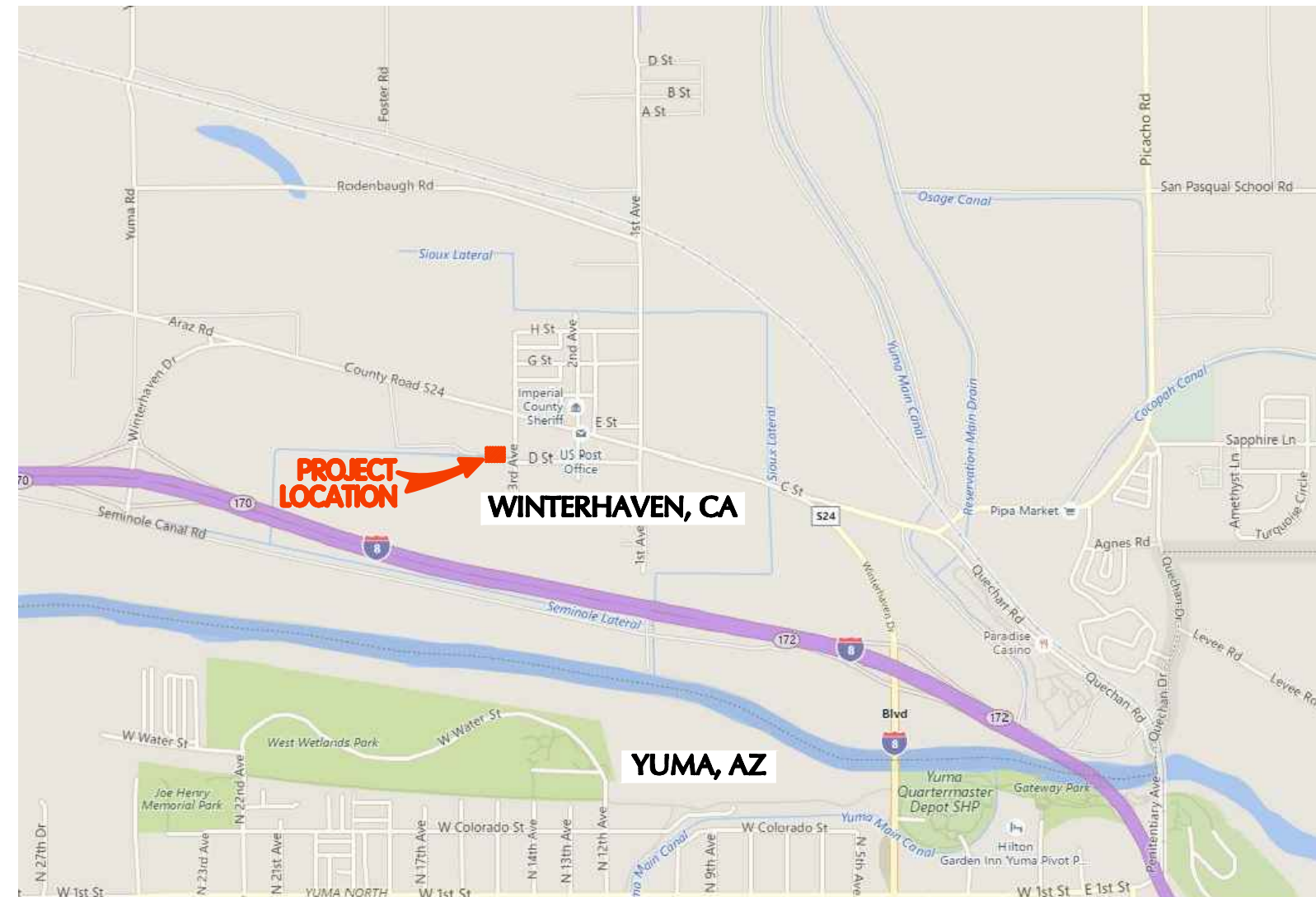


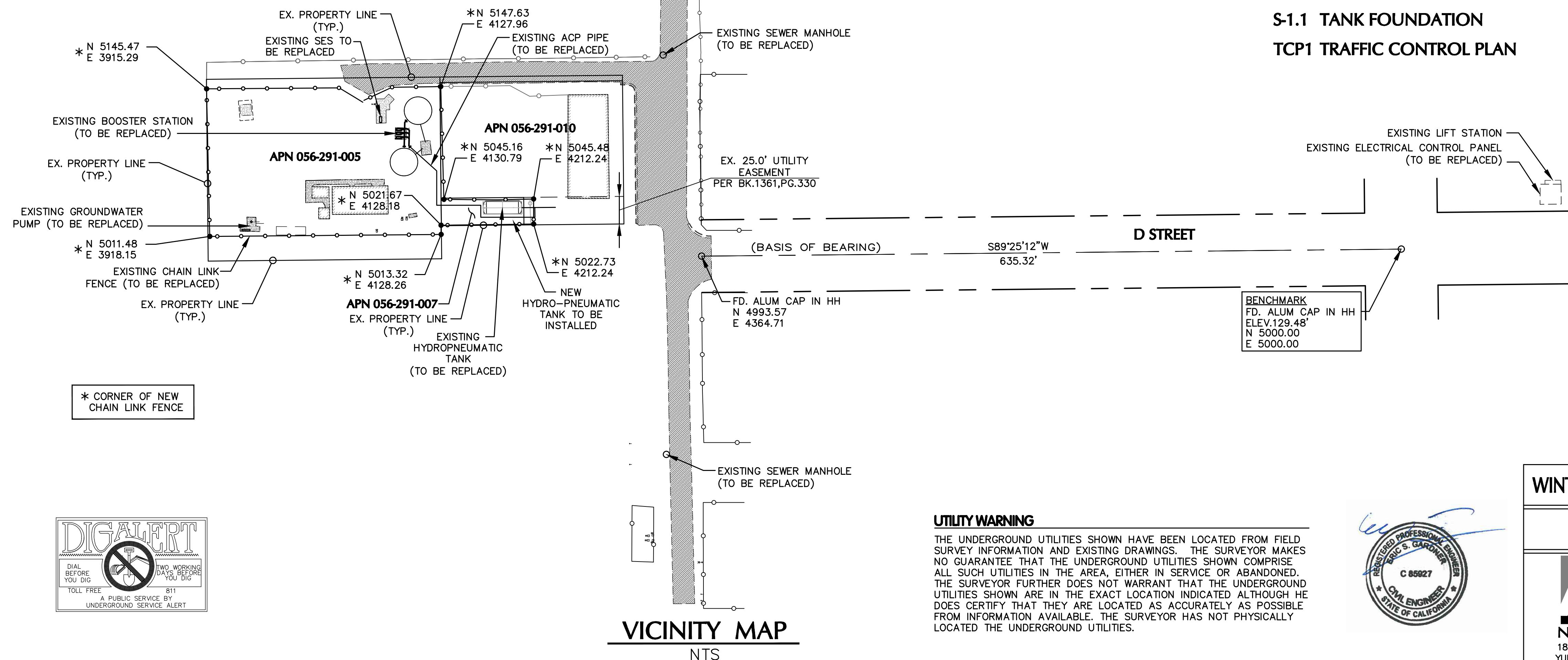
WINTERHAVEN

WATER/SEWER IMPROVEMENT

MARCH 2018



PROJECT LOCATION MAP
NTS



INDEX OF DRAWINGS

- T1 TITLE SHEET, VICINITY MAP, LOCATION MAP & INDEX
- C1 WATER PLANT DEMOLITION PLAN
- C2 WATER PLANT SITE PLAN
- C3 WATER PLANT IMPROVEMENT DETAILS
- C4 WATER PLANT IMPROVEMENT DETAILS
- C5 NEW PRESSURE TANK DETAIL
- C6 WATER PLANT IMPROVEMENTS
- C7 WATER PLANT IMPROVEMENT DETAILS
- C8 SEWER SYSTEM SITE PLAN
- C9 SEWER SYSTEM IMPROVEMENT DETAILS
- E-1 W.T.P. ELECTRICAL SITE PLAN
- E-2 W.T.P. ELECTRICAL ONE-LINE DIAGRAM
- E-3 LIFT STATION ELECTRICAL ONE-LINE DIAGRAM
- E-4 ELECTRICAL SPECIFICATIONS
- S-1.1 TANK FOUNDATION
- TCP1 TRAFFIC CONTROL PLAN

UTILITY WARNING

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.



WINTERHAVEN WATER/SEWER IMPROVEMENT

TITLE SHEET

NEL
Nicklaus Engineering Inc.
1851 West 24th Street P.O. Box 6029
YUMA, ARIZONA 85364 (928)344-8374
Email: nel@nelaw.com

SCALE: AS SHOWN
DATE: MARCH, 2018
DES. BY: EG
DRAWN BY: GM
SURVEYED BY: RS
JOB. No.: 016-0039
SHEET 1 OF 16

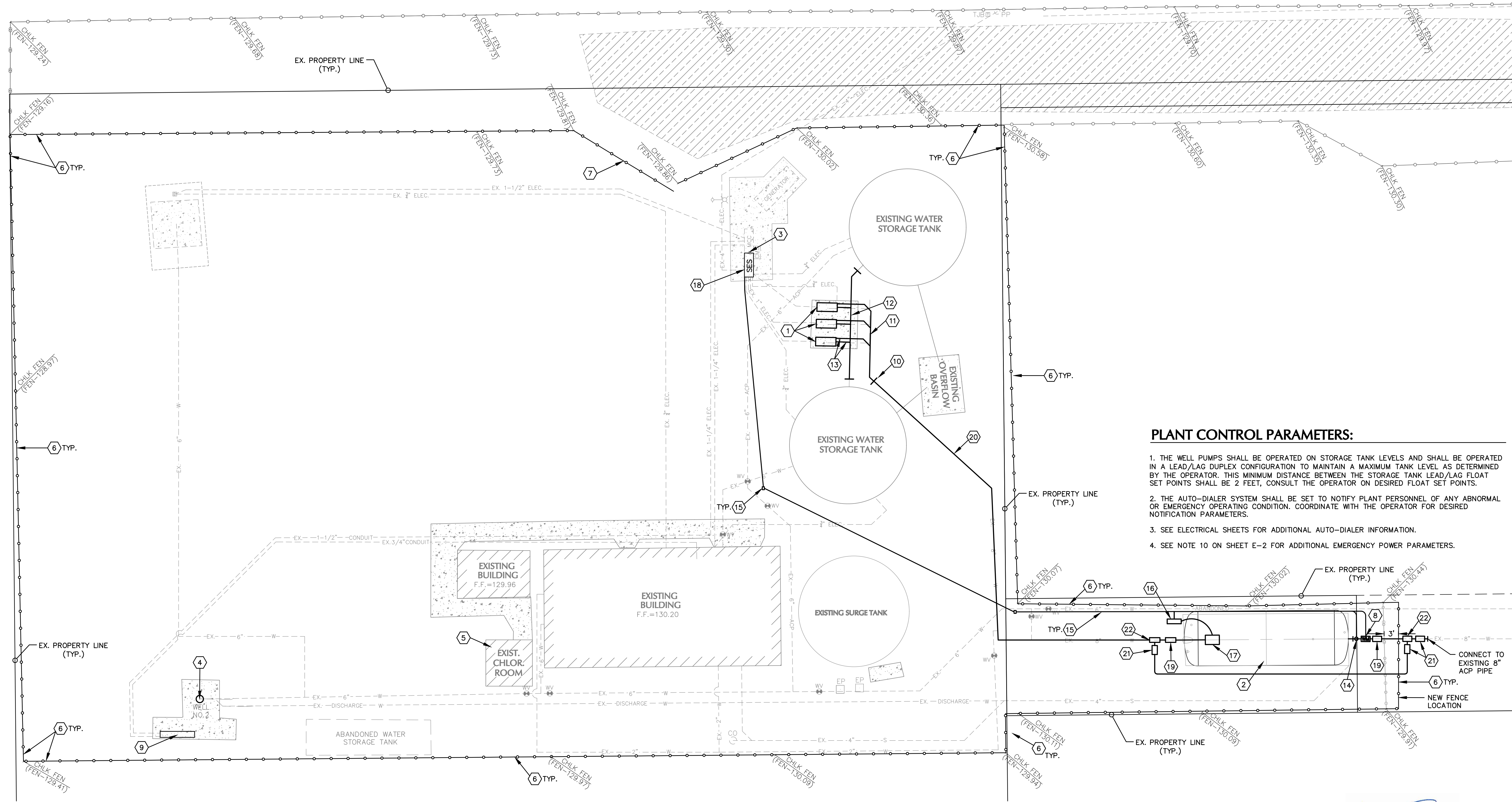
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SCHEDULE OF WORK

- 1 PROVIDE NEW 20 HP PUMPS. SEE PUMP SCHEDULE ON SHEET C3.
- 2 PROVIDE NEW 10,000 GALLON HYDROPNEUMATIC TANK PER ASME SECTION VIII. ANCHOR TANK TO EXISTING FOUNDATION. VIA FACTORY INSTALLED STEEL SADDLES. SEE SHEET C-5.
- 3 PROVIDE NEW AUTO DIALER SYSTEM. SEE ELECTRICAL SHEETS.
- 4 REPLACE EXISTING VERTICAL TURBINE PUMP IN WELL NO. 2 WITH NEW 15 HP 7" SUBMERSIBLE PUMP 400 GPM AT 90 FEET TDH BERKLEY 7T-450 OR EQUIVALENT. SEE DETAILS A
C7
- 5 PROVIDE NEW HORIZON PTF-60 VENTILATION SYSTEM IN EXISTING CHLORINE ROOM. SEE DETAIL A
C8
- 6 REPLACE EXISTING PERIMETER CHAINLINK FENCING WITH NEW 8" CHAINLINK FENCING. SEE DETAIL A
C6
- 7 REPLACE EXISTING CHAINLINK GATE WITH NEW 8" CHAINLINK GATE. SEE DETAIL A
C6
- 8 PROVIDE NEW 8" MCCROMETER ULTRA MAG TOTALIZING FLOW METER OR APPROVED EQUAL. SEE DETAIL A
C5
- 9 PROVIDE NEW ELECTRICAL CABINET FOR SUBMERSIBLE PUMP. SEE ELECTRICAL SHEETS.
- 10 INSTALL NEW 8" CEMENT MORTAR LINED, FLANGED, DUCTILE IRON/PVC PIPE ADAPTER
- 11 INSTALL NEW 8" CEMENT MORTAR LINED, FLANGED, DUCTILE IRON PIPE WITH FUSION BENDED EPOXY COATING DISCHARGE HEADER. SEE DETAIL A
C3
- 12 INSTALL NEW 8" CEMENT, MORTAR, LINED, FLANGED, DUCTILE IRON PIPE WITH FUSION BENDED EPOXY COATING. SEE DETAIL A
C3

- 13 INSTALL ALL NEW PUMP DISCHARGE AND SUCTION PIPING USING CEMENT MORTAR LINED FLANGED DUCTILE IRON PIPE COATED WITH FUSION BONDED EPOXY. SEE DETAILS A
C3 B
C3
- 14 INSTALL NEW 4MA-20MA RANGEABLE PRESSURE TRANSMITTER. OMEGA PX5100 OR APPROVED EQUAL. SEE DETAIL A
C6
- 15 PROVIDE NEW 3/4" ELECTRICAL CONDUIT AND ELECTRICAL PULL BOXES. SEE ELECTRICAL SHEETS.
- 16 INSTALL NEW ELECTRIC PANEL FOR HYDRO-TANK. SEE ELECTRICAL SHEETS.
- 17 INSTALL NEW AIR RITE MODEAL 610 HP OIL-LESS AIR CHARGING SYSTEM
- 18 PROVIDE NEW 400 AMP SES. SEE ELECTRICAL SHEETS.
- 19 PROVIDE NEW 8" RESILIENT WEDGE GATE VALVE WITH FUSION BONDED EPOXY INSIDE AND OUT AND HAND WHEEL OPERATOR.
- 20 INSTALL NEW 8" CLASS 200 PVC PIPE
- 21 PROVIDE 8" RESILIENT WEDGE GATE VALVE WITH FUSION BONDED EPOXY INSIDE AND OUT.
- 22 PROVIDE NEW CEMENT MORTAR LINED DUCTILE IRON 8" X 8" X 8" BRANCH T WITH FUSION BONDED EPOXY COATING.



PLANT CONTROL PARAMETERS:

1. THE WELL PUMPS SHALL BE OPERATED ON STORAGE TANK LEVELS AND SHALL BE OPERATED IN A LEAD/LAG DUPLEX CONFIGURATION TO MAINTAIN A MAXIMUM TANK LEVEL AS DETERMINED BY THE OPERATOR. THIS MINIMUM DISTANCE BETWEEN THE STORAGE TANK LEAD/LAG FLOAT SET POINTS SHALL BE 2 FEET, CONSULT THE OPERATOR ON DESIRED FLOAT SET POINTS.
2. THE AUTO-DIALER SYSTEM SHALL BE SET TO NOTIFY PLANT PERSONNEL OF ANY ABNORMAL OR EMERGENCY OPERATING CONDITION. COORDINATE WITH THE OPERATOR FOR DESIRED NOTIFICATION PARAMETERS.
3. SEE ELECTRICAL SHEETS FOR ADDITIONAL AUTO-DIALER INFORMATION.
4. SEE NOTE 10 ON SHEET E-2 FOR ADDITIONAL EMERGENCY POWER PARAMETERS.



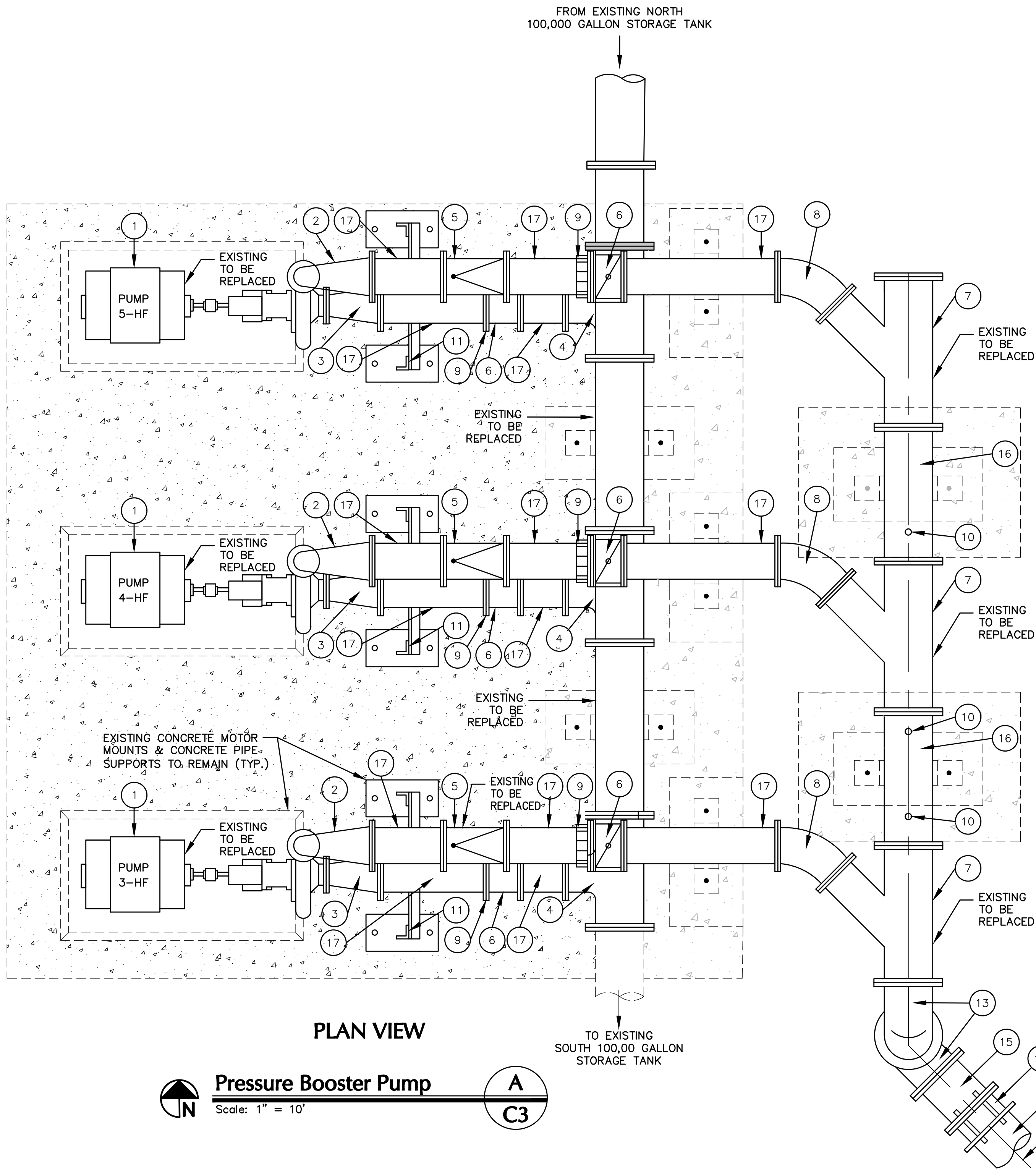
WINTERHAVEN WATER/SEWER IMPROVEMENT

WATER PLANT SITE PLAN

Nicklaus Engineering Inc.
1851 West 24th Street P.O. Box 6029
YUMA, ARIZONA 85364 (928)344-8374
Email: nel@nelaw.com

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SHEET 3 OF 16

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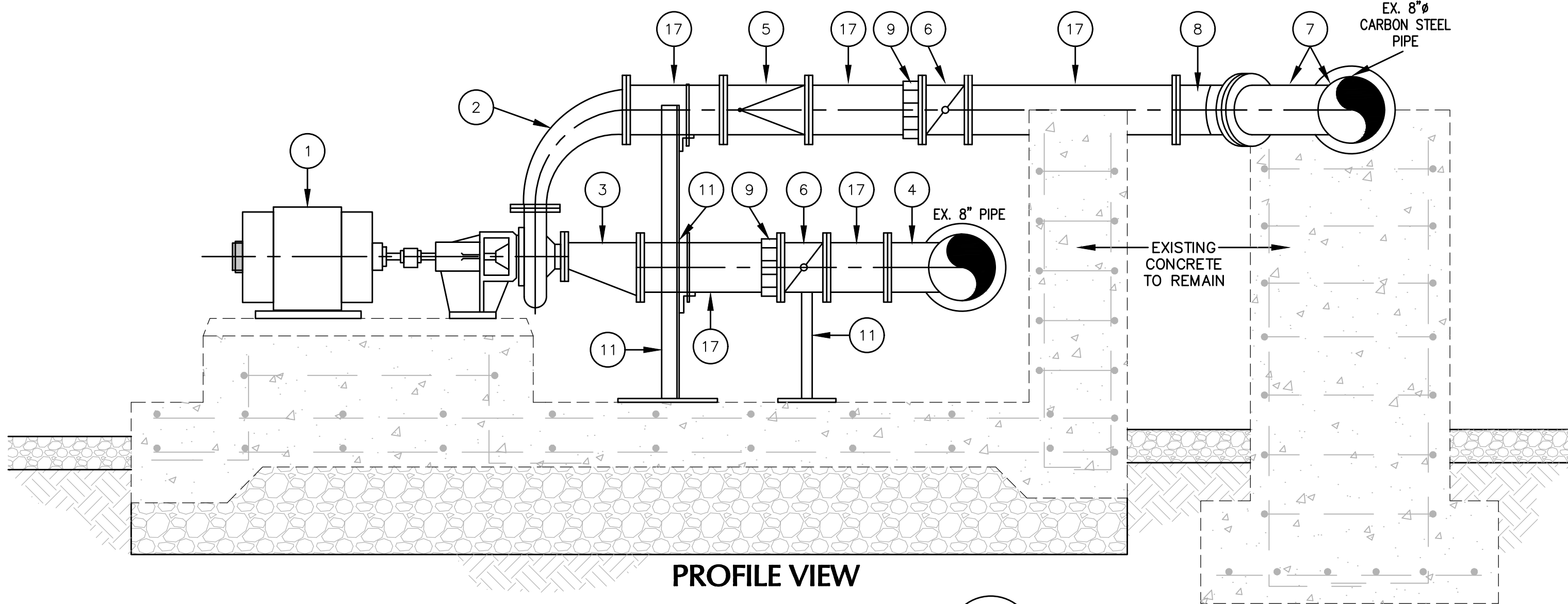
PLAN VIEW



Pressure Booster Pump

Scale: 1" = 10'

A
C3



PROFILE VIEW

20 HP HF PUMP DETAIL

Scale: 1" = 10'

B
C3

PUMP SCHEDULE					SHUTOFF		DESIGN		MAX OPERATING		SPEED	SIZE		IMPELLER	MANUFACTURER/MODEL (OR EQUAL)
					TDH (FT)	FLOW (GPM)	TDH (FT)	FLOW (GPM)	TDH (FT)	FLOW (GPM)	MAX RATED (RPM)	SUCTION (IN)	DISCHARGE (IN)		
PUMP	HP	Hz	PHASE	V											
3-HF	20	60	3	230	135	0	100	550	69	730	3550	4	3	5.87	PACO 3070-7 LF
4-HF	20	60	3	230	135	0	100	550	69	730	3550	4	3	5.87	PACO 3070-7 LF
5-HF	20	60	3	230	135	0	100	550	69	730	3550	4	3	5.87	PACO 3070-7 LF

* 1-LF & 2-LF SHALL BE VARIABLE FREQUENCY PUMPS WITH INVERTER DUTY MOTORS.

PUMP SCHEDULE

C
C3

NOTES

- 1

NEW 20 HP MOTOR AND FRAME MOUNTED END SUCTION CENTRIFUGAL PUMP. . . SEE DETAIL C C3
- 2

NEW 6" TO 3" CEMENT MORTAR LINED, FLANGED DUCTILE IRON 90° LONG RADIUS REDUCING BEND WITH FUSION BONDED EPOXY COATING.
- 3

NEW 6" TO 4" CEMENT MORTAR LINED, FLANGED DUCTILE IRON ECCENTRIC REDUCER WITH FUSION BONDED EPOXY COATING.
- 4

NEW 8"x8"x6" CEMENT MORTAR LINED FLANGED REDUCING BRANCH TEE WITH FUSION BONDED EPOXY COATING.
- 5

NEW 6" DUCTILE IRON FLANGED CHECK VALVE (VAL-MATIC MODEL 1808-H WITH HEAVY DUTY SPRING) WITH FUSION BONDED EPOXY INSIDE/OUT.
- 6

NEW 6" DUCTILE IRON FLANGED RESILIENT-SEALED GATE VALVE WITH FUSION BONDED EPOXY COATED INSIDE AND OUT AND HAND WHEEL OPERATOR
- 7

NEW 8"x8"x6" CEMENT MORTAR LINED, FLANGED DUCTILE IRON 45° REDUCING BRANCH WYE
- 8

NEW 6" CEMENT MORTAR LINED, FLANGED DUCTILE IRON 45° BEND
- 9

NEW UNI-FLANGE
- 10

3/4" COUPLING WITH PLUG
- 11

NEW VALVE SUPPORT - 3" DIA. SCHEDULE 40 STEEL PIPE WELDED TO 7"x7"x1/4" STEEL BASE PLATE
- 12

MEGALUG MECHANICAL THRUST RESTRAINT
- 13

NEW 8" CEMENT MORTAR LINED, FLANGED DUCTILE IRON 90° BEND WITH FUSION BONDED EPOXY COATING.
- 14

NEW 8" CLASS 200 PVC TO HYDRO-PNEUMATIC TANK
- 15

NEW 8" CEMENT MORTAR LINED FLANGED BY MECHANICAL JOINT
- 16

NEW 8" CEMENT MORTAR LINED, FLANGED DUCTILE IRON PIPE WITH FUSION BONDED EPOXY COATING.
- 17

NEW 6" CEMENT MORTAR LINED, FLANGED DUCTILE IRON PIPE WITH FUSION BONDED EPOXY COATING.

FOR CONTINUATION
SEE SHEET C4



WINTERHAVEN WATER/SEWER IMPROVEMENT

WATER PLANT IMPROVEMENT
DETAILS



Nicklaus Engineering Inc.
1851 West 24th Street P.O. Box 6029
YUMA, ARIZONA 85364 (928)344-8374
Email: nei@nelaw.com

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SHEET 4 OF 16

C3

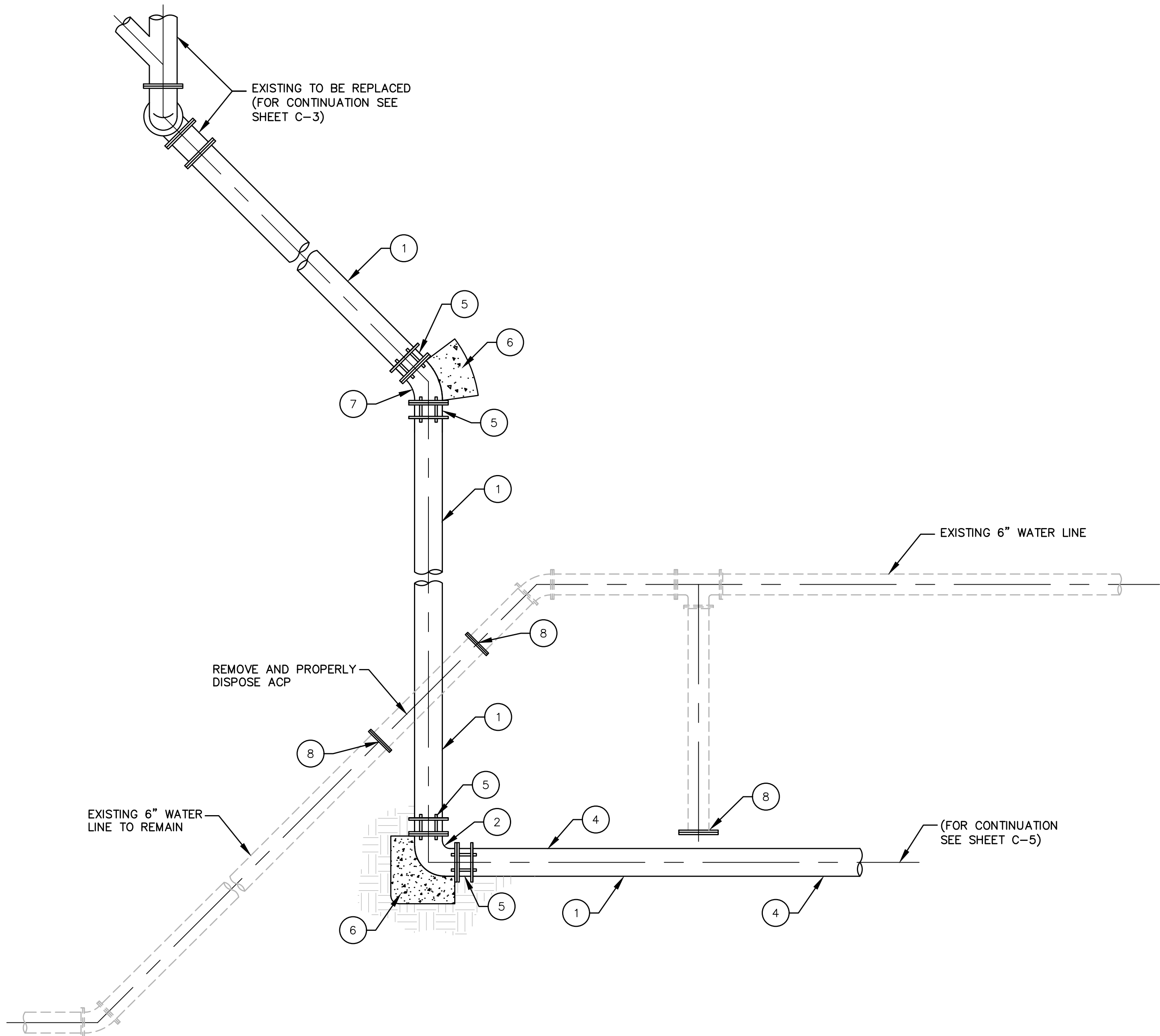
THE USE OF THESE PLANS AND SPECIFICATIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY WERE PREPARED AND PUBLICATION THEREOF IS EXPRESSLY LIMITED TO SUCH USE. REUSE, REPRODUCTION, OR PUBLICATION BY ANY METHOD, IN WHOLE OR IN PART IS PROHIBITED. TITLE TO THE PLANS AND SPECIFICATIONS REMAINS WITH THE ENGINEER WITHOUT PREJUDICE. VISUAL CONTACT WITH THESE PLANS AND SPECIFICATIONS SHALL CONSTITUTE PRIMA FACIE EVIDENCE OF THE ACCEPTANCE OF THESE RESTRICTIONS.

WATER GENERAL NOTES

1. WATER WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS AND MATERIALS AS SPECIFIED IN THE MOST CURRENT EDITION OF THE STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION. CONTRACTOR SHALL HAVE A CURRENT COPY OF THE STANDARD SPECIFICATIONS ON THE JOB SITE AT ALL TIMES.
2. THE SUBMISSION AND REVIEW OF ALL SUBMITTALS AS REQUIRED BY THE STANDARD SPECIFICATIONS ARE TO BE ACCOMPLISHED PRIOR TO THE PRE CONSTRUCTING MEETING.
3. NO WORK MAY BEGIN OR PROCEED WITHOUT DIRECTION OF WINTERHAVEN WATER DISTRICT AND THE COUNTY.
4. WHERE ELEVATIONS AND GRADES ARE NOT SHOWN ON THE WATER LINES, TOP OF PIPE PROFILE IS 36-INCHES MINIMUM BELOW FINISH GRADE.
5. UNLESS OTHERWISE NOTED, CONNECTION TO EXISTING MAINS SHALL BE MADE DRY. THE TIME AND DURATION OF ANY SHUTDOWNS OF EXISTING MAINS SHALL BE SUBJECT TO APPROVAL BY THE WINTERHAVEN WATER DISTRICT AND COUNTY. NOTIFICATION SHALL BE MADE A MINIMUM OF TWO WEEKS IN ADVANCE OF ANY SHUTDOWN.
6. CONTRACTOR SHALL REVIEW ALL PROPOSED TRENCH WORK WITH CAL/OSHA. A COPY OF EXEMPTION LETTER OR TRENCHING PERMIT, IF REQUIRED, SHALL BE SUBMITTED TO THE WINTERHAVEN WATER DISTRICT AND COUNTY PRIOR TO CONSTRUCTION.
7. THE WATER SYSTEM SHALL BE PRESSURE TESTED IN ACCORDANCE WITH THE PROCEDURES IN THE STANDARD SPECIFICATIONS. THE CLASS OF PIPE SHALL BE USED AS THE DESIGNATED WORKING PRESSURE FOR TESTING ALL PIPES, VALVES (CLOSED) AND APPURTENANCES.
8. CONTRACTOR TO TIE OFF ALL VALVE LOCATIONS AND PROVIDE WRITTEN DIMENSIONS TO INSPECTOR IMMEDIATELY UPON INSTALLATION OF VALVES.
9. ALL DEFLECTIONS (HORIZONTAL AND VERTICAL) SHALL BE MADE BY USE OF JOINT COUPLINGS WITH 4" MAXIMUM DEFLECTION PER COUPLING (2" PER JOINT). NO BENDING (CURVING) OF PIPE SHALL BE PERMITTED.
10. THE CONTRACTOR SHALL FURNISH AND INSTALL, PER SPECIFICATION, THE APPROPRIATE BURIED UTILITY WARNING IDENTIFICATION TAPE AND METALLIC WIRE ABOVE ALL PUBLIC WATERLINES.
11. THE CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF ACCEPTANCE OF THE WORK BY THE WINTERHAVEN WATER DISTRICT AND THE COUNTY AND SHALL REPAIR OR REPLACE ANY OR ALL SUCH WORK, TOGETHER WITH ANY OTHER WORK WHICH MAY BE DISPLACED IN SO DOING, THAT MAY PROVE DEFECTIVE IN WORKMANSHIP AND/OR MATERIALS WITHIN THE 1 YEAR PERIOD FROM DATE OF ACCEPTANCE WITHOUT EXPENSE WHATSOEVER TO THE WINTERHAVEN WATER DISTRICT OR THE COUNTY, ORDINARY WEAR AND TEAR, UNUSUAL ABUSE OR NEGLIGENCE EXCEPTED.

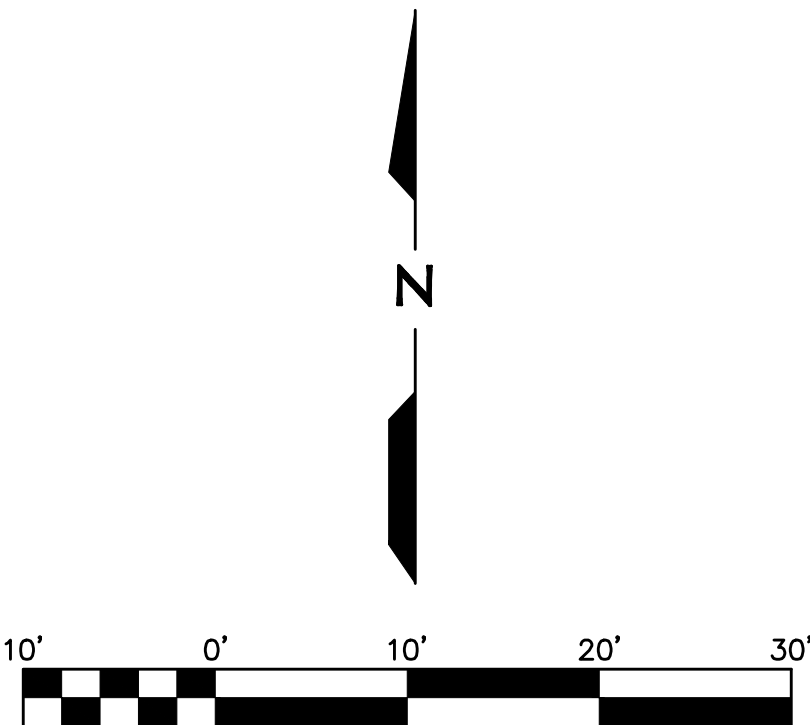
POTABLE WATER SPECIFICATIONS

1. STANDARDS - STANDARD TO BE USED SHALL MEAN THOSE STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATIONS IN EFFECT ON JANUARY 1, 1999. SAID STANDARDS ARE AVAILABLE FROM <https://www.awwa.org/>.
2. MATERIALS OF CONSTRUCTION - ALL WATER PIPE, FITTINGS AND APPURTENANCES CALLED FOR IN THESE CONTRACT DOCUMENTS SHALL CONFORM TO THE FOLLOWING STANDARDS, THOSE OTHER STANDARDS THEREIN REFERENCED AND THESE SPECIAL PROVISIONS.
 - A. PIPE: AWWA C-900 AND C-905. PIPE SHALL BE CLASS 200, DR-14. ALL PIPES SHALL HAVE BELL AND SPIGOT, ELASTOMERIC GASKETED JOINTS. PIPE SHALL BE SUPPLIED WITH AN AFFIDAVIT OF COMPLIANCE.
 - B. FITTINGS: AWWA C-153 AND C-104. FITTINGS SHALL BE CEMENT-MORTAR LINED. UNLESS OTHERWISE SHOWN OR INDICATED BY THE CONTRACT DRAWINGS, BENDS SHALL BE FURNISHED WITH MECHANICAL JOINT ENDS; TEES AND CROSSES SHALL BE FURNISHED WITH FLANGED JOINT ENDS. FLANGE TO MECHANICAL JOINT ADAPTERS SHALL BE FURNISHED TO CONNECT PIPE TO TEES AND CROSSES WHERE VALVES DO NOT OCCUR. GLANDS SHALL BE OF THE SAME MANUFACTURER AS FITTINGS.
 - C. GATE VALVES: AWWA C-509. VALVES 12 INCHES AND SMALLER SHALL BE RESILIENT-SEALED GATE, FUSION BONDED EPOXY COATED INSIDE AND OUT; AND, UNLESS OTHERWISE SHOWN OR INDICATED BY THE CONTRACT DRAWINGS, SHALL BE FURNISHED WITH FLANGED JOINTS ON EITHER END. VALVES, WHEN CLOSED, SHALL BE OF THE TYPE AND DESIGN THAT ALLOWS REPLACEMENT OF ALL INTERNAL PARTS WITHOUT REMOVING THE VALVE BODY FROM THE PIPELINE. ALL INTERNAL PARTS SHALL BE MATERIALS SUITABLE FOR EXPOSURE TO WATER CONTAINING CHLORINE AS A DISINFECTANT AT VARIOUS CONCENTRATIONS. VALVES SHALL BE SUPPLIED WITH AN AFFIDAVIT OF COMPLIANCE.
 - D. DOMESTIC MANUFACTURERS: ALL PIPE/FITTINGS AND VALVES SHALL BE THE PRODUCT OF A DOMESTIC (USA) MANUFACTURER.
 - E. BOLTS: ALL BOLTS USED FOR INSTALLATION OF UNDERGROUND FITTINGS AND VALVES SHALL BE STAINLESS STEEL.
 - F. JOINT RESTRAINT DEVICES: ALL MECHANICAL JOINTS INCORPORATED INTO THE CONTRACT PROJECT SHALL BE FITTED WITH JOINT RESTRAINT DEVICES EQUAL TO THOSE MANUFACTURED BY EBA-IRON OF EASTLAND, TEXAS AND SOLD AS THE 2000 PV SERIES, INSTALLED IN FULL CONFORMANCE TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS. THE CONTRACTOR SHALL ALSO FURNISH AND INSTALL SERIES 1600 AND 2800 PIPE JOINT HARNESSES ON A SUFFICIENT NUMBER OF JOINTS AWAY FROM THE JOINT RESTRAINT DEVICE TO INSURE AGAINST SEPARATION OF THE PIPE.
 - G. EPOXY COATINGS: AWWA C-550. EPOXY COATING CALLED FOR IN THESE SPECIAL PROVISION SHALL BE FUSION-BONDED AT THE FACTORY.
 - H. PIPE BEDDING AND BACKFILL: GRANULAR MATERIAL FOR PIPE BEDDING AND PIPE ZONE BACKFILL TO NO LESS THAN 12 INCHES ABOVE TOP OF PIPE. SHALL CONSIST OF SAND FREE FROM CLAY OR ORGANIC MATERIAL, 90 TO 100 PERCENT PASSING THE NO.4 SIEVE BUT NOT MORE THAN 5 PERCENT PASSING THE NO.200 SIEVE, HAVING A SAND EQUIVALENT OF NO LESS THAN 35. THE MATERIAL SHALL BE SUITABLE FOR THE COMPACTION METHODS USED TO OBTAIN NO LESS THAN 90% OF MAXIMUM RELATIVE DENSITY.
 - I. CONCRETE: CONCRETE REQUIRED FOR THRUST BLOCKS SHALL BE TRANSIT MIXED, PORTLAND CEMENT CONCRETE, HAVING A SLUMP AT TIME OF PLACEMENT NOT EXCEEDING 6 INCHES AND CONTAINING SUFFICIENT CEMENT TO PROVIDE A COMPRESSIVE STRENGTH OF NO LESS THAN 2000 PSI.
3. PIPELINE CONSTRUCTION - ALL WATER PIPE, FITTINGS AND APPURTENANCES CALLED FOR SHALL BE INSTALLED, DISINFECTED AND TESTED IN ACCORDANCE WITH THE FOLLOWING REFERENCED STANDARDS, THOSE OTHER STANDARDS THEREIN REFERENCED, THE WRITTEN RECOMMENDATIONS OF THE MANUFACTURER AND THESE SPECIAL PROVISIONS.
 - A. INSTALLATION: AWWA C-600 AND C-605. EXCESS EARTH FROM EXCAVATIONS SHALL BE REMOVED FROM THE ROADWAY SECTION AND DISPOSED OF. A TRACING WIRE AND APPROPRIATE UTILITY WARNING IDENTIFICATION TAPE SHALL BE PLACED IMMEDIATELY ABOVE THE PIPE ZONE BACKFILL. THE TEST PRESSURE FOR PIPE STRENGTH AND LEAKAGE SHALL BE NO LESS THAN 150 PSI. IN ALL EASEMENTS, FLEXIBLE HIGH VISIBILITY IDENTIFICATION MARKERS ARE REQUIRED.
 - B. POLYETHYLENE WRAPPING: AWWA C-105. ALL FITTINGS AND APPURTENANCES INCLUDING BUT NOT LIMITED TO, VALVES, TEES, CROSSES, BENDS, TAPPED COUPLINGS, PIPE JOINT HARNESSES, JOINT RESTRAINT DEVICES, AND JOINT ADAPTERS, SHALL BE ENCASED WITHIN A WRAPPING OF LOW-DENSITY, MINIMUM 10 MIL THICK, POLYETHYLENE SHEETING LOOSELY PLACED AND TAPED TO THE BODY OF THE CONNECTED PIPE(S).
 - C. DISINFECTION: AWWA C-651. THE CONTRACTOR MAY EMPLOY ANY ONE OF THE DISINFECTION METHODS PROVIDED FOR, SUBJECT TO THE WINTERHAVEN WATER DISTRICT AND COUNTY ENGINEER'S REVIEW AND APPROVAL OF THE CONTRACTOR'S PROCEDURES, EQUIPMENT AND PROPOSED MEANS OF DISPOSING OF THE CHLORINATED WATER. THE DEVELOPER OR CONTRACTOR SHALL ARRANGE AND PAY FOR BACTERIOLOGICAL TESTING OF THE DISINFECTION EFFORTS. DISINFECTING SHALL CONTINUE UNTIL TESTING RESULTS ARE FOUND ACCEPTABLE TO THE ENGINEER.
 - D. COMPACTION TESTING; TESTING OF TRENCH BACKFILL FOR DENSITY SHALL BE NO LESS OFTEN THAN ONCE IN THE PIPE ZONE AND ONCE FOR EACH 24 INCHES OF DEPTH AT SPACING NOT TO EXCEED 150 FT. FAILING TEST SHALL BE RETESTED AFTER RECOMPACTION. RETESTING SHALL INCLUDE TWO ADDITIONAL TESTS, ONCE EACH LOCATED 50 FT. BOTH DIRECTIONS FROM THE FAILURE.
 - E. VALVE BOXES: ALL VALVES SHALL BE INSTALLED WITH VALVE BOXES AS SHOWN OR CALLED FOR BY THE CONTRACT DRAWINGS.



NOTES

- 1 NEW 8" CLASS 200 PVC.
- 2 NEW 8" CEMENT MORTAR LINED DUCTILE IRON 90° BEND WITH MECHANICAL JOINTS.
- 3 NOT USED.
- 4 USE EBBA 1900 SPLIT SERETED RESTRAINING FOR FULL LENGTH.
- 5 MEGA LUG MECHANICAL THRUST RESTRAINT.
- 6 THRUST BLOCK PER IMPERIAL COUNTY PUBLIC WORKS DEPARTMENT STANDARD DRAWING GATEWAY - 100.
- 7 NEW 8" CEMENT MORTAR LINED DUCTILE IRON 45° BEND WITH MECHANICAL JOINTS.
- 8 EXISTING 6" DUCTILE IRON PIPE. CAP AND ABANDON IN PLACE.



WINTERHAVEN WATER/SEWER IMPROVEMENT

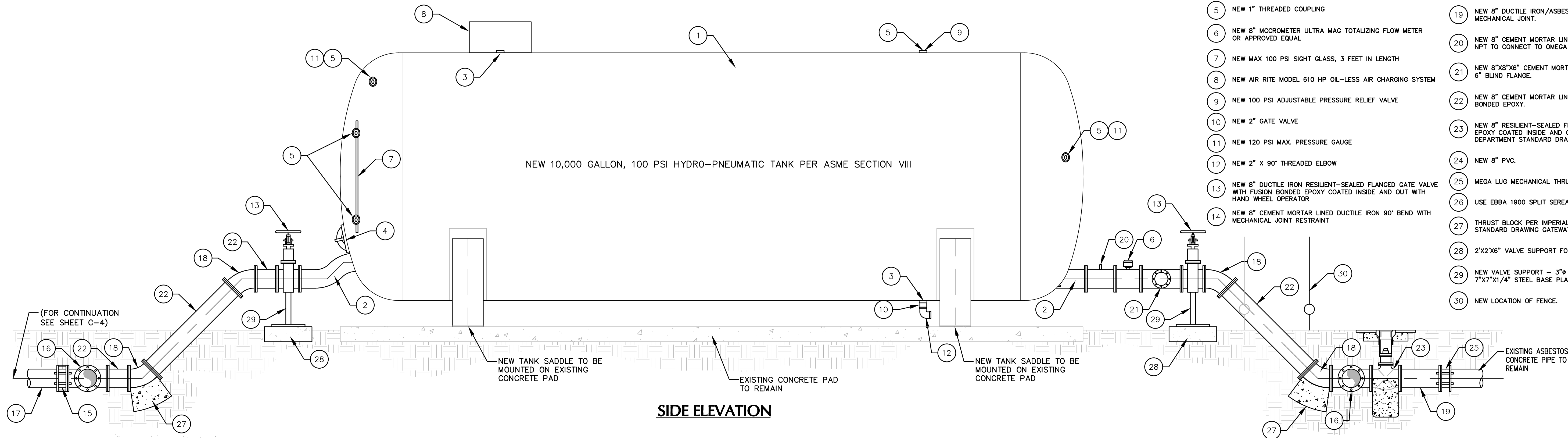
WATER PLANT IMPROVEMENT DETAILS



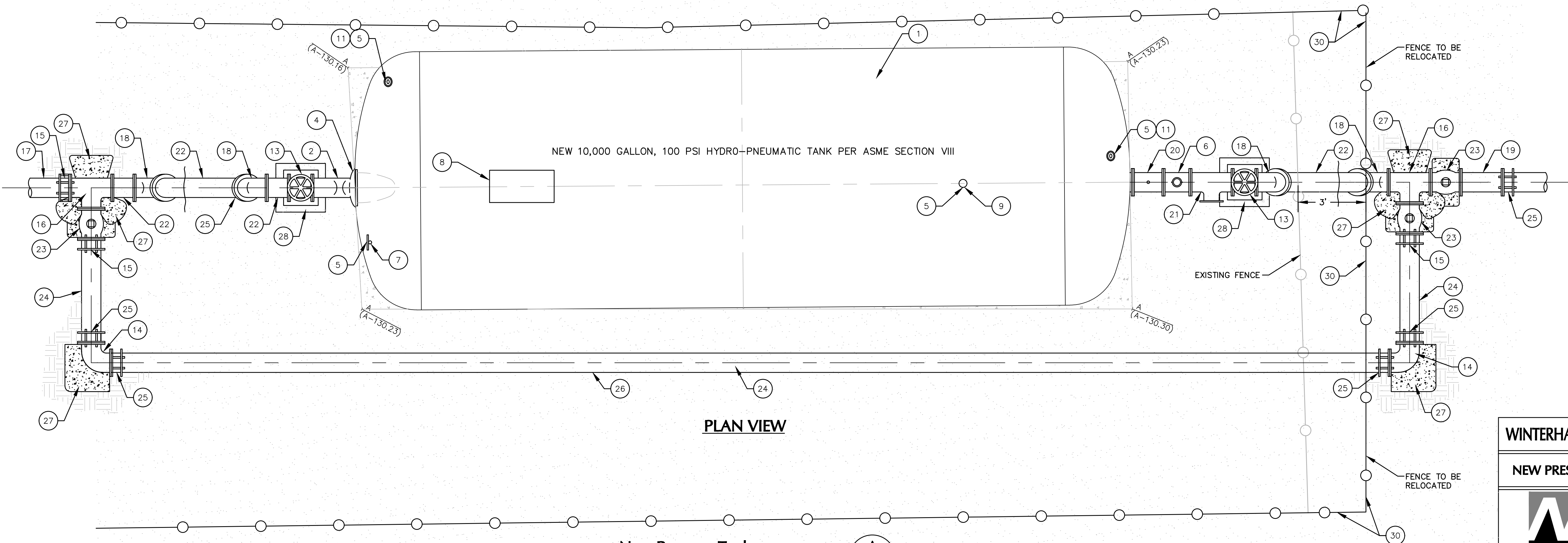
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SHEET	5 OF 16

C4

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SIDE ELEVATION



PLAN VIEW

New Pressure Tank

NTS

A

C5

NOTES

- 1 NEW 10,000 GALLON, 100 PSI HYDRO-PNEUMATIC TANK PER ASME SECTION VIII
- 2 NEW 8" FLANGED PIPE INLET/OUTLET
- 3 NEW 2" THREADED COUPLING
- 4 NEW 14" X 18" ELLIPTICAL MANWAY
- 5 NEW 1" THREADED COUPLING
- 6 NEW 8" MCCROMETER ULTRA MAG TOTALIZING FLOW METER OR APPROVED EQUAL
- 7 NEW MAX 100 PSI SIGHT GLASS, 3 FEET IN LENGTH
- 8 NEW AIR RITE MODEL 610 HP OIL-LESS AIR CHARGING SYSTEM
- 9 NEW 100 PSI ADJUSTABLE PRESSURE RELIEF VALVE
- 10 NEW 2" GATE VALVE
- 11 NEW 120 PSI MAX. PRESSURE GAUGE
- 12 NEW 2" X 90" THREADED ELBOW
- 13 NEW 8" DUCTILE IRON RESILIENT-SEALED FLANGED GATE VALVE WITH FUSION BONDED EPOXY COATED INSIDE AND OUT WITH HAND WHEEL OPERATOR
- 14 NEW 8" CEMENT MORTAR LINED DUCTILE IRON 90° BEND WITH MECHANICAL JOINT RESTRAINT
- 15 EBBA 2100 MEGA FLANGE, FLANGE TO MECHANICAL JOINT.
- 16 NEW 8" X 8" X 8" FLANGED CEMENT MORTAR LINED DUCTILE IRON BRANCH "T" WITH FUSION BONDED EPOXY COATING.
- 17 NEW 8" PVC TO PUMP STATION.
- 18 NEW 8" DUCTILE IRON CEMENT MORTAR LINED FLANGED 45° BEND WITH FUSION BONDED EPOXY COATING.
- 19 NEW 8" DUCTILE IRON/ASBESTOS CONCRETE PIPE ADAPTOR, FLANGED TO MECHANICAL JOINT.
- 20 NEW 8" CEMENT MORTAR LINED FLANGED DUCTILE IRON PIPE WITH 1/4" NPT TO CONNECT TO OMEGA PX5100 PRESSURE TRANSMITTER.
- 21 NEW 8"x8"x6" CEMENT MORTAR LINED FLANGED DUCTILE IRON PIPE WITH 6" BLIND FLANGE.
- 22 NEW 8" CEMENT MORTAR LINED FLANGED DUCTILE IRON PIPE WITH FUSION BONDED EPOXY.
- 23 NEW 8" RESILIENT-SEALED FLANGED GATE VALVE WITH FUSION BONDED EPOXY COATED INSIDE AND OUT PER IMPERIAL COUNTY PUBLIC WORKS DEPARTMENT STANDARD DRAWING GATEWAY - 125.
- 24 NEW 8" PVC.
- 25 MEGA LUG MECHANICAL THRUST RESTRAINT.
- 26 USE EBBA 1900 SPLIT SEREATTED RESTRAIN HARNESS FOR FULL LENGTH.
- 27 THRUST BLOCK PER IMPERIAL COUNTY PUBLIC WORKS DEPARTMENT STANDARD DRAWING GATEWAY - 100.
- 28 2'X2'X6" VALVE SUPPORT FOUNDATIONS FINISHED AT GRADE.
- 29 NEW VALVE SUPPORT - 3"Ø SCHEDULE 40 STEEL PIPE WELDED TO 7"X7"X1/4" STEEL BASE PLATE.
- 30 NEW LOCATION OF FENCE.

NTS



WINTERHAVEN WATER/SEWER IMPROVEMENT

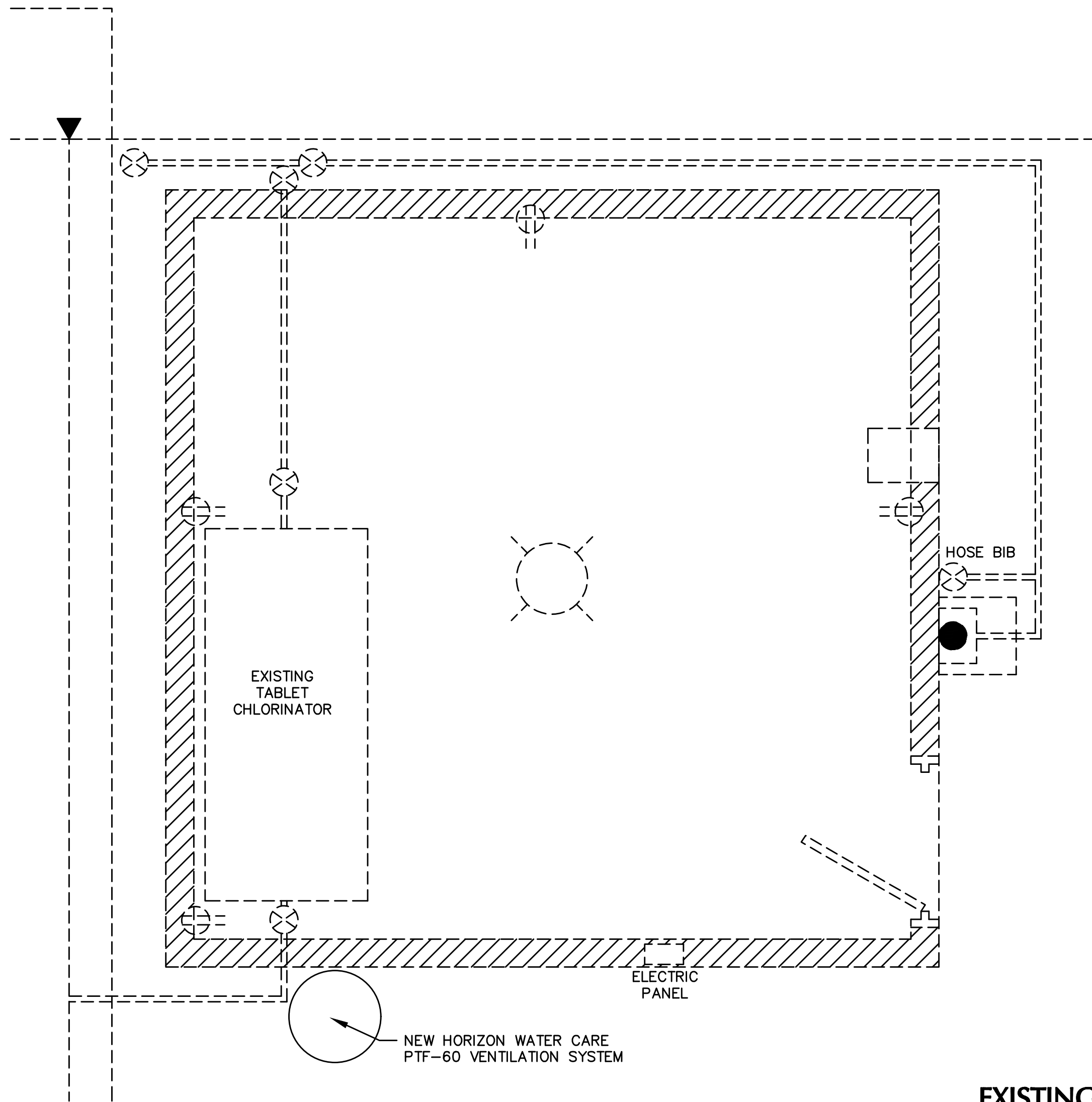
NEW PRESSURE TANK DETAIL

NEI
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YUMA, ARIZONA 85364 (928)344-8374
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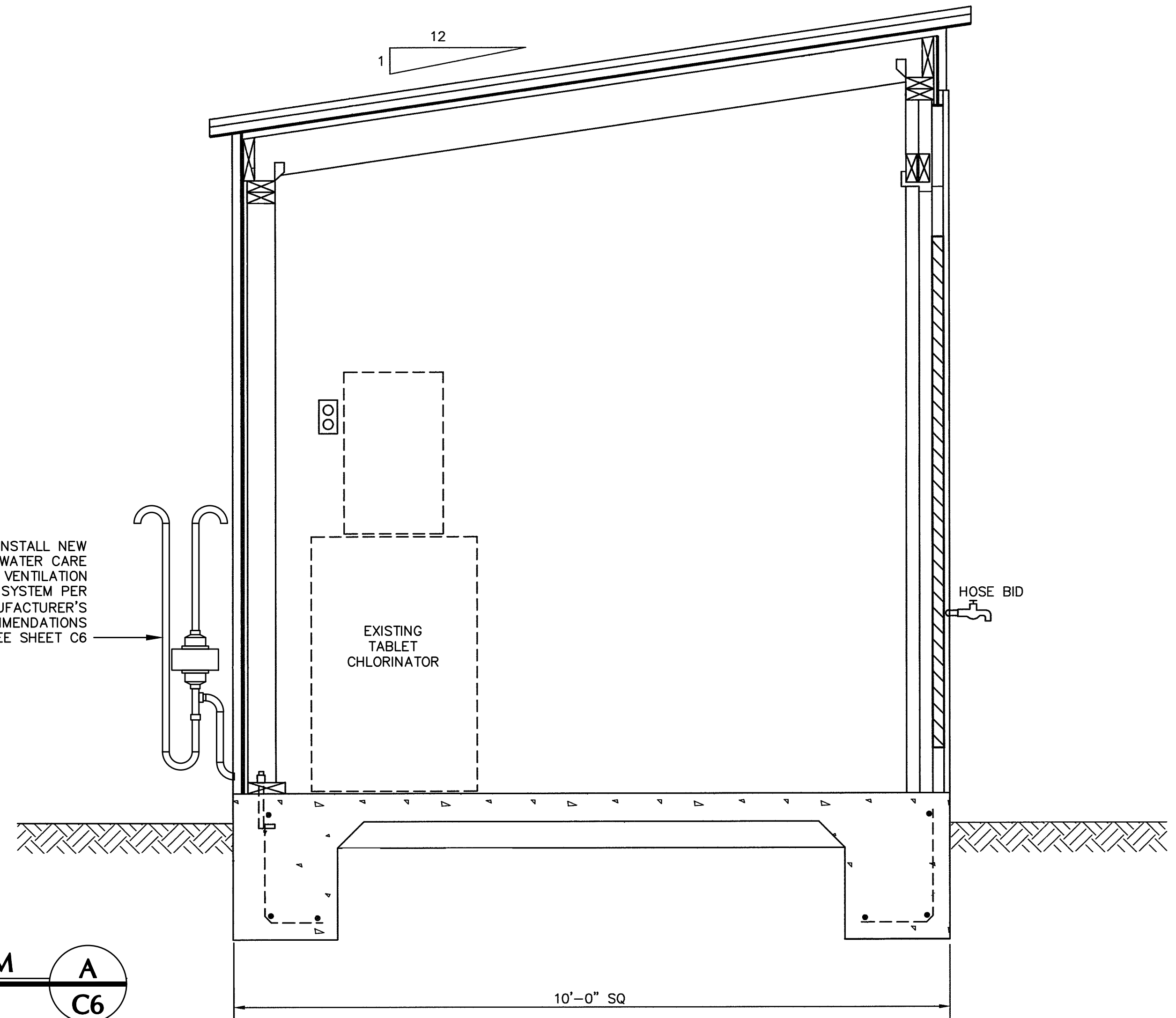
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SHEET 6 OF 16

C5

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INSTALL NEW
HORIZON WATER CARE
PTF-60 VENTILATION
SYSTEM PER
MANUFACTURER'S
RECOMMENDATIONS
SEE SHEET C6



EXISTING CHLORINE ROOM

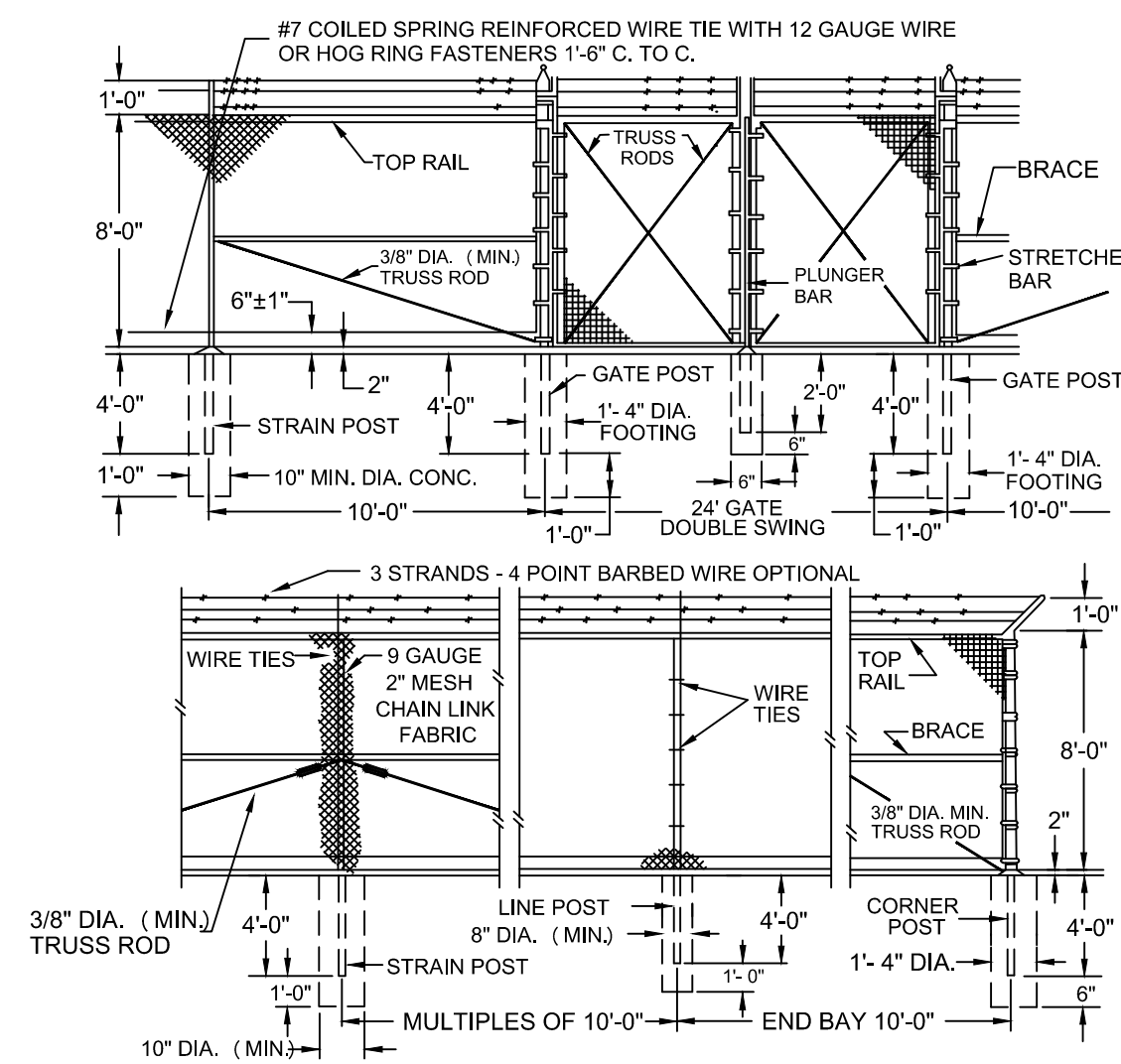
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A
C6

MEMBER	SIZE	WT.PER LF
1. CORNER POST	2 1/2" I.D. STD. PIPE SCHEDULE 40	5.79
2. LINE POST	1 1/2" I.D. STD. PIPE SCHEDULE 40	2.72
3. STRAIN POST	2 1/2" I.D. STD. PIPE SCHEDULE 40	5.79
4. BRACE	1 1/4" I.D. STD. PIPE SCHEDULE 40	2.27
5. STRETCH BAR	1/4"X3/4" FLAT	
6. GATE POST	3 1/2" I.D. STD. PIPE SCHEDULE 40	9.11
7. TOP RAIL	1 1/4" I.D. STD. PIPE SCHEDULE 40	2.27

NOTES

- ALL CONCRETE SHALL BE CLASS "B".
- FENCE FABRIC SHALL BE 9 GAUGE / 2" MESH CHAIN LINK.
- STRAIN POSTS SHALL BE SPACED AT 500' INTERVALS (MAXIMUM).
- BOTH CORNER AND STRAIN POSTS SHALL HAVE AT LEAST ONE STRAIN PANEL.
- ALL POSTS SHALL BE CAPPED AND PLUMB.
- FENCE SHALL NOT EXTEND INTO VISIBILITY TRIANGLES AT ALLEYS, DRIVEWAYS AND STREET INTERSECTIONS.
- FENCE BUILT IN FRONT YARD SETBACKS SHALL HAVE A MAXIMUM HEIGHT OF 3' MEASURED FROM BACK OF SIDEWALK.



8' CHAINLINK FENCE AND GATE

NTS

B
C6



WINTERHAVEN WATER/SEWER IMPROVEMENT

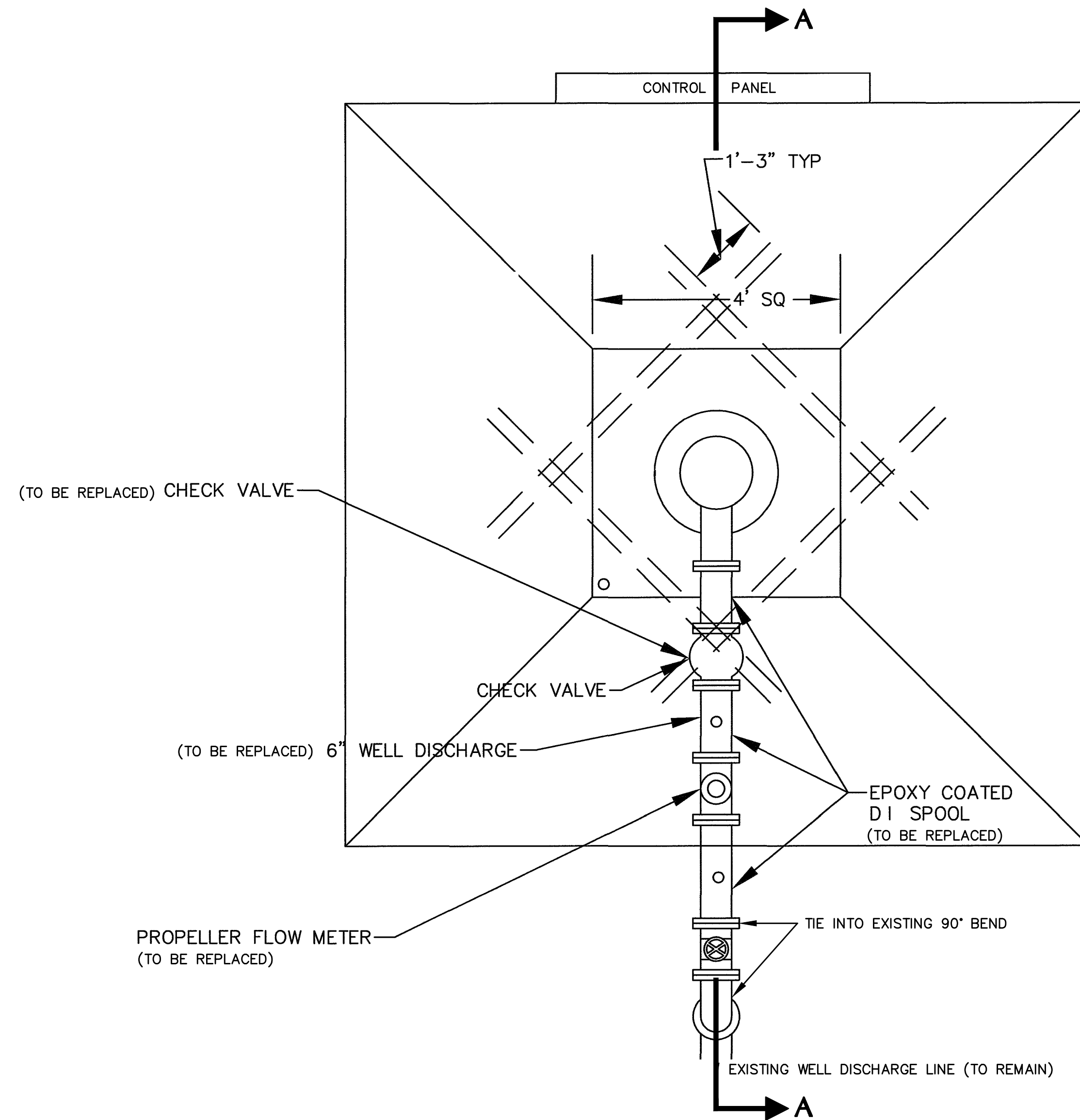
WATER PLANT IMPROVEMENTS



Nicklaus Engineering Inc.
1851 West 24th Street P.O. Box 6029
YUMA, ARIZONA 85364 (928)344-8374
Email: nei@nelaw.com

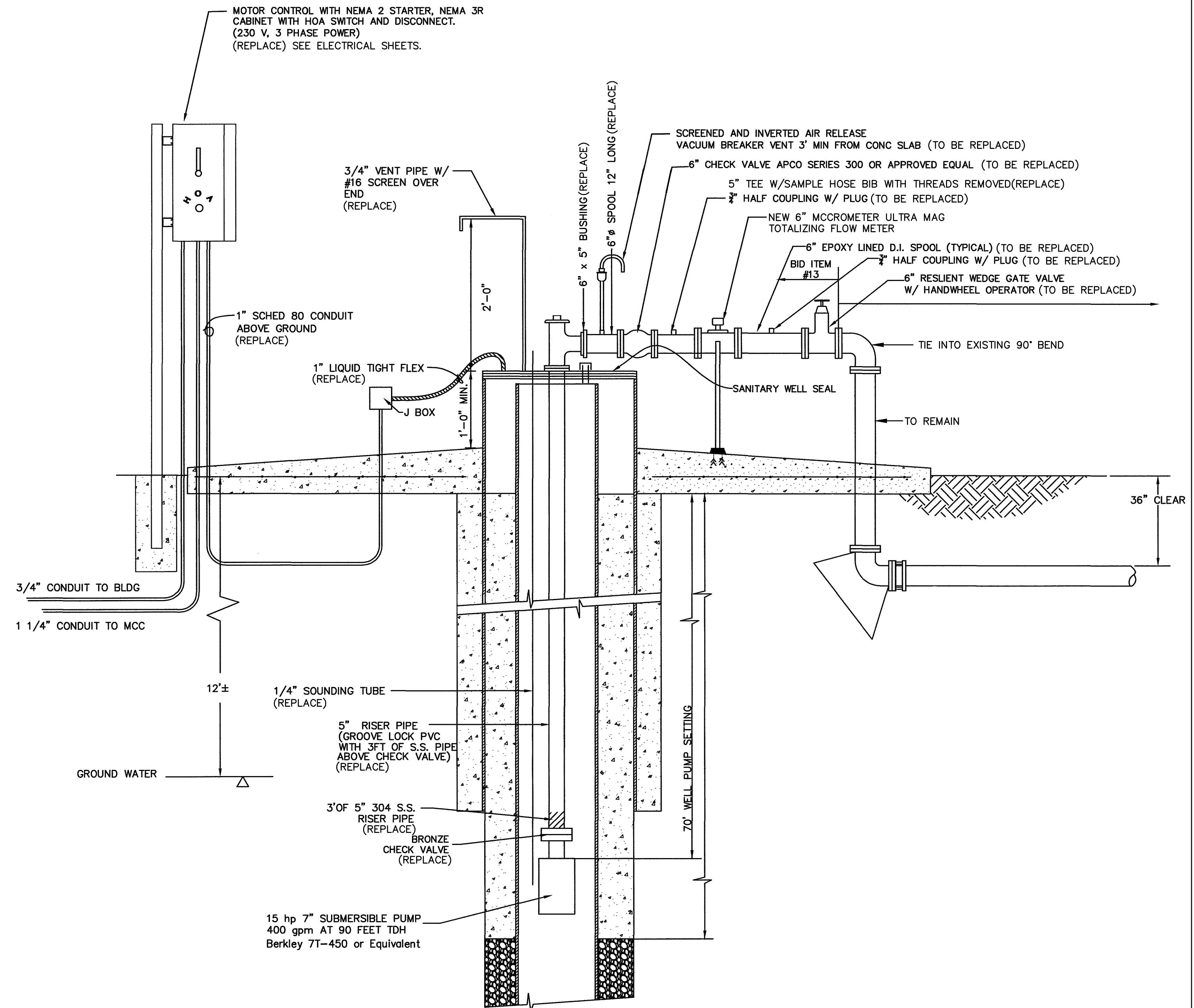
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DES. BY: EG
DRAWN BY: GM
SURVEYED BY: RS
JOB. No.: 016-0039
SHEET 7 OF 16

C6



WELL PLAN VIEW
NTS

A
C7



SECTION A-A
NTS



WINTERHAVEN WATER/SEWER IMPROVEMENT

**WATER PLANT IMPROVEMENT
DETAILS**



Nicklaus Engineering Inc.
1851 West 24th Street P.O. Box 6029
YUMA, ARIZONA 85364 (928)344-8374
Email: nei@neia.com

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C7