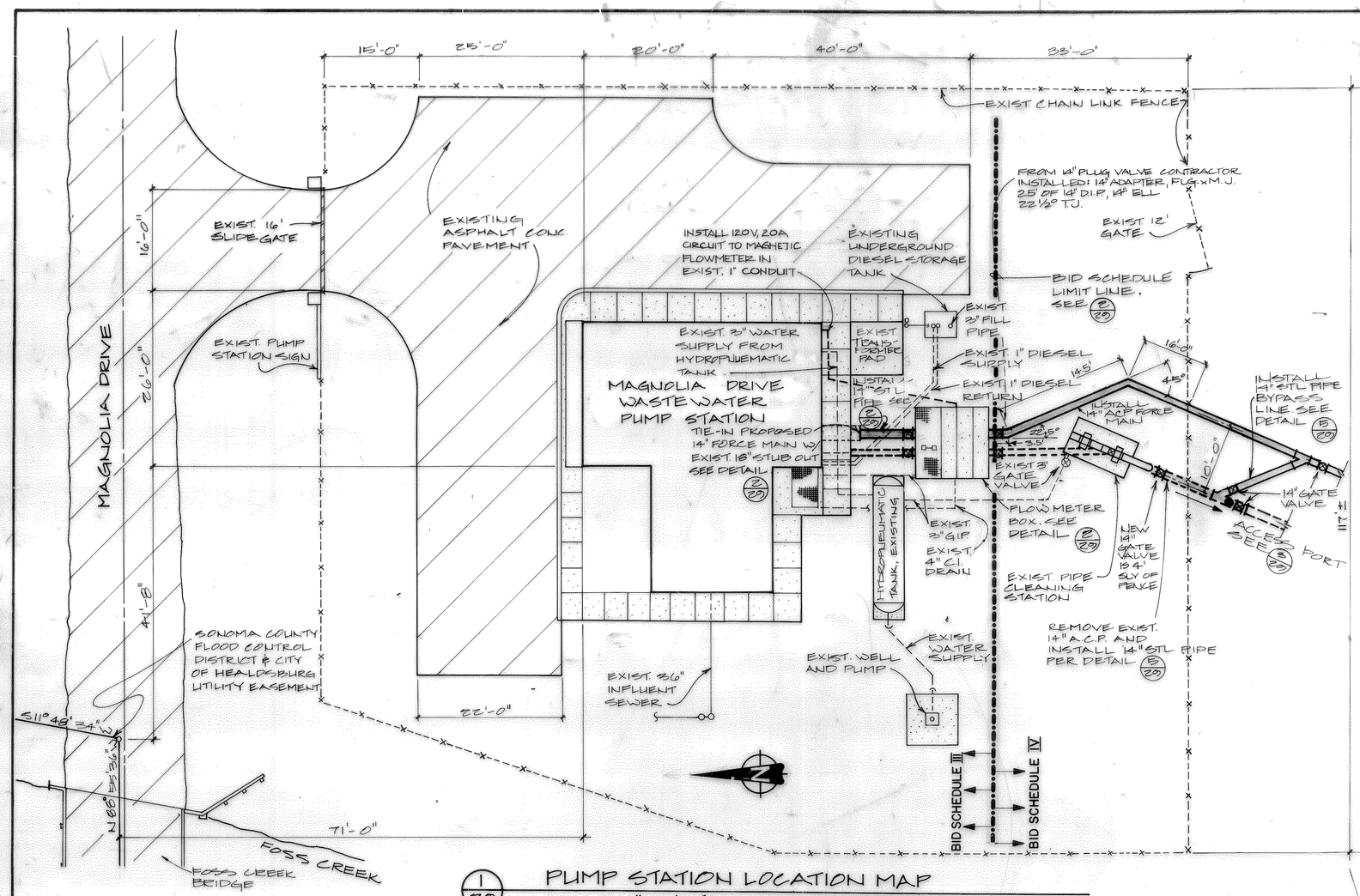
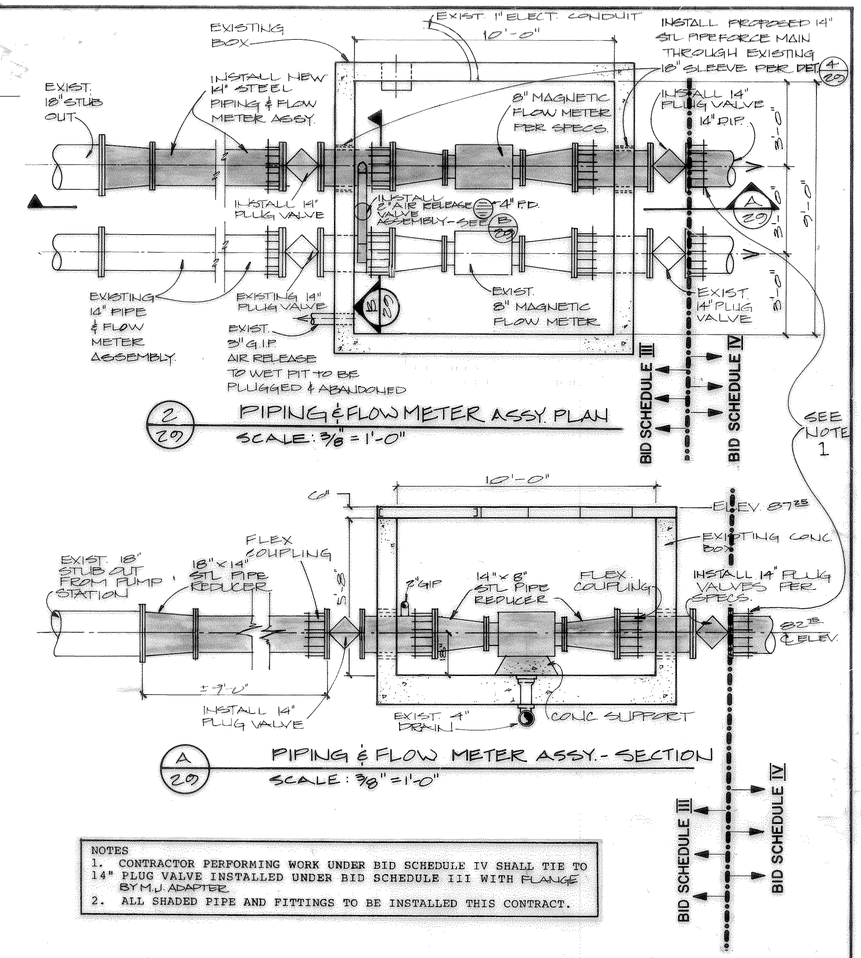


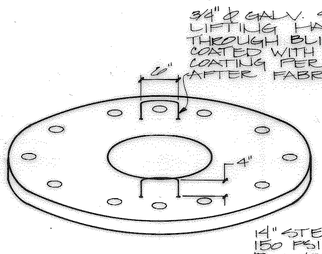
1/29 PUMP STATION LOCATION MAP
SCALE: 1" = 10'-0"



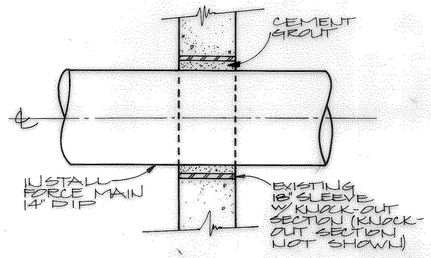
2/29 PIPING & FLOW METER ASSY. PLAN
SCALE: 3/8" = 1'-0"

A/29 PIPING & FLOW METER ASSY. - SECTION
SCALE: 3/8" = 1'-0"

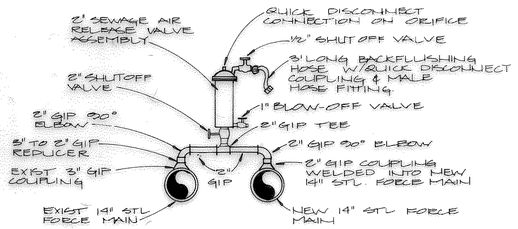
NOTES
1. CONTRACTOR PERFORMING WORK UNDER BID SCHEDULE IV SHALL TIE TO 14" PLUG VALVE INSTALLED UNDER BID SCHEDULE III WITH FLANGE BY M.J. ADAPTER.
2. ALL SHADED PIPE AND FITTINGS TO BE INSTALLED THIS CONTRACT.



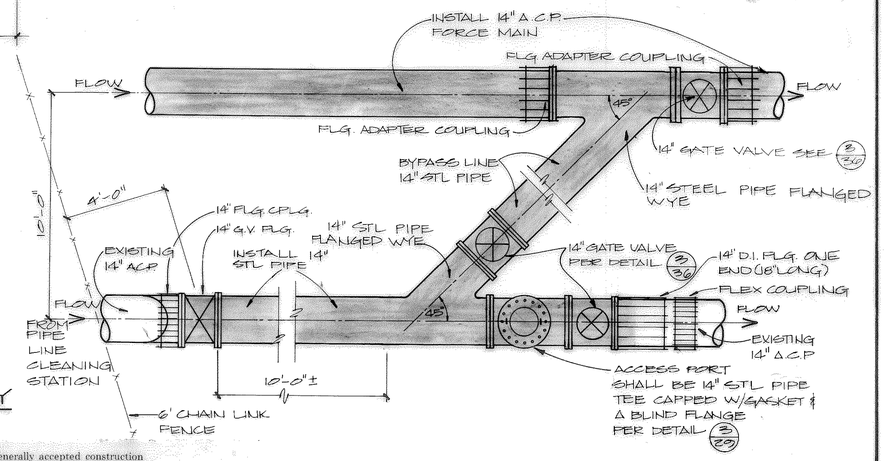
3/29 BLIND FLANGE DETAIL
N.T.S.



4/29 SLEEVE DETAIL
N.T.S.



B/29 AIR RELEASE VALVE ASSEMBLY
N.T.S.



5/29 BYPASS LINE DETAIL
N.T.S.

Construction 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 be limited 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, excepting liability arising from the sole negligence of design professional.

California Council of Civil Engineers & Land Surveyors

REDUCED PLANS
0 1" 2" 3"

AS BUILT

NO.	DATE	REVISIONS	BY	APPR.

DATE OCT. '83
SCALE SHOWN
JOB NO. 4063
DSGN. BY Thomas M. Mannett
DRWN. BY S.S.L.
CHKD. BY E.E.H.

Registered Professional Engineer Thomas M. Mannett No. 21533 CIVIL STATE OF CALIFORNIA

CITY OF HEALDSBURG
CLEAN WATER GRANT PROJECT NO. C-06-2279
WASTEWATER SYSTEM IMPROVEMENTS

OSCAR LARSON & ASSOCIATES
CONSULTING ENGINEERS & LAND SURVEYORS
204 4TH STREET, BOX 3806, EUREKA, CA. 95501 (707) 445-2043

PUMP STATION
SITE PLAN & DETAILS

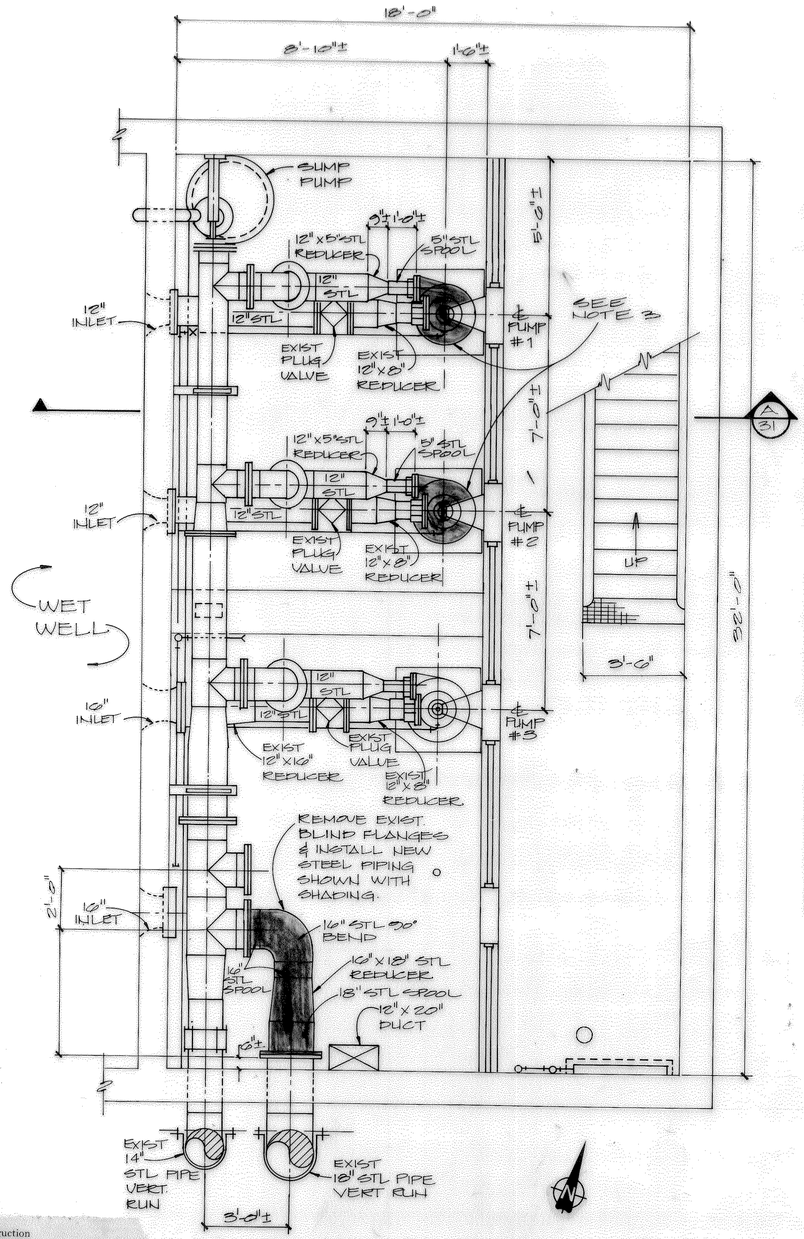
SHEET 29 OF 50 SHEETS

DIETERICH POST REORDER NO. 83092

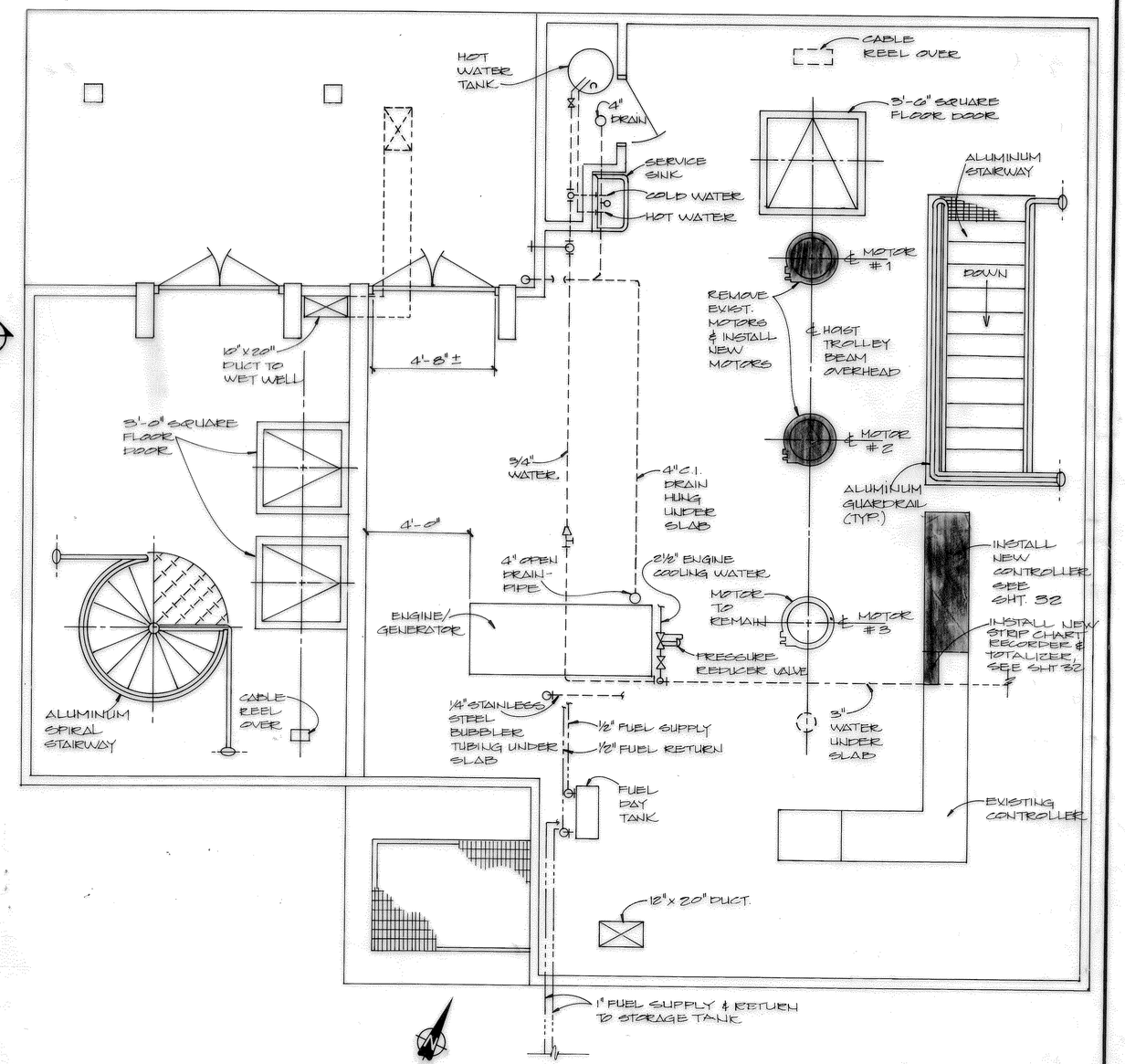
File No. CIP1983.08

NOTES:

1. ALL SHADED ITEMS TO BE REPLACED AND/OR INSTALLED PER THIS CONTRACT AND PER SPECIFICATIONS.
2. ± INDICATES DIMENSIONS SHALL BE FIELD CHECKED WHERE REQUIRED.
3. INSTALL NEW IMPELLERS PER SPECIFICATIONS. NEW VOLUTE HOUSINGS ARE NOT REQUIRED.



1/30 BASE PLAN AT ELEV. 83.0±
SCALE: 3/8" = 1'-0"



2/30 FLOOR PLAN (TOP FLOOR ELEV. 87.0±)
SCALE: 3/8" = 1'-0"

REDUCED PLANS
0 1" 2" 3"

Construction 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 be limited 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, excepting liability arising from the sole negligence of design professional.

California Council of Civil Engineers & Land Surveyors

AS BUILT

NO.	DATE	REVISIONS	BY	APPR.

DATE OCT 83
SCALE SHOWN
JOB NO. 4063
DSGN. BY Thomas M Mannett
DRWN. BY SLO, CWB
CHKD. BY EEH

REGISTERED PROFESSIONAL ENGINEER Kenneth G. Davis No. 21533 CIVIL STATE OF CALIFORNIA

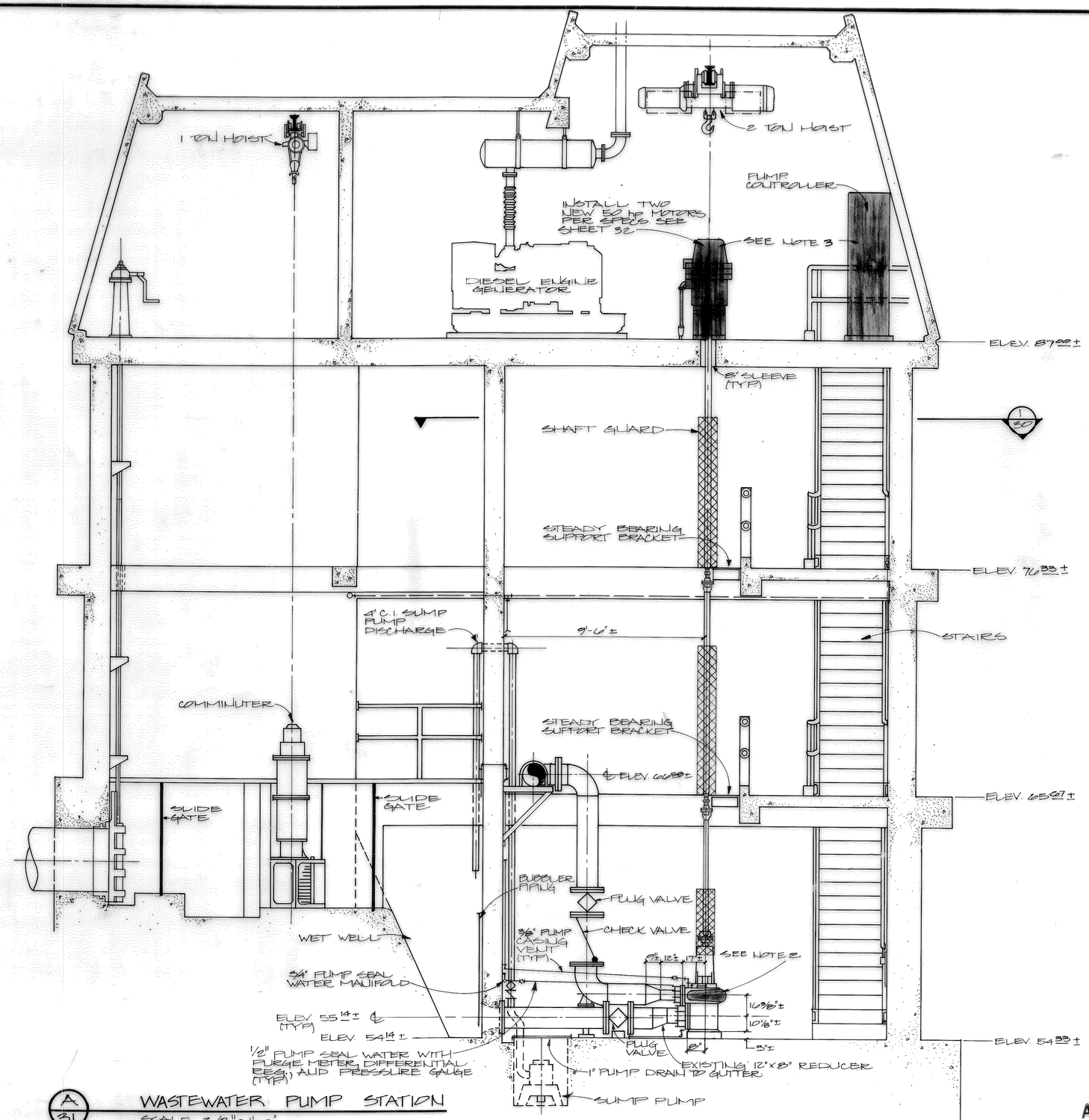
CITY OF HEALDSBURG
CLEAN WATER GRANT PROJECT NO. C-06-2279
WASTEWATER SYSTEM IMPROVEMENTS

OSCAR LARSON & ASSOCIATES
CONSULTING ENGINEERS & LAND SURVEYORS
204 4TH STREET, BOX 3806, EUREKA, CA. 95501 (707) 445-2043

PUMP STATION MODIFICATIONS

SHEET 30 OF 50 SHEETS

File No. CIP1983.08



NOTES:

1. ± INDICATES DIMENSIONS SHALL BE FIELD CHECKED WHERE REQUIRED.
2. NEW IMPELLERS SHALL BE INSTALLED IN PUMP UNITS FOR PUMP NUMBER 1 AND PUMP NUMBER 2 PER SPECIFICATIONS. NEW VOLUTE HOUSINGS ARE NOT REQUIRED.
3. ALL SHADED ITEMS SHALL BE INSTALLED NEW PER THIS CONTRACT AND PER SPECIFICATIONS.

Construction 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 be limited 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, excepting liability arising from the sole negligence of design professional.

California Council of Civil Engineers & Land Surveyors

REDUCED PLANS

0 1" 2" 3"

A/31 WASTEWATER PUMP STATION

SCALE 3/8" = 1'-0"

AS BUILT

NO.	DATE	REVISIONS	BY	APPR.

DATE	OCT '83
DSGN. BY	Thomas M Mannatt
SCALE	SHOWN
DRWN. BY	SLO
JOB NO.	4063
CHKD. BY	EEH

REGISTERED PROFESSIONAL ENGINEER Kenneth E. Wells No. 21533 CIVIL STATE OF CALIFORNIA

CITY OF HEALDSBURG

CLEAN WATER GRANT PROJECT NO. C-06-2279

WASTEWATER SYSTEM IMPROVEMENTS

OSCAR LARSON & ASSOCIATES

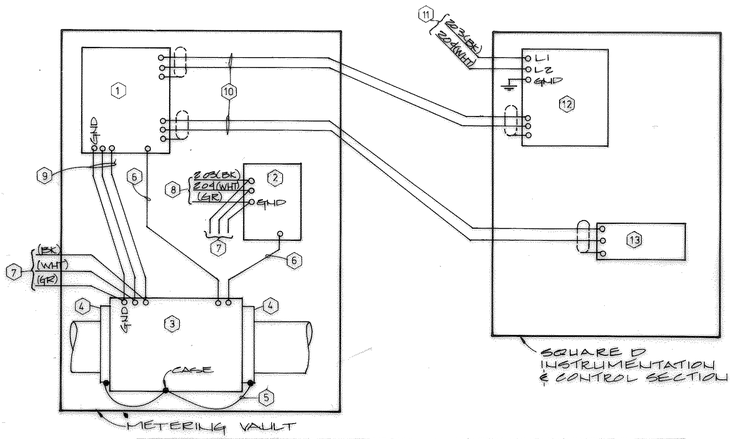
CONSULTING ENGINEERS & LAND SURVEYORS

204 4TH STREET, BOX 3806, EUREKA, CA. 95501 (707) 445-2043

PUMP STATION MODIFICATIONS

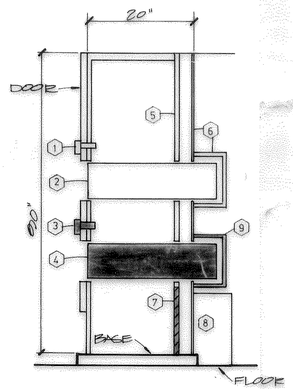
SHEET 31 OF 50 SHEETS

File No. CIP1983.08

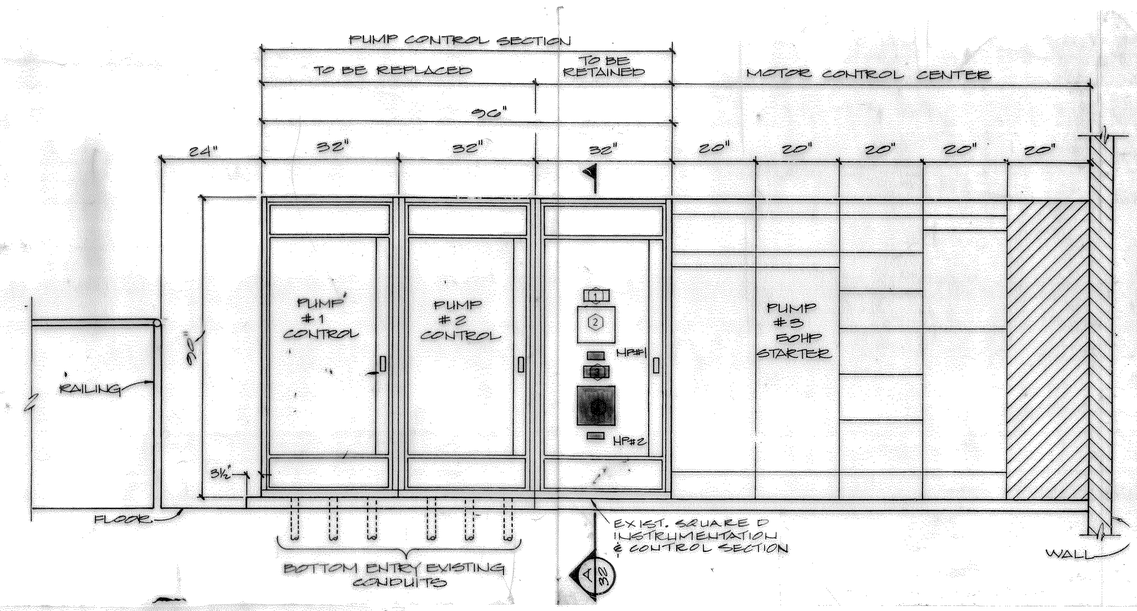


NOTES:
1. FLOW TRANSMITTER TO BE WALL MOUNTED IN EXISTING METERING VAULT.
2. ULTRASONIC CLEANER TO BE WALL MOUNTED IN EXISTING METERING VAULT.
3. MAGNETIC FLOWMETER, TO BE INSTALLED IN EXISTING METERING VAULT AND GROUNDED PER MANUFACTURERS RECOMMENDATIONS.
4. GROUNDING PLATES FOR FLOWMETER.
5. BONDING JUMPER, #12 AWG COPPER THW(GREEN).
6. CONTROL CABLE PROVIDED BY FLOWMETER MANUFACTURER, INSTALL IN RIGID METALIC CONDUIT SIZED AS REQUIRED.
7. 115 VAC BETWEEN ULTRASONIC CLEANER AND MAGNETIC FLOWMETER
8. EXISTING 115 VAC POWER TO EXISTING FLOW TRANSMITTER, TAP INTO CIRCUIT AND CONNECT TO NEW UNITS AS SHOWN. MINIMUM WIRE SIZE #14 AWG. MAINTAIN WIRE SIZE, CONDUIT SIZE AND TYPE AS ALREADY EXISTING.
9. FLOW TRANSMITTER MUST RECEIVE CONTROL POWER FROM FLOWMETER AS SHOWN.
10. INSTALL BELDEN CABLE, OR EQUAL, IN THE EXISTING SPARE 1" CONDUIT BETWEEN THE METERING VAULT AND THE CONTROL SECTION.
11. TAP INTO EXISTING 115 VAC CONTROL POWER AVAILABLE IN THE CONTROL PANEL.
12. FLOW CHART RECORDER TO BE MOUNTED ON THE DOOR OF EXISTING SQUARE D INSTRUMENT AND CONTROL SECTION.
13. EIGHT DIGIT IMPULSE CONTROL TOTALIZER TO BE MOUNTED ON THE DOOR OF EXISTING SQUARE D INSTRUMENT AND CONTROL SECTION.

4/32 ELECTRICAL CONTROL DIAGRAM SCHEMATIC
NOT TO SCALE



A/32 SECTION
NTS



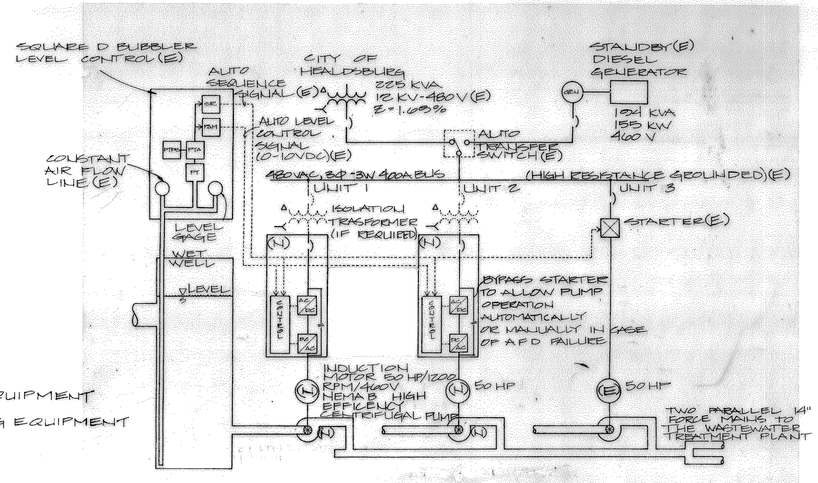
NOTES:
1. EXISTING TOTALIZER.
2. EXISTING FLOW CHART RECORDER.
3. NEW TOTALIZER.
4. NEW FLOW CHART RECORDER.
5. EXISTING BACK PLATE.
6. EXISTING REAR COVER.
7. EXISTING BACK PLATE TO BE EXTENDED TO BASE AS SHOWN WITH DUPLICATE MATERIAL AND FINISH AS EXISTING BACK PLATE. SUPPORT AS REQUIRED.
8. EXISTING BUBBLER EQUIPMENT TO BE RELOCATED FROM EXISTING BACK PLATE TO EXISTING REAR COVER AS SHOWN.
9. HOLE TO BE CUT IN EXISTING REAR COVER TO ACCOMODATE NEW FLOW CHART RECORDER. REAR COVER TO BE MODIFIED AS SHOWN DUPLICATING MATERIAL AND FINISH OF EXISTING COVER.

NAME PLATE SCHEDULE:
NP#1 FLOWMETER NO.1
NP#2 FLOWMETER NO.2

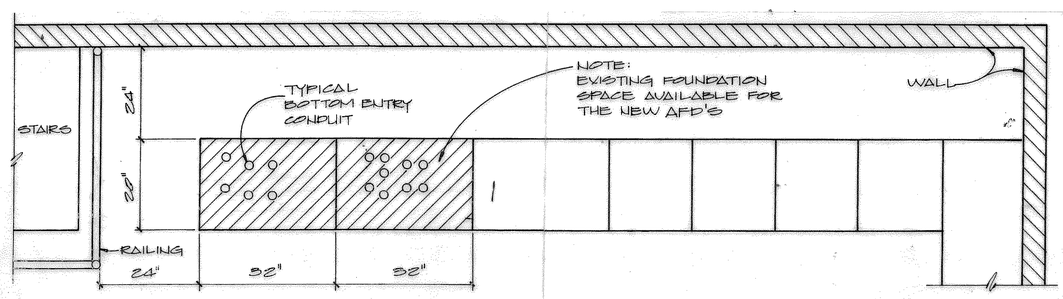
MATERIAL:
1/16" LAMINATE PLASTIC BLACK FACE WITH WHITE LETTERS SATIN FINISHED - MOUNTED WITH EPOXY CEMENT.

LETTERS:
CONDENSED VERTICAL GOTHIC 3/16" HIGH.

2/32 ELEVATION
NOT TO SCALE



1/32 ADJUSTABLE FREQUENCY INVERTER DRIVE SCHEMATIC
NOT TO SCALE



3/32 FOUNDATION PLAN
NOT TO SCALE

REDUCED PLANS
0 1" 2" 3"

Construction 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 be limited 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, excepting liability arising from the sole negligence of design professional.

California Council of Civil Engineers & Land Surveyors

REGISTERED PROFESSIONAL ENGINEER THOMAS JAMES BROGAN E 9069 ELECTRICAL STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER Kenneth G. Dillin No. 21533 CIVIL STATE OF CALIFORNIA

NO.	DATE	REVISIONS	BY	APPR.

DATE OCT '85
SCALE SHOWN
JOB NO. 4063
DSGN. BY
DRWN. BY SLOCWDT
CHKD. BY EEH

CITY OF HEALDSBURG
CLEAN WATER GRANT PROJECT NO. C-06-2279
WASTEWATER SYSTEM IMPROVEMENTS

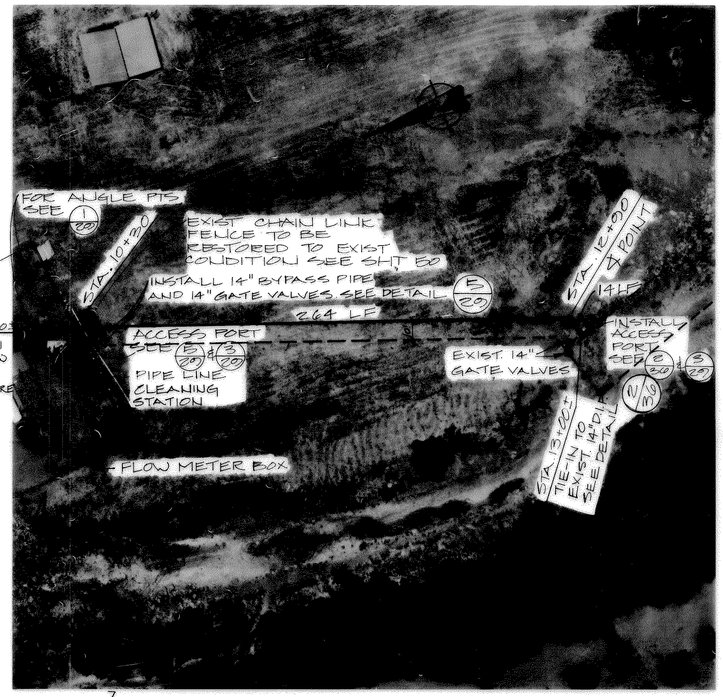
OSCAR LARSON & ASSOCIATES
CONSULTING ENGINEERS & LAND SURVEYORS
204 4TH STREET, BOX 3806, EUREKA, CA. 95501 (707) 445-2043

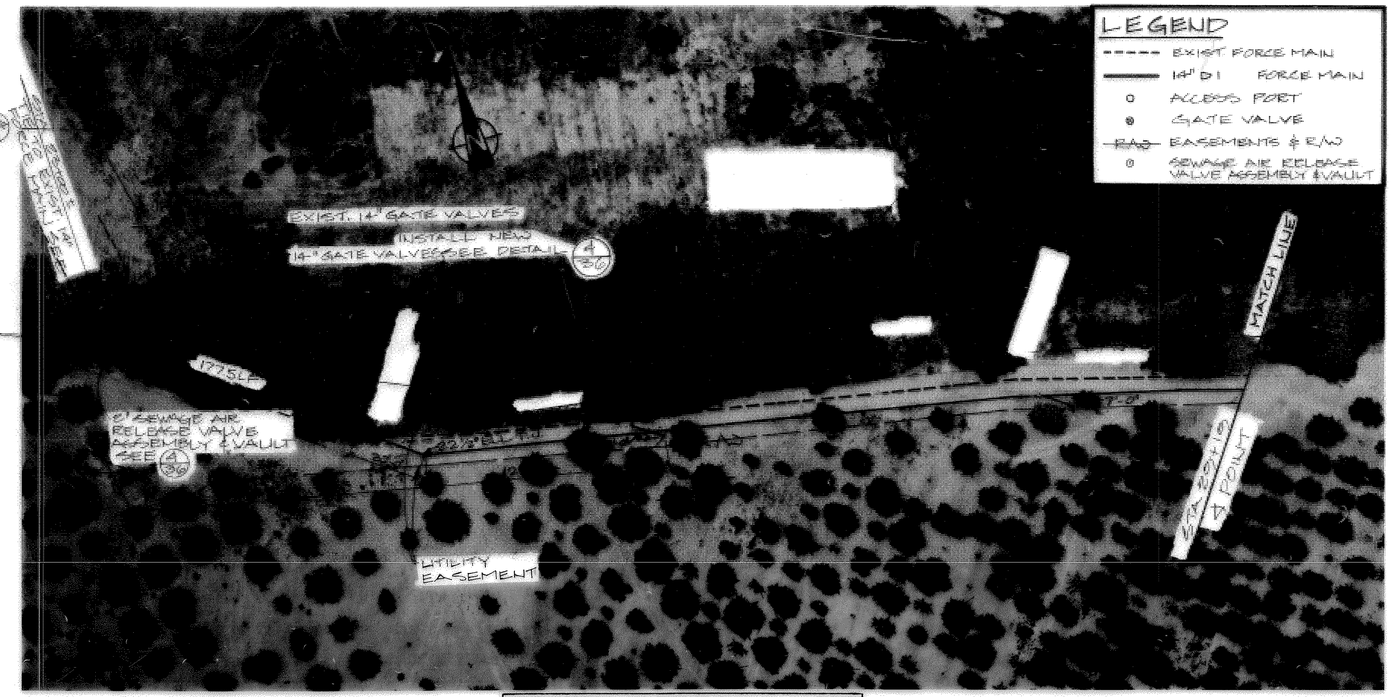
AS BUILT
PUMP STATION ELECTRICAL

SHEET 32 OF 50 SHEETS

DIETERICH POST REORDER NO. 85392

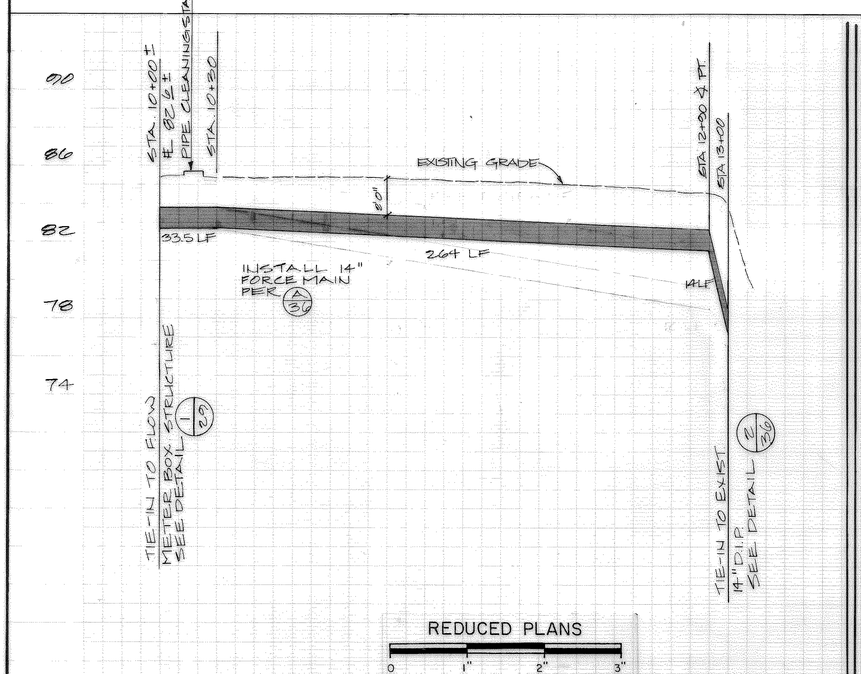
File No. CIP1983.08

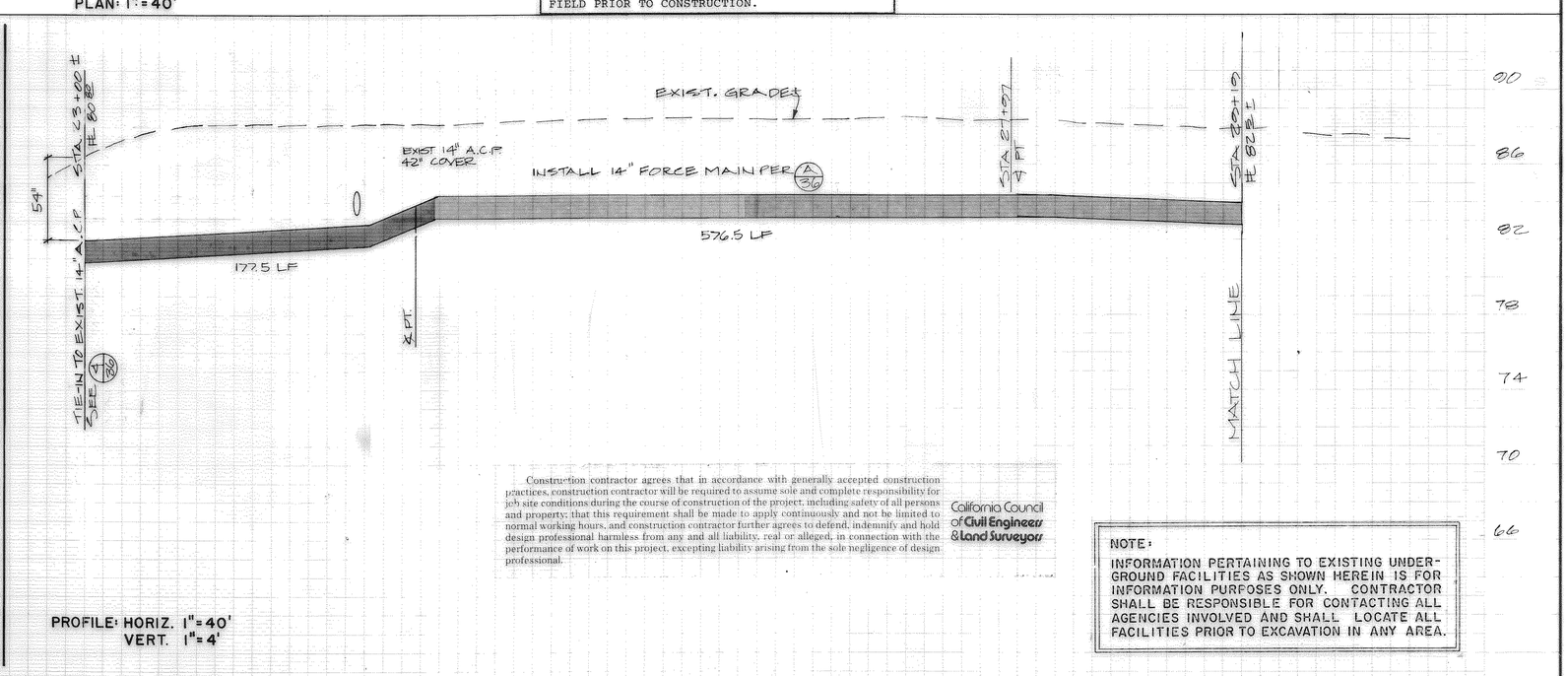




PLAN: 1" = 40'

NOTE: APPROX. LOCATION OF EXISTING 14" FORCE MAIN. CONTRACTOR TO VERIFY EXACT LOCATION IN FIELD PRIOR TO CONSTRUCTION.





PROFILE: HORIZ. 1" = 40'
VERT. 1" = 4'

Construction 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 be limited 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, excepting liability arising from the sole negligence of design professional.

California Council of Civil Engineers & Land Surveyors

NOTE:
INFORMATION PERTAINING TO EXISTING UNDERGROUND FACILITIES AS SHOWN HEREIN IS FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO EXCAVATION IN ANY AREA.

AS BUILT

NO.	DATE	REVISIONS	BY	APPR.

DATE: OCT '88
DSGN. BY: Thomas M. Mannatt
SCALE: SHOWN
DRWN. BY: SB
JOB NO.: 4063
CHKD. BY: EEH

REGISTERED PROFESSIONAL ENGINEER Kenneth G. Davis No. 21533 CIVIL STATE OF CALIFORNIA

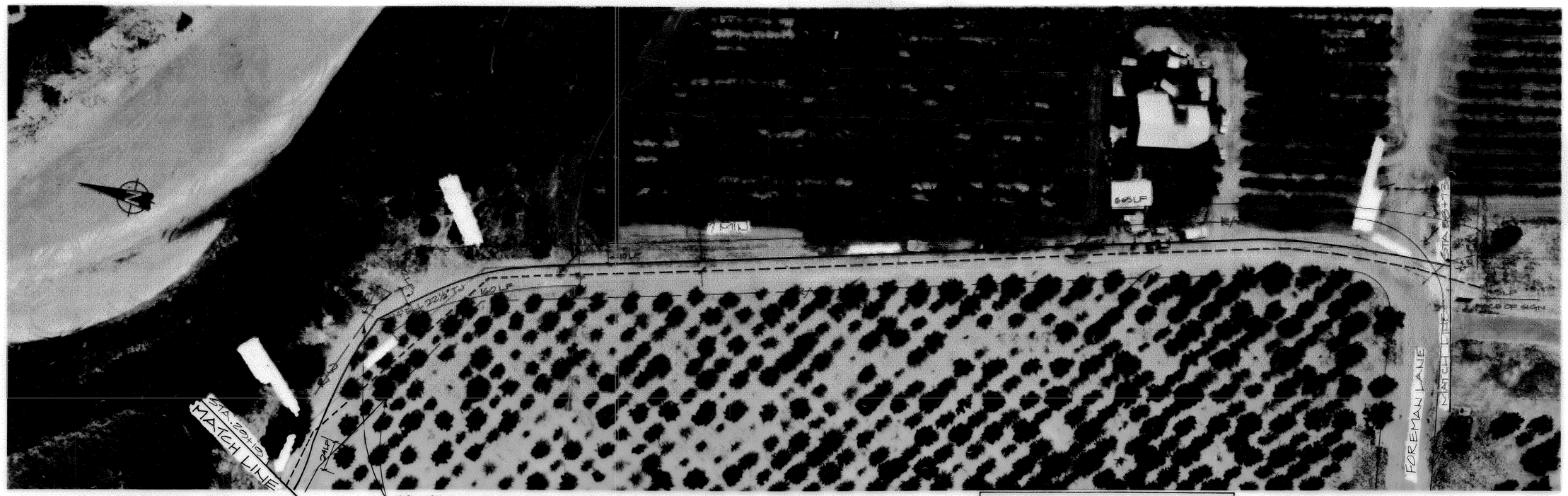
CITY OF HEALDSBURG
CLEAN WATER GRANT PROJECT NO. C-06-2279
WASTEWATER SYSTEM IMPROVEMENTS

OSCAR LARSON & ASSOCIATES
CONSULTING ENGINEERS & LAND SURVEYORS
204 4TH STREET, BOX 3806, EUREKA, CA. 95501 (707) 445-2043

PLAN AND PROFILE
FORCE MAIN
STA. 10+00 TO STA. 13+00
STA. 23+00 TO STA. 29+19

SHEET 33 OF 50 SHEETS

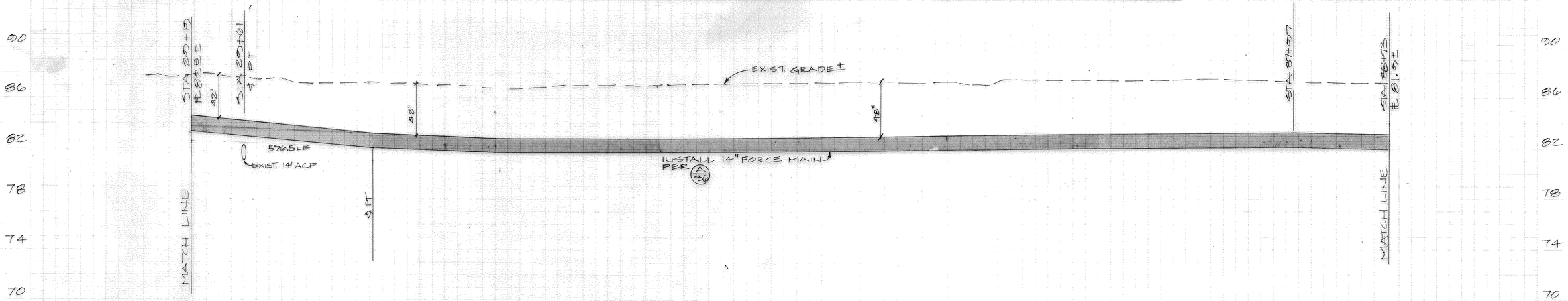
File No. CIP1983.08



PLAN: 1" = 40'

NOTE: APPROX. LOCATION OF EXISTING 14" FORCE MAIN. CONTRACTOR TO VERIFY EXACT LOCATION IN FIELD PRIOR TO CONSTRUCTION.

FOR LEGEND SEE SHEET 33



PROFILE: HORIZ. 1" = 40'
VERT. 1" = 4'

REDUCED PLANS
0 1" 2" 3"

Construction 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 be limited 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, excepting liability arising from the sole negligence of design professional.

California Council of Civil Engineers & Land Surveyors

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20+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00

AS BUILT

NO.	DATE	REVISIONS	BY	APPR.

DATE OCT 88
SCALE SHOWN
JOB NO. 4063
DSGN. BY Thomas M. Mannatt
DRWN. BY SB
CHKD. BY EEH

REGISTERED PROFESSIONAL ENGINEER Leonard G. Drew No. 21533 CIVIL STATE OF CALIFORNIA

CITY OF HEALDSBURG
CLEAN WATER GRANT PROJECT NO. C-06-2279
WASTEWATER SYSTEM IMPROVEMENTS

OSCAR LARSON & ASSOCIATES
CONSULTING ENGINEERS & LAND SURVEYORS
204 4TH STREET, BOX 3806, EUREKA, CA. 95501 (707) 445-2043

PLAN AND PROFILE
FORCE MAIN
STA. 29+19 TO STA. 38+73

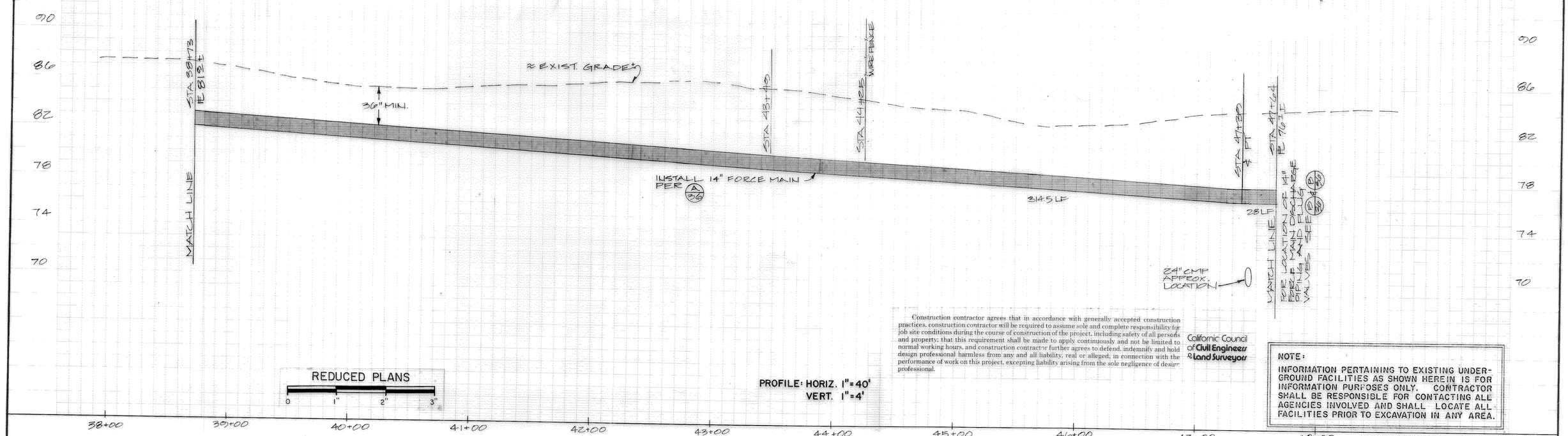
SHEET 34 OF 50 SHEETS

File No. CIP1983.08

PLAN: 1" = 40'

NOTE: APPROX. LOCATION OF EXISTING 14" FORCE MAIN. CONTRACTOR TO VERIFY EXACT LOCATION IN FIELD PRIOR TO CONSTRUCTION.

FOR LEGEND SEE SHEET 33



Construction 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 be limited 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, excepting liability arising from the sole negligence of design professional.

California Council of Civil Engineers & Land Surveyors

REDUCED PLANS
0 1" 2" 3"

PROFILE: HORIZ. 1" = 40'
VERT. 1" = 4'

NOTE:
INFORMATION PERTAINING TO EXISTING UNDERGROUND FACILITIES AS SHOWN HEREIN IS FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO EXCAVATION IN ANY AREA.

AS BUILT

NO.	DATE	REVISIONS	BY	APPR.

DATE	OCT '83
DSGN. BY	Thomas M. Mannatt
SCALE	SHOWN
DRWN. BY	SB
JOB NO.	4063
CHKD. BY	EEH

REGISTERED PROFESSIONAL ENGINEER Kenneth G. Davis No. 21535 CIVIL STATE OF CALIFORNIA

CITY OF HEALDSBURG
CLEAN WATER GRANT PROJECT NO. C-06-2279
WASTEWATER SYSTEM IMPROVEMENTS

OSCAR LARSON & ASSOCIATES
CONSULTING ENGINEERS & LAND SURVEYORS
204 4TH STREET, BOX 3806, EUREKA, CA. 95501 (707) 445-2043

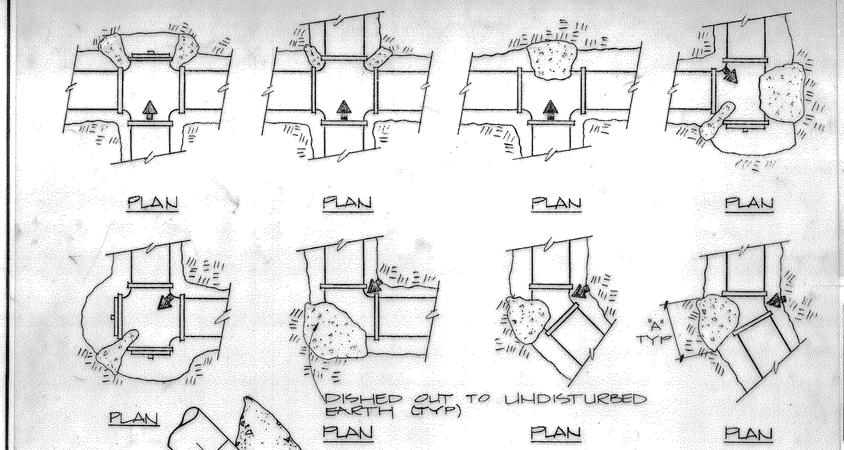
PLAN AND PROFILE
FORCE MAIN
STA. 38+73 TO STA. 47+64

SHEET 35 OF 50 SHEETS

File No. CIP1983.08

Construction 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 be limited 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, excepting liability arising from the sole negligence of design professional.

California Council of Civil Engineers & Land Surveyors



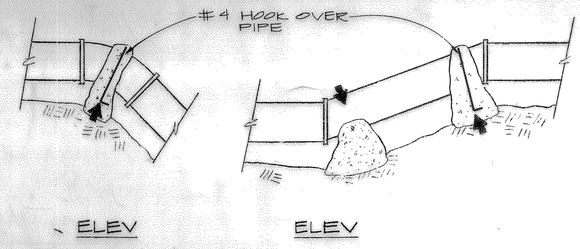
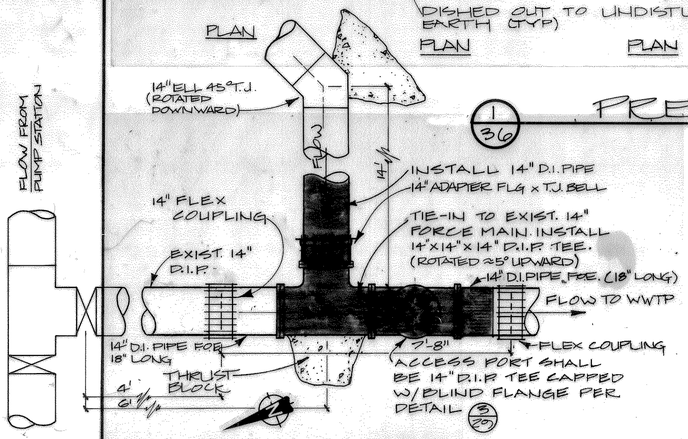
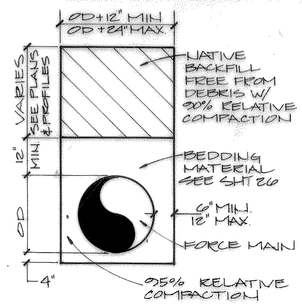


TABLE OF MINIMUM BEARING AREAS OF CONCRETE THRUST BLOCK FOR FITTINGS				
A= SQ FT AREA OF THRUST BLOCK REQUIRED (MIN)				
PIPE SIZE	TEES & ENDS	90° BEND	45° BEND	22½° BEND
14"	14	20	11	6

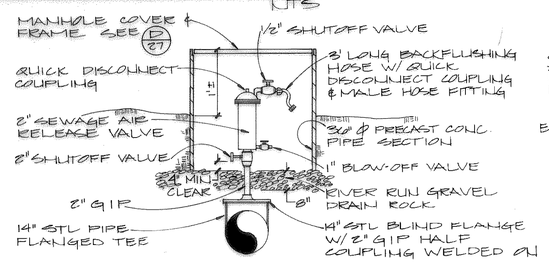
1/36 PRESSURE MAIN THRUST BLOCKS NTS



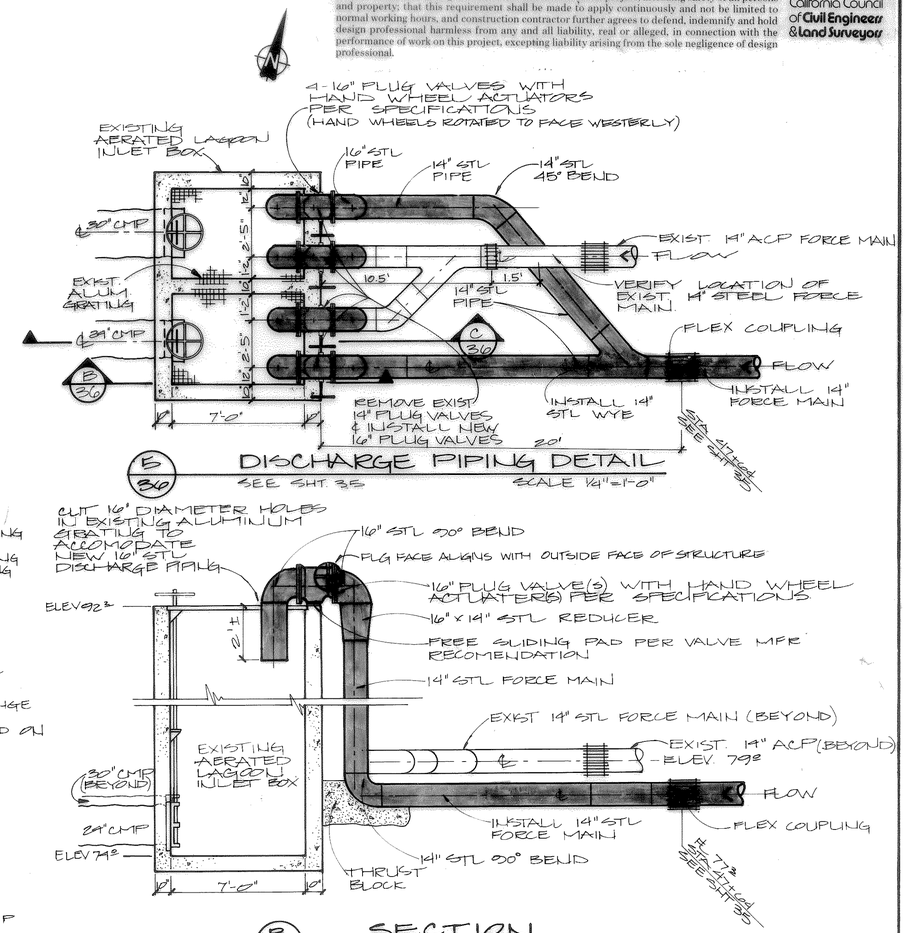
2/36 FORCE MAIN TIE-IN DETAIL (NO. OF DRY CREEK) SEE SHT 33 NTS



A/36 TRENCH SECTION NTS

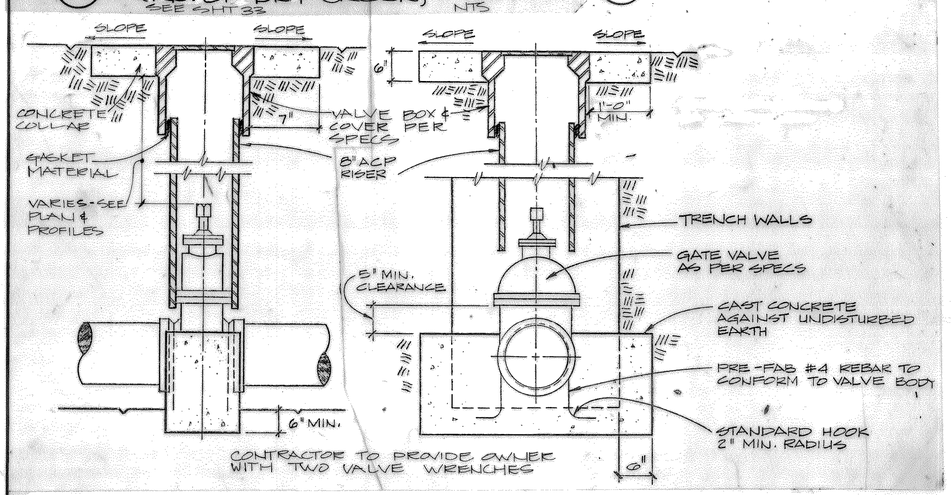


D/36 2" SEWAGE AIR RELEASE VALVE ASSEMBLY & VAULT SEE SHT. 33 NTS

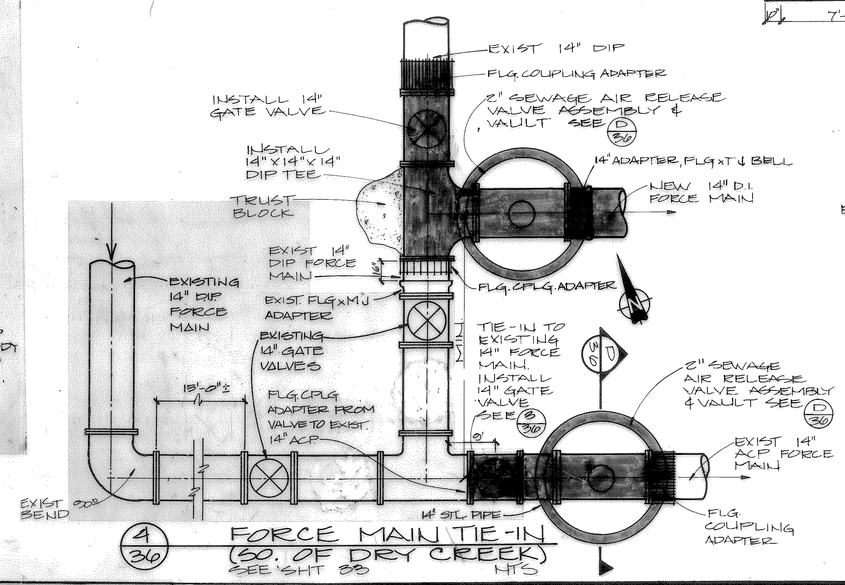


E/36 DISCHARGE PIPING DETAIL SEE SHT. 35 SCALE 1/4"=1'-0"

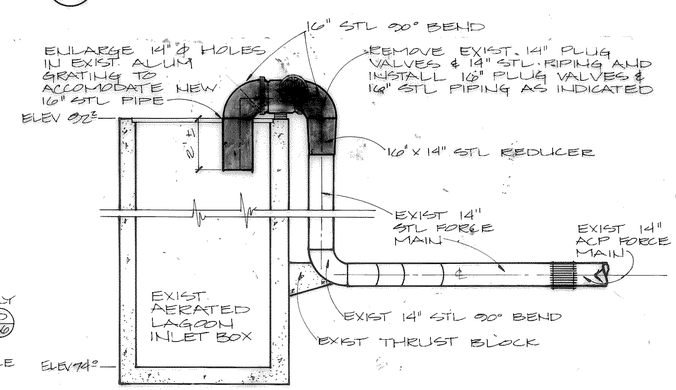
B/36 SECTION SCALE 1/4"=1'-0"



3/36 TYPICAL IN-LINE VALVE NTS



4/36 FORCE MAIN TIE-IN (SO. OF DRY CREEK) SEE SHT 33 NTS



C/36 SECTION SCALE 1/4"=1'-0"

AS BUILT

REDUCED PLANS
0 1" 2" 3"

NO.	DATE	REVISIONS	BY	APPR.

DATE	OCT '88
DSGN. BY	Thomas M. Mennett
SCALE	SHOWN
DRWN. BY	S.S.C.
JOB NO.	4063
CHKD. BY	EEH

REGISTERED PROFESSIONAL ENGINEER Kenneth E. Dahle No. 34035 CIVIL STATE OF CALIFORNIA

CITY OF HEALDSBURG
CLEAN WATER GRANT PROJECT NO. C-06-2279
WASTEWATER SYSTEM IMPROVEMENTS

OSCAR LARSON & ASSOCIATES
CONSULTING ENGINEERS & LAND SURVEYORS
204 4TH STREET, BOX 3806, EUREKA, CA. 95501 (707) 445-2043

FORCE MAIN PIPING DETAILS

SHEET 36 OF 50 SHEETS

DIETERICH POST REORDER NO. 83392

File No. CIP1983.08