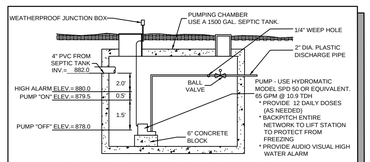
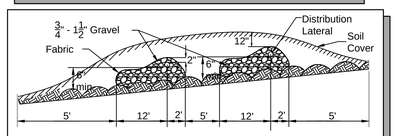
SEPTIC SYSTEM DESIGN

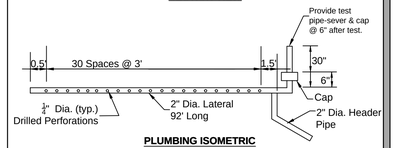
Davis Property
40W702 Powers Road, Huntley,
Kane County, Illinois
02-03-300-065



LIFT STATION DETAIL



SECTION VIEW



PLUMBING ISOMETRIC

AT-GRADE SYSTEM DIMENSIONS:

OVERALL LENGTH =	02 FT.
OVERALL WIDTH =	43 FT.
BED LENGTH =	92 FT.
BED WIDTH =	12 FT.
UPSLOPE =	2+5 FT.
DOWNSLOPE =	5 FT.
END SLOPES =	5 FT.

TYPE "4" AT-GRADE MOUND

GENERAL NOTES:

1. THIS DESIGN SHALL NOT BE USED FOR CONSTRUCTION UNLESS A STAMP OF APPROVAL FROM THE APPROPRIATE REGULATORY AGENCY IS AFFIXED HERETO.
2. THIS DESIGN IS BASED UPON:
   a. THE FIELD CONDITIONS AS THEY WERE ON THE DAY THE TOPOGRAPHIC INFORMATION, SOIL TYPING, AND/OR PERCOLATION TESTS WERE OBTAINED.
   b. DATA WHICH WAS FURNISHED TO THE DESIGN ENGINEER BY THE OWNER, GENERAL CONTRACTOR, OR THEIR REPRESENTATIVE REGARDING BUILDING SIZE, NUMBER OF BEDROOMS, AND/OR PEOPLE WITHIN THE UNIT TO BE SERVED.
3. ANY DEVIATIONS FROM THE DESIGN PARAMETERS SHOWN HEREON WILL VOID THIS DESIGN. SUCH DEVIATIONS INCLUDE BUT ARE NOT LIMITED TO:
   c. CHANGING THE NUMBER OF BEDROOMS AND/OR PEOPLE TO BE SERVED.
   d. REDUCING THE PERCOLATION CAPACITY OF THE SOILS BY RUNNING HEAVY EQUIPMENT OVER, OR STOCKPILING BUILDING MATERIAL OR EXCAVATED SOIL ON THE SEEPAGE FIELD AREA.
   e. REDUCING THE EFFECTIVE SEEPAGE FIELD BY SIGNIFICANTLY CHANGING, ACTUALLY REDUCING, OR COVERING THE SEEPAGE FIELD WITH PAVEMENT.
   f. DIVERTING GROUND WATER INTO OR OVER THE SEEPAGE FIELD.
   g. INTRODUCING OILS AND/OR GREASES INTO THE SEEPAGE FIELD.
   h. CONDUCTING BUSINESS OUT OF THE HOME WHICH INCREASES WATER USAGE AND THEREFORE CONSTITUTES A CHANGE OF USE FOR THE PROPERTY.
4. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND HAVE ALL EXISTING UTILITY INSTALLATIONS LOCATED AND STAKED PRIOR TO CONSTRUCTION.
5. ALL BACKFILL USED FOR THE SEEPAGE FIELD TRENCHES SHALL BE POROUS TOPSOIL CONTAINING LITTLE OR NO CLAY.
6. THE CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS SUCH AS WELL LOCATIONS, HOUSE AND EXISTING SEPTIC FIELD LOCATIONS, AND ALL ELEVATIONS PRIOR TO INITIATING ANY CONSTRUCTION.
7. ALL DOWNSPOUTS AND SUMP PUMPS SHALL DISCHARGE AWAY FROM THE SEEPAGE FIELD OR INTO A CURTAIN DRAIN.
8. ALL INSTALLATIONS SHALL CONFORM TO THE APPROPRIATE REGULATORY AGENCY REQUIREMENTS.
9. PRIOR TO THE START OF ANY BUILDING CONSTRUCTION ACTIVITY, A TEMPORARY FENCE SHALL BE CONSTRUCTED AROUND THE PROPOSED SEEPAGE FIELD AREA. THIS IS REQUIRED BY LOCAL ORDINANCE AND FAILURE TO COMPLY MAY BE CAUSE FOR REVOCATION OF THE BUILDING PERMIT.
10. THE SEPTIC CONTRACTOR SHALL NOTIFY THE APPROPRIATE REGULATORY AGENCY 24 HOURS BEFORE INITIATING CONSTRUCTION.
11. NO SEEPAGE FIELD CONSTRUCTION OR PLACING OF TOPSOIL IS PERMITTED UPON WET OR FROZEN GROUND.
12. NO LAWN IRRIGATION SYSTEMS MAY BE INSTALLED WITHIN 25 FEET OF THE SEPTIC SEEPAGE FIELD AREA.
13. ABANDONED SEPTIC TANKS SHALL BE COMPLETELY PUMPED. THE FLOOR AND WALLS SHALL BE CRACKED OR CRUMBLED SO THE TANK WILL NOT HOLD WATER AND THE TANK SHALL BE FILLED WITH SAND OR SOIL. IF THE TANK IS REMOVED FROM THE GROUND THE EXCAVATION SHALL BE FILLED WITH SOIL.
14. THE INSTALLER AND/OR SUPPLIER OF THE AERATION UNIT SHALL PROVIDE THE HOMEOWNER WITH THE REQUIRED WARRANTY INFORMATION AND OWNERS MANUALS FOR THE AERATION UNIT. IT IS THE HOMEOWNER'S RESPONSIBILITY TO READ THESE MANUALS AND USE THE SYSTEM AS IT WAS INTENDED AND IN A RESPONSIBLE MANNER. THE INSTALLER AND/OR SUPPLIER SHALL SERVICE THE UNIT ACCORDING TO THE WARRANTY TERMS OF THE PARTICULAR UNIT. AFTER THE INITIAL WARRANTY PERIOD, IT IS THE INSTALLER OR APPROVED SERVICE ORGANIZATION'S RESPONSIBILITY TO OFFER A CONTINUED MAINTENANCE CONTRACT TO THE HOMEOWNER. IT IS THE HOMEOWNER'S RESPONSIBILITY TO PURCHASE SAID MAINTENANCE CONTRACT FROM AN APPROVED SERVICE COMPANY FOR THE PARTICULAR UNIT TO ENSURE THE CONTINUED SATISFACTORY OPERATION OF THE AERATION UNIT.
15. EROSION CONTROL MEASURES ARE TO BE IN PLACE PRIOR TO INITIATING CONSTRUCTION ACTIVITIES. EROSION CONTROL IS TO REMAIN IN PLACE THROUGHOUT CONSTRUCTION AND UNTIL VEGETATION HAS BEEN ESTABLISHED ON THE SITE.

ALAN M. CRUZAN — 3-22-21 DATE

STATE OF ILLINOIS, DEPARTMENT OF PUBLIC HEALTH
LICENSED PRIVATE SEWAGE DISPOSAL SYSTEM
INSTALLATION CONTRACTOR AND DESIGNER
I. D. NUMBER 049-030919

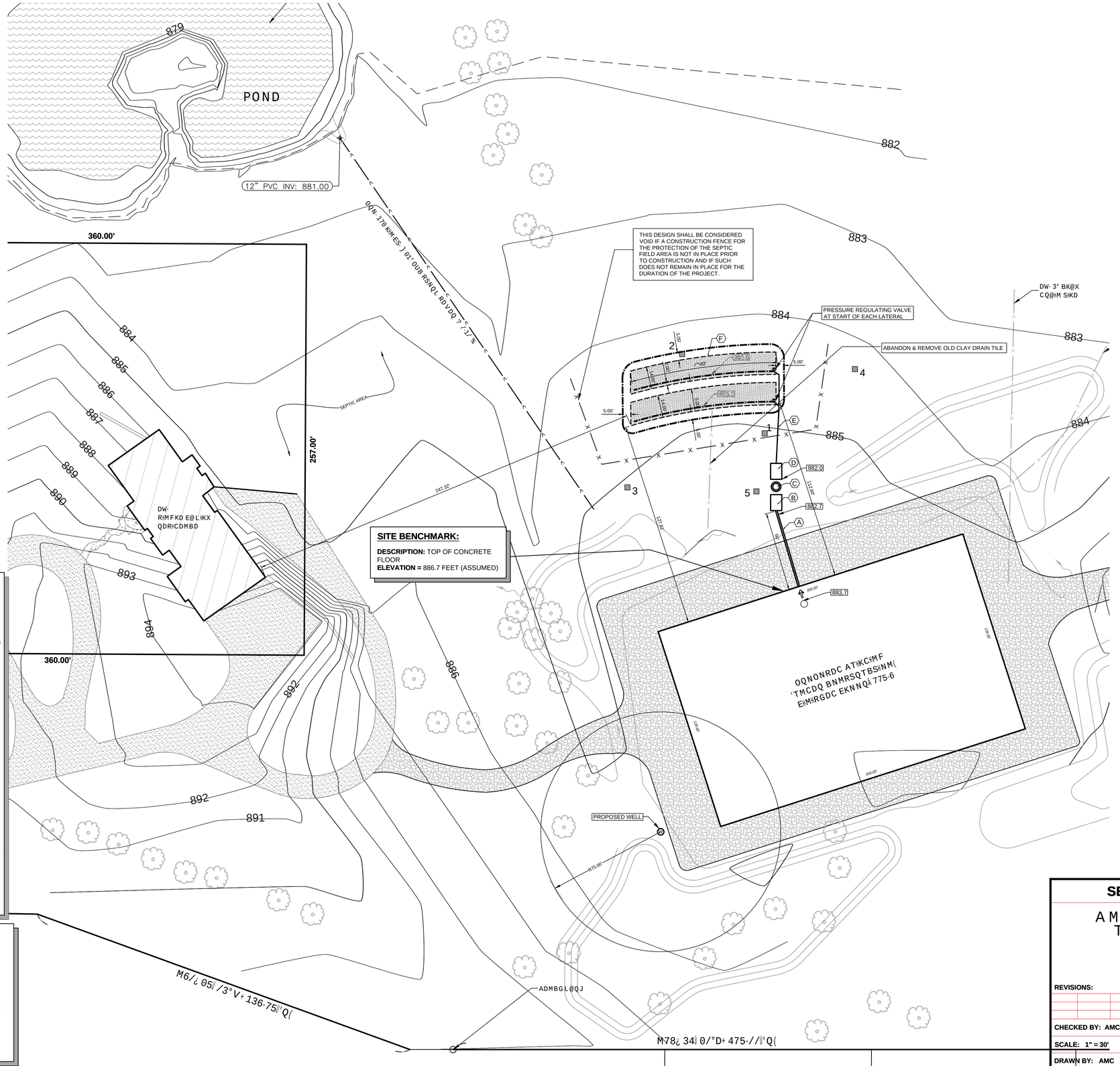
LAKE COUNTY, ILLINOIS, HEALTH DEPARTMENT
LICENSED ISD DESIGN FIRM
LICENSE # D 2021-0271

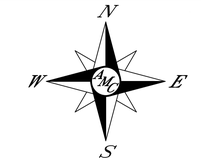
KANE COUNTY, ILLINOIS, HEALTH DEPARTMENT
LICENSED ISD DESIGN FIRM
LICENSE # 21-401

STATE OF ILLINOIS — ALAN M. CRUZAN — 49-030919 — ELGIN, ILLINOIS — PROFESSIONAL ENGINEER/INSTALLER

EXPIRES 11-30-2021

Plot Date: Mar 22, 2021 - 2:54pm Plotted By: Alan
File Name: C:\Users\Alan\Documents\CAD Files\Davis, (Figolah), Huntley, Kane Co.dwg





SEPTIC PLAN LEGEND

EXISTING SPOT GRADE	× 667.40
PROPOSED SPOT GRADE	× 667.40
PROPOSED INVERT ELEVATION	667.40
PROPOSED CONTOUR	667
EXISTING CONTOUR	667
EXISTING TREES TO BE REMOVED	
EXISTING TREES TO BE SAVED AND PROTECTED	
SILT FENCE	
PROPOSED DOWNSPOUT	D
50 L.F. 4" DIAMETER SCHED SCHED 80 PVC W/ SEALED JOINTS AT 2.0% MIN. SLOPE (OR MAY USE SDR 26 IN STEEL SLEEVE UNDER DRIVE AREA)	A
1,500 GALLON, PRE-CAST CONCRETE SEPTIC TANK	B
1,500 GPD CLASS I AEROBIC TREATMENT PLANT (MULTI -FLO, NAYADIC, NORWECO, CLEARSTREAM, JET, OR EQUAL) "ALL IN ONE" UNITS MAY BE USED, BUT ***PLEASE CONTACT DESIGNER BEFORE USING BATCH TREATMENT.***	C
1,500 GALLON PRE-CAST CONC. SEPTIC TANK FOR LIFT STATION (SEE DETAIL)	D
60 L.F. 2" DIAMETER SOLID PLASTIC DISCHARGE PIPE, BACK-PITCH TO LIFT STATION TO PROTECT FROM FREEZING	E
"AT-GRADE" MOUND (SEE DETAIL AND CALC SHEETS)	F
SOIL PROFILE BORING	

811 — Know what's below. Call before you dig.

Note: Call 811 at least 48 hours, excluding weekends and holidays, before you dig.

SEPTIC DESIGN CRITERIA :

- ¶ DEPTH TO SWT = 13"
- ¶ 12" REQUIRED SEPARATION TO SWT TO BOTTOM OF SEEPAGE DEVICE W/USE OF ATU
- ¶ INSTALL MOUND 0" MAX INTO GRADE
- ¶ SLR = 0.68, SOIL TYPE = SELMA
- ¶ DESIGN FLOW = 3 BR'S X 200 GAL/BR = 600 GPD + OCCASIONAL PARTY OF 175 GUESTS @ 5 GPD ("PUBLIC ASSEMBLY/THEATER" RATE, - NO COOKING, ONLY CATERED) = 875 GPD FOR A TOTAL DAILY FLOW OF 1,475 GPD.
- ¶ REQUIRED SEPTIC FIELD = SEE MOUND CALC SHEETS FOR MAX DAILY FLOW OF 1,475 GPD.

SEPTIC SYSTEM DESIGN

AMC Septic Design & Testing Services
959 OAK RIDGE BOULEVARD
ELGIN, ILLINOIS 60120
PHONE: 847.722.5271 WEB: SepticDesignServices.com
ILLINOIS LICENSE NUMBER: 49-030919

REVISIONS:

CHECKED BY: AMC	S-T-R : KANE	FIELD WORK DATE: 3-5-21
SCALE: 1" = 30'	BOOK-PAGE: File	PROJECT NO: 19045
DRAWN BY: AMC	DRAWN ON: 3-22-21	
CLIENT: Dan & Jennifer Davis, Property Owners		