

WOODLAND LAKES TRUSTEES

CRYSTAL LAKE RECHARGE PUMP

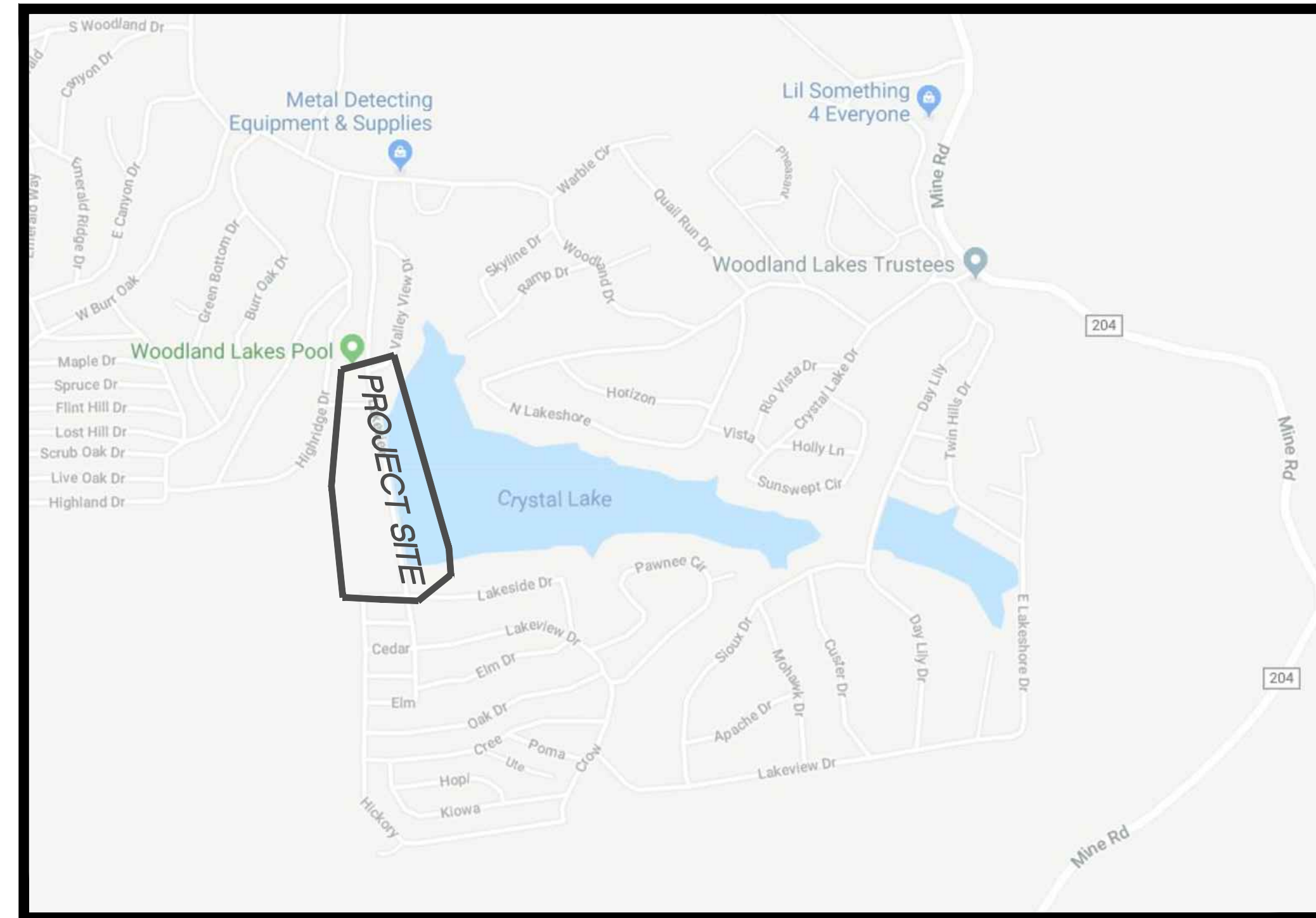
PRELIMINARY PLAN

LAKEVIEW, SULLIVAN, MO 63080

Washington County, Missouri

GENERAL NOTES

- THE UTILITIES SHOWN HEREIN WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, OR LOCATION OF THESE OR OTHER UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.
- ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.
- ELEVATION CONTOURS TAKEN FROM TOPOGRAPHIC SURVEY PROVIDED BY CHECKPOINT SURVEYING, LLC.
- ALL MATERIALS AND METHODS OF CONSTRUCTION TO MEET THE CURRENT STANDARDS AND SPECIFICATIONS OF WASHINGTON COUNTY.
- ALL GRADED AREAS SHALL BE PROTECTED FROM EROSION BY EROSION CONTROL DEVICES AND/OR SEEDING AND MULCHING AS REQUIRED BY WASHINGTON COUNTY & MISSOURI DNR.
- PRIOR TO BEGINNING ANY WORK ON THE SITE, THE DEVELOPER SHALL HAVE A PRECONSTRUCTION CONFERENCE WITH WASHINGTON COUNTY PRIOR TO ANY CLEARING, GRADING, OR INSTALLATION OF IMPROVEMENTS.
- GRADING CONTRACTOR SHALL INSTALL SILTATION CONTROL PRIOR TO STARTING THE GRADING. ADDITIONAL SILTATION CONTROL DEVICES SHALL BE INSTALLED PER WASHINGTON COUNTY STANDARDS.
- ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS.
- GRADING CONTRACTOR SHALL KEEP EXISTING ROADWAYS CLEAN OF MUD AND DEBRIS AT ALL TIMES.
- PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS ON PAVED AREAS.
- NO GRADE SHALL EXCEED 3:1 SLOPE.
- A GRADING PERMIT IS REQUIRED PRIOR TO ANY GRADING ON THE SITE. NO CHANGE IN WATERSHEDS SHALL BE PERMITTED.
- INTERIM STORMWATER DRAINAGE CONTROL IN THE FORM OF SILTATION CONTROL MEASURES ARE REQUIRED.
- THE DEVELOPER IS REQUIRED TO PROVIDE ADEQUATE STORMWATER SYSTEMS IN ACCORDANCE WITH WASHINGTON COUNTY STANDARDS.
- ALL STORMWATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT.
- ADEQUATE TEMPORARY OFF-STREET PARKING SHALL BE PROVIDED FOR CONSTRUCTION EMPLOYEES. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEE VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVING CONDITIONS.
- THE DEVELOPER IS ADVISED THAT UTILITY COMPANIES WILL REQUIRE COMPENSATION FOR RELOCATION OF THEIR UTILITY FACILITIES WITHIN PUBLIC ROAD RIGHT-OF-WAY. UTILITY RELOCATION COST SHALL BE CONSIDERED THE DEVELOPER'S RESPONSIBILITY. THE DEVELOPER SHOULD ALSO BE AWARE OF EXTENSIVE DELAYS IN UTILITY COMPANY RELOCATION AND ADJUSTMENTS. SUCH DELAYS WILL NOT CONSTITUTE A CAUSE TO OCCUPANCY PRIOR TO COMPLETION OF ROAD IMPROVEMENTS.
- THE OWNER SHALL, AT ALL TIMES, CONTAIN MUD AND OTHER SPOILS ON THIS SITE. NO VEHICLE, TRAILER OR CONSTRUCTION EQUIPMENT IS TO DEPOSIT MUD OR ANY OTHER MATERIAL ON PUBLIC STREETS. PROJECT WILL BE STOPPED IF STREETS ARE NOT CLEANED IMMEDIATELY.
- LAKEVIEW DRIVE SHALL BE KEPT OPEN TO TRAFFIC DURING ALL PHASES OF CONSTRUCTION OF IMPROVEMENTS IN THE RIGHT-OF-WAY. NO DRIVING LANES SHALL BE CLOSED WITHOUT PRIOR WRITTEN PERMISSION FROM WASHINGTON COUNTY AND WOODLAND LAKES TRUSTEES.
- THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE TRAFFIC CONTROL DEVICES FOR THE PURPOSE OF REGULATING, WARNING, AND DIRECTING TRAFFIC DURING ALL PHASES OF CONSTRUCTION. ALL FLAGMEN, BARRICADES, WARNING SIGNS, ETC. SHALL CONFORM TO THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES.



LOCATION MAP
NOT TO SCALE

PROJECT BENCHMARK: ELEVATIONS DETERMINED BY GPS VRS MODOT NETWORK (NAV88). COMPLETED IN JUNE 27, 2019

SITE BENCHMARK: SET MAG NAIL IN PAVEMENT.
 PT # 1
 N:825971.97
 E:657225.44
 ELEV.=869.63'

DRAWING INDEX

C1	TITLE SHEET
C2	OVERALL PLAN
C3	SITE PLAN
C4	PUMP DETAILS/SPECIFICATIONS

ABBREVIATIONS

N/F NOW OR FORMERLY
 W WIDE
 DB. DEED BOOK
 PB. PLAT BOOK
 PG. PAGE
 CONC. CONCRETE
 SAN. SANITARY
 MH MANHOLE
 R RADIUS
 L LENGTH
 D DELTA
 TBR TO BE REMOVED
 TBR&R TO BE REMOVED & REPLACED
 UIP TO BE USED IN PLACE
 D.S. ROOF DOWNSPOUT
 w/ WITH
 EX./EXIST. EXISTING
 E.O.P. EDGE OF PAVEMENT
 ROW/R/W RIGHT OF WAY

LEGEND

UTILITY POLE
 FIRE HYDRANT
 GAS VALVE
 SANITARY SEWER
 STORM SEWER
 GAS LINE
 WATER LINE
 EXISTING CONTOURS
 PROPOSED CONTOURS
 EXISTING FIBER OPTIC LINE

LEGEND

FOUND MONUMENTATION
 CLEAN OUT
 ELECTRIC METER
 GUY WIRE
 UTILITY POLE
 TELEPHONE BOX/PEDESTAL
 SIGN
 MAILBOX
 BENCHMARK
 OVERHEAD ELECTRIC
 FIBER OPTIC LINE
 FIBER OPTIC LINE
 BUSH
 DECIDUOUS TREE

SITE DATA

PROPERTY OWNER: WOODLAND LAKES TRUSTEES
 12 Woodland Lks,
 Sullivan, MO 63080
 573-468-6505

PARCEL NUMBERS: 07-4.0-017-002-014-001.00000
 07-4.0-017-003-001-002.00000

SERVICE DISTRICTS:

FIRE: SULLIVAN FIRE DEPARTMENT
 6 S CHURCH STREET
 SULLIVAN, MO 63080
 573.468.6161

AMBULANCE: SULLIVAN FIRE PROTECTION
 DISTRICT STATION 2
 74 W. STATE HWY V
 SULLIVAN, MO 63080
 573.468.6161

SCHOOL: CRAWFORD COUNTY R-I SCHOOL DISTRICT
 1444 OLD HWY 66
 BOURBON, MO 65441
 573.732.4426

SEWER: ON-SITE

WATER: ON-SITE

ELECTRIC: AMEREN UE
 1901 CHOUTEAU AVE.
 ST. LOUIS, MISSOURI 63103
 800.552.7583

TELEPHONE: AT&T
 800.288.2020

POST OFFICE: U.S. POST OFFICE
 33 W VINE ST
 SULLIVAN, MO 63080
 800.275.8777

CABLE TV: CHARTER COMMUNICATIONS
 6524 MANCHESTER AVE.
 ST. LOUIS, MISSOURI 63139
 855.757.7328

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 12 WOODLAND LAKES
 SULLIVAN, MO 63080

ISSUE DATE
 10/15/2019

SCALE
 NONE

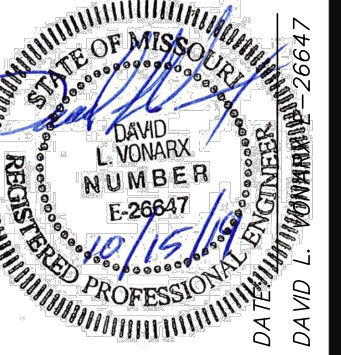
Job Number
 15156

Sheet Number

C1



CALL BEFORE
 YOU DIG!
 1-800-DIG-RITE

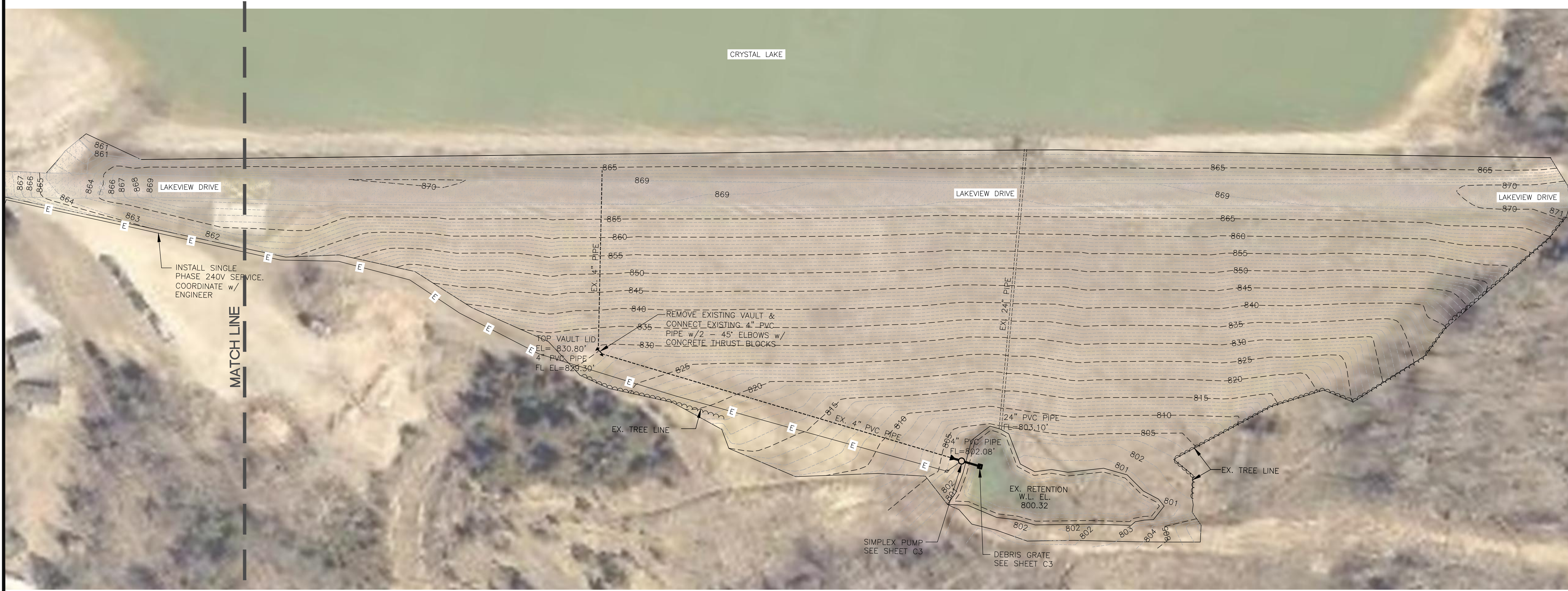
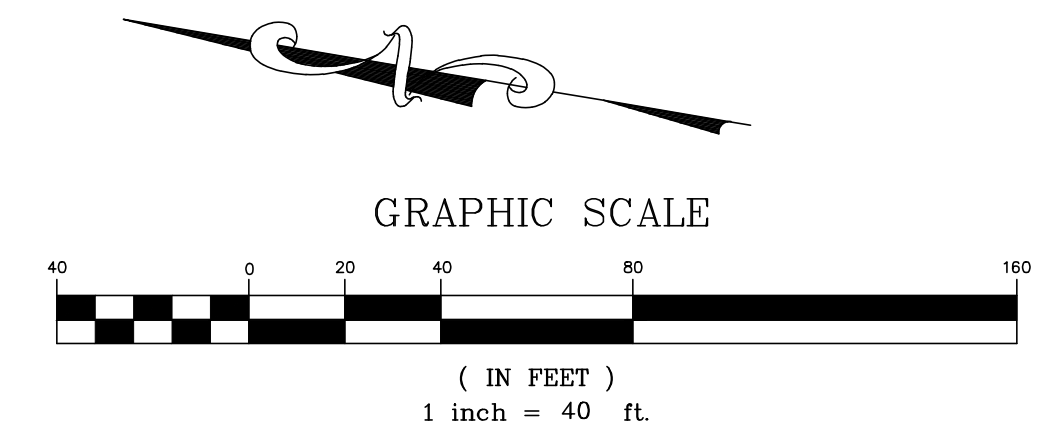


VonArx
Engineering
 CIVIL ENGINEER
 OFFICE: (630) 797-6425
 10785 BUSINESS 21 SUITE A
 HILLSBORO, MISSOURI 63050 CELL: (314) 982-5038
 CERTIFICATE OF AUTHORITY 0975

WOODLAND LAKES TRUSTEES
 12 WOODLAND LAKES
 SULLIVAN, MO 63080
 573-468-6505

Revisions
 Date

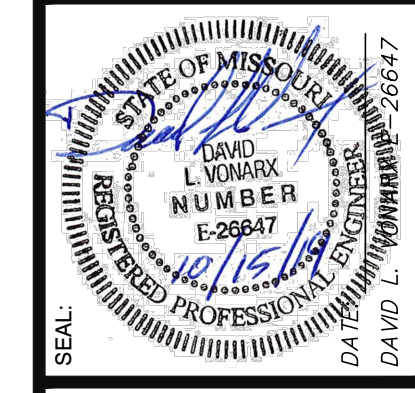
TITLE SHEET



OVERALL PLAN

Revisions

OWNER:
WOODLAND LAKES TRUSTEES
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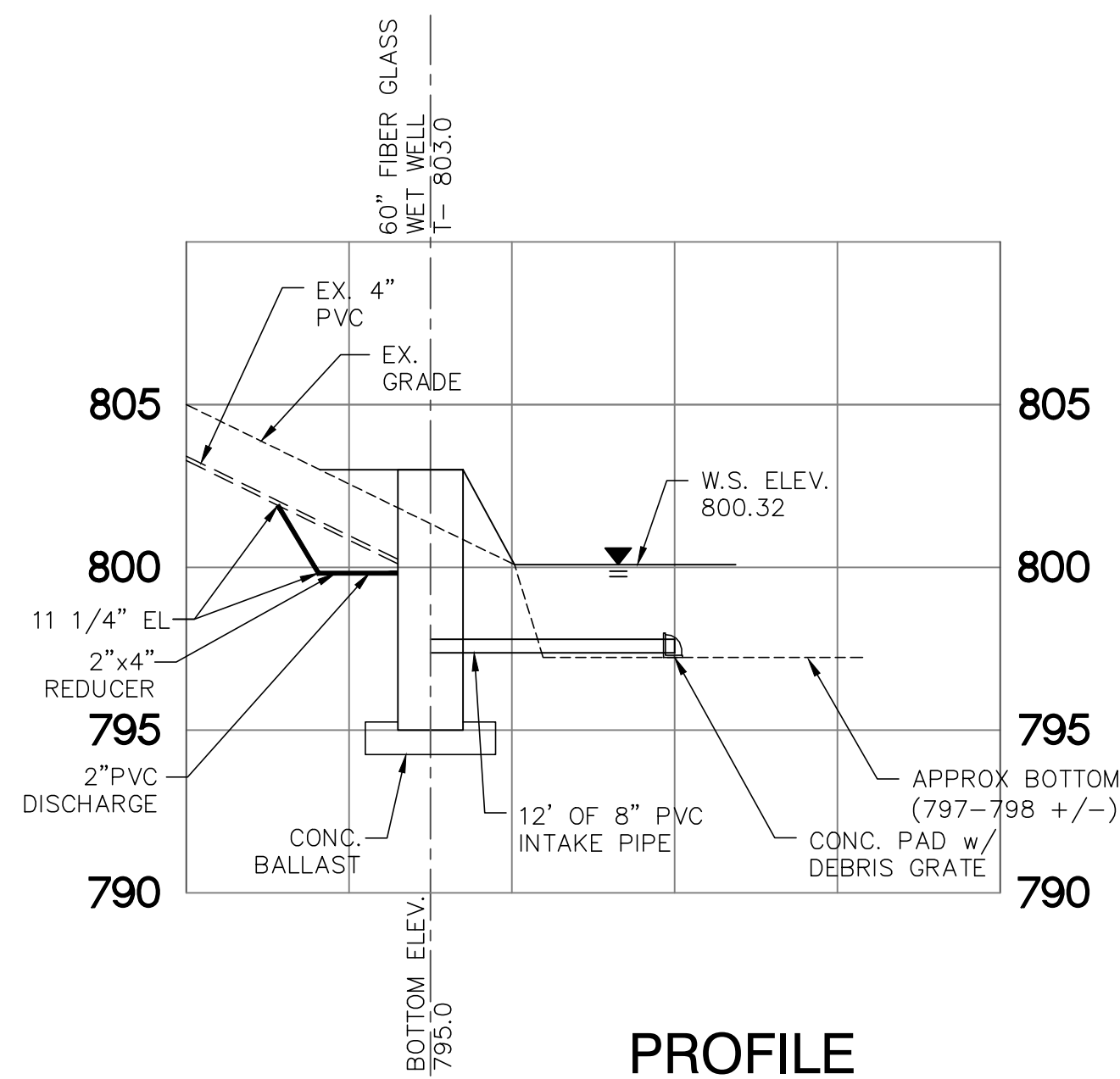


**VonArx
Engineering**

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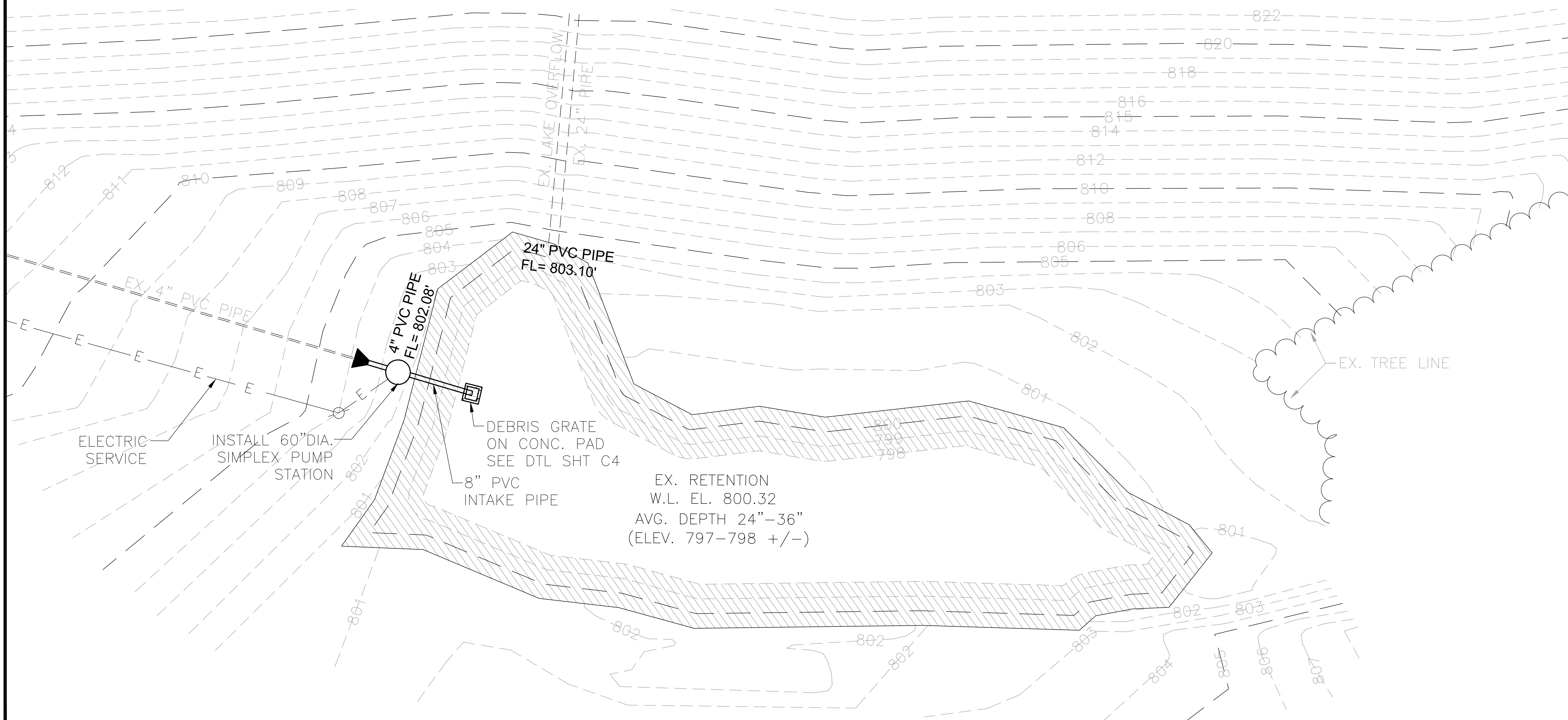
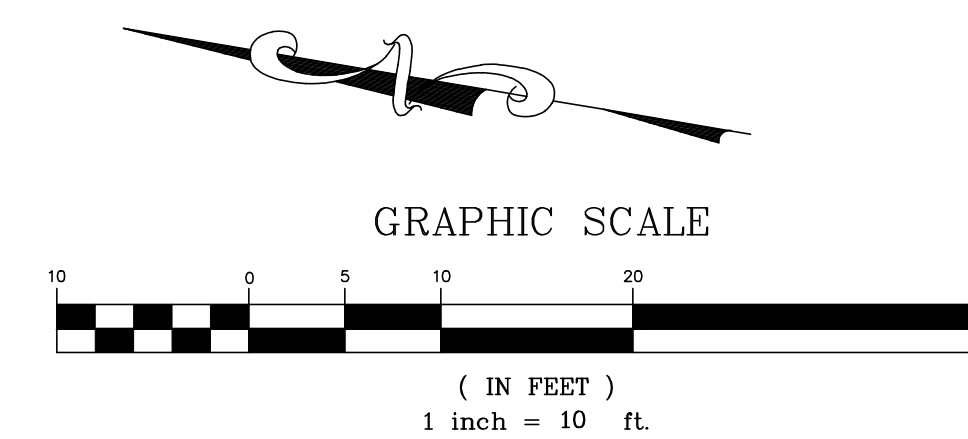
CRYSTAL LAKE RECHARGE PUMP
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1" = 40'
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15156
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C2



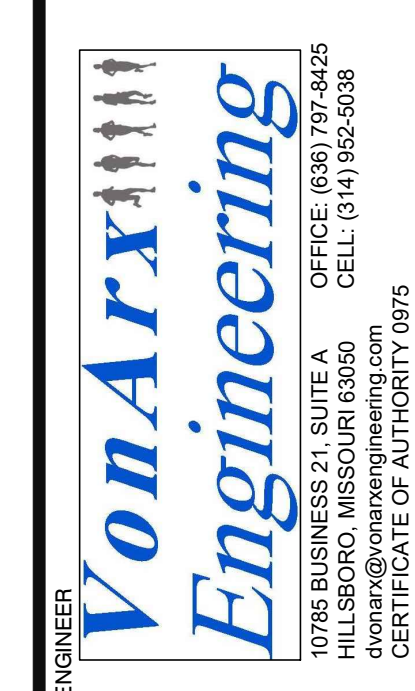
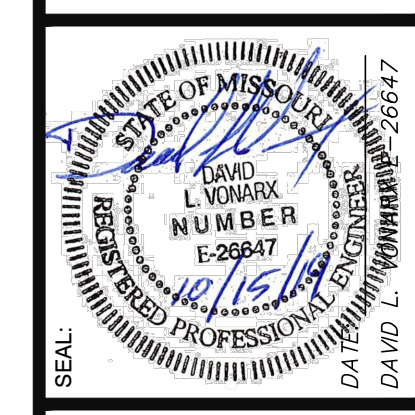
PROFILE

SCALE: 1" = 10' HORZ.
1" = 5' VERT.



SITE PLAN / PROFILE

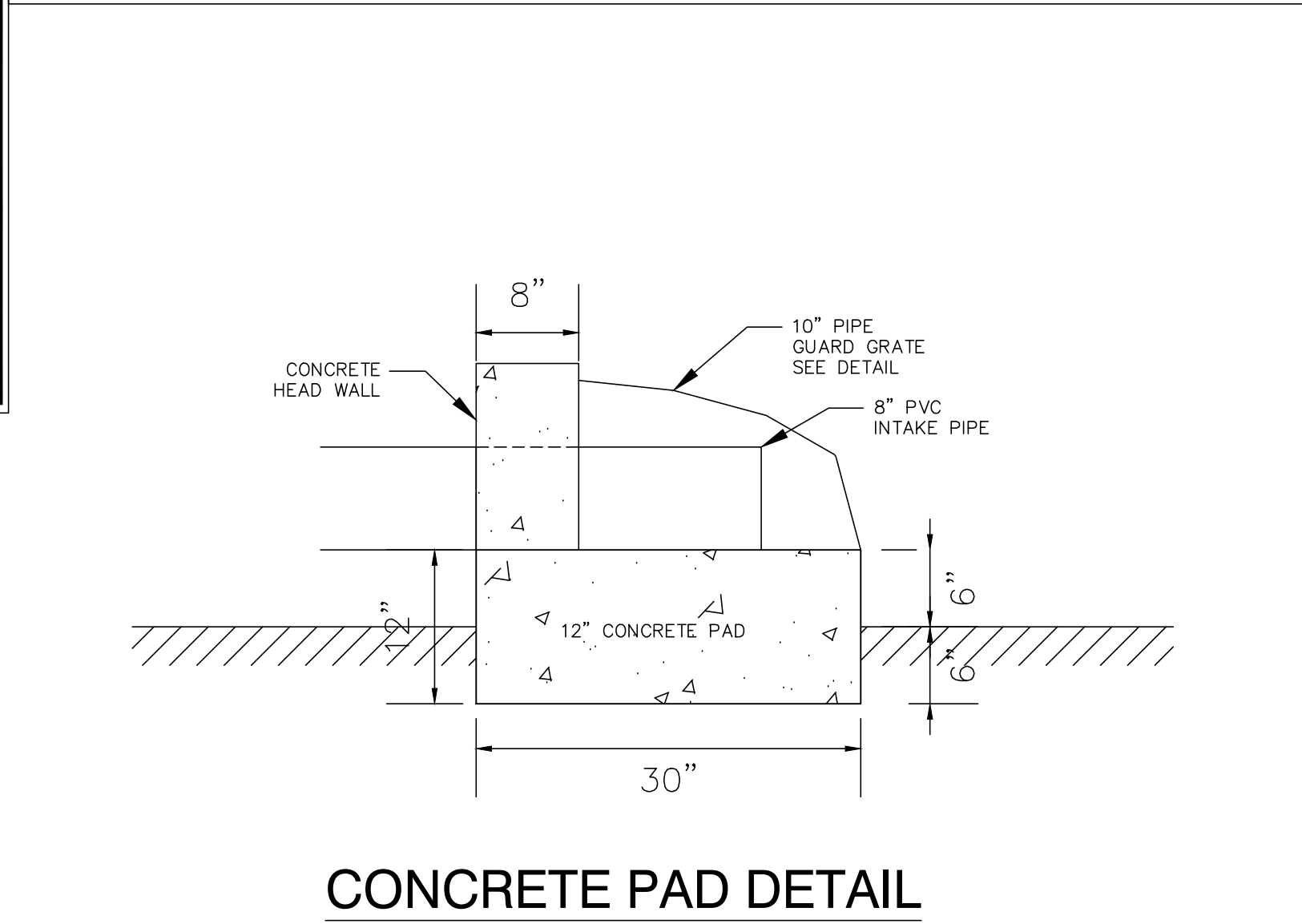
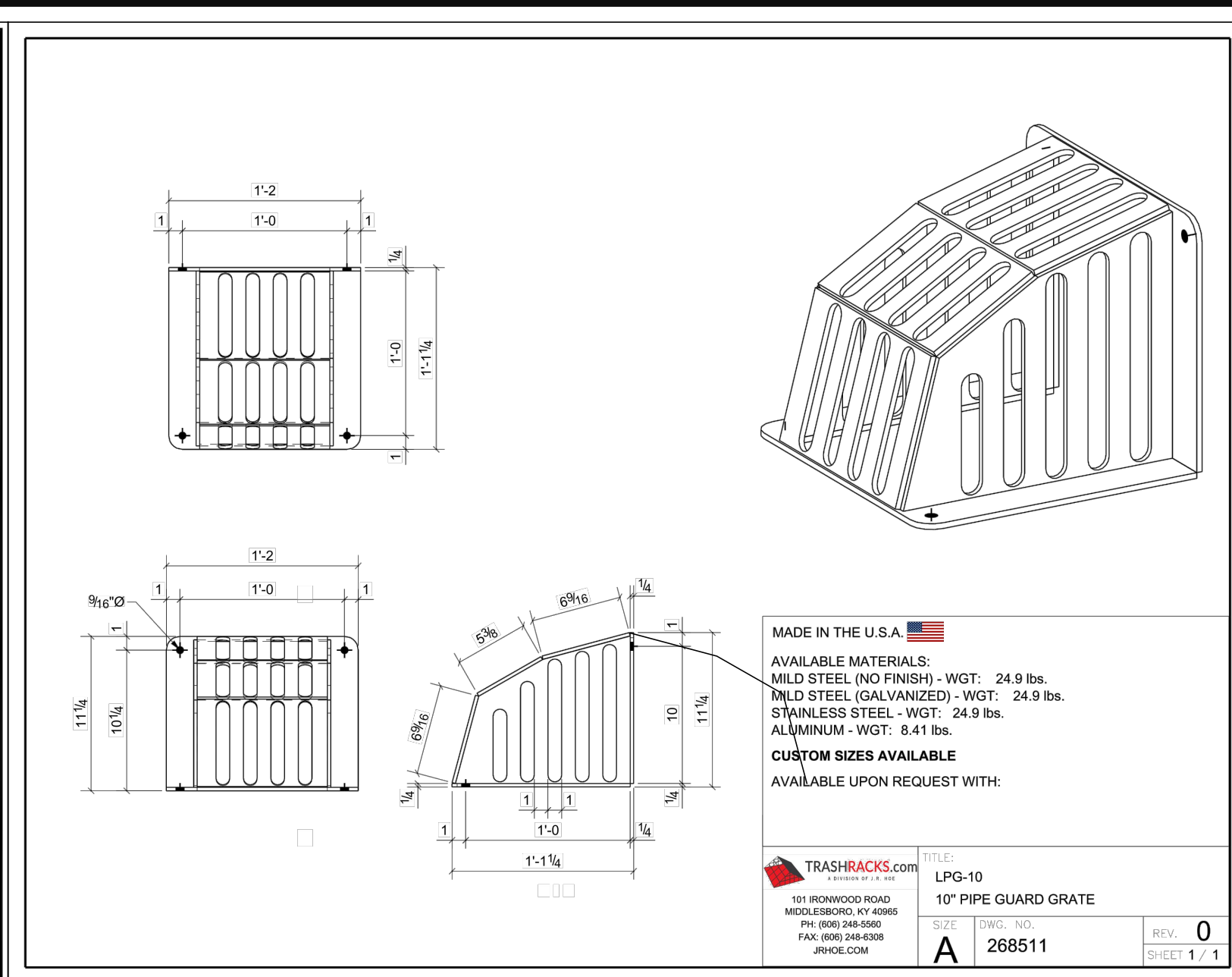
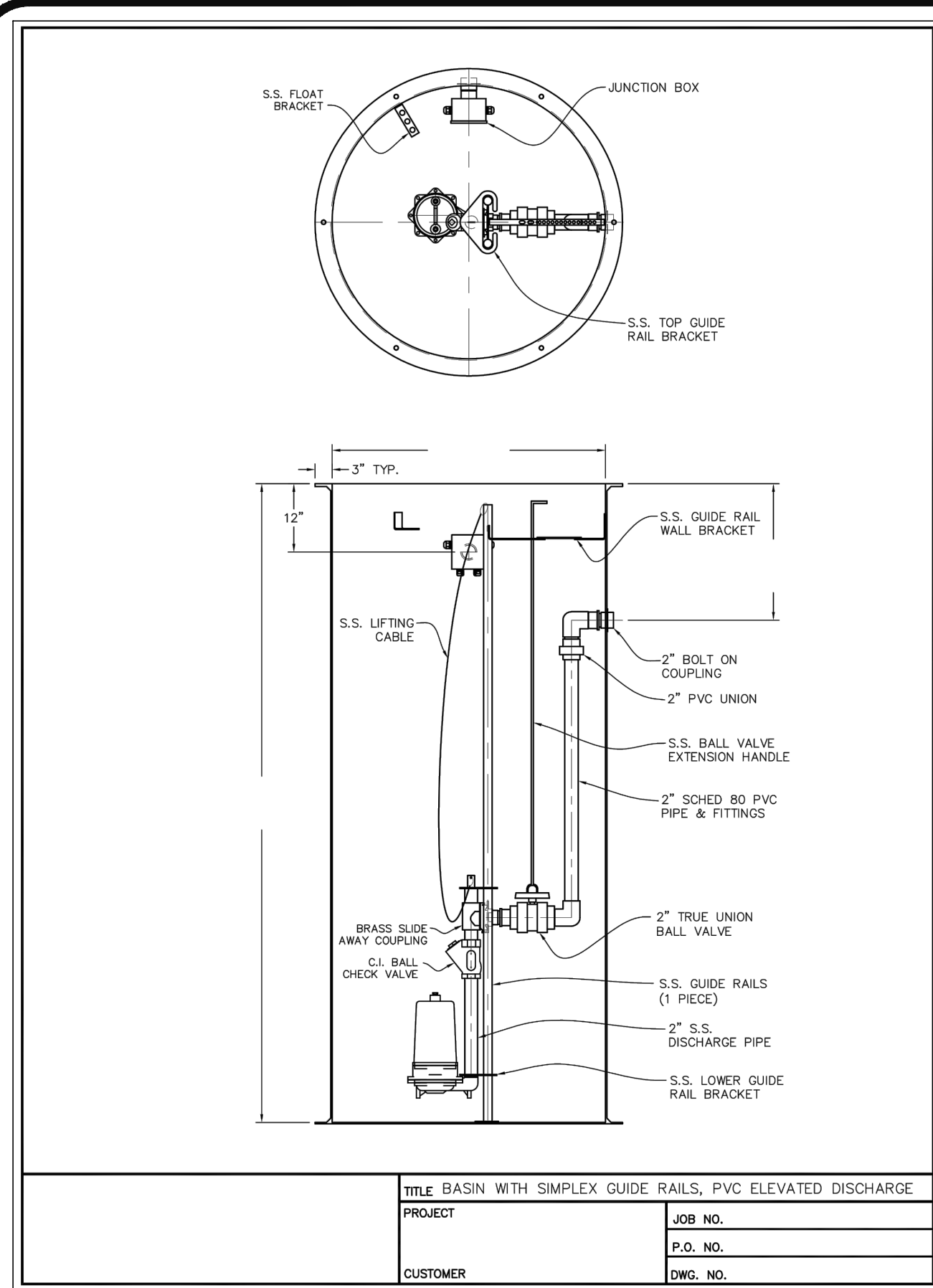
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C3



NP 3085 SH 3" Adaptive 255

Patented self-cleaning semi-open channel impeller, ideal for pumping in waste water applications. Possible to be upgraded with Guide-pipe for even better digging resistance. Modular based design with high adaptation grade.

Technical specification

Configuration

Motor number	NP3085.060 15-09-2AL-W 4hp	Installation type	P - Semi permanent, Wet
Impeller diameter	125 mm	Discharge diameter	3 1/8 inch
Pump diameter	125 mm	Impeller headstage	**
Discharge diameter	3 1/8 inch	Water hoisting material	Grey cast iron
Inlet diameter	80 mm		
Maximum operating speed	3415 rpm		
Number of blades	2		

Curves according to: Water, pure [100%], 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft/s

Project: Block
Created by: [Name]
Created on: 9/12/2019
Last update: [Name]

NP 3085 SH 3" Adaptive 255

Technical specification

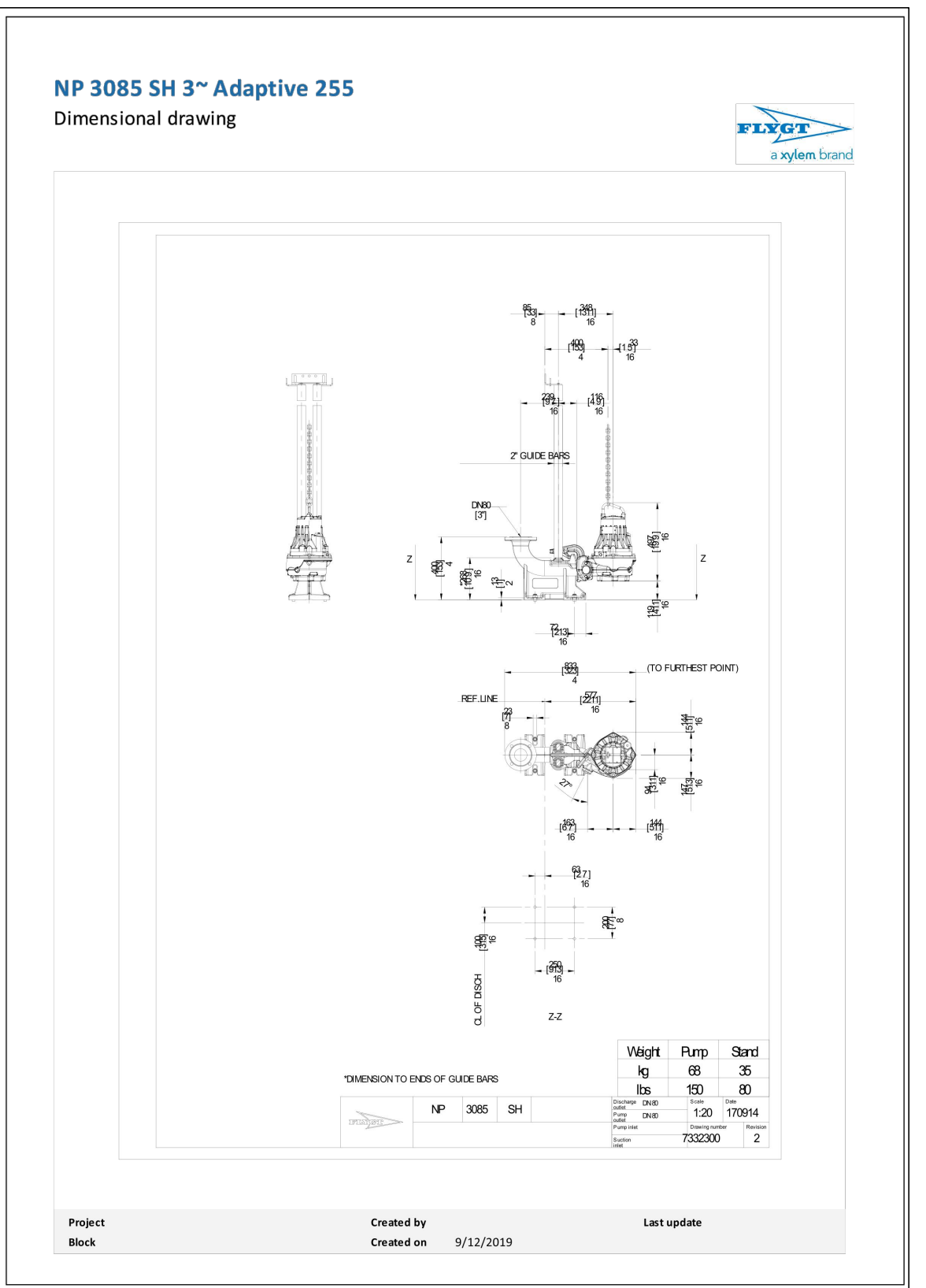
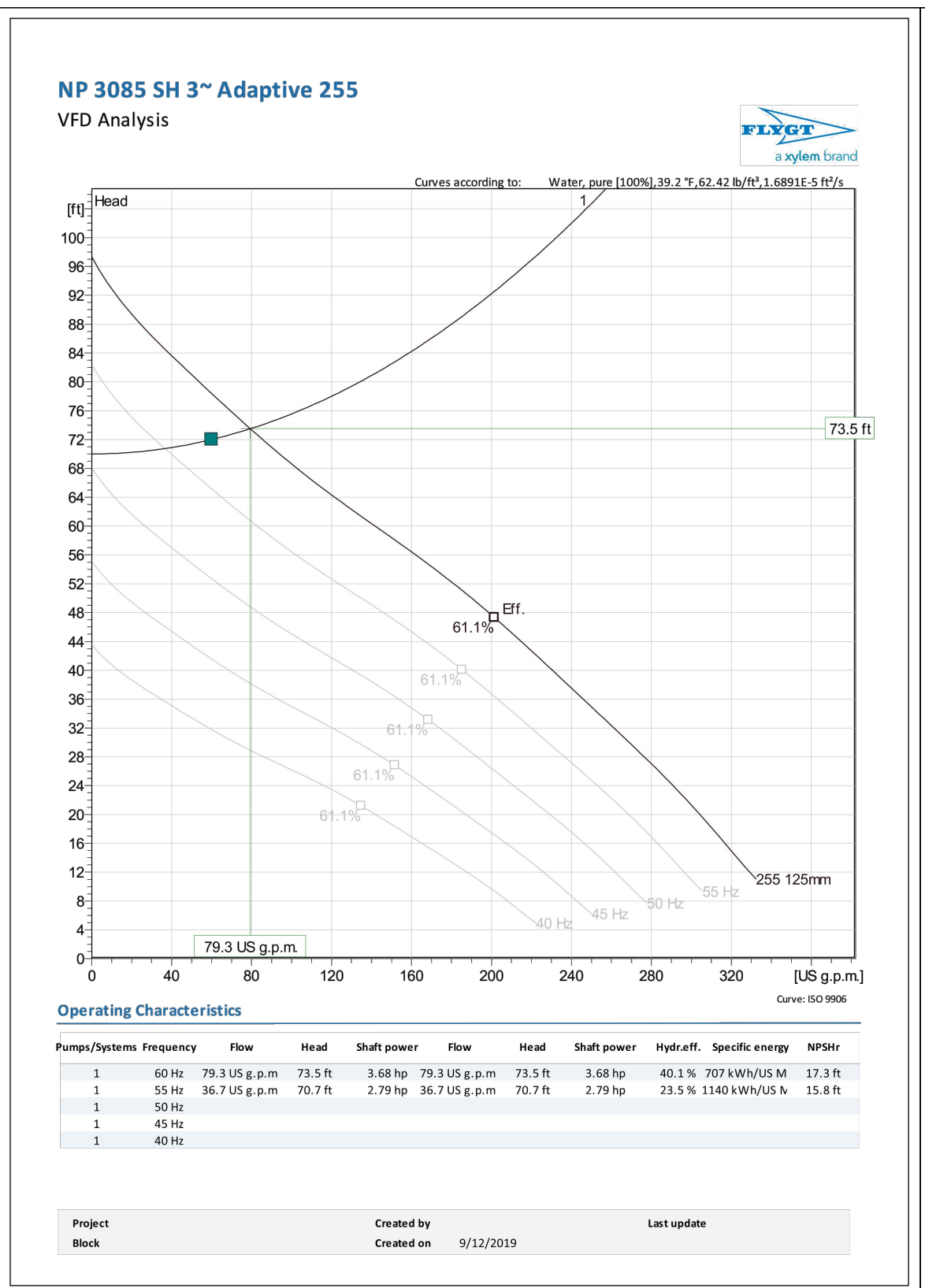
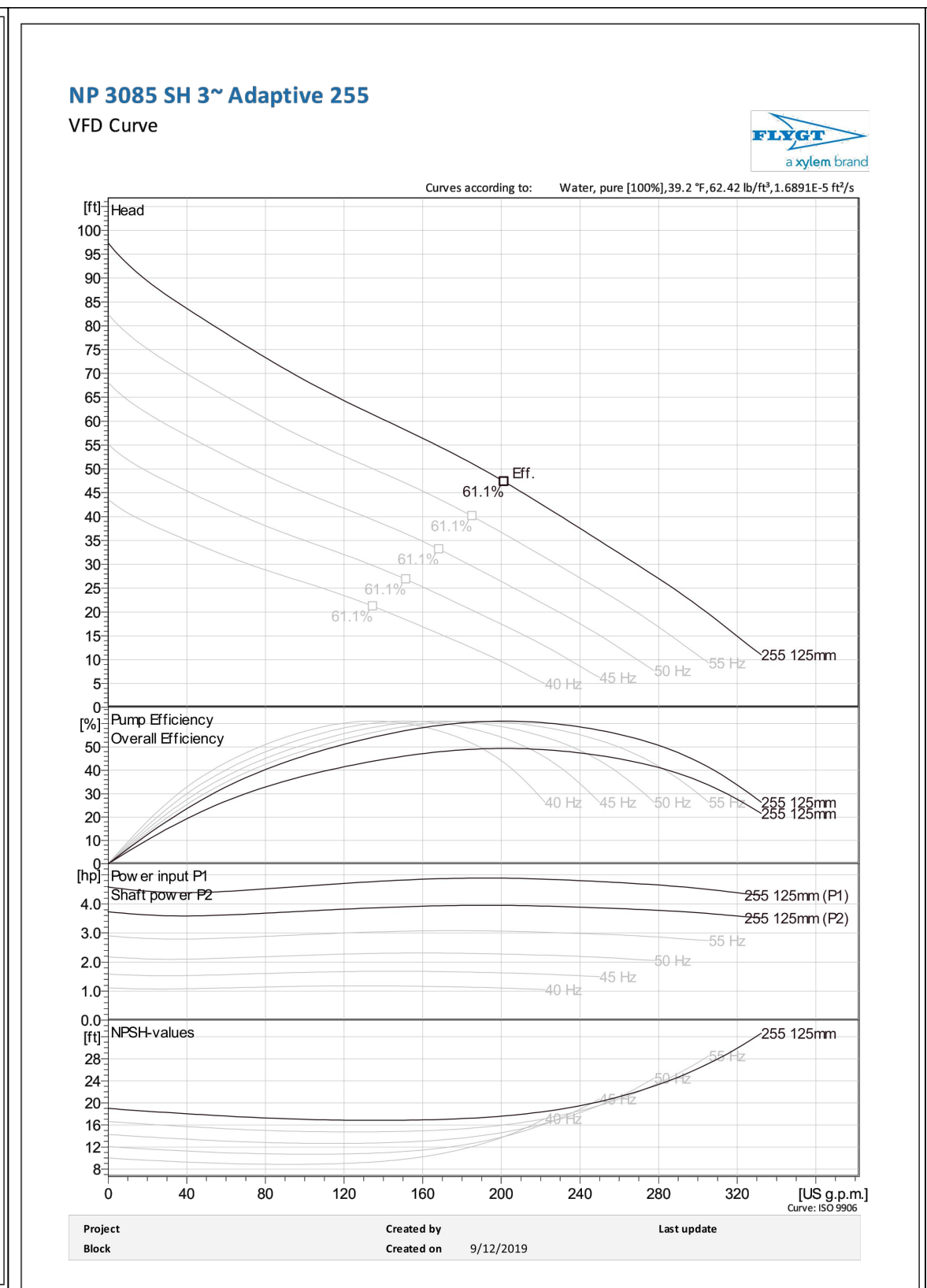
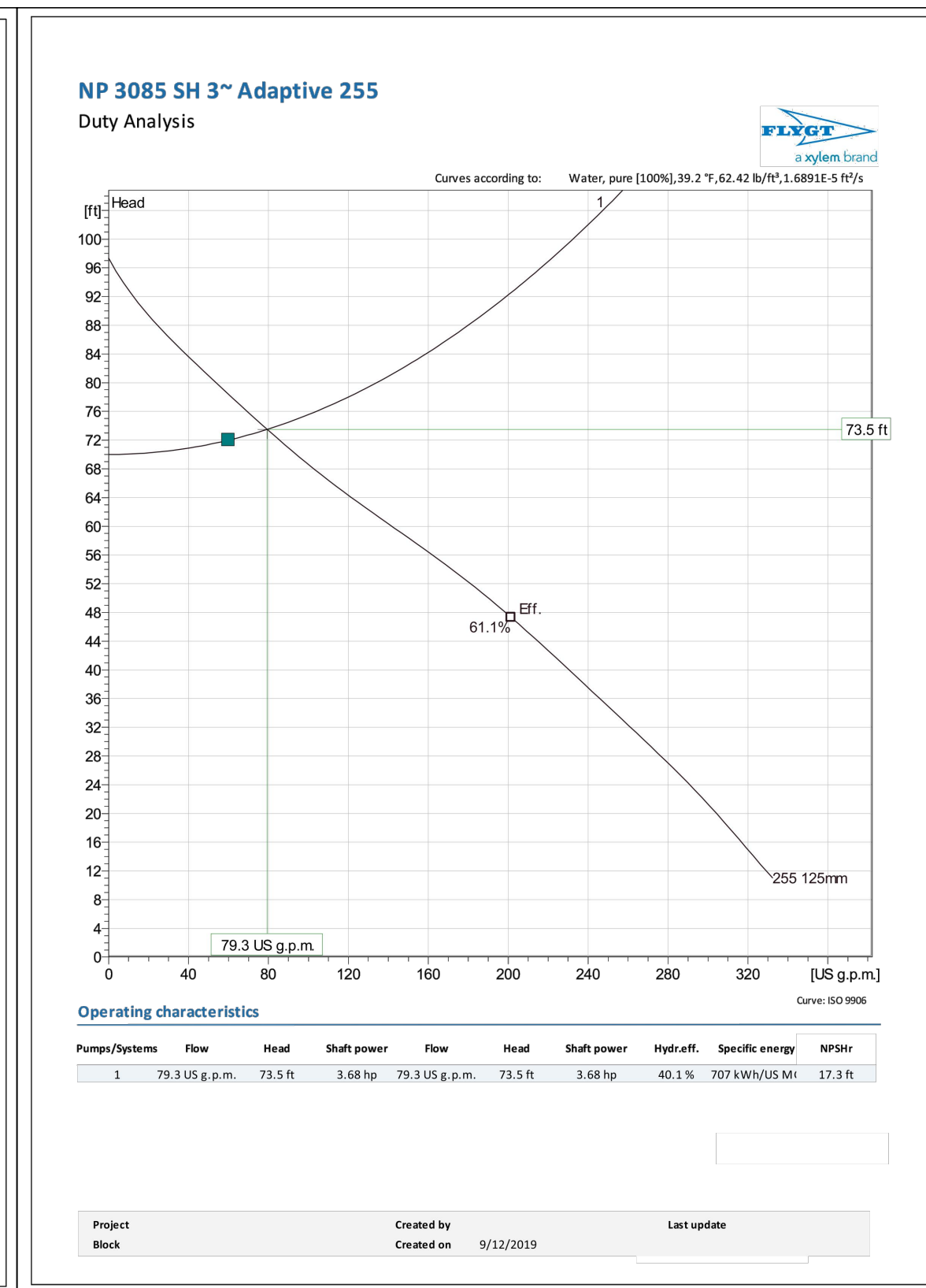
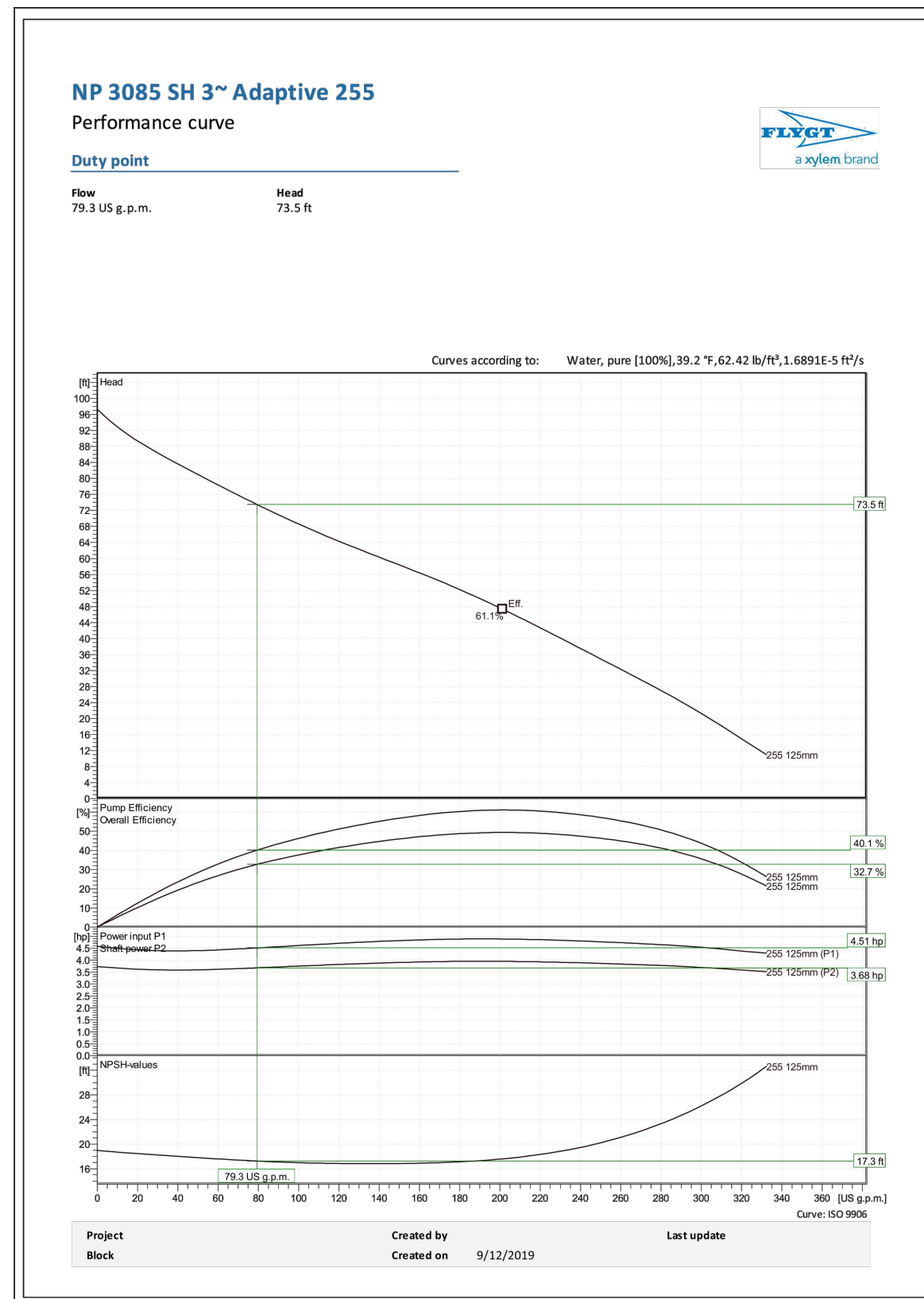
Motor - General

Motor number	NP3085.060 15-09-2AL-W 4hp	Phases	3~	Rated speed	3415 rpm	Rated power	4 hp
Approval	np	Number of poles	2	Rated current	33A	Stator voltage	230V
Frequency	60 Hz	Rated voltage	230V	Insulation class	H	Type of Duty	S1

Motor - Technical

Power factor - 1/2 Load	0.91	Motor efficiency - 1/2 Load	80.8 %	Total moment of inertia	0.0475 lb ft ²	Starts per hour max.	30
Power factor - 3/4 Load	0.88	Motor efficiency - 3/4 Load	82.7 %	Starting current, direct starting	60 A		
Power factor - 1/2 Load	0.81	Motor efficiency - 1/2 Load	80.5 %	Starting current, star-delta	20 A		

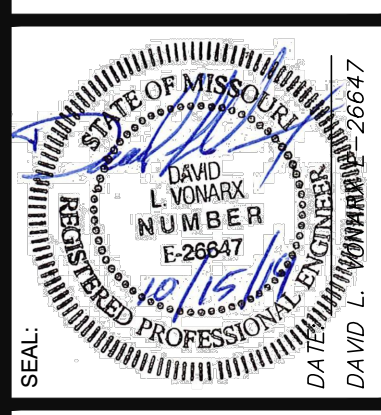
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PUMP DETAILS / SPECIFICATIONS

Revisions	Date

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