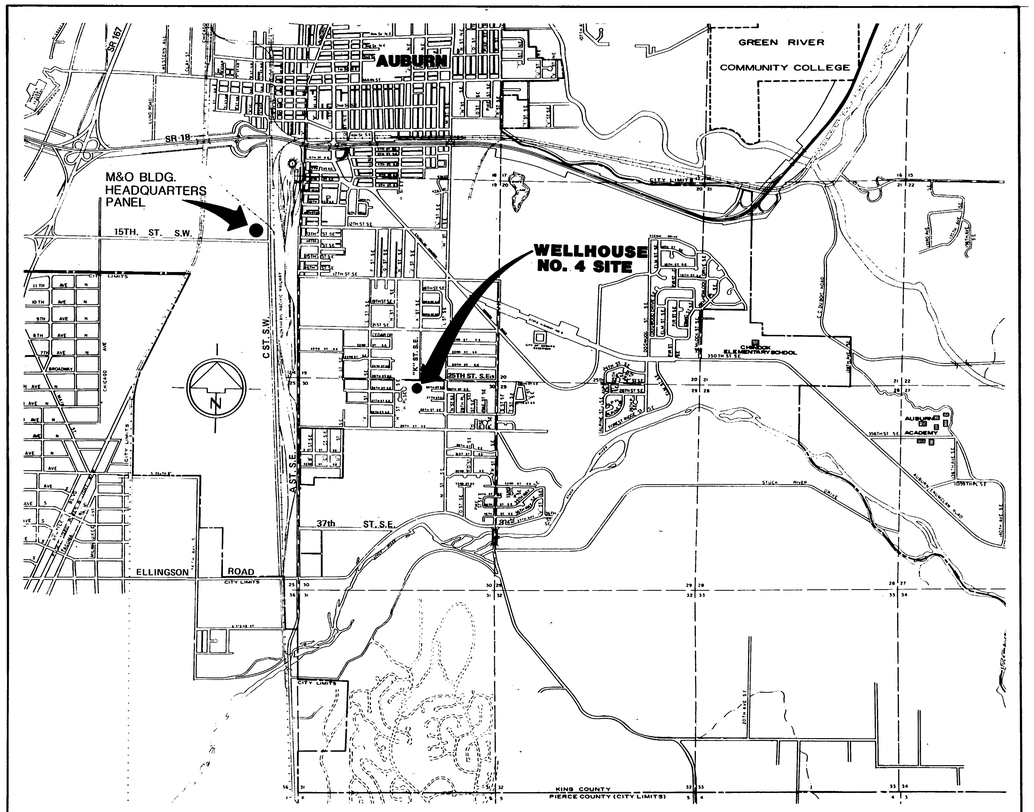
CITY OF AUBURN, WASHINGTON

WELL NO. 4 WELLHOUSE

WATER IMPROVEMENT NO. 154

CONTRACT NO. 84-18



PROJECT VICINITY MAP
N.T.S.

INDEX TO DRAWINGS

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3	PAVING AND GRADING PLAN
4	BUILDING FLOOR PLAN
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6	BUILDING SECTION AND DETAILS
7	BUILDING DETAILS
8	BUILDING DETAILS
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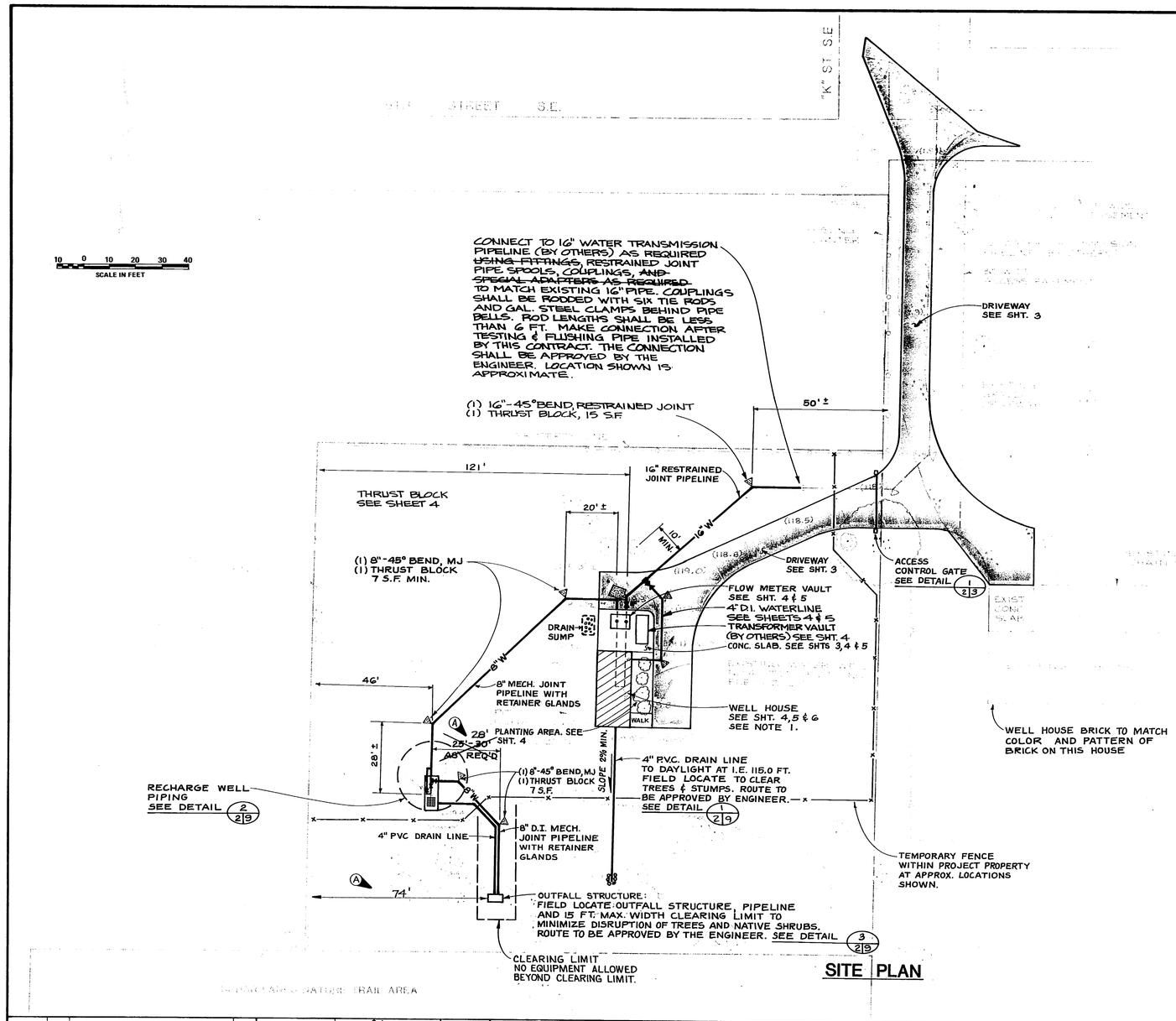
10	ELECTRICAL SITE PLAN & LEGEND
11	POWER AND LIGHTING PLAN & DIAGRAMS
12	ONE LINE DIAGRAM & EQUIPMENT ELEVATIONS
13	ELECTRICAL CONNECTION DIAGRAMS
14	TELEMETRY SCHEMATIC

As Built
Date 1/31/86

POOL ENGINEERING, INC.
CONSULTING ENGINEERS AND SURVEYORS
Bellevue, Washington Ketchikan, Alaska

85 W 1547



SITE PLAN

GENERAL NOTES

1. EXACT LOCATIONS OF WELLHOUSE, CONCRETE SLABS, DRIVEWAYS, VAULTS AND RECHARGE WELL PIPING ARE DEPENDANT ON FIELD LOCATIONS OF THE TWO WELLS.
2. TEMPORARY FENCE SHALL BE 6-FEET MINIMUM HIGH CHAIN LINK WITH LOCKED GATES AT LOCATIONS DETERMINED BY CONTRACTOR. BOTTOM OF FENCING FABRIC SHALL BE WITHIN 4-INCHES OF GROUND SURFACE.
3. DESIGN PRESSURE FOR ALL WATER PIPING IS 175-PSI. TEST PRESSURE SHALL BE 225-PSI FOR THE PUMP DISCHARGE PIPING AND 225-PSI FOR PIPING FROM THE PUMP TO VALVES AT THE RECHARGE WELL.
4. A COMBINATION OF THRUST BLOCK SIZES AS NOTED AND SPECIFIED PLUS RESTRAINED JOINTS ARE REQUIRED FOR TEST PRESSURES.
5. PROVIDE TEMPORARY THRUST BLOCKS, BLOWOFFS AND 2-INCH MAXIMUM CONNECTIONS AS REQUIRED TO DISINFECT. FLUSH AND TEST ALL WATER PIPING PRIOR TO CONNECTING TO 16-INCH TRANSMISSION PIPELINE BY OTHERS.
6. MINIMUM COVER SHALL BE 42-INCHES FOR WATER PIPING AND 28-INCHES FOR DRAIN LINES, UNLESS OTHERWISE NOTED OR APPROVED BY ENGINEER.
7. RESTORE ALL AREAS DISRUPTED BY CONSTRUCTION OF THIS PROJECT BY PLACING 6-INCHES MINIMUM DEPTH OF TOP SOIL; GRADING AND RAKING SMOOTH ENOUGH FOR MOWING, AS DETERMINED BY THE ENGINEER, AND TO MATCH EXISTING GRADES; AND HYDROSEEDING.
8. EXCESS EXCAVATED SOILS THAT MEET SPECIFIED NATIVE TOP SOIL REQUIREMENTS SHALL BE USED TO FILL IN LOW AREAS WITHIN THE WELL SITE PROPERTY. THE LOCATIONS SHALL BE SELECTED IN THE FIELD BY THE ENGINEER.

As Built
Date 1/31/86

APPROVED BY Marc Sedlacek
DATE 9-11-84
FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

RICHARD T. TYREE — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

Date	No	Description	By
1/31/86	A	AS BUILT	RTT

REVISION

Designed RTT | Approved | Drawn CWM/BF | Scale AS SHOWN | Date SEPT. 1984 | Checked JMH | Project No. A902003

POOL ENGINEERING, INC.
Consulting Engineers & Surveyors
2050 Northup Way, Bellevue, Washington 98004, (206) 822-6464
1225 Tongass Avenue, Ketchikan, Alaska 99901, (907) 225-6626

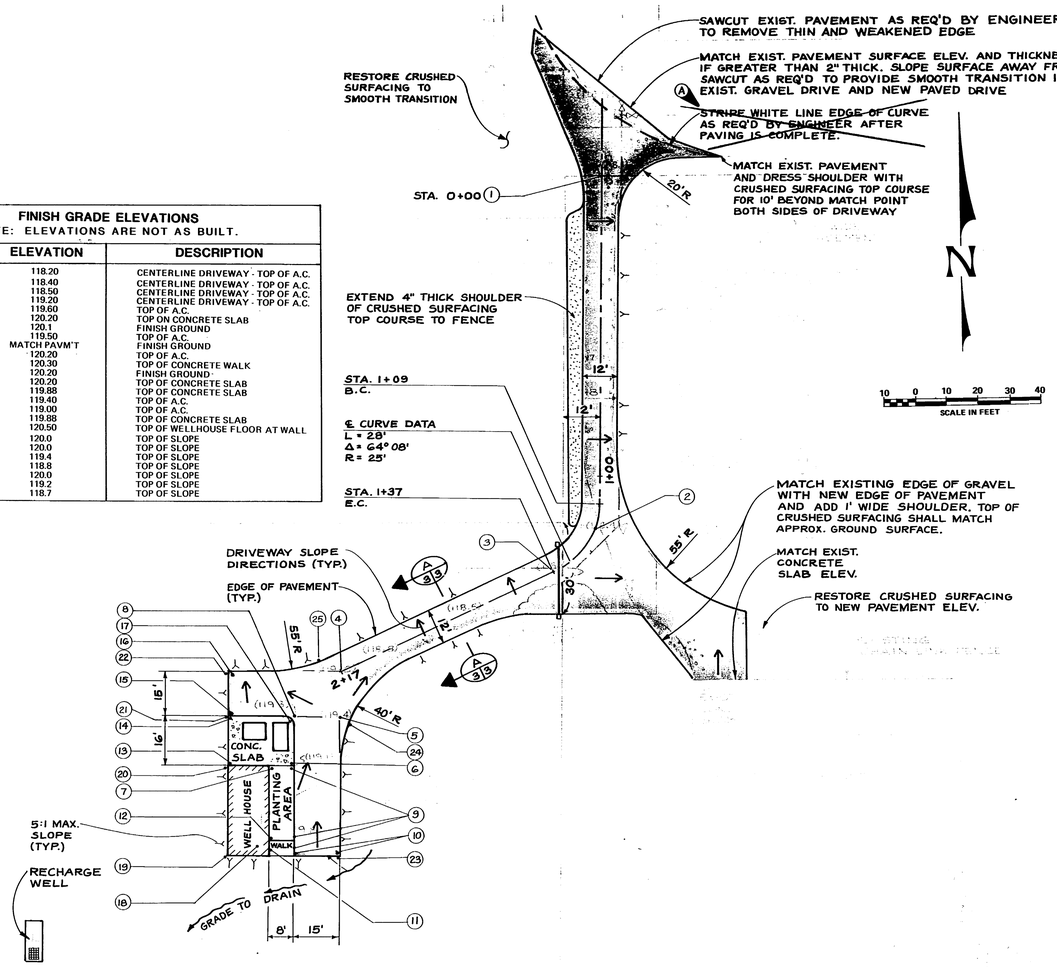
CITY OF AUBURN, WASHINGTON
WELL NO. 4 WELLHOUSE

SITE PLAN

2/14

85W1547 SHT. 2 OF 14

FINISH GRADE ELEVATIONS (A) NOTE: ELEVATIONS ARE NOT AS BUILT.		
NUMBER	ELEVATION	DESCRIPTION
1	118.20	CENTERLINE DRIVEWAY - TOP OF A.C.
2	118.40	CENTERLINE DRIVEWAY - TOP OF A.C.
3	118.50	CENTERLINE DRIVEWAY - TOP OF A.C.
4	119.20	CENTERLINE DRIVEWAY - TOP OF A.C.
5	119.60	TOP OF A.C.
6	120.20	TOP ON CONCRETE SLAB
7	120.1	FINISH GROUND
8	119.50	TOP OF A.C.
9	MATCH PAVM'T	FINISH GROUND
10	120.20	TOP OF A.C.
11	120.30	TOP OF CONCRETE WALK
12	120.20	FINISH GROUND
13	120.20	TOP OF CONCRETE SLAB
14	119.88	TOP OF CONCRETE SLAB
15	119.40	TOP OF A.C.
16	119.00	TOP OF A.C.
17	119.88	TOP OF CONCRETE SLAB
18	120.50	TOP OF WELLHOUSE FLOOR AT WALL
19	120.0	TOP OF SLOPE
20	120.0	TOP OF SLOPE
21	119.4	TOP OF SLOPE
22	118.8	TOP OF SLOPE
23	120.0	TOP OF SLOPE
24	119.2	TOP OF SLOPE
25	118.7	TOP OF SLOPE

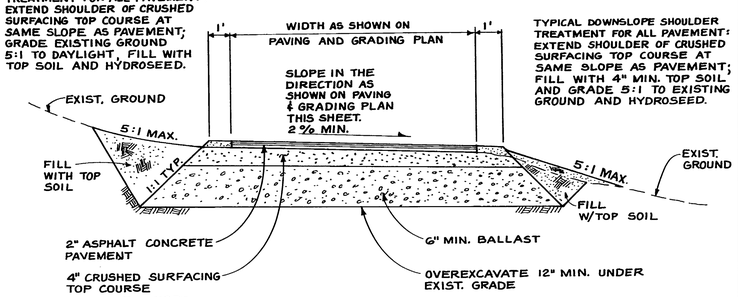


PAVING AND GRADING PLAN

1"=20'

TYPICAL UPSLOPE SHOULDER TREATMENT FOR ALL PAVEMENT: EXTEND SHOULDER OF CRUSHED SURFACING TOP COURSE AT SAME SLOPE AS PAVEMENT; GRADE EXISTING GROUND 5:1 TO DAYLIGHT, FILL WITH TOP SOIL AND HYDROSEED.

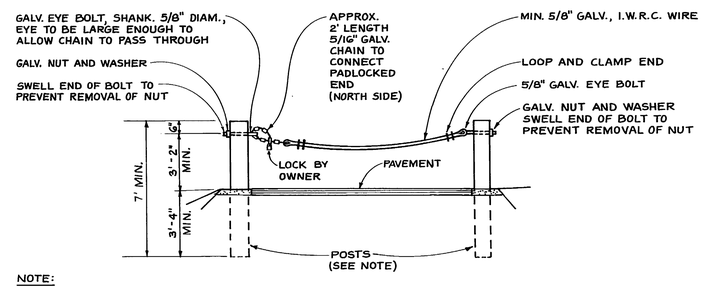
TYPICAL DOWNSLOPE SHOULDER TREATMENT FOR ALL PAVEMENT: EXTEND SHOULDER OF CRUSHED SURFACING TOP COURSE AT SAME SLOPE AS PAVEMENT; FILL WITH 4" MIN. TOP SOIL AND GRADE 5:1 TO EXISTING GROUND AND HYDROSEED.



(A) NOTE:
SURFACE TREATMENT AT SHOULDERS SHALL BE EITHER CRUSHED SURFACING TOP COURSE OR TOP SOIL WITH HYDROSEEDING, TO BE DETERMINED IN FIELD BY ENGINEER.

TYPICAL PAVEMENT SECTION (A 3/3)

N.T.S.



NOTE:
POSTS FOR ACCESS CONTROL GATES SHALL BE GALV. STEEL POSTS AS USED FOR GUARDRAIL.
THE LOCK (TO BE FURNISHED BY OWNER WILL BE PLACED ON THE NORTH SIDE OF THE GATE.

ACCESS CONTROL GATE (1 2/3)

N.T.S.

As Built
Date 1/31/86

APPROVED BY Marc Scalvanda
DATE 9-11-84
FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

RICHARD T. TERCE — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

Date	No.	Description	By
1/31/86	B	AS BUILT	RTT
10/3/84	A	ADDENDUM NO. 1	RTT

REVISION

Designed RTT | Approved | Drawn CWM/BF | Scale AS SHOWN | Date SEPT. 1984 | Checked JMH | Project No. A902003

POOL ENGINEERING, INC.
Consulting Engineers & Surveyors
2950 Northup Way, Bellevue, Washington 98004, (206) 822-6464
1225 Tongass Avenue, Ketchikan, Alaska 99901, (907) 225-6626

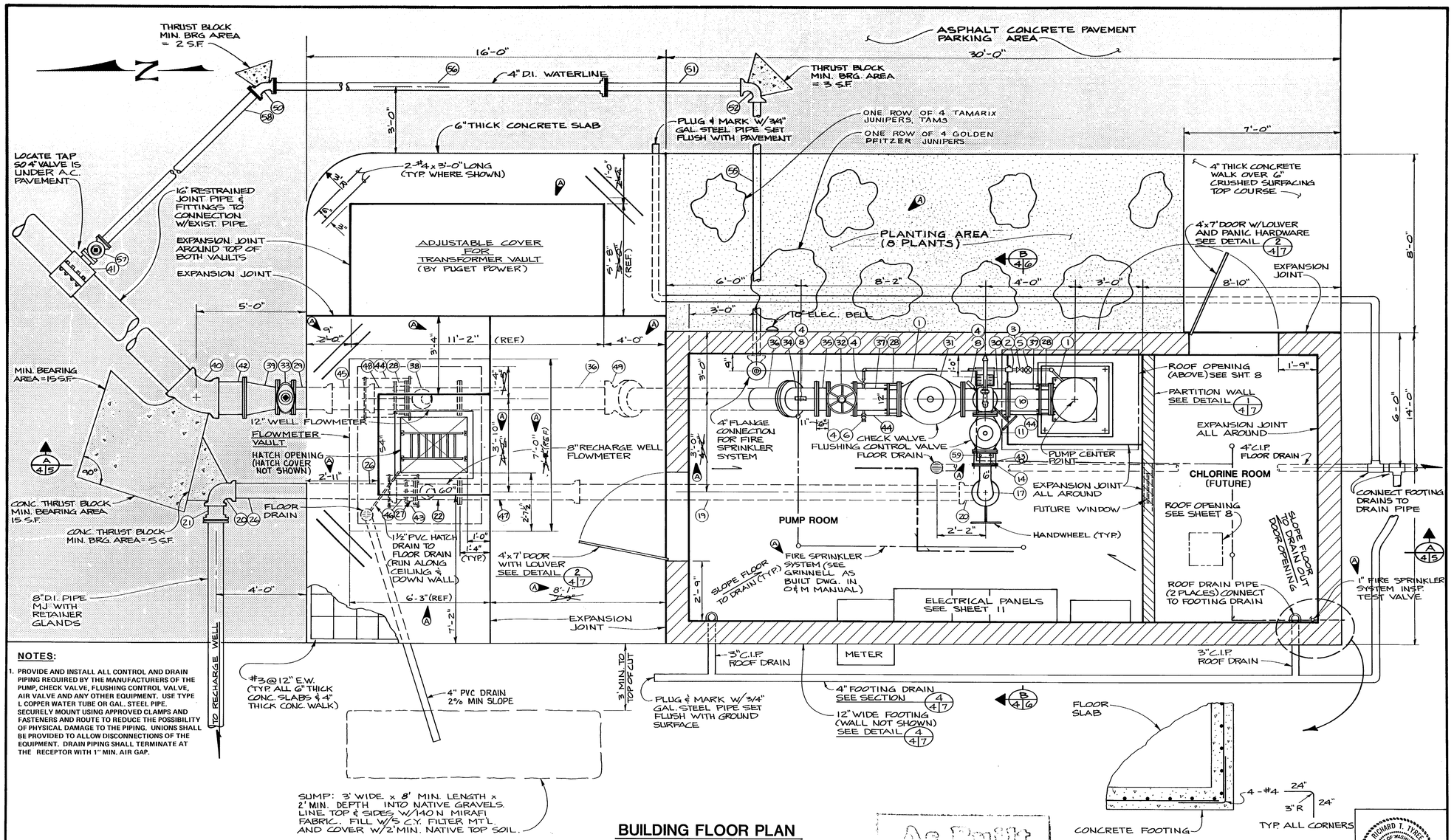
CITY OF AUBURN, WASHINGTON
WELL NO.4 WELLHOUSE

PAVING AND GRADING PLAN

3/14

85 W 1547

SHT. 3 OF 14



NOTES:

1. PROVIDE AND INSTALL ALL CONTROL AND DRAIN PIPING REQUIRED BY THE MANUFACTURERS OF THE PUMP, CHECK VALVE, FLUSHING CONTROL VALVE, AIR VALVE AND ANY OTHER EQUIPMENT. USE TYPE L COPPER WATER TUBE OR GAL. STEEL PIPE. SECURELY MOUNT USING APPROVED CLAMPS AND FASTENERS AND ROUTE TO REDUCE THE POSSIBILITY OF PHYSICAL DAMAGE TO THE PIPING. UNIONS SHALL BE PROVIDED TO ALLOW DISCONNECTIONS OF THE EQUIPMENT. DRAIN PIPING SHALL TERMINATE AT THE RECEPTOR WITH 1" MIN. AIR GAP.

BUILDING FLOOR PLAN

1/2" = 1'-0"

As Built
Date 1/31/86

APPROVED BY Max Seahrands
DATE 9-11-84
FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

RICHARD T. TYRRE — STATE OF WASHINGTON — 21575 — REGISTERED PROFESSIONAL ENGINEER

Date	No.	Description	By
1/31/86	A	AS BUILT	RTT

REVISION

Designed RTT | Approved RTT
Drawn CWM | Scale 1/2" = 1'-0" | Date SEPT. 1984
Checked JMH | Project No. A902003

POOL ENGINEERING, INC.
Consulting Engineers & Surveyors
2950 Northup Way, Bellevue, Washington 98004, (206) 822-6464
1225 Tongass Avenue, Ketchikan, Alaska 99901, (907) 225-6626

CITY OF AUBURN, WASHINGTON
WELL NO. 4 WELLHOUSE

BUILDING FLOOR PLAN

4/14

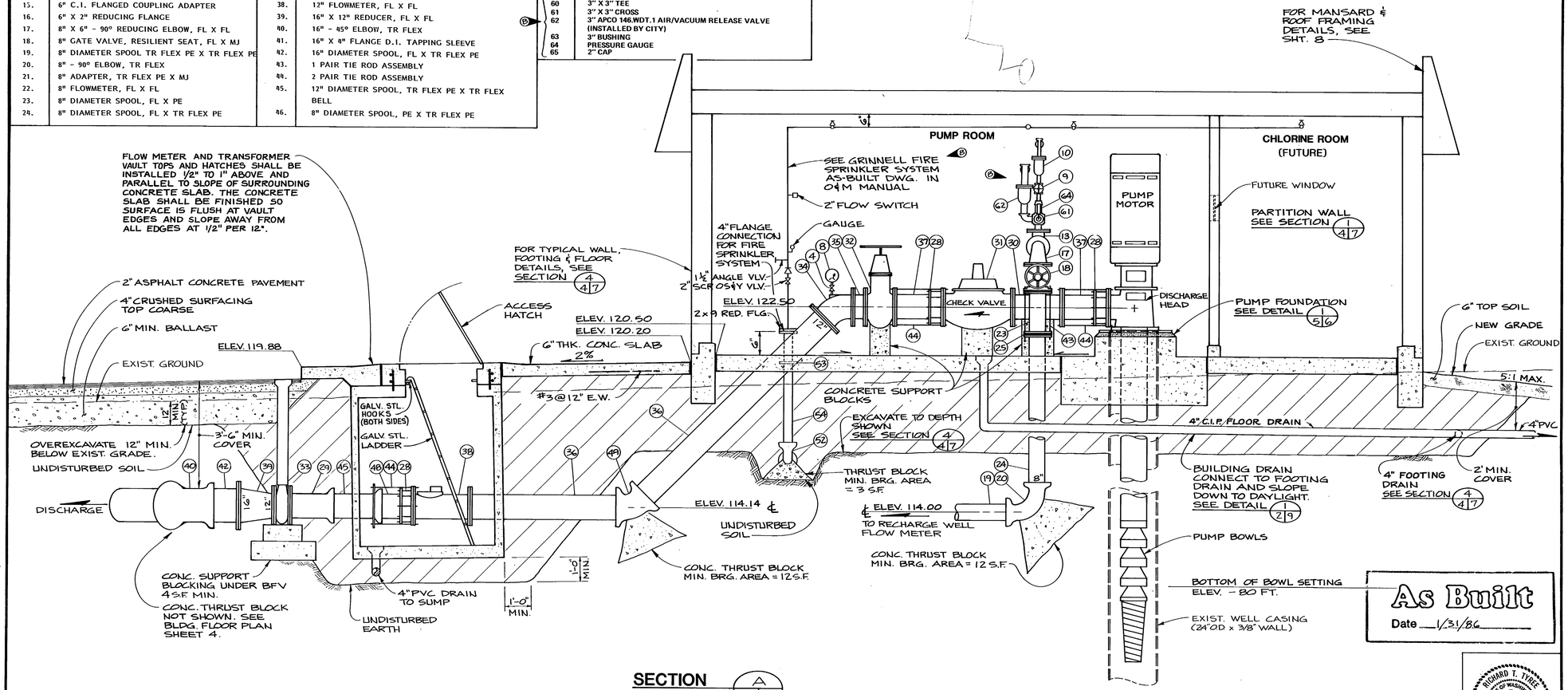
85 W 1547 SHT. 4 OF 14

KEY INDEX APPLICABLE TO SHEETS 4, 5 AND 6

KEY NO.	ITEM	KEY NO.	ITEM	KEY NO.	ITEM
1.	3/4" G.S. PIPE AND FITTINGS	25.	8" ORIFICE PLATE (BY FLUSHING CONTROL VALVE MANUFACTURER)	47.	8" DIAMETER SPOOL, FL X TR FLEX BELL
2.	3/4" TEE, THD WITH PLUG	26.	8" DIAMETER SPOOL, TR FLEX PE X TR FLEX BELL	48.	12" DIAMETER SPOOL, PE X TR FLEX PE
3.	3/4" GATE VALVE, RISING STEM	27.	8" C.I. FLANGED COUPLING ADAPTER	49.	12" - 45° ELBOW, TR FLEX
4.	3/4" CORP STOP	28.	12" C.I. FLANGED COUPLING ADAPTER	50.	4" - 45° ELBOW, MJ W/RETAINING GLAND
5.	3/4" SOLENOID VALVE	29.	12" DIAMETER SPOOL, FL X TR FLEX BELL	51.	4" DIAMETER SPOOL, PE X TR FLEX PE
6.	3/4" HOSE BIB	30.	12" X 6" TEE, FL X FL	52.	4" - 90° ELBOW, TR FLEX
7.		31.	12" CHECK VALVE, FL X FL	53.	4" RETAINER GLAND
8.	PRESSURE GAUGE	32.	12" GATE VALVE, RESILIENT SEAT, FL X FL	54.	4" DIAMETER SPOOL, FL X TR FLEX PE
9.	2" GATE VALVE, BRONZE, RISING STEM	33.	12" BUTTERFLY VALVE, FL X FL W/VALVE BOX	55.	4" DIAMETER SPOOL, TR FLEX PE X TR FLEX PE
10.	2" AIR/VACUUM RELEASE VALVE	34.	12" - 45° BEND FL X FL	56.	4" DIAMETER SPOOL, PE X MJ W/RETAINING GLAND
11.	6" FLUSHING CONTROL VALVE	35.	12" DIAMETER SPOOL, FL X FL, 11" LONG	57.	4" GATE VALVE, FL X MJ W/RETAINING GLAND AND VALVE BOX
12.	6" GATE VALVE, RESILIENT SEAT, FL X FL	36.	12" DIAMETER SPOOL, FL X TR FLEX PE	58.	4" DIAMETER SPOOL, PE X PE
13.	6" X 6" TEE, FL X FL	37.	12" DIAMETER SPOOL, FL X PE	59.	6" COMPANION FLANGE
14.	6" DIAMETER SPOOL, FL X PE	38.	12" FLOWMETER, FL X FL	60	3" X 3" TEE
15.	6" C.I. FLANGED COUPLING ADAPTER	39.	16" X 12" REDUCER, FL X FL	61	3" X 3" CROSS
16.	6" X 2" REDUCING FLANGE	40.	16" - 45° ELBOW, TR FLEX	62	3" APCO 146.WDT.1 AIR/VACUUM RELEASE VALVE (INSTALLED BY CITY)
17.	8" X 6" - 90° REDUCING ELBOW, FL X FL	41.	16" X 4" FLANGE D.I. TAPPING SLEEVE	63	3" BUSHING
18.	8" GATE VALVE, RESILIENT SEAT, FL X MJ	42.	16" DIAMETER SPOOL, FL X TR FLEX PE	64	PRESSURE GAUGE
19.	8" DIAMETER SPOOL TR FLEX PE X TR FLEX PE	43.	1 PAIR TIE ROD ASSEMBLY	65	2" CAP
20.	8" - 90° ELBOW, TR FLEX	44.	2 PAIR TIE ROD ASSEMBLY		
21.	8" ADAPTER, TR FLEX PE X MJ	45.	12" DIAMETER SPOOL, TR FLEX PE X TR FLEX BELL		
22.	8" FLOWMETER, FL X FL	46.	8" DIAMETER SPOOL, PE X TR FLEX PE		
23.	8" DIAMETER SPOOL, FL X PE				
24.	8" DIAMETER SPOOL, FL X TR FLEX PE				

NOTE:
PROVIDE AND INSTALL ALL ADDITIONAL PIPE, FITTINGS AND VALVES AS REQUIRED.

CONCRETE SUPPORTBLOCKS UNDER VALVES AND PIPE SHALL BE CONSTRUCTED OF A CAST-IN-PLACE CONCRETE SUPPORT PADS AND NON-SHRINK GROUT BETWEEN THE PADS AND THE VALVES AND PIPE. EACH SUPPORT PAD SHALL BE SMOOTHLY FINISHED WITH CHAMFERED EDGES AND CORNERS.



As Built
Date 1/31/86

SECTION A/4.5
1/2" = 1'-0"

APPROVED BY
DATE 9-11-84
FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

RICHARD T. TYREE — STATE OF WASHINGTON — 17870 — REGISTERED PROFESSIONAL ENGINEER

Date	No.	Description	By
1/31/86	B	AS BUILT	RTT
10/3/86	A	ADDENDUM NO.1	RTT

REVISION

Designed RTT
Drawn CWM
Checked JMH
Approved
Scale 1/2" = 1'-0" Date SEPT. 1984
Project No. A902003

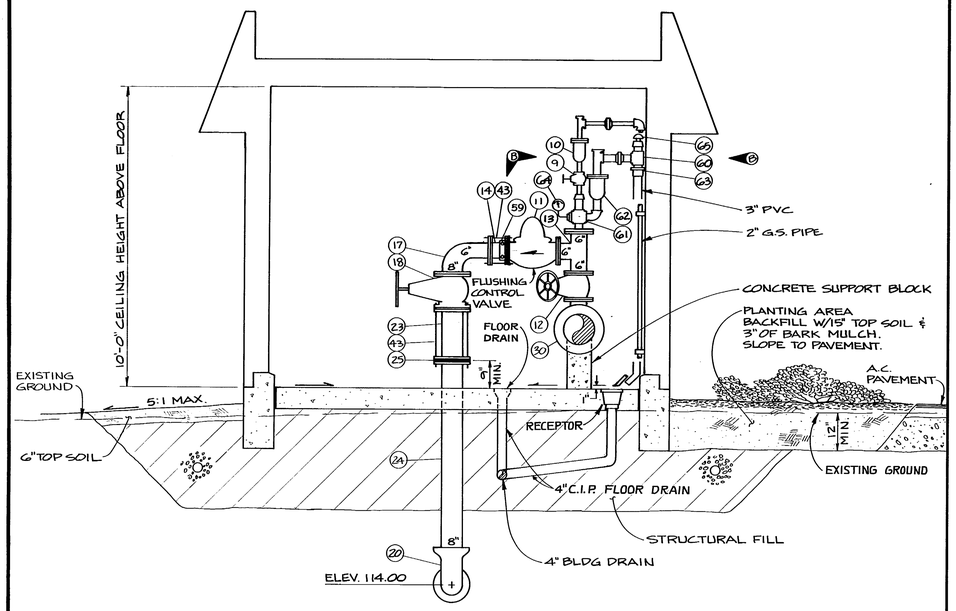
POOL ENGINEERING, INC.
Consulting Engineers & Surveyors
2950 Northup Way, Bellevue, Washington 98004, (206) 822-6464
1225 Tongass Avenue, Ketchikan, Alaska 99901, (907) 225-6626

CITY OF AUBURN, WASHINGTON
WELL NO. 4 WELLHOUSE

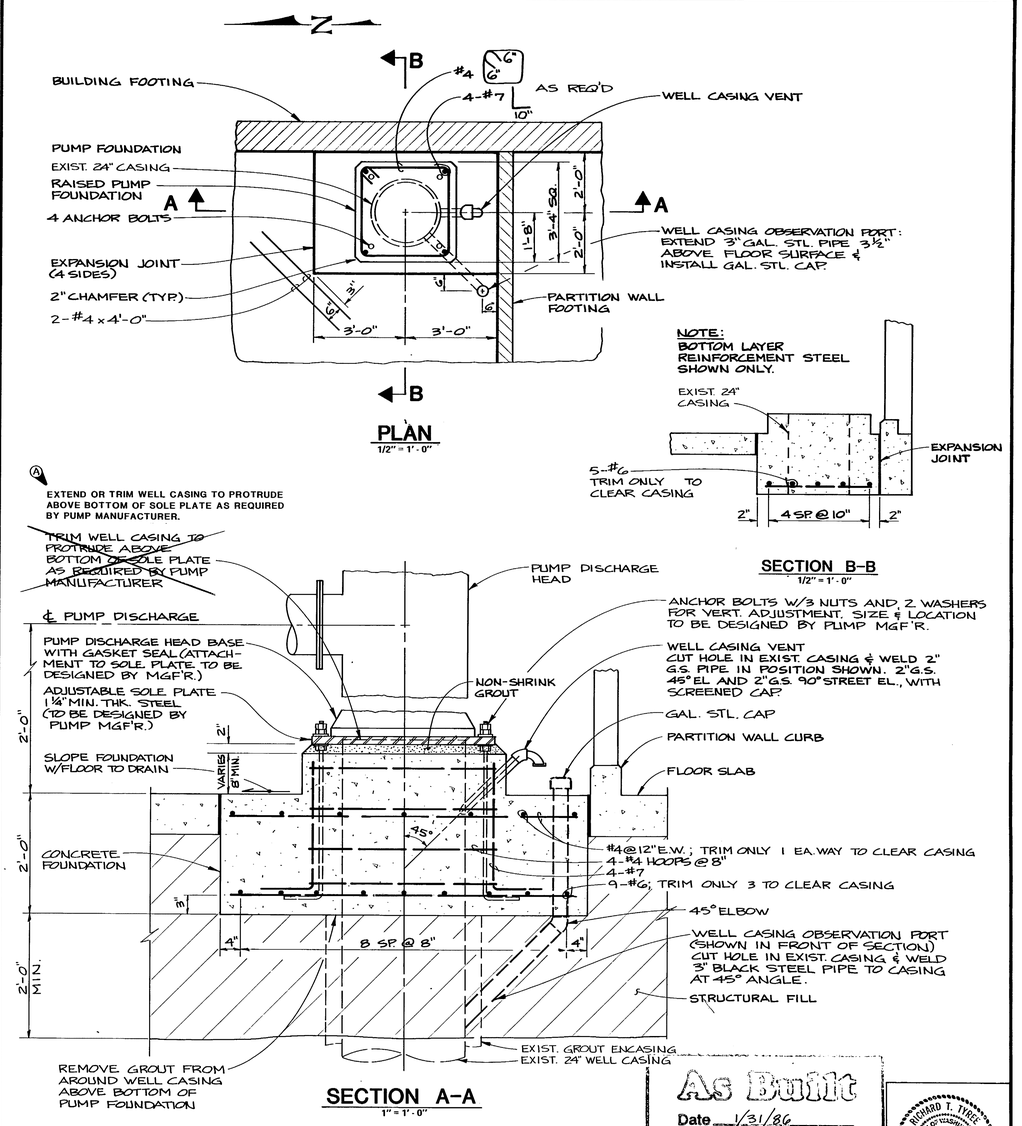
BUILDING SECTION

5/14

85 W 1547 SHT. 5 OF 14



SECTION B/4/6
1/2" = 1'-0"

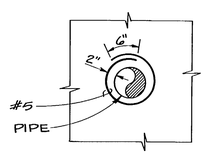


PLAN
1/2" = 1'-0"

SECTION B-B
1/2" = 1'-0"

SECTION A-A
1" = 1'-0"

PUMP FOUNDATION DETAIL 1/5/6
AS SHOWN



TYPICAL FLOOR PENETRATION DETAIL
N.T.S.

As Built
Date 1/31/86

APPROVED BY Merv Seabrands
DATE 9-11-84
FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

RICHARD T. TYRES
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER

Date	No.	Description	By
1/31/86	B	AS BUILT	RTT
10/3/84	A	ADDENDUM NO. 1	RTT

REVISION

Designed RTT | Approved | Drawn CWM | Scale AS SHOWN | Date SEPT. 1984 | Checked JMH | Project No. A902003

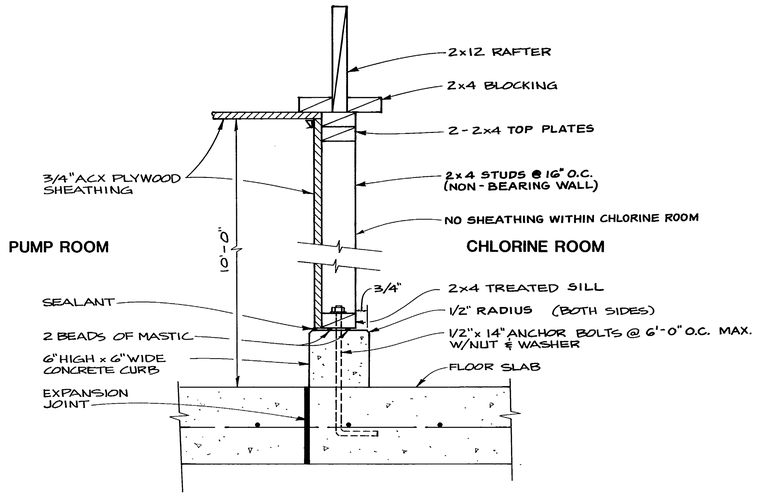
POOL ENGINEERING, INC.
Consulting Engineers & Surveyors
2950 Northup Way
Bellevue, Washington 98004
(206) 822-6464
1225 Tongass Avenue
Ketchikan, Alaska 99901
(907) 225-6626

CITY OF AUBURN, WASHINGTON
WELL NO. 4 WELLHOUSE

BUILDING SECTION & DETAILS

6/14

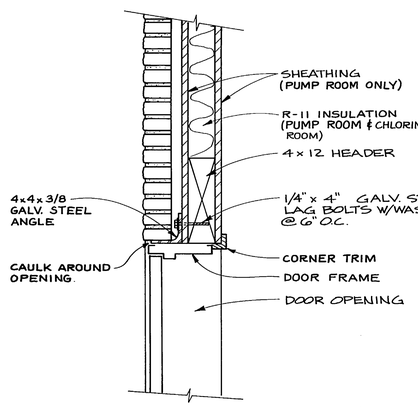
85 W 1547 SHT. 6 OF 14



PARTITION WALL SECTION

N.T.S.

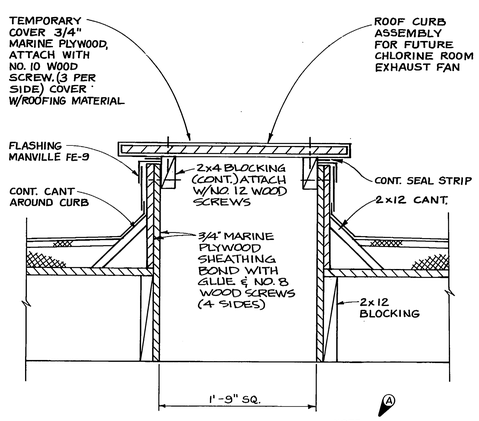
1 / 4 7



DOOR HEADER DETAIL

1 1/2" = 1'-0"

2 / 4 7



NOTE:
CURB HEIGHT SHALL BE 8-INCHES ABOVE ROOFING.

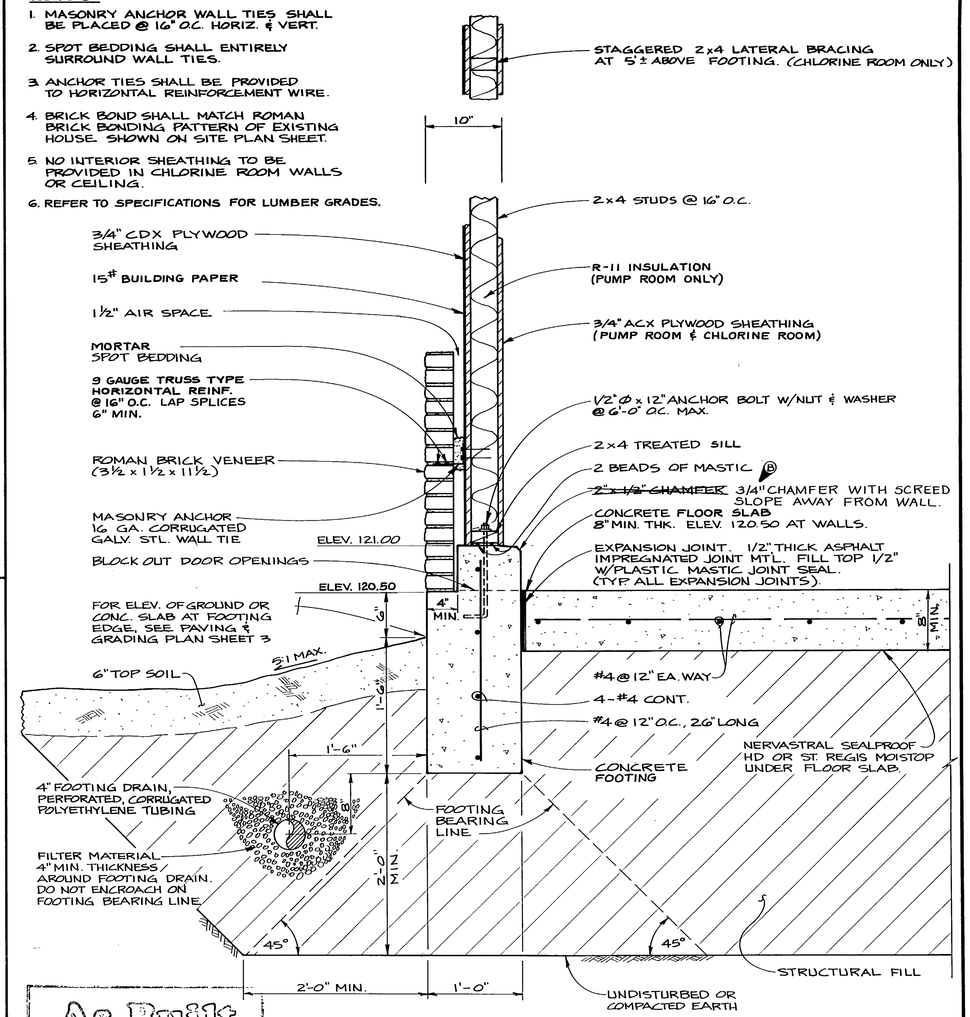
CURB DETAIL

1 1/2" = 1'-0"

3 / 8 7

NOTES:

1. MASONRY ANCHOR WALL TIES SHALL BE PLACED @ 16" O.C. HORIZ. & VERT.
2. SPOT BEDDING SHALL ENTIRELY SURROUND WALL TIES.
3. ANCHOR TIES SHALL BE PROVIDED TO HORIZONTAL REINFORCEMENT WIRE.
4. BRICK BOND SHALL MATCH ROMAN BRICK BONDING PATTERN OF EXISTING HOUSE. SHOWN ON SITE PLAN SHEET.
5. NO INTERIOR SHEATHING TO BE PROVIDED IN CHLORINE ROOM WALLS OR CEILING.
6. REFER TO SPECIFICATIONS FOR LUMBER GRADES.



As Built
Date 1/31/86

TYPICAL WALL, FOOTING & FLOOR SECTION

1 1/2" = 1'-0"

4 / 4 7

APPROVED BY Mary Fedrowitz
DATE 9-11-84
FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

RICHARD T. TYLER, STATE OF WASHINGTON, 16134, REGISTERED PROFESSIONAL ENGINEER

Date	No.	Description	By
1/31/86	B	AS BUILT	RTT
10/3/84	A	ADDENDUM NO. 1	RTT

REVISION

Designed RTT | Approved RTT | Drawn CWM | Scale AS SHOWN | Date SEPT. 1984 | Checked JMH | Project No. A902003

POOL ENGINEERING, INC.
Consulting Engineers & Surveyors
2950 Northup Way, Bellevue, Washington 98004, (206) 822-6464
1225 Tongass Avenue, Ketchikan, Alaska 99901, (907) 225-6626

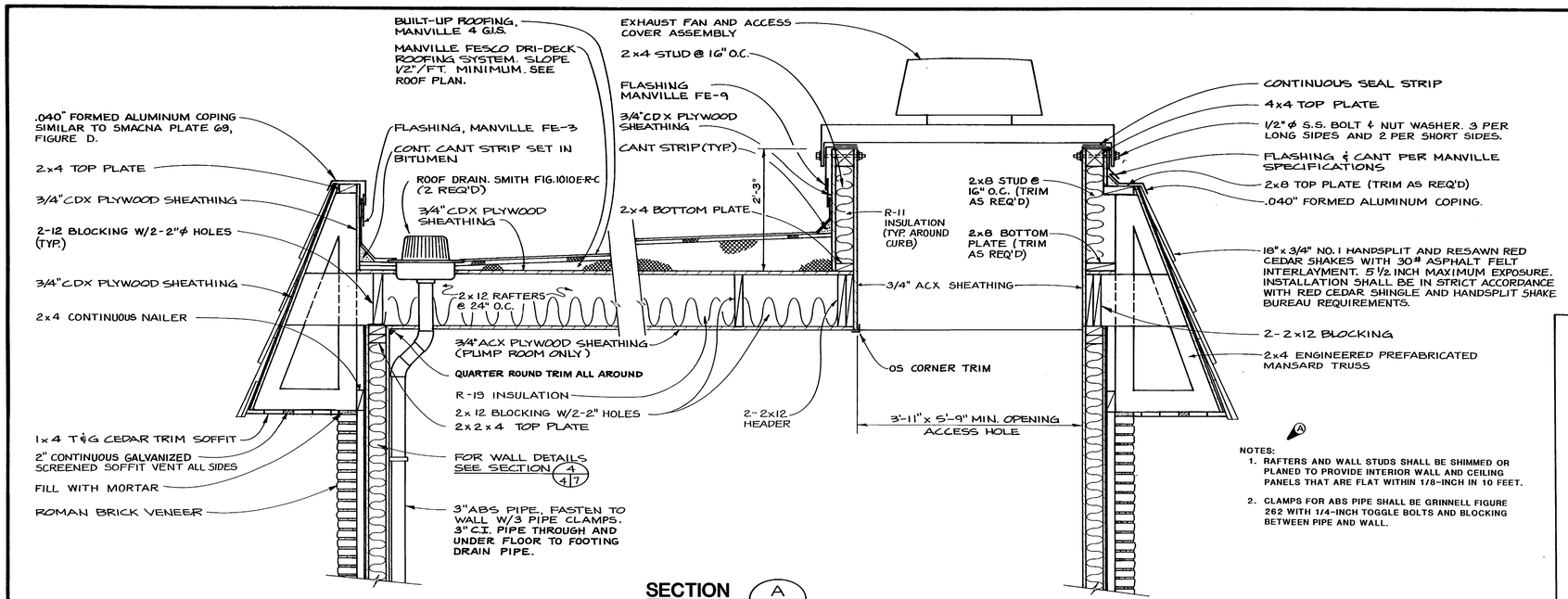
CITY OF AUBURN, WASHINGTON
WELL NO. 4 WELLHOUSE

BUILDING DETAILS

7 / 14

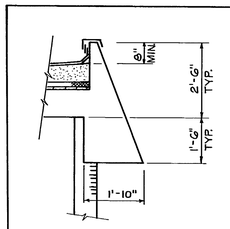
85 W 1547

SHT. 7 OF 14



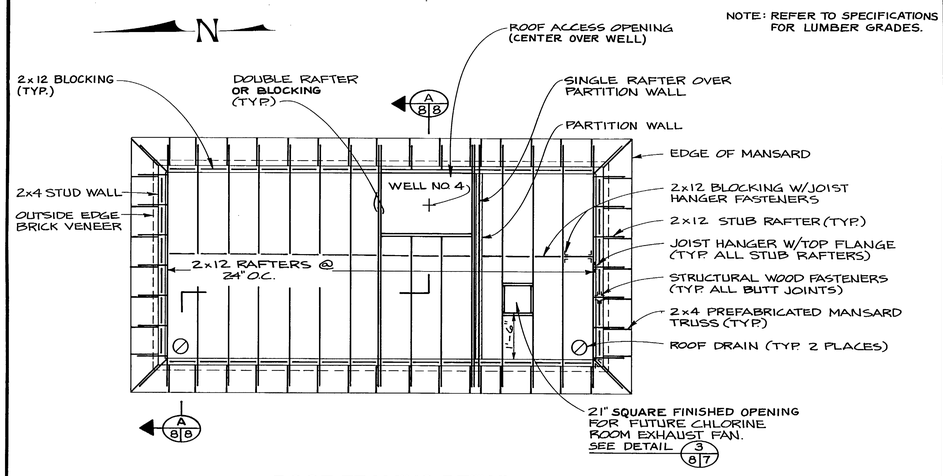
NOTES:
1. RAFTERS AND WALL STUDS SHALL BE SHIMMED OR PLANED TO PROVIDE INTERIOR WALL AND CEILING PANELS THAT ARE FLAT WITHIN 1/8-INCH IN 10 FEET.
2. CLAMPS FOR ABS PIPE SHALL BE GRINNELL FIGURE 262 WITH 1/4-INCH TOGGLE BOLTS AND BLOCKING BETWEEN PIPE AND WALL.

SECTION A 8|8
1" = 1'-0"

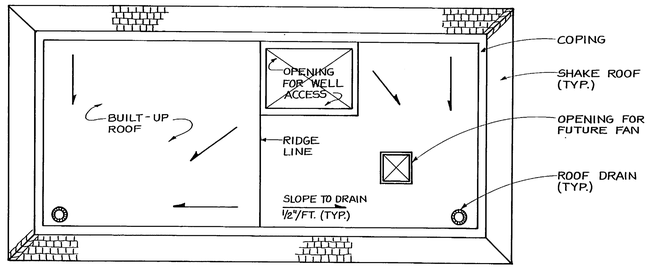


MANSARD GEOMETRY
1/2"=1'-0"

NOTE: REFER TO SPECIFICATIONS FOR LUMBER GRADES.



ROOF FRAMING DETAIL
1/4" = 1'-0"



ROOF PLAN
1/4"=1'-0"

As Built
Date 1/31/86

APPROVED BY Marv Sedrands
DATE 9-11-84
FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

RICHARD T. TYREE — STATE OF WASHINGTON — 8475 — REGISTERED PROFESSIONAL ENGINEER

Date	No.	Description	By
10/3/84	A	ADDENDUM NO. 1	RTT

REVISION

Designed RTT | Approved | Drawn CWM | Scale AS SHOWN | Date SEPT. 1984 | Checked JMH | Project No. A902003

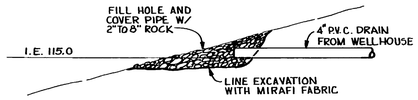
POOL ENGINEERING, INC.
Consulting Engineers & Surveyors
2950 Northup Way, Bellevue, Washington 98004, (206) 822-6464
1225 Tongass Avenue, Ketchikan, Alaska 99901, (907) 225-6626

CITY OF AUBURN, WASHINGTON
WELL NO. 4 WELLHOUSE

BUILDING DETAILS

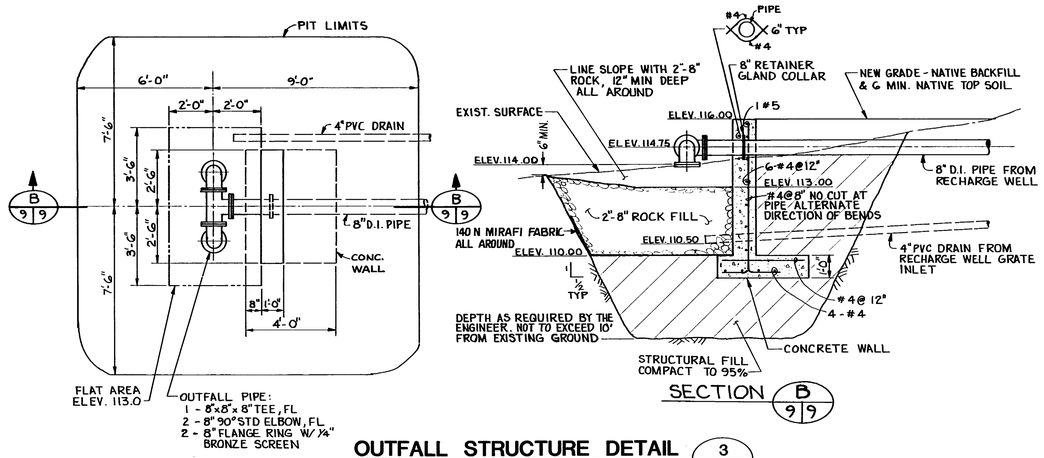
8/14

85 W 1547 SHT. 8 OF 14



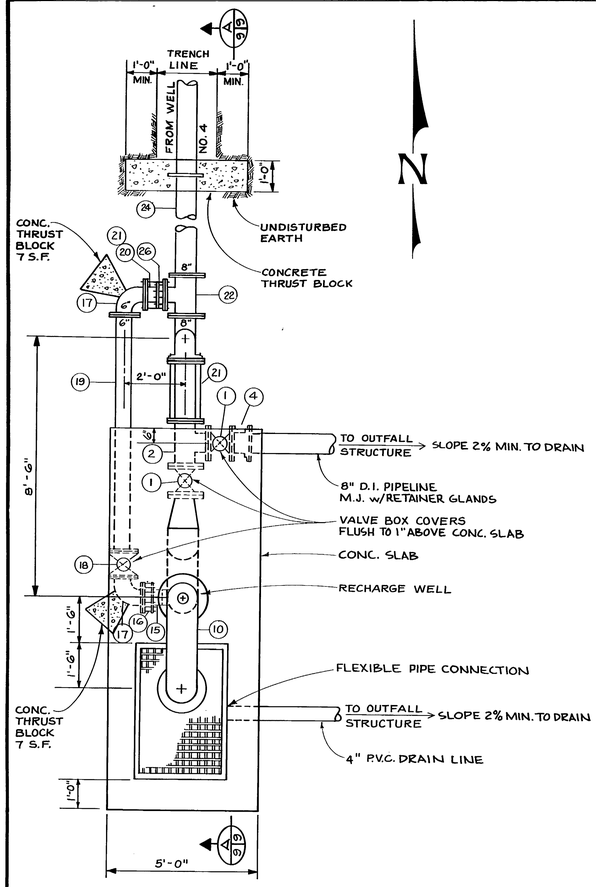
BUILDING DRAIN OUTFALL (1 / 2|9)

N.T.S.



OUTFALL STRUCTURE DETAIL (3 / 2|9)

SCALE: 3/8" = 1'-0"



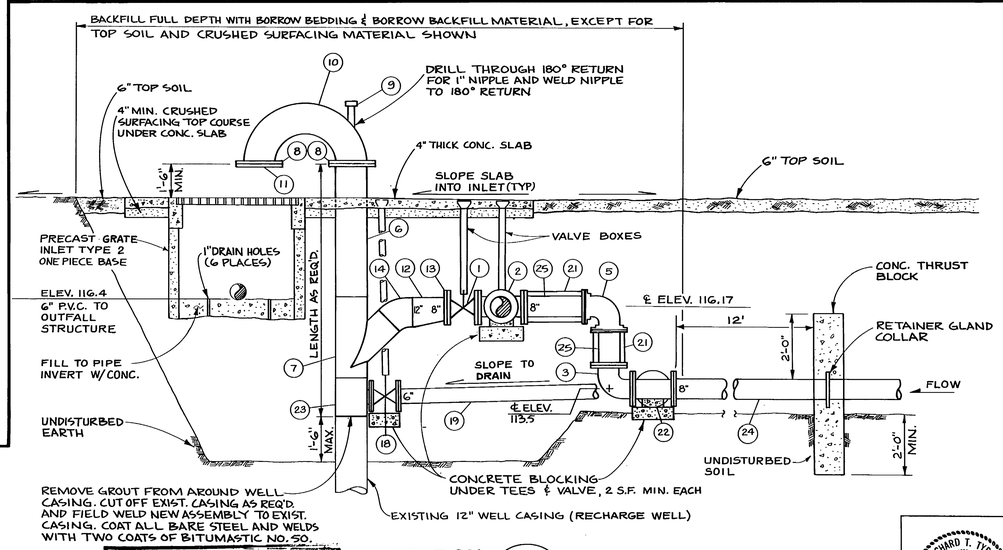
RECHARGE WELL PIPING DETAIL (2 / 2|9)

1/2" = 1'-0"

NOTE: KEY INDEX APPLICABLE TO DETAIL (2 / 2|9) AND SECTION (A / 9|9)

KEY NO.	ITEM
1.	8" GATE VALVE WITH VALVE BOX, FL X FL
2.	8" X 8" TEE, FL X FL , D.I.
3.	8" – 90° ELBOW, FL X FL , D.I.
4.	8" FL X MJ ADAPTER
5.	8" – 90° ELBOW, MJ X MJ , D.I.
6.	12" STEEL PIPE, FL X PE
7.	12" STEEL 45° LATERAL
8.	12" CLASS 150 WELD ON STEEL FLANGE W/FLAT FACE
9.	1" STEEL NIPPLE WITH CAP
10.	12" – 180° STEEL RETURN
11	12" FLANGE W/1/4" SQ. BRONZE SCREEN
12.	12" X 8" STEEL ECCENTIC REDUCER
13.	8" CLASS 150 WELD ON STEEL FLANGE W/FLAT FACE
14.	12" – 45° STEEL BEND
15.	6" STEEL SPOOL, PE X PE
16.	6" FLANGED COUPLING ADAPTOR , C.I. (TO FIT STEEL PIPE)
17.	6" – 90° ELBOW, FL X FL , D.I.
18.	6" GATE VALVE WITH VALVE BOX, FL X FL
19.	6" SPOOL, FL X FL , D.I.
20.	6" SPOOL, FL X PE ,D.I.
21.	TWO PAIR TIE RODS
22.	8" X 6" TEE, FL X FL, D.I.
23.	12" X 6" STEEL TEE
24.	8" D.I. FL X PE SPOOL, WITH RETAINER GLAND COLLAR
25.	8" SPOOL, FL X PE, D. I.
26.	6" FLANGED COUPLING ADAPTER, C.I. (TO FIT D.I. PIPE)

NOTES:
1. SHOP FABRICATE, WELD AND FINISH NEW STEEL PIPE ASSEMBLY FOR RECHARGE WELL.



SECTION (A / 9|9)

1/2" = 1'-0"

As Built
Date 1/31/86

APPROVED BY Glenn Jackhands
DATE 4-11-84
FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

RICHARD T. TYRRE, STATE OF WASHINGTON, #13173, REGISTERED PROFESSIONAL ENGINEER

Date	No.	Description	By
		REVISION	

Designed RTT | Approved | Drawn SRS/BF | Scale AS SHOWN | Date SEPT. 1984 | Checked JMH | Project No. A902003

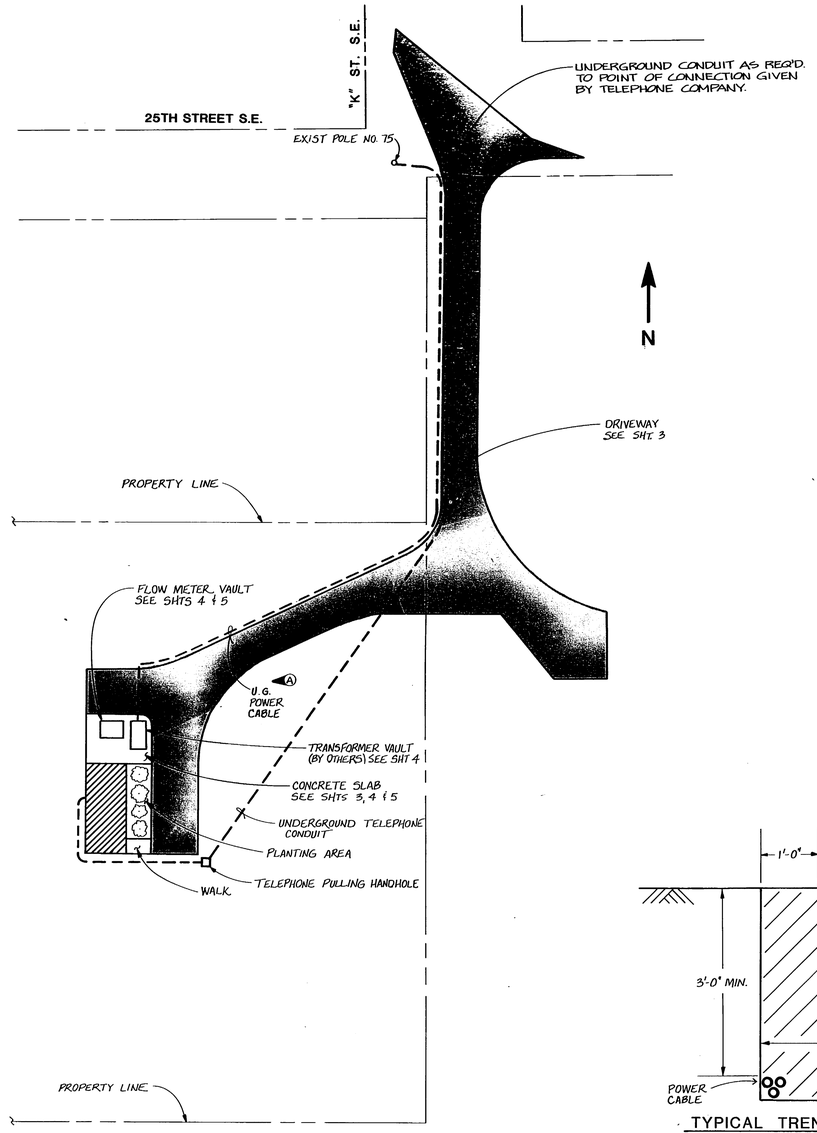
POOL ENGINEERING, INC.
Consulting Engineers & Surveyors
2950 Northup Way, Bellevue, Washington 98004, (206) 822-6464
1225 Tongass Avenue, Ketchikan, Alaska 99901, (907) 225-6626

CITY OF AUBURN, WASHINGTON
WELL NO. 4 WELLHOUSE

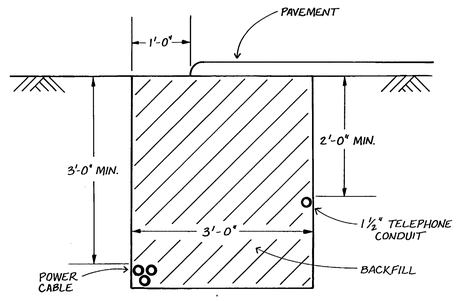
PIPING DETAILS

9 / 14

85 W 1547 SHT. 9 OF 14



SITE PLAN
SCALE: 1" = 20'-0"



TYPICAL TRENCH CROSS SECTION
SCALE: 1" = 1'-0"

PLAN AND DIAGRAM SYMBOL LEGEND

PLAN	ONE LINE DIAGRAM	CONTROL DIAGRAM	DESCRIPTION
75 HP	75 HP	75 HP	MOTOR, NUMBER INSIDE CIRCLE INDICATES HORSEPOWER
75kW U.H.	HTR.	HTR.	HEATER, NUMBER INDICATES KILOWATTS
PB	PB		PUSHBUTTON
HOA	HOA	H O A	SELECTOR SWITCH, HAND - OFF - AUTO
SV	SV	SV	SV - SOLENOID VALVE
FS	FS		FS - FLOAT SWITCH
PS	PS		PS - PRESSURE SWITCH
TS	TS		TS - TEMPERATURE SWITCH
LS	LS		LS - LIMIT SWITCH
CR	CR	CR	CR - CONTROL RELAY
PFR	PFR	PFR	PFR - PHASE FAILURE RELAY
M	M	M	M - MAGNETIC MOTOR STARTER
AUX			NORMALLY OPENED CONTACT
AUX			NORMALLY CLOSED CONTACT
			TIME DELAY CONTACT

PLAN	DESCRIPTION
	LIGHTING FIXTURE (SURFACE OR WALL MOUNTED) F1 INDICATES FIXTURE TYPE, P1 - 2 INDICATES PANEL AND CIRCUIT NUMBER.
	FLUORESCENT LIGHTING FIXTURE, SURFACE, PENDANT OR RECESSED MOUNTED. F INDICATES FIXTURE TYPE, P1-2 INDICATES PANEL & CIRCUIT NUMBER.
	DUPLEX RECEPTACLE GROUNDING TYPE, P1-2 INDICATES PANEL & CIRCUIT NUMBER.
	LIQUID TIGHT FLEXIBLE METAL CONDUIT
J	JUNCTION BOX WITH BLANK COVER
	CIRCUIT BREAKER PANEL
	CONDUIT & WIRE CONCEALED UNDERGROUND OR IN FLOOR.
	CONDUIT & WIRE EXPOSED IF GREATER THAN 1", CONCEALED IN CEILING & WALL IF 1" OR SMALLER.
	NUMBER OF CONDUCTORS
	BRANCH CONDUIT HOME RUN
3	CONDUIT NUMBER
	CONDUIT BENT DOWN OR AWAY
	CONDUIT BENT UP OR TOWARD
$	SINGLE POLE SWITCH OUTLET
	PUSHBUTTON

ABBREVIATIONS

CKT.	CIRCUIT
C.O.	CONDUIT ONLY
N.L.	NIGHT LIGHT
C.U.	COPPER
WP.	WEATHER PROOF
NEUT.	NEUTRAL
GND.	GROUND
U.G.	UNDER GROUND
PNL.	PANEL
HOA	HAND-OFF-AUTO SELECTOR SWITCH
AIC	AMBER INDICATING LIGHT
RIL	RED INDICATING LIGHT
GIL	GREEN INDICATING LIGHT
M	MOTOR STARTER OR SMALL MOTOR
L	LEVEL INDICATOR
MD	MOISTURE DETECTOR
TD.	TEMPERATURE DETECTOR
O/L	OVERLOAD
VFD	VARIABLE FREQUENCY DRIVE
WHM	WATT HOUR METER

As Built
Date 1/31/86

APPROVED BY Mow Seaburnds
DATE 9-6-84
FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

ROBERT J. CASEY STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER

Date	No.	Description	By
1/31/86	A	AS BUILT	RTT

REVISION

Designed RA | Approved | Drawn EK | Scale AS SHOWN | Date AUGUST 1984 | Checked RJC | Project No. A902003

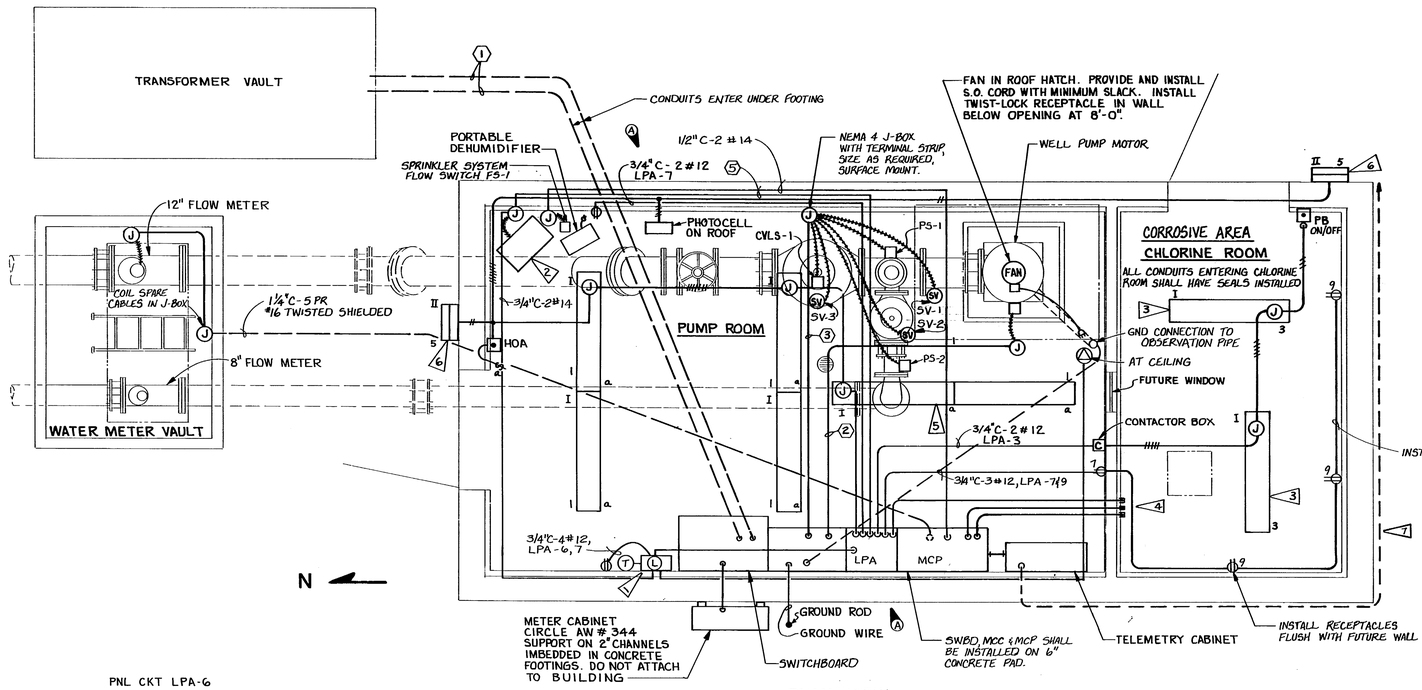
POOL ENGINEERING INC.
2950 Northup Way, Bellevue, Wa. 98004, 206 / 822-6464
1225 Tongass Avenue, Ketchikan, Ak. 99901, 907 / 225-6626

CITY OF AUBURN, WASHINGTON
WELL NO. 4 WELLHOUSE

ELECTRICAL SITE PLAN & LEGEND

10/14

85 W 1547 SHT. 10 OF 14



PLAN VIEW
SCALE: 1/2" = 1'-0"

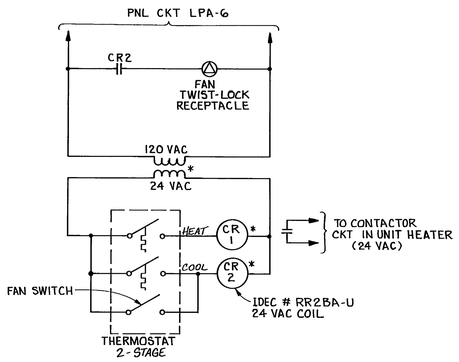
CONSTRUCTION NOTES:

1. HVAC CONTROL BOX - NEMA 12 ENCLOSURE 12"x 12"x 4" W/HINGE DOOR, 120-24 VAC TRANSFORMER 2 RELAYS, AND TERMINAL BLOCK. INSTALL CABINET ON WALL ABOVE C/T CABINET.
2. UNIT HEATER. INSTALL ON WALL AT 7'-6" TO BOTTOM USING # MMB-5 BRACKET.
3. INSTALL LIGHTS IN CHLORINE ROOM ON UNISTRUTS ATTACHED TO CEILING BEAMS. INSTALL OUTLET BOXES FLUSH WITH FUTURE CEILING. FIXTURES WILL BE REMOUNTED WHEN CEILING IS INSTALLED.
4. 3/4" CONDUITS. STUB OUT AND CAP ABOVE CEILING LEVEL FOR FUTURE USE.
5. MOUNT TYPE I FIXTURES IN PUMP ROOM ON CEILING.
6. TOP OF FLOODLIGHTS TO BE 6" BELOW SOFFITT.
7. 1½" TELEPHONE SERVICE CONDUIT WITH #12 PULL WIRE. SEE SITE PLAN FOR CONTINUATION.

FIXTURE SCHEDULE:

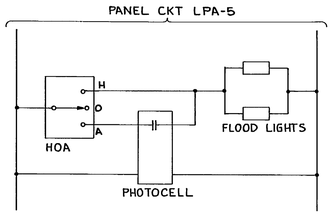
TYPE	DESCRIPTION
I	HOLOPHANE PRISMATITE # 7200-4-DR-PI-WX
II	HOLOPHANE # 486-120-0109-PC

As Built
Date 1/31/86

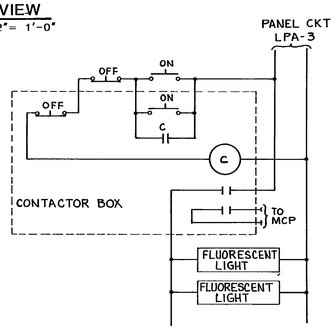


HVAC CONTROL DIAGRAM

ITEMS IDENTIFIED WITH A STAR (*) ARE LOCATED IN HVAC CONTROL BOX



FLOODLIGHT CONTROL DIAGRAM



CHLORINE ROOM LIGHTING CONTROL DIAGRAM

PANEL SCHEDULE

NO: LPA | LOCATION: | SERVING: | 120/208 VOLTS 3 PHASE 4 WIRE | 60 AMP with MAIN BRKR

CKT NO	LOAD DESCRIPTION	KVA	TRIP AMPS	TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO
1	LIGHTS - PUMP ROOM	.5	20	20	.5	TELEMETRY	2
3	LIGHTS - CHLORINE ROOM	.2	20	20	1.0	VOLT REG TRANSFORMER	4
5	FLOOD LIGHTS	.4	20	20	.5	HVAC	6
7	RECEPTACLES - PUMP ROOM	.4	20	20		SPARE	8
9	RECEPTACLES - CL_2 ROOM	.6	20	20		SPARE	10
11	SPARE		20	20		SPARE	12
13							14
15							16
17							18
19							20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35							36
37							38
39							40
41							42

REMARKS:

	KVA	AMPS
CONNECTED LOAD		
DEMAND LOAD		

APPROVED BY [signature]
DATE 9-11-84
FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

ROBERT J. CASNE — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

Date	No.	Description	By
1/31/86	A	AS BUILT	RTT

REVISION

Designed RA | Drawn LJM | Checked RJC | Approved [signature] | Scale NONE | Date AUGUST 1984 | Project No. A902003

POOL ENGINEERING, INC.
Consulting Engineers & Surveyors
2950 Northup Way, Bellevue, Washington 98004, (206) 822-6464
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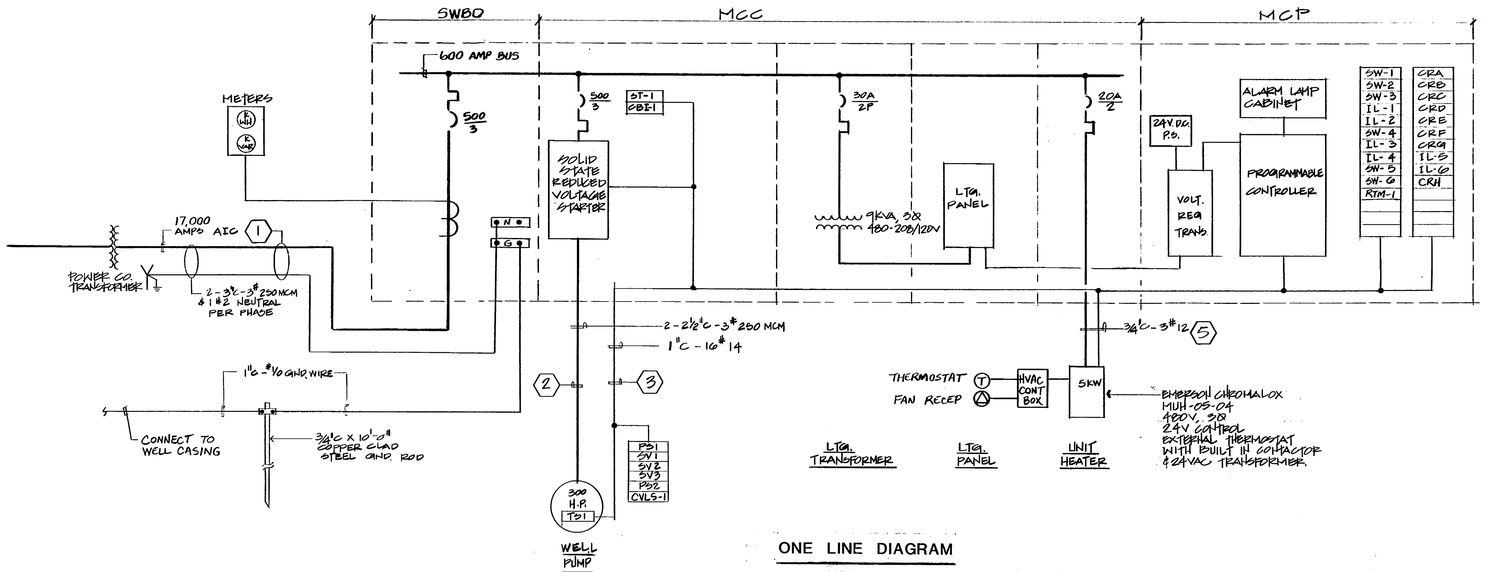
CITY OF AUBURN, WASHINGTON
WELL NO.4 WELLHOUSE

POWER AND LIGHTING PLAN & DIAGRAMS

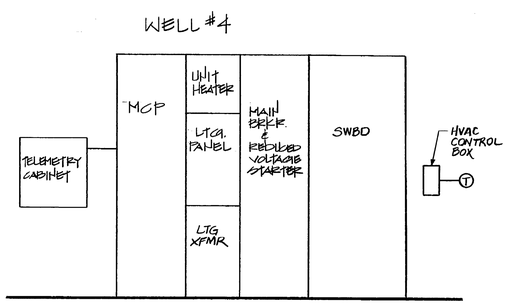
11/14

89 W 1547 SHT. 11 OF 14



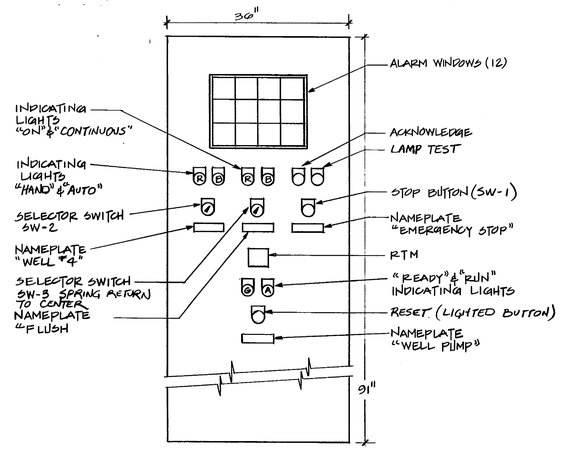
ONE LINE DIAGRAM

NTS



ELECTRICAL EQUIPMENT ELEVATION

NTS



MCP ELEVATION

NTS

As Built

Date 1/31/86

APPROVED BY Marv Seaburands

DATE 9-11-84

FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

ROBERT J. CASEY — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

Date	No.	Description	By
		REVISION	

Designed RA | Drawn EK | Checked RJC | Approved | Scale NONE | Date AUGUST 1984 | Project No. A902003

POOL ENGINEERING, INC.
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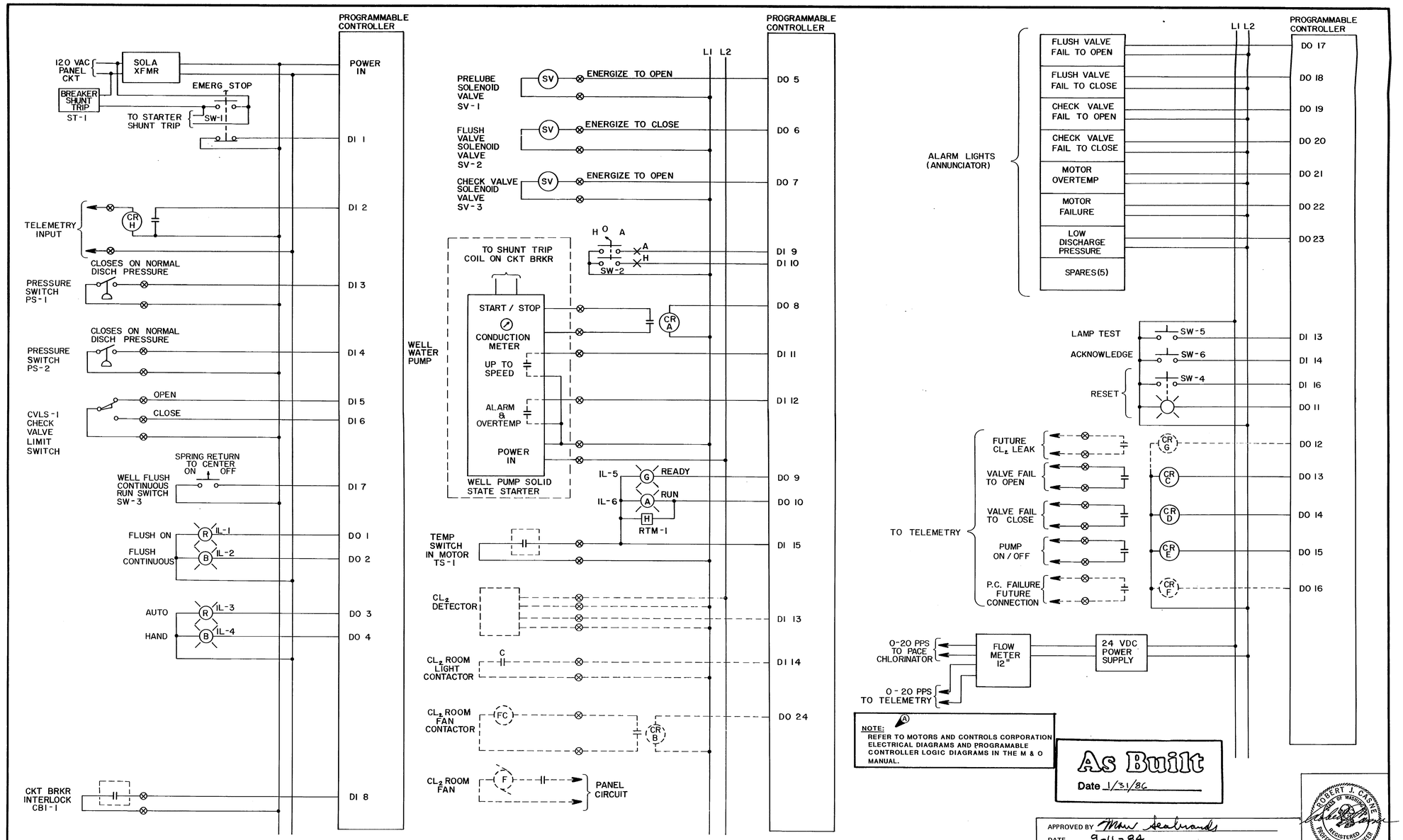
CITY OF AUBURN, WASHINGTON
WELL NO.4 WELLHOUSE

ONE LINE DIAGRAM & EQUIPMENT ELEVATIONS

12/14

85 W 1547 SHT. 12 OF 14



Date	No.	Description	By
1/31/86	A	AS BUILT	RTT

REVISION

Designed RA | Drawn EK | Checked RJC | Approved | Scale NONE | Date AUGUST 1984 | Project No. A902003

POOL ENGINEERING, INC.
Consulting Engineers & Surveyors
2950 Northup Way
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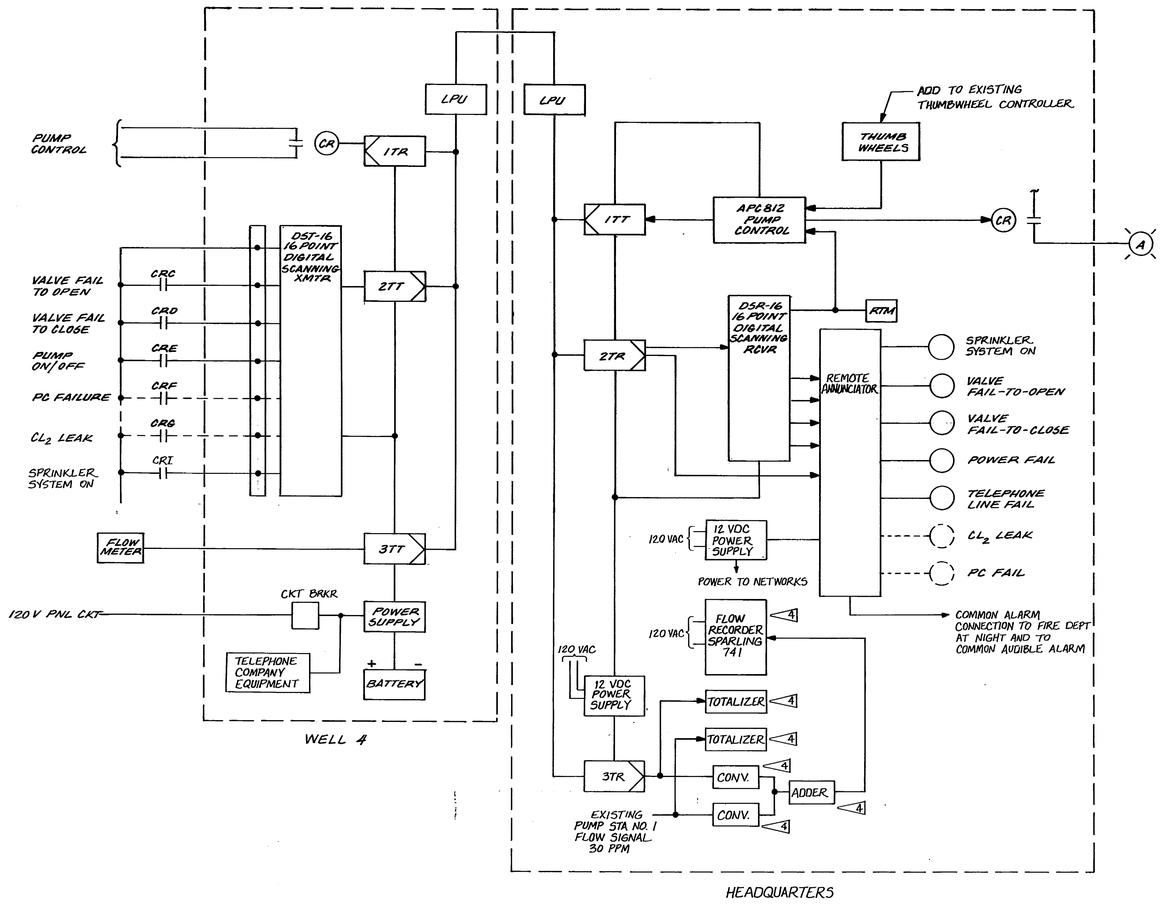
Ketchikan, Alaska 99901
(907) 225-6626

CITY OF AUBURN, WASHINGTON
WELL NO.4 WELLHOUSE

ELECTRICAL CONNECTION DIAGRAMS

13/14

85 W 1547 SHT. 13 of 14



TELEMETRY SCHEMATIC

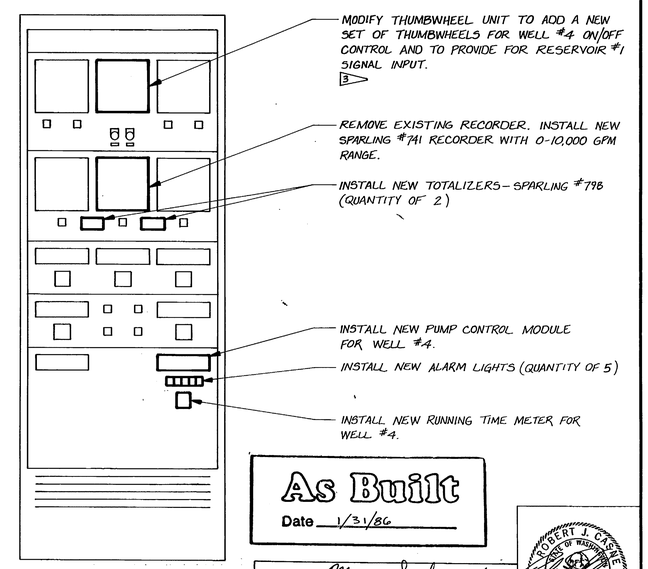
A
NOTE:
REFER TO STEAD AND BAGGERLY DRAWINGS IN M & O MANUAL.

NOTES:

1. CONTRACTOR SHALL SUPPLY ADDITIONAL SIGNAL CONDITIONING NETWORKS AS REQUIRED.
2. INSTALL HINGED MOUNTING FRAME FOR EQUIPMENT RACK.
3. EXISTING SPARLING MODEL 791 THUMBWHEEL CONTROLLER UNIT SHALL BE SHOP MODIFIED TO PROVIDE FOR 2 SIGNAL INPUTS. THE EXISTING 4 SETS OF THUMBWHEELS CONNECT TO RES #2 LEVEL SIGNAL INPUT, THE NEW SET OF THUMBWHEELS SHALL CONNECT TO RES #1 LEVEL SIGNAL INPUT.
4. NEW FLOW RECORDER WILL RECORD THE SUM OF NEW WELL #4 FLOW SIGNAL (20 PPS) AND EXISTING PUMP STA. #1 FLOW SIGNAL (30 PPM). THE TWO PULSE SIGNALS WILL BE CONVERTED TO VOLTAGE (OR CURRENT) SIGNALS, SUMMED USING AN ADDER NETWORK, AND INPUT TO RECORDER. A TOTALIZER SHALL BE PROVIDED FOR EACH FLOW SIGNAL. THE PULSE INPUTS SHALL BE CONNECTED DIRECTLY TO THE TOTALIZERS WITHOUT CONVERSION.

HEADQUARTERS PANEL MODIFICATIONS

1. MODIFY PANEL FACE AS SHOWN BELOW.
2. INSTALL NEW TONE DEVICES & LPU (WITH EQUIPMENT RACK) PER TELEMETRY SCHEMATIC.
3. INSTALL POWER SUPPLY FOR TONE EQUIPMENT.
4. INSTALL REMOTE ANNUNCIATOR.
5. INSTALL RELAY FOR GRAPHICS LIGHT CONTROL.
6. INSTALL SIGNAL CONDITIONING NETWORKS.
7. CONNECT ALL DEVICES AS REQUIRED.



HEADQUARTERS PANEL
BAY 1

As Built
Date 1/31/86

APPROVED BY Marv Seahrands
DATE 9-11-84
FOR DIRECTOR OF PUBLIC WORKS, CITY OF AUBURN

ROBERT J. CASSIE · STATE OF WASHINGTON · REGISTERED PROFESSIONAL ENGINEER

Date	No.	Description	By
1/31/86	A	AS BUILT	RTT

REVISION

Designed RA · Drawn EK · Checked RJC · Approved · Scale NONE · Date JULY 1984 · Project No. A902003

POOL ENGINEERING, INC.
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2950 Northup Way, Bellevue, Washington 98004, (206) 822-6464
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CITY OF AUBURN, WASHINGTON
WELL NO.4 WELLHOUSE

TELEMETRY SCHEMATIC

14/14

85 W 1547 SHT. 14 OF 14