIS PROJECT WOULD PROVIDE FOR THE WIDENING OF TAYLOR STREET BETWEEN THE EASTBOUND PRESIDIO RAMPS AND I-8 PRESIDIO OVERCROSSING TO FOUR LANES AND A BIKE LANE	Subdivider funded project.	Mission Valley PFFP FY 2013, PROJECT T-9
Hotel Circle North-Widen between W/B I-8 Ramps and Camino De La Reina	THIS PROJECT WOULD WIDEN HOTEL CIRCLE NORTH TO A FOUR LANE COLLECTOR BETWEEN THE WESTBOUND I-8 RAMPS AND CAMINO DE LA REINA	Subdivider funded project.	Mission Valley PFFP FY 2013, PROJECT T-10A
Camino De La Reina- 4-lane major between SR-163 and Fashion Valley Rd	THIS PROJECT WOULD PROVIDE FOR THE CONSTRUCTION OF CAMINO DE LA REINA AS A FOUR LANE MAJOR STREET BETWEEN SR-163 AND FASHION VALLEY ROAD	Subdivider funded project.	Mission Valley PFFP FY 2013, PROJECT T-10B
Widen Via Las Cumbres	THIS PROJECT WOULD PROVIDE FOR CONSTRUCTION OF VIA LAS CUMBRES AS A FOUR-LANE MAJOR STREET BETWEEN FRIARS ROAD AND HOTEL CIRCLE NORTH	Subdivider funded project.	Mission Valley PFFP FY 2013, PROJECT T-13
Hazard Center Dr Extension	THIS PROJECT WOULD PROVIDE FOR THE EXTENSION OF HAZARD CENTER DRIVE TO TWO LANES FROM THE EASTERN TERMINUS OF HAZARD CENTER DRIVE TO THE EXISTING ROAD BEHIND THE FASHION VALLEY SHOPPING CENTER	Subdivider funded project.	Mission Valley PFFP FY 2013, PROJECT T-15
Widen Camino Del Rio North I-15 to Ward Rd	THIS PROJECT WOULD COMPLETE THE WIDENING OF CAMINO DEL RIO NORTH TO A FOUR LANE MAJOR BETWEEN THE WEST SIDE OF I-15 AND WARD ROAD	TBD	Mission Valley PFFP FY 2013, PROJECT T-24A
Widen Camino Del Rio South I-805 to Mission City Parkway	THIS PROJECT WOULD WIDEN CAMINO DEL RIO SOUTH TO A FOUR LANE COLLECTOR BETWEEN I-805 AND MISSION CITY PARKWAY (MILLY WAY)	TBD	Mission Valley PFFP FY 2013, PROJECT T-26
Camino Del Rio North-Mission City Pkwy to I-15	THIS PROJECT WOULD WIDEN CAMINO DEL RIO NORTH TO A THREE LANE FACILITY FROM MISSION CITY PARKWAY (MILLY WAY) TO I-15	TBD	Mission Valley PFFP FY 2013, PROJECT T-27
Camino Del Rio North-Mission City Pkwy to I-15	THIS PROJECT WOULD WIDEN CAMINO DEL RIO NORTH TO A THREE LANE FACILITY FROM MISSION CITY PARKWAY (MILLY WAY) TO I-15	TBD	Mission Valley PFFP FY 2013, PROJECT T-27
Camino Del Sur Widening (Carmel Valley Rd South to SR-56)	Design and construct additional travel lanes for Camino del Sur, complete with median improvement, within a six-lane right-of-way. (See companion project T-13). This project addresses the incremental widening of this six-lane major roadway. It is anticipated that this widening will occur in two phases. The first phase commensurate with Phase III of the Torrey Highlands Transportation Phasing (TPP), will cover the widening to four travel lanes. As part of this initial phase, a total of six travel lanes may be required in the immediate vicinity of the Camino del Sur interchange. The second phase will complete the six-lane facility for its entire length, which may not be required until build out of Torrey Highlands	2002-2017	Black Mountain Ranch PFFP FY 2013, PROJECT T-14

Future Road Network

Project Name	Project Description	Year Anticipated	Source
Carmel Valley Rd (Del Mar Heights Rd East to Via Abertura)	Design and construct Carmel Valley Road from Del Mar Heights Road to Via Abertura as a four-lane facility within a 122 foot right-of-way that could accommodate six lanes in the future	2006-2015	Black Mountain Ranch PFFP FY 2013, PROJECT T-20
Carmel Valley Rd (Black Mountain Rd East to Camino Crisalida)	Design and construct the two inside lanes from Black Mountain Road east to Camino Crisalida within a six-lane right-of-way	2015	Black Mountain Ranch PFFP FY 2013, PROJECT T-25.3
El Camino Real Widening (Sea Country Ln North to San Dieguito Rd)	Complete the construction of existing El Camino Real between Sea Country Lane and San Dieguito Road as a four-lane major street within the existing graded right-of-way. The cost includes a traffic signal at El Camino Real and Sea Country Lane and a wildlife undercrossing	2003-2020	Black Mountain Ranch PFFP FY 2013, PROJECT T-29.1
Black Mountain Rd Widening (SR-56 South to Mercy Rd)	Widen Black Mountain Road in Rancho Penasquitos, from SR-56 southerly to Mercy Road to a modified six-lane arterial with class II bike lanes. The intersection of Black Mountain Road and Park Village Road will be modified to provide for the class II bicycle lanes	2017	Black Mountain Ranch PFFP FY 2013, PROJECT T-57
Regents Road Bridge	THIS PROJECT PROVIDES FOR AN 870-FOOT BRIDGE SPANNING THE AT&SF RAILROAD AND A PORTION OF THE FLOOD PLAIN, WITH A FOUR-LANE MAJOR STREET WITH CLASS II BIKE LANES ON REGENTS ROAD FROM AT&SF RAILROAD BRIDGE TO 100 FEET NORTH OF LAHITTE COURT TO GOVERNOR DR. IN ADDITION, FROM NUC-12 THIS PROJECT ALSO INCLUDES THE CONSTRUCTION OF REGENTS ROAD, FROM 100 FEET NORTH OF LAHITTE COURT TO THE SOUTH ABUTMENT OF THE REGENTS ROAD BRIDGE OVER ROSE CANYON. AND FROM NUC-14, THE WIDENING OF REGENTS ROAD FROM 100 FEET NORTH OF LAHITTE COURT TO GOVERNOR DRIVE.	TBD	North University City PFFP FY 2013, PROJECT NUC-18
Eastgate Mall-Miramar Rd to SDG&E Easement	THIS PROJECT PROVIDES FOR WIDENING EASTGATE MALL TO A FOUR-LANE COLLECTOR STREET BETWEEN MIRAMAR ROAD AND THE SDG&E EASEMENT, INCLUDING CLASS II BICYCLE LANES.	TBD	North University City PFFP FY 2013, PROJECT NUC-18
Widen Presidio Dr	THIS PROJECT WILL WIDEN PRESIDIO DRIVE TO ALLOW FOR A RIGHT TURN ON TAYLOR STREET	TBD	Old San Diego PFFP FY 2003
Palm Ave Roadway Improvements	This project would provide for vehicular and pedestrian safeThis project would provide for vehicular and pedestrian safety improvements on Palm Avenue from Beyer Way to Del Cardo Avenue. Phase I Improvements (CIP S-00913) include the installation of raised center medians, turn pockets, traffic signals, pedestrian refuge areas, crosswalks, striping, and signage. Subsequent phases may include further analysis of the pedestrian and streetscape aspects of the project area	TBD	Otay Mesa Nestor PFFP FY 2014, Proj T-15

Future Road Network

Project Name	Project Description	Year Anticipated	Source
Street "A" Improvement - From Sports Arena Blvd to Midway Dr	THIS PROJECT PROVIDES FOR THE CONSTRUCTION OF A FOUR LANE COLLECTOR STREET FROM SPORTS ARENA BOULEVARD TO MIDWAY DRIVE BETWEEN ROSECRANS STREET AND BARNETT AVENUE. OPTIONS FOR STREET "A" INCLUDE THE EXTENSION OF BAGLEY DRIVE OR SMITH STREET OR A LOCATION OPPOSITE THE POST OFFICE	Subdivider funded project.	Midway/Pacific Highway PFFP FY 2005, T13
Kurtz Street Improvement-From Rosecrans St to Pacific Highway	THIS PROJECT PROVIDES FOR THE WIDENING OF KURTZ STREET TO A FOUR LANE MAJOR STREET BETWEEN ROSECRANS STREET AND PACIFIC HIGHWAY. RIGHT OF WAY WILL BE ACQUIRED WHEN REDEVELOPMENT OCCURS	Subdivider funded project.	Midway/Pacific Highway PFFP FY 2005, T15
Sports Arena Blvd Improvement-From Rosecrans St to Pacific Highway	THIS PROJECT PROVIDES FOR THE WIDENING OF SPORTS ARENA BOULEVARD TO A FOUR LANE COLLECTOR WITH CLASS II BIKE LANES BETWEEN ROSECRANS STREET AND PACIFIC HIGHWAY. MODIFICATION OF THE INTERSECTION AT PACIFIC HIGHWAY WILL ALSO BE REQUIRED. RIGHT OF WAY WILL BE ACQUIRED WHEN REDEVELOPMENT OCCURS	Subdivider funded project.	Midway/Pacific Highway PFFP FY 2005, T16
Midway Dr/Sports Arena Blvd Intersection Improvements	THIS PROJECT WILL WIDEN THE SOUTH LEG OF MIDWAY DRIVE AT THE INTERSECTION OF SPORTS ARENA BOULEVARD BY ADDING AN ADDITIONAL NORTHBOUND TO WESTBOUND TURN LANE, AND AN ADDITIONAL NORTHBOUND THROUGH LANE AND A RAISED MEDIAN TO DUKE STREET	TBD	Midway/Pacific Highway PFFP FY 2005, T17
Widening of Sports Arena Blvd from Midway Dr to Rosecrans St	THIS PROJECT PROVIDES FOR MODIFYING THE SPORTS ARENA BOULEVARD/ROSECRANS STREET/CAMINO DEL RIO INTERSECTION. IT WILL ALSO WIDEN SPORTS ARENA BOULEVARD TO A SIX-LANE MAJOR STREET BETWEEN MIDWAY DRIVE AND ROSECRANS STREET BY MODIFYING THE MEDIAN, RESTRIPIING THE STREET TO INCLUDE CLASS 2 BIKE LANES	TBD	Midway/Pacific Highway PFFP FY 2005, T23
Carmel Valley Rd (4/6 lanes south of Del Mar Heights Rd)	DESIGN AND CONSTRUCT CARMEL VALLEY ROAD FROM THE CAMINO SANTA FE INTERCHANGE TO DEL MAR HEIGHTS ROAD AS A SIX-LANE FACILITY WITHIN A 146 FOOT RIGHT-OF-WAY TRANSITIONING TO A FOUR LANE FACILITY WITHIN A 122 FOOT RIGHT-OF-WAY. THE EXPANDED RIGHT-OF-WAY WILL PERMIT WIDENING OF UP TO 24 ADDITIONAL FEET FOR A FUTURE TRANSIT ORIENTED FACILITY. IN THE INTERIM, THESE TWO LANES ARE LANDSCAPED AND INCORPORATED INTO THE CENTER MEDIAN IMPROVEMENTS	2003-2015	Pacific Highlands Ranch PFFP FY 2013, T4.2
El Camino Real Widening (San Dieguito Rd to Via de la Valle)	IMPROVE EL CAMINO REAL BETWEEN SAN DIEGUITO ROAD AND VIA DE LA VALLA AS A 4-LANE MAJOR STREET. REPLACE THE EXISTING EL CAMINO REAL BRIDGE OVER THE SAN DIEGUITO RIVER WITH A NEW 4-LANE BRIDGE. WIDENING OF VIA DE LA VALLE TO FOUR LANES BETWEEN WEST EL CAMINO REAL AND EAST EL CAMINO REAL	2015	Pacific Highlands Ranch PFFP FY 2013, T12.3

Future Road Network

Project Name	Project Description	Year Anticipated	Source
Via De La Valle (Four Lanes)	RECONSTRUCT EXISTING VIA DE LA VALLE BETWEEN SAN ANDREAS DRIVE AND EL CAMINO REAL WEST TO A 4-LANE MAJOR STREET TO ACCOMMODATE EXISTING AND PROJECTED SUB-REGIONAL TRAFFIC. INCLUDES MODIFICATION OF TRAFFIC SIGNALS AT SAN ANDREAS DRIVE AND EL CAMINO REAL WEST AS REQUIRED AND RELOCATION OF EXISTING OVERHEAD UTILITIES TO UNDERGROUND LOCATIONS. INCLUDES RESTRIPIING VIA DE LA VALLE BETWEEN SAN ANDRES DRIVE AND I-5 TO 6 LANES	2015	Pacific Highlands Ranch PFFP FY 2013, T13
Escala Drive (Smokesignal Drive) Extension	THIS PROJECT WILL PROVIDE FOR THE EXTENSION OF ESCALA DRIVE TO A TWO-LANE COLLECTOR LINKING THE EXISTING ESCALA DRIVE WITH ALBORADA DRIVE AND WEST BERNARDO DRIVE	TBD	Rancho Bernardo PFFP FY 2014, T-1
Bernardo Center Dr-Cloudcrest Dr to West Bernardo Dr	THIS PROJECT WILL PROVIDE FOR THE WIDENING OF BERNARDO CENTER DRIVE TO A SIX-LANE MAJOR STREET FROM CLOUDCREST DRIVE TO WEST BERNARDO DRIVE, INCLUDING BIKE LANES	TBD	Rancho Bernardo PFFP FY 2014, T-3
West Bernardo Drive-Andanza Way to I-15	THIS PROJECT PROVIDES FOR THE WIDENING OF WEST BERNARDO DRIVE WHICH WILL BE DONE IN TWO PHASES. PHASE I PROVIDED FOR THE INSTALLATION OF A TRAFFIC SIGNAL AND STREET WIDENING TO A TWO LANE COLLECTOR AT THE INTERSECTION/ENTRANCE TO CASA DE LAS CAMPANAS RESIDENTIAL CARE FACILITY. THE ENTRANCE TO THE COMMUNITY PARK WAS ALSO REALIGNED AND CURB AND GUTTERS WERE INSTALLED. PHASE II OF THIS PROJECT WILL WIDEN WEST BERNARDO DRIVE TO A FOUR-LANE MAJOR STREET FROM ANDANZA WAY TO I-15, INCLUDING CURB AND GUTTER, SIDEWALK AND CLASS III BICYCLE LANES	TBD	Rancho Bernardo PFFP FY 2014, T-5
Rancho Bernardo Road Widening (I-15 East to Bernardo Center Drive-Add Two Lanes)	THIS PROJECT WILL DESIGN AND CONSTRUCT THE ADDITION OF TWO LANES TO THE EXISTING FOUR-LANE PORTION OF RANCHO BERNARDO ROAD BETWEEN THE I-15 NORTHBOUND RAMPS AND BERNARDO CENTER DRIVE TO ATTAIN THE SIX LANE MAJOR CROSS SECTION IDENTIFIED IN THE ADOPTED COMMUNITY PLAN	TBD	Rancho Bernardo PFFP FY 2014, T-6
Camino Del Sur, Carmel Mountain Road to 1600 ft North of Park Village Rd	THIS PROJECT PROVIDES FOR THE CONSTRUCTION OF CAMINO DEL SUR AS A FOUR-LANE MAJOR STREET WITH CLASS II BIKE LANES FROM CARMEL MOUNTAIN ROAD TO 1600 FEET NORTH OF PARK VILLAGE ROAD AND A TRAFFIC SIGNAL AT DORMOUSE. THIS PROJECT IS CONSISTENT WITH PROJECT NUMBERS T3.1A & T3.2A IN THE TORREY HIGHLANDS PLAN.	2015	Rancho Penasquitos PFFP FY 2014, T-4B

Future Road Network

Project Name	Project Description	Year Anticipated	Source
Camino Del Sur (Expand to Four Lanes, Torrey Santa Fe to Carmel Mountain Rd)	CONSTRUCT CAMINO DEL SUR BETWEEN TORREY SANTA FE AND CARMEL MOUNTAIN ROAD AS AN INTERIM 2-LANE ROADWAY WITHIN THE RIGHT-OF-WAY FOR A FUTURE FOUR LANE FACILITY (SEE COMPANION PROJECT T-3.2B)	2015	Torrey Highlands PFFP FY 2013, T-3.2B
Front Street from Lewist Street to Arbor Drive Widening	12 FEET WIDENING OF FRONT STREET FROM LEWIS STREET TO ARBOR DRIVE TO PROVIDE FOR A 3-LANE ONE-WAY COLLECTOR STREET	TBD	Uptown PFFP FY 2003, T13
Division Street - Interstate 5 to 43rd St	THIS PROJECT PROVIDES FOR WIDENING DIVISION ST TO A MODIFIED FOUR-LANE ROADWAY FROM INTERSTATE 5 TO 43RD STREET. PHASE I PROVIDED FOR SIGNAL ADDITIONS, DRAINAGE REHABILITATION AND SMALLER SCOPE STREET IMPROVEMENTS. PHASE II PROVIDES FOR WIDENING THE STREET. THERE WILL BE FURTHER STUDY OF THE FEASIBILITY OF EXTENDING THIS PROJECT FURTHER EAST	TBD	Southeastern San Diego PFFP FY 2003, T6
Imperial Ave-Interstate 5 to 32nd St	THIS PROJECT PROVIDES FOR THE WIDENING OF IMPERIAL AVE TO A FOUR-LANE MAJOR STREET	TBD	Southeastern San Diego PFFP FY 2003, T9
Imperial Ave-Interstate 15 to 40th St	THIS PROJECT PROVIDES FOR THE WIDENING OF IMPERIAL AVE TO A FOUR-LANE COLLECTOR	TBD	Southeastern San Diego PFFP FY 2003, T10
Oceanview Boulevard-40th St to 32nd St	THIS PROJECT PROVIDES FOR THE WIDENING OF OCEANVIEW BOULEVARD TO A FOUR-LANE MAJOR	TBD	Southeastern San Diego PFFP FY 2003, T12
60th Street-Imperial Avenue to Federal Boulevard	THIS PROJECT PROVIDES FOR THE WIDENING OF 60th STREET TO A TWO-LANE COLLECTOR	TBD	Southeastern San Diego PFFP FY 2003, T17
47th Street-Market Street to Imperial Avenue	THIS PROJECT PROVIDES FOR THE WIDENING OF 47th STREET TO A FOUR-LANE MAJOR	TBD	Southeastern San Diego PFFP FY 2003, T18
Division Street-Lorenz Avenue to 61st Street	THIS PROJECT PROVIDES FOR THE WIDENING OF DIVISION STREET TO A FOUR-LANE COLLECTOR	TBD	Southeastern San Diego PFFP FY 2003, T19
Cesar Chavez Pkwy-Commercial St to Interstate 5	THIS PROJECT PROVIDES FOR THE WIDENING OF CESAR CHAVEZ PKWY TO A FOUR-LANE COLLECTOR	TBD	Southeastern San Diego PFFP FY 2003, T20

Future Interconnect

Project Name	Project Description	Year Anticipated	Source
Traffic Signal Interconnect	THIS PROJECT WILL PROVIDE TRAFFIC SIGNAL INTERCONNECT SYSTEMS AT VARIOUS LOCATIONS THROUGHOUT THE COMMUNITY. LOCATION 1. UPAS STREET-FIFTH AVENUE TO SIXTH AVENUE 2. SIXTH AVENUE-UPAS STREET TO LAUREL STREET 3. SASSAFRAS STREET-KETTNER BLVD TO INDIA STREET 4. INDIA STREET-SASSAFRAS TO WASHINGTON STREET	TBD	Uptown PFFP FY 2003, T10
Traffic Signal Interconnect-Paradise Valley Rd	THIS PROJECT WILL PROVIDE FOR THE INSTALLATION OF A TRAFFIC SIGNAL INTERCONNECT SYSTEM ON PARADISE VALLEY ROAD FROM POTOMAC STREET TO THE WOODMAN VILLAGE DRIVEWAY	TBD	Skyline/Paradise Hills PFFP FY 2003, T12
Traffic Signal Installations	THIS PROJECT PROVIDES FOR THE INSTALLATION OF TRAFFIC SIGNALS WITHIN THE PENINSULA COMMUNITY. LOCATIONS 2. ROSECRANS STREET FROM NIMITZ BOULEVARD TO LYTTON STREET (SIGNAL INTERCONNECT)	TBD	Peninsula PFFP FY 2001, T22
Install Traffic Signal Interconnect Systems	THIS PROJECT WOULD INSTALL A TRAFFIC SIGNAL INTERCONNECT SYSTEM ON THE FOLLOWING STREETS. NAVAJO RD BETWEEN PARKRIDGE BLVD AND GOLFCREST DRIVE, NAVAJO ROAD BETWEEN COWLES MT BLVD AND LAKE MURRAY BLVD, ZION ST BETWEEN CRAWFORD ST AND WARING RD. WARING RD BETWEEN I-8 TO NAVAJO RD. JACKSON DR BETWEEN LAKESHORE DR TO LAKE MURRAY BLVD	TBD	Navajo PFFP FY 2008, T6

APPENDIX F

FUTURE TRAFFIC SIGNALS

Future Traffic Signals

Community	Signal Locations	Year Anticipated	Source
Barrio Logan	National Ave/16th St, Harbor Dr/Sigsbee St, Logan Ave/Beardsley St, National Ave/Beardsley St	TBD	Barrio Logan PFFP FY 2014, Project T7
Black Mountain Ranch	El Camino Real/Sea Country Ln	TBD	Black Mountain Ranch PFFP FY 2013, T29.1
Carmel Valley	Carmel Country Rd/Craven Ridge Wy	TBD	Carmel Valley PFFP FY 2014, T45
College Area	Hardy Ave/Campanile Dr	TBD	College Area PFFP FY 2014, Project T4
Greater North Park	Lincoln Ave/Park Blvd, 28th St/Upas St/Pershing Dr	TBD	Greater North Park PFFP FY 2002, T8
La Jolla	Fay Ave/Genter St	TBD	La Jolla PFFP FY 2002, Project T8
Linda Vista	Goshen St/Linda Vista Rd	TBD	Linda Vista PFFP FY 2006, Project T19
Mira Mesa	Camino Ruiz/Aquarius Dr, Westmore Rd/Westonhill Dr	2016	Mira Mesa PFFP FY 2014, Project T40
Navajo	Highwood Dr/Lake Murray Blvd, Jackson Dr/Winding Creek Dr	TBD	Navajo PFFP FY 2008, Project T4
Otay Mesa	Avenida Costa Azul/Otay Mesa Rd	TBD	Otay Mesa PFFP 2007, Project T72.1B
Otay Mesa	Piper Ranch Rd/St Andrews Ave	TBD	Otay Mesa PFFP 2007, Project T72.1C
Otay Mesa	Airway Rd/Piper Ranch Rd	TBD	Otay Mesa PFFP 2007, Project T72.1D
Otay Mesa	Airway Rd/Avenida Costa Azul	TBD	Otay Mesa PFFP 2007, Project T72.1E
Pacific Highlands Ranch	Carmel Valley Rd/Via Abertura, Carmel Valley Rd/Clarkview Ln, Carmel Valley Rd/SR-56 WB, Carmel Valley Rd/SR-56 EB	TBD	Pacific Highlands Ranch PFFP FY 2013, T7
Peninsula	Laning Rd/Cushing Rd	TBD	Peninsula PFFP FY 2001, T22
Peninsula	Hill St/Catalina Blvd, Canon St/Point Loma Ave, Famosa/West Point Loma Blvd, Voltaire/Worden St, Catalina Blvd/Lomaland Dr	TBD	Peninsula PFFP FY 2001, T7

Future Traffic Signals

Community	Signal Locations	Year Anticipated	Source
Rancho Bernardo	Technology Dr/W Bernardo Dr, Bernardo Trails Dr/Pomerado Rd, Grandee Pl/Pomerado Rd	TBD	Rancho Bernardo PFFP FY 2014, T2
Rancho Encantada	Pomerado Rd/Stonemill Dr	TBD	Rancho Encantada PFFP FY 2010, T5
Rancho Encantada	Spring Canyon Rd/Spruce Run Dr, Spring Canyon Rd/Semillon Blvd	TBD	Rancho Encantada PFFP FY 2010, T9
Rancho Penasquitos	Camino Del Sur/Carmel Mountain Rd	TBD	Rancho Penasquitos PFFP FY 2014, T15
Rancho Penasquitos	Camino Del Sur/Dormouse Rd	TBD	Rancho Penasquitos PFFP FY 2014, T4B
San Ysidro	Camino De La Plaza/Sipes Ln, West San Ysidro Blvd/Averil Rd, West San Ysidro Blvd/Alverson Rd, East San Ysidro Blvd/Center St, Beyer Blvd/Smythe Crossing	TBD	San Ysidro PFFP FY 2008, Project T15
Scripps Miramar Ranch	Pomerado Rd/Business Park Ave	TBD	Scripps Miramar Ranch PFFP FY 2013, 15
Serra Mesa	Afton Rd/Hurlbut St, Mesa College Dr/I-805 S On-Ramp/Berger Ave, Mission Village Dr/Rhonda Ave, Mission Center Dr/Raejean Ave/Murray Ridge Rd	TBD	Serra Mesa PFFP FY 2004, Project T12
Skyline/Paradise Hills	Alta View Dr/Potomac St, Benjamin Holt Rd/Woodman St, Brandywood St/Woodman Dr, Briarwood/Goode St, Cardiff St/San Vicente St	TBD	Skyline/Paradise Hills PFFP FY 2013 T10
Southeastern San Diego	Division St/Osborn St, Division St/Valencia Pkwy, Market St/Pitta St	TBD	Southeastern SD PFFP FY 2003, T21
Tierrasanta	Santo Rd/Snook St, Remora St/Santo Rd, El Comal Dr/Santo Dr	TBD	Tierrasanta PFFP FY 2008, Project T10
Torrey Pines	Del Mar Heights Rd/Mercado Dr	TBD	Torrey Pines PFFP FY 2005, Project T18
Uptown	Third Ave/Washington St, Fifth Ave/Grape St, Eight Ave/Robinson Ave, Tenth Ave/Robinson Ave, Cleveland/Lincoln Ave, SR-163/Washington	TBD	Uptown PFFP FY 2003, Project T9