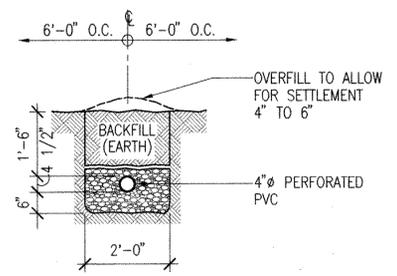
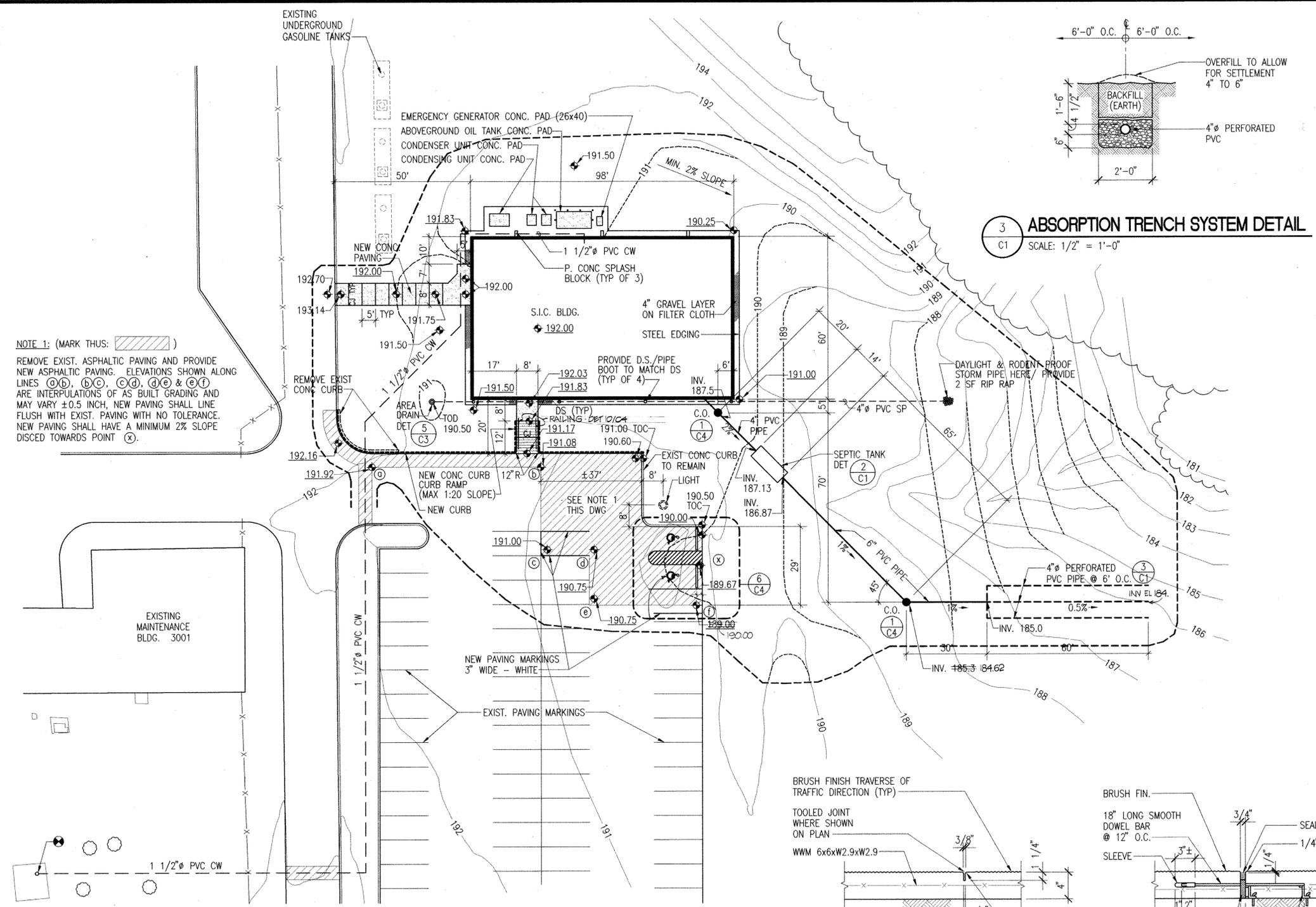


PRIVATE SEWAGE SYSTEM: DESIGN COMPUTATIONS

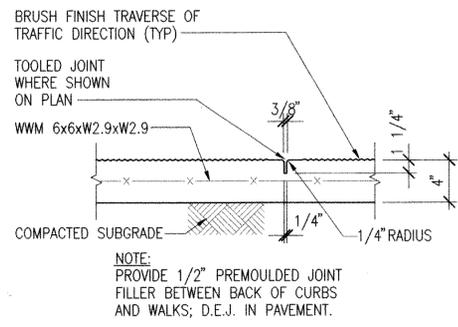
- 1.0 SIC BUILDING, QUANTICO NATIONAL CEMETERY, VIRGINIA
 - 3 WATER CLOSETS
 - 2 URINALS
 - 3 LAVATORIES
 - 1 KITCHENETTE SINK (NO GARBAGE DISPOSAL)
- 2.0 OCCUPANCY = 27 PEOPLE
- 3.0 DESIGN DATA FOR OFFICE USE = 20 GALLONS/PERSON/DAY ESTABLISHED BY CONFERENCE WITH MANASSAS HEALTH ENVIRONMENT MANAGEMENT.
 - 3.1 USAGE: 27 PEOPLE X 20 GALLONS/PERSON/DAY = 540, SAY 550 GALLONS/DAY
 - 3.2 ABSORPTION RATE = 1.2 FT/HR (SEE PERCOLATION TEST)
 - 60 MIN. / 1.2 X 12 = 4.17 MIN. (TIME FOR WATER TO FALL 1 IN.)
- 4.0 TOTAL DAILY SEWAGE = 550 GALLONS FOR FLOWS OF 500 TO 1000 GALLONS/DAY, TANK VOLUME SHALL BE AT LEAST 1 1/2 DAYS SEWAGE FLOW.
 - 4.1 DESIGN FLOW = 550 X 1.5 = GAL/DAY
 - 4.2 SEPTIC TANK DESIGN PLAN SHOULD BE RECTANGULAR, LENGTH TO BE 2 TO 4 TIMES THE WIDTH BUT IN NO CASE SMALLER THAN 4 FEET.
 - 4.3 TANKS LESS THAN 8 FEET MAY BE SINGLE COMPARTMENT.
 - 4.4 VOLUME OF TANK REQUIRED: 825 GAL / 7.48 GAL PER CF = 110.29 CF
 - 4.5 PROVIDED: 4 X 8 X 4 = 128 CF, USE 4 X 8 X 4.5 = 144 CF
- 5.0 SUBSURFACE ABSORPTION SYSTEM FOR TIME OF WATER TO FALL 1 INCH IN 4.7 MINUTES, THE ALLOWABLE RATE OF SEWAGE APPLICATION PER SQ. FT./DAY = 2.4 GAL (FROM SEELYE BOOK)
 - 5.1 TILE SYSTEM REQUIRED = 825 GAL PER DAY / 2.4 = 343.75, USE 350 SQ. FT.
 - 5.2 USE 24 INCH WIDE TRENCH
 - LENGTH OF SUBSURFACE TILE SYSTEM = 350 / 2 FT = 175 FT, USE 3 OF 60 FT = 180 FT
 - 5.3 MINIMUM DISTANCE BETWEEN TRENCH WALLS = 3 FT, USE 4 FT
 - 5.4 SEWER LINE - USE 6 INCHES PVC PIPE AT 1% SLOPE.
 - 5.5 TILE SYSTEM - USE 4 INCHES PERFORATED PVC PIPE AT 0.5% SLOPE.



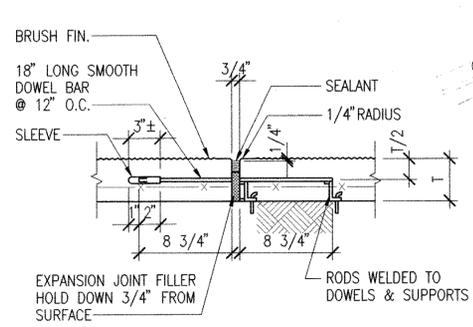
3 ABSORPTION TRENCH SYSTEM DETAIL
C1 SCALE: 1/2" = 1'-0"



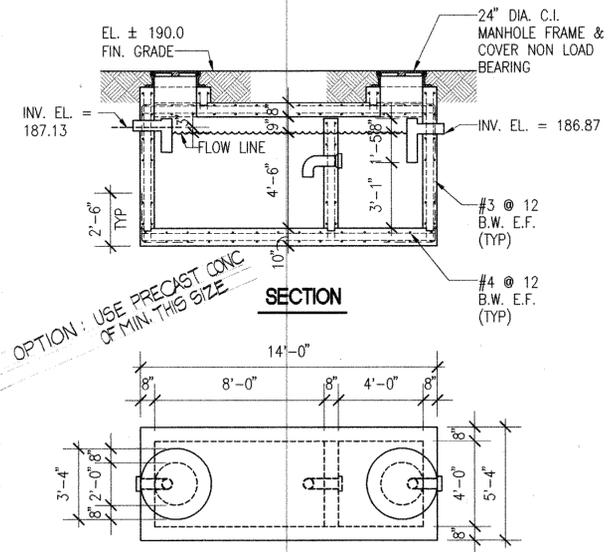
1 SITE PLAN
C1 SCALE: 1" = 20'



5 CONTROL JOINT DETAIL
C1 SCALE: 1 1/2" = 1'-0"



4 DOWELED EXPANSION JOINT
C1 SCALE: 1 1/2" = 1'-0"



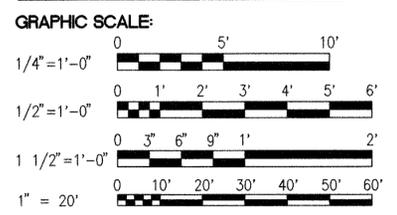
2 SEPTIC TANK DETAIL
C1 SCALE: 1/4" = 1'-0"

NOTE 1: (MARK THUS:)
REMOVE EXIST. ASPHALTIC PAVING AND PROVIDE NEW ASPHALTIC PAVING. ELEVATIONS SHOWN ALONG LINES (a), (b), (c), (d), (e) & (f) ARE INTERPOLATIONS OF AS BUILT GRADING AND MAY VARY ±0.5 INCH, NEW PAVING SHALL LINE FLUSH WITH EXIST. PAVING WITH NO TOLERANCE. NEW PAVING SHALL HAVE A MINIMUM 2% SLOPE DISCED TOWARDS POINT (x).

LEGEND:

- LIMIT OF GRADING LINE
- NEW CONTOUR
- EXISTING CONTOUR
- NEW CONCRETE CURB
- EXISTING ELEVATION
- STORM PIPE
- NEW ELEVATION
- TOP OF CURB
- EXISTING ELEVATION
- TOP OF DRAIN

CAUTION: IF THIS DRAWING IS A REDUCTION GRAPHIC SCALE MUST BE USED.



MILLS CLAGETT & WENING CHARTERED
ARCHITECTS ENGINEERS PLANNERS
5100 WISCONSIN AVE., N.W.
SUITE 407
WASHINGTON, D.C. 20016
(202) 686-2500
MCW PROJECT NO. 01495.00

CARSON K.C. MOK CONSULTING ENGINEER, P.A.
9001 OTTAWA PLACE
SILVER SPRING, MD 20910
(301) 561-3446 / (301) 569-0088

R. PETROSSIAN ASSOCIATES, LTD.
ENGINEERS CONSULTANTS PLANNERS
1340 OLD CHAIN BRIDGE ROAD
MCLEAN, VIRGINIA 22101
(703) 556-0388

Drawing Title	SITE PLAN	
Project Title	SYSTEMS INTEGRATION CENTER	
Approved: Area Director	Checked	Drawn
Approved: Cemetery Director		AES/AMC
Location	Department of Veterans Affairs National Cemetery System Quantico National Cemetery, Triangle, Virginia	

Date	OCT 10 1995 AUGUST 21 1995
Project No.	872-CM3-014
Drawing No.	C1
Sheet	2 OF 28

NATIONAL CEMETERY SYSTEM

Department of Veterans Affairs