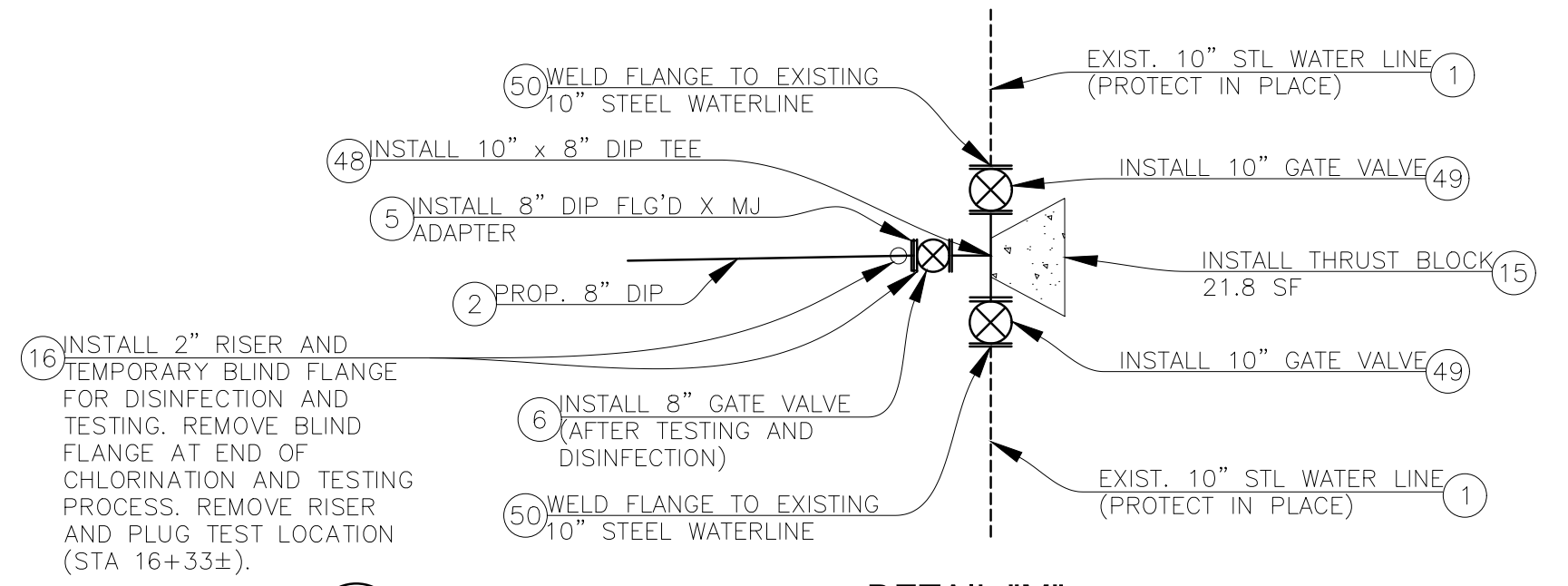
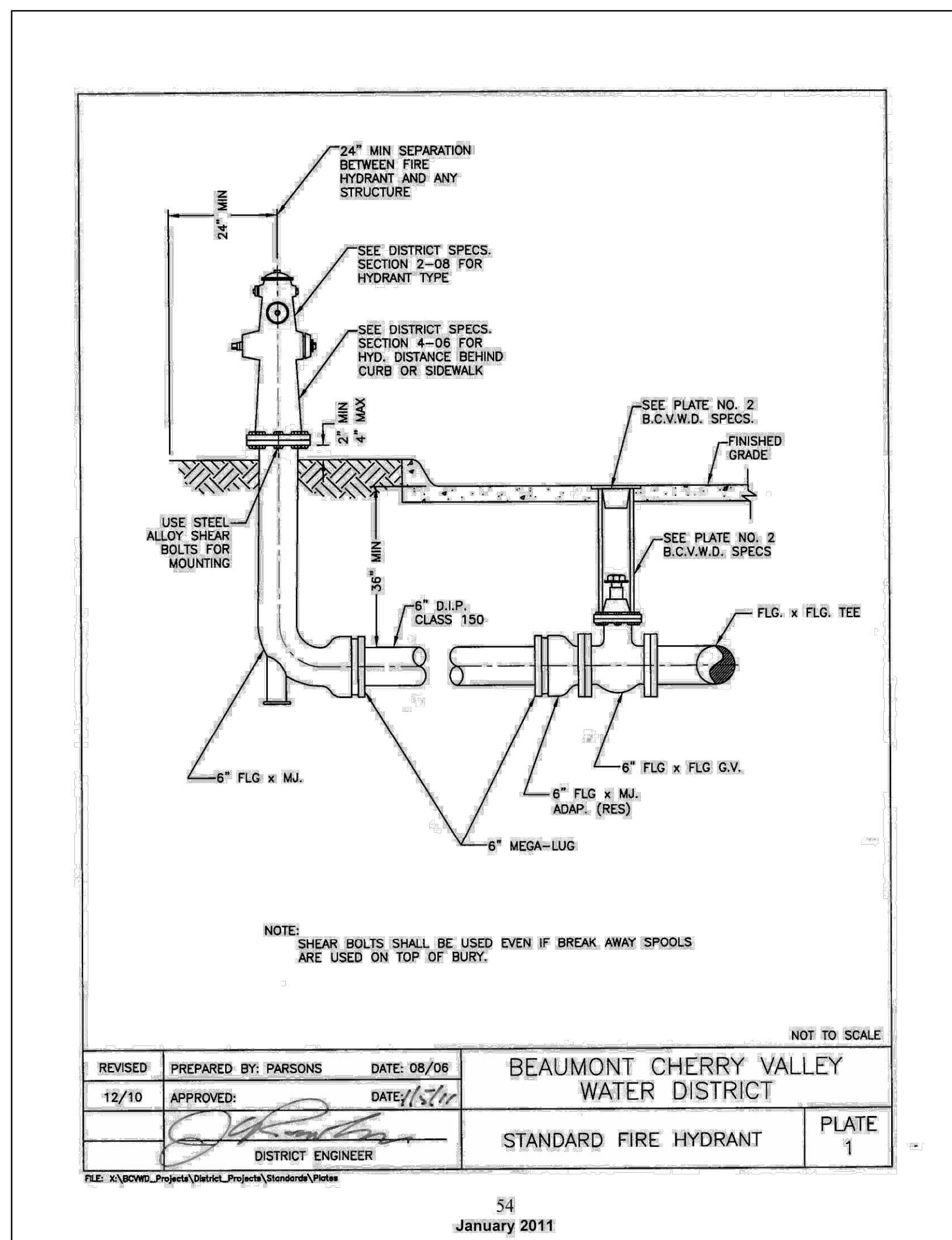


DETAIL "L"
8" DIP CONNECTION TO EXISTING 6" STEEL WATER MAIN
 (WATERLINE STA 10+00 = MDP LINE 16 STA 18+50±)
 NOT TO SCALE



DETAIL "M"
CONNECTION TO EXISTING WATER MAIN
 (WATERLINE STA 16+33± = MDP LINE 16 STA 24+82±)
 NOT TO SCALE



REVISION	PREPARED BY: PARSONS	DATE: 08/06	BEAUMONT CHERRY VALLEY WATER DISTRICT	PLATE 1
12/10	APPROVED:	DATE: 12/10		
DISTRICT ENGINEER				

CONSTRUCTION NOTES	UNIT	QTY
1 PROTECT IN PLACE		
2 INSTALL 8" DIP (CLASS 350) WITH POLYETHYLENE ENCASEMENT AND BEDDING PER BCVWD PLATE 6-1 (36" MIN COVER)	LF	635
3 INSTALL 8" - 45' FLG'D X MJ ELBOW, WITH EBAA IRON SERIES 1100 RESTRAINT	EA	1
5 INSTALL 8" DIP FLG'D X MJ ADAPTER	EA	1
11 DISINFECT ALL POTABLE WATER SERVICE PIPING AND APPURTENANCES (PER AWWA STANDARD)		
13 INSTALL DISTRICT FURNISHED 1" SERVICE SADDLE, CORPORATION STOP, AND SERVICE LATERAL PIPING PER BCVWD STANDARD PLATE 6-3. ONCE TESTING AND DISINFECTION IS COMPLETE, REMOVE EXISTING METER AND INSTALL NEW DISTRICT FURNISHED METER AND CONNECT TO NEW SERVICE LATERAL.	EA	3
14 INSTALL RESTRAINED JOINTS (FIELD-LOK 350 GASKETS, MEGA LUGS (IF MECHANICAL JOINT) OR DISTRICT APPROVED EQUAL.	LF	90
15 INSTALL THRUST BLOCK PER BCVWD PLATE 11-1 AND 11-2 (SCALE USING SOIL BEARING PRESSURE OF 1500 LB/SF)	SF	AS NOTED
16 INSTALL 2" RISER AND TEMPORARY BLIND FLANGE FOR DISINFECTION AND TESTING. REMOVE TEMPORARY BLIND FLANGE AT END OF CHLORINATION AND TESTING PROCESS. REMOVE RISER AND PLUG TEST LOCATION.	EA	2
17 INSTALL 8" - 45' MJ ELBOW, WITH EBAA IRON SERIES 1100 RESTRAINT	EA	1
48 INSTALL 10" x 8" TEE	EA	1
49 INSTALL 10" GATE VALVE	EA	2
50 WELD FLANGE TO EXISTING STEEL WATERLINE	EA	3
51 INSTALL 6" x 8" DIP FLG'D REDUCER	EA	1
52 INSTALL FIRE HYDRANT ASSEMBLY PER BCVWD STANDARD PLATE 1	EA	2

	BEARING/Delta	RADIUS	LENGTH (LF)
18	N 45° W	-	10±
19	N 90° E	-	625±

RECDM COUNTY OVERSIGHT ENGINEER REGISTRATION # DATE SIGNED
 APPROVED AS TO COMPLIANCE WITH APPLICABLE COUNTY STANDARDS AND PRACTICES (TRANSPORTATION DEPARTMENT ONLY - ROW/OFFSITE)

48 hours BEFORE excavation
 1-(800)227-2600
 CALL Underground Service Alert

SYMBOL	REVISIONS	DATE	BY
Δ	ADD DESIGN FOR PIPELINE 6 WEST OF NOBLE STREET		



BEAUMONT-CHERRY VALLEY WATER DISTRICT
 560 Magnolia Ave. • Beaumont, CA. 92223 • 951-845-9581
 APPROVED BY: _____ DATE: _____
 REGISTERED ENGINEER No. _____

SCALE	AS NOTED
FIELD BOOK	N/A
DESIGN	DAB
DRAWN	DAB
CHECKED	MBS

BCVWD
 PIPELINE RELOCATION PLAN
PIPELINE 6: STA.: 10+00 - STA.: 16+34±
 (MDP LINE 16 STA. 18+50± - STA. 24+82±)

3040 PZ
 SHEET
6
 OF 6 SHEETS
 FILE NO.



**Beaumont-Cherry Valley Water District
Regular Board Meeting
October 28, 2021**

Item 6

STAFF REPORT

TO: Board of Directors

FROM: Dan Jagers, General Manager

SUBJECT: **Approve Additional Expenditures for the Previously Approved Pipeline Relocation Project for Beaumont Master Drainage Plan (MDP) Line 16, Award Contract for Pipeline Relocation Project for MDP Line 16, and Approve Operated Equipment Rental Funds for MDP Line 16 Phase II Pond Bank and Tank Site Grading**

Staff Recommendation:

Consider the following:

1. Approve additional expenditure for Beaumont Master Drainage Plan (MDP) Line 16 in the amount of \$134,000 for a not to exceed total project amount of \$875,300 to cover increased costs associated with MPD Line 16 water line relocation construction activities and grading operations, including material purchased and project contingencies to be distributed between various project components as necessary.
2. Authorize General Manger to enter a contract with Merlin Johnson Construction to provide labor and construction equipment and testing necessary to complete the Pipeline Relocation Project for Beaumont Master Drainage Plan (MDP) Line 16 in the amount of \$448,700.
3. Approve authorization of fund expenditure in the amount not to exceed for Operated Equipment Rental with Weaver Grading, Inc. necessary to complete Noble Creek Recharge Facilities Phase II Pond Bank Grading in the amount of \$166,000.

Background:

At the April 14, 2021, Board Meeting, District staff presented the Staff estimated construction costs for facilities improvements related to the BCVWD's and Riverside County Flood Control & Water Conservation District (RCFC&WCD) Master Drainage Plan Project based on 60% design activities for project pipeline replacement activities and grading activities related to Noble Creek Recharge Facilities Phase 2 bank grading and Recycled Water Storage Tank grading in the amount of \$741,300.00 including the following project activities:

- 1, Pipeline Relocation Project necessary to accommodate the proposed storm drain facilities located in Grand Avenue,
2. Noble Creek Recharge Facilities Phase II Pond Bank Grading Project (NCRF Phase II Grading) necessary to accommodate project spillways between ponds 1 through 4 (Phase 1 grading activities)



3. Future Recycled Water Storage Tank No. 2 site grading located at the NCRF Phase II site. The Recycled Water Tank No. 2 grading was included to take advantage of soil generated from the MDP Line 16 Storm Drain construction activities and provide for necessary fill material required beneath the master planned future Recycled Water Tank No. 2.

At said April 14, 2021 meeting, the Board of Directors authorized construction and miscellaneous costs together with District Staff expenditures in an amount not to exceed \$741,300.00 and associated funding sources as shown in Table 1 and Table 2 below:

Table 1
TOTAL APPROVED PROJECT APPROPRIATION (Board Approved April 14, 2021)

APPROPRIATION ITEM	SUBTOTAL
Grand Avenue Pipeline Replacement Project	\$496,703.15
NCRF Phase II Grading	\$244,426.00
TOTAL APPROVED PROJECT APPROPRIATION	\$741,300.00

Table 2
SUMMARY OF PROJECT FUNDING COMPONENTS (Board Approved April 14, 2021)

FUNDING SOURCE	SUBTOTAL
Facilities Fees Funded (Restricted Funds) (~81.3%)	\$602,531.68
Capital Replacement Reserves Funded (~18.7%)	\$138,768.32
TOTAL APPROVED PROJECT FUNDING	\$741,300.00

Staff has now substantially completed the following project activities:

1. Completed MDP Line 16 pipeline replacement project design of facilities and bid of said work activities.
2. Completed bid process for the MDP Line 16 pipeline replacement project (Contractor Work and District furnished materials).
3. Finalized design of MDP Line 16 pond bank grading and reservoir grading activities and completed estimate of hours of equipment rental necessary to complete said grading work.
4. Secured 3 operated equipment rental quotations from local area vendors for hourly rates associated with operated rental equipment necessary to complete anticipated grading operations.

Based upon these activities, Staff identifies that additional cost need to be allocated by the Board of Directors to provide for complete the project construction, materials purchases, and equipment rental activities associated with the project. Staff further identifies that the increase costs represent the final project components and are most likely associated with the Country's



current economic climate which seems to be impacting construction costs as well as materials costs throughout the region, as evidenced by the higher than anticipated project costs.

Table 3 sets forth a comparison of approved appropriations and actual and anticipated costs associated with the project. Staff further identifies the “Revised Project Appropriation Summary” listed in Table 3 represents the revision to the project appropriation amounts requested under Staff Report Staff Recommendations.

**Table 3
SUMMARY OF APRIL 14, 2021 BOARD EXPENDITURE AAPPROVAL
for MDP LINE 16 PROJECT COSTS**

TOTAL APPROVED PROJECT APPROPRIATION (Board Approved April 14, 2021)		REVISED PROJECT APPROPRIATION SUMMARY(Board Approved April 14, 2021)					Cost Difference
ITEM	ITEM SUBTOTAL COST	Bid Amount/ Equipment Rental	Material Cost	District and Soft Costs	Contingency (~7%)	Total Cost	
Grand Avenue Pipeline Replacement Project	\$496,703.15	\$ 448,740.00	\$ 131,943.46	\$ 35,000.00	\$ 40,000.00	\$655,683.46	\$ 158,980.31
NCRF Phase II Grading	\$244,426.00	\$ 166,000.00	\$ 2,000.00	\$ 36,500.00	\$ 15,116.54	\$219,616.54	\$ (24,809.46)
TOTAL APPROVED PROJECT APPROPRIATION	\$741,300.00	PROJECT CONTINGENCY (7% OVERALL): \$ 55,116.54					
REVISED PROJECT COST: \$875,300.00							
REQUESTED ADDITIONAL EXPENDITURES: \$ 134,000.00							

Recommendation 1

Approve additional expenditure for Beaumont Master Drainage Plan (MDP) Line 16 in the amount of \$134,000 for a not to exceed total project amount of \$875,300 to cover increased costs associated with MPD Line 16 water line relocation construction activities and grading operations, including project contingencies to be distributed between various project components as necessary.

At the May 28, 2020, Beaumont-Cherry Valley Water District (District) Board Meeting, District staff presented estimated costs related to necessary pipeline replacements/relocations as part of the MDP Line 16 Storm Drain Project, a joint project between Riverside County Flood Control and Water Conservation District (RCFC&WCD) and the District. Said waterline replacements are programmed in the District’s Capital Improvement Plan (CIP) and were proposed to be funded using a combination of capacity charges (facilities fees) and capital replacement reserves. See “Attachment 1” for the Pipeline Relocation Project for Beaumont MDP Line 16 (Pipeline Relocation Project) Vicinity Map.

As part of Staff’s identification of costs associated with Staff Recommendation No. 2, District staff completed a Pipeline Replacement Plan and associated construction documents for the Master Drainage Plan MDP Line 16 work activities in late August 2021. Staff then solicited materials cost and bid the construction services activities as discussed hereafter.

District staff solicited pipeline material costs for all pipeline materials and appurtenances associated with said project from our selected biannual materials vendor in August 2021 based upon prepared plans. The cost for all pipeline materials and appurtenances was quoted at **\$131,943.46**, as identified in Table 3 above. District staff has further been informed that the



pipeline materials for the Project will not be delivered to the project site until at least January 2022, due to supply chain issues and labor issues.

The Pipeline Replacement Construction Documents for MDP Line 16 pipeline relocation activities were bid in accordance with District policy commencing on September 10, 2021. Said bids for construction services (labor, equipment, and backfill/pavement materials only, with the District providing pipeline materials and appurtenances) related to installation of District furnished materials and appurtenances were received from five (5) contractors and opened on September 30, 2021 at 3:00 PM.

After review, it was determined that Merlin Johnson Construction, Inc. (Merlin Johnson) was the lowest responsive bidder with a bid price of **\$448,740.00** for construction of the Pipeline

The bid amounts set forth in Table 4 include Base Bid Amounts which establish the recommended Basis of Award recommended as part of Staff Report Recommendation No. 2. Said Bid Schedules set forth the minimum work District staff anticipates will be required for replacement, disinfection, and testing of the pipeline components necessary to accommodate MDP Line 16 construction.

The bid results and Staff's recommended contractor are set forth in Table 4 below.

Table 4
MDP LINE 16 PIPELINE REPLACEMENT SUMMARY OF BID RESULT

Bidder (Contractor)	MDP Line 16 Pipeline Replacement Base Bid Amount/Basis of Award	Comment
Merlin Johnson Construction, Inc.	\$448,740.00	Recommended for Award
H&H General Contractors, Inc.	\$663,663.00	
Christensen Brothers General Engineering, Inc.	\$978,81.50	
Bonadiman Water, Inc.	\$643,040.00	
GJ Gentry General Engineering, Inc.	\$739,097.00	

At this time, District staff requests that the Board approve award of the work described above and authorize the General Manager to enter a contract for the MDP Pipeline Replacement Project with Merlin Johnson Construction, Inc. in the amount set forth in Table 4, above and as identified hereafter as Recommendation No. 2.

Recommendation 2

Award Contract for Pipeline Relocation Project for Beaumont Master Drainage Plan (MDP) Line 16 to Merlin Johnson Construction, Inc. In the amount of \$448,700. Note



Award amount does not include contingencies identified in Table 3 above in the additional amount of \$40,000 for construction, materials, and soft costs.

At the April 14, 2021, Board Meeting, District staff presented the estimated construction costs of grading work required at the Noble Creek Recharge Facilities Phase II Pond Bank Grading Project (NCRF Phase II Grading) which included the following components:

- **Phase 1:** Grading activities required for construction of the proposed spillways to be located between NCRF Ponds 1-4.
- **Phase 2:** Grading activities required to construct the tank site for the future 2 MG non-potable tank (identified in the CIP as NT-2800-0001)

District staff proposes to complete construction for the NCRF Phase II Grading Project in separate phases in order to remain ahead of the MDP Line 16 Storm Drain Project and avoid any potential impacts to the storm drain project construction schedule. Design of the grading of the NCRF Phase II Ponds is substantially complete, and District staff understands that grading activities for the pond banks will need to begin immediately following design completion to facilitate the construction schedule of the proposed spillways. The District has sufficient material on-site at the NCRF to grade the NCRF Phase II ponds and banks for the proposed spillways and can begin construction immediately after design completion.

Staff proposes to complete this work by managing said activities in house with operated equipment using an operated equipment supplier and has solicited 3 costs from local area equipment suppliers and prepared an estimated timeline and cost for work to define a not to exceed amount and ensure that all activities can be completed.

In October 2021, District staff solicited and received estimates from three (3) grading contractors for the cost of operated equipment (contractor to provide equipment and operator at prevailing wage, with District staff to provide direction and oversight of construction with survey and geotechnical services provided by consultants). The estimates for operated equipment received by the District are summarized in Table 5 below:



Table 5 – Phase 1 Grading Activity - Estimated Cost

Item	Equipment Description	Equipment Size	Estimated Equipment Hours	Weaver Grading			Infinity Recycling Materials			Ortiz Enterprises, Inc.		
				Equipment Mobilization/De-Mobilization Cost	Hourly Rate (Operated Equipment at Prevailing Wage)	Total Cost (Mobilization + PW Rate and Hours)	Equipment Mobilization/De-Mobilization Cost	Hourly Rate (Operated Equipment at Prevailing Wage)	Total Cost (Mobilization + PW Rate and Hours)	Equipment Mobilization/De-Mobilization Cost	Hourly Rate (Operated Equipment at Prevailing Wage)	Total Cost (Mobilization + PW Rate and Hours)
1	Scraper	623	190	\$1,500.00	\$275.00	\$53,750.00	\$1,200.00	\$262.50	\$51,075.00	\$2,400.00	\$362.00	\$71,180.00
2	Bulldozer	D-6	24	\$500.00	\$225.00	\$5,900.00	\$1,200.00	\$234.38	\$6,825.12	\$1,500.00	\$249.55	\$7,489.20
3	Sheepsfoot Roller	8-foot Drum	120	\$500.00	\$155.00	\$19,100.00	\$1,200.00	\$187.50	\$23,700.00	\$1,500.00	\$243.80	\$30,756.00
4	Blade		120	\$500.00	\$195.00	\$23,900.00	\$1,200.00	\$231.25	\$28,950.00	\$1,500.00	\$204.00	\$25,980.00
5	Water Truck	4,000 Gallon	170	\$500.00	\$145.00	\$25,150.00	\$1,200.00	\$150.00	\$26,700.00	\$1,500.00	\$203.55	\$36,103.50
6	Grade Checker	N/A	120	-	\$110.00	\$13,200.00	-	\$131.25	\$15,750.00	-	\$134.55	\$16,146.00
7	Mobilization 2 at Tank and Misc.	N/A	120	-		\$21,500.00	-		\$21,500.00	-		\$21,500.00
Mobilization Total:				\$3,500.00			\$6,000.00			\$8,400.00		
				Total Cost to Complete:		\$166,000.00	Total Cost to Complete:		\$180,500.12	Total Cost to Complete:		\$217,554.70
				Contingency (7%):		\$11,620.00	Contingency (7%):		\$12,635.01	Contingency (7%):		\$15,225.83
				Total Estimated Cost:		\$177,620.00	Total Estimated Cost:		\$193,35.13	Total Estimated Cost:		\$32,783.53



Table 3 – Operated Equipment for Phase 1 and 2 Grading Activities - Estimate Summary

	Weaver Grading	Infinity Recycling Materials	Ortiz Enterprises, Inc.
Total Cost (Mobilization + Prevailing Wage Rate X Hours)	\$166,000.00	\$183,600.14	\$ 225,185.64

District staff recommends executing a contract for **\$166,000.00** with **Weaver Grading** for the services of operated equipment for Phase 1 and Phase 2 (Pond Bank Grading and Reservoir) of the NCRF Phase II Grading Project. It should be noted that this amount does not include contingencies, material costs, and District soft cost associated with this work.

Recommendation 3

Approve authorization of fund expenditure in the amount not to exceed for Operated Equipment Rental with Weaver Grading, Inc. necessary to complete Noble Creek Recharge Facilities Phase II Grading in the amount of \$166,000. Note Award amount does not include contingencies identified in Table 3 above in the additional funds necessary for project contingencies, construction materials, and soft costs.

Phase 2 grading (future non-potable tank site) can occur simultaneously with the MDP Line 16 Storm Drain Project, as District staff intends to utilize excavated material from the storm drain trench to construct said tank site. Construction of the tank site does not have any impact on the construction activities or schedule of the MDP Line 16 Storm Drain, and therefore staff can complete this work as materials become available.

Summary:

Based on the above, District staff has estimated the total Pipeline Relocation Project cost (labor and materials) to be approximately **\$580,700.00**. The previously estimated cost associated with the design and construction of the Pipeline Relocation Project was \$496,703.15.

The estimated construction cost for the NCRF Phase II Grading Project was previously determined to be \$244,426.00 (assumes both Phase 1 and Phase 2). District staff proposes utilizing **\$166,000.00** of the originally approved budget for operated equipment and \$53,616.54 of the originally approved budget for time associated with District staff field efforts and geotechnical inspections (consultant) to complete the NCRF Phase II Grading Project.

District staff is requesting an authorization of expenditures not to exceed **\$134,000.00**, which would account for the difference between actual Project costs and previously approved Project expenditures (approximately \$84,000), as well as Project construction contingency.



Currently, District staff estimates the total construction cost for both the Pipeline Relocation Project and the NCRF Phase II Grading Project to be approximately **\$875,300.00** (rounded). District staff is requesting an approval of additional expenditures for the Pipeline Relocation Project and NCRF Phase 2 grading activities in an amount of **\$134,000.00** for the completion of the pipeline relocation work and grading activities previously described.

In order to avoid conflict with construction activities relating to the MDP Line 16 Project, District staff recognizes that the construction of the Pipeline Relocation Project and the Phase 1 of the NCRF Phase II Grading Project will need to occur rather quickly. Once the purchased pipeline materials are delivered, it is anticipated that the Pipeline Relocation Project will need to immediately move forward; RCFC&WCD staff has informed District staff that there is an estimated lead time of anywhere between four to five months for storm drain materials. The District will need to ensure that construction of the Pipeline Relocation Project not impact the construction schedule of the MDP Line 16 Storm Drain Project.

Fiscal Impact:

The fiscal impact to the District for the work for the previously approved Pipeline Relocation Project for Beaumont MDP Line 16 will be an additional amount not to exceed **\$134,000.00 (rounded)** with a total amount estimated to be approximately **\$655,683.46**. The additional expenditures for the Project are proposed to be funded by Capital Replacement Reserves and Facilities Fees. Please see Table 7 for a summary of the additional expenditures by funding source.

Table 7 – Additional Pipeline Relocation Project Appropriation – by Funding Source

TOTAL PIPELINE RELOCATION PROJECT ADDITIONAL APPROPRIATION REQUESTED - BY FUNDING SOURCE	
ITEM	ITEM SUBTOTAL COST
Grand Avenue Pipeline Replacement Project	\$134,000.00
Facilities Fees Funded (Restricted Funds)	\$44,200.00
Capital Replacement Reserves Funded	\$89,800.00

The fiscal impact to the District for the work for Phase 1 of the previously approved NCRF Phase II Pond Bank Grading and Tank Site Grading will be an amount not to exceed **\$219,616.54** (operated equipment, District staff time, and geotechnical consulting services). Both Phases 1 and 2 of the NCRF Phase II Pond Grading are to be funded by Facilities Fees, due to the nature of the MDP Line 16 Storm Drain Project being classified as a “new water source.”

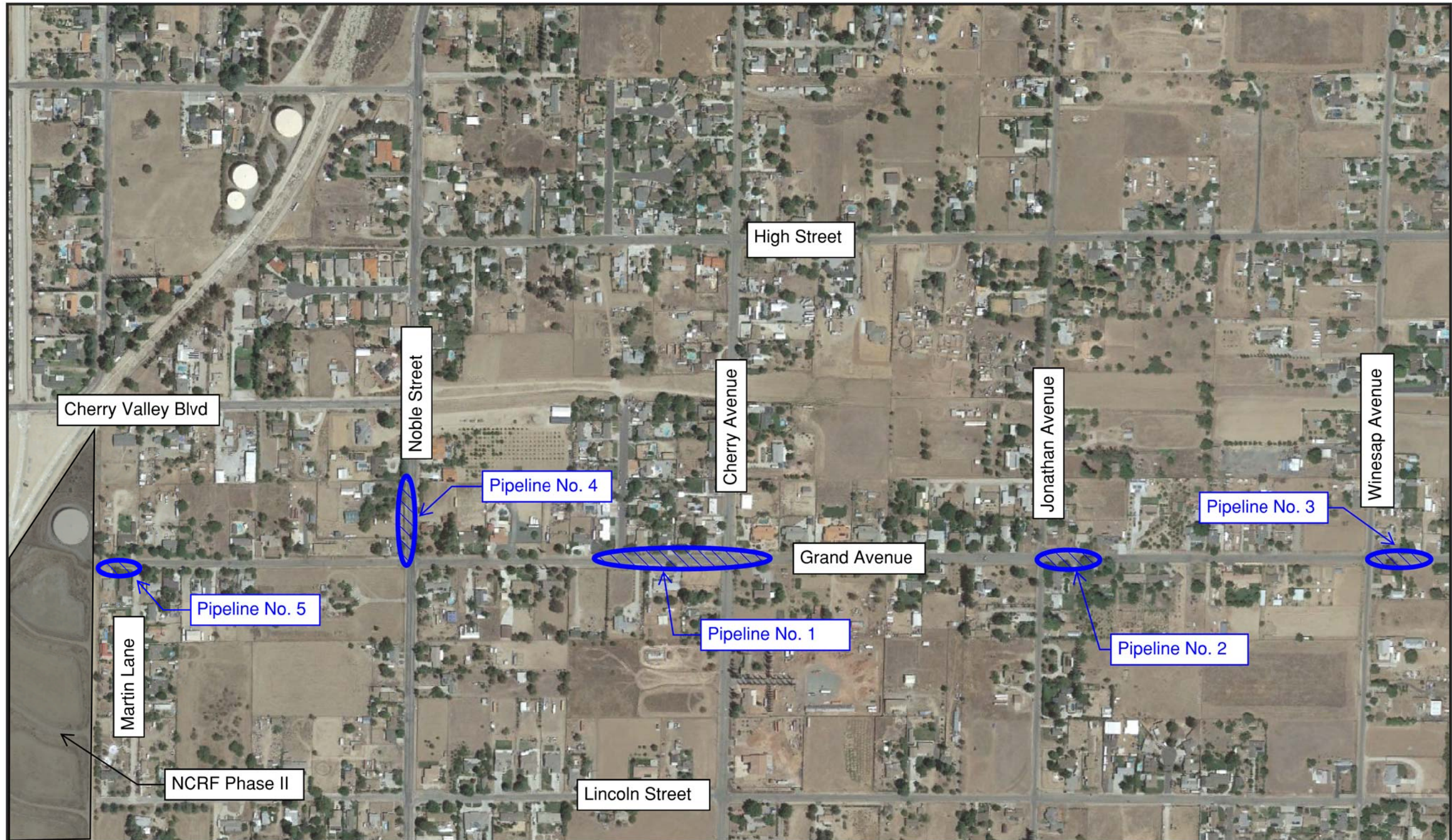
Attachments:

Attachment 1 – Pipeline Relocation Project for Beaumont MDP Line 16 Project Location Map

Attachment 2 – Construction Plans for the Pipeline Relocation Project for Beaumont MDP Line



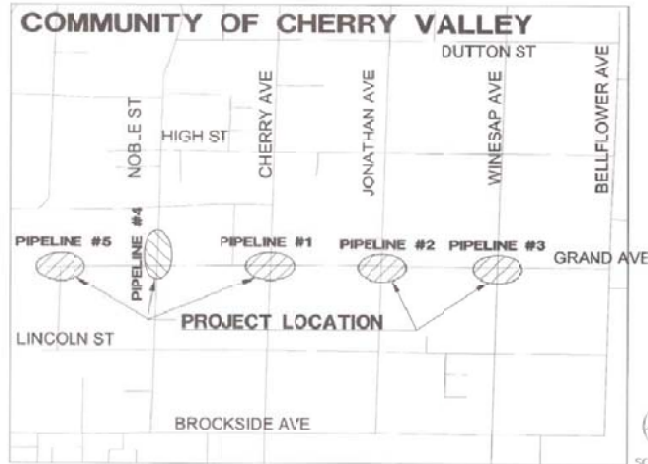
Attachment 1 - Pipeline Relocation Project for Beaumont MDP Line 16 Project Location Map



Not to Scale 

**ATTACHMENT 2 - CONSTRUCTION
PLANS FOR THE PIPELINE
RELOCATION PROJECT FOR
BEAUMONT MDP LINE 16**

BEAUMONT-CHERRY VALLEY WATER DISTRICT PIPELINE RELOCATION PLAN FOR BEAUMONT MASTER DRAINAGE PLAN LINE 16 3040 PRESSURE ZONE



VICINITY MAP

LEGEND

EXISTING WATER (8" DIAMETER)	---	W	---
PROPOSED WATER (8" DIAMETER)	---	W	---
EXISTING METER	⊕		
FIRE HYDRANT	⊕		
EXISTING SERVICE LATERAL	---		
EXISTING RW	---		
EXISTING PL	---		
CENTERLINE	---		
EXISTING SEWER	---		

ABBREVIATIONS

BEAUMONT-CHERRY VALLEY WATER DISTRICT	BCVWD
DUCTILE IRON PIPE	DIP
EXISTING	EX
NOT TO SCALE	NTS
PROPOSED	PROP
STATION	STA
STEEL	STL
PROTECT IN PLACE	PIP
FLANGED	FLSD
MECHANICAL JOINT	MJ
PLAIN END	PE

CONSTRUCTION NOTES

NO.	DESCRIPTION	QTY	UNIT
1	PROTECT IN PLACE	-	-
2	INSTALL 8" DIP (CLASS 354) WITH POLYETHYLENE ENCASEMENT AND BEDDING PER BCVWD PLATE 6-1 (36" MIN COVER)	548	LF
3	INSTALL 8" - 45° FLGD X MJ ELBOW WITH EBAA IRON SERIES 1100 RESTRAINT	3	EA
4	INSTALL 8" FLGD TEE	1	EA
5	INSTALL 8" FLGD X MJ ADAPTER	4	EA
6	INSTALL 8" GATE VALVE	4	EA
7	INSTALL 6" X 4" FLGD REDUCER	1	EA
8	INSTALL 6" TRANSITION FLEX COUPLING FROM 8.60" - 9.06" (ROMAC LONG BARREL) AND TIES PER BCVWD PLATE 9	2	EA
9	INSTALL 4" FLGD GATE VALVE	2	EA
10	INSTALL 4" TRANSITION FLEX COUPLING FROM 4.5" - 4.81" (ROMAC LONG BARREL) AND TIES PER BCVWD PLATE 9	2	EA
11	DISINFECT ALL POTABLE WATER SERVICE PIPING AND APPURTENANCES (PER AWWA STANDARD)	-	-
12	ABANDON IN PLACE EXISTING PIPELINE AND PLUG SEVERED PIPE ENDS WITH 3" MINIMUM CLASS "C" CONCRETE PLUG (EACH END)	-	-
13	INSTALL DISTRICT FURNISHED 1" SERVICE SADDLE, CORPORATION STOP, AND SERVICE LATERAL PIPING PER BCVWD STANDARD PLATE 6-3. (ICE TESTING AND DISINFECTION IS COMPLETE, REMOVE EXISTING METER AND INSTALL NEW DISTRICT FURNISHED METER AND CONNECT TO NEW SERVICE LATERAL.)	14	EA
14	INSTALL RESTRAINED JOINTS (FIELD-LOK 350 GASKETS, MEGA LUGS (IF MECHANICAL JOINT) OR DISTRICT APPROVED EQUAL)	28	EA
15	INSTALL THRUST BLOCK PER BCVWD PLATE 11-1 AND 11-2 (ASSUME SOIL BEARING PRESSURE OF 1500 LB/SF)	0.10	CY
16	INSTALL 2" RISER AND TEST PLATE FOR DISINFECTION AND TESTING. REMOVE TEST PLATE AT END OF CHLORINATION AND TESTING PROCESS. REMOVE RISER AND PLUG TEST LOCATION.	16	EA
17	INSTALL 8" - 45° MJ ELBOW WITH EBAA IRON SERIES 1100 RESTRAINT	4	EA
18	INSTALL 12" DIP (CLASS 353) WITH POLYETHYLENE ENCASEMENT AND BEDDING PER BCVWD PLATE 6-1 (36" MIN COVER)	660	LF
19	INSTALL 12" - 45° MJ ELBOW WITH EBAA IRON SERIES 1100 RESTRAINT	5	EA
20	INSTALL 12" - 45° MJ ELBOW WITH EBAA IRON SERIES 1100 RESTRAINT	7	EA
21	INSTALL 12" X 8" FLGD REDUCER	4	EA
22	INSTALL 12" - FLGD X MJ ADAPTER	1	EA
23	INSTALL 6" TRANSITION FLEX COUPLING FROM 8.60" - 8.91" (ROMAC LONG BARREL) AND TIES PER BCVWD PLATE 9	3	EA
24	INSTALL 6" X 36" (LONG) FLGD X PE STL SPOOL	3	EA
25	REMOVE EXISTING 6" PIPELINE (LIMITS AS INDICATED)	55	LF
26	INSTALL 12" X 10" FLGD REDUCER	2	EA
27	INSTALL 10" TRANSITION FLEX COUPLING FROM 10.89" - 11.40" (ROMAC LONG BARREL) AND TIES PER BCVWD PLATE 9	2	EA
28	INSTALL 10" X 36" (LONG) FLGD X PE STL SPOOL	2	EA
29	INSTALL 4" X 36" (LONG) FLGD X PE STL SPOOL	2	EA
30	INSTALL 16" D.I. FLGD CROSS	1	EA
31	INSTALL 16" BUTTERFLY VALVE	2	EA
32	INSTALL 16" X 36" (LONG) FLGD X PE STL SPOOL	2	EA
33	INSTALL 16" TRANSITION COUPLING AND TIES PER BCVWD PLATE 9. (ROMAC LONG BARREL, 16.00" - 6.40" GASKET)	2	EA
34	INSTALL 16" X 8" FLGD REDUCER	2	EA
35	INSTALL 6" DIP (CLASS 354) WITH POLYETHYLENE ENCASEMENT AND BEDDING PER BCVWD PLATE 6-1 (36" MIN. COVER)	158	LF
36	INSTALL 6" - FLGD TEE	1	EA
37	INSTALL 6" X 4" FLGD ECCENTRIC REDUCER	1	EA
38	INSTALL 6" GATE VALVE PER BCVWD PLATE 2	1	EA
39	INSTALL 6" FLGD X MJ ADAPTER	2	EA
40	INSTALL 8" X 29" (LONG) FLGD X PE STL SPOOL	2	EA
41	INSTALL 4" BLOWOFF ASSEMBLY PER BCVWD PLATE 3-1	1	EA
42	INSTALL 12" GATE VALVE PER BCVWD PLATE 2	1	EA
43	COMPLETE ALL TRENCH EXCAVATION, BACKFILL, AND PAVEMENT REPAIR PER BCVWD PLATE 6-1	-	-
44	INSTALL 8" X 24" (LONG) FLGD X PE D SPOOL	1	EA
45	INSTALL 6" TRANSITION FLEX COUPLING FROM 6.60" - 6.91" X 7.15" - 7.35" (ROMAC LONG BARREL)	1	EA
46	INSTALL 6" X 35" (LONG) FLGD X PE D SPOOL	1	EA

GENERAL CONSTRUCTION & NOTES

- ALL PIPELINES SHALL BE FULLY RESTRAINED WITH RESTRAINED JOINT GASKETS PER BCVWD STANDARD SPECIFICATIONS.
- INSTALL CLASS II AGGREGATE BASE (FURNISHED BY DISTRICT FROM TOP OF PIPE ZONE TO GROUND SURFACE) ALONG ALL NEW AND EXISTING PIPELINE TRENCHES PER BCVWD PLATE 6-1 AND 6-2, OR AS APPROVED BY THE COUNTY OF RIVERSIDE IN LOCATIONS WHERE NATIVE MATERIAL IS NOT SUITABLE FOR PROPER BACKFILL AND COMPACTION.
- DISINFECT ALL POTABLE WATER SERVICE PIPING AND APPURTENANCES (PER AWWA STANDARD).
- ALL STREET CENTERLINE STATIONING FROM BEAUMONT MDL LINE 16, STAGE 50 RECHARGE BASIN FEEDER PLANS.
- ALL PIPELINE STATIONING ALONG CENTERLINE OF PIPE, UNLESS OTHERWISE NOTED.

DISTRICT ENGINEER'S NOTICE TO CONTRACTOR(S)

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT THOSE SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN, AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS, AND IS REQUIRED FOR THE PROTECTION OF, AND ANY DAMAGE TO THESE LINES OR STRUCTURES.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER OF ALL UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

QUANTITIES SHOWN HEREON ARE PROVIDED FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES PRIOR TO BIDDING FOR CONSTRUCTION.

SHEET NO.	DESCRIPTION
1	TITLE, SHEET INDEX, VICINITY MAP, AND CONSTRUCTION NOTES
2	PIPELINE 1: STA.: 10+00 - STA.: 15+48± (GRAND AVE STA.: 31+57± - STA.: 37+00±)
3	PIPELINE 2: STA.: 10+00 - STA.: 11+81± (GRAND AVE STA.: 49+47± - STA.: 51+24±) PIPELINE 3: STA.: 10+00 - STA.: 12+37± (GRAND AVE STA.: 65+52± - STA.: 64+81±)
4	PIPELINE 4: STA.: 10+00 - STA.: 12+42± (NOBLE ST STA.: 10+98± - STA.: 12+95±) PLATE 6-1
5	CHERRY AVENUE CUT-IN TEE DETAIL AND GRAND AVENUE - WEST OF MARTIN LANE

SHEET INDEX

NOTE:

WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT HAS BEEN ISSUED.



BENCHMARK: NAVD83 DATUM
Z=17330
FD 1/2" IR WY RCFC TS CAP
FL
EL. 2816.75
BEAUMONT-CHERRY VALLEY WATER DISTRICT
DATE: 09-23-2021
BY: [Signature]



BEAUMONT-CHERRY VALLEY WATER DISTRICT

560 Magnolia Ave. • Beaumont, CA, 92223 • 951-845-9581

APPROVED BY: [Signature] REGISTERED ENGINEER No. 76326 DATE: 9/29/21

GENERAL NOTES

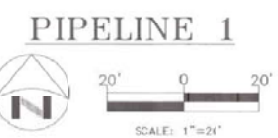
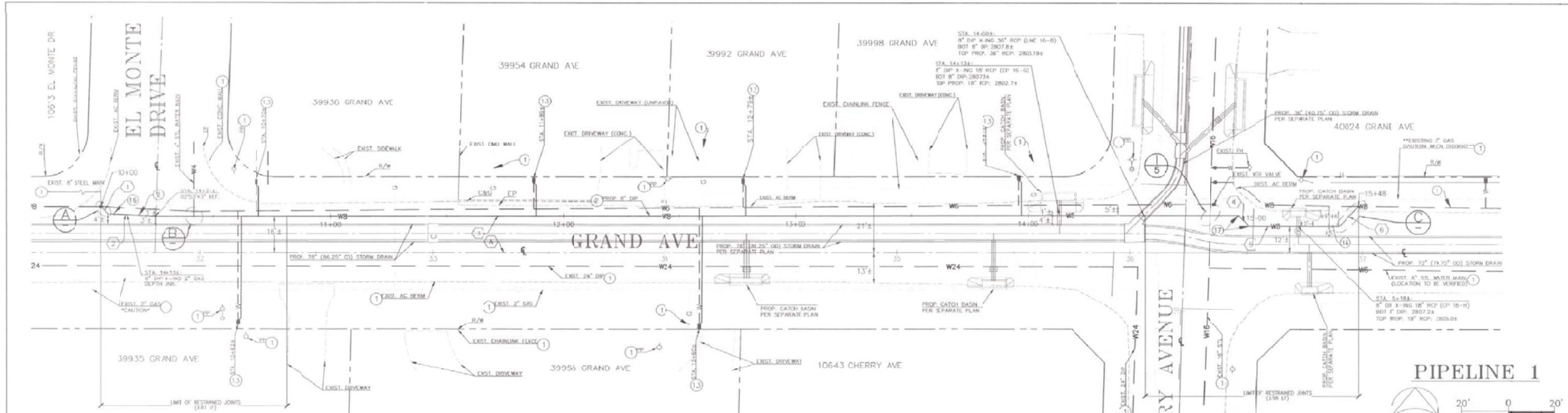
- ALL WORK SHOWN ON THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH THE DISTRICT STANDARDS FOR THE FURNISHING OF MATERIALS AND THE CONSTRUCTION OF WATER AND RECYCLED WATER FACILITIES AND PREPARATION OF WATER SYSTEM PLANS, LATEST REVISION, AND THE ADOPTED ADDENDUMS THERETO.
- WORK SHALL BE PERFORMED BY A CONTRACTOR LICENSED IN THE STATE OF CALIFORNIA, EXPERIENCED IN WATER UTILITY CONSTRUCTION.
- UNLESS OTHERWISE INDICATED, ALL PIPES SHALL BE CEMENT MORTAR LINED DUCTILE IRON PIPE, MINIMUM PRESSURE CLASS 350, WITH PUSH-ON JOINTS. ALL PIPES SHALL BE INSTALLED WITH TRACER WIRE AND WITH POLYETHYLENE ENCASEMENT. TRACER WIRE SHALL BE 14-GAUGE, INSULATED (BLUE COLOR) SOLID COPPER WIRE.
- FOR SEPARATION REQUIREMENTS BETWEEN WATER AND RECYCLED WATER, STORM DRAINS, AND SEWER LINES, SEE STATE OF CALIFORNIA CODE OF REGULATIONS, TITLE 22, SECTION 64572.
- CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA (TELEPHONE 811 / 800-227-2600) FOR LOCATION OF ALL UNDERGROUND UTILITIES TWO WORKING DAYS PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FROM CITY OF BEAUMONT AND/OR RIVERSIDE COUNTY, AS APPROPRIATE, PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL NOTIFY THE DISTRICT AT (951) 845-9581 TWO WORKING DAYS PRIOR TO COMMENCING WORK ON THE WATER UTILITY INSTALLATION. CONTRACTOR SHALL NOTIFY DISTRICT BY PRECEDING WEDNESDAY AT 4:00 P.M. PRIOR TO WORKING DURING THE WEEKEND. CANCELLATIONS SHALL BE NOTIFIED TO THE DISTRICT BY PRECEDING FRIDAY AT 3:00 P.M.
- NO EXISTING DISTRIBUTION SYSTEM VALVE SHALL BE OPERATED BY THE CONTRACTOR. DISTRICT PERSONNEL WILL OPERATE ALL NECESSARY VALVES.
- NO DEVIATIONS FROM THESE PLANS SHALL BE PERMITTED WITHOUT THE APPROVAL OF THE DISTRICT.
- EXISTING WATER MAINS SHALL NOT BE TAKEN OUT OF SERVICE FOR MORE THAN 4 HOURS. CONTRACTOR SHALL NOTIFY ALL WATER USERS AFFECTED BY THE SHUTDOWN A MINIMUM OF 48 HOURS PRIOR TO THE ACTUAL SHUTDOWN. INDICATE THE DATE AND PRECISE HOURS THAT THE MAIN WILL BE TAKEN OUT OF SERVICE.
- CONTRACTOR SHALL CONFORM TO THE STREET EXCAVATION REPLACEMENT STANDARDS OF THE CITY OF BEAUMONT.
- CONTRACTOR SHALL NOTIFY THE DISTRICT AT (951) 845-9581 TWO WORKING DAYS PRIOR TO PLACEMENT OF CONCRETE FOR SIDEWALKS.
- CONTRACTOR TO INSTALL MINIMUM 1" COPPER, TYPE K, SERVICE LATERALS IN ACCORDANCE WITH DISTRICT SPECIFICATIONS SHOWN ON DISTRICT STANDARD PLATE 6-2, PLATE 6-3, AND PLATE 12. ALL COPPER SERVICES SHALL BE INSTALLED WITH 1/2" WRAP AND WITH POLYETHYLENE ENCASEMENT.
- CONTRACTOR SHALL COORDINATE ALL RECONNECTS WITH DISTRICT PERSONNEL PRIOR TO ANY CONNECTIONS OR RETIREMENTS OF ANY DISTRICT FACILITIES.
- CONTRACTOR SHALL BEAR ALL COSTS FOR THE CORRECTION OR REMOVAL AND REPLACEMENT OF DEFECTIVE WORK, AND ALL ADDITIONAL DIRECT AND INDIRECT COSTS THE CITY, COUNTY, OR DISTRICT MAY INCUR ON ACCOUNT OF DEFECTIVE WORK, INCLUDING THE COSTS OF ADDITIONAL ADMINISTRATIVE, PROFESSIONAL CONSULTANT, INSPECTION, TESTING, AND OTHER SERVICES.
- ALL PIPE SHALL BE HYDRO TESTED, DISINFECTED AND APPROVED PRIOR TO FINAL CONNECTION TO EXISTING WATER LINES.
- ALL MATERIALS SHALL BE OF DOMESTIC ORIGIN AND NOT OF FOREIGN MANUFACTURE.
- CONTRACTOR SHALL FURNISH TO THE DISTRICT COPIES OF ALL SOIL COMPACTION TEST REPORTS FOR THE INSTALLED WATER MAINS TWO (2) WORKING DAYS PRIOR TO HYDRO TESTING OF PIPELINES.
- CONTRACTOR SHALL FURNISH DISTRICT WITH PROJECT SPECIFIC MATERIALS OF CONSTRUCTION SUBMITTALS (IN PDF FORMAT) FOR REVIEW APPROVAL PRIOR TO COMMENCING CONSTRUCTION.
- CONTRACTOR SHALL KEEP AND MAINTAIN AT THE JOB SITE ONE (1) SET OF RECORD DRAWINGS. CONTRACTOR SHALL MARK ON DRAWINGS ALL CHANGES IN PROJECT CONDITIONS, LOCATIONS, CONFIGURATIONS AND ANY DEVIATIONS WHICH MAY VARY FROM THE DRAWINGS. THESE MASTER RECORD DRAWINGS SHALL BE MAINTAINED AND UP TO DATE DURING THE PROGRESS OF WORK. RECORD DRAWINGS SHALL BE ACCESSIBLE TO THE DISTRICT AT ALL TIMES DURING CONSTRUCTION AND A COPY OF SAD RECORD DRAWINGS SHALL BE DELIVERED TO THE DISTRICT UPON COMPLETION OF THE WORK.

CONTRACTOR'S RESPONSIBILITY FOR THE JOB SITE

CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BELIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

PZ 3040

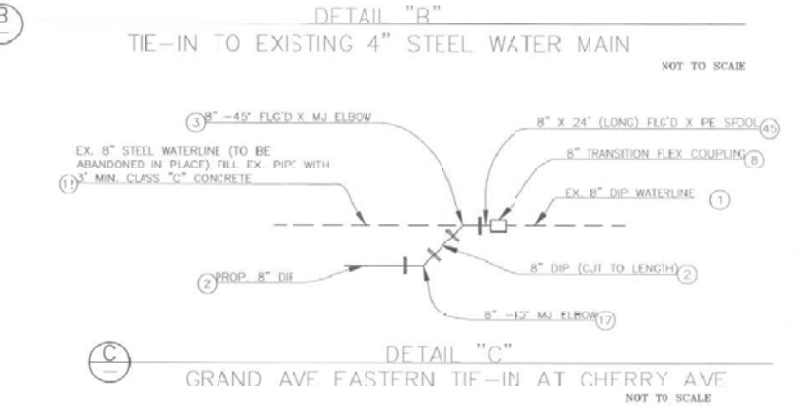
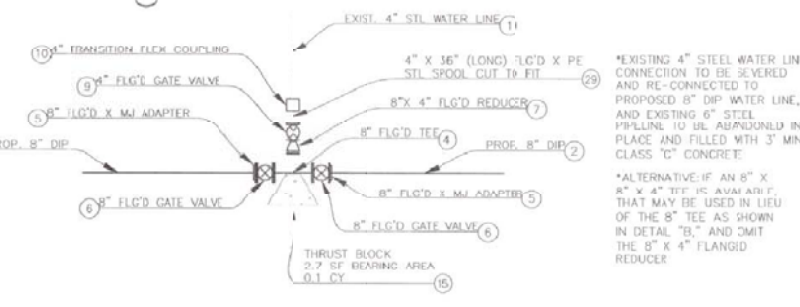
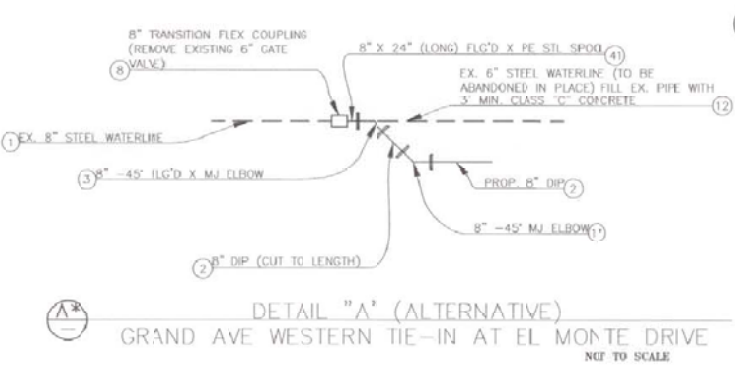
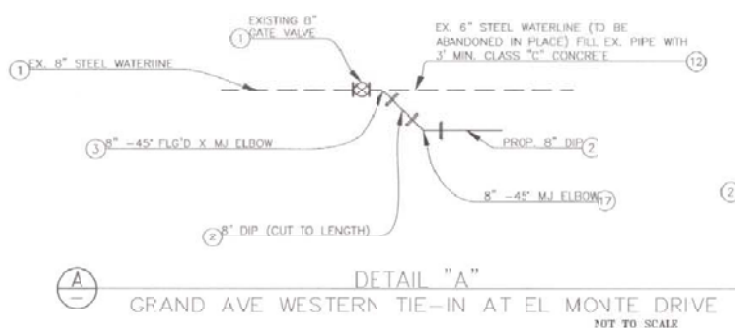
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FIELD BOOK: N/A	PIPELINE RELOCATION PLAN	1
DESIGN: DAB	TITLE, SHEET INDEX, VICINITY MAP, AND CONSTRUCTION NOTES	OF 1 SHEETS
DRAWN: DAB		170W
CHECKED: MBS		FILE NO.



- CONSTRUCTION NOTES**
- PROTECT IN PLACE
 - INSTALL 8" DIP (CLASS 360) WITH POLYETHYLENE ENCASEMENT AND BEDDING PER BCVWD PLATE 6-1 (36" MIN COVER)
 - INSTALL 8" - 45° FLGD X MJ ELBOW, WITH EBAA IRON SERIES 1100 RESTRAINT
 - INSTALL 8" FLGD TEE
 - INSTALL 8" FLGD X MJ ADAPTER
 - INSTALL 8" GATE VALVE
 - INSTALL 8" X 4" FLGD REDUCER
 - INSTALL 8" TRANSITION FLEX COUPLING FROM 8.40" - 9.60" (ROMAC LONG BARREL) AND TIES PER BCVWD PLATE 9.
 - INSTALL 4" FLGD GATE VALVE
 - INSTALL 4" TRANSITION FLEX COUPLING FROM 3.80" - 4.05" (ROMAC LONG BARREL) AND TIES PER BCVWD PLATE 9
 - DISINFECT ALL POTABLE WATER SERVICE PIPING AND APPURTENANCES (PER AWWA STANDARD)
 - ABANDON IN PLACE EXISTING PIPELINE AND PLUG SEVERED PIPE ENDS WITH 3" MINIMUM CLASS "C" CONCRETE PLUG
 - INSTALL DISTRICT FURNISHED 1" SERVICE SADDLE, CORPORATION STOP, AND SERVICE LATERAL PIPING PER BCVWD STANDARD PLATE 6-3. ONCE TESTING AND DISINFECTION IS COMPLETE, REMOVE EXISTING METER AND INSTALL NEW DISTRICT BURNISHED METER AND CONNECT TO NEW SERVICE LATERAL
 - INSTALL RESTRAINED JOINTS (FIELD-LOK 350 GASKETS, MEGA LUGS (IF MECHANICAL JOINT) OR DISTRICT APPROVED EQUAL)
 - INSTALL THRUST BLOCK PER BCVWD PLATE 11-1 AND 11-2 (ASSUME SOIL BEARING PRESSURE OF 1500 LB/SF)
 - INSTALL 2" RISER AND TEST PLATE FOR DISINFECTION AND TESTING. REMOVE TEST PLATE AT END OF CHLORINATION AND TESTING PROCESS. REMOVE RISER AND PLUG TEST LOCATION.
 - INSTALL 8" - 45° MJ ELBOW, WITH EBAA IRON SERIES 1100 RESTRAINT
 - INSTALL 4" X 36" (LONG) FLGD X PE STL SPOOL
 - INSTALL 8" X 24" (LONG) FLGD X PE STL SPOOL
 - INSTALL 8" X 24" (LONG) FLGD X PE DI SPOOL

LINE/CURVE DATA TABLE

BEARING/DELTA	RADIUS	LENGTH(±) (LF)
1) N 45°18'55" W	-	4
2) N 87°12'33" W	-	20
3) N 89°53'44" E	-	466
4) N 44°19'53" W	-	9
5) N 89°26'17" E	-	39
6) N 45°44'07" E	-	12
GRAND AVENUE CENTERLINE DATA TABLE		
7) N 89°55'57" E	-	632

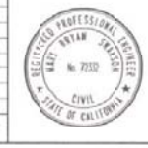


- GENERAL CONSTRUCTION & NOTES**
- ALL PIPELINES SHALL BE FULLY RESTRAINED WITH RESTRAINED JOINT GASKETS PER BCVWD STANDARD SPECIFICATIONS.
 - FURNISH AND INSTALL CLASS II ADEQUATE BASE FROM TOP OF PIPE ZONE TO GROUND SURFACE ALONG ALL NEW AND EXISTING PIPELINE TRENCHES PER BCVWD PLATE 6-1 AND 6-2 OR AS APPROVED BY THE COUNTY OF RIVERSIDE IN LOCATIONS WHERE NATIVE MATERIAL IS NOT SUITABLE FOR PROPER BACKFILL AND COMPACTION.
 - DISINFECT ALL POTABLE WATER SERVICE PIPING AND APPURTENANCES (PER AWWA STANDARD)
 - ALL STREET CENTERLINE STATIONING FROM BEAUMONT MDP LINE 16, STAGE 50 RECHARGE BASIN FEEDER PLANS.
 - ALL PIPELINE STATIONING ALONG CENTERLINE OF PIPE, UNLESS OTHERWISE NOTED.

NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT HAS BEEN ISSUED.

BENCHMARK: NAVD83 DATUM
Z=17350
FD 1/2" IR W/ RCIC TS CAP
FL
EL: 2819.73

48 hours BEFORE excavation
1-(800)227-2600
CALL Underground Service Alert



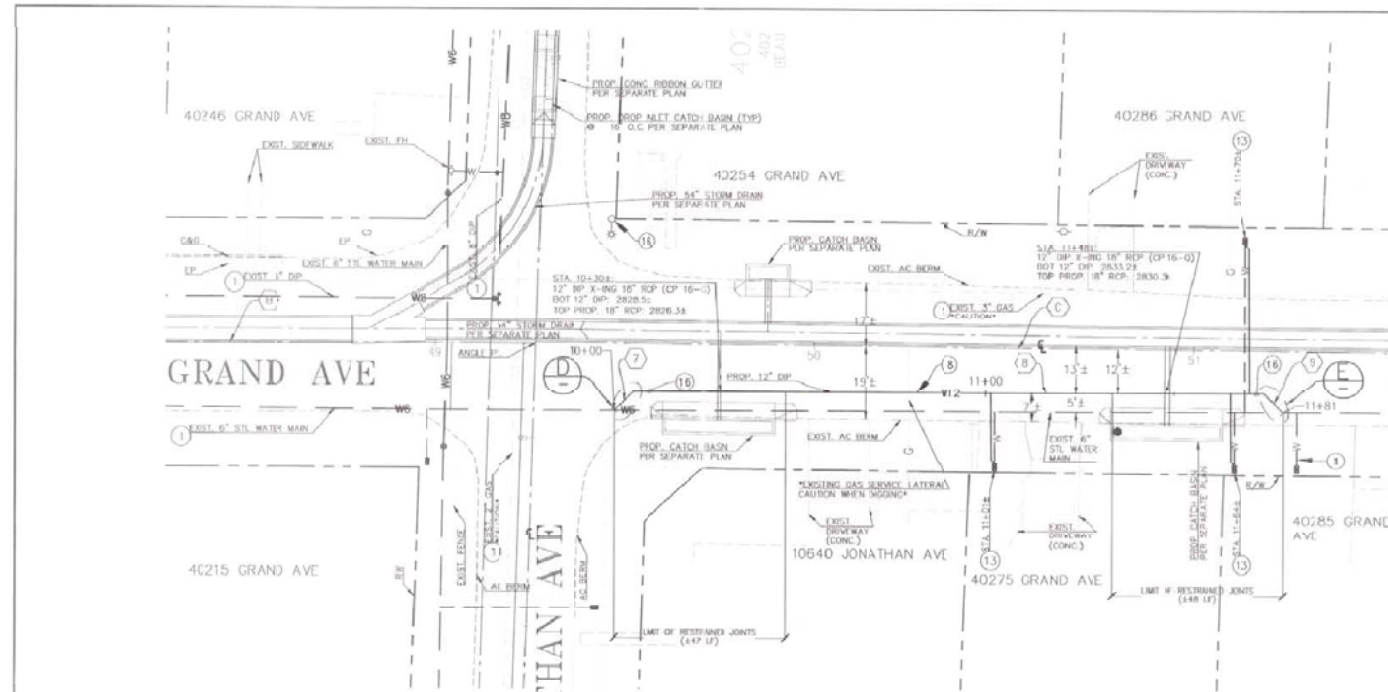
BEAUMONT-CHERRY VALLEY WATER DISTRICT
569 Main St. • Beaumont, CA 92223 • 951-845-9581

APPROVED BY: *[Signature]*
REVISIONS: 78232 DATE: 7/29/21

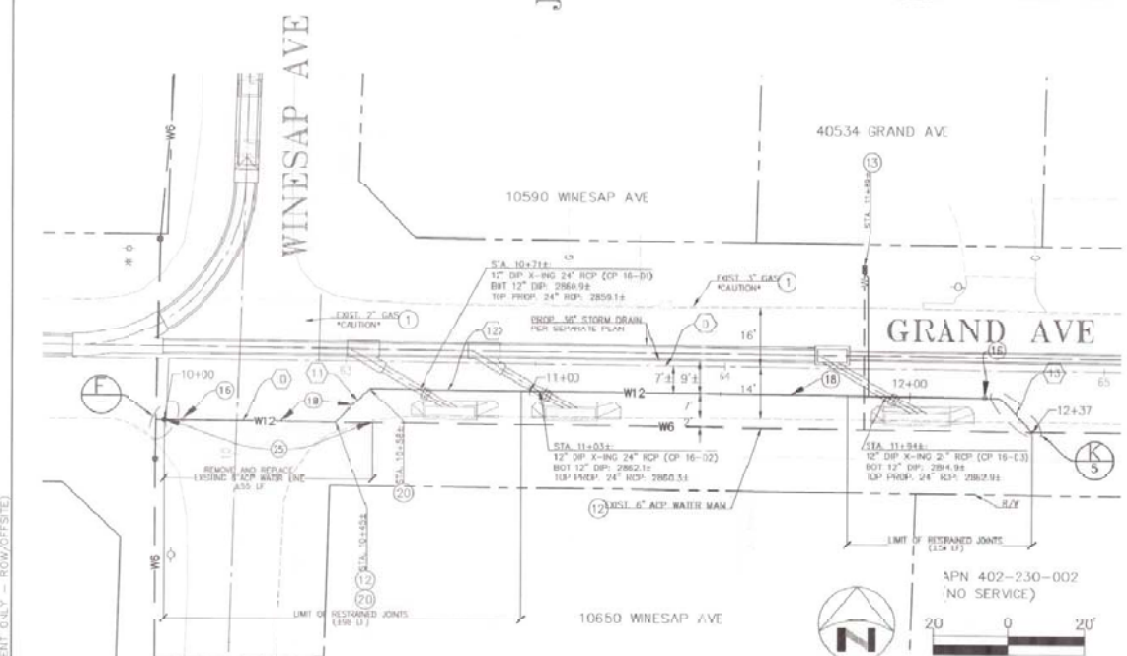
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DRAWN: DAB
CHECKED: MFS

BCVWD
PIPELINE RELOCATION PLAN
PIPELINE 1: STA.: 1C+00 - STA.: 15+48±
(GRAND AVE STA.: 31+57± - STA.: 37+00±)

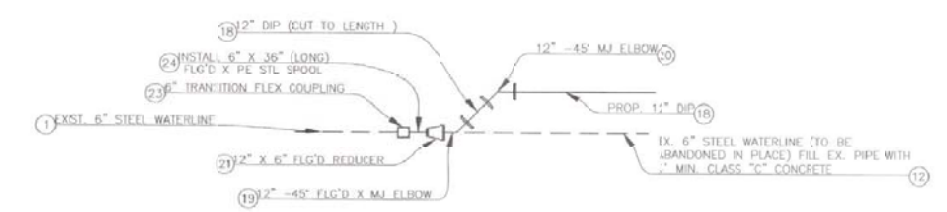
PZ 3040
SHEET 2
OF 5 SHEETS
970 W
FILE No.



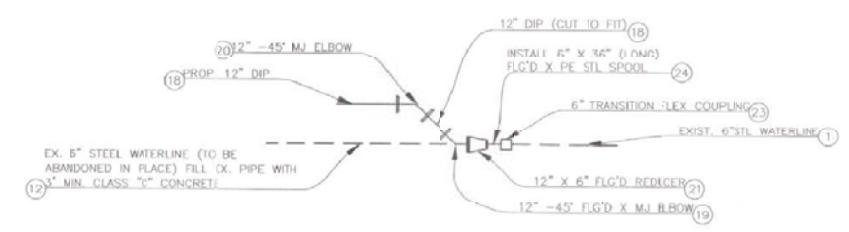
PIPELINE 2
SCALE: 1"=20'



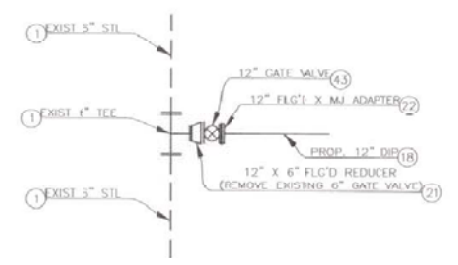
PIPELINE 3
SCALE: 1"=20'



DETAIL "D"
PIPELINE 2 WESTERN TIE-IN AT JONATHAN AVE
NOT TO SCALE



DETAIL "E"
12" DIP TIE-IN TO EXISTING 6" STEEL WATER MAIN
NOT TO SCALE



DETAIL "F"
TIE-IN TO EXISTING 6" STEEL WATER MAIN
NOT TO SCALE

*CONTRACTOR TO COORDINATE WITH DISTRICT FIELD STAFF TO SHUT DOWN EXISTING 6" LINE IN WINESAP AVENUE USING VALVES AT THE NORTHWEST AND SOUTHWEST CORNERS OF GRAND AVENUE AND WINESAP AVENUE.

LINE/CURVE DATA TABLE			
	BEARING/Delta	RADIUS	LENGTH(+) (ft)
(7)	N 45°00'00" E	-	7
(8)	N 90°00'00" E	-	166
(9)	N 45°00'00" W	-	7
(10)	N 89°28'40" W	-	45
(11)	N 45°31'20" E	-	13
(2)	N 89°28'40" W	-	166
(3)	N 44°28'40" W	-	13
GRAND AVENUE CURVE DATA TABLE			
	BEARING/Delta	RADIUS	LENGTH(+) (ft)
(H)	N 89°38'17" E	-	98
(C)	N 89°50'55" W	-	225
(U)	N 89°28'53" W	-	284

CONSTRUCTION NOTES

- (1) PROTECT IN PLACE
- (11) DISINFECT ALL POTABLE WATER SERVICE PIPING AND APPURTENANCES (PER AWWA STANDARD)
- (12) ABANDON IN PLACE EXISTING PIPELINE AND PLUG SEVERED PIPE ENDS WITH 3" MINIMUM CLASS "C" CONCRETE FILL
- (13) INSTALL DISTRICT FURNISHED 1" SERVICE SADDLE, CORPORATION STOP, AND SERVICE LATERAL PIPING PER BCVWD STANDARD PLATE 6-3. ONCE TESTING AND DISINFECTION IS COMPLETE, REMOVE EXISTING METER AND INSTALL NEW DISTRICT FURNISHED METER AND CONNECT TO NEW SERVICE LATERAL
- (14) INSTALL RESTRAINED JOINTS (FIELD-LOC 350 GASKETS, MEGA JOBS (IF MECHANICAL JOINT) OR DISTRICT APPROVED EQUAL)
- (16) INSTALL 2" RISER AND TEST PLATE FOR DISINFECTION AND TESTING. REMOVE TEST PLATE AT END OF CHLORINATION AND TESTING PROCESS. REMOVE RISER AND PLUG TEST LOCATION.
- (18) INSTALL 12" DIP (CLASS 300) WITH POLYETHYLENE ENCASEMENT AND BEDDING PER BCVWD PLATE 6-1 (3" MIN COVER)
- (19) INSTALL 12" - 45° FLGD) MJ ELBOW, WITH EBAA IRON SERIES 1100 RESTRAINT
- (20) INSTALL 12" - 45° MJ ELBOW, WITH EBAA IRON SERIES 1100 RESTRAINT
- (21) INSTALL 12" X 6" FLGD RIDUCER
- (22) INSTALL 12" - FLGD X MJ ADAPTER
- (23) INSTALL 6" TRANSITION FLEX COUPLING FROM 6" RCP - 6" O.D. (30"MAC LONG BARREL) AND TIE PER BCVWD PLATE 9
- (24) INSTALL 6" X 36" (LONG) FLGD X PE STL SPOOL
- (25) REMOVE EXISTING 6" PIPELINE (LIMITS AS INDICATED)
- (43) INSTALL 12" GATE VALVE PER BCVWD PLATE 2

GENERAL CONSTRUCTION & NOTES

1. ALL PIPELINES SHALL BE FULLY RESTRAINED WITH RESTRAINED JOINT GASKETS PER BCVWD STANDARD SPECIFICATIONS.
2. INSTALL CLASS 3 AGGREGATE RISE (FURNISHED BY DISTRICT) FROM TOP OF PIPE ZONE TO GROUND SURFACE ALONG ALL NEW AND EXISTING PIPELINE TRENCHES PER BCVWD PLATE 6-1 AND 6-2, OR AS APPROVED BY THE COUNTY OF RIVERSIDE IN LOCATIONS WHERE NATIVE MATERIAL IS NOT SUITABLE FOR PROPER BACKFILL AND COMPACTION.
3. DISINFECT ALL POTABLE WATER SERVICE PIPING AND APPURTENANCES (PER AWWA STANDARD)
4. ALL STREET CENTERLINE STATIONING FROM BEAUMONT MDP LINE 6, STAGE 50 RECHARGE BASIN FEEDR PLANS.
5. ALL PIPELINE STATIONING ALONG CENTERLINE OF PIPE, UNLESS OTHERWISE NOTED.

BEAUMONT COUNTY OVERSIGHT ENGINEER REGISTRATION # DATE SIGNED
76460 8/28/21
APPROVED AS TO COMPLIANCE WITH APPLICABLE COUNTY STANDARDS AND PRACTICES (TRANSPORTATION DEPARTMENT ONLY - ROW/ADFS/ETC)

NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT HAS BEEN ISSUED.
18 hours BEFORE excavation
1-(800)227-2600
CALL Underground Service Alert

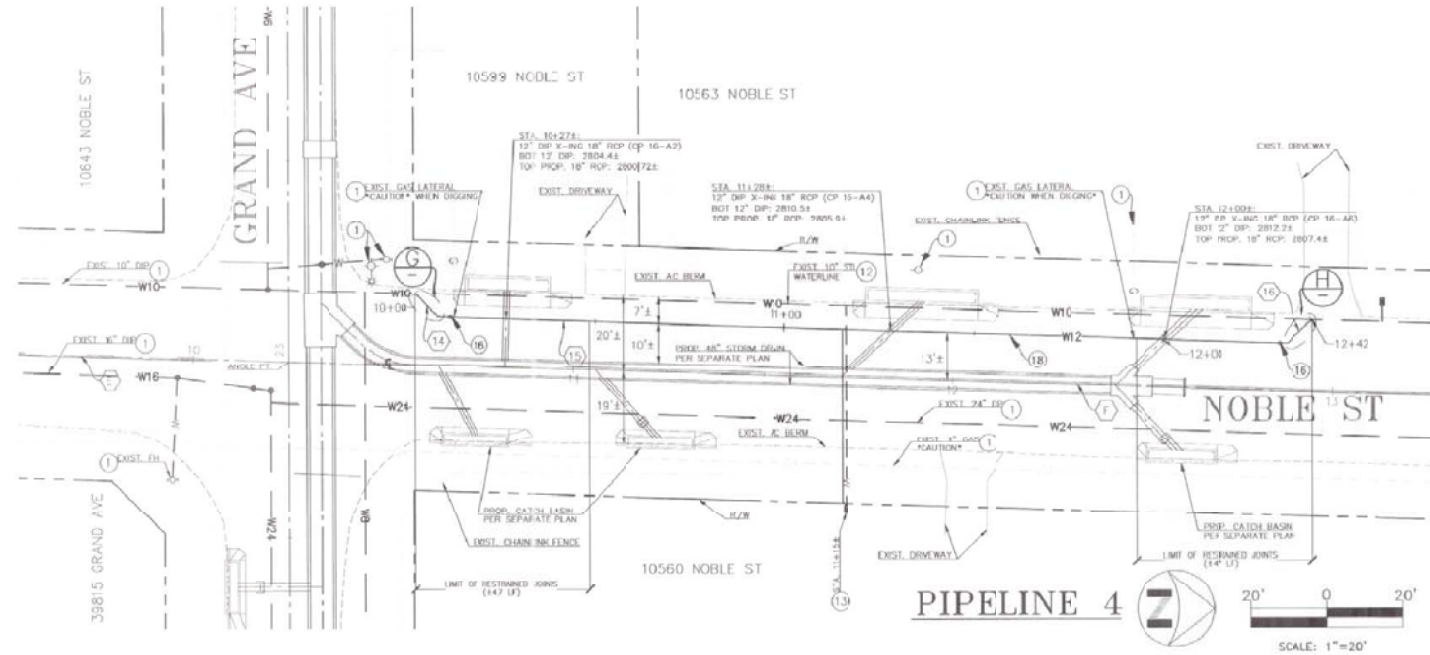
BENCHMARK: NAVD88 DATUM
2-17359
FD 1/2" IR W/ RCFS TS CAP
FL
FL 2816.75
BEAUMONT-CHERRY VALLEY WATER DISTRICT
09-23-2021

APN 402-230-002
NO SERVICE



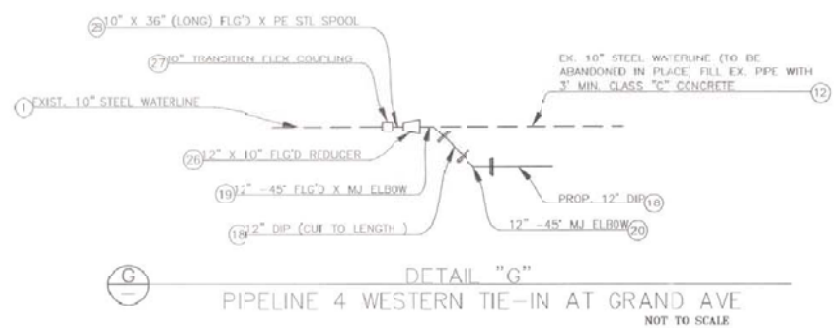
BEAUMONT-CHERRY VALLEY WATER DISTRICT
560 Magnolia Ave. • Beaumont, CA 92223 • 951-845-3581
APPROVED BY: [Signature]
REGISTERED ENGINEER No. 74932 DATE 7/27/24

SCALE: AS NOTED	BCVWD PIPELINE RELOCATION PLAN PIPELINE 2: STA.: 10+00 - STA.: 11+81± (GRAND AVE STA.: 4947± - STA.: 51+24±) PIPELINE 3: STA.: 10+00 - STA.: 12+37± (GRAND AVE STA.: 62+22± - STA.: 64+01±)	3 OF 5 SHEETS 170W FILE NO.
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DESIGN: DAB		
DRAWN: DAB		
CHECKED: MBS		

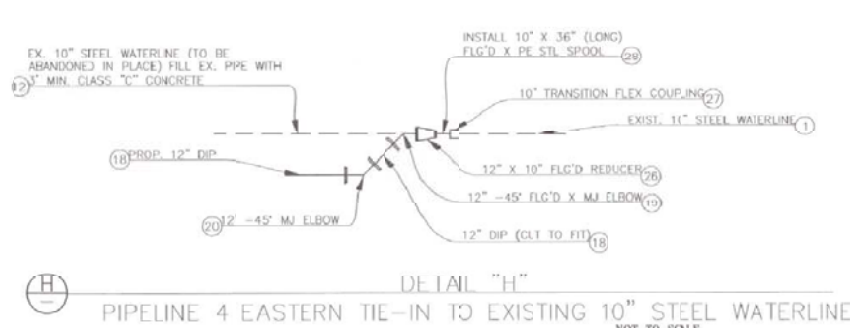


- CONSTRUCTION NOTES**
- (1) PROTECT IN PLACE
 - (11) DISINFECT ALL POTABLE WATER SERVICE PIPING AND APPURTENANCES (PER AWWA STANDARD)
 - (12) ABANDON IN PLACE EXISTING PIPELINE AND PLUG SEVERED PPE ENDS WITH 3" MINIMUM CLASS "C" CONCRETE PLUG
 - (13) INSTALL DISTRICT FURNISHED 1" SERVICE SADDLE, CORPORATION STOP, AND SERVICE LATERAL PIPING PER BCVWD STANDARD PLATE 6-3. ONCE TESTING AND DISINFECTION IS COMPLETE, REMOVE EXISTING METER AND INSTALL NEW DISTRICT FURNISHED METER AND CONNECT TO NEW SERVICE LATERAL.
 - (14) INSTALL RESTRAINED JOINTS (FIELD-LOK 350 GASKETS, MEG. LUGS (IF MECHANICAL JOINT) OR DISTRICT APPROVED EQUAL)
 - (15) INSTALL 2" RISER AND TEST PLATE FOR DISINFECTION AND TESTING. REMOVE TEST PLATE AT END OF CHLORINATION AND TESTING PROCESS. REMOVE RISER AND PLUG TEST LOCATION.
 - (18) INSTALL 12" DIP (CLASS 350) WITH POLYETHYLENE ENCASEMENT AND BEDDING PER BCVWD PLATE 6-1 (36" MIN COVER)
 - (19) INSTALL 12" - 45° FLG'D X MJ ELBOW, WITH EBAA IRON SERIES 1100 RESTRAINT
 - (20) INSTALL 12" - 45° MJ ELBOW, WITH EBAA IRON SERIES 1100 RESTRAINT
 - (26) INSTALL 12" X 10" FLG'D REDUCER
 - (27) INSTALL 10" TRANSITION FLEX COUPLING FROM 10.89' - 11.0' (ROMAC LONG BARRE.) AND TIES PER BCVWD PLATE 9.
 - (28) INSTALL 10" X 36" (LONG) FLG'D X PE STL SPOOL

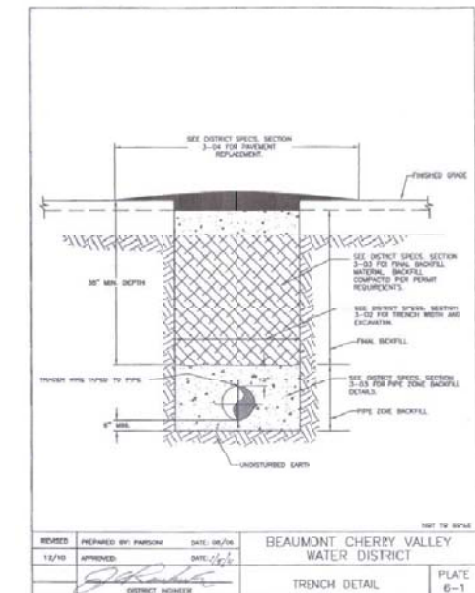
- GENERAL CONSTRUCTION & NOTES**
1. ALL PIPELINES SHALL BE FULLY RESTRAINED WITH RESTRAINED JOINT GASKETS PER BCVWD STANDARD SPECIFICATIONS.
 2. INSTALL CLASS B AGGREGATE BASE (FURNISHED BY DISTRICT FROM TOP OF PIPE ZONE TO GROUND SURFACE) ALONG ALL NEW AND EXISTING PIPELINE TRENCHES PER BCVWD PLATE 6-1 AND 6-2, OR AS APPROVED BY THE COUNTY OF RIVERSIDE IN LOCATIONS WHERE NATIVE MATERIAL IS NOT SUITABLE FOR PROPER BACKFILL AND COMPACTION.
 3. DISINFECT ALL POTABLE WATER SERVICE PIPING AND APPURTENANCES (PER AWWA STANDARD)
 4. ALL STREET CENTERLINE STATIONING FROM BEAUMONT MDP LINE 16, STAGE 50 RECHARGE BASIN FEEDER PLANS.
 5. ALL PIPELINE STATIONING ALONG CENTERLINE OF PIPE, UNLESS OTHERWISE NOTED.



DETAIL "G"
PIPELINE 4 WESTERN TIE-IN AT GRAND AVE
NOT TO SCALE



DETAIL "H"
PIPELINE 4 EASTERN TIE-IN TO EXISTING 10" STEEL WATERLINE
NOT TO SCALE



LINE/CURVE DATA TABLE

LINE	BEARING/Delta	RADIUS	LENGTH (+) / (-)
(14)	N 46°46' E	17	9
(15)	N 01°48'50" E	-	166
(16)	N 43°13'50" W	-	6

NOBLE STREET CENTERLINE DATA TABLE

LINE	BEARING/Delta	RADIUS	LENGTH (+) / (-)
(E)	N 01°46'30" E	-	71
(F)	N 01°45'26" E	-	305

NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT HAS BEEN ISSUED.

48 hours BEFORE excavation
1-(800)227-2600
CALL Underground Service Alert

BENCHMARK: NAVD88 DATUM
2-17350
FD 1 1/2" IR W/ RCP TS CAP
PL
CL. 200 0.70

RENO COUNTY OVERSIGHT ENGINEER REGISTRATION # DATE SIGNED
 76450 9/28/21
 APPROVED AS TO COMPLIANCE WITH APPLICABLE COUNTY STANDARDS AND PRACTICES TRANSPORTATION DEPARTMENT ON 3/2/2024 (OFFSITE)

REVISIONS

NO.	DATE	BY



BEAUMONT-CHERRY VALLEY WATER DISTRICT
500 Magnolia Ave. • Beaumont, CA 92223 • 951-845-9581

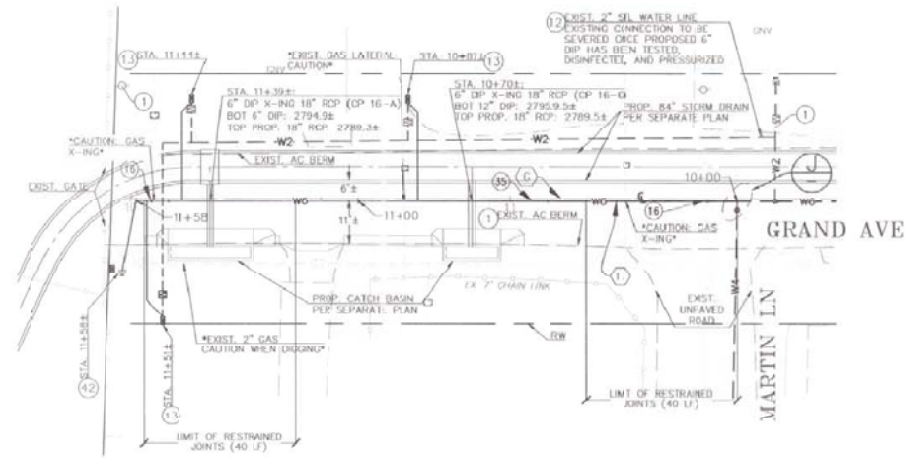
APPROVED BY: [Signature]
REGISTERED ENGINEER No. 72332 DATE: 3/2/24

SCALE: AS NOTED
FIELD BOOK: N/A
DESIGN: DAB
DRAWN: DAB
CHECKED: MJS

BCVWD
PIPELINE RELOCATION PLAN
PIPELINE 4: STA.: 10+00 - STA.: 12+42±
(NOBLE ST STA.: 10+58± - STA.: 12+95±)
PLATE 6-1

PZ 3040

SHEET
4
OF 5 SHEETS
970 W
FILE NO.



LINE/CURVE DATA TABLE			
BEARING/Delta	RADIUS	LENGTH (+)	LENGTH (-)
(17) N 90°00'00" E	-	158	
GRAND AVENUE CENTERLINE DATA TABLE			
(C) N 90°00'00" E	-	196	

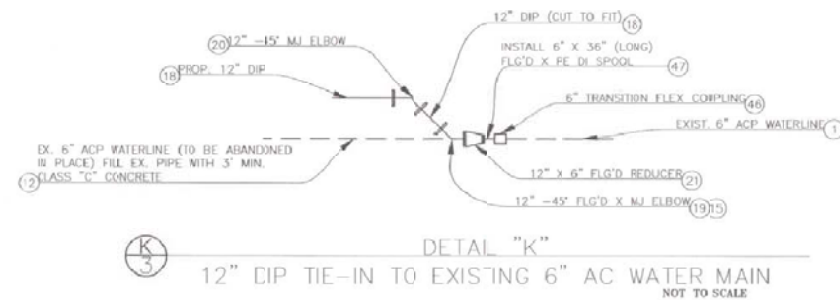
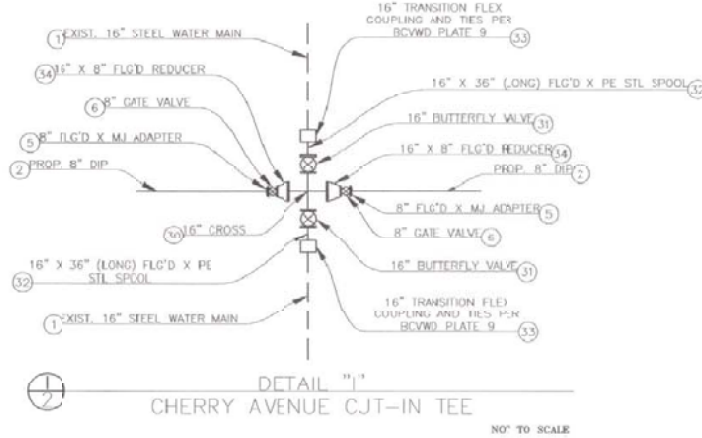
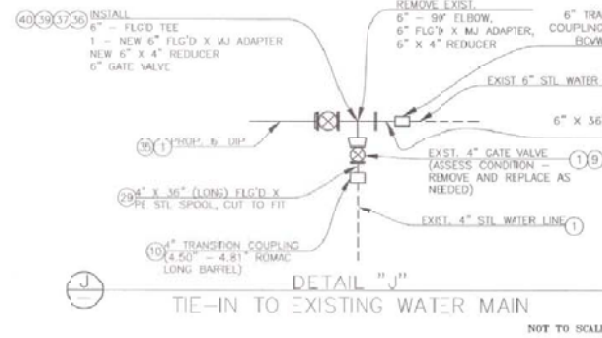


GENERAL CONSTRUCTION & NOTES

1. ALL PIPELINES SHALL BE FULLY RESTRAINED WITH RESTRAINED JOINT GASKETS PER BCVWD STANDARD SPECIFICATIONS.
2. INSTALL CLASS II AGGREGATE BASE (FURNISHED BY DISTRICT) FROM TOP OF PIPE ZONE TO GROUND SURFACE ALONG ALL NEW AND EXISTING PIPELINE TRENCHES PER BCVWD PLATE 6-1 AND 6-2, OR AS APPROVED BY THE COUNTY OF RIVERSIDE IN LOCATIONS WHERE NATIVE MATERIAL IS NOT SUITABLE FOR PROPER BACKFILL AND COMPACTION.
3. DISINFECT ALL POTABLE WATER SERVICE PIPING AND APPURTENANCES (PER AWWA STANDARD)
4. ALL STREET CENTERLINE STATIONING FROM BEAUMONT MDP LINE 16, STAGE 50 RECHARGE BASIN FEEDER PLANS.
5. ALL PIPELINE STATIONING ALONG CENTERLINE OF PIPE, UNLESS OTHERWISE NOTED.

CONSTRUCTION NOTES

- (1) PROTECT IN PLACE
- (2) INSTALL 8" DIP (CLASS 3SD) WITH POLYETHYLENE ENCASEMENT AND BEDDING PER BCVWD PLATE 6-1 (36" MIN COVER)
- (3) INSTALL 8" FLGD X MJ ADAPTER
- (4) INSTALL 6" GATE VALVE
- (5) INSTALL 4" GATE VALVE FOR BCVWD PLATE 2
- (10) INSTALL 4" TRANSITION FLEX COUPLING FROM 4.50 - 4.81 (ROMAC LONG BARREL)
- (11) DISINFECT ALL POTABLE WATER SERVICE PIPING AND APPURTENANCES (PER AWWA STANDARD)
- (12) ABANDON IN PLACE EXISTING PIPELINE AND PLUG SERVED PIPE ENDS WITH 3" MINIMUM CLASS "C" CONCRETE PLUG (EACH END)
- (13) INSTALL DISTRICT FURNISHED 1" SERVICE SADDLE, CORPORATION STOP, AND SERVICE LATERAL PIPING PER BCVWD STANDARD PLATE 6-3. ONCE TESTING AND DISINFECTION IS COMPLETE, REMOVE EXISTING METER AND INSTALL NEW DISTRICT FURNISHED METER AND CONNECT TO NEW SERVICE LATERAL.
- (14) INSTALL RESTRAINED JOINTS (FIELD-LOK 350 GASKETS, MEGA LJCS (IF MECHANICAL JOINT) OR DISTRICT APPROVED EQUAL)
- (15) INSTALL THRUST BLOCK PER BCVWD PLATE 11-1 AND 11-2 (ASSUME SOIL BEARING PRESSURE OF 1:00 LB/SF)
- (18) INSTALL 2" RISER AND TEST PLATE FOR DISINFECTION AND TESTING. REMOVE TEST PLATE AT END OF CHLORINATION AND TESTING PROCESS. REMOVE RISER AND PLUG TEST LOCATION.
- (23) INSTALL 6" TRANSITION FLEX COUPLING FROM 6.60" - 6.91" (ROMAC LONG BARREL) AND TIES PER BCVWD PLATE 9
- (24) INSTALL 6" X 36" (LONG) FLGD X PE STL SPOOL
- (29) INSTALL 4" X 36" (LENGTH) FLGD X PE STL SPOOL (CUT TO FIT)
- (30) INSTALL 16" DI. FLGD CROSS
- (31) INSTALL 16" BUTTERFLY VALVE
- (32) INSTALL 16" X 36" (LONG) FLGD X PE STL SPOOL
- (33) INSTALL 16" TRANSITION COUPLING AND TIES PER BCVWD PLATE 9. (ROMAC LONG BARREL, 16.00" - 16.40" GASKET)
- (34) INSTALL 16" X 8" FLGD REDUCER
- (35) INSTALL 8" DIP (CLASS 3SD) WITH POLYETHYLENE ENCASEMENT AND BEDDING PER BCVWD PLATE 6-1 (36" MIN. COVER)
- (36) INSTALL 6" - FLGD TEE
- (37) INSTALL 6" X 4" FLGD ECCENTRIC REDUCER
- (39) INSTALL 6" GATE VALVE FOR BCVWD PLATE 2
- (40) INSTALL 6" FLGD X MJ ADAPTER
- (42) INSTALL 4" BLOWOFF ASSEMBLY PER BCVWD PLATE 3-1
- (46) INSTALL 6" TRANSITION FLEX COUPLING FROM 6.60" - 6.91" x 7.15" - 7.35" (ROMAC LONG BARREL)
- (47) INSTALL 6" X 36" (LONG) FLGD X PE DI SPOOL



NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT HAS BEEN ISSUED.

BENCHMARK: NAVD88 DATUM
Z=17320
VD 1/2" IR W/ ROTC TS CAP
PL
EL. 2581.67'

48 hours BEFORE excavation
1-(800)227-2603
CALL Underground Service Alert

BEAUMONT-CHERRY VALLEY WATER DISTRICT
MANAGER'S SIGNATURE
DATE: 09-25-2011

NO.	REVISIONS	DATE	BY



BEAUMONT-CHERRY VALLEY WATER DISTRICT
500 Magnolia Ave. • Beaumont, CA. 92223 • 951-845-9581
APPROVED BY: [Signature]
REGISTERED ENGINEER No. 76222 DATE 7/27/11

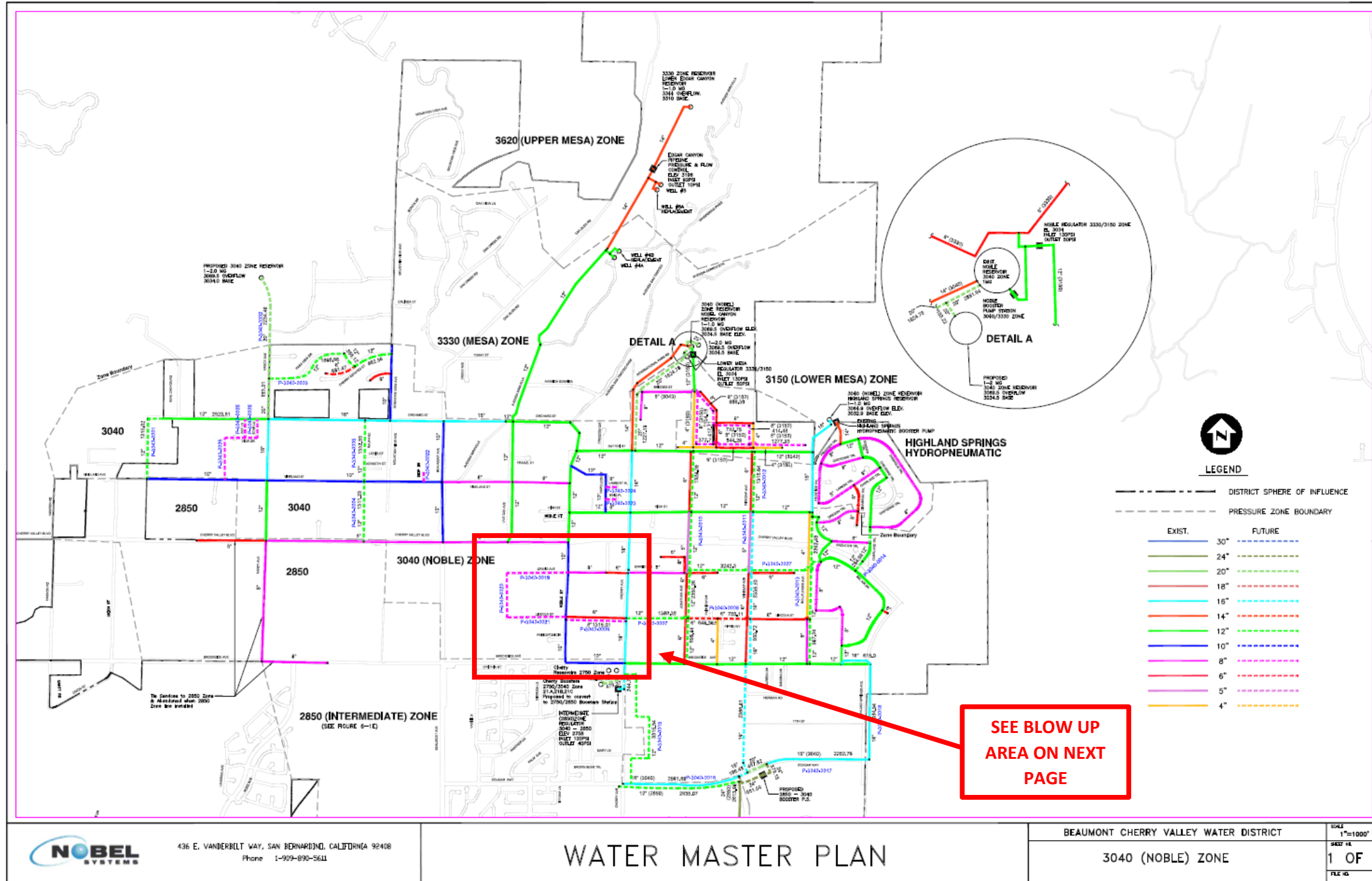
SCALE	AS NOTED
FIELD BOOK	N/A
DESIGN	DAB
DRAWN	DAB
CHECKED	MBS

BCVWD
PIPELINE RELOCATION PLAN
CHERRY AVENUE CUT-IN TEE DETAIL
AND GRAND AVENUE - WEST OF
MARTIN LANE

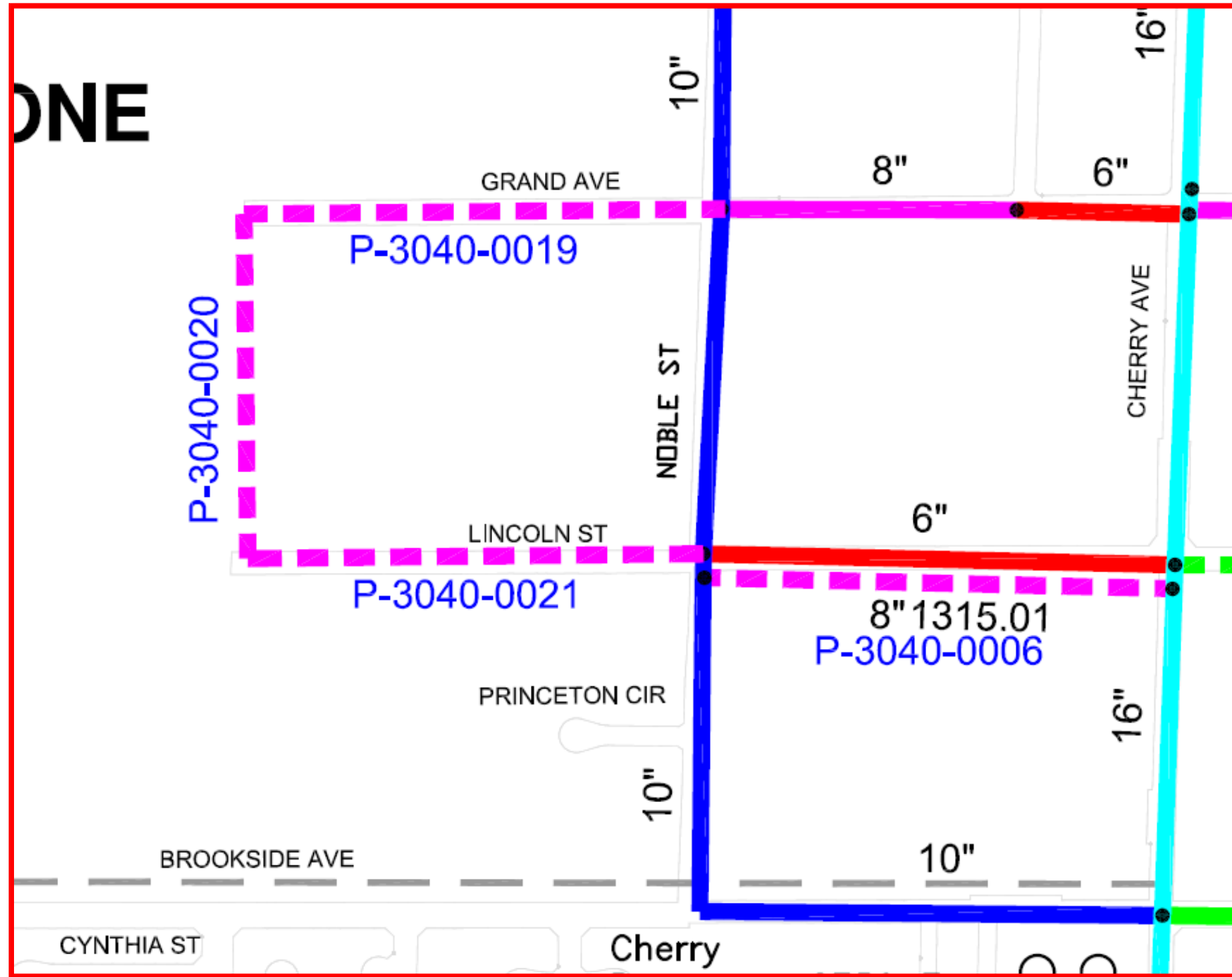
PZ 3040
SHEET
5
OF 5 SHEETS
970 W
FILE No

ATTACHMENT 3

BCVWD 2016 MASTERPLAN MAP OF 3040 PRESSURE ZONE



**ATTACHMENT 3:
BLOWUP OF BCVWD 2016 MASTERPLAN MAP OF 3040 PRESSURE ZONE AT P-3040-0019 LOCATION**



ATTACHMENT 4

BCVWD 2017 CAPITAL IMPROVEMENT PLAN – POTABLE WATER – 2017-2026 APPENDIX B

BEAUMONT-CHERRY VALLEY WATER DISTRICT CAPITAL IMPROVEMENT PROGRAM - POTABLE WATER-2017-2026 APPENDIX B

Item	Tier	Description	FUNDING SOURCE				Total Project Cost 2014 Dollars	Total Project Cost 2016 Dollars	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	ADJUSTED COST BY FUNDING SOURCE				Total Adjusted Cost																
			Facilities Fee	Cap. Repl. Res.	Developer	Other													Facilities Fee	Cap. Repl. Res.	Developer	Other																	
																			1,039,16	1,067,1	1,066,4	1,117,5	1,146,1	1,191,3	1,214,6	1,246,6	1,303,9	1,320,1											
P-2750-0069	PR	Egan Ave.-California Ave. Alley, 5th to 7th	0%	100%	0%	0%	\$200,300	\$211,423	217,376											\$0	\$217,376	\$0	\$0	\$217,376															
P-3620-0012	PR	Ave Altejo Bella, Ave Miravilla to end of cul-de-sac	0%	100%	0%	0%	\$257,700	\$272,010	279,670											\$0	\$279,670	\$0	\$0	\$279,670															
P-3620-0015	PR	Apoletree Ln, B line to Oak Glen Rd	0%	100%	0%	0%	\$625,300	\$660,023	678,609											\$0	\$678,609	\$0	\$0	\$678,609															
P-3040-0013	PR	Bellflower Ave, Brookside St. to High St.	0%	100%	0%	0%	\$804,100	\$848,752		897,226										\$0	\$897,226	\$0	\$0	\$897,226															
P-3040-0025	PR	Ulrica Way, Vineland St. to View Dr.	0%	100%	0%	0%	\$151,100	\$159,491		168,600										\$0	\$168,600	\$0	\$0	\$168,600															
P-3040-0022	PR	Friendship Dr., Vineland St. to end	0%	100%	0%	0%	\$104,900	\$110,725			120,345									\$0	\$120,345	\$0	\$0	\$120,345															
P-3040-0019	PR	Grand Ave., Noble St. to Martin St.	0%	100%	0%	0%	\$246,400	\$260,083			282,679									\$0	\$282,679	\$0	\$0	\$282,679															
P-3040-0021	PR	Lincoln St., Noble St. to West end	0%	100%	0%	0%	\$284,200	\$299,982			326,044									\$0	\$326,044	\$0	\$0	\$326,044															
P-3040-0025	PR	Star Lane, Ave Miravilla to end of cul-de-sac	0%	100%	0%	0%	\$326,200	\$344,314			374,228									\$0	\$374,228	\$0	\$0	\$374,228															
P-3040-0023	PR	Bling Pl., Napoleon	0%	100%	0%	0%	\$85,300	\$90,037				100,615								\$0	\$100,615	\$0	\$0	\$100,615															
P-3040-0024	PR	Lambert Pl.	0%	100%	0%	0%	\$85,300	\$90,037				100,615								\$0	\$100,615	\$0	\$0	\$100,615															
P-3620-0002	PR	"A" Line Upper Edgar to split at Apple Tree Lane Tract	0%	100%	0%	0%	\$1,795,900	\$1,895,626				847,336	1,306,795							\$0	\$2,154,131	\$0	\$0	\$2,154,131															
P-2750-0064	PR	Antonell Court, Pennsylvania Ave. to Cherry Ave.	0%	100%	0%	0%	\$132,900	\$140,280						165,714						\$0	\$165,714	\$0	\$0	\$165,714															
P-3330-0006	PR	Bogart Fire Service	0%	100%	0%	0%	\$169,000	\$178,385						210,728						\$0	\$210,728	\$0	\$0	\$210,728															
P-2750-0068	PR	Elm St., 6th to 7th	0%	100%	0%	0%	\$86,300	\$91,092						107,608						\$0	\$107,608	\$0	\$0	\$107,608															
P-3620-0009	PR	Ave. Miravilla, end of 12-In to Whispering Pines	0%	100%	0%	0%	\$303,900	\$320,776						378,936						\$0	\$378,936	\$0	\$0	\$378,936															
P-3040-0011	PR	Winesap Ave., Brookside Ave. to Hogh Street	0%	100%	0%	0%	\$1,107,600	\$1,169,105							1,419,968					\$0	\$1,419,968	\$0	\$0	\$1,419,968															
P-UEC-0001	PR	Edgar Canyon Pipeline Well 14 to Wedding Chapel	0%	100%	0%	0%	\$787,100	\$830,808							1,037,495					\$0	\$1,037,495	\$0	\$0	\$1,037,495															
P-UEC-0002	PR	Edgar Canyon Pipeline, Wedding Chapel to Upper Edgar	0%	100%	0%	0%	\$1,614,400	\$1,704,048								1,093,952	1,124,757			\$0	\$2,218,709	\$0	\$0	\$2,218,709															
TOTAL POTABLE PIPELINE REPLACEMENT PROJECTS							\$7,280,500	\$7,684,786	\$1,175,655	\$1,065,826	\$1,103,297	\$1,048,566	\$1,306,795	\$862,986	\$1,419,968	\$1,037,495	\$1,093,952	\$1,124,757	\$0	\$11,239,296	\$0	\$0	\$11,239,296																
									\$13,600,780	\$5,669,083	\$12,737,661	\$8,665,643	\$5,931,016	\$7,701,267	\$5,065,562	\$7,842,856	\$13,351,129	\$12,776,097	\$59,052,136	\$34,288,958	\$0	\$0	\$93,341,094																
																			Total Adjusted Project Cost:				\$93,341,094																
									2017	2018	2019	2020	2021	2022	2023	2024	2025	2026																					
Facilities Fee									\$9,608,903	\$4,038,758	\$9,575,245	\$6,564,453	\$4,624,220	\$4,673,389	\$453,115	\$4,010,254	\$7,984,776	\$7,519,021	\$59,052,136																				
Cap. Repl. Res									\$3,991,877	\$1,630,324	\$3,162,416	\$2,101,190	\$1,306,795	\$3,027,878	\$4,612,447	\$3,832,602	\$5,366,353	\$5,257,076	\$34,288,958																				
Developer									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0													
Other									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0													
									\$13,600,780	\$5,669,083	\$12,737,661	\$8,665,643	\$5,931,016	\$7,701,267	\$5,065,562	\$7,842,856	\$13,351,129	\$12,776,097																					