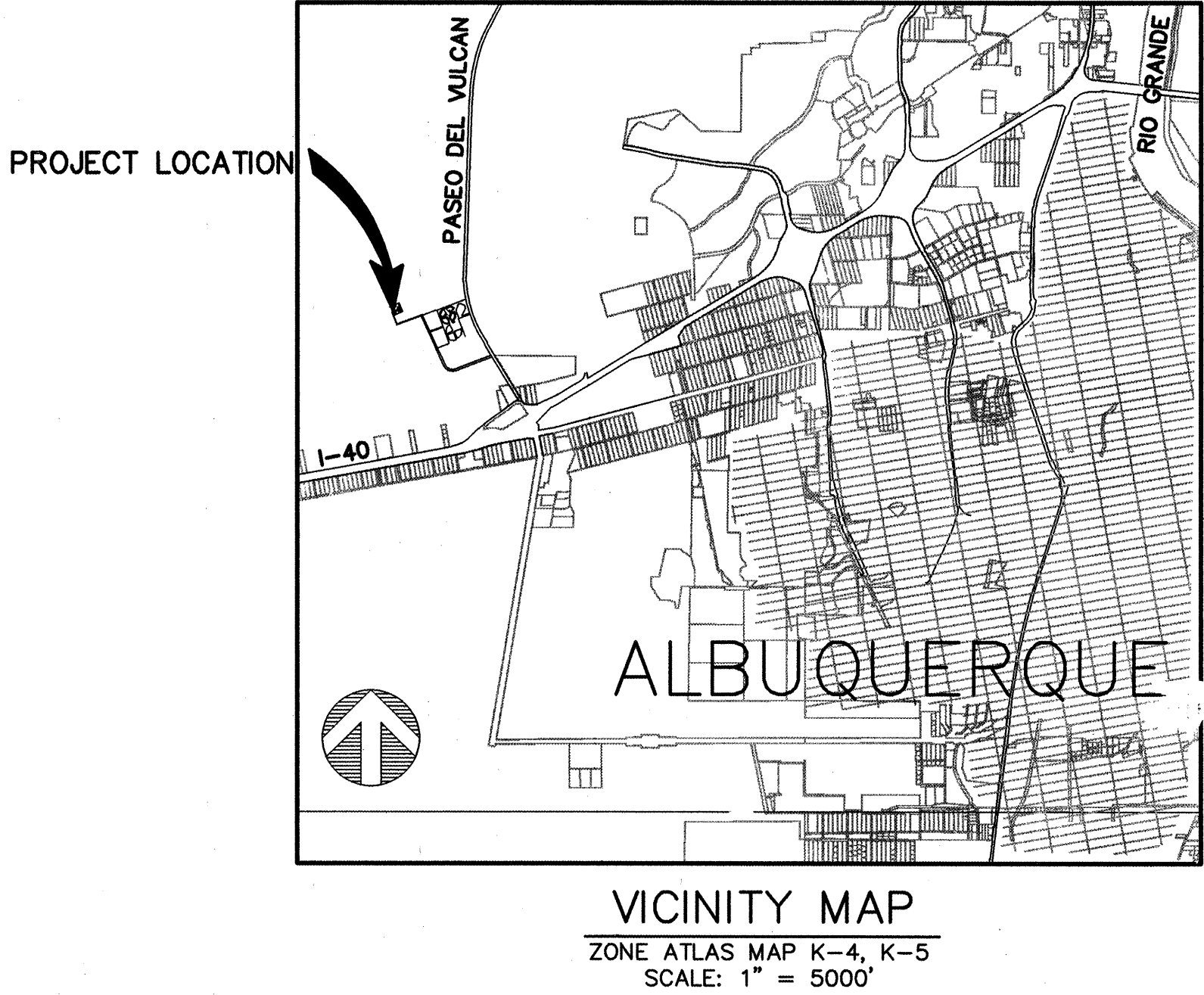
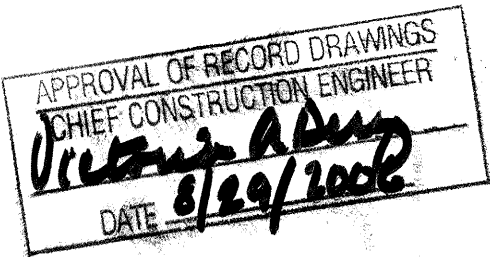


BERNALILLO COUNTY, NEW MEXICO
PUBLIC WORKS DEPARTMENT
CONSTRUCTION PLANS
FOR
INDUSTRIAL PARK WATER SYSTEM
WATER WELL AND PUMPING UNIT
BID PACKAGE A
BC PROJECT NO. TS 04-07-A



DRAWING INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	LOCATION OF WATER WELL
4	WELL AND PUMP DETAILS (REVISED)
5	MISCELLANEOUS DETAILS (REVISED)
6	ELECTRICAL SITE DETAILS

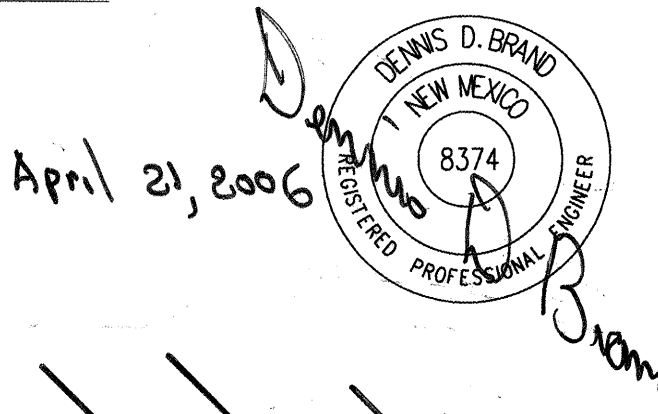


APPROVED FOR CONSTRUCTION
[Signature] 4/15/05
BERNALILLO COUNTY PUBLIC WORKS

APPROVED FOR CONSTRUCTION
[Signature] 4-15-05
ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

CERTIFICATE OF SUBSTANTIAL COMPLIANCE OF PLANS

I, Dennis D. Brand, of the firm Wilson & Company, Inc., a Registered Professional Engineer in the State of New Mexico, NMPE number 8374, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer/Water Utility Authority Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me or personnel under my direction and survey and as-built drawing information provided by The Contractor, Layne-Western, a Division of Layne-Christensen.



NOTE:
STREETS ARE BEING BUILT TO BERNALILLO COUNTY
PRIVATE ROADWAY STANDARDS. ACCEPTANCE OF
STREETS BY CITY OF ALBUQUERQUE WILL NOT
OCCUR UNTIL STREETS ARE RECONSTRUCTED
TO CITY STANDARDS PER THE DPM.

WCEA FILE NO. X4210019
BID PKG. A - MAR. 2005

REV	SHEETS	ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS		ENGINEER	DATE	*****	
 4/15/05		DRC Chairman	<i>[Signature]</i>	N/A	4-27-05	APPROVED FOR CONSTRUCTION	
		Water/Wastewater	<i>[Signature]</i>	<i>[Signature]</i>	4/27/05		
		Hydrology	<i>[Signature]</i>	<i>[Signature]</i>	4/15/05		
		Water Sys. Div.	<i>[Signature]</i>	<i>[Signature]</i>	4/15/05		
						City Engineer	Date
 BERNALILLO COUNTY STATE OF NEW MEXICO		 WILSON & COMPANY 4900 LANG AVENUE NE ALBUQUERQUE, NEW MEXICO 87109 (505) 348-4000		PROJECT NO. TS 04-07-A		SHEET NO. 1 OF 6	

CPN 760681

X:\Public\PROJECTS\X4210019\Plan Drawings-BC IP Water\WaterWell\General Notes.dwg 4/15/2005 12:56:08 PM MDT

SCANNED BY
MESA REPRO

STANDARD SPECIFICATIONS

#7

1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH: (1) THE LATEST VERSION OF THE BERNALILLO COUNTY PUBLIC WORKS STANDARDS, (2) "THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986," UPDATE ~~76~~ (REFERRED TO HEREFTER AS THE COA STANDARD SPECIFICATIONS), (3) THE NEW MEXICO STATE DEPARTMET OF TRANSPORTATION STANDARD SPECIFICATIONS FOT THE HIGHWAY AND BRIDGE CONSTRUCTION, LATEST EDITION. OR (4) AS MODIFIED BY THE PROJECT SPECIFICATIONS. IN CASE OF CONFLICT, THE PROJECT SPECIFICATIONS SHALL GOVERN.

NOTIFICATIONS

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT N.M. ONE-CALL SYSTEM, 260-1990, FOR LOCATION OF EXISTING UTILITIES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS NECESSARY FOR CONSTRUCTION. PERMITS SHALL BE ACQUIRED A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION. CONTACT BERNALILLO COUNTY PUBLIC WORKS DEPARTMENT (848-1500), AND CITY OF ALBUQUERQUE ~~(760-2551)~~ FOR INFORMATION. A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO ANY STREET CLOSURES AND PRIOR TO ANY WORK WITHIN RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY IN WRITING THE FIRE DEPARTMENT AND SHERIFF'S DEPARTMENT FOR THE APPROPRIATE JURISDICTION.
- (924-3400)
3. FOR ALL WORK ASSOCIATED WITH PROJECT CONTRACTOR IS REQUIRED TO OBTAIN AN EXCAVATION PERMIT PRIOR TO THE START OF ANY WORK WITHIN COUNTY RIGHT-OF-WAY, OR LAND CONTROLLED BY THE COUNTY. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE BERNALILLO COUNTY PUBLIC WORKS DEPARTMENT, FIRE DEPARTMENT AND SHERIFF'S DEPARTMENT IN WRITING, A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO ANY STREET CLOSURES AND PRIOR TO ANY WORK WITHIN COUNTY RIGHT-OF-WAY.

UTILITIES

1. ALL EXISTING UNDERGROUND UTILITIES (AND ABOVE GROUND OBSTACLES/UTILITIES) MAY NOT BE SHOWN HEREON AND ALL EXISTING UTILITIES/OBSTACLES THAT ARE SHOWN ON THE PLAN ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT UTILITY OWNERS, AND CONDUCT NECESSARY FIELD INVESTIGATIONS TO VERIFY ACTUAL HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES AND/OR OBSTACLES PRIOR TO ANY EXCAVATION AND/OR CONSTRUCTION. SHOULD A CONFLICT BE FOUND, NOTIFY THE ENGINEER SO CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
2. EXERCISE CARE TO AVOID DISTURBING EXISTING UTILITIES, AND COORDINATE WITH THE UTILITY COMPANIES IN ORDER TO PREVENT ANY SERVICE DISRUPTION.
3. CONTRACTOR SHALL BE RESPONSIBLE TO SUPPORT AND MAINTAIN ALL UTILITY LINES WHICH ARE NOT SPECIFICALLY DESIGNATED TO BE REMOVED AND REPLACED ON THE PLANS. EMPLOY SHORING, SHEETING, AND OTHER MEANS OF SUPPORT TO PREVENT DAMAGE OR LOSS OF THESE EXISTING UTILITIES. BEAM AND CABLE OR OTHER ADEQUATE SUPPORTS SHALL BE USED FOR TEMPORARY SUPPORT OF ALL UTILITY LINES WHICH CROSS THE TRENCH. ANY DAMAGE TO EXISTING UTILITIES SHALL BE PROMPTLY REPAIRED AT THE CONTRACTOR'S EXPENSE. THE ENGINEER WILL BE IMMEDIATELY NOTIFIED OF ANY SIGNIFICANT DEVIATION OF EXPOSED UTILITIES FROM THE LOCATIONS SHOWN ON THE PLANS SO THAT THE CONFLICT CAN BE RESOLVED IN A TIMELY MANNER.
4. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND MAINTAIN IN SERVICE ALL EXISTING UTILITIES. THIS WORK WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE CONSIDERED.
5. ALL WATER VALVE BOXES WITHIN THE SITE ARE TO BE ADJUSTED TO FINISH GRADE PER COA STANDARD SPECIFICATIONS AND ARE TO BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE ANY WATER VALVE SHUTOFF OPERATION WITH THE WATER SYSTEMS DIVISION (857-8200) NOT LESS THAN SEVEN (7) WORKING DAYS PRIOR TO INITIATING ANY WORK AFFECTING EXISTING WATER UTILITIES. WATER SERVICE SHALL BE MAINTAINED TO ALL CUSTOMERS DURING CONSTRUCTION.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL WATER FROM DEWATERING ACTIVITIES (IF ANY). CONTRACTOR SHALL BE RESPONSIBLE TO MAKE NECESSARY ARRANGEMENTS WITH WESTLAND CORP. FOR USE OF DITCHES AND/OR DRAINS ON PRIVATE LAND FOR THIS PURPOSE.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TRENCHES IN A SAFE CONDITION.
9. QWEST HAS NOT PROVIDED ANY INFORMATION OF THEIR UTILITIES DURING THE DESIGN PROCESS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATION OF THIS AND OTHER UTILITIES AT ALL LOCATIONS, REGARDLESS OF EXISTING UTILITIES AS SHOWN ON DRAWINGS.

MISCELLANEOUS NOTES:

1. PROVIDE A WEEKLY CONSTRUCTION ACTIVITY SCHEDULE TO BERNALILLO COUNTY PUBLIC WORKS DEPARTMENT, ATTN: CONSTRUCTION PROJECT MANAGER. PHONE NO. 848-1500.
2. COMPLIANCE WITH U.S. E.P.A. REGULATIONS FOR ALL SOILS DISTURBANCES, EROSION CONTROL AND TEMPORARY DISCHARGE MEASURES SHALL BE PART OF THE "WORK AS REQUIRED" UNDER THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) REGULATIONS FOR STORMWATER DISCHARGES FROM CONSTRUCTION SITES. THE WORK CONSISTS OF DEVELOPING A SITE-SPECIFIC STORM WATER POLUTION PREVENTION PLAN (SWPPP). THIS WORK IS THE RESPONSIBILITY OF THIS CONTRACTOR, DURING CONSTRUCTION PERIOD. SPECIFICS OF SCOPE AND PAYMENT SHALL BE AS DETAILED IN THE CITY OF ALBUQUERQUE SUPPLEMENTAL TECHNICAL SPECIFICATION "SECTION 630-NPDES COMPLIANCE".
3. REMOVE FROM THE PROJECT AREA ALL EXCAVATED MATERIAL THAT IS NOT REQUIRED TO BE REUSED WITHIN FOUR DAYS OF EXCAVATION. SPOIL PILES WILL BE ALLOWED ONLY AS DIRECTED BY THE CONSTRUCTION ENGINEER.
4. COORDINATE CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS AND UTILITY COMPANIES WORKING IN THE SAME AREA. IT MAY BE REQUIRED TO RESCHEDULE ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCE CAUSED BY UTILITY COMPANY WORK CREWS.
5. THE CONTRACTOR SHALL PROVIDE CONSTRUCTION STAKING AND SURVEYING FROM COORDINATES, GRADES, AND BENCH MARKS SHOWN ON THE PLANS, OR MODIFIED IN THE FIELD BY THE ENGINEER, FOR ALL ITEMS OF WORK WHICH REQUIRE CONSTRUCTION STAKING AND SURVEYING. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO REESTABLISH ANY MISSING REFERENCE POINTS REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT. THIS WORK SHALL INCLUDE BUT NOT BE LIMITED TO, ALL SEWER LINES, WATER LINES, SERVICE LINES, AND IRRIGATION STRUCTURES. ALL COSTS INCURRED IN PROVIDING SUCH CONSTRUCTION STAKING AND SURVEYING WORK SHALL BE PAID AS SHOWN IN THE BID PROPOSAL.
6. THE CONTRACTOR SHALL BE REQUIRED TO CONFINED HIS WORK WITHIN THE CONSTRUCTION LIMITS AND/OR PUBLIC RIGHT-OF-WAY OR EASEMENTS TO PRESERVE EXISTING VEGETATION, FENCES, WALLS, AND PRIVATE PROPERTY. OVERNIGHT PARKING OF EQUIPMENT AND/OR STORAGE OF MATERIALS IS NOT ALLOWED EXCEPT BY PERMISSION OF OWNER. RESTORATION OF PRIVATE IMPROVEMENTS WILL BE AT THE CONTRACTOR'S EXPENSE.
7. IF CULTURAL RESOURCES, SUCH AS HISTORIC OR PREHISTORIC ARTIFACTS, OR HUMAN REMAINS ARE DISCOVERED DURING EXCAVATION OR CONSTRUCTION, WORK SHALL CEASE AND THE CONSTRUCTION ENGINEER WILL BE NOTIFIED. THE CONSTRUCTION ENGINEER SHALL NOTIFY THE STATE HISTORIC PRESERVATION OFFICER (SHPO) AT (505) 827-6320. WORK MAY PROCEED AFTER COORDINATION WITH SHPO IS COMPLETE.
8. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL DEMOLITION DEBRIS. SALVAGE OF ANY MATERIAL SHALL BE IDENTIFIED BY THE COUNTY PROJECT MANAGER. WORK MATERIALS SHALL BE DISPOSED OF IN COUNTY APPROVED WASTE AREAS SECURED BY AND AT THE EXPENSE OF THE CONTRACTOR.
9. THE OWNER SHALL SUPPLY CONTRACTOR WITH INITIAL STAKING FOR WELL LOCATION. THE CONTRACTOR SHALL PROVIDE THE CONSTRUCTION ENGINEER WITH "AS-BUILT" INFORMATION INCLUDING A SURVEYED ELEVATION, WELL LOGS AND CASING LOGS FOR WELL AND OTHER CONSTRUCTION PRIOR TO FINAL CONTRACT PAYMENT.
10. CONTRACTOR SHALL PLACE EMD MARKERS AT ALL LINE STUBOUTS FROM THE WELL, UNLESS LINES END IN A VALVE.
11. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
12. THE COUNTY HAS SUBMITTED AN EXPLORATORY WELL DRILLING PERMIT FOR THIS WELL TO THE OFFICE OF THE STATE ENGINEER (OSE) AND WHICH WILL BE PROVIDED. THE CONTRACTOR SHALL ABIDE BY THE TERMS OF THE PERMIT. A PERMANENT WELL PERMIT WILL BE SUBMITTED BY THE OWNER UPON COMPLETION OF PUMP TESTING.
13. WASH WATER FROM WELL SHALL BE PIPED OR DITCHED TO LOCATION OF FUTURE DRAINAGE POND (TO BE CONSTRUCTED BY A LATER BID PACKAGE). THIS CONTRACTOR SHALL EXCAVATE A PIT ON THE LOCATION ADEQUATE TO PREVENT DISCHARGE EXCEPT UNDER CONTROLLED CONDITIONS MEETING BERNALILLO COUNTY APPROVAL. UNDER NO CIRCUMSTANCES SHALL THE DITCH OR PIPING RUN IN OR NEAR THE FUTURE PUMPHOUSE.
14. WELL DRILLING, COMPLETION, AND WELL CAPACITY TESTING SHALL BE COMPLETED BY 55 DAYS AFTER BID IS AWARDED.
15. THE PUMPING UNIT SHALL NOT BE FINALLY APPROVED BY OWNER AND ENGINEER UNTIL RESULTS OF WELL CAPACITY TESTING ARE KNOWN.
16. DESIGN CRITERIA FOR THE NEW PUMP IS THE STANDARD FOR BID, BUT MAY NOT REFLECT FINAL SIZING. AFTER THE PUMP TEST RESULTS ARE PRESENTED TO THE ENGINEER AND OWNER, THEY SHALL MAKE FINAL PUMPING EQUIPMENT SELECTION, WITHIN 12 DAYS AFTER RECEIVING THE RESULTS. THE FINAL SELECTED PUMP SHALL THEN BE DELIVERED AND INSTALLED.
17. CONTRACTOR SHALL BE COMPENSATED FOR ANY PUMP OR PUMP MOTOR CHANGES THAT REQUIRE ANY ADDITIONAL EQUIPMENT PURCHASE COSTS, BASED UPON FINAL PUMP SELECTION.
18. COMPLETION OF THE WELL EQUIPMENT, INCLUDING WELL PUMP, VALVES, METERS, ELECTRICAL, AND ALL APPURTENANCES, SHALL BE MADE BY 57 DAYS AFTER FINAL PUMP SIZING IS SELECTED AND TRANSMITTED TO THE CONTRACTOR.
19. TOTAL OF CONTRACT TIME IS 124 DAYS (55 DAYS + 12 DAYS + 57 DAYS).
























COORDINATION WITH PUBLIC

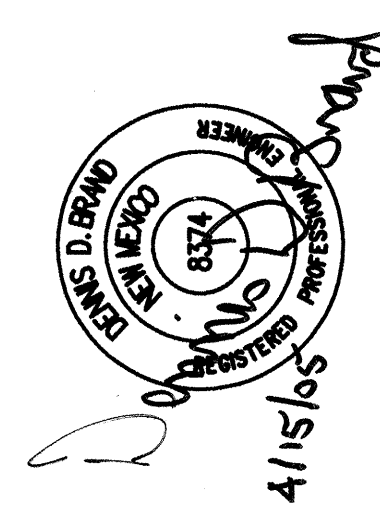
SPECIAL NOTICES:

HAND DELIVER SPECIAL NOTICES TO EACH RESIDENCE OR BUSINESS ADJACENT TO THE CONSTRUCTION AREA AND TO OTHERS WHICH MAY BE AFFECTED BY THE CONSTRUCTION ACTIVITIES. SPECIAL NOTICES ARE TO INFORM RESIDENTS AND BUSINESSES IN WRITING WHENEVER ACCESS, UTILITY SERVICES OR OTHER SERVICES TO THEIR PROPERTY MAY BE IMPAIRED.

20. CONSTRUCTION TIME/PUMP DELIVERY: IF PUMP SELECTION, AND/OR DELIVERY SCHEDULES DO NOT ALLOW DELIVERY AND INSTALLATION OF THE SELECTED WELL PUMPING UNIT WITHIN THE ALLOWED 57 CALENDAR DAYS, ADDITIONAL TIME MAY BE REQUESTED FROM THE OWNER AND THE ENGINEER. THIS REQUEST SHALL BE MADE NO LATER THAN SEVEN (7) DAYS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE FINAL PUMP SELECTION, AND SHALL BE ACCOMPANIED BY BACKUP DELIVERY DATA SUPPLIED BY THE MANUFACTURER.

SYMBOL LEGEND

—WS—	PROPOSED WELL SUPPLY LINE
—W—	PROPOSED WATERLINE
	WATER METER
	WATER VALVE
	WATER MANHOLE
	FIRE HYDRANT
	WELL
—SAS—	PROPOSED SANITARY SEWER
	CLEAN OUT
	DRAINAGE MANHOLE
	SANITARY MANHOLE
—P—P—	POWER LINE
	ELECTRIC METER
	ELECTRIC BOX
	TRANSFORMER
	CONTROL POINT
	SIGNAL BOX
	LOCATION MARKER
	TELEPHONE RISER
	POWER POLE
	POWER PEDESTAL
—BUR TELE—	BURIED TELEPHONE LINE
	VAULT
—SD—	PROPOSED STORM DRAIN
	DROP INLET
	CURB INLET
	GUARD RAIL
—X—	CHAIN LINK\WIRE FENCE
—□—□—	WALL
—	RIGHT OF WAY
	GAS METER
—2" HP GAS—	2" GAS LINE
	GAS VALVE

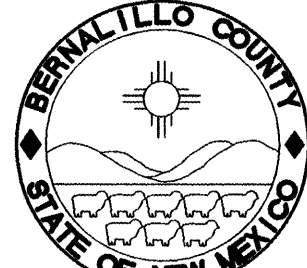
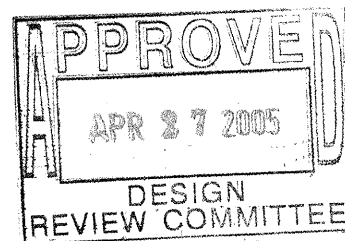
AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	ACS 1-K5	(NO PUBLISHED DESCRIPTION AVAILABLE)	FIELD NOTES	NO.		
WORK STARTED BY	DATE	NO. PUBLISHED DESCRIPTION AVAILABLE	COORDS. 1483795.076, 333607.752 (NAD 1927)	BY	DATE		
ADJUSTED BY	DATE	CGG = 0.09996544427	ELEVATION = 5794.218 FT.			REMARKS	BY
FIELD INSPECTION BY	DATE					REVISIONS	
INTERPRETATION BY	DATE					WILSON & COMPANY, ENGINEERS & ARCHITECTS	DATE MAR. '05
RECORDED BY	DATE					DESIGNED BY	DOB
NO.						DRAWN BY	PAS
						CHECKED BY	DOB

RECORD DRAWING

DATE 4/21/2006

by CHB

WCEA FILE NO. X4210019
BID PKG. A - MAR. 2005



BERNALILLO COUNTY

ENGINEERING DIVISION

PROJECT NO.
TS 04-07-A

SHEET
2 of 6

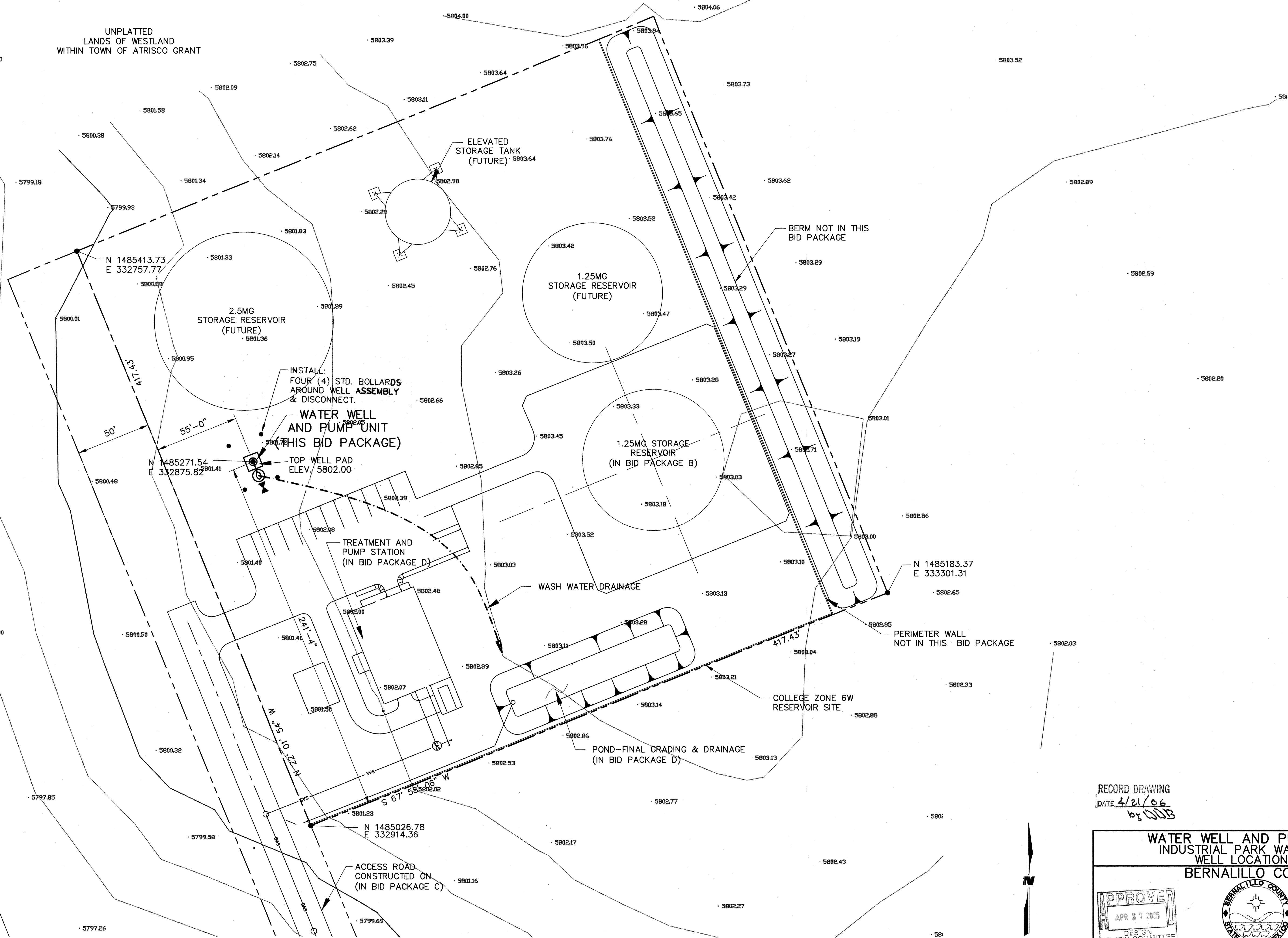
WILSON
& COMPANY

CPN 760681

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SCANNED BY
MESA REPRO

UNPLATTED
LANDS OF WESTLAND
WITHIN TOWN OF ATRISCO GRANT

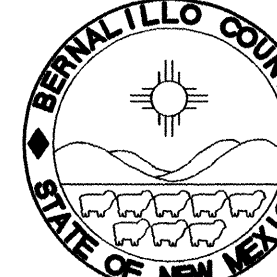


WELL LOCATION MAP

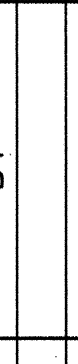
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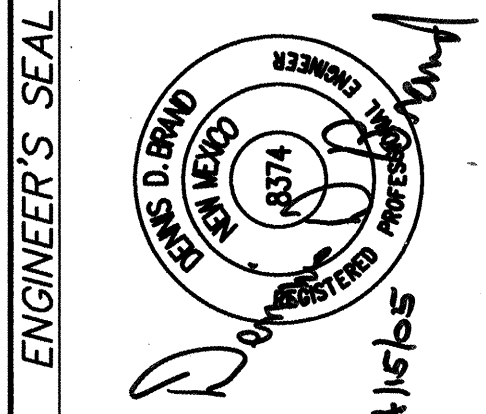
WCEA FILE NO. X4210019
BID PKG. A - MAR. 2005

RECORD DRAWING
DATE 4/21/06
BY CDB

APPROVED APR 27 2005 DESIGN REVIEW COMMITTEE			
ENGINEERING DIVISION		SHEET	
PROJECT NO. TS 04-07-A		3 of 6	

WILSON & COMPANY CPN 760681

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS-BUILT INFORMATION		
<div><p>4/16/05</p></div>		FIELD NOTES		ACS 1-K5				
		NO.	BY	DATE	(NO PUBLISHED DESCRIPTION AVAILABLE)			
					COORDS. 1483795.076,333607.752 (NAD 1927)			
					CGGF = 0.099996544427			
				ELEVATION = 5794.218 FT. (NAVD 29)		MICRO-FILM INFORMATION		
						RECORDED BY		
						NO.		



REVISIONS		REMARKS	
NO.	DATE	BY	REMARKS
1	4/21/06	CDB	DESIGN REVIEW COMMITTEE

DESIGNED BY	DBB	DATE MAR. '05
DRAWN BY	PAS	DATE MAR. '05
CHECKED BY	DOB	DATE MAR. '05

COVER: 3/8" STEEL PLATE
SECURED BY WELDING.
SECURE GAGE LINES AND
400 FT GRAVEL-FEED LINE WITH
THREADED CAPS AND WELD TABS
(IF REQUIRED, BASED UPON
DELIVERY OF PITLESS)

NOMINAL TOP OF WELL PUMP
PAD @ ± 3" ABOVE GROUND

NEW PAD ELEV. = 5802.00

EXISTING GROUND=5801.75

12" CONCRETE PAD BASE. TO BE
CONSTRUCTED AFTER PITLESS IS INSTALLED
SEE DETAIL.

94'
+99'-DRILLED 32"
BOREHOLE AND
26" Ø CASING
CEMENTED IN PLACE

BLANK CASING TO
+100' BELOW GRADE
1000'

AS CONSTRUCTED

TOTAL DEPTH 1570 FT,
17 1/2" Ø
PILOT HOLE, THEN REAMED
TO 24" Ø FROM BOTTOM
OF CASING (TO FULL DEPTH.)
INSTALL 14" Ø X 5/16" WALL
HSLA BLANK CASING AND
14" Ø X 5/16" FULL-FLO HSLA
SHUTTER SCREEN (0.05" OPENINGS)
AS SHOWN. (SEE FINAL WELL
REPORT FOR DETAILS)

100FT
WELL SCREEN
CASING

20 FT
BLANK CASING

320'
SCREEN
CASING

30' BLANK CASING

90'
WELL
SCREEN
CASING

10' BLANK CASING

INSTALL 308' NEAT CEMENT GROUT OR
APPROVED SAND/CEMENT GROUT IN ANNULUS
TO MATE WITH SURFACE GROUT. (SEE SPECS
FOR INSTALLATION PROCEDURE)

INSTALL 98' OF APPROVED BENTONITE PLUG IN
ANNULUS FROM 406' FT TO 308' BELOW
SURFACE. 406' FT TO 308'

850' ESTIMATED 892' STATIC-ACTUAL
WATER LEVEL (AUG 31, 2005)

INSTALL GRAVEL PACK IN ANNULUS FROM
TOTAL DEPTH, TO 400 FT BELOW SURFACE
(SEE SPEC).

NEW PITLESS ADAPTOR,
BAKER MONITOR SERIES MODEL
SEE NOTE THIS SHEET.

SEE DETAIL SHEET 5
FOR CHEMICAL FEED LINE AND
GRAVEL FEED LINE AND GAGE LINE

NOMINAL TOP OF WELL PUMP
PAD @ ± 3" ABOVE GROUND

NEW PAD ELEV. = 5802.00

EXISTING GROUND = 5801.75

NEW ELECTRICAL CONDUIT.

CONCRETE PAD BASE
SEE DETAIL SHEET 5

PUMP DISCHARGE

REWELD SEAL AS REQUIRED

CUT AND REMOVE CASING TO MATCH PITLESS
ADAPTOR. RECONSTRUCT GROUTED SEAL
BETWEEN BOREHOLE AND CASING. AS
REQUIRED.

PUMP POWER CABLE TO BE STRAPPED TO
DISCHARGE COLUMN PIPE AT EVERY JOINT
WITH 1/2" STAINLESS STEEL BANDING.

GRAVEL FEED LINES
(SEE SPECS)

NEW 7" CHECK VALVE, FLOWMATIC MODEL
800I, OR ENGINEER APPROVED EQUAL, SET AT
APPROPRIATE DEPTHS.

NEW 7" PUMP COLUMN

SUBMERSIBLE LEVEL TRANSMITTER STRAPPED
TO COLUMN DISCHARGE PIPE. SET SENSOR
10' ABOVE THE TOP BOWL OF THE PUMP
LEVEL. SEE NOTE THIS SHEET.

AIR LINES STRAPPED TO
COLUMN DISCHARGE PIPE. SET
AIR LINE BOTTOMS TO 1100
BGL. SEE NOTE THIS SHEET

NEW 7" CHECK VALVE, FLOWMATIC MODEL
800I, OR ENGINEER APPROVED EQUAL.

SET PUMP INTAKE AT 1106'.
SEE GENERAL NOTES THIS SHEET
FOR PUMP DESIGN BASIS.
(PUMP HEIGHT VARIES)

GAGE LINES
(SEE SPECS)

GENERAL NOTES:

SEE REVISED NOTE "A"
BELOW

A. DUTY POINT - PUMP AND MOTOR SHALL BE CAPABLE OF MINIMUM DELIVERY
OF 350 GALLONS PER MINUTE (GPM) AT 1210 FEET OF TOTAL DYNAMIC
HEAD (TDH) WITH 175 HP MOTOR. (PRIMARY DUTY POINT). DESIGN BASIS
FOR PUMP IS A GOULDS SUBMERSIBLE, #SST 7CNLC (15 STAGES), 3600
RPM, (WITH STAINLESS STEEL BOWL ASSEMBLY), 6" NPT DISCHARGE
CONNECTION, SUBMERSIBLE VERTICAL TURBINE PUMP, OR ENGINEER-
APPROVED EQUAL USING FEELLESS OR FLOWAY PUMPS (SEE SPECS).

B. PUMP DESIGN CRITERIA STATED HEREIN IS STANDARD FOR BID, BUT MAY
NOT REFLECT FINAL SIZING, DEPENDING UPON RESULTS OF WELL PUMP
TESTS. UPON COMPLETION OF TEST PUMPING, OWNER AND ENGINEER WILL
REVIEW PUMP TEST REPORT FOR UP TO TWELVE (12) DAYS TO DETERMINE IF
PUMP DESIGN BASIS IS APPROPRIATE. CONTRACTOR SHALL BE COMPENSATED
FOR EQUIPMENT PURCHASE COSTS AS MAY CHANGE, BASED UPON A
CHANGE ORDER.

C. PUMP MOTOR IS SUBMERSIBLE VERTICAL TURBINE TYPE, 175 HORSEPOWER,
RATED AT 480 VOLTS, AND 3 PHASE. MOTOR SHALL BE FRANKLIN
ELECTRIC, OR ENGINEER APPROVED EQUAL, MATED AND RATED FOR
HEAVY-DUTY, SUBMERGED CONDITIONS, FULLY SEALED. MOTOR SHALL
FEATURE STAINLESS STEEL OUTPUT SHAFTS, AND HAVE COMPLETELY CLOSED
LIQUID FILLED CONSTRUCTION. PUMP AND MOTOR SHALL BE MATED AND
ASSEMBLED BY THE PUMP MANUFACTURER, WHO SHALL BEAR
RESPONSIBILITY FOR ALL PARTS.

D. A PITLESS ADAPTOR, BAKER MONITOR MODEL 4PS1224WEO60B OR AS
REQUIRED WITH SEALED ELECTRICAL CONDUIT AND PROBE CONNECTIONS, IS
TO BE PROVIDED FOR PUMP DISCHARGE HEAD.

E. PUMP DISCHARGE COLUMN SHALL BE A MINIMUM OF 8" (NPS DESIGNATOR),
SCHEDULE 80 STEEL (ASTM A 53B) PIPE, 8 THREADS PER INCH, OR EQUAL.

F. CONTRACTOR SHALL INSTALL TWO (2) CONTINUOUS STAINLESS STEEL AIR
LINES, 3/8" DIAMETER WITH PUMP AND DISCHARGE COLUMN INSTALLATION,
WITH TOP FITTING AS REQUIRED BY WATER UTILITY (SEE SPECS).

G. CONTRACTOR SHALL INSTALL A MINIMUM OF TWO (2) MODEL 800I HEAVY
DUTY IN-LINE POPPET STYLE CHECK VALVES, AS MANUFACTURED BY
FLOWMATIC, OR ENGINEER APPROVED EQUAL, AT DEPTH AS REQUIRED.

H. PUMP POWER CABLE SHALL BE FLAT, BLACK JACKETED, AS SPECIFIED ON
ELECTRICAL DETAIL SHEET(S), AND SHALL BE STRAPPED TO THE PUMP
COLUMN DISCHARGE PIPE AT EVERY JOINT WITH 1/2" STAINLESS STEEL
BANDING.

* ALTERNATE A BID

UNDER ALTERNATE A BIDDING, WELL HOLE
DIAMETER AND DEPTH IS THE SAME AS BASE
BID, BUT BLANK AND PERFORATED CASING IS
14" DIA. I.D. (NOMINAL) SEE SPECS

* ALTERNATE A SELECTED
FOR CONSTRUCTION

REVISED NOTE A: FINAL PUMP SELECTION: (DUTY POINT)
PUMP MOTOR CAPACITY OF 420 GALLONS PER MINUTE (GPM) AT
1128 FT OF TOTAL DYNAMIC HEAD (TDH) WITH 175 HP MOTOR,
(PRIMARY DUTY POINT). FINAL SELECTION IS CHISTENSEN PUMP
SUBMERSIBLE, #SST - 7CSHC (11 STAGES) 3600 RPM, WITH
STAINLESS-STEEL BOWL ASSEMBLY, 6" NPT DISCHARGE CONNECTION,
SUBMERSIBLE VERTICAL TURBINE PUMP (FULL SERIAL NUMBERS
(505031-2 PUMP & 05L19-01-8010 MOTOR)

REVISED NOTE D: A PITLESS ADAPTOR, "BASKI" MODEL
EHD-S-14X6-6F7APIR WT 4.5-2-RT-2SSP AS REQUIRED WITH
SEALED ELECTRICAL CONDUIT AND PROBE CONNECTIONS, IS
PROVIDED FOR PUMP DISCHARGE HEAD.

RECORD DRAWING

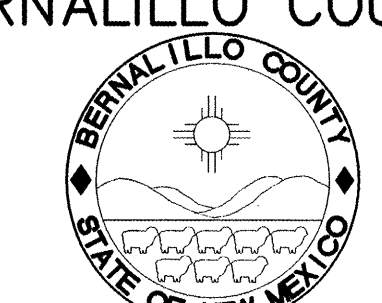
DATE 4/21/06

1 SECTION - DRILLED WELL
NOT TO SCALE (AS CONSTRUCTED)

2 SECTION - PUMP INSTALLATION
NOT TO SCALE (AS CONSTRUCTED)

AS-BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION				ENGINEER'S SEAL			
CONTRACTOR	INVESTIGATOR	DATE		ACS 1-K5	NO. 1	DATE		FIELD NOTES	BY	NO.					
INVESTIGATOR	DATE			(NO PUBLISHED DESCRIPTION AVAILABLE)											
INSPECTOR'S	DATE			COORDS. 1483795.076, 333607.752 (NAD 1927)								REVISIONS			
ACCEPTANCE BY	DATE														
VERIFICATION BY	DATE											WILSON & COMPANY, ENGINEERS & ARCHITECTS			
DRAWINGS	DATE														
BY												DESIGNED BY	DOB	DATE MAR. '05	DATE MAR. '05
												DRAWN BY	PAS	DATE MAR. '05	DATE MAR. '05
												CHECKED BY	DOB	DATE MAR. '05	DATE MAR. '05

WATER WELL AND PUMPING UNIT
INDUSTRIAL PARK WATER SYSTEM
WELL AND PUMP DETAILS
BERNALILLO COUNTY



ENGINEERING DIVISION

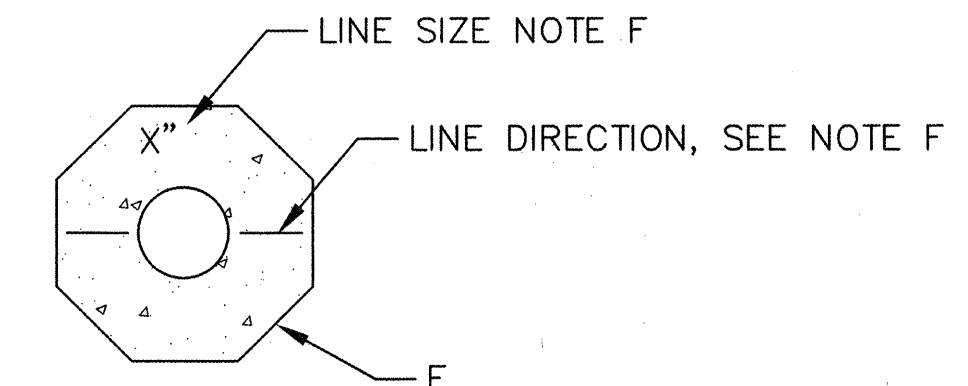
PROJECT NO. TS 04-07-A SHEET 4 of 6

WCEA FILE NO. X4210019
BID PKG. A - MAR. 2005

WILSON
& COMPANY



TYPICAL TRENCH DETAIL



LABEL REQUIREMENTS

COA WATER VALVE BOX STD. DWG. 2326
NOT TO SCALE

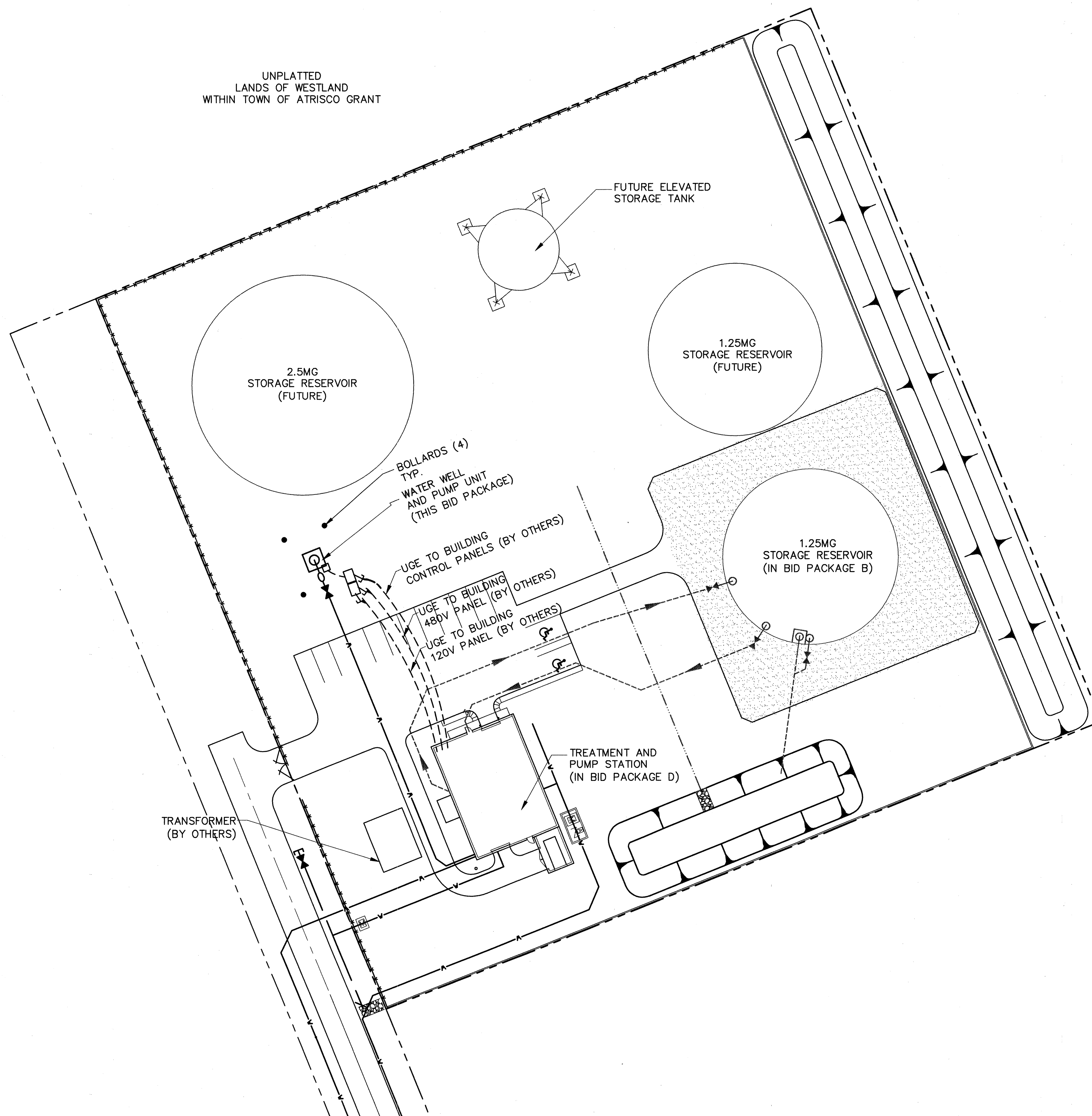
- WELL HEAD – GAGE, FILL AND CHEMICAL FEED LINES
NOT TO SCALE

SHEET 5 of 6

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X:\Public\PROJECTS\X4210019\Plan Drawings-BC IP Water\WaterWell\ELECTRICAL SITE.dwg 4/15/2005 1:03:48 PM MDT

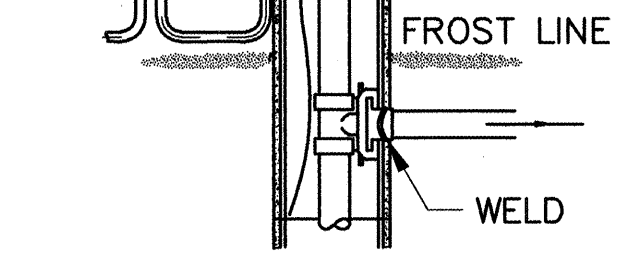
SCANNED BY
MESA REPRO



SITE ELECTRICAL

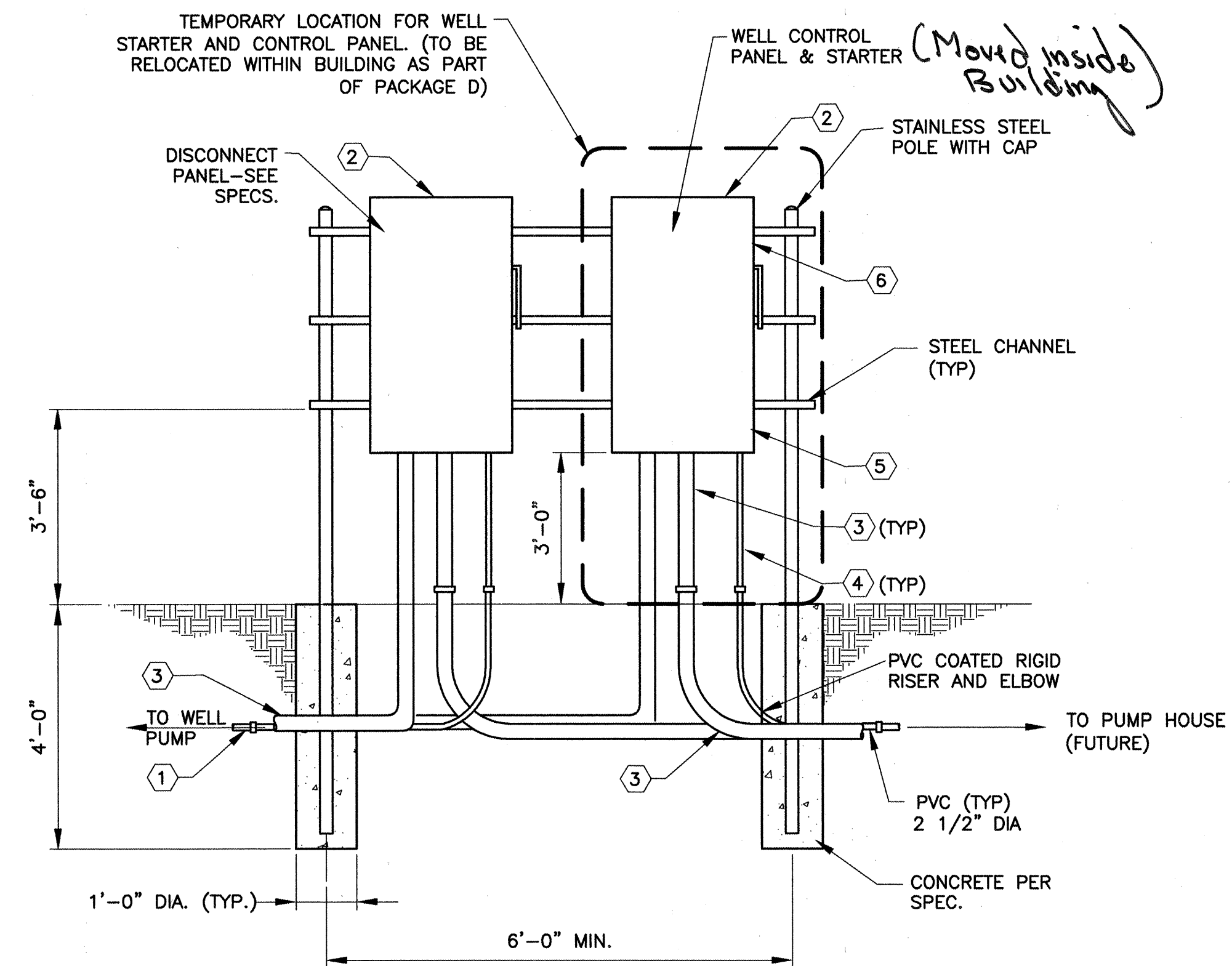
LOCKABLE NEMA 4X JUNCTION BOX
WITH LABELED TERMINAL BLOCK FOR
CONDUCTORS. MOUNT USING
GALVANIZED B-LINE STRUT, OR EQUAL

PITLESS ADAPTOR AND TOP
SANITARY WELL SEAL.



WELL PITLESS ADAPTOR ELECTRICAL DETAIL

SCALE: NONE



WELL PUMP POWER/CONTROL PANELS

DETAIL
NOT TO SCALE

DETAIL NOTES:

- METALLIC CONDUIT TO WELL. FUTURE LEVEL TRANSMITTER CABLE SHALL NOT BE SPLICED. ORDER WITH SUFFICIENT CABLE TO REACH TRANSMITTER.
- LOCKABLE NEMA 4X ENCLOSURE.
- 2-#18 SHIELDED CONDUCTORS TO RTB-BCB FOR 480 VOLT CONTROL.
- 2-#12, 1-#12G TO 120 VAC IN RTB-BCB FOR 120 VOLT CONTROL.
- FUTURE RTU & SCADA SYSTEM TO ACCEPT & TRANSMIT WELL LEVEL SIGNAL.
- CONTROL PANEL TO HAVE MINIMUM OF 8 SPARE INPUT/OUTPUT SIGNAL LUGS.

RECORD DRAWING
DATE 4/21/2006
BY DDB

Scale: 1" = 30'

WCEA FILE NO. X4210019
BID PKG. A - MAR. 2005

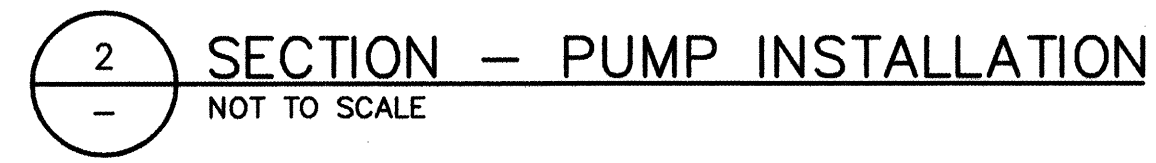
WATER WELL AND PUMPING UNIT INDUSTRIAL PARK WATER SYSTEM ELECTRICAL SITE DETAILS BERNALILLO COUNTY			
ENGINEERING DIVISION			
PROJECT NO. TS 04-07-A		SHEET 6 of 6	

WILSON
& COMPANY

CPN 760681

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	NO.	ACS 1-K5	NO. 1-K5	DATE	BY		
WORK	NO.	(NO PUBLISHED DESCRIPTION AVAILABLE)	NO. 1-K5	DATE	BY		
DESIGNED BY	NO.	COORDS. 1483795.076, 333607.752 (NAD 1927)	COORDS. 1483795.076, 333607.752 (NAD 1927)	DATE	BY		
ACCEPTANCE BY	NO.	066F-0-00996844427	066F-0-00996844427	DATE	BY		
DRAWINGS	NO.	(NAVD 29)	(NAVD 29)	DATE	BY	REVISIONS	
CORRECTED BY	NO.	ELEVATION = 5794.218 FT.	ELEVATION = 5794.218 FT.	DATE	BY		
RECORDED BY	NO.			DATE	BY		
NO.	NO.			DATE	BY		

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ALTERNATE A BID

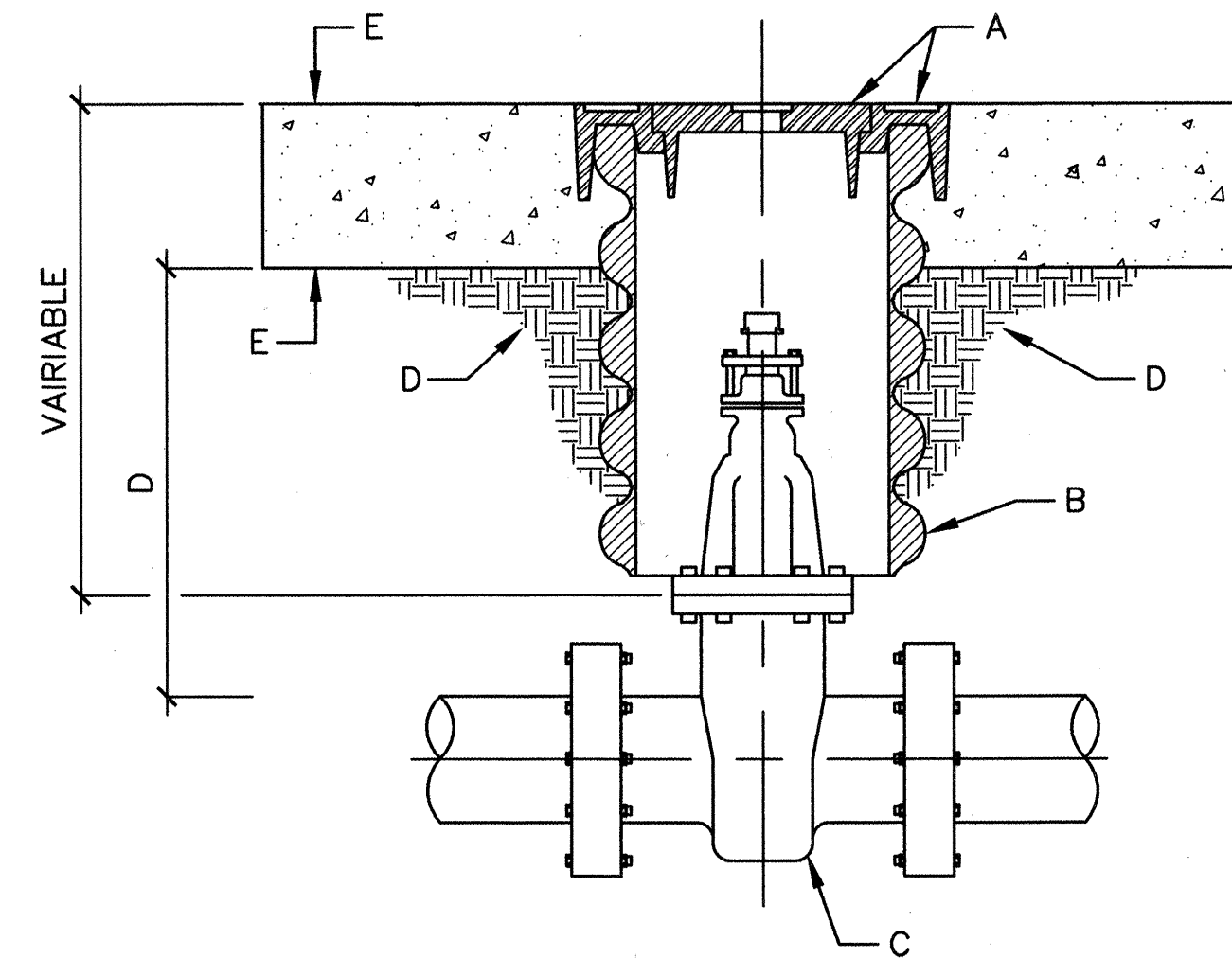
UNDER ALTERNATE A BIDDING, WELL HOLE DIAMETER AND DEPTH IS THE SAME AS BASE BID, BUT BLANK AND PERFORATED CASING IS 14" DIA. I.D. (NOMINAL) SEE SPECS
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(SEE REVISED)
SHEET

WCEA FILE NO. X4210019
BID PKG. A - MAR. 2005

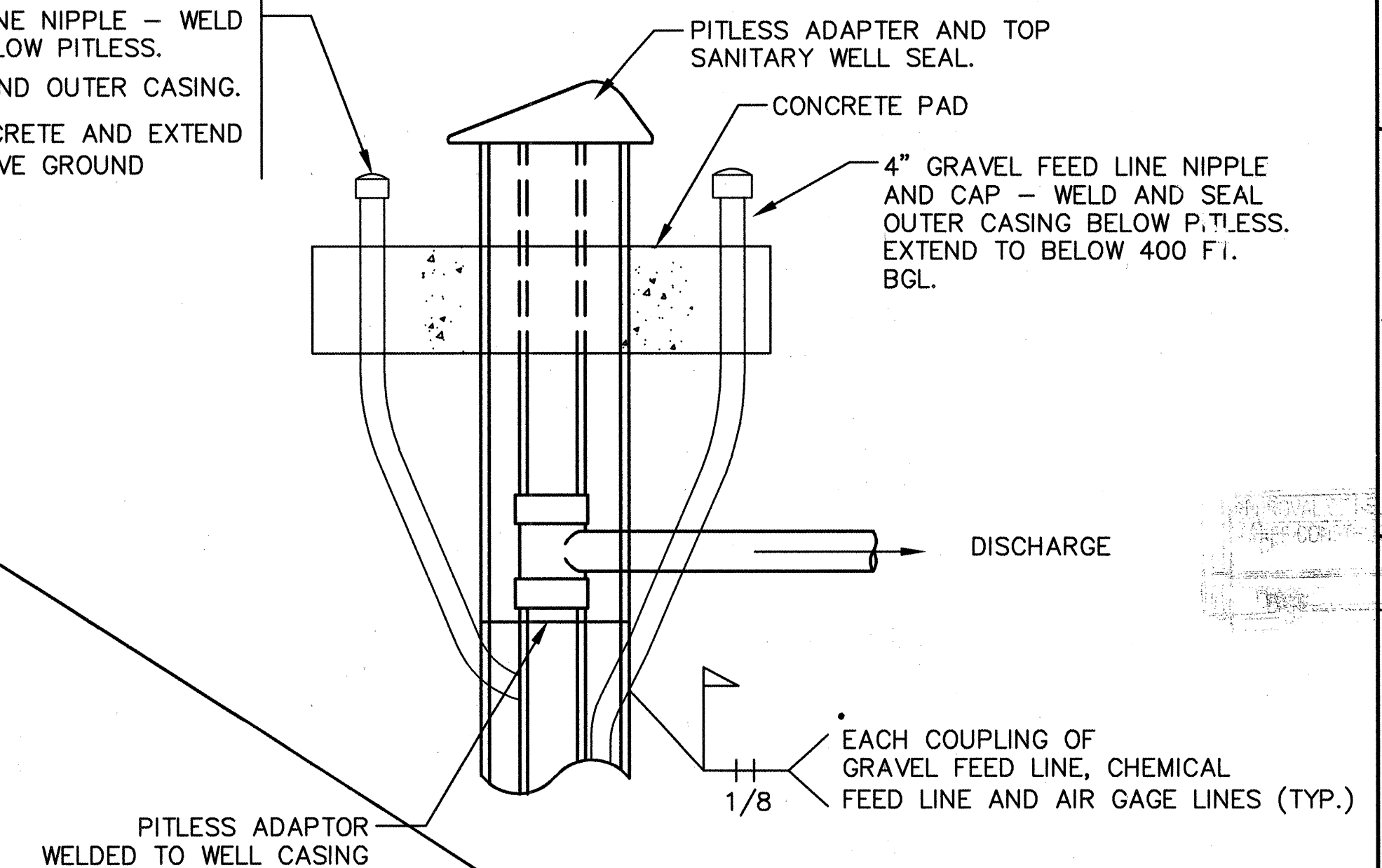
WILSON
& COMPANY *CRAI 71 0681*

CPN 760681



- A VALVE BOX AND RING COVER PER C.O.A. STD. DWG 2328
- B 10" DIA. RIBBED OR CORRUGATED PVC OR PE PIPE WITH SMOOTH INTERIOR (C-900).
- C NEW OR EXISTING VALVE.
- D COMPACTED BACKFILL. SOIL OR BASE COURSE MATERIAL (95% COMPACTION). SEE SECTION 701.
- E CONCRETE COLLAR PER C.O.A. STD. DWG. 2461.
- F TOP OF CONCRETE SHALL BE TAMPED WITH LINE SIZE AND DIRECTION. MINIMUM LETTER SIZE SHALL BE 3" IN HEIGHT.
- G MIN. 6" OR MATCH EXISTING

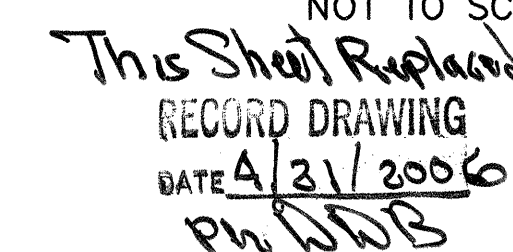
- ①. 4" CHEMICAL FEED LINE NIPPLE - WELD TO INNER CASING BELOW PITLESS.
- ②. SEAL WELD AROUND OUTER CASING.
- ③. SET TOP IN CONCRETE AND EXTEND APPROX 12" ABOVE GROUND



1. 3/8" STAINLESS STEEL AIR LINES (2) NOT SHOWN IN THIS VIEW (90° OFFSET). RUN FROM OUTER CASING, BELOW PITLESS, THEN THROUGH AND WELD NEXT TO INNER CASING AND WELDED TO CASING, CONTINUE TO BGL ELEVATION AS SPECIFIED.

NOT TO SCALE

PER ADDENDUM # 2
5/02/05



WATER WELL AND PUMPING UNIT	1
INDUSTRIAL PARK WATER SYSTEM	2
MISCELLANEOUS DETAILS	3
BERNALILLO COUNTY	4



PROJECT NO.	TS 04-07-A
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SHEET 5 of ~~6~~

SURVEY INFORMATION		FIELD NOTES		BENCH MARKS		AS-BUILT INFORMATION	
NO.	BY	DATE	ACS 1-K5 (NO PUBLISHED DESCRIPTION AVAILABLE) COORDS: 1483795.076, 333607.752 (NAD 1927) CGGf = 0.099996544427 ELEVATION = 5794.218 FT. (NAVD 29)	WORK PERFORMED BY INSPECTOR'S ACCEPTANCE BY VERIFICATION BY	DATE	CONTRACTOR	DATE
				DRAWN BY DATE			
				MICRO-FILM INFORMATION			
				RECORDED BY			DATE
				NO.			

[illegible]