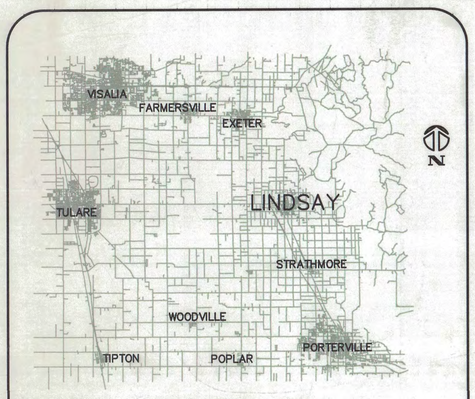
CITY OF LINDSAY

County of Tulare — State of California

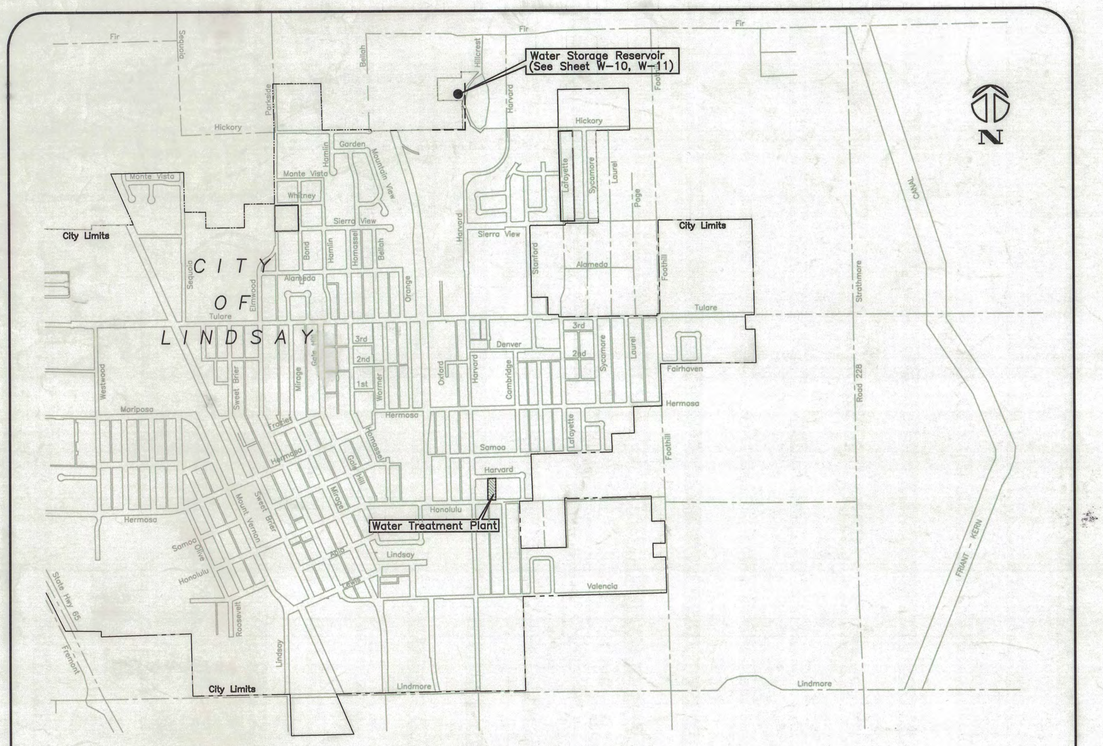
WATER FACILITIES IMPROVEMENT PROJECT - 1999

CONTRACT A - RESERVOIR AND WATER TREATMENT PLANT

Funded By:
RURAL UTILITIES SERVICE
U. S. DEPARTMENT OF AGRICULTURE



VICINITY MAP
No Scale



LOCATION MAP
No Scale

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RECORD DRAWING

This record drawing has been prepared, in part, based upon information furnished by others. While this information is believed to be reliable, the DESIGN PROFESSIONAL cannot assure its accuracy, and thus is not responsible for the accuracy of this record drawing or for any errors or omissions which may have been incorporated into it as a result. Those relying on this record document are advised to obtain independent verification of its accuracy before applying it for any purpose.

Approved By:

WILLIAM R. DRENNEN, City Manager/City Engineer — Date

TOM McCURDY, Public Works Director — Date

REVISIONS

DATE	BY	DESCRIPTION

APPROVED BY: SEE ORIGINAL FOR SIGNATURE AND SEAL
DATE

PREPARED BY: Quad Knopf
5500 MING AVENUE
SUITE 410
BAKERSFIELD, CA. 93309
TEL: (661) 835-8300
FAX: (661) 835-8311
DRW BY: C.E.L.\T.S.\DANG CHK BY: G.E.M.

IMPROVEMENT PLAN FOR:
CITY OF LINDSAY WATER FACILITIES IMPROVEMENT PROJECT-1999
CONTRACT A - RESERVOIR AND WATER TREATMENT PLANT
Cover Sheet

DATE: SEPT. 2000
JOB NO.: 99197 CONTRACT A
DWG. NAME: 99197COVA.DWG
SCALE: NOT TO SCALE
SHEET NO.: G-1

DRAWING NUMBER PW125-E000

1 OF 15

L:\ENG\1999\99197\CONTRACT-A\99197COVA.DWG 9-19-00

GENERAL NOTES

1. ALL IMPROVEMENTS SHALL BE AS PER CITY OF LINDSAY STANDARDS.
2. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY AND ALL CONFLICTS BETWEEN CONTRACT DRAWINGS AND THE ACTUAL SITE CONDITIONS PRIOR TO COMMENCING ANY WORK IN QUESTION.
3. CONTRACTOR SHALL PROVIDE PEDESTRIAN, VEHICLE, WORKER AND TREE PROTECTION AS NECESSARY FOR THE FULL DURATION OF THE PROJECT.
4. CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS FOR APPROVAL BY THE CITY AND SHALL INSTALL APPROVED TRAFFIC CONTROL SIGNS PRIOR TO COMMENCEMENT OF ANY WORK, IN CONFORMANCE WITH CALTRANS "MANUAL OF TRAFFIC CONTROL".
5. CONTRACTOR SHALL MAINTAIN DUST CONTROL ABOUT THE SITE OF WORK AS SPECIFIED BY "CALTRANS STANDARD SPECIFICATIONS".
6. CONTRACTOR SHALL BE LICENSED AS CLASS "A" GENERAL ENGINEERING CONTRACTOR (OR A COMBINATION OF SPECIALTY LICENSES THAT WOULD INCLUDE ALL ITEMS OF WORK) IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 9, DIVISION 3 OF THE BUSINESS AND PROFESSIONS CODE.
7. CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THE CONTRACT IN SATISFACTORY MANNER PROVIDING ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SPECIFIED OTHERWISE.
8. CONTRACTOR SHALL NOTIFY THE APPROPRIATE AGENCY AT LEAST 8 DAYS PRIOR TO COMMENCING WORK SO THAT SAID AGENCY MAY PRESERVE MONUMENTS AND BENCH MARKS, WHICH MAY NOT BE DISTURBED WITHOUT AGENCY CONSENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING DESTROYED BENCH MARKS.
9. CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS THE CITY, ITS ENGINEER AND CONSULTANTS, THEIR OFFICERS, EMPLOYEES AND AGENTS, FROM ANY AND ALL LIABILITY CLAIMS, LOSSES OR DAMAGES ARISING OR ALLEGED FROM THE PERFORMANCE OF THE WORK DESCRIBED ON THESE PLANS, NOT INCLUDING NEGLIGENCE ON THE PART OF THE CITY.
10. THE CONTRACTOR SHALL EXPOSE EXISTING WATER MAINS AND CONFIRM TYPE OF PIPE AND OUTSIDE DIAMETER PRIOR TO ORDERING FITTINGS FOR TIEING IN EXISTING PIPING TO NEW PIPING. HDPE PIPE CONNECTIONS TO EXISTING WATER PIPE SHALL BE ACCOMPLISHED WITH A POLYETHYLENE "FLANGE ADAPTER" OR "STUB END". (ONE END WHICH IS SIZED THE SAME AS THE POLYETHYLENE PIPE FOR BUTT FUSION TO THE POLYETHYLENE PIPE. THE OTHER END WHICH HAS BEEN MADE WITH A FLANGE TYPE AND THAT, WITH A METAL BACK-UP RING PERMITS BOLTING TO THE NON-POLYETHYLENE SEGMENT OF A PIPELINE). CONNECTIONS TO PLANE AND ASBESTOS-CONCRETE PIPE SHALL BE MADE WITH A JCM 306 FABRICATED FLANGED COUPLING ADAPTER OR EQUAL (FULLY PRESSURE RATED). CONNECTIONS TO OTHER TYPES OF PIPE SHALL BE MADE WITH A STANDARD FLANGED COUPLING ADAPTER SIZED TO MATCH OUTSIDE DIAMETER OF THE EXISTING PIPE.
11. LOCATION AND RELOCATION OF UTILITY POLES SHALL BE THE RESPONSIBILITY OF THE UTILITY COMPANY.
12. THE LOCATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE; HOWEVER, THE CITY OF LINDSAY AND THE ENGINEER ASSUME NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION SHOWN, OR FOR THE INADVERTENT OMISSION OF ANY SUCH INFORMATION. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY COMPANIES AND OTHER CONTRACTORS WORKING WITHIN THE LIMITS OF THIS PROJECT.
13. IN PAVED STREETS ALL EXISTING PAVEMENT STRIPING, MARKERS, LETTERING AND DELINEATOR SIGNS REMOVED OR DAMAGED DURING CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED BY THE CONTRACTOR.
14. ALL VALVES AND FITTINGS SHALL BE FULL LINE SIZE. VALVES SHALL BE FLANGED TO FITTINGS UNLESS OTHERWISE SHOWN.

LEGEND

CBOX	CHRISTY BOX	SDMH	STORM DRAIN MANHOLE
DI	DRAIN INLET	SS	SANITARY SEWER
FH	FIRE HYDRANT	SSMH	SANITARY SEWER MANHOLE
TC	TOP OF CURB	SSCO	SANITARY SEWER CLEANOUT
FL	FLOW LINE	TELPED	TELEPHONE PEDESTAL
GUY	GUY	WV	WATER VALVE
GV	GAS VALVE	P	PAVEMENT
MB	MAIL BOX	(000.00)	EXISTING ELEVATION
OH GTE	GTE AERIAL TEL CABLE	HP	HINGE POINT
BURIED GTE	GTE BURIED TEL CABLE	T	TOE
PP	POWER POLE	ACP	ASBESTOS CEMENT PIPE
TP	TELEPHONE POLE	INV	INVERT
UP	UTILITY POLE	C	CONCRETE
SD	STORM DRAIN	CR	CROWN
W	WATER	UG	UNDERGROUND
L.S.I.D.	LINDSAY-STRATHMORE IRRIGATION DISTRICT	LAT	LATERAL
PH LOC	POTHOLE LOCATION		

SYMBOLS LEGEND

EXISTING FEATURES

(12" W)	EXISTING WATER MAIN
WV	EXISTING WATER VALVE
FH	EXISTING FIRE HYDRANT
(L.S.I.D. W)	EXISTING IRRIGATION DISTRICT WATER MAIN
SDMH	EXISTING STORM DRAIN MANHOLE
DI	EXISTING STORM DRAIN DROP INLET
(8" SD)	EXISTING STORM DRAIN LINE
TC(386.78)	EXISTING TOP OF CURB ELEVATION
FL(386.34)	EXISTING FLOWLINE ELEVATION
P(386.34)	EXISTING PAVEMENT ELEVATION
(386.34)	EXISTING SPOT ELEVATION
HP(386.78)	EXISTING HINGE POINT ELEVATION
T(386.34)	EXISTING TOE OF SLOPE ELEVATION
CR(386.34)	EXISTING CROWN OF ROAD ELEVATION
ER(386.34)	EXISTING EDGE OF ROAD ELEVATION
SSMH	EXISTING SANITARY SEWER MANHOLE
(8" SS)	EXISTING SEWER LINE
TP	EXISTING TELEPHONE POLE
PP	EXISTING POWER POLE
MB	EXISTING MAIL BOX

PROPOSED FEATURES

	NEW WATER MAIN
	NEW WATER VALVE
	NEW REDUCER OR INCREASER
FH	NEW FIRE HYDRANT ASSEMBLY WITH CONCRETE FILLED BOLLARDS (PER DETAIL SHEET C-13)
	NEW TEE
	NEW 90° BEND
	NEW 45° BEND

UTILITY CO. ADDRESSES

1. CITY OF LINDSAY PUBLIC WORKS DEPARTMENT
   150 North Mirage Ave. Lindsay, CA. 93247
   Attention: Tom McCurdy (559) 562-5945
2. LINDSAY-STRATHMORE IRRIGATION DISTRICT
   23260 Round Valley Rd. Lindsay, CA. 93247
   Attention: Scott Edwards (559) 562-2581
3. GTE
   710 S. Kaweah Ave. Exeter, CA. 93221
   Attention: Sonny Hicks (559) 592-6138
4. SOUTHERN CALIFORNIA GAS COMPANY
   404 N. Tipton St. Visalia, CA. 93292
   Attention: Joe Kaminski (559) 739-2308
5. SOUTHERN CALIFORNIA EDISON COMPANY
   2425 S. Blackstone St. Tulare, CA. 93275
   Attention: Bob Castaneda (559) 685-3227
6. FALCON CABLE TELEVISION
   1152 W. Henderson Ave. Porterville, CA. 93257
   Attention: Bill Daniel (559) 781-3533

BEFORE EXCAVATING
CALL • USA
1-800-642-2444

RECORD DRAWING

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REVISIONS

DATE	BY	DESCRIPTION

APPROVED BY:
SEE ORIGINAL FOR SIGNATURE AND SEAL
DATE

PREPARED BY:
Quad Knopf
5500 ming avenue
suite 140
bakersfield, ca. 93309
tel: (661) 835-8300
fax: (661) 835-8311
DRW BY: T.S. DANG | CHK BY: G.E.M.

IMPROVEMENT PLAN FOR:
CITY OF LINDSAY WATER FACILITIES
IMPROVEMENT PROJECT-1999
CONTRACT A - RESERVOIR AND
WATER TREATMENT PLANT
Cover Sheet

DATE: SEPT. 2000
JOB NO.: 99197 CONTRACT A
DWG. NAME: 99197GENNOTESA.DWG
SCALE: NOT TO SCALE
SHEET NO.: G-2

DRAWING NUMBER
PW124-E000

DRAWING NUMBER

2 OF 15

DRAWING NUMB

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DESIGN CRITERIA

RATED PLANT CAPACITY	2,930 GPM (4.2 MGD)
FILTER RATE	3 GPM/SF
BACKWASH RATE	12–15 GPM/SF
FILTER CAPCITY BANK A	1,017 GPM
FILTER CAPCITY BANK B	450 GPM
FILTER CAPCITY BANK C	450 GPM
FILTER CAPCITY BANK D	1,017 GPM
CLARIFIER OVERFLOW RATE	0.9 GPM/SF @ 2,930 GPM
RAW WATER PUMPS (2EA)	__@__TDH
FILTER PUMPS (4EA)	__@__TDH
SURFACE WASH PUMPS BANK A	150 GPM @ 60' TDH
SURFACE WASH PUMPS BANK D	250 GPM @ 60' TDH
FOLYMER FEED	0.4 GAL/HR POLYMER

LABLING CONVENTIONS

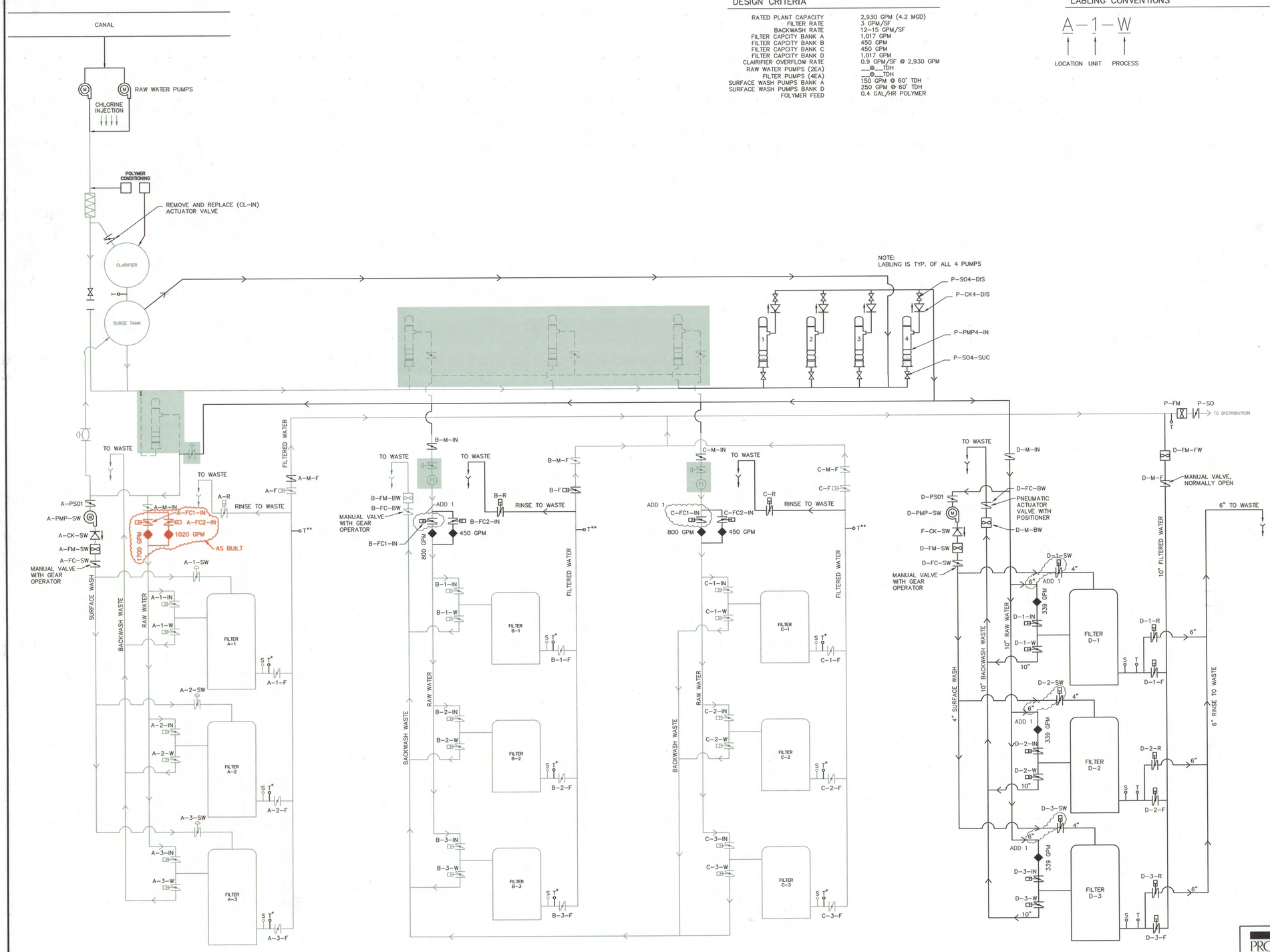
A – 1 – W

LOCATION UNIT PROCESS

LEGEND

- PROPOSED PLUMBING
- EXISTING PLUMBING TO REMAIN
- EXISTING PLUMBING TO BE REMOVED
- VERTICAL TURBINE PUMP
- GATE VALVE
- BUTTERFLY VALVE (GEAR OPERATED)
- CHECK VALVE
- HYDRAULIC DIAPHRAM VALVE
- INLINE MIXER
- DIAPHRAM
- DUAL CHAMBER HYDRAULIC CYLINDER
- ROTARY MOTOR
- SAMPLE TAP
- TURBIDITY METER TAP
- PUMP
- PROPELLER FLOWMETER
- AIR GAP
- FIXED RATE FLOW CONTROL
- EQUIPMENT TO BE REMOVED
- FLOW INDICATOR
- * TURBIDITY TAPS AND METERS TO BE ADDED IN ADD ALTERNATE BID OPTION
- ** TURBIDITY TAPS AND METERS TO BE INCLUDED IN BASE BID AND REMOVED UPON CONSTRUCTION OF ADD ALTERNATE OPTION

SW	SURFACE WASH
CK	CHECK
FM	FLOW METER
FC	FLOW CONTROLLER
IN	INFLUENT
W	WASTE
F	FILTERED
BW	BACKWASH
M	MANIFOLD
R	RINSE
FW	FILTER WATER
SO	SHUT OFF
PMP	PUMP
SUC	SUCTION



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REGISTERED PROFESSIONAL ENGINEER — ALAN JAY DEHAAI — C-054062 — EXPIRES 12/31/00 — Civil — STATE OF CALIFORNIA

DATE SIGNED: _____

CITY OF LINDSAY WATER FACILITIES IMPROVEMENT PROJECT 1999	SCALE N.T.S. DRAWN BY DCH REVISED
PIPING SCHEMATIC	SHEET W–1
DESIGN ENGINEER AL DEHAAI DATE 09-20-00 C.E. LICENSE NO. C-054062	

EST. 1959 PROVOST & PRITCHARD ENGINEERING GROUP
286 WEST CROMWELL AVENUE, FRESNO, CALIFORNIA 93711-6162
209/449-2700 FAX 209/449-2715

Job No.	9913100	Date Revised	
Dwg. No.	00-0058	Approval	

3/25/2002 11:22:17 AM G:\Dwg\1999\9913100\00-0058.dwg -Bill

DRAWING NUMBER PW127-E000

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DRAWING NUMBE

3 OF 15

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6551

3/25/2002 11:21:33 AM G:\Dwg\1999\991310O\00-0230.dwg -BIII

VALVE SCHEDULE
WATER TREATMENT PLANT

FILTER VALVE DESIGNATION	SIZE	STATUS	TYPE	ACTUATOR	FUNCTION	SPEC SECTION
FILTER BANK A						
A-M-F	10 INCH	EXIST.	BF VALVE	GEAR-MAN	ISOLATION	
A-M-IN	10 INCH	RELOCATED	BF VALVE	GEAR-MAN	ISOLATION	
~~A- FC-IN~~	~~10 INCH~~	~~EXIST.~~	~~GLOBE~~	~~HD-AUTO~~	~~FLOW RATE CONT.~~	AS BUILT
A- FC1-IN	10 INCH	EXIST.	BF VALVE	DHC-AUTO	FLOW RATE CONT.	
A- FC2-IN	8 INCH	EXIST.	BF VALVE	DHC-AUTO	FLOW RATE CONT.	
A-1-IN	10 INCH	EXIST.	BF VALVE	DHC-AUTO	PROCESS	
A-2-IN	10 INCH	EXIST.	BF VALVE	DHC-AUTO	PROCESS	
A-3-IN	10 INCH	EXIST.	BF VALVE	DHC-AUTO	PROCESS	
A-1-W	10 INCH	EXIST.	BF VALVE	DHC-AUTO	PROCESS	
A-2-W	10 INCH	EXIST.	BF VALVE	DHC-AUTO	PROCESS	
A-3-W	10 INCH	EXIST.	BF VALVE	DHC-AUTO	PROCESS	
A-1-SW	3 INCH	EXIST.	BF VALVE	HD-AUTO	PROCESS	
A-2-SW	3 INCH	EXIST.	BF VALVE	HD-AUTO	PROCESS	
A-3-SW	3 INCH	EXIST.	BF VALVE	HD-AUTO	PROCESS	
A-FC-SW	3 INCH	NEW	BF VALVE	GEAR-MAN	THROTTLE	15100
A-1-F	10 INCH	EXIST.	BF VALVE	LEV-MANUAL	ISOLATION	
A-2-F	10 INCH	EXIST.	BF VALVE	LEV-MANUAL	ISOLATION	
A-3-F	10 INCH	EXIST.	BF VALVE	LEV-MANUAL	ISOLATION	
A-F	10 INCH	EXIST.	BF VALVE	DHC-AUTO	PROCESS	
A-R	6 INCH	EXIST.	BF VALVE	DHC-AUTO	PROCESS	
A-PS01	3 INCH	NEW	BF VALVE	LEVER-MAN	ISOLATION	15100
A-CK-SW	3 INCH	NEW	CHECK VALVE	–	PROCESS	15100
FILTER BANK B						
B-M-F	6 INCH	NEW	BF VALVE	GEAR-MAN	ISOLATION	15100
B-M-IN	6 INCH	NEW	BF VALVE	GEAR-MAN	ISOLATION	15100
B-1-IN	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
B-2-IN	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
B-3-IN	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
B-FC1-IN	6 INCH	NEW (ADD 1)	BF VALVE	DHC-AUTO	PROCESS	
B-FC2-IN	6 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	15100
B-1-W	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
B-2-W	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
B-3-W	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
B-1-F	6 INCH	EXIST	BF VALVE	LEV-MANUAL	ISOLATION	
B-2-F	6 INCH	EXIST	BF VALVE	LEV-MANUAL	ISOLATION	
B-3-F	6 INCH	EXIST	BF VALVE	LEV-MANUAL	ISOLATION	
B-F	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
B-R	6 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	
FILTER BANK C						
C-M-F	6 INCH	NEW	BF VALVE	GEAR-MAN	ISOLATION	15100
C-M-IN	6 INCH	NEW	BF VALVE	GEAR-MAN	ISOLATION	15100
C-1-IN	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
C-2-IN	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
C-3-IN	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
C-FC1-IN	6 INCH	NEW (ADD 1)	BF VALVE	DHC-AUTO	PROCESS	
C-FC2-IN	6 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	15100
C-2-W	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
C-3-W	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
C-1-W	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
C-1-F	6 INCH	EXIST	BF VALVE	LEV-MANUAL	ISOLATION	
C-2-F	6 INCH	EXIST	BF VALVE	LEV-MANUAL	ISOLATION	
C-3-F	6 INCH	EXIST	BF VALVE	LEV-MANUAL	ISOLATION	
C-F	6 INCH	EXIST	BF VALVE	DHC-AUTO	PROCESS	
C-R	6 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	15100
FILTER BANK D						
D-M-F	10INCH	NEW	BF VALVE	GEAR-MAN	ISOLATION	11245
D-M-IN	10INCH	NEW	BF VALVE	GEAR-MAN	ISOLATION	11245
D-FC-BW	10 INCH	NEW	BF VALVE	DHC-MOD	FLOW RATE CONT.	11245
D-1-IN	6 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-2-IN	6 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-3-IN	10 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-1-W	10 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-2-W	10 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-3-W	10 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-1-SW	4 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-2-SW	4 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-3-SW	4 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-1-F	10 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-2-F	10 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-3-F	10 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-1-R	6 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-2-R	6 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-3-R	6 INCH	NEW	BF VALVE	DHC-AUTO	PROCESS	11245
D-PS01	4 INCH	NEW	BF VALVE	LEVER-MAN	PROCESS	15100
D-FC-SW	4 INCH	NEW	BF VALVE	GEAR-MAN	THROTTLE	15100
D-CK-SW	4 INCH	NEW	CHECK VALVE	–	PROCESS	15100
CLARIFER AREA						
CL- IN		REPLACE IN KIND	BF VALVE	DHC-AUTO	PROCESS	15100
INFULENT PUMPS	(VALVES SHOWN FOR ONE PUMP OF FOUR)					
P-SO4-SUC	8"	NEW	GATE VALVE	MANUAL	ISOLATION	–
P-SO4-DIS	8"	NEW	GATE VALVE	MANUAL	ISOLATION	–
P-CHK-DIS	8"	NEW	CHECK VALVE	MANUAL	FLOW CONTROL	–
PLANT MAINLINE						
P-SO	16 INCH	NEW	BF VALVE	GEAR- MAN	ISOLATION	15100
IRRIGATION SYSTEM						

NOTES:
1. BF VALVE — BUTTERFLY VALVE
2. CHK V — CHECK VALVE
3. DHC-AUTO — DOUBLE AIR CYLINDER WITH ACTUATOR WITH AUTOMATIC CONTROL (ADD 1)
4. GEAR-MANUAL — GEARED ACTUATOR FOR MANUAL OPERATION; BURIED VALVES AND VALVES IN CONCRETE VAULT SHALL BE
4. GEAR-MANUAL — PROVIDED WITH WRENCH NUT OPERATORS; EXPOSED VALVES SHALL BE PROVIDED WITH HANDWHEEL OPERATORS
5. HD-AUTO — HYDRAULIC DIAPHRAM WITH AUTOMATIC CONTROL
6. LEV-MANUAL — LOCKING LEVER ACTUATOR
7. DHC-MOD — DOUBLE AIR CYLINDER ACTUATOR WITH POSITIONER AND AUTOMATIC CONTROL

SB001

VALVE SCHEDULE
WATER STORAGE TANK

FILTER VALVE DESIGNATION	SIZE	STATUS	TYPE	ACTUATOR	FUNCTION	SPEC SECTION
STORAGE TANK						
T-INLET VALVE	20 INCH	NEW	BF VALVE	GEAR-MAN	ISOLATION	15100
T-OUTLET VALVE	20 INCH	NEW	BF VALVE	GEAR-MAN	ISOLATION	15100
T-INLET CHK V	20 INCH	NEW	CHECK VALVE	–	FLOW CONROL	15100
T-OUTLET CHK V	20 INCH	NEW	CHECK VALVE	–	FLOW CONROL	15100
T-DRAIN/OVERFLOW	16 INCH	NEW	BF VALVE	GEAR-MAN	ISOLATION	15100
IRRIGATION SYSTEM						

NOTES:
1. BF VALVE — BUTTERFLY VALVE
2. CHK V — CHECK VALVE
4. GEAR-MANUAL — GEARED ACTUATOR FOR MANUAL OPERATION; BURIED VALVES AND VALVES IN CONCRETE VAULT SHALL BE PROVIDED WITH WRENCH NUT OPERATORS; EXPOSED VALVES SHALL BE PROVIDED WITH HANDWHEEL OPERATORS

FILTER SEQUENCE
BANK A

CONDITION	TIME	A-R	A-F	A-RW-IN	A-1-IN	A-1-W	A-1-SW	A-2-IN	A-2-W	A-2-SW	A-3-IN	A-3-W	A-3-SW	RW PUMP	SW PUMP
FILTERING	3	X	O	LO	O	X	X	O	X	X	O	X	X	ON	OFF
PAUSE	3	X	X	LO	X	X	X	X	X	X	X	X	X	OFF	OFF
BW 1	3	X	X	LO	X	O	O	O	X	X	O	X	X	ON	ON
BW 1	3	X	X	HI	X	O	O	O	X	X	O	X	X	ON	ON
BW 1	3	X	X	LO	X	O	X	O	X	X	O	X	X	ON	OFF
PAUSE	3	X	X	LO	X	X	X	X	X	X	X	X	X	OFF	OFF
BW 2	3	X	X	LO	O	X	X	X	O	O	O	X	X	ON	ON
BW 2	3	X	X	HI	O	X	X	X	O	O	O	X	X	ON	ON
BW 2	3	X	X	LO	O	X	X	X	O	X	O	X	X	ON	OFF
PAUSE	3	X	X	LO	X	X	X	X	X	X	X	X	X	OFF	OFF
BW 3	3	X	X	LO	O	X	X	O	X	X	X	O	O	ON	ON
BW 3	3	X	X	HI	O	X	X	O	X	X	X	O	O	ON	ON
BW 3	3	X	X	LO	O	X	X	O	X	X	X	O	X	ON	OFF
PAUSE	3	X	X	LO	X	X	X	X	X	X	X	X	X	OFF	OFF
RINSE	3	O	X	LO	O	X	X	O	X	X	O	X	X	ON	OFF
FILTERING	3	X	O	LO	O	X	X	O	X	X	O	X	X	ON	OFF

FILTER SEQUENCE
BANK A
REVISED FOR CCO FOR BW CONTROL

CONDITION	TIME	A-R	A-F	A-FC1-IN 10"	A-FC2-IN 8"	A-1-IN	A-1-W	A-1-SW	A-2-IN	A-2-W	A-2-SW	A-3-IN	A-3-W	A-3-SW	RW PUMP	SW PUMP
PAUSE	3	X	X	X	X	X	X	X	X	X	X	X	X	X	OFF	OFF
FILTERING	3	X	O	X	O	O	X	X	O	X	X	O	X	X	ON	OFF
BW 1	3	X	X	X	O	X	O	O	O	X	X	O	X	X	ON	ON
BW 1	3	X	X	O	X	X	O	O	O	X	X	O	X	X	ON	ON
BW 1	3	X	X	X	O	X	O	X	O	X	X	O	X	X	ON	OFF
PAUSE	3	X	X	X	X	X	X	X	X	X	X	X	X	X	OFF	OFF
BW 2	3	X	X	X	O	O	X	X	X	O	O	O	X	X	ON	ON
BW 2	3	X	X	O	X	O	X	X	X	O	O	O	X	X	ON	ON
BW 2	3	X	X	X	O	O	X	X	X	O	X	O	X	X	ON	OFF
PAUSE	3	X	X	X	X	X	X	X	X	X	X	X	X	X	OFF	OFF
BW 3	3	X	X	X	O	O	X	X	O	X	X	X	O	O	ON	ON
BW 3	3	X	X	O	X	O	X	X	O	X	X	X	O	O	ON	ON
BW 3	3	X	X	X	O	O	X	X	O	X	X	X	O	X	ON	OFF
PAUSE	3	X	X	X	X	X	X	X	X	X	X	X	X	X	OFF	OFF
RINSE	3	O	X	X	O	O	X	X	O	X	X	O	X	X	ON	OFF
FILTERING	3	X	O	X	O	O	X	X	O	X	X	O	X	X	ON	OFF

FILTER SEQUENCE
BANK B

CONDITION	TIME	(B-R)	(B-F)	B-FC1-IN 800 GPM (ADD 1)	B-FC2-IN 450 GPM	B-1-IN	B-1-W	B-2-IN	B-2-W	B-3-IN	B-3-W	RW PUMP
FILTERING		X	O	X	O	O	O	O	X	O	X	ON
PAUSE	3	X	X	X	X	X	X	X	X	X	X	OFF
BW 1	2	X	X	X	O	X	O	X	O	O	X	ON
BW 1	8	X	X	O	X	X	O	X	O	O	X	ON
BW 1	2	X	X	X	O	X	O	X	O	O	X	ON
PAUSE	3	X	X	X	X	X	X	X	X	X	X	OFF
BW 2	2	X	X	X	O	O	X	X	O	O	X	ON
BW 2	8	X	X	O	X	O	X	X	O	O	X	ON
BW 2	2	X	X	X	O	O	X	X	O	O	X	ON
PAUSE	3	X	X	X	X	X	X	X	X	X	X	OFF
BW 3	2	X	X	X	O	O	X	O	X	X	O	ON
BW 3	8	X	X	O	X	O	X	O	X	X	O	ON
BW 3	2	X	X	X	O	O	X	O	X	X	O	ON
PAUSE	3	X	X	X	X	X	X	X	X	X	X	OFF
RINSE	3	O	X	X	O	O	X	O	X	O	X	ON
FILTERING		X	O	X	O	O	X	O	X	O	X	ON

FILTER SEQUENCE
BANK C

CONDITION	TIME	(C-R)	(C-F)	C-FC1-IN 800 GPM (ADD 1)	C-FC2-IN 450 GPM	C-1-IN	C-1-W	C-2-IN	C-2-W	C-3-IN	C-3-W	RW PUMP
FILTERING		X	O	X	O	O	O	O	X	O	X	ON
PAUSE	3	X	X	X	X	X	X	X	X	X	X	OFF
BW 1	2	X	X	X	O	X	O	X	O	O	X	ON
BW 1	8	X	X	O	X	X	O	X	O	O	X	ON
BW 1	2	X	X	X	O	X	O	X	O	O	X	ON
PAUSE	3	X	X	X	X	X	X	X	X	X	X	OFF
BW 2	2	X	X	X	O	O	X	X	O	O	X	ON
BW 2	8	X	X	O	X	O	X	X	O	O	X	ON
BW 2	2	X	X	X	O	O	X	X	O	O	X	ON
PAUSE	3	X	X	X	X	X	X	X	X	X	X	OFF
BW 3	2	X	X	X	O	O	X	O	X	X	O	ON
BW 3	8	X	X	O	X	O	X	O	X	X	O	ON
BW 3	2	X	X	X	O	O	X	O	X	X	O	ON
PAUSE	3	X	X	X	X	X	X	X	X	X	X	OFF
RINSE	3	O	X	X	O	O	X	O	X	O	X	ON
FILTERING		X	O	X	O	O	X	O	X	O	X	ON

FILTER SEQUENCE
BANK D

CONDITION	TIME	(D-FC-BW)*	(D-1-IN)	(D-1-F)	(D-1-R)	(D-1-W)	(D-1-SW)	(D-2-IN)	(D-2-F)	(D-2-R)	(D-2-W)	(D-2-SW)	(D-3-IN)	(D-3-F)	(D-3-R)	(D-3-W)	(D-3-SW)	RW PUMP	SW PUMP
FILTERING	3	LO	O	O	X	X	X	O	O	X	X	X	O	O	X	X	X	ON	OFF
PAUSE	3	HI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	OFF	OFF
BW 1	2	LO	X	O	X	O	O	O	O	X	X	X	O	O	X	X	X	ON	ON
BW 1	8	HI	X	O	X	O	O	O	O	X	X	X	O	O	X	X	X	ON	ON
BW 1	2	LO	X	O	X	O	X	O	O	X	X	X	O	O	X	X	X	ON	OFF
PAUSE	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	OFF	OFF
RINSE 1	3	X	O	X	O	X	X	O	O	X	X	X	O	O	X	X	X	ON	OFF
PAUSE	3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	OFF	OFF
BW 2	2	LO	O	O	X	X	X	X	O	X	O	O	O	O	X	X	X	ON	ON
BW 2	8	HI	O	O	X	X	X	X	O	X	O	O	O	O	X	X	X	ON	ON
BW 2	2	LO	O	O	X	X	X	X	O	X	O	X	O	O	X	X	X	ON	OFF
PAUSE	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	OFF	OFF
RINSE 2	3	X	O	O	X	X	X	O	X	O	X	X	O	O	X	X	X	ON	OFF
PAUSE	3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	OFF	OFF
BW 3	2	LO	O	O	X	X	X	O	O	X	X	X	X	O	X	O	O	ON	ON
BW 3	8	HI	O	O	X	X	X	O	O	X	X	X	X	O	X	O	O	ON	ON
BW 3	2	LO	O	O	X	X	X	O	O	X	X	X	X	O	X	O	X	ON	OFF
PAUSE	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	OFF	OFF
RINSE 3	3	X	O	O	X	X	X	O	O	X	X	X	O	X	O	X	X	ON	OFF
PAUSE	3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	OFF	OFF
PAUSE		LO	O	O	X	X	X	O	O	X	X	X	O	O	X	X	X	ON	OFF

* MOTOR OPERATED VALVE WITH POSITIONER. HIGH AND LOW FLOW SETPOINTS PROGRAMMABLE – SUGGEST STARTING WITH 100GPM LO AND 1400 GPM HI

VALVES IN ( ) ARE NEW VALVES

RECORD DRAWING

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REGISTERED PROFESSIONAL ENGINEER — ALAN JAY deHAAI — C-054062 — EXPIRES 12/31/03 — Civil — STATE OF CALIFORNIA

DATE SIGNED: ____

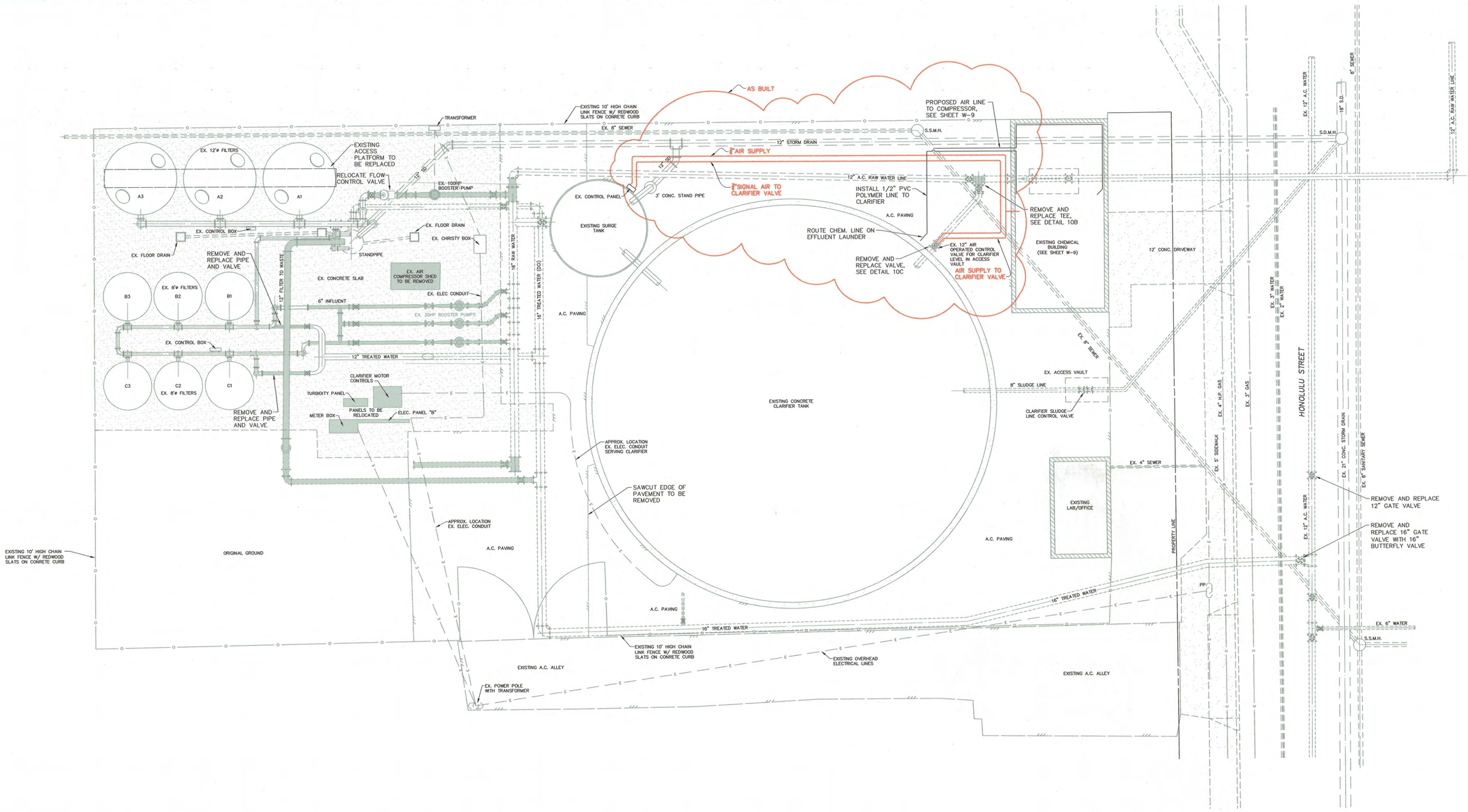
CITY OF LINDSAY
WATER FACILITIES IMPROVEMENT PROJECT
1999

EQUIPMENT SCHEDULE

EST. 1968
PROVOST & PRITCHARD INC
ENGINEERING GROUP
286 WEST CROMWELL AVENUE
FRESNO, CALIFORNIA 93711-6162
209/449-2700 FAX 209/449-2715

DESIGN ENGINEER AL DEHAAI
DATE 09-20-00 C.E. LICENSE NO. C-054062

SCALE	N.T.S.	DRAWN BY	DCH
REVISED		SHEET	W-2
Job No.	9913100	Date Revised	
Dwg. No.	00-0230	Approval	



DEMOLITION NOTES

1. REMOVE AND REPLACE NECESSARY EQUIPMENT
2. SEQUENCE OF CONSTRUCTION
   - PHASE 1
     - INSTALL NEW 12'ø FILTERS (BANK D) AND PLUMBING
     - CONSTRUCT FOUR (4) NEW PUMPS
     - PLUMB PIPING FROM PUMPS TO BANK D
     - PLACE BANK D ONLINE
   - PHASE 2
     - REMOVE NECESSARY PIPING FOR BANKS B AND C
     - PLUMB NEW PIPING TO BANKS B AND C
     - PLACE BANK B AND C BACK ONLINE
   - PHASE 3
     - REMOVE NECESSARY PIPING FOR BANK A
     - PLUMB NEW 10" PIPE AND FITTINGS TO BANK A
     - PLACE BANK A BACK ONLINE

LEGEND

- ABOVE GRADE PIPING
- BELOW GRADE PIPING
- ELECTRICAL CONDUITS (APPROX. LOCATION)
- EXISTING BUILDING
- CHAINLINK FENCE (HEIGHT AS NOTED)
- EDGE PAVEMENT
- PIPING AND EQUIPMENT TO BE REMOVED

BENCHMARK:

CITY OF LINDSAY BM #40. BRASS PIN IN TOP OF CURB, 1' WEST OF WEST CURB RETURN, WEST END DRIVEWAY TO LINDSAY UNIFIED SCHOOL DISRICT ADMINISTRATION OFFICE ON NORTH SIDE OF HONOLULU STREET.

ELEV = 383.99

TEMPORARY BENCHMARK

CHISELED BOX ON TOP OF CURB, EAST RETURN, SOUTHEAST CORNER OF HARVARD AND HONOLULU.

ELEV = 385.37

RECORD DRAWING

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REGISTERED PROFESSIONAL ENGINEER ALAN JAY DEHAAI C-054062 EXPIRES 12/31/00 Civil STATE OF CALIFORNIA

DATE SIGNED: _____

EST. 1959
PROVOST & PRITCHARD ENGINEERING GROUP
286 WEST CROMWELL AVENUE
FRESNO, CALIFORNIA 93711-6162
209/449-2700 FAX 209/449-2715

Job No.	9913100	Date Revised	
Dwg. No.	00-0214	Approval	

CITY OF LINDSAY
WATER FACILITIES IMPROVEMENT PROJECT
1999

DEMOLITION PLAN

DESIGN ENGINEER AL DEHAAI
DATE 09-20-00 C.E. LICENSE NO. C-054062

SCALE 1/8" = 1'
DRAWN BY DCH
REVISED

SHEET W-3

SCALE : 1/8" = 1'
0 4 8 16

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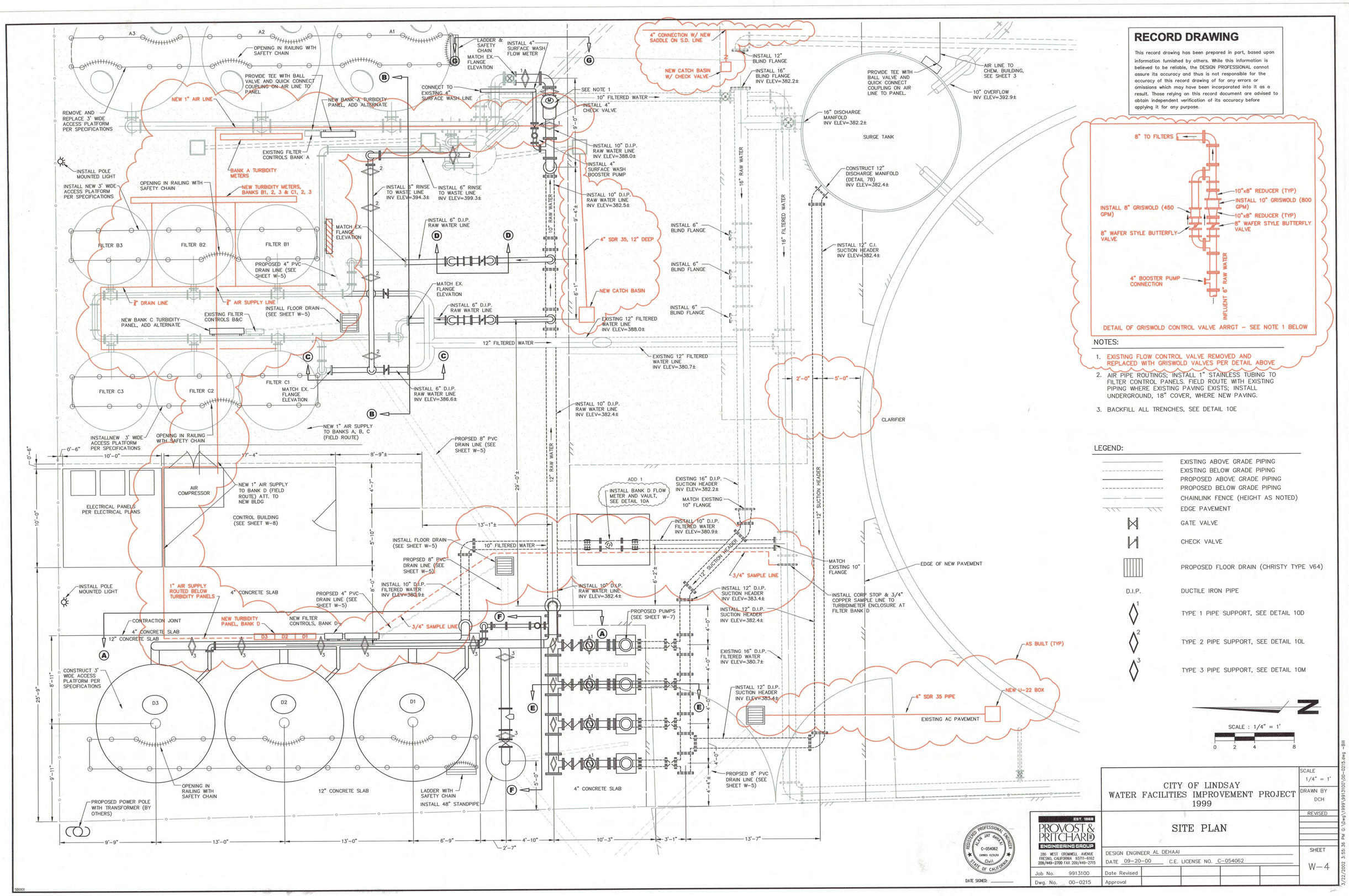
DRAWING NUMBER PW129-E000

DRAWING NUMBER

DRAWING NUMBER

5 OF 15



RECORD DRAWING

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NOTES:

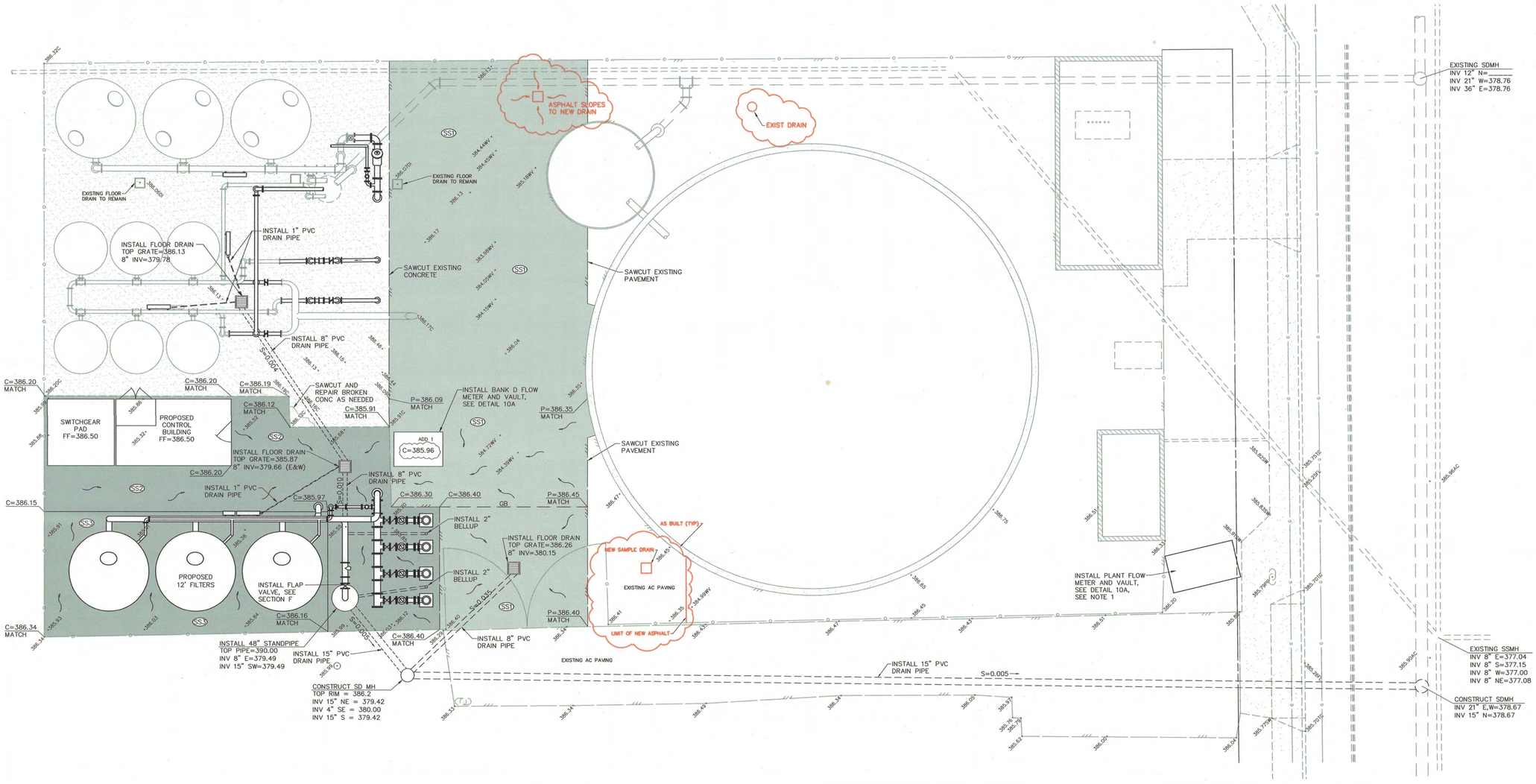
1. EXISTING FLOW CONTROL VALVE REMOVED AND REPLACED WITH GRISWOLD VALVES PER DETAIL ABOVE
2. AIR PIPE ROUTINGS; INSTALL 1" STAINLESS TUBING TO FILTER CONTROL PANELS. FIELD ROUTE WITH EXISTING PIPING WHERE EXISTING PAVING EXISTS; INSTALL UNDERGROUND, 18" COVER, WHERE NEW PAVING.
3. BACKFILL ALL TRENCHES, SEE DETAIL 10E

DRAWING NUMBER
PW130-E000
SPECIAL PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 10501

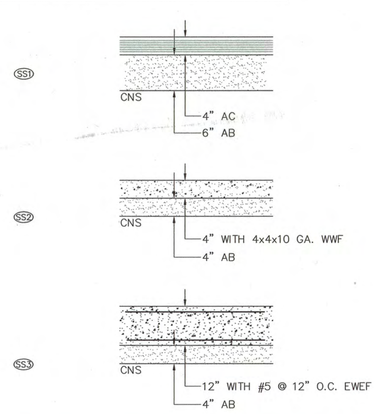
DRAWING NUMBER
SPECIAL PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 10501

DRAWING NUMBER
SPECIAL PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 10501

6 of 15



STRUCTURAL SECTIONS:



NOTES:

1. CONTRACTOR TO VERIFY EXISTING 16" FILTERED WATER LINE PRIOR TO INSTALLATION OF METER BOX
2. PROPOSED MANHOLES, SEE DETAIL 10G
3. PROPOSED 4" CONCRETE PAVING TO BE REINFORCED WITH 6X6X10X10 WIRE MESH

LEGEND:

- EXISTING CONCRETE SLAB
- PROPOSED AC PAVEMENT
- PROPOSED CONCRETE SLAB
- PROPOSED FLOOR DRAIN (CHRISTY V64)

RECORD DRAWING

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REGISTERED PROFESSIONAL ENGINEER ALAN JAY SCHAFER C-054062 EXPIRES 12/31/00 Civil STATE OF CALIFORNIA

DATE SIGNED: _____

SCALE : 1/8" = 1'

0 4 8 16

CITY OF LINDSAY
WATER FACILITIES IMPROVEMENT PROJECT
1999

SCALE 1/8" = 1'

DRAWN BY DCH

REVISED

GRADING PLAN

SHEET W-5

EST. 1888
PROVOST & PRITCHARD
ENGINEERING GROUP
286 WEST CROMWELL AVENUE
FRESNO, CALIFORNIA 93711-6162
209/449-2700 FAX 209/449-2775

DESIGN ENGINEER AL DEHAAI
DATE 09-20-00 C.E. LICENSE NO. C-054062

Job No.	9913100	Date Revised				
Dwg. No.	00-0216	Approval				

DRAWING NUMBER
PW1131-E000
SAVCO PRODUCTS • NEW YORK, MINNESOTA
REORDER BY PART NUMBER 10501

DRAWING NUMBER
SAVCO PRODUCTS • NEW YORK, MINNESOTA
REORDER BY PART NUMBER 10501

DRAWING NUMBER
SAVCO PRODUCTS • NEW YORK, MINNESOTA
REORDER BY PART NUMBER 10501

7 OF 15

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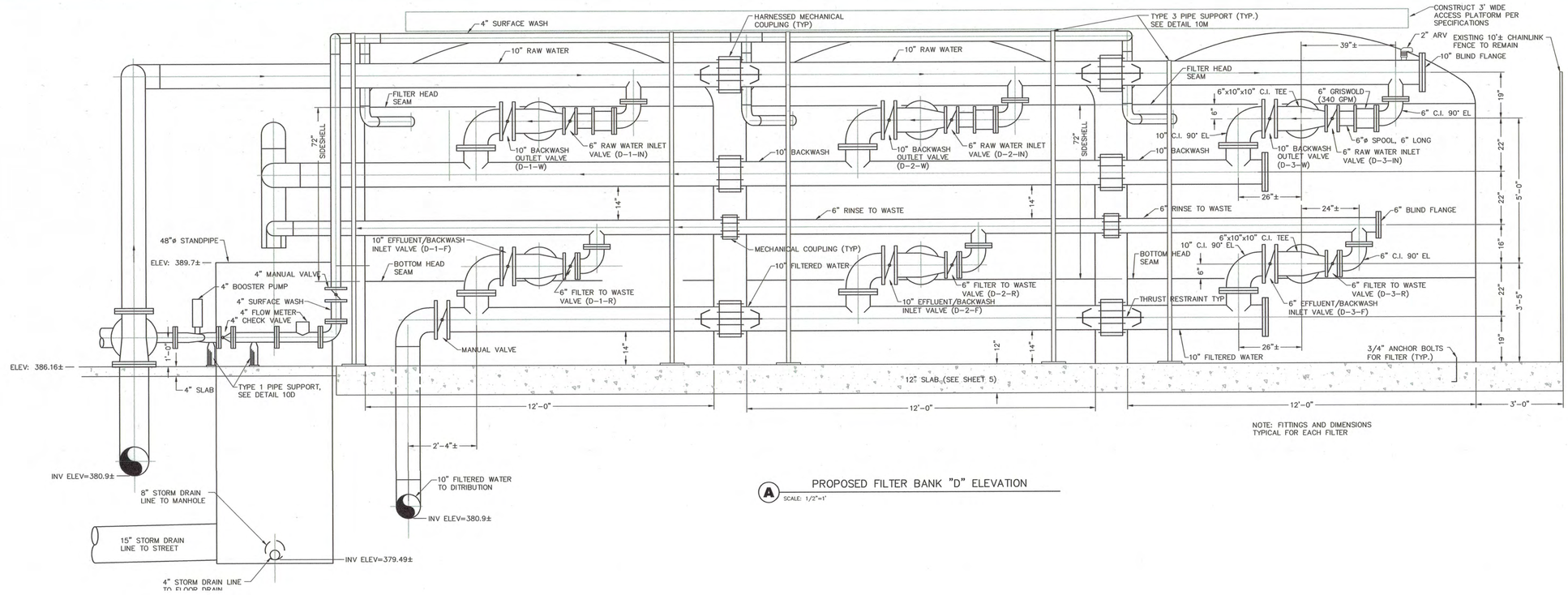
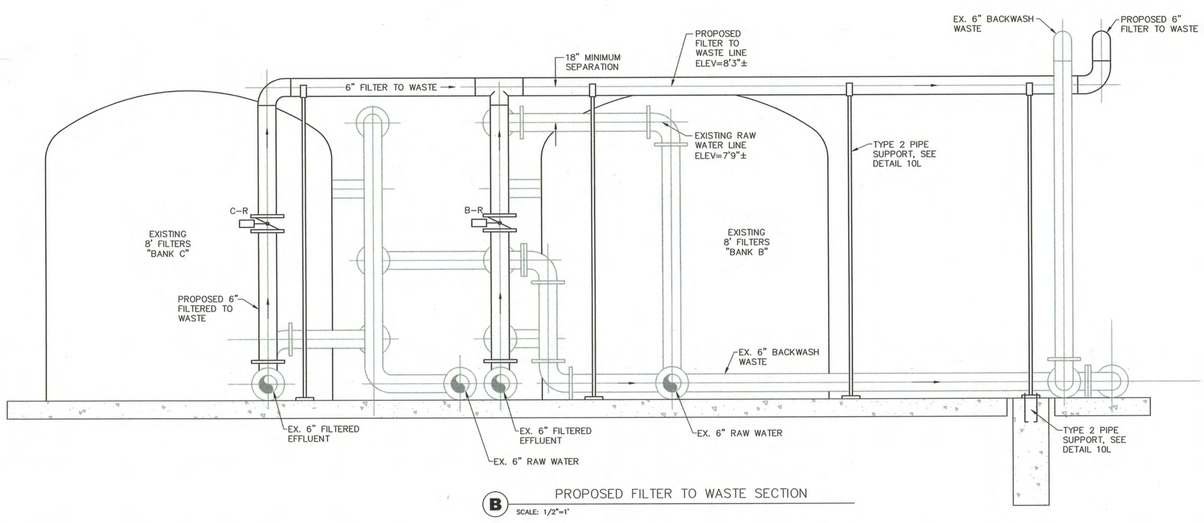
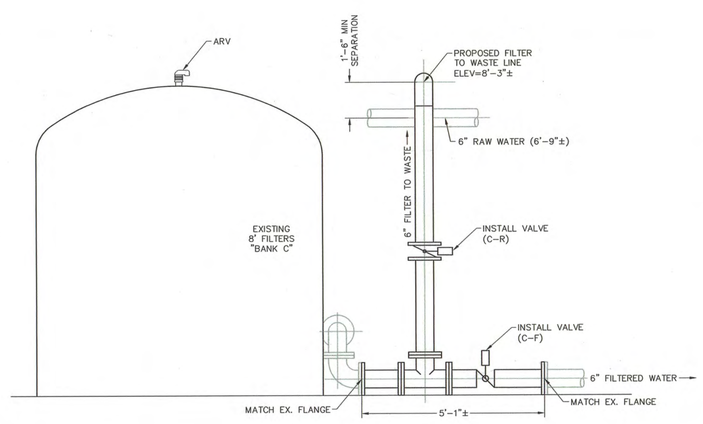
SB001



A PROPOSED FILTER BANK "D" ELEVATION
SCALE: 1/2"=1'



B PROPOSED FILTER TO WASTE SECTION
SCALE: 1/2"=1'



C RINSE TO WASTE SECTION BANK C
SCALE: 1/2"=1'
(BANK B SIMILAR)

LEGEND:

DRESSER COUPLING

DRESSER COUPLING WITH THRUST RESTRAINT

NOTES:

1. ALL ELEVATIONS AND LOCATIONS TO BE VERIFIED IN THE FIELD
2. APPERTUNANCES NOT SHOWN INCLUDE AIR VENTS, SURFACE TO WASH, ...

RECORD DRAWING

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REGISTERED PROFESSIONAL ENGINEER ALAN JAY dehaai C-054062 EXPIRES 12/31/01 Civil STATE OF CALIFORNIA

DATE SIGNED: _____

EST. 1952 PROVOST & PRITCHARD ENGINEERING GROUP
286 WEST CROMWELL AVENUE, FRESNO, CALIFORNIA 93711-6162
209/449-2700 FAX 209/449-2715

Job No.	9913100	Date Revised			
Dwg. No.	00-0217	Approval			

CITY OF LINDSAY
WATER FACILITIES IMPROVEMENT PROJECT
1999

PROPOSED FACILITIES SECTIONS

DESIGN ENGINEER AL DEHAAI
DATE 09-20-00 C.E. LICENSE NO. C-054062

SCALE: AS SHOWN
DRAWN BY: DCH
REVISED
SHEET: W-6

3/25/2002 11:16:03 AM G:\Dwg\9913\00\00-0217.dwg -BII

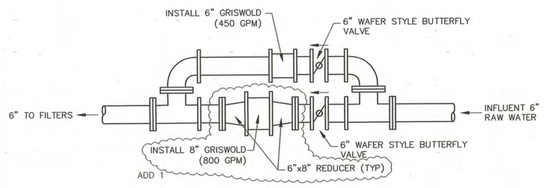
DRAWING NUMBER PW132-E000

DRAWING NUMBER

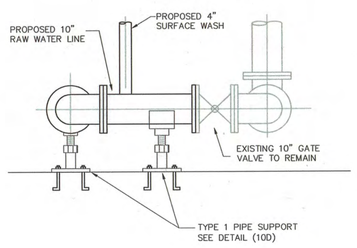
DRAWING NUMBER

8 OF 15

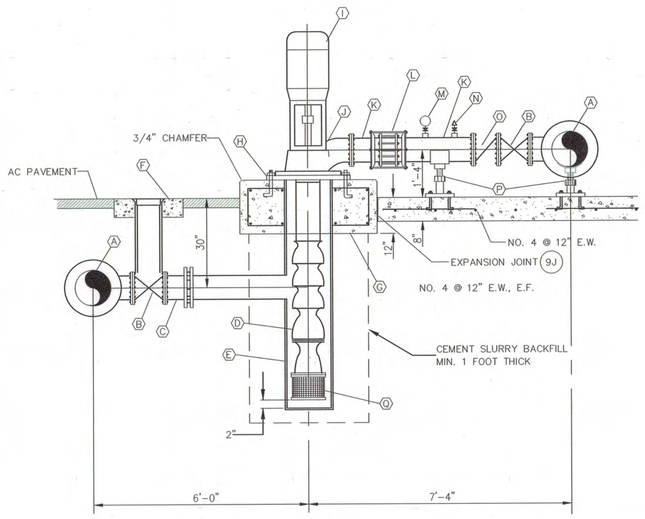
DRAWING NUMBE



D BANKS B&C FLOW CONTROLS
SCALE: 1/2"=1'



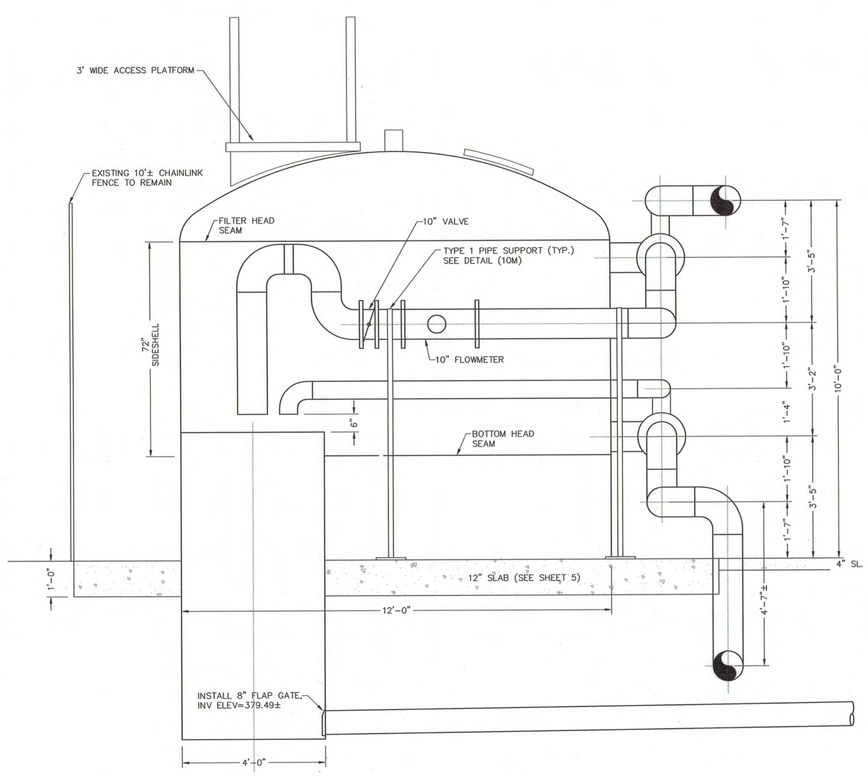
G PROPOSED BANK A CONNECTION
SCALE: 1/2"=1'



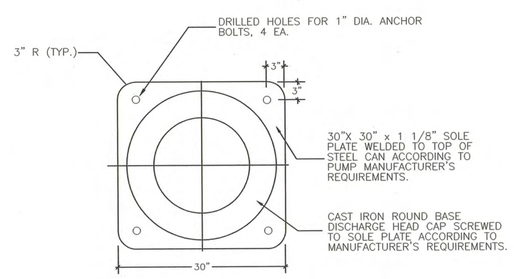
E BOOSTER PUMP SECTION
SCALE: 1/2"=1'

LEGEND

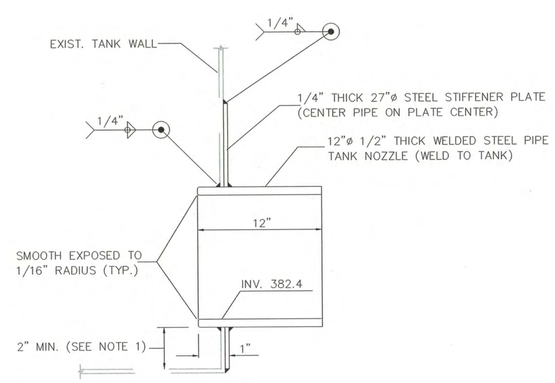
- (A) 12" x 8" TEE
- (B) 8" GATE VALVE FLANGED
- (C) 8" FLANGED ADAPTER WITH THRUST PINS
- (D) COLUMN AND BOWEL ASSEMBLY (32" MIN. COLUMN LENGTH)
- (E) 18" DIAMETER WELDED STEEL CAN WITH 8" PLAIN END SECTION
- (F) 13" VALVE FRAME COVER AND COLLAR (DETAIL 10K)
- (G) 4' x 16' RAISED PCC PUMP PEDESTAL (SEE GRADING PLANS)
- (H) SOLE PLATE WELDED TO CAN (SEE DETAIL 7A)
- (I) MOTOR
- (J) CAST IRON DISCHARGE HEAD
- (K) 8" DIP FLANGE BY PLAIN END
- (L) FLEX COUPLING WITH THRUST RESTRAINT COLLARS & BOLTS
- (M) PRESSURE GAUGE WITH VALVE COCK (1/2" NPT) (0-150 PSI)
- (N) PRESSURE RELEASE VALVE WITH COCK (1" NPT) (100 PSI)
- (O) 8" SILENT CHECK VALVE, GLOBE STYLE, FLANGED
- (P) ADJUSTABLE PIPE SUPPORT (SEE DETAIL 10D)
- (Q) SUCTION BELL AND BASKET STRAINER



F BANK D RINSE SECTION
SCALE: 1/2"=1'



7A SOLE PLATE DETAIL
N.T.S.



7B SURGE TANK NOZZLE
N.T.S.

1. IF PIPE INVERT OF 382.4 CANNOT BE MET WITH MIN. CLEARANCE OF 2", RAISE INVERT TO MATCH 2" CLEARANCE.
2. ALIGN PIPE CENTER TO CENTER OF 27" PLATE. TRIM LOWER PORTION AS NEEDED AT TANK BOTTOM FOR WELDING.
3. RECOAT SURFACE AREAS OF TANK AND PIPE DAMAGED BY INSTALLATION OF NOZZLE.
4. CONNECT YARD PIPING TO NOZZLE USING A FLANGED COUPLING ADAPTER WITH THRUST RESTRAINT PINS.

RECORD DRAWING

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REGISTERED PROFESSIONAL ENGINEER ALAN JAY GRAHAM C-054062 EXPIRES 12/31/03 Civil STATE OF CALIFORNIA

DATE SIGNED: _____

EST. 1968
PROVOST & PRITCHARD
ENGINEERING GROUP
286 WEST CROMWELL AVENUE
FRESNO, CALIFORNIA 93711-6162
209/449-2700 FAX 209/449-2715

Job No.	9913100	Date Revised			
Dwg. No.	00-0217	Approval			

CITY OF LINDSAY
WATER FACILITIES IMPROVEMENT PROJECT
1999

PROPOSED FACILITIES SECTIONS

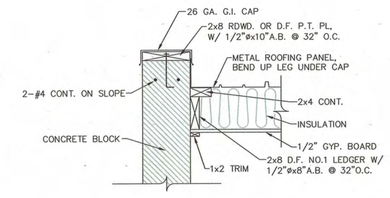
DESIGN ENGINEER AL DEHAAI
DATE 09-20-00 C.E. LICENSE NO. C-054062

SCALE AS SHOWN
DRAWN BY DCH
REVISED
SHEET W-7

3/25/2002 11:20:32 AM G:\Dwg\1999\9913100\00-0217.dwg -BB

SB001

DRAWING NUMBER PW0133-E.DDD
DRAWING NUMBER
DRAWING NUMBER
7 OF 15



B END WALL
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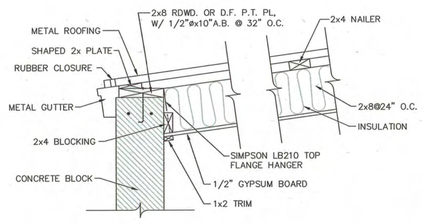
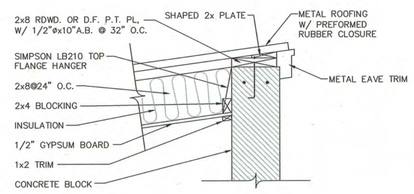


C LOW EAVE
SCALE: 1"=1'



D HIGH EAVE
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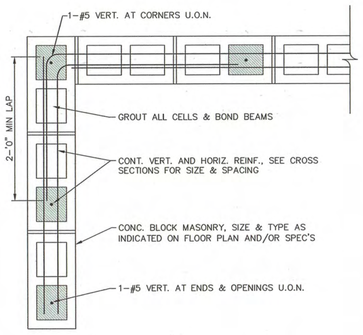
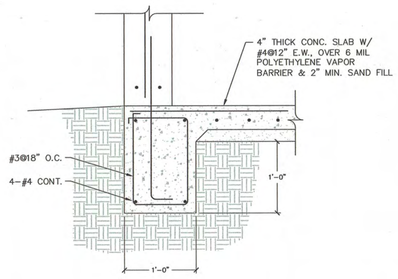


E TYPICAL CONCRETE BLOCK
SCALE: 1"=1'



F TYPICAL FOOTING DETAIL
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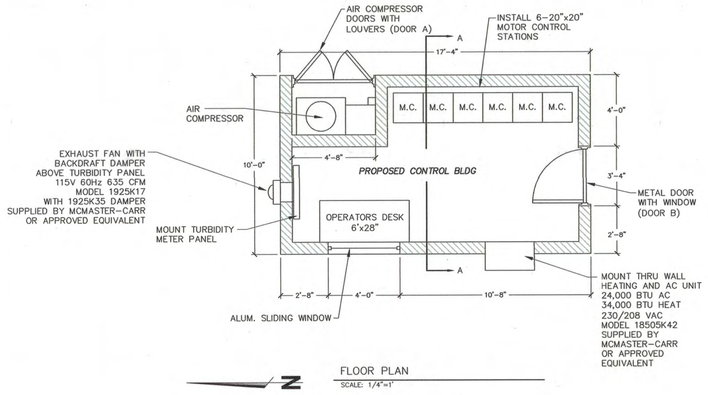
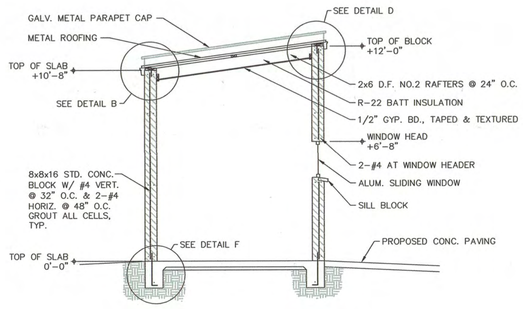
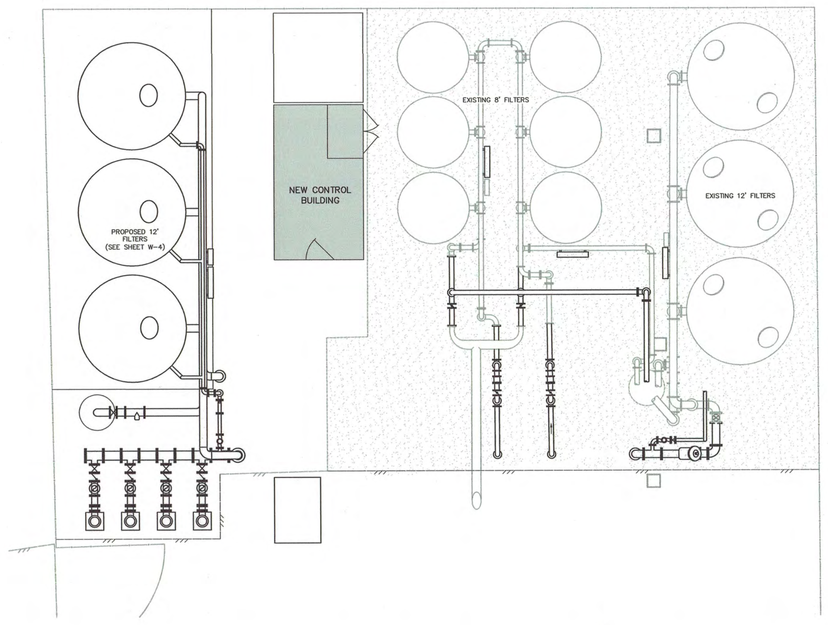


FLOOR PLAN
SCALE: 1/4"=1'



A CROSS SECTION
SCALE: 1/4"=1'



PARTIAL SITE PLAN
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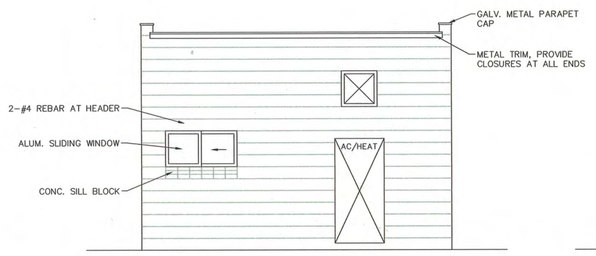
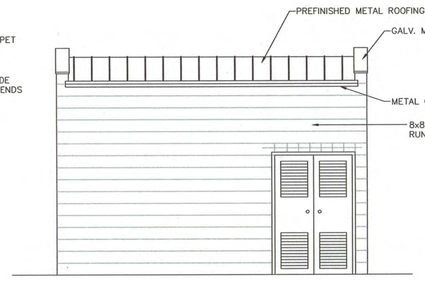
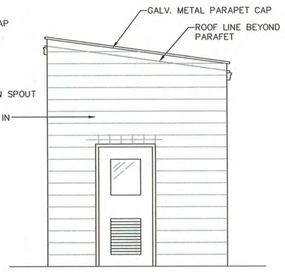


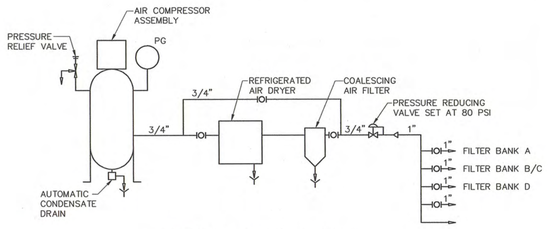
WEST VIEW ELEVATION
SCALE: 1/4"=1'



EAST VIEW ELEVATION
SCALE: 1/4"=1'



NORTH VIEW ELEVATION
SCALE: 1/4"=1'



COMPRESSED AIR PIPING SCHEMATIC
NTS

RECORD DRAWING

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REGISTERED PROFESSIONAL ENGINEER ALAN JAY dePAZ C-054062 EXPIRES 12/31/00 Civil STATE OF CALIFORNIA

DATE SIGNED: _____

EST. 1952
PROVOST & PRITCHARD ENGINEERING GROUP
286 WEST CROMWELL AVENUE
FRESNO, CALIFORNIA 93711-6162
209/449-2700 FAX 209/449-2715

CITY OF LINDSAY
WATER FACILITIES IMPROVEMENT PROJECT
1999

CONTROL BUILDING PLAN

DESIGN ENGINEER AL DEHAAI
DATE 09-20-00 C.E. LICENSE NO. C-054062

Job No.	9913100	Date Revised	
Dwg. No.	00-0053	Approval	

SCALE: AS SHOWN
DRAWN BY: DCH
REVISED
SHEET: W-8

SB001

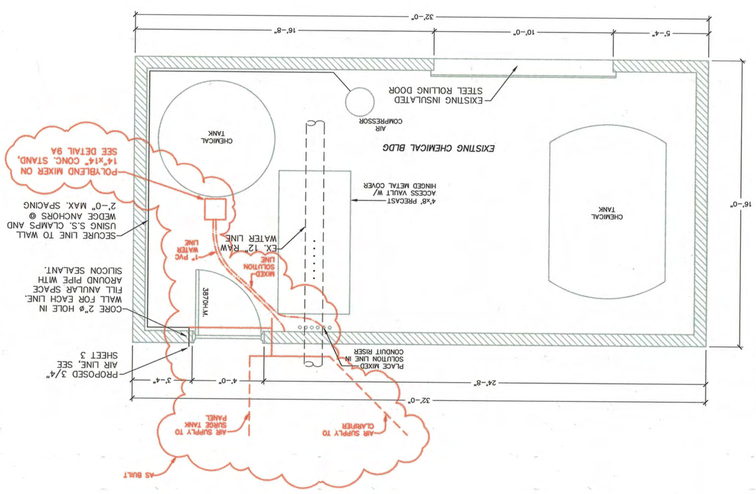
3/25/2002 11:24:57 AM G:\Dwg\9913100\00-0053.dwg -BB

DRAWING NUMBER PW131-E0DD
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 1001

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 1001

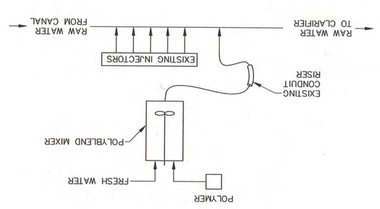
10 of 15

DRAWING NUMBER
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 1001



EXISTING FLOOR PLAN

SCALE 1/4"=1'



POLYBLEND SCHEMATIC

RECORD DRAWING

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DATE SIGNED

PROFESSIONAL ENGINEER REGISTERED STATE OF CALIFORNIA C-054062 CIVIL GAVIN W. WONG

CITY OF LINDSAY
WATER FACILITIES IMPROVEMENT PROJECT
1999

EXISTING CHEMICAL BUILDING

SCALE	DRAWN BY	REVISED
AS SHOWN	DCH	

PROVOST & PRITCHARD ENGINEERING GROUP
286 WEST CROMWELL AVENUE
FRESNO, CALIFORNIA 93711-6162
209/449-2700 FAX 209/449-2715

DESIGN ENGINEER AL DEHAVI
DATE 09-20-00 C.E. LICENSE NO. C-054062

Job No.	00-0052	Date Revised			
Dwg. No.	991310D	Approved			

SHEET W-9

DRAWING NUMBER PW135-E000

DRAWING NUMBER

DRAWING NUMBER

11 OF 15

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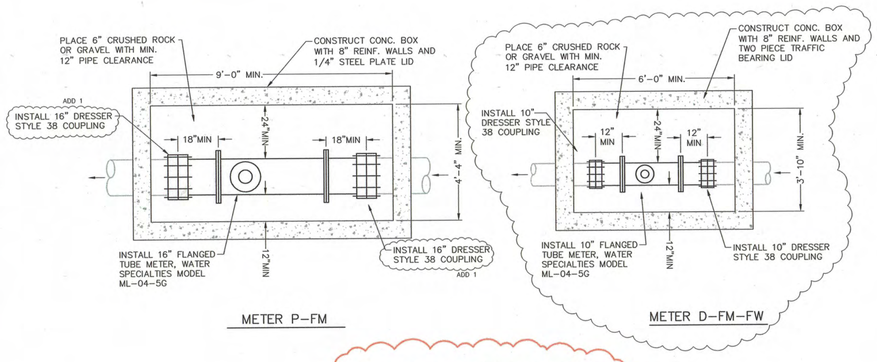
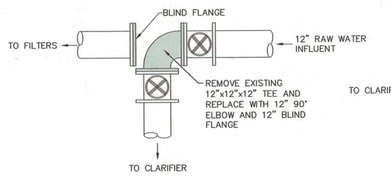


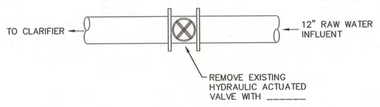
METER P-FM

METER D-FM-FW

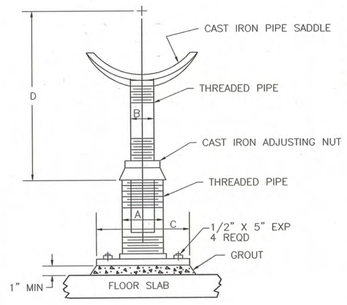
10A ~~EFFLUENT~~ FLOW METER DETAIL
SCALE: 3/8"=1'



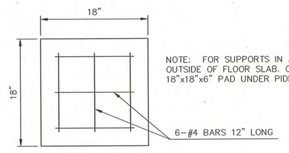
10B INFLUENT BYPASS DETAIL
SCALE: 3/8"=1'



10C CLARIFIER VALVE DETAIL
SCALE: 3/8"=1'

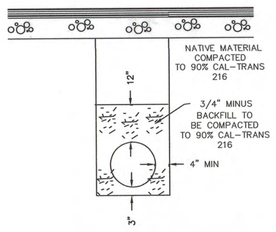


DIMENSIONS (INCHES)					
PIPE SIZE	"A"	"B"	"C"	"D" MIN	"D" MAX
2 1/2"	2 1/2"	1 1/2"	9	8	13
3"	2 1/2"	1 1/2"	9	8 1/4"	13 1/4"
4"	3"	2 1/2"	9	9 1/4"	14
6"	3"	2 1/2"	9	10 1/2"	15 1/4"
8"	3"	2 1/2"	9	11 3/4"	16 1/2"
10"	3"	2 1/2"	9	13 1/2"	18 1/4"
12"	3"	2 1/2"	9	15"	19 3/4"

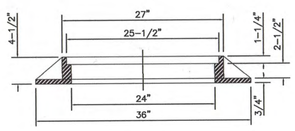


NOTE: FOR SUPPORTS IN AREAS OUTSIDE OF FLOOR SLAB. CONSTRUCT 18"x18"x6" PAD UNDER PIDE SUPPORT.

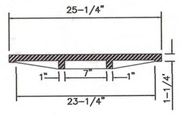
10D TYPE 1 PIPE SUPPORT DETAIL
SCALE: NTS



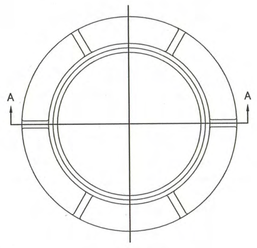
10E TRENCH DETAIL
SCALE: NTS



SECTION A-A
SCALE 1" = 1-0"

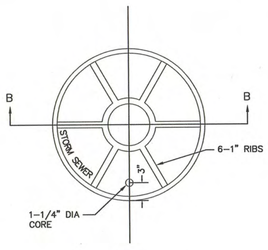


SECTION B-B
SCALE 1" = 1-0"



PLAN
SCALE 1" = 1-0"

MANHOLE FRAME

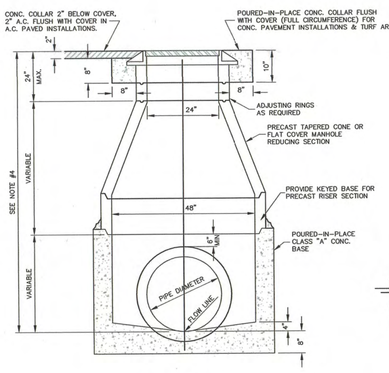


PLAN
SCALE 1" = 1-0"

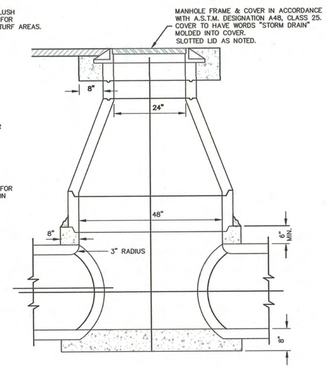
MANHOLE COVER

NOTE
1. ALL DIMENSIONS ARE FINISHED DIMENSIONS.
2. MATERIAL SHALL BE CAST IRON.
3. FRAME AND COVER TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM DESIGNATION A48, CLASS 25.
4. MANHOLE COVER DESIGN, AS A MINIMUM, IS TO HAVE THE WORDS "STORM SEWER" OR "STORM DRAIN" MOLDED INTO THE COVER.

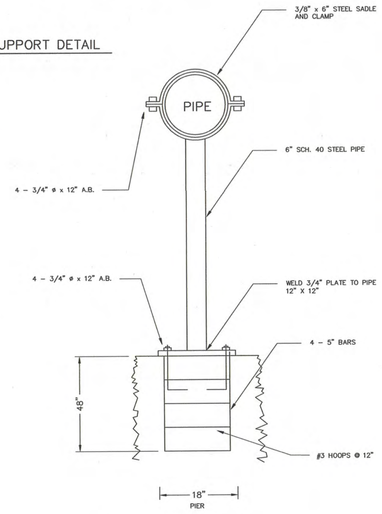
10F MANHOLE DETAIL
SCALE: NTS



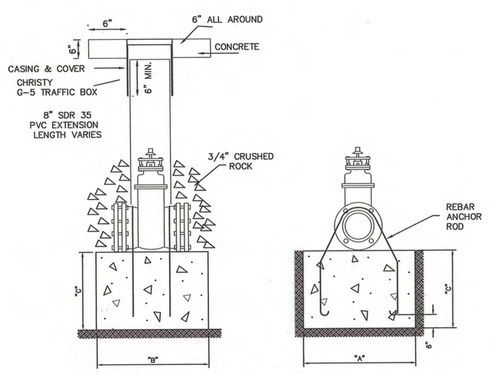
SECTION X-X
N.T.S.



SECTION Y-Y
N.T.S.



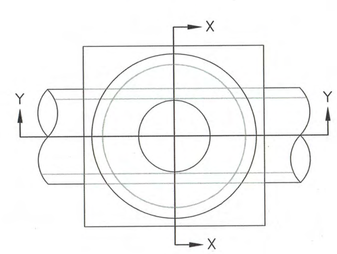
10L TYPE 2 PIPE SUPPORT
SCALE: NTS



ALL ANCHOR RODS TO BE PAINTED WITH RUST INHIBITING PAINT.
ALL FITTINGS TO BE WRAPPED IN 4 MIL. VISQUEEN

ANCHOR ROD SIZE	VALVE SIZE	150 P.S.I "A"	"B"	"C"
5/8"	6" & 8"	2'-0"	2'-0"	2'-0"
5/8"	10"	2'-6"	2'-6"	2'-6"
3/4"	12"	3'-0"	3'-0"	2'-8"
1"	14"	3'-5"	3'-0"	3'-0"
1 1/8"	16"	4'-4"	3'-0"	3'-0"
1 1/4"	18"	5'-5"	3'-0"	3'-0"
1 3/8"	24"	6'-5"	4'-0"	4'-0"

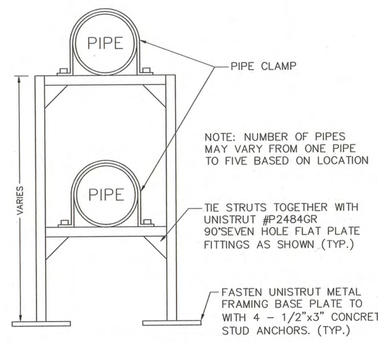
10H VALVE THRUST BLOCKING DETAIL
SCALE: NTS



PLAN
N.T.S.

1. PRECAST PIPE, ADJUSTING RINGS AND TAPERED SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH A.S.T.M. C-478, USING TYPE II CEMENT.
2. ALL JOINTS BETWEEN PRECAST SECTIONS SHALL BE MORTARED.
3. INTERIOR OF THE MANHOLE SHALL HAVE A SMOOTH TROWELED SURFACE.
4. IF THE DISTANCE BETWEEN THE FLOW LINE OF THE MANHOLE AND THE FINISH GRADE OF THE LID IS GREATER THAN OR EQUAL TO 12 FEET, THE MANHOLE IS TO BE CONSTRUCTED, WITH STEPS.

10G CONCENTRIC STORM DRAIN MANHOLE
SCALE: NTS

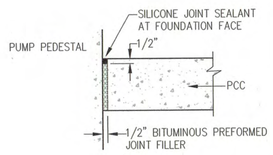


NOTE: NUMBER OF PIPES MAY VARY FROM ONE PIPE TO FIVE BASED ON LOCATION

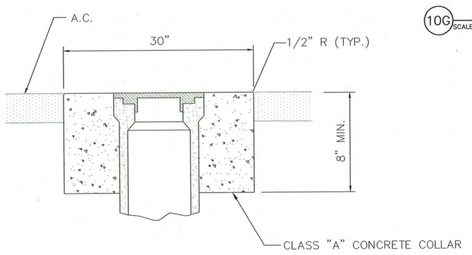
TIE STRUTS TOGETHER WITH UNISTRUT #P2484GR 90°SEVEN HOLE FLAT PLATE FITTINGS AS SHOWN (TYP.)

FASTEN UNISTRUT METAL FRAMING BASE PLATE TO WITH 4 - 1/2"x3" CONCRETE STUD ANCHORS. (TYP.)

10M TYPE 3 PIPE SUPPORT
SCALE: NTS



10J EXPANSION JOINT
SCALE: NTS



10K VALVE COLLAR
SCALE: NTS

RECORD DRAWING

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REGISTERED PROFESSIONAL ENGINEER ALAN JAY AMIRAN C-054062 EXPIRES 12/31/01 Civil STATE OF CALIFORNIA

DATE SIGNED: _____

EST. 1888
PROVOST & PRITCHARD ENGINEERING GROUP
286 WEST CROMWELL AVENUE
FRESNO, CALIFORNIA 93711-6162
209/449-2700 FAX 209/449-2715

Job No. 9913100
Dwg. No. 00-0217

WATER FILTRATION PLANT
for
CITY OF LINDSAY
TULARE COUNTY

DETAILS

SCALE: AS SHOWN
DRAWN BY: DCH
REVISED

DESIGN ENGINEER AL DEHAAI
DATE 09-20-00 C.E. LICENSE NO. C-054062

Date Revised
Approval

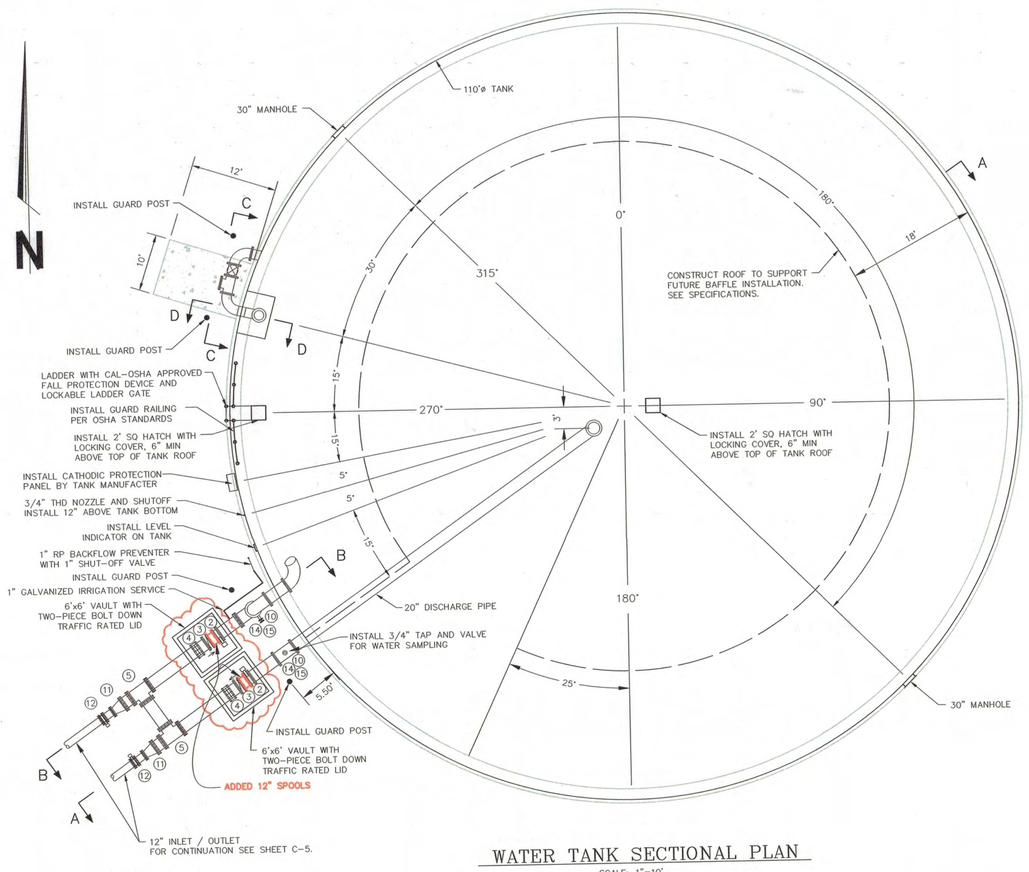
SHEET W-10

3/25/2002 11:15:03 AM Q:\9913100\00-0217.dwg -#8-

DRAWING NUMBER
PW1316 E000
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 10501

DRAWING NUMBER

DRAWING NU

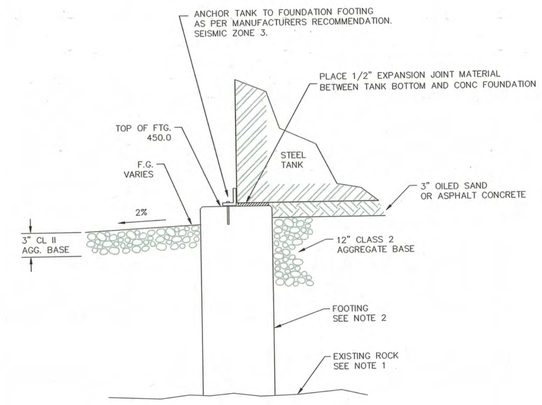


WATER TANK SECTIONAL PLAN

SCALE: 1"=10'

FITTING LEGEND

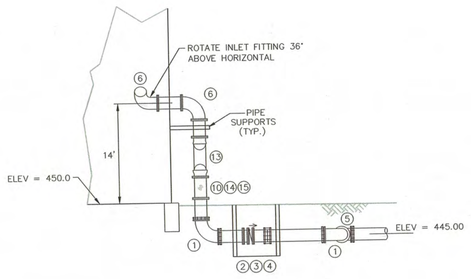
1. 20" DIP MJ 90° ELL
2. 20" FLG BUTTERFLY VALVE
3. 20" FLG DUAL DISC CHECK VALVE (APCO SERIES 9000)
4. 20" DRESSER COUPLING
5. 20" DIP FLG TEE
6. 20" DIP FLG 90° ELL
7. 16" DIP FLG 90° ELL
8. 16" FLG GATE VALVE
9. 16" DIP FLG TEE
10. 20" x 3" FLG REDUCER TEE
11. 20" x 12" MJ REDUCER
12. 12" MJ BUTTERFLY VALVE
13. 20" FLEX-TEND COUPLING
14. 3" FLG GATE VALVE
15. 3" BLIND FLANGE



1. EXISTING ROCK DEPTH AT PROPOSED FOOTING IS 3.0' AT 270°AND 2.5' AT 225° AND 315°. EXTEND FOOTING TO SOLID ROCK AROUND THE FULL PERIMETER OF THE TANK.
2. FOOTING / FOUNDATION DESIGN BY TANK MANUFACTURER. SEISMIC ZONE 3.

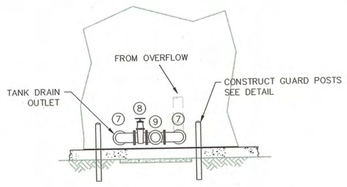
FOOTING DETAIL

N.T.S.



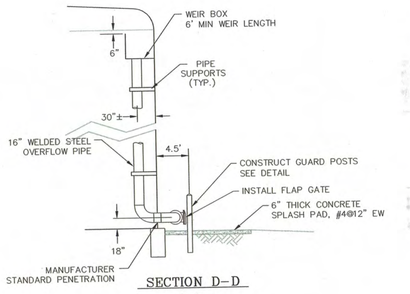
SECTION B-B

N.T.S.



SECTION C-C

N.T.S.



SECTION D-D

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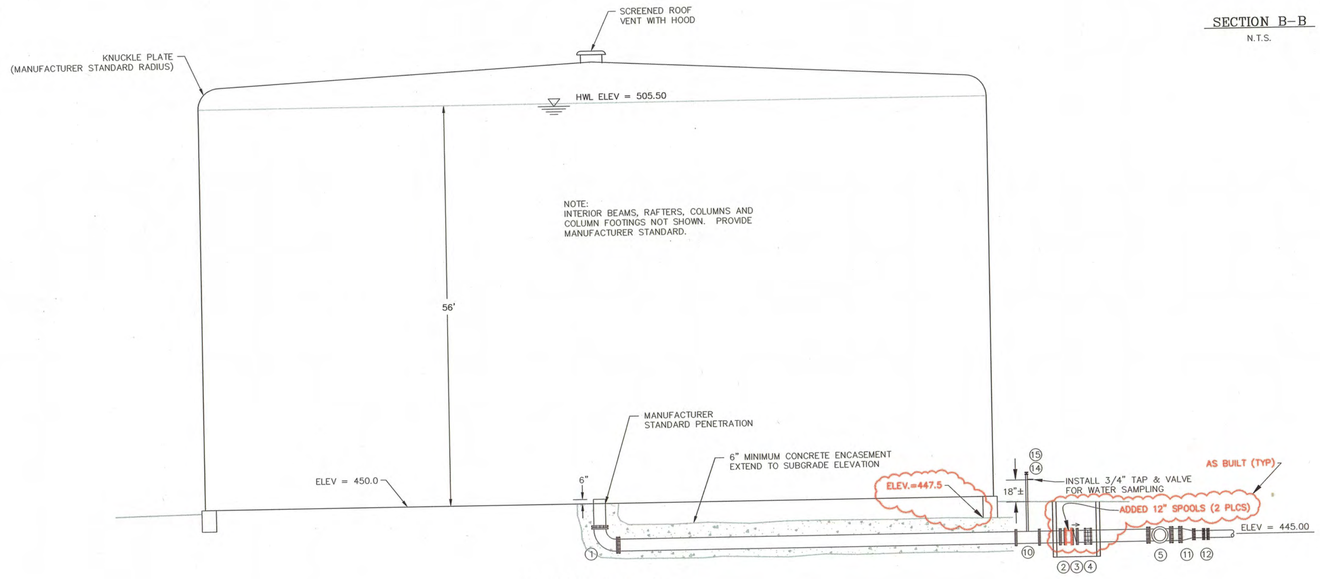
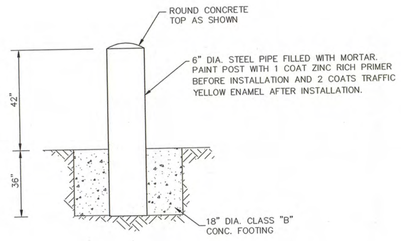


SECTION A-A

SCALE: 1"=10'



GUARD POST DETAIL

N.T.S.

RECORD DRAWING

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REGISTERED PROFESSIONAL ENGINEER — ALAN JAY GHIRARDI — C-054062 — EXPIRES: 12/31/02 — CIVIL — STATE OF CALIFORNIA

DATE SIGNED: _____

EST. 1959 PROVOST & PRITCHARD ENGINEERING GROUP
286 WEST CROMWELL AVENUE
FRESNO, CALIFORNIA 93711-6162
209/449-2700 FAX 209/449-2715

Job No.	9913100
Dwg. No.	00-0094

CITY OF LINDSAY
WATER FACILITIES IMPROVEMENT PROJECT
1999

WATER TANK

TANK DETAILS

DESIGN ENGINEER AL DEHAAI
DATE 09-20-00 C.E. LICENSE NO. C-054062

Date Revised
Approval

SCALE: AS NOTED
DRAWN BY: DKB
REVISED
SHEET: W-11

3/22/2002 4:10:48 PM O:\Dwg's\Water\Tank Details.dwg

DRAWING NUMBER: PW137-E000

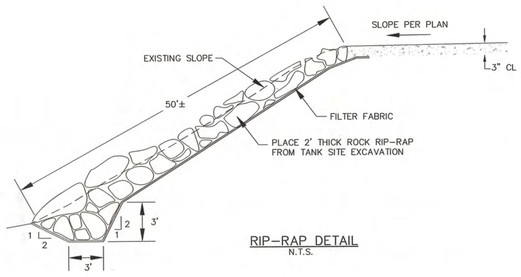
13 OF 15

DRAWING NUMBER

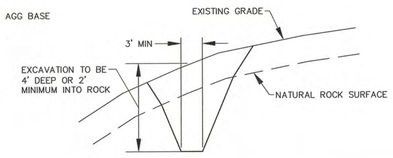
DRAWING NUMBER

DRAWN

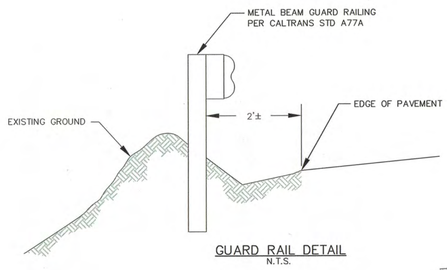
SAFCO PRODUCTS • 800/328-6561



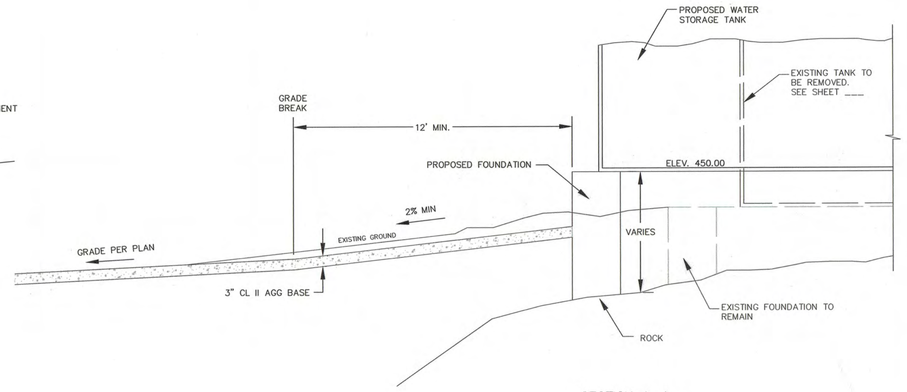
RIP-RAP DETAIL
N.T.S.



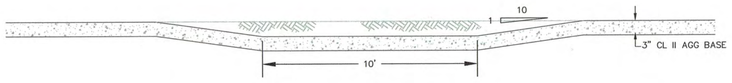
TREE EXCAVATION DETAIL
N.T.S.



GUARD RAIL DETAIL
N.T.S.



SECTION A-A
N.T.S.



SECTION C-C
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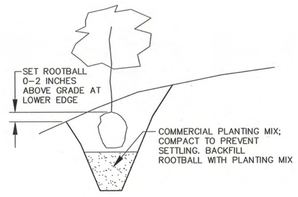
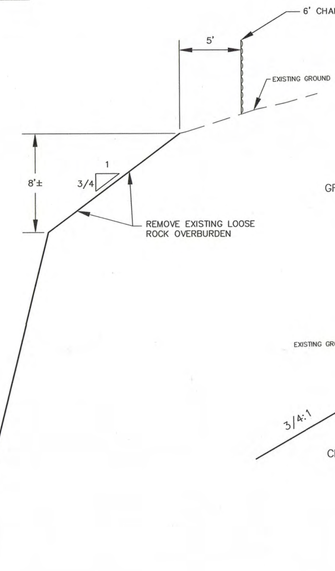
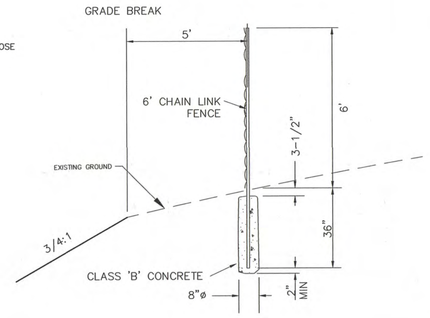
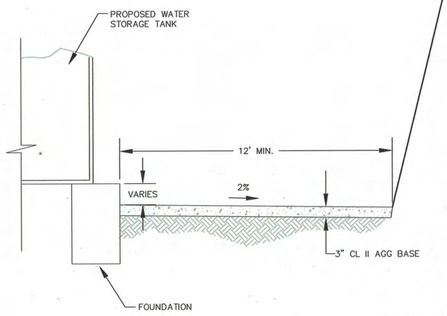


TREE PLANTING
N.T.S.

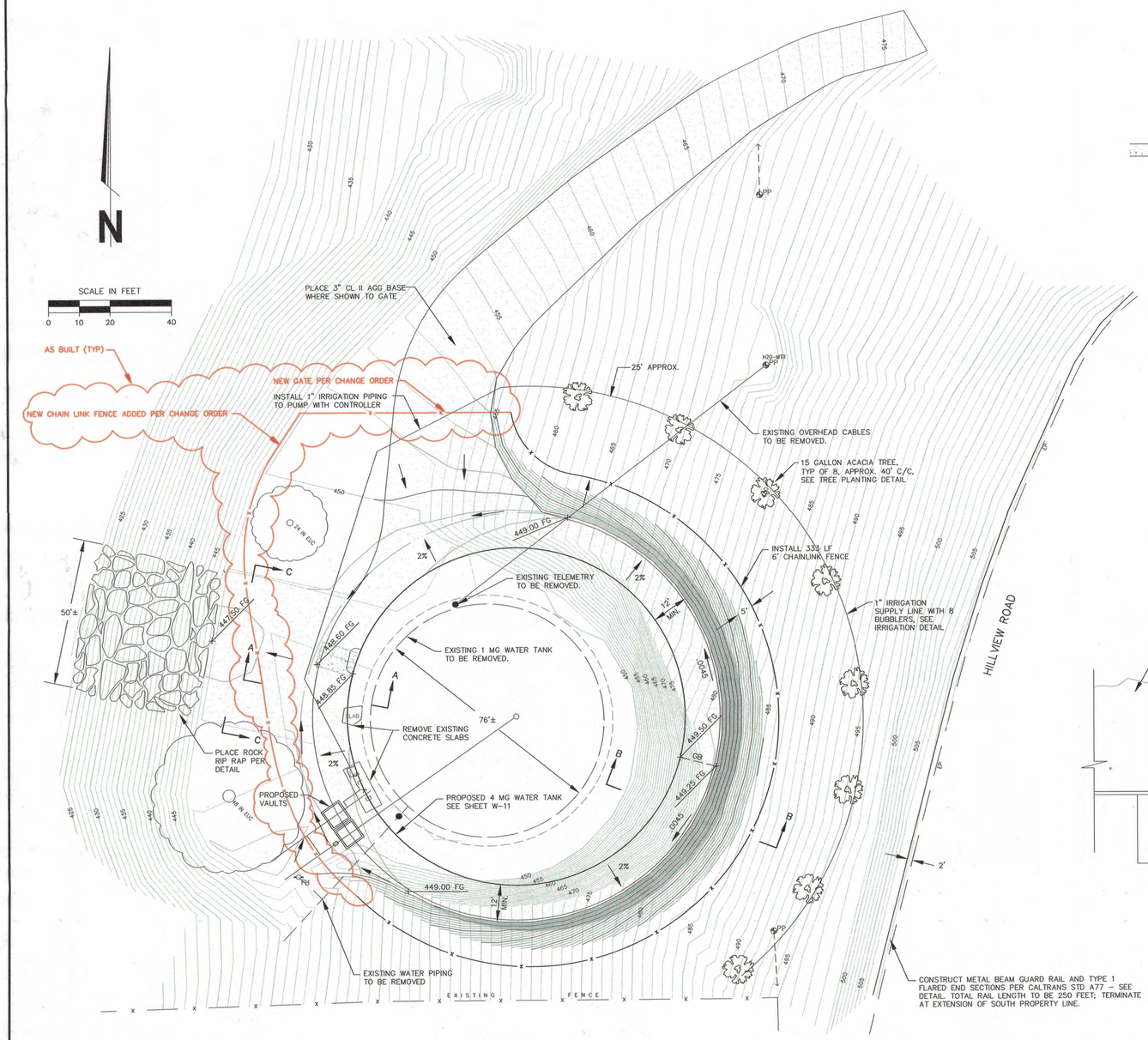




CHAINLINK FENCE DETAIL
N.T.S.



SECTION B-B
N.T.S.



PLAN VIEW
1"=20'

RECORD DRAWING

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REGISTERED PROFESSIONAL ENGINEER ALAN JAY GRUBAY C-054062 EXPIRES 12/31/00 Civil STATE OF CALIFORNIA

DATE SIGNED: _____

NOTES
1. EXISTING WATER STORAGE TANK TO REMAIN IN SERVICE UNTIL NOVEMBER 1, 2000.
2. CITY STAFF TO DRAIN EXISTING TANK.
3. INTERNAL AND EXTERNAL COATINGS ON EXISTING TANK CONTAIN CONCENTRATIONS OF LEAD. REMOVE LOOSE COATING AND DISPOSE IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS.
4. EXISTING TANK, VALVES, FITTINGS, AND APPURTENANCES TO BECOME PROPERTY OF CONTRACTOR. REMOVE AND DISPOSE.
5. EXISTING TANK FOOTING AND PAD TO BE REMOVED OR LEFT IN PLACE AT THE OPTION OF THE CONTRACTOR.

EST. 1969
PROVOST & PRITCHARD
ENGINEERING GROUP
286 WEST CROMWELL AVENUE
FRESNO, CALIFORNIA 93711-6162
209/449-2700 FAX 209/449-2715

Job No.	9913100
Dwg. No.	00-0093

CITY OF LINDSAY
WATER FACILITIES IMPROVEMENT PROJECT
1999

WATER TANK

GRADING AND DRAINAGE PLAN

DESIGN ENGINEER AL DEHAAI
DATE 09-20-00 C.E. LICENSE NO. C-054062

Date Revised				
Approval				

SCALE
DRAWN BY
REVISED
SHEET W-12

3/22/2002 4:11:27 PM G:\Dwg\9913100\00-0093.dwg -Bill

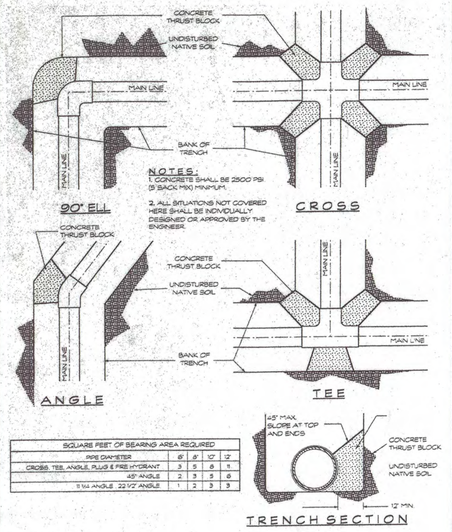
SB001

DRAWING NUMBER
PW138-E000

DRAWING NUMBER

DRAWING NUMBER

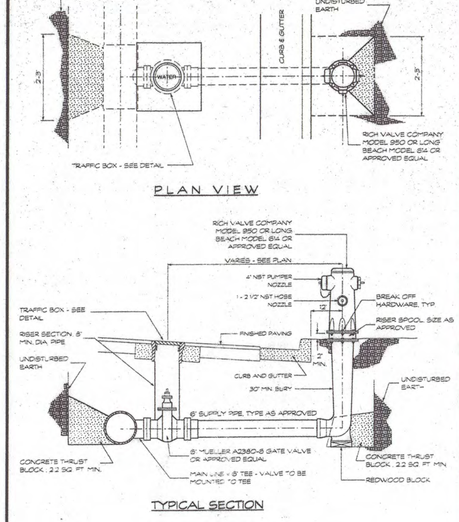
14 OF 15



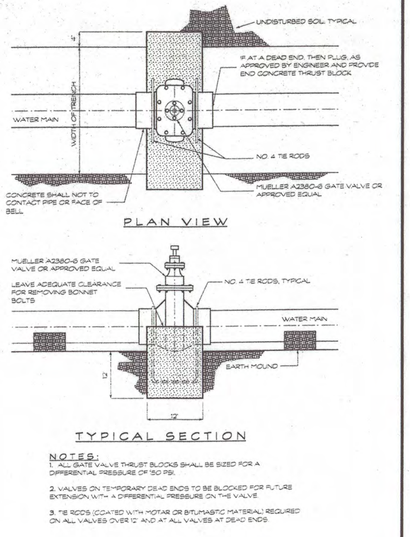
NOTES:
1. CONCRETE SHALL BE 2500 PSI (5 SACK MIX) MINIMUM.
2. ALL SITUATIONS NOT COVERED HERE SHALL BE INDIVIDUALLY DESIGNED OR APPROVED BY THE ENGINEER.

SQUARE FEET OF BEARING AREA REQUIRED				
PIPE DIAMETER	6"	8"	12"	12"
CROSS, TEE, ANGLE, PLUG & FIRE HYDRANT	3	5	8	11
45° ANGLE	2	3	5	8
11¼ ANGLE, 22½° ANGLE	1	2	3	3

CITY OF LINDSAY | Concrete Thrust Block Detail | WA-1

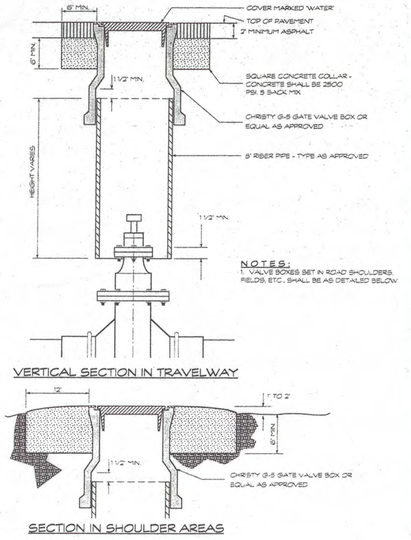


CITY OF LINDSAY | Fire Hydrant Assembly | WA-2



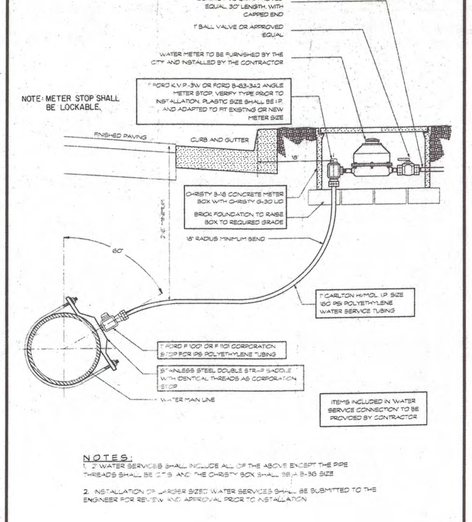
NOTES:
1. ALL GATE VALVE THRUST BLOCKS SHALL BE SIZED FOR A DIFFERENTIAL PRESSURE OF 150 PSI.
2. VALVES ON TEMPORARY DEAD ENDS TO BE BLOCKED FOR FUTURE EXTENSION WITH A DIFFERENTIAL PRESSURE ON THE VALVE.
3. TIE RODS (COATED WITH MOTAR OR BITUMASTIC MATERIAL) REQUIRED ON ALL VALVES OVER 12" AND AT ALL VALVES AT DEAD ENDS.

CITY OF LINDSAY | Gate Valve | WA-3



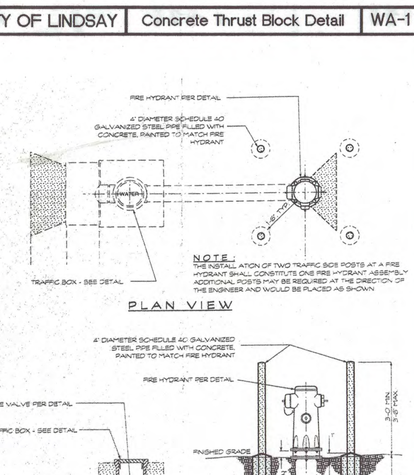
NOTES:
1. VALVE BOXES SET IN ROAD SHOULDERS, FIELDS, ETC., SHALL BE AS DETAILED BELOW

CITY OF LINDSAY | Valve Access Box | WA-4



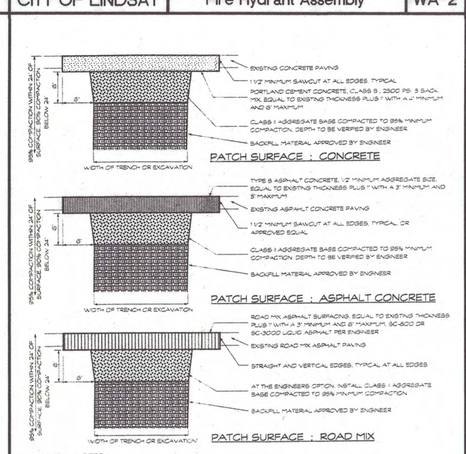
NOTES:
1. 2" WATER SERVICES SHALL INCLUDE ALL OF THE ABOVE EXCEPT THE PIPE THREADS SHALL BE 2" IPS AND THE CHRISTY BOX SHALL BE B-30 SIZE
2. INSTALLATION OF LARGER SIZED WATER SERVICES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION

CITY OF LINDSAY | 1" Water Service | WA-5



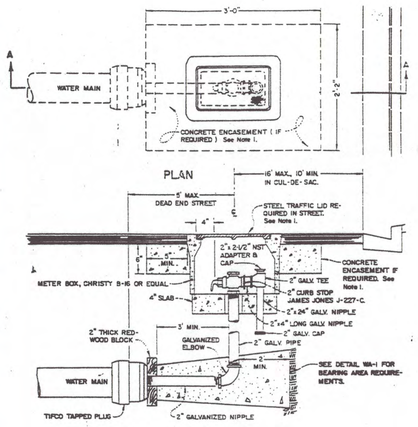
NOTE:
THE INSTALLATION OF TWO TRAFFIC BOX POSTS AT A FIRE HYDRANT SHALL CONSTITUTE ONE FIRE HYDRANT ASSEMBLY. ADDITIONAL POSTS MAY BE REQUIRED AT THE DIRECTION OF THE ENGINEER AND WOULD BE PLACED AS SHOWN

CITY OF LINDSAY | Fire Hydrant Protection Assembly | WA-8



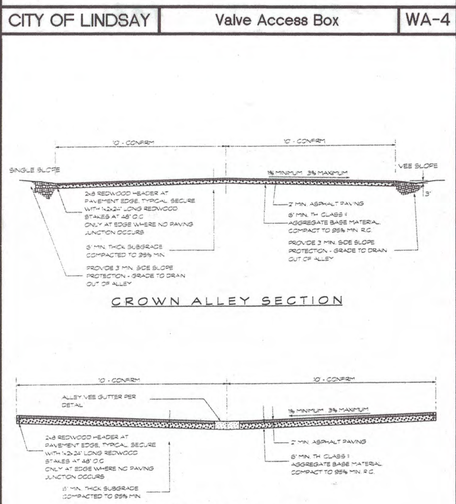
GENERAL NOTES:
1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS.
2. SUITABILITY OF BACKFILL MATERIAL SHALL BE AT THE DISCRETION OF THE ENGINEER.
3. BACKFILL COMPACTION OUTSIDE OF ROADWAY OR ALLEYWAY STRUCTURAL SECTION SHALL BE 90% MINIMUM (EXAMPLE: BEHIND BACK OF CURB OR WITHIN EASEMENTS.)
4. DESCRIBED GRANITE FROM SOURCE APPROVED BY THE ENGINEER MAY BE SUBSTITUTED FOR CLASS I BASE WITH A 0% INCREASE IN THE REQUIRED BASE THICKNESS AND 95% COMPACTION IN THE BASE. THE SUBSTITUTION COULD ONLY BE ALLOWED IN MINOR COLLECTOR, LOCAL OR CUL-DE-SAC ROADWAYS AND IN ALLEYS AND WOULD REQUIRE APPROVAL OF THE CITY ENGINEER. THIS SUBSTITUTION WILL NOT BE ALLOWED WITH MAJOR COLLECTOR OR ARTERIAL ROADWAYS.
5. SAWCUTS OR VERTICAL EDGES SHALL BE MADE PARALLEL TO, OR AT RIGHT ANGLES TO, THE CENTERLINE OF THE ROADWAY OR ALLEYWAY.
6. PATCHES LESS THAN TWO FEET (2) FROM EXISTING PATCHES, EDGES OF PAVEMENT OR GUTTER SHALL BE EXTENDED TO INCLUDE THE INTERMEDIATE ISOLATION STRIP OF EXISTING PAVEMENT.

CITY OF LINDSAY | Pavement Patches | ST-20

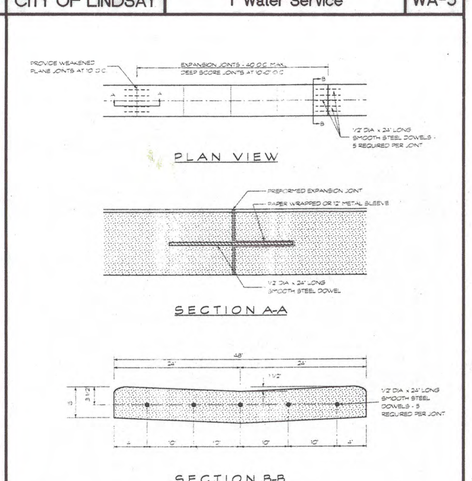


NOTES:
1. CONCRETE ENCASEMENT AND STEEL TRAFFIC LIDS REQUIRED FOR ALL PERMANENT INSTALLATIONS SUBJECT TO TRAFFIC.
2. CURB STOP KEY SHALL BE ALIGNED TO SIDE AS SHOWN.
3. ALL PIPE ENCASED IN CONCRETE TO BE PAINTED WITH RUST RESISTANT PAINT AND WRAPPED WITH PLASTIC TAPE.

CITY OF LINDSAY | Blow Off | WA-6

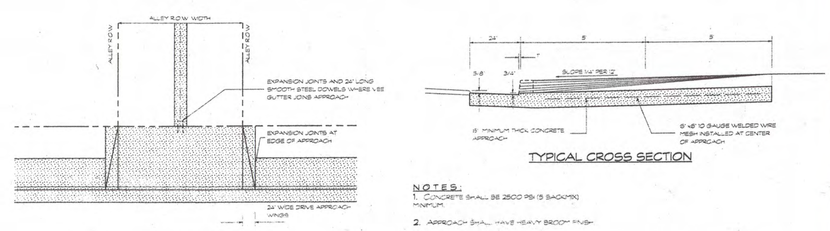


CITY OF LINDSAY | Alley Sections |



NOTES:
1. CONCRETE SHALL BE 2500 PSI (5 SACK MIX)
2. GUTTER SHALL HAVE LIGHT BROOM FINISH
3. CURING COMPOUND SHALL BE APPLIED AS DIRECTED BY THE ENGINEER

CITY OF LINDSAY | 48" Concrete Cross Gutter |



NOTES:
1. CONCRETE SHALL BE 2500 PSI (5 SACK MIX) MINIMUM.
2. APPROACH SHALL HAVE HEAVY BROOM FINISH.
3. CURING COMPOUND SHALL BE APPLIED AS DIRECTED BY THE ENGINEER.

CITY OF LINDSAY | Alley Approach |

RECORD DRAWING

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DATE	BY	DESCRIPTION

REVISIONS

APPROVED BY: SEE ORIGINAL FOR SIGNATURE AND SEAL

PREPARED BY: Quad Knopf
5500 MING AVENUE
SUITE 410
BAKERSFIELD, CA 93309
TEL: (661) 835-8300
FAX: (661) 835-8311
DRW BY: C.E.L. & T.S. | CHK BY: G.E.M.

IMPROVEMENT PLAN FOR:
CITY OF LINDSAY WATER FACILITIES IMPROVEMENT PROJECT-1999
WATER LINE REPLACEMENT
Construction Details

DATE: SEPT. 2000
JOB NO. 99197
DWG. NAME: 99197DET.DWG
SCALE: NOT TO SCALE
SHEET NO.: W-13

L:\Projects\1999\99197\99197c\Acad\TOPO-C\99197det.dwg 07/21/00 06:51:13 AM AM PDT