# **Garden Grove Sanitary District**

#### INTER-DEPARTMENT MEMORANDUM

To:

Mathew J. Fertal

From: William E. Murray

Dept:

General Manager

Dept:

Public Works

Subject:

APPROVAL OF REIMBURSEMENT

Date: April 23, 2013

AGREEMENT WITH CITY OF SANTA

ANA FOR SANITARY SEWER

CONSTRUCTION IN WESTMINSTER

**AVENUE** 

#### **OBJECTIVE**

To request that the Garden Grove Sanitary District (GGSD) Board approve the attached Reimbursement Agreement with the City of Santa Ana (CSA) for sanitary sewer construction in Westminster Avenue.

#### BACKGROUND

GGSD and the CSA are participants of a Joint Sewer Agreement (executed August 5, 1985). Currently, one of the joint sewer lines in Westminster Avenue is either at capacity or capacity deficient at various locations. The CSA asked GGSD to cost share in a replacement to this undersized sewer line. The project spans from Roxey Drive on the east end to Harbor Boulevard. The project replaces 3,350 feet of 8inch to 12-inch vitrified clay pipe (VCP) with 15-inch VCP.

#### **DISCUSSION**

Plans, specifications, and probable construction costs have been completed and are ready to advertise for construction bids. This Agreement divides the cost of design and construction based on proportionate shares of flow per section of the sewer line. Fair shares of the sewer replacement cost are based on land use and other factors to determine their percentage of flow in the sewer pipe. estimated cost of design and construction is \$1,520,000. The CSA's fair share is \$490,027 and GGSD's fair share is \$1,029,973. The reimbursement agreement and associated costs are subject to approval at the City of Santa Ana's May 1, 2013 City Council Meeting.

## FINANCIAL IMPACT

There is no impact to the General Fund. Adequate Sewer Funds are available to finance this project in the amount of \$1,029,973.

APPROVAL OF REIMBURSEMENT AGREEMENT WITH CITY OF SANTA ANA FOR SANITARY SEWER CONSTRUCTION IN WESTMINSTER AVENUE April 23, 2013
Page 2

### **RECOMMENDATION**

It is recommended that the Sanitary District Board:

- Approve the attached Reimbursement Agreement with the City of Santa Ana for sanitary sewer construction in Westminster Avenue, in the amount of \$1,029,973; and
- Authorize the General Manager to execute the Agreement on behalf of the Garden Grove Sanitary District and make minor modifications as appropriate thereto.

William E. Murray, P.E.

Public Works Director/City Engineer

By:

David E. Entsminger Water Services Manager

Attachment: Reimbursement Agreement

Recommended for Approval

Matthew Fertal General Manager

# WESTMINSTER AVENUE SEWER PROJECT CONSTRUCTION AND REIMBURSEMENT AGREEMENT

This WESTMINSTER AVENUE SEWER PROJECT CONSTRUCTION AND REIMBURSEMENT AGREEMENT (this "Agreement") is made and entered into by and between the Garden Grove Sanitary District, a subsidiary district of the City of Garden Grove ("District"), and the City of Santa Ana, a municipal corporation ("City"). District and City are sometimes individually referred to as each "Party" and collectively referred to as the "Parties."

#### **RECITALS**

- A. City and District jointly use and share capacity rights in certain sewerage facilities located in Westminster Avenue, which shared sewerage facilities are owned, operated and maintained by each Party within its respective territorial jurisdiction, all in accordance with that certain Agreement for Joint Use of Sewerage Facilities in effect between the Parties.
- B. In order to mitigate the risk of sanitary sewer overflows and to provide adequate peak flow capacity in these shared sewers, the Parties have determined that it is necessary to construct new sewerage facilities in Westminster Avenue between Harbor Boulevard and Nancy Lane to transport wastewater at the estimated ultimate capacity of both the City and District. The design and construction of these new shared sewerage facilities is referred to in this Agreement as the "Westminster Avenue Sewer Project."
- C. The new shared sewerage facilities to be constructed pursuant to the Westminster Avenue Sewer Project will be located in portions of both City's and District's territorial jurisdictions. Notwithstanding the provisions of the for Joint Use of Sewerage Facilities providing for each Party to be responsible for the design and construction of new and replacement shared sewer facilities within each Party's respective jurisdiction, City and District have determined it is in the best interests of both parties for City to design and construct the entire Westminster Avenue Sewer Project and for District to reimburse City for District's fair share proportionate cost of such design and construction.
- D. City has prepared, and District has reviewed and approved, the plans and specifications for construction of the Westminster Avenue Sewer Project (referred to internally by City as "Project No. 12-6605 Westminster Avenue Sewer Main Improvements"), which plans and specifications incorporated into this Agreement by reference ("the Plans and Specifications").
- E. The Parties' respective fair share proportion of the cost of the Westminster Avenue Sewer Project is based on the Parties' respective estimated ultimate average flows from the areas tributary to the segments of the shared sewers to be constructed as part of the Westminster Avenue Sewer Project, which tributary areas are depicted on Exhibit "A" attached hereto, and which flows are prorated as calculated and shown on Exhibit "B" attached hereto.
- F. The estimated total final cost of the Westminster Avenue Sewer Project, including engineering and construction costs is One Million Five Hundred Twenty Thousand

Dollars and 00/100 cents (\$1,520,000.00) (the "Estimated Project Cost"). City's fair share proportion of the Estimated Project Cost is Four Hundred Ninety Thousand Twenty Seven Dollars and 00/100 cents (\$490,027.00). District's fair share proportion of the Estimated Project Cost is One Million Twenty Nine Thousand Nine Hundred Seventy Three Dollars and 00/100 cents (\$1,029,973.00). The calculation of the Estimated Project Cost and City's and District's respective fair share proportion of the Estimated Project Cost is set forth in Exhibit "C," attached hereto and incorporated herein by reference.

G. The Parties desire to enter into this Agreement to specify the terms pursuant to which City will construct, and District will reimburse City for District's fair share proportionate cost of, the Westminster Avenue Sewer Project.

NOW, THEREFORE, in consideration of the mutual covenants, conditions and promises herein contained, it is hereby agreed by and between the City and the District, as follows:

#### **AGREEMENT**

#### 1. Project Construction.

- 1.1. City shall be responsible, at City's sole cost and expense, for bidding, awarding, and administering a contract for the construction of the Westminster Avenue Sewer Project, in conformance with the Plans and Specifications approved by the District and in accordance with all applicable laws governing construction of public works by either City and/or District, including, but not limited to, laws governing public bidding and the payment of prevailing wages. District shall be responsible for its own Project administration costs, including review of contract change orders, District inspection of the Project and District project coordinator activities. The contractor selected by City to construct the Westminster Avenue Sewer Project shall be hereafter referred to in this Agreement as the "Project Contractor," and the contract between City and the Project Contractor shall hereafter be referred to as the "Project Construction Contract." In the event the projected actual cost of the Westminster Avenue Sewer Project, as reflected in the bid of the lowest responsible bidder to which City intends to award the Project Construction Contract, exceeds the Estimated Project Cost by twenty percent (20%), City shall not award the Project Construction Contract without prior approval of District's Board of Directors.
- 1.2. City shall ensure that the Project Construction Contract requires the Project Contractor to provide insurance acceptable to District, to name District and the City of Garden Grove as additional insureds, and to indemnify, defend, and hold harmless District and the City of Garden Grove in a manner approved in writing by District prior to award of the Project Construction Contract. City shall not permit construction of any portion of the Westminster Avenue Sewer Project to commence until evidence of the required insurance and additional insured endorsements have been provided to and approved by District.

- 1.3. City shall be responsible for ensuring that the Project Contractor constructs the Westminster Avenue Sewer Project in a timely manner. The estimated schedule of construction of the Westminster Avenue Sewer Project is attached hereto at Exhibit "D."
- 1.4. City shall be responsible for processing all contract change orders ("CCOs") that are necessary for the completion of the Westminster Avenue Sewer Project and shall obtain District's approval for those CCOs affecting District sewerage facilities and/or District's fair share proportion of the Actual Final Project Cost (as defined in Section 2.2) in accordance with this Section prior to instructing the Project Contractor to proceed in accordance with a CCO. District shall provide either concurrence with or comments on CCOs within five (5) business days of City's submittal of CCOs to District. Should District fail to provide either timely comments on or concurrence with any CCO submitted by City within five (5) business days of such submittal, such CCO shall be deemed approved by District. Delay costs resulting from District's review of change orders shall be charged to District.
  - 1.4.1.District shall designate a project coordinator to facilitate District inspection and approvals. Said project coordinator shall have authority to approve change orders required
- 1.5. City shall require and ensure that the Project Contractor warrants and guarantees all work related to the Westminster Avenue Sewer Project, and all parts thereof, including that performed and constructed by subcontractors, sub subcontractors, and others employed directly or indirectly on and for such work, against faulty or defective materials, equipment, or workmanship for a period of at least one year from the date of the City's written final acceptance of the work or such longer period of time as may be prescribed by law or by the terms of any special guarantee or warranty required by the Project Construction Contract. City shall and hereby does assign to District all contractor and manufacturer warranties and guarantees required by the Project Construction Contract or otherwise for those sewerage facilities and appurtenances which will belong to District.
- 1.6. District shall be entitled to inspect all portions of the Westminster Avenue Sewer Project within District's territorial jurisdiction, and City shall not approve a Notice of Completion for any sewerage facilities and related improvements that will be owned and maintained by District until such facilities and improvements are approved and accepted by District. Notwithstanding the foregoing, District's failure to approve and accept, or provide written notice to City of unaccepted work, within thirty (30) days of notice by City, shall constitute District's approval of the Project and a waiver of District's objections.

#### 2. District's Reimbursement to City.

2.1. Following award of the Project Construction Contract, City and District shall meet and confer to determine the actual anticipated total cost of the Westminster Avenue Sewer

Project based on the Project Contractor's bid (the "Actual Projected Project Cost") and each Party's respective fair share proportion of the Actual Project Cost in accordance with the Exhibits "C-1" and "C-2," respectively. Prior the commencement of construction of the Westminster Avenue Sewer Project, City shall invoice District for, and District shall pay City one-half (1/2) of District's fair share proportion of the Actual Projected Project Cost.

- 2.2. Following completion of the Westminster Avenue Sewer Project, City and District shall determine the actual final total cost of the Westminster Avenue Sewer Project, including any additional costs attributable to approved CCOs, (the "Actual Final Project Cost") and each Party's respective fair share proportion of the Actual Final Project Cost in accordance with Exhibit "C." Upon the later to occur of (i) one year from the date of District's first payment to City pursuant to Section 2.1, or (ii) thirty (30) days following approval of a Notice of Completion for the Westminster Avenue Sewer Project, City shall invoice District for, and District shall pay City, the difference between District's fair share proportion of the Actual Final Project Cost and the amount of District's first payment made pursuant to Section 2.1.
- 3. Ownership and Future Maintenance of Facilities Following Completion of Project. The ownership and responsibility for future operation and maintenance of the share sewerage facilities constructed pursuant to the Westminster Avenue Sewer Project shall be governed by the Agreement for Joint Use of Sewerage Facilities in effect between the Parties. Any and all improvements within the territorial jurisdiction of the District and designated as District owned improvements pursuant to the Agreement for Joint Use of Sewerage Facilities shall become the sole property of the District when finally approved and accepted by District. Any and all improvements within the territorial jurisdiction of the City and designated as City owned improvements pursuant to the Agreement for Joint Use of Sewerage Facilities shall become the sole property of the City when finally approved and accepted by City.
- 4. <u>Indemnity</u>. Each Party hereby agrees to indemnify, defend, protect and hold harmless the other Party, and its elected and appointed officials, officers, employees, representatives, volunteers, and agents from and against any and all claims (including, without limitation, claims for bodily injury, death or damage to property), demands, workers' compensation benefits, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses of any kind or nature, arising from the activities of the indemnitor or its officers, agents, or employees on the Project, or any breach of contract, negligent acts, omissions or breach of law, or willful misconduct of the indemnitor, or its officers, agents, or employees arising out of the performance of, or failure to perform, any provisions of this Agreement. Neither Party assumes liability for the acts or omissions of persons other than each Party's respective officers, agents, or employees. In the event judgment is entered against both Parties because of joint or concurrent negligence of both Parties, or their officers, agents, or employees, an apportionment of liability to pay such judgment shall be made by a court of competent jurisdiction. The respective obligations of

the Parties pursuant to this Section shall survive expiration or earlier termination of this Agreement.

- 5. <u>Alteration of Terms.</u> This Agreement fully expresses all understanding of the City and District with respect to the subject matter of this Agreement, and shall constitute the total Agreement between the parties for these purposes. No addition to, or alteration of, the terms of this Agreement, whether written or verbal, shall be valid unless made in writing and formally approved and executed by the parties.
- 6. <u>Notices.</u> Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by telefacsimile or other telegraphic communication in the manner provided in this Section, to the following persons:

CITY: City of Santa Ana Clerk of the Council 20 Civic Center Plaza (M-30) P.O. Box 1988 Santa Ana, CA 92702 Fax No.: 714-647-6956

#### With courtesy copy to:

Santa Ana Public Works Agency Water Resources Division 220 South Daisy Ave., Bldg A Santa Ana, CA 92703 Fax No.: 714-647-3345

#### DISTRICT:

Garden Grove Sanitary District Attention: General Manager 11222 Acacia Parkway P. O. Box 3070 Garden Grove, CA 92842 Fax No.: (714) 741-5044

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by telefacsimile, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these time frames, weekends, federal, state, County or City holidays shall be excluded.

7. <u>Term of Agreement.</u> This Agreement shall become effective upon full execution by both City and District and shall continue in full force and effect until all obligations of the District

- to the City are satisfied in full accordance with the terms of this Agreement. The provisions of Section 3 ("Ownership and Future Maintenance of Facilities Following Completion of Project") of this Agreement shall continue to remain in full force and effect following expiration or earlier termination of this Agreement
- 8. Severability. If any term, provision, covenant, or condition set forth in this Agreement is held by the final judgment of a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions, covenants, and conditions shall continue in full force and effect to the extent that the basic intent of the Parties as expressed herein can be accomplished. In addition, in such event the Parties shall cooperate in good faith in an effort to amend or modify this Agreement in a manner such that the purpose of the invalidated or voided provision, covenant, and condition can be accomplished to the maximum extent legally permissible; provided, however, that in no event shall either party be required to agree to an amendment or modification of this Agreement that materially adversely impacts its rights or materially increases its obligations or risks as set forth herein.
- 9. Waiver of Default or Breach. Waiver of any default by either party shall not be considered a waiver of any subsequent default. Waiver of any breach by either party of any provision of this Agreement shall not be considered a waiver of any subsequent breach. Waiver of any default or any breach by either party shall not be considered a modification of the terms of this Agreement.
- 10. No Third-Party Beneficiaries. Nothing in this Agreement is intended to create any third-party beneficiaries to the Agreement, and no person or entity other than the City and District, and the permitted successors and assigns of either of them, shall be authorized to enforce the provisions of this Agreement.
- 11. <u>Assignment.</u> The District may not assign its interest in this Agreement without the prior written consent of City, which consent will not be unreasonably withheld.
- 12. <u>Further Assurances.</u> District and the City agree to execute, acknowledge and deliver any and all additional papers, documents and other assurances and to perform any and all acts and things reasonably necessary in connection with the performance of the obligations hereunder and to carry out the intent of the Parties.
- 13. <u>Agreement Negotiated.</u> The text of this Agreement is the product of negotiation among the parties and their counsel and is not to be construed as having been prepared by one party or the other.
- 14. <u>Governing Law.</u> This Agreement shall be governed by and construed in accordance with the laws of the State of California.
- 15. <u>Counterparts.</u> This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which shall constitute but one and the same instrument.

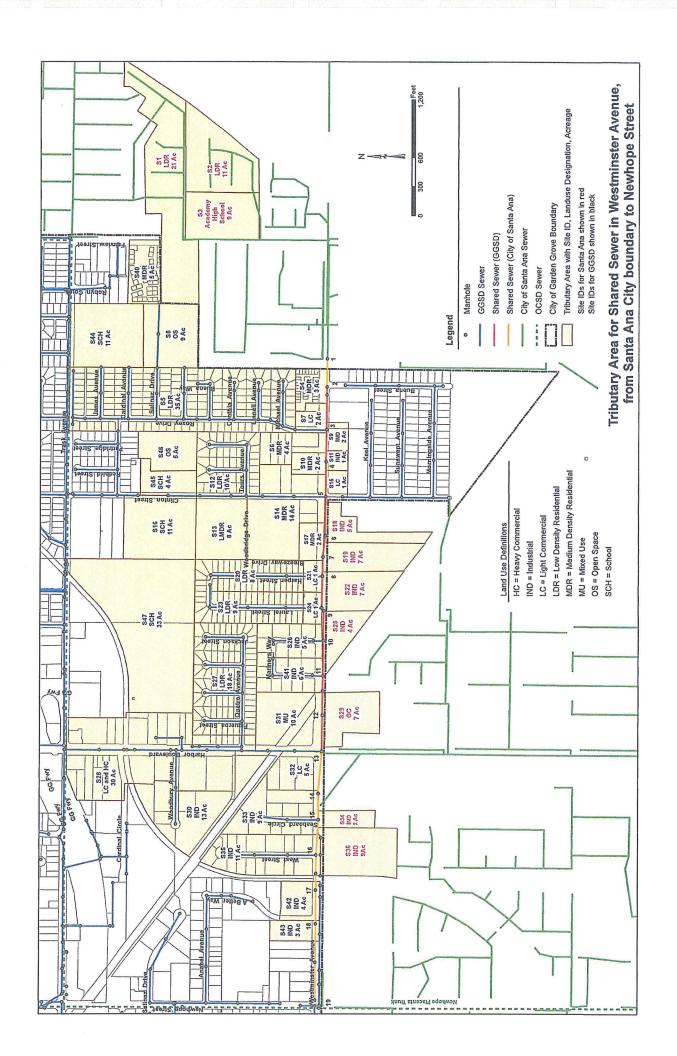
16. <u>Recitals.</u> The Recitals above are hereby incorporated into this section as though fully set forth herein and each Party acknowledges and agrees that such Party is bound, for purposes of this Agreement, by the same.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized officers as of the dates set forth below.

CITY OF SANTA ANA	GARDEN GROVE SANITARY DISTRICT
Kevin O'Rourke Interim City Manager	Matthew J. Fertal General Manager
Date:	Date:
ATTEST:	ATTEST:
Maria D. Huizar Clerk of the Council	Kathleen Bailor Board Secretary
APPROVED AS TO FORM:	APPROVED AS TO FORM:
Laura Sheedy	Thomas F. Nixon
Assistant City Attorney	Attorney for District

# EXHIBIT "A"

# TRIBUTARY AREAS TO WESTMINSTER AVENUE SHARED SEWER SEGMENTS



# EXHIBIT "B"

# PROPORTIONATE FLOWS FROM TRIBUTARY AREAS TO WESTMINSTER AVENUE SHARED SEWER SEGMENTS

K: Garden\_GrovelShared Sowers Santa Anal Westminster Ave Sower Study Westiminster Ave Flore, xla

Sites in red repre	*Acadamy High School Load from The Acadamy Charter High School Initial Study/Mitigated Negative Declaration, NOTE: Sites In black represent Garden Grove Tributary Areas	
	"Hisloric and Projected Water Demand from the Project Site" Table X, Page 3-61	

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# EXHIBIT "C-1"

# ESTIMATED PROPORTIONATE SHARE OF PROJECT DESIGN COSTS





Client: Project:

City of Santa Ana Westminster Ave Sewer Main Improvements Cost Share of Design

Sheet No. 1 of 1 Job No.: 134-P00597-0086-04 Computed by: MBJ Checked by: MWB Date: 2/4/2013

Reach Number	Length, ft.	Percentage of Project		Project Cost Breakdown	SA Percent Each Reach	GG Percent Each Reach		SA Cost Each Reach		GG Cost Each Reach
Reach #1	340	10%	S	12,000.00	39%	61%	-	4 680 00	^	2,200
Reach #2	348	11%	\$	13,200.00	37%	63%	\$	4,680.00 4,884.00	-	7,320.0 8,316.0
Reach #3	320	10%	\$	12,000.00	28%	72%	S	3,360.00	_	8,640.0
Reach #4	296	9%	\$	10,800.00	27%	73%	\$	2,916.00	_	7,884.0
Reach #5	200	6%	\$	7,200.00	30%	70%	\$	2,160.00	\$	5,040.0
Reach #6	326	10%	\$	12,000.00	32%	68%	\$	3,840.00	S	8,160.0
Reach #7	366	11%	\$	13,200.00	32%	68%	S	4,224.00	S	8,976,0
Reach #8	373	11%	\$	13,200.00	31%	69%	S	4,092.00	S	9,108.0
Reach #9	371	11%	\$	13,200.00	31%	69%	S	4,092.00	S	9,108.0
Reach #10	379	11%	S	13,200.00	32%	68%	\$	4,224.00	S	8,976.0
Total	3319	100%	S	120,000.00	***************************************		S	38,472.00	S	81,528.0

# EXHIBIT "C-2"

# ESTIMATED PROPORTIONATE SHARE OF PROJECT CONSTRUCTION COSTS



Client:

City of Santa Ana

Project:

Westminster Ave Sewer Main Improvements

Cost Sharing Cost Estimate

Sheet No.

of

Job No. 134-P00597-0086-04 Computed by: MBJ

Checked by: MWB

Date: 2/4/2013

Assumptions:

1. Percentage of cost assigned to Santa Ana and Garden Grove equals the percentage of flow each City contributes between each manhole. See attached spreadsheet for percentages.

2. Percentage of lump sum items in each reach is calculated as the percentage of pipeline constructed in each reach divided by the total amount of pipeline. See Table A below.

TABLE A - Percentage of Lump Sum Bid Items

Reach Number	From Manhole	To Manhole	Length of Reach	Percentage of Project
Reach #1	9618.5	9278.4	340	10%
Reach #2	9278.4	8926.3	348	11%
Reach #3	8926.3	8603.2	320	10%
Reach #4	8603.2	8303.3	296	9%
Reach #5	8303.3	8099.7	200	6%
Reach #6	8099.7	7769.6	326	10%
Reach #7	7769.6	7399.9	366	11%
Reach #8	7399.9	7022.7	373	11%
Reach #9	7022.7	6648.2	371	11%
Reach #10	6648.2	6263.7	379	11%

TABLE B - Cost Sharing Cost Estimate

Manhole Limits	Item No.	Estimated Qty	Unit	Description	Unit Price	Total Price
				2 CONTINUE OF THE PROPERTY OF	THE	Titee
	1	1	LS	Sheeting, Shoring and Trench Protection	\$2,000	\$2,000
	2	340	LF	Construct 15" VCP Sewer Main	\$220	\$74,800
	3	9	LF	Construct 8" VCP Sewer Main	\$300	\$2,700
	4	2	EA	Construct Concrete Manhole	\$8,000	\$16,000
*	5	1	EA	Modify Existing Sewer Manhole at Harbor and Roxey	\$5,000	\$5,000
	6	3	EA	Construct 6" Sewer Laterals and Cleanouts	\$10,000	\$30,000
	8	300	SF	Remove and Replace Concrete Driveways	\$20	\$6,000
Reach #1 96+18.5 to 92+78.4	10	349	LF	CCTV Inspection of New Sewer Main	\$2	\$1,000
	11	3	EA	CCTV Inspection of New Sewer Laterals	\$100	\$300
	12	12	CY	Excavation of Unsuitable Materials and Installation of Rock Stabilization	\$30	\$360
	13	30	CY	Excavation of Unsuitable Materials and Import Trench Backfill	\$50	\$1,500
	14	1	LS	Abandon Existing 12" and 8" Sewer Main	\$2,800	\$2,800
	17	6	EA	Replace Damaged Traffic Loops, Detectors and Wiring	\$1,500	\$9,000
	18	1	LS	Traffic Control, Striping and Pavement Markings	\$9,860	\$9,860
				SUBTOTAL		\$161,320
				SANTA ANA	39%	\$62,915
				GARDEN GROVE	61%	\$98,405



	1	1	LS	Sheeting, Shoring and Trench Protection	\$2,000	\$2,000
	2	348	LF	Construct 15" VCP Sewer Main	\$220	\$76,560
	4	1	EA	Construct Concrete Manhole	\$8,000	\$8,000
	6	4	EA	Construct 6" Sewer Laterals and Cleanouts	\$10,000	\$40,000
	8	600	SF	Remove and Replace Concrete Driveways	\$20	\$12,000
	10	348	LF	CCTV Inspection of New Sewer Main	\$2	\$1,000
Reach #2	11	4	EA	CCTV Inspection of New Sewer Laterals	\$100	\$400
92+78.4 to 89+26.3	12	12	CY	Excavation of Unsuitable Materials and Installation of Rock Stabilization	\$30	\$360
2176,410 05120.5	13	30	CY	Excavation of Unsuitable Materials and Import Trench Backfill	\$50	\$1,500
	14	1	LS	Abandon Existing 12" and 8" Sewer Main	\$2,800	\$2,800
	15	1	EA	Abandon Existing Manhole	\$4,000	\$4,000
	18	1	LS	Traffic Control, Striping and Pavement Markings	\$9,860	\$9,860
				SUBTOTAL		\$158,480
				SANTA ANA	37%	\$58,638
				GARDEN GROVE	63%	\$99,842
		STORE SHOWS				
	1	1	LS	Sheeting, Shoring and Trench Protection	\$2,000	\$2,000
	2	320	LF	Construct 15" VCP Sewer Main	\$220	\$70,400
	3	18	LF	Construct 8" VCP Sewer Main	\$300	\$5,400
	4	1	EA	Construct Concrete Manhole	\$8,000	\$8,000
	6	2	EA	Construct 6" Sewer Laterals and Cleanouts	\$10,000	\$20,000
	8	300	SF	Remove and Replace Concrete Driveways	\$20	\$6,000
	10	338	LF	CCTV Inspection of New Sewer Main	\$2	\$1,000
Reach #3	11	2	EA	CCTV Inspection of New Sewer Laterals	\$100	\$200
9+26.3 to 86+03.2	12	12	CY	Excavation of Unsuitable Materials and Installation of Rock Stabilization	\$30	\$360
., 120.5 to 00 105.2	13	30	CY	Excavation of Unsuitable Materials and Import Trench Backfill	\$50	\$1,500
	14	1	LS	Abandon Existing 12" and 8" Sewer Main	\$2,800	\$2,800
	16	1	LS	Remove and Dispose Existing Manhole at Clinton	\$5,000	\$5,000
	17	6	EA	Replace Damaged Traffic Loops, Detectors and Wiring	\$1,500	\$9,000
	18	1	LS	Traffic Control, Striping and Pavement Markings	\$9,860	\$9,860
				SUBTOTAL		\$141,520
				SANTA ANA	28%	\$39,626
				GARDEN GROVE	72%	\$101,894



	,,	1	1.0	01 2 01 1 17 17		
-	1	1	LS	Sheeting, Shoring and Trench Protection	\$1,800	\$1,800
	2	296	LF	Construct 15" VCP Sewer Main	\$220	\$65,120
_	4	1	EA	Construct Concrete Manhole	\$8,000	\$8,000
-	6	1	EA	Construct 6" Sewer Laterals and Cleanouts	\$10,000	\$10,000
	10	296	LF	CCTV Inspection of New Sewer Main	\$2	\$1,000
75 1 114	11	1	EA	CCTV Inspection of New Sewer Laterals	\$100	\$100
Reach #4	12	12	CY	Excavation of Unsuitable Materials and Installation of Rock Stabilization	\$30	\$360
86+03.2 to 83+03.3	13	30	CY	Excavation of Unsuitable Materials and Import Trench Backfill	\$50	\$1,500
	14	1	LS	Abandon Existing 12" and 8" Sewer Main	\$2,520	\$2,520
	15	1	EA	Abandon Existing Manhole	\$4,000	\$4,000
	18	1	LS	Traffic Control, Striping and Pavement Markings	\$8,860	\$8,860
			100	SUBTOTAL		\$103,260
				SANTA ANA	27%	\$27,880
				GARDEN GROVE	73%	\$75,380
	1	1	LS	Sheeting, Shoring and Trench Protection	\$1,200	\$1,200
	2	200	LF	Construct 15" VCP Sewer Main	\$220	\$44,000
	4	1	EA	Construct Concrete Manhole	\$8,000	\$8,000
	6	2	EA	Construct 6" Sewer Laterals and Cleanouts	\$10,000	\$20,000
	9	320	SF	Remove and Replace Concrete Curb Return	\$25	\$8,000
	10	200	LF	CCTV Inspection of New Sewer Main	\$23 \$2	\$1,000
	11	2	EA	CCTV Inspection of New Sewer Islam  CCTV Inspection of New Sewer Laterals	\$100	\$200
Reach #5	12	12	CY	Excavation of Unsuitable Materials and Installation of Rock Stabilization	\$30	\$360
33+03.3 to 80+99.7	13	30	CY	Excavation of Unsuitable Materials and Import Trench Backfill	\$50	
	14	1	LS	Abandon Existing 12" and 8" Sewer Main	\$1,680	\$1,500 \$1,680
	15	1	EA	Abandon Existing Manhole	\$4,000	\$4,000
	18	1	LS	Traffic Control, Striping and Pavement Markings	\$5,860	
				SUBTOTAL	33,000	\$5,860
				SANTA ANA	30%	\$95,800 \$28,740
		5 15		GARDEN GROVE	70%	\$67,060
	11	11	10			1
-	2	326	LS LF	Sheeting, Shoring and Trench Protection  Construct 15" VCP Sewer Main	\$2,000	\$2,000
	4	1	EA	Construct 13 VCP Sewer Main  Construct Concrete Manhole	\$220	\$71,720
	6	3	EA	Construct Concrete Mannole  Construct 6" Sewer Laterals and Cleanouts	\$8,000	\$8,000
	8	300	SF	Remove and Replace Concrete Driveways	\$10,000	\$30,000
	10	326	LF	CCTV Inspection of New Sewer Main	\$20	\$6,000
	11	3 3	EA		\$2	\$1,000
Reach #6	12	12	CY	CCTV Inspection of New Sewer Laterals	\$100	\$300
30+99.7 to 77+69.6	13	30	CY	Excavation of Unsuitable Materials and Installation of Rock Stabilization	\$30	\$360
	14	1	LS	Excavation of Unsuitable Materials and Import Trench Backfill	\$50	\$1,500
-	15	1	EA	Abandon Existing 12" and 8" Sewer Main	\$2,800	\$2,800
	18	1	LS	Abandon Existing Manhole Traffic Control, Striping and Pavement Markings	\$4,000	\$4,000
	10	1	ro.		\$9,860	\$9,860
				SUBTOTAL SANTA ANA	220	\$137,540
				SANTA ANA GARDEN GROVE	32% 68%	\$44,013 \$93,527
						·
	1	200	LS	Sheeting, Shoring and Trench Protection	\$2,200	\$2,200
	2	366	LF	Construct 15" VCP Sewer Main	\$220	\$80,520
-	6	1	EA	Construct Concrete Manhole	\$8,000	\$8,000
3 7		2	EA SF	Construct 6" Sewer Laterals and Cleanouts	\$10,000	\$20,000
			N.F.	Remove and Replace Concrete Driveways	\$20	\$6,000
	8	300				
	8 10	366	LF	CCTV Inspection of New Sewer Main	\$2	\$1,000
Reach #7	8 10 11	366	LF EA	CCTV Inspection of New Sewer Laterals	\$100	\$200
	8 10 11 12	366 2 12	LF EA CY	CCTV Inspection of New Sewer Laterals  Excavation of Unsuitable Materials and Installation of Rock Stabilization	\$100 \$30	\$200 \$360
	8 10 11 12 13	366 2 12 30	LF EA CY CY	CCTV Inspection of New Sewer Laterals  Excavation of Unsuitable Materials and Installation of Rock Stabilization  Excavation of Unsuitable Materials and Import Trench Backfill	\$100 \$30 \$50	\$200
	8 10 11 12 13 14	366 2 12 30 1	LF EA CY CY LS	CCTV Inspection of New Sewer Laterals  Excavation of Unsuitable Materials and Installation of Rock Stabilization  Excavation of Unsuitable Materials and Import Trench Backfill  Abandon Existing 12" and 8" Sewer Main	\$100 \$30 \$50 \$3,080	\$200 \$360
	8 10 11 12 13 14 15	366 2 12 30 1	LF EA CY CY LS EA	CCTV Inspection of New Sewer Laterals  Excavation of Unsuitable Materials and Installation of Rock Stabilization  Excavation of Unsuitable Materials and Import Trench Backfill  Abandon Existing 12" and 8" Sewer Main  Abandon Existing Manhole	\$100 \$30 \$50	\$200 \$360 \$1,500
Reach #7 7+69.6 to 73+99.9	8 10 11 12 13 14	366 2 12 30 1	LF EA CY CY LS	CCTV Inspection of New Sewer Laterals  Excavation of Unsuitable Materials and Installation of Rock Stabilization  Excavation of Unsuitable Materials and Import Trench Backfill  Abandon Existing 12" and 8" Sewer Main  Abandon Existing Manhole  Traffic Control, Striping and Pavement Markings	\$100 \$30 \$50 \$3,080	\$200 \$360 \$1,500 \$3,080
	8 10 11 12 13 14 15	366 2 12 30 1	LF EA CY CY LS EA	CCTV Inspection of New Sewer Laterals  Excavation of Unsuitable Materials and Installation of Rock Stabilization  Excavation of Unsuitable Materials and Import Trench Backfill  Abandon Existing 12" and 8" Sewer Main  Abandon Existing Manhole	\$100 \$30 \$50 \$3,080 \$4,000	\$200 \$360 \$1,500 \$3,080 \$8,000



1		7.1.20				
	1	1	LS	Sheeting, Shoring and Trench Protection	\$2,200	\$2,200
	2	373	LF	Construct 15" VCP Sewer Main	\$220	\$82,060
	4	1	EA	Construct Concrete Manhole	\$8,000	\$8,000
	6	3	EA	Construct 6" Sewer Laterals and Cleanouts	\$10,000	\$30,000
	8	300	SF	Remove and Replace Concrete Driveways	\$20	\$6,000
	10	373	LF	CCTV Inspection of New Sewer Main	\$2	\$1,000
Reach #8	11	3	EA	CCTV Inspection of New Sewer Laterals	\$100	\$300
73+99.9 to 70+22.7	12	12	CY	Excavation of Unsuitable Materials and Installation of Rock Stabilization	\$30	\$360
13199.9 10 10122.1	13	30	CY	Excavation of Unsuitable Materials and Import Trench Backfill	\$50	\$1,500
	14	1	LS	Abandon Existing 12" and 8" Sewer Main	\$3,080	\$3,080
	15	1	EA	Abandon Existing Manhole	\$4,000	\$4,000
	18	1	LS	Traffic Control, Striping and Pavement Markings	\$10,860	\$10,860
240				SUBTOTAL		\$149,360
		1000		SANTA ANA	31%	\$46,302
				GARDEN GROVE	69%	\$103,058
						1.00,000
	1	1	LS	Sheeting, Shoring and Trench Protection	\$2,200	\$2,200
	2	371	LF	Construct 15" VCP Sewer Main	\$220	\$81,620
	4	1	EA	Construct Concrete Manhole	\$8,000	\$8,000
	6	2	EA	Construct 6" Sewer Laterals and Cleanouts	\$10,000	\$20,000
	8	300	SF	Remove and Replace Concrete Driveways	\$20	\$6,000
	10	371	LF	CCTV Inspection of New Sewer Main	\$2	\$1,000
Reach #9	11	2	EA	CCTV Inspection of New Sewer Laterals	\$100	\$200
70+22.7 to 66+48.2	12	12	CY	Excavation of Unsuitable Materials and Installation of Rock Stabilization	\$30	\$360
	13	30	CY	Excavation of Unsuitable Materials and Import Trench Backfill	\$50	\$1,500
	14	1	LS	Abandon Existing 12" and 8" Sewer Main	\$3,080	\$3,080
	15	2	EA	Abandon Existing Manhole	\$4,000	\$8,000
	18	1	LS	Traffic Control, Striping and Pavement Markings	\$10,860	\$10,860
				SUBTOTAL		\$142,820
				SANTA ANA	31%	\$44,274
				GARDEN GROVE	69%	\$98,546
						American
	1	1	LS	Sheeting, Shoring and Trench Protection	\$2,200	\$2,200
	2	379	LF	Construct 15" VCP Sewer Main	\$220	\$83,380
	4	2	EA	Construct Concrete Manhole	\$8,000	\$16,000
	5	1	EA	Modify Existing Sewer Manhole at Harbor and Roxey	\$5,000	\$5,000
2.0	6	3	EA	Construct 6" Sewer Laterals and Cleanouts	\$10,000	\$30,000
	7	1050	SF	Remove and Replace Concrete Bus Pad	\$10	\$10,500
Reach #10	10	379	LF	CCTV Inspection of New Sewer Main	\$2	\$1,000
6+48.2 to 62+63.7	11	3	EA	CCTV Inspection of New Sewer Laterals	\$100	\$300
0140,2 (0 02103,7	12	12	CY	Excavation of Unsuitable Materials and Installation of Rock Stabilization	\$30	\$360
	13	30	CY	Excavation of Unsuitable Materials and Import Trench Backfill	\$50	\$1,500
	14	1	LS	Abandon Existing 12" and 8" Sewer Main	\$3,080	\$3,080
	15	1	EA	Abandon Existing Manhole	\$4,000	\$4,000
	18	1	LS	Traffic Control, Striping and Pavement Markings	\$10,860	\$10,860
				SUBTOTAL		\$168,180
				SANTA ANA	32%	\$53,818
		AND PARTY IN	Valence (Carlo	GARDEN GROVE	68%	\$114,362

		SUBTOTAL OF ALL REACHES		\$1,400,000
		SANTA ANA SUBTOTAL	32%	\$451,555
		GARDEN GROVE SUBTOTAL	68%	\$948,445

# EXHIBIT "D"

# ESTIMATED SCHEDULE OF PROJECT CONSTRUCTION



#### MEMORANDUM

TO:

Rudy Rosas, P.E., City of Santa Ana

FROM:

Mark Bush, P.E., Tetra Tech

JOB TITLE:

Westminster Avenue Sewer Improvement Project

PROJECT NO:

134-P00597-0086-04 (300)

SUBJECT:

Estimated Schedule for Construction

DATE:

February 19, 2013

The Estimated Schedule for Construction is based on Tetra Tech's experience with similar projects of nature, size, and knowledge of the City's existing system.

The following permits are to be obtained by the Contractor prior to construction:

- City of Santa Ana Encroachment Permit
- City of Garden Grove Engineering Permit

In order to obtain these permits, the Contractor is responsible to prepare traffic control plans and submit to the agencies listed above and obtain approval. Traffic control plans shall be submitted to the City for approval no later than four (4) weeks after the award of the contract.

The Contractor's activities shall be confined to the following hours:

- 1. From 9:00 a.m. to 3:00 p.m., Monday through Friday, except as otherwise noted.
- 2. Construction activities within the intersection of Harbor Boulevard and Westminster Avenue shall be performed from 9 p.m. to 5 a.m., Monday through Friday.
- 3. All direct tap lateral connections to the existing sewer laterals, including installation of clean-outs, shall be performed from 9 p.m. to 5 a.m., Monday through Friday.
- 4. The work at the intersection of Clinton that requires the upstream manhole (South Clinton) to be plugged in order to install the new 8-inch sewer pipe shall be performed from 9 p.m. to 5 a.m., Monday through Friday.

The aforementioned hours impact when the work can be performed and the Contractor's production rates.

The Contractor will also be responsible to obtain the following permits, but these are not believed to be critical path items:

1. Business License. Each Prime Contractor and Subcontractor shall obtain and pay for a Santa Ana Business License and a City of Garden Grove Business License. Detailed information concerning business license may be obtained from the Finance and Management Services Agency, (714) 647-5447, City Hall.

#### MEMORANDUM

February 19, 2013 Page 2

- 2. Construction Water Permit. Each Prime Contractor or Subcontractor which desires to obtain water from AGENCY-owned fire hydrants for construction or any other purpose shall first obtain and pay for a permit from the Corporate Yard of the City of Santa Ana at 220 South Daisy Avenue. Information concerning costs and conditions may be obtained from the AGENCY by calling (714) 647-3320. Use of private water from a hose bib is not allowed.
- 3. Disposal Permit. In accordance with the procedures of the Orange County General Services Administration (GSA), the cost for the disposal of all materials at County landfill sites shall be borne by the Contractor.
- 4. OSHA Excavation Permit. Contractor shall obtain an OSHA excavation permit, including an inquiry number from "Underground Service Alert".

Summarized herein is suggested phasing for construction activities:

- 1. Submit shop drawings and obtain permits;
- 2. Phase I: Construct 15-inch and 8-inch sewer main and manholes from connection at Harbor Boulevard to Roxey Drive and test main and manholes. Do not divert flow into new main. Construct new manholes over existing 8-inch laterals and maintain lateral through manhole. Construct service laterals partially across the street to the limits of the traffic control. Install inflatable plugs and temporary caps in service laterals at Sta. 92+20, Sta. 93+67, Sta. 94+32, and Sta. 95+68.
- 3. Phase II: Starting from Harbor Boulevard and working east to Sta. 88+50, continue constructing service laterals and clean-outs and connect new service lateral to existing service lateral. Break and remove the existing laterals constructed through manholes, divert flow into new 15-inch sewer main, and construct a brick and mortar plug in the outlet no longer being used.
- 4. Phase III: Break and remove the existing lateral constructed through new manhole Sta. 89+26.3 (Sta. 9+86.5 Clinton) and divert flow into new 15-inch sewer main. Maintain flow from South Clinton into existing 12-inch sewer. Construct new 8-inch sewer to the south within limits of the traffic control.
- 5. Phase IV: Break and remove the existing lateral constructed through manhole Sta. 92+78.4, divert flow into new 15-inch sewer main, and construct a brick and mortar plug in the outlet no longer being used. Break and remove the existing lateral constructed through manhole Sta. 96+18.5 (Sta. 9+86.5 Roxey) and divert flow into new 15-inch sewer main, and construct a brick and mortar plug in the outlet no longer being used. Re-channel the manhole base at existing manhole Sta. 96+18.5 and divert upstream flow at Roxey Drive into new 15-inch sewer, and construct a brick and mortar plug in the outlet no longer being used.
- 6. Phase V: Working east to west from Sta. 96+18.5, construct laterals and clean-outs and connect new service laterals to existing service laterals at Sta. 92+20, Sta. 93+67, Sta. 94+32, and Sta. 95+68 (Type B laterals) and connect new service laterals to existing service laterals.
- 7. Phase VI: After all flows upstream of existing manhole at Sta. 9+71.8 (Clinton) have been transferred to the new 15-inch sewer, make final connection of 8-inch sewer picking up flows from South Clinton. Temporarily plug upstream manhole on 8-inch sewer, remove manhole, and make final connection.

## MEMORANDUM

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- 8. Phase VII: Abandon existing 12-inch and 8-inch sewer mains and manholes.
- 9. Phase VIII: Construct grind and cap.

This is only an estimated schedule; the actual schedule and phasing may vary due to field conditions and performance/production rates of the Contractor. Notwithstanding, the Contractor shall complete all work under the contract within 140 working days from the date of the Notice to Proceed issued by the City of Santa Ana. Construction on the project shall begin within one (1) month from the award of the contract. Once work has begun on the project, the Contractor shall work continuously on the project until work is substantially complete.

MWB/mn