

DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES

MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA

CONSTRUCTION CONTRACT NO. TO BE DETERMINED
AE CONTRACT NO. N40080-14D0451-DO #17

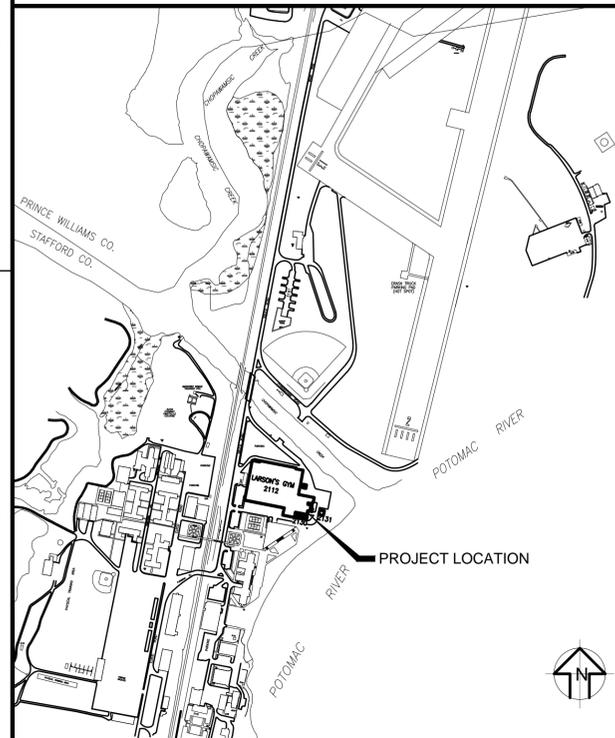
SIGNATURE	DATE
CUSTOMER	
FEAD (FORMERLY ROICC)	
PWO	
DIRECTOR OF ENGINEERING	
FACILITIES MAINTENANCE OFFICE	
BASE SAFETY	
BASE FIRE	
NREA BRANCH	
G-6: COMMUNICATIONS	
MCAF	
MUSEUM	

DATE	DESCRIPTION

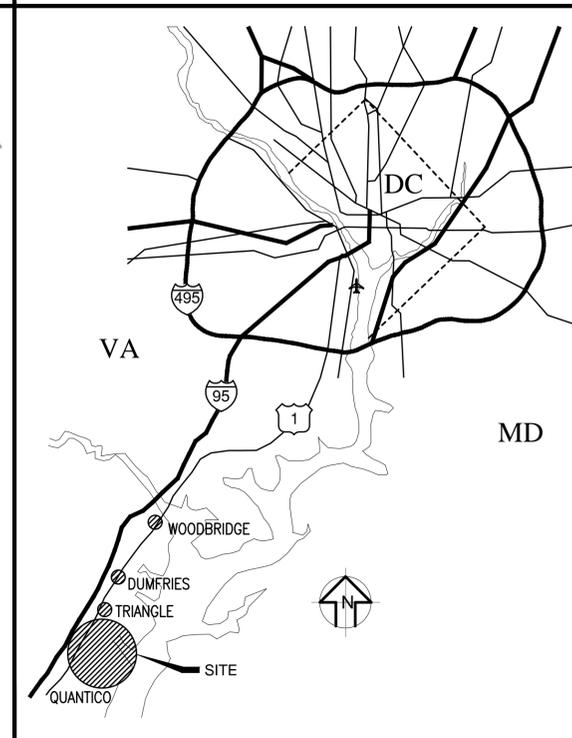


APPROVED		
FOR COMMANDER NAVFAC		
ACTIVITY		
SATISFACTORY TO DATE		
DES	DRW	CHK

LOCATION MAP



VICINITY MAP



DRAWING INDEX

SHEET NUMBER	SHEET TITLE	NAVFAC DWG NO.	SHEET NUMBER	SHEET TITLE	NAVFAC DWG NO.
G-001	COVER SHEET	3190080	E-001	SYMBOLS AND DETAILS	3190109
G-002	DEMOLITION NOTES	3190081	ED-101	ELECTRICAL DEMOLITION	3190110
C-001	CIVIL SYMBOLS AND NOTES	3190082	ES-101	ELECTRICAL SITE PLAN - OPTION 1	3190111
C-002	EXISTING CONDITIONS PLAN	3190083	ES-102	ELECTRICAL SITE PLAN - OPTION 2	3190112
C-003	CIVIL DEMOLITION PLAN - BASE BID	3190084	ES-401	ELECTRICAL - POWER DETAIL	3190113
C-004	CIVIL DEMOLITION PLAN - OPTION 1	3190085	E-501	ELECTRICAL DETAILS	3190114
C-005	CIVIL SITE PLAN - BASE BID	3190086	LC-101	LIGHTING CALCULATIONS - BASE BID	3190115
C-006	CIVIL SITE PLAN - OPTION 1	3190087	LC-102	LIGHTING CALCULATIONS - OPTION 2	3190116
C-007	CIVIL SITE PLAN - OPTION 2	3190088	LC-103	LIGHTING SITE PLAN - BASE BID	3190117
C-008	UTILITY PLAN - ALL OPTIONS	3190089	LC-104	LIGHTING SITE PLAN - OPTION 2	3190118
C-009	GRADING PLAN - BASE BID/OPTION 1	3190090	LC-105	SECTION - CLASS A RUNWAY AIRSPACE	3190119
C-010	GRADING PLAN - OPTION 2	3190091			
C-011	EROSION & SEDIMENT CONTROL PLAN	3190092			
C-012	E&S CONTROL PLAN - OPTION 1	3190093			
C-013	EROSION & SEDIMENT CONTROL DETAILS	3190094			
C-014	EROSION & SEDIMENT CONTROL NOTES	3190095			
C-015	PAVEMENT PLAN - BASE BID	3190096			
C-016	PAVEMENT PLAN - OPTION 1	3190097			
C-017	PAVEMENT PLAN - OPTION 2	3190098			
C-018	BMP/SWM CALCULATIONS	3190099			
C-019	CIVIL DETAILS - 1	3190100			
C-020	CIVIL DETAILS - 2	3190101			
C-021	LOGISTICS PLAN	3190102			
A-001	SYMBOLS AND NOTES	3190103			
AD-101	FIRST FLOOR DEMOLITION PLAN	3190104			
AD-102	SECOND FLOOR DEMOLITION PLAN	3190105			
AD-103	DEMOLITION PLANS	3190106			
AD-201	BUILDING ELEVATION IMAGES	3190107			
AD-301	DEMOLITION SECTIONS	3190108			

NOTICES

ASBESTOS & LEAD-BASED PAINT

NOTE: A PRE-ALTERATION ASSESSMENT HAS BEEN CONDUCTED FOR ASBESTOS CONTAINING MATERIALS (ACM'S) AND LEAD-BASED PAINT (LBP). AREAS FOUND TO CONTAIN THESE MATERIALS HAVE BEEN INDICATED ON THE CONTRACT DOCUMENTS. HOWEVER, IF SUSPECT ACM'S OR LBP'S ARE ENCOUNTERED IN AREAS NOT INDICATED TO CONTAIN THESE MATERIALS, DEMOLITION ACTIVITIES SHALL CEASE AND BULK ASBESTOS AND/OR LEAD PAINT CHIP SAMPLING SHALL BE CONDUCTED. IF THE MATERIALS SAMPLED ARE DETERMINED NECESSARY FOR REMOVAL THEN THE CONTRACTOR SHALL ADHERE TO THE SPECIFICATION AND THE REQUIREMENTS OF SPECIFICATION SECTIONS 02 82 16.00 20 FOR ASBESTOS REMOVAL, AND 02 83 13.00 20 FOR LEAD IN CONSTRUCTION.

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON
PUBLIC WORKS BRANCH
MARINE CORPS BASE QUANTICO
QUANTICO, VIRGINIA
DEMOLITION OF LARSON'S GYM (BLDG 2112),
BLDGS 2130/2131, & ANCILLARY STRUCTURES
COVER SHEET

SCALE: AS NOTED
HQM/JOU1333M/PWB/2005438
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 3190080
SHEET 1 OF 40
G-001
DRAWING REVISION: 10 MARCH 2009

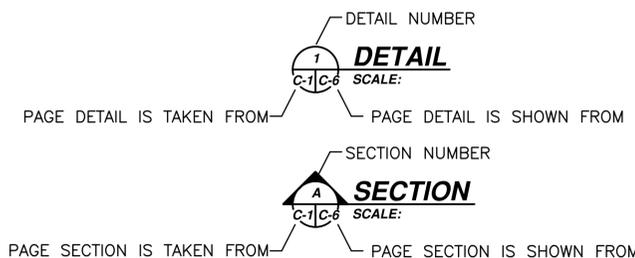
STANDARD LEGEND & SYMBOLS

GENERAL NOTES

ABBREVIATIONS

EXISTING	DESCRIPTION	PROPOSED
	INDEX CONTOUR	
	INTERMEDIATE CONTOUR	
	EDGE OF PAVEMENT	
	CURB & GUTTER	
	LIMITS OF DISTURBANCE (L.O.D.)	
	FENCE LINE	
	WATER LINE	
	SANITARY SEWER	
	STORM SEWER	
	ELECTRIC SERVICE	
	TELEPHONE SERVICE	
	UNKNOWN UTILITY	
	SPOT ELEVATION	
	SIGN	
	SANITARY SEWER IDENTIFIER	
	STORM DRAIN IDENTIFIER	
	LIGHT POLE	
	BOLLARDS	
	TREE/ TREELINE	
	FIRE HYDRANT	
	PARKING SPACES	
	STORM STRUCTURES	

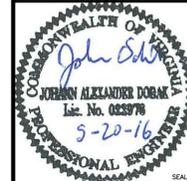
SYMBOLS



- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO START OF THE WORK. IF THE FIELD CONDITIONS ARE FOUND TO VARY FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCUREMENT AND INSTALLATION OF MATERIALS AND IMPROVEMENTS, CONTRACTOR SHALL NOT WILLFULLY PROCURE, INSTALL, CONSTRUCT OR REMOVE ITEMS AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL REVISIONS NECESSARY.
- THE CONTRACTOR SHALL PROTECT ALL STRUCTURES AND UNDERGROUND UTILITIES DURING CONSTRUCTION. ANY DAMAGE TO STRUCTURES AND UTILITIES AS A RESULT OF CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE CONTRACTING OFFICER, AT NO COST TO THE GOVERNMENT.
- ALL WORK HOUR RESTRICTIONS AS INDICATED IN THE CONTRACT DOCUMENTS OR AS APPROVED BY THE CONTRACTING OFFICER SHALL BE OBSERVED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE PARKING FOR PERSONNEL AND CONSTRUCTION VEHICLES AND EQUIPMENT WITHIN THE PROJECT SITE AT A LOCATION APPROVED BY THE CONTRACTING OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SECURITY OF CONSTRUCTION MATERIALS, EQUIPMENT AND FACILITIES.
- THE CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE PROJECT SITE AS THE WORK PROGRESSES AND DISPOSE OF IT PROPERLY. CONSTRUCTION MATERIALS SHALL BE STORED IN DESIGNATED AREAS AS APPROVED BY THE CONTRACTING OFFICER. THE HAULING AND DISPOSAL OF DEBRIS SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS OF THE AUTHORITY HAVING JURISDICTION.
- THE CONTRACTOR SHALL USE APPROVED HAUL ROUTES FOR ALL CONSTRUCTION TRAFFIC, AND SHALL SUBMIT A PLAN FOR SUCH HAUL ROUTES TO THE CONTRACTING OFFICER FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL CAUSE MINIMUM DISRUPTION TO BASE OPERATIONS.
- ANY UTILITY STRUCTURES REMOVED BY THE CONTRACTOR DURING DEMOLITION AND RESTORATION OPERATIONS SHALL BE REINSTALLED IF INDICATED AND RESTORED TO THEIR ORIGINAL CONDITION.
- WHERE NEW GRADING IS NOT SHOWN OR INDICATED, MAINTAIN AND MEET EXISTING GRADES.
- PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES AROUND ALL DISTURBED AREAS AND TO PROTECT ALL STORM INLET STRUCTURES. THE CONTRACTOR SHALL NOT WASH CONTAMINATIONS FROM THE ASPHALT SURFACE INTO STORM SEWER.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PERFORMED IN CONFORMANCE WITH THE REQUIREMENTS OF THE LATEST VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK (VESH).
- THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND PERFORMANCE OF ALL DEWATERING, EARTH RETENTION SYSTEMS, AND UNDERPINNING OF EXISTING STRUCTURES AND UTILITIES.
- CONTRACTOR SHALL ENSURE THAT FINISHED ASPHALT OVERLAY SURFACE PROVIDES POSITIVE DRAINAGE, TOWARDS DRAINAGE STRUCTURES, AND THAT EXISTING DRAINAGE PATTERN AND DIRECTIONS ARE MAINTAINED BY THE FINISHED SURFACE.
- THE CONTRACTOR SHALL OBTAIN A BASE EXCAVATION PERMIT FROM MCB QUANTICO PUBLIC WORKS PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES. FOR ALL NON-QUANTICO OWNED UTILITIES, THE CONTRACTOR SHALL CONTACT MISS UTILITY AT 1-800-552-7001, PERFORM TEST PITS, REVIEW CURRENT TEST PIT DATA, AND PERFORM WHATEVER OTHER OPERATIONS NECESSARY TO ENSURE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES IN THE AREA OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER OF ANY POTENTIAL CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.
- EMERGENCY VEHICLE ACCESS SHALL BE PROVIDED THROUGH THE SITE AND FACILITIES DURING ALL PHASES OF CONSTRUCTION.
- THE CONTRACTOR SHALL USE ALL REASONABLE MEANS TO DIVERT CONSTRUCTION AND DEMOLITION WASTE FROM LANDFILLS AND INCINERATORS AND TO FACILITATE THEIR RECYCLING OR REUSE. THE GOVERNMENT WILL TAG ITEMS TO BE RETAINED AND TURNED OVER TO THE GOVERNMENT.
- THE CONTRACTOR SHALL PRACTICE EFFICIENT WASTE MANAGEMENT WHEN SIZING, CUTTING AND INSTALLING PRODUCTS AND MATERIALS.
- THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS AND FIELD SURVEYS. NEITHER THE GOVERNMENT NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER WITH RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED DURING CONSTRUCTION. SUB GRADE UTILITIES NOT FOUND IN AVAILABLE RECORD OR NON DETECTABLE FROM THE SURFACE MAY NOT BE SHOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER OF HIS OPERATIONAL PLANS AND COORDINATE ALL UTILITIES WITH THE UTILITIES OWNER. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR DETAILED INFORMATION AND EMPLOY A PRIVATE UTILITY DESIGNATOR. CONTRACTOR SHALL VERIFY ALL CROSSING ELEVATIONS FOR ANY POSSIBLE CONFLICTS. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONTRACTING OFFICER ANY SUCH MAINS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT HIS EXPENSE AND TO THE SATISFACTION OF THE CONTRACTING OFFICER.
- CONTRACTOR SHALL IMMEDIATELY STOP WORK, LEAVE THE AREA, AND NOTIFY THE CONTRACTING OFFICER IMMEDIATELY SHOULD ANY UNDERGROUND UNEXPLODED ORDNANCES BE DISCOVERED.

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ABND	ABANDONED
Ac	ACRE
AGIP	AT GRADE INLET PROTECTION
APPROX	APPROXIMATE
ASPH	ASPHALT
BC	BOTTOM OF CURB
BLDG	BUILDING
BM	BENCHMARK
BW	BOTTOM OF WALL
CATV	CABLE TELEVISION
C&G	CURB AND GUTTER
C.O.	CLEAN OUT
CB	CATCH BASIN
CI	CAST IRON
CIP	CURB INLET PROTECTION
CJ	CONSTRUCTION JOINT
CO	CONTRACTING OFFICER
COM/COMM	COMMUNICATION
CSW	CONCRETE SIDEWALK
DI	DROP INLET
DIP	DUCT IRON PIPE
DWG	DRAWING
EL/ELEV	ELEVATION
EL/ELEC	ELECTRIC
EP	EDGE OF PAVEMENT
EQUIP	EQUIPMENT
EX/EXIST	EXISTING
FF	FINISHED FLOOR
FH/HYD	FIRE HYDRANT
FM	FORCE MAIN
FP	FLAG POLE
G	GAS LINE
GEN	GENERATOR
GV	GAS VALVE
HOR/HORIZ	HORIZONTAL
HP	HIGH POINT
HPR	HIGH PRESSURE RETURN
HPS	HIGH PRESSURE SUPPLY
IN	INCH
INV	INVERT
LBS	POUNDS
LOD	LIMITS OF DISTURBANCE
LP	LOW POINT
MAINT	MAINTENANCE
MAX	MAXIMUM
MG	MATCH GRADE
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS

NIC	NOT IN CONTRACT NUMBER
NO/#	NOT TO SCALE
BTS/N.T.S.	OVERHEAD
OH	PEDESTRIAN
PED	POST INDICATOR VALVE
PIV	PROPOSED
PROP	POLYVINYL CHLORIDE
PVC	PAVEMENT
PVMT	REINFORCED CONCRETE PIPE
RCP	REQUIRED
RD	ROOF DRAIN
REQD	REQUIRED
RET	RETAINING
S	SOUTH
S/W	SIDEWALK
SAN	SANITARY SEWER
SCE	STABILIZED CONSTRUCTION
SD	ENTRANCE
SF	STORM DRAIN
SL	SILT FENCE
SS	STEAM LINE
STM	SANITARY SEWER
STRUCT	STORM SEWER
SWM	STRUCTURE
T/TELE	STORMWATER MANAGEMENT
TC/TOC	TELEPHONE
TRANS	TOP OF CURB
TRANS	TRANSFORMER
TS	TOP OF STRUCTURE
TYP	TYPICAL
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UGK	UNDERGROUND UTILITY
UGT	UNDERGROUND TELEPHONE
UNK	UNKNOWN
UST	UNDERGROUND STORAGE TANK
UTIL	UTILITY
V	VALVE
VESH	VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK
W	WATER



APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES | DRAW | CHK

<<PM/DM>>

BRANCH MANAGER

CHIEF ENG/ARCH

<<DD>> ->

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON
PUBLIC WORKS BRANCH
MARINE CORPS BASE QUANTICO
QUANTICO, VIRGINIA
DEMOLITION OF LARSON'S GYM (BLDG 2112),
BLDGS 2130/2131, & ANCILLARY STRUCTURES
CIVIL SYMBOLS AND NOTES

SCALE: AS NOTED
HQM#QU1333M;PWB#2005438

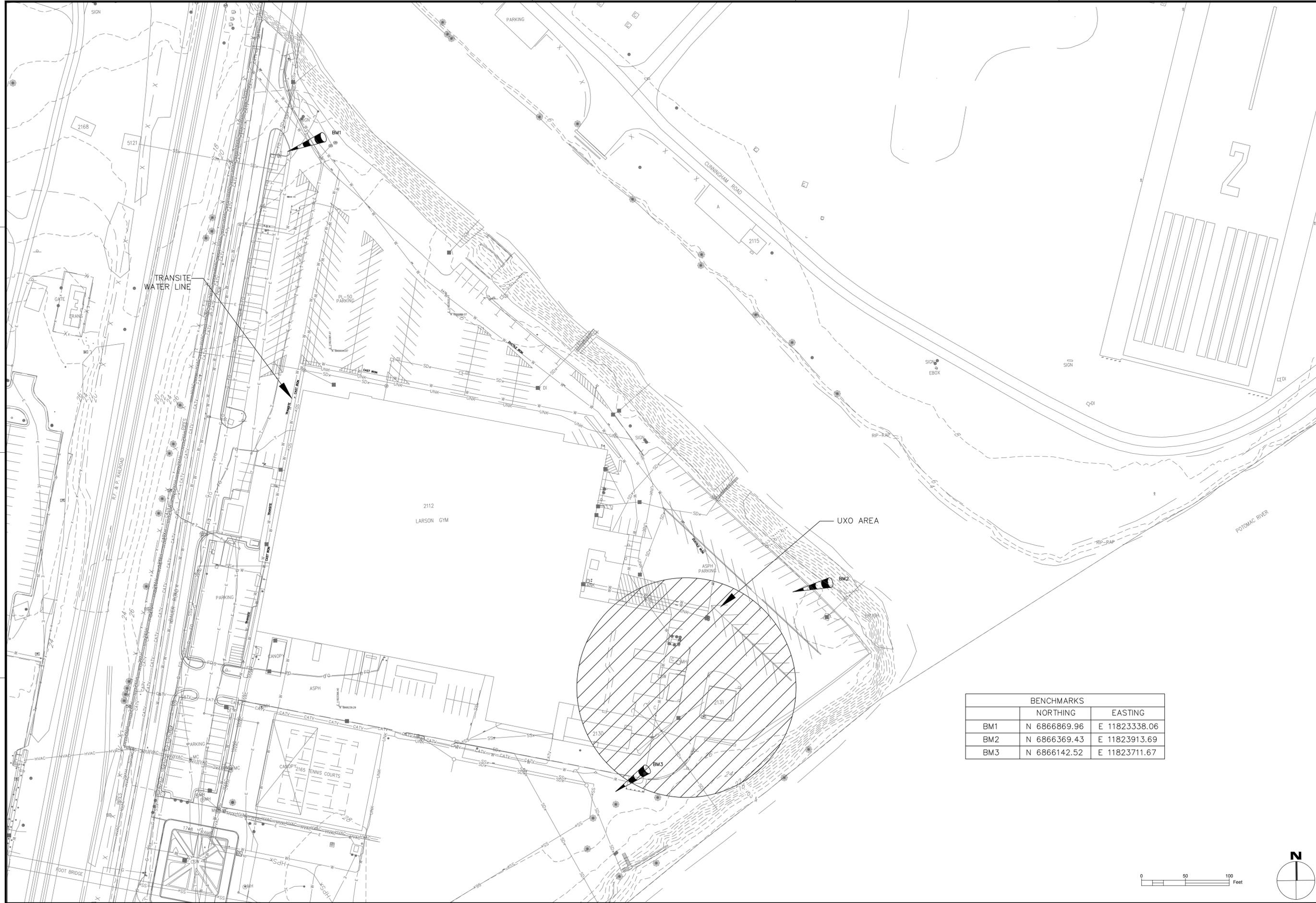
CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 3190082

SHEET 3 OF 40

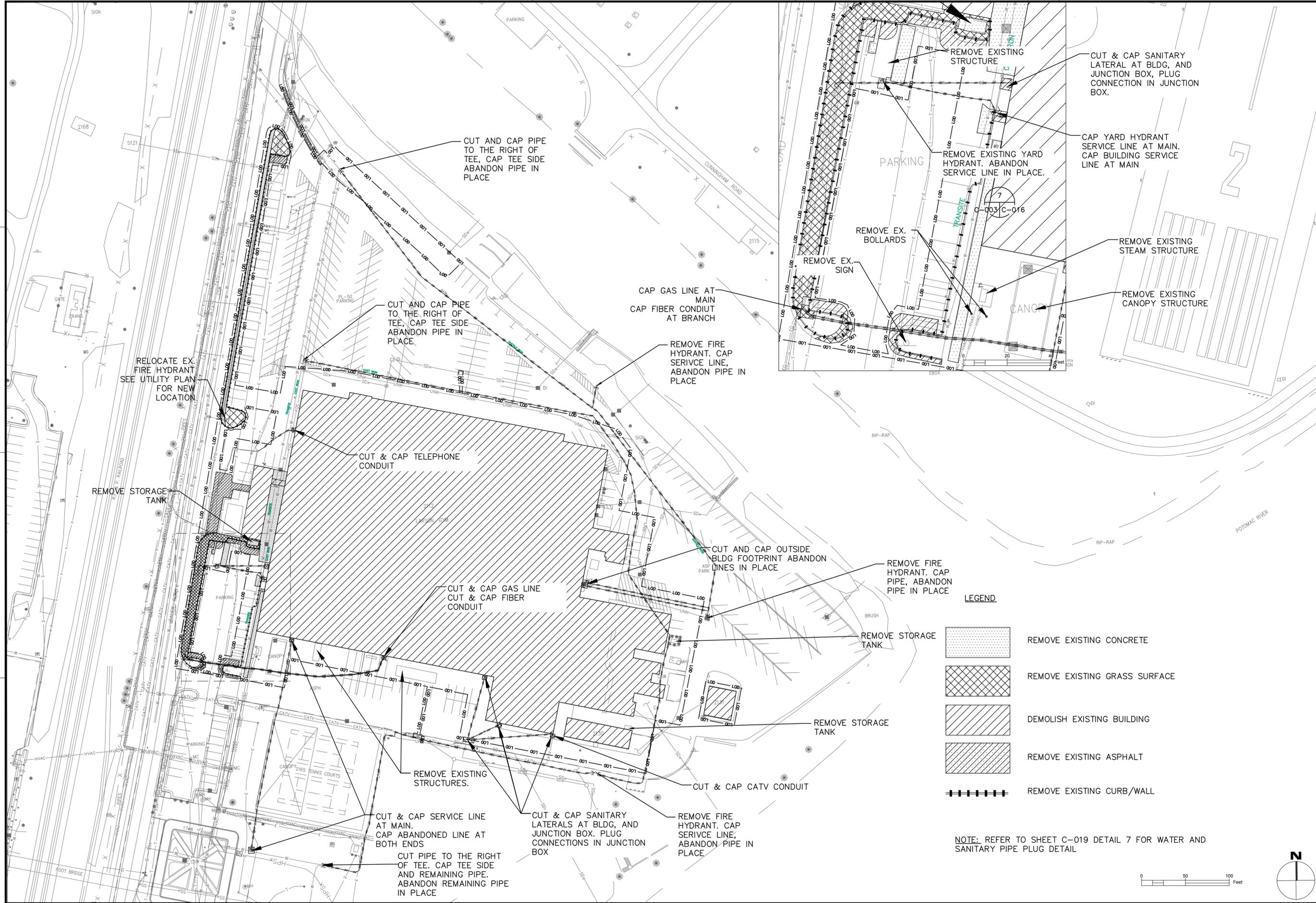
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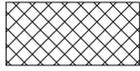
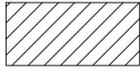
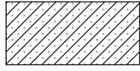
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BM3	N 6866142.52	E 11823711.67

DATE	APPR
DESCRIPTION	DATE
DATE	APPR
DESCRIPTION	DATE
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PER COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	CHK
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BRANCH MANAGER	
CHIEF ENG/ARCH	
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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES EXISTING CONDITION PLAN	
SCALE: AS NOTED	
HQM#QU1333M;PWB#2005438	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 3190083	
SHEET 4 OF 40	
C-002	
DRAWING REVISION: 10 MARCH 2009	



- LEGEND**
-  REMOVE EXISTING CONCRETE
 -  REMOVE EXISTING GRASS SURFACE
 -  DEMOLISH EXISTING BUILDING
 -  REMOVE EXISTING ASPHALT
 -  REMOVE EXISTING CURB/WALL

NOTE: REFER TO SHEET C-019 DETAIL 7 FOR WATER AND SANITARY PIPE PLUG DETAIL

<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO</p>	<p>NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS BASE QUANTICO, VIRGINIA</p> <p>DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES</p> <p>CIVIL DEMOLITION PLAN - BASE BID</p>
<p>SCALE: AS NOTED HQC#QU1333M;PWB#2005438 CONSTR. CONTR. NO.</p>	
<p>NAVFAC DRAWING NO. 3190084 SHEET 5 OF 40</p>	
<p>C-003</p>	

APPROVED: _____

FOR COMMANDER NAVFAC _____

ACTIVITY _____

SATISFACTORY TO DATE _____

DES: _____ DRAW: _____ CHK: _____

BRANCH MANAGER _____

CHIEF ENG/ARCH _____

DATE: 5-20-16

NAVAC

PROFESSIONAL ENGINEER

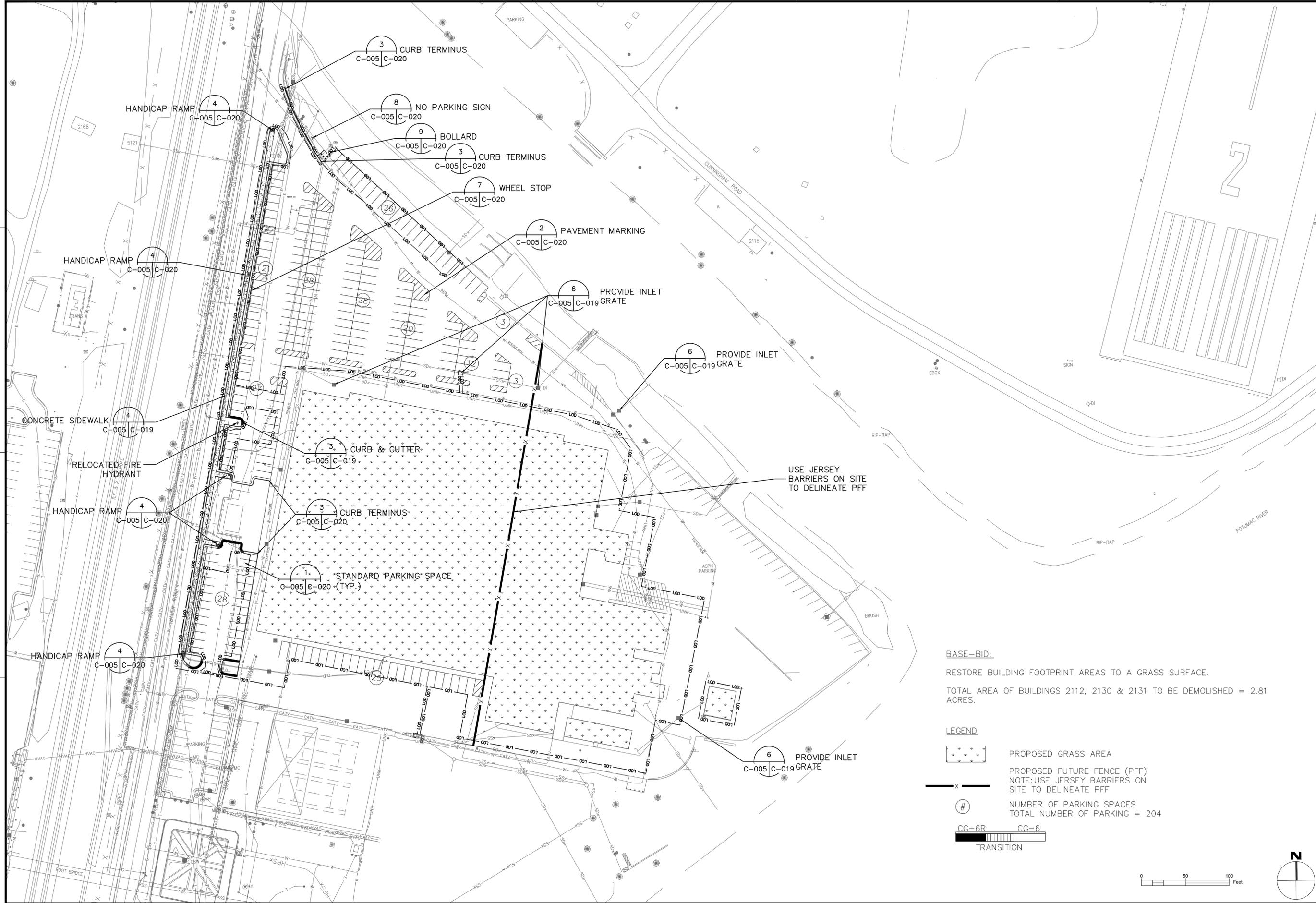
John Sch...
JUREN ALEXANDER DOBAK
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5-20-16

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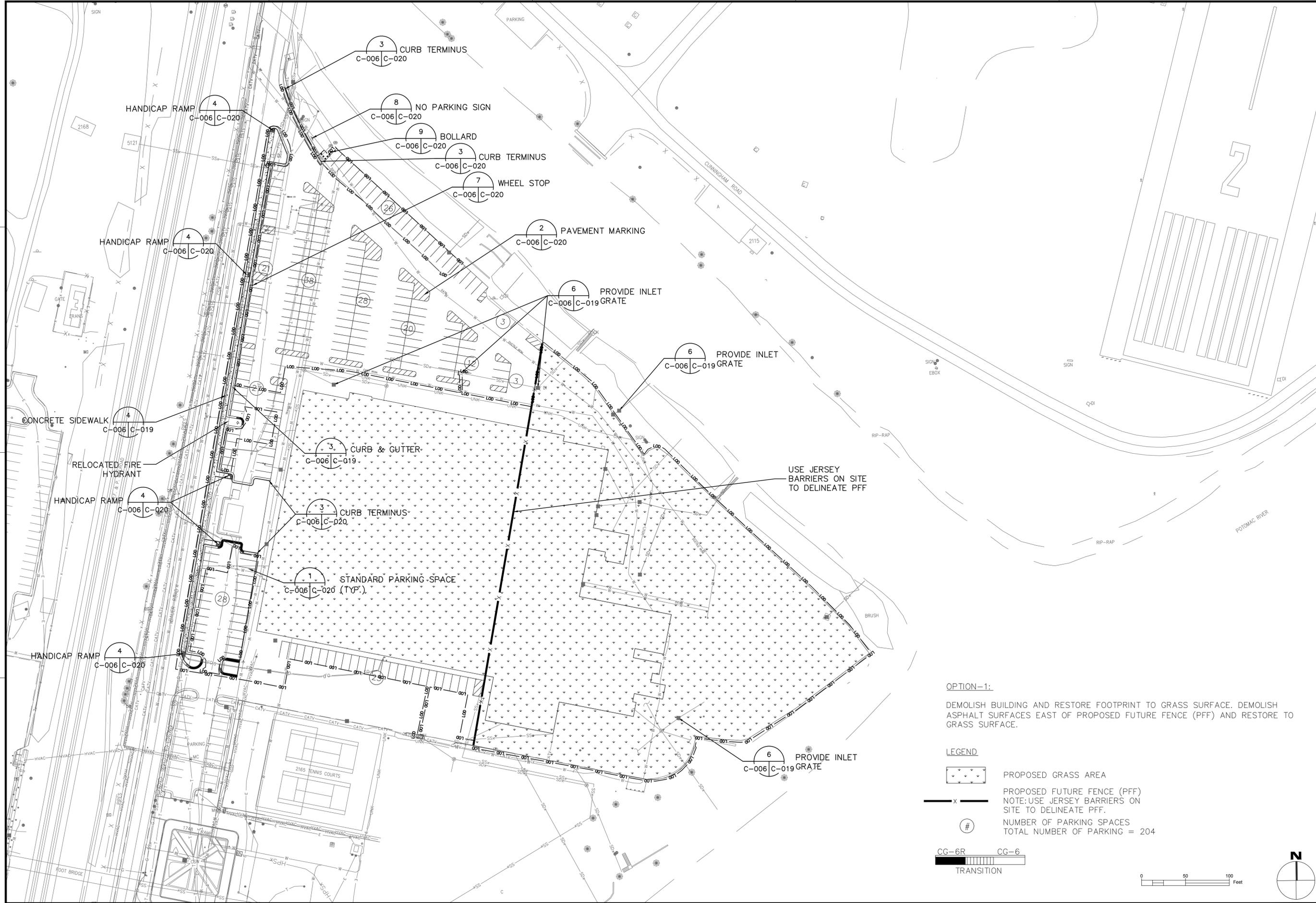


BASE-BID:
 RESTORE BUILDING FOOTPRINT AREAS TO A GRASS SURFACE.
 TOTAL AREA OF BUILDINGS 2112, 2130 & 2131 TO BE DEMOLISHED = 2.81 ACRES.

LEGEND

- PROPOSED GRASS AREA
- PROPOSED FUTURE FENCE (PFF)
NOTE: USE JERSEY BARRIERS ON SITE TO DELINEATE PFF
- NUMBER OF PARKING SPACES
TOTAL NUMBER OF PARKING = 204
- CG-6R CG-6
TRANSITION

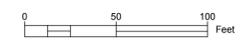
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<small>ALPHA CORPORATION 2131 ROBERTS CIRCLE SUITE 200 DULLES, VA 20166 (703) 452-0000 www.alphacorpva.com</small>	
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FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
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BRANCH MANAGER	
CHIEF ENG/ARCH	
<<XXX>>	
<small>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA</small>	
DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES	
CIVIL SITE PLAN - BASE BID	
SCALE: AS NOTED	
HQM#QU1333M;PWB#2005438	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 3190086	
SHEET 7 OF 40	
C-005	
<small>DRAWING REVISION: 10 MARCH 2009</small>	



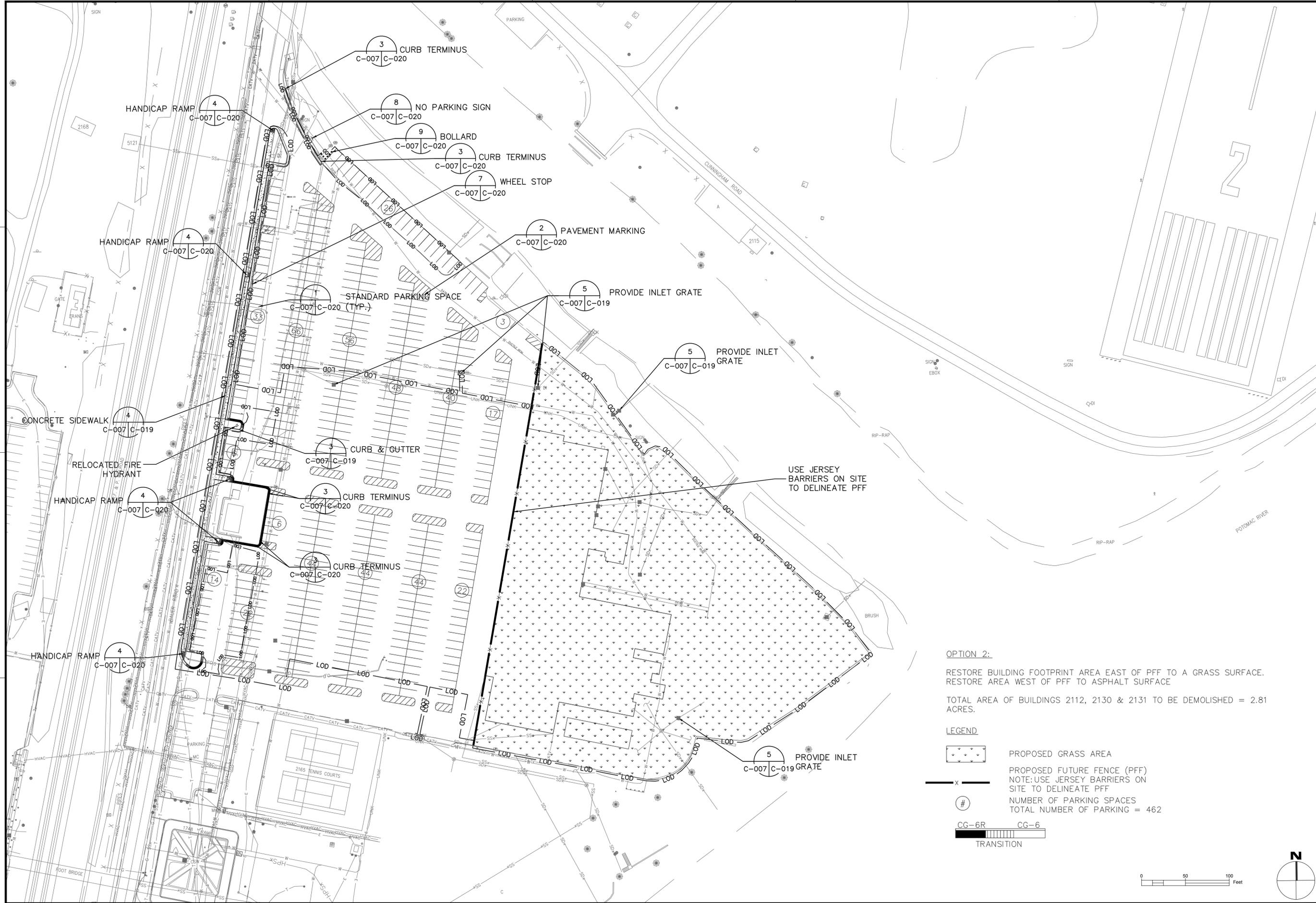
OPTION-1:
 DEMOLISH BUILDING AND RESTORE FOOTPRINT TO GRASS SURFACE. DEMOLISH ASPHALT SURFACES EAST OF PROPOSED FUTURE FENCE (PFF) AND RESTORE TO GRASS SURFACE.

LEGEND

- PROPOSED GRASS AREA
- PROPOSED FUTURE FENCE (PFF)
NOTE: USE JERSEY BARRIERS ON SITE TO DELINEATE PFF.
- NUMBER OF PARKING SPACES
TOTAL NUMBER OF PARKING = 204



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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES CIVIL SITE PLAN - OPTION 1	
SCALE: AS NOTED HQMC#OU1333M;PWB#2005438 CONSTR. CONTR. NO. _____ NAVFAC DRAWING NO. 3190087 SHEET 8 OF 40 C-006 <small>DRAWING REVISION: 10 MARCH 2009</small>	

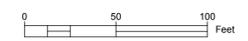


OPTION 2:
 RESTORE BUILDING FOOTPRINT AREA EAST OF PFF TO A GRASS SURFACE.
 RESTORE AREA WEST OF PFF TO ASPHALT SURFACE

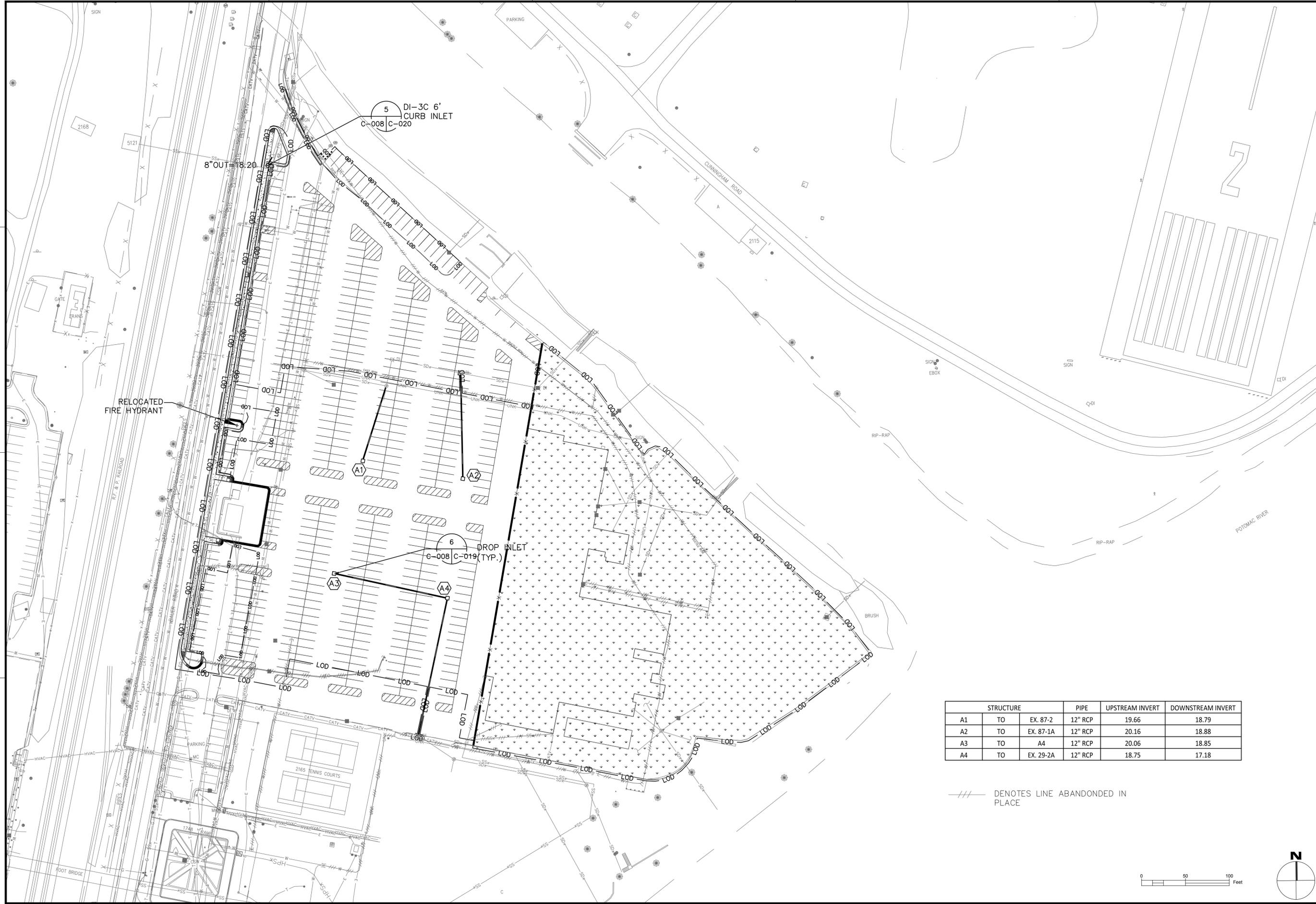
TOTAL AREA OF BUILDINGS 2112, 2130 & 2131 TO BE DEMOLISHED = 2.81 ACRES.

LEGEND

- PROPOSED GRASS AREA
- PROPOSED FUTURE FENCE (PFF)
NOTE: USE JERSEY BARRIERS ON SITE TO DELINEATE PFF
- NUMBER OF PARKING SPACES
TOTAL NUMBER OF PARKING = 462

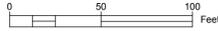


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<small>APPROVED</small> <small>PER COMMANDER NAVFAC</small> <small>ACTIVITY</small> <small>SATISFACTORY TO DATE</small> <small>DES</small> <input type="checkbox"/> <small>DRAW</small> <input type="checkbox"/> <small>CHK</small> <input type="checkbox"/> <small>BRANCH MANAGER</small> <small>CHIEF ENG/ARCH</small> <small>DATE</small>	
<small>DEPARTMENT OF THE NAVY</small> <small>NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON</small> <small>PUBLIC WORKS BRANCH</small> <small>MARINE CORPS BASE QUANTICO</small> <small>QUANTICO, VIRGINIA</small> DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES CIVIL SITE PLAN - OPTION 2	
<small>SCALE: AS NOTED</small> <small>HQMC#QU1333M;PWB#2005438</small> <small>CONSTR. CONTR. NO.</small> <small>NAVFAC DRAWING NO. 3190088</small> <small>SHEET 9 OF 40</small> C-007	
<small>DRAWING REVISION: 10 MARCH 2009</small>	

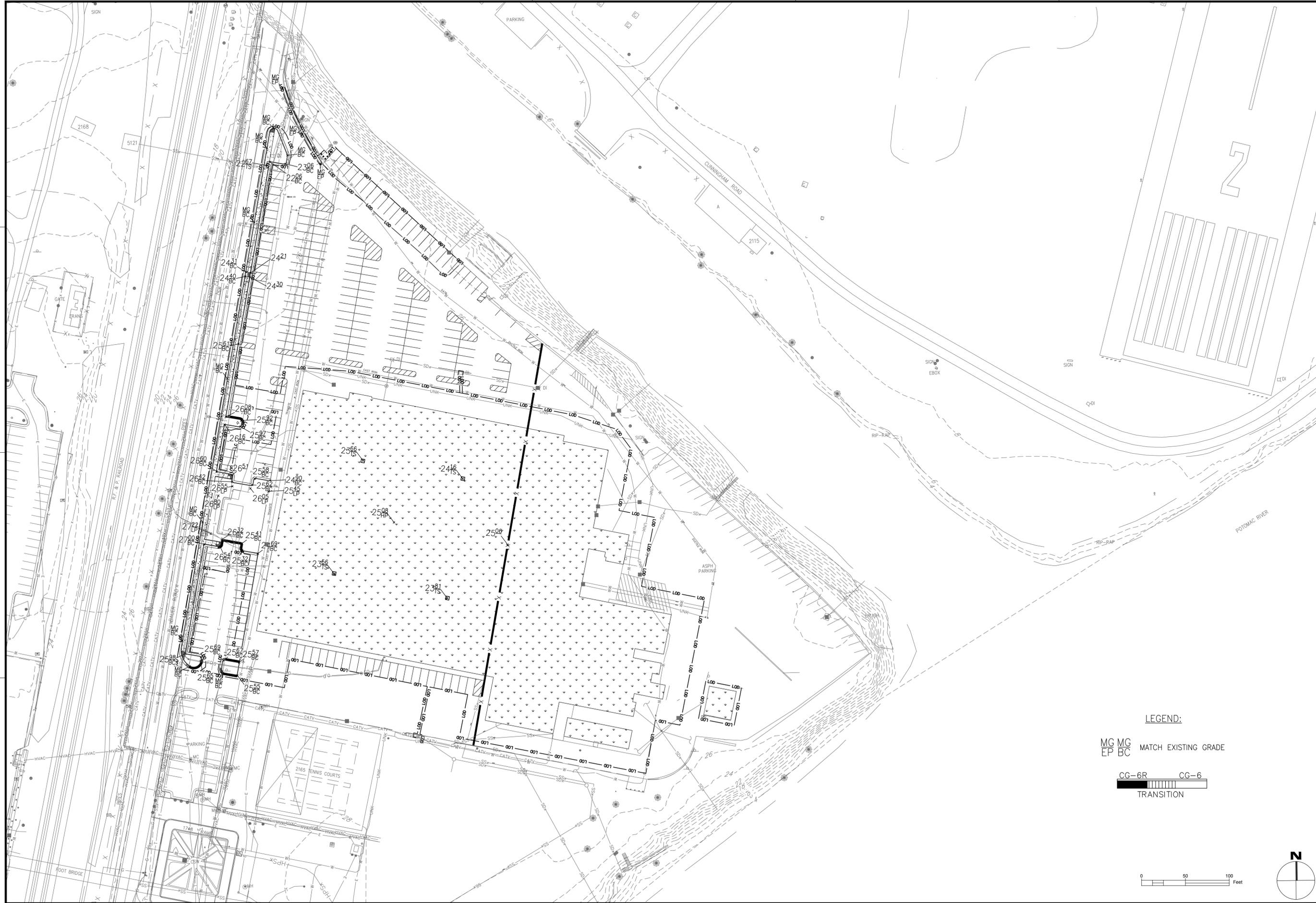


STRUCTURE	PIPE	UPSTREAM INVERT	DOWNSTREAM INVERT
A1 TO	EX. 87-2	12" RCP	19.66
A2 TO	EX. 87-1A	12" RCP	20.16
A3 TO	A4	12" RCP	20.06
A4 TO	EX. 29-2A	12" RCP	18.75

/// DENOTES LINE ABANDONED IN PLACE



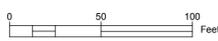
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PER COMMANDER NAVFAC	
ACTIVITY	
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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES UTILITY PLAN - ALL OPTIONS	
SCALE: AS NOTED	
HQC#OU1333M;PWB#2005438	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 3190089	
SHEET 10 OF 40	
C-008	
DRAWFORM REVISION: 10 MARCH 2009	

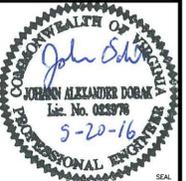


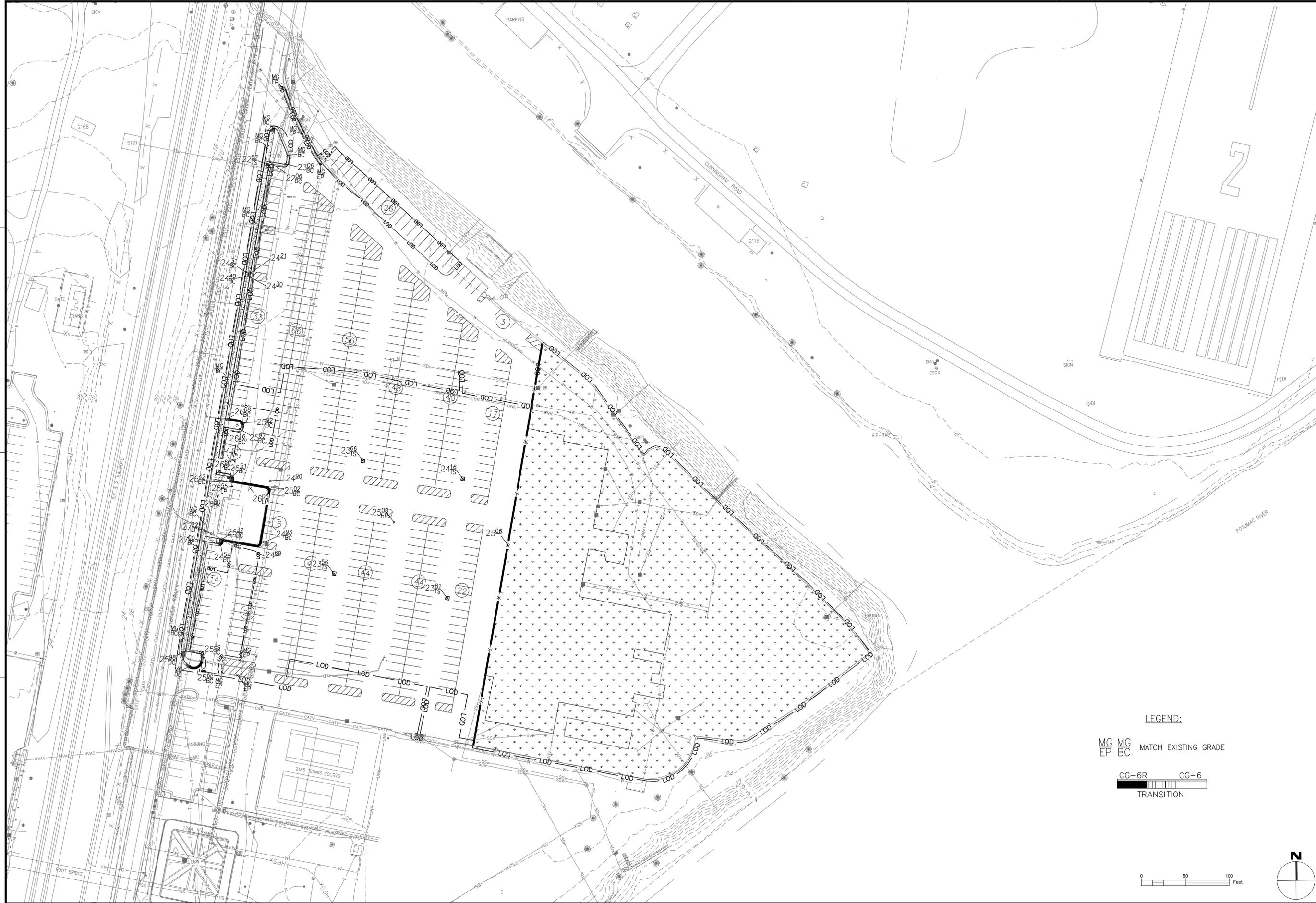
LEGEND:

MG MG MATCH EXISTING GRADE
 EP BC

CG-6R CG-6
 TRANSITION



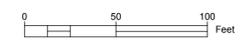
DATE	APP'R
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APPROVED	
PER COMMANDER NAVFAC	
ACTIVITY	
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BRANCH MANAGER	
CHIEF ENG/ARCH	
<<DD>>	
<small>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA</small>	
DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES	
GRADING PLAN - BASE BID/OPTION 1	
SCALE:	AS NOTED
HQMC#OU1333M;PWB#2005438	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	3190090
SHEET	11 OF 40
C-009	
<small>DRAWING REVISION: 10 MARCH 2009</small>	



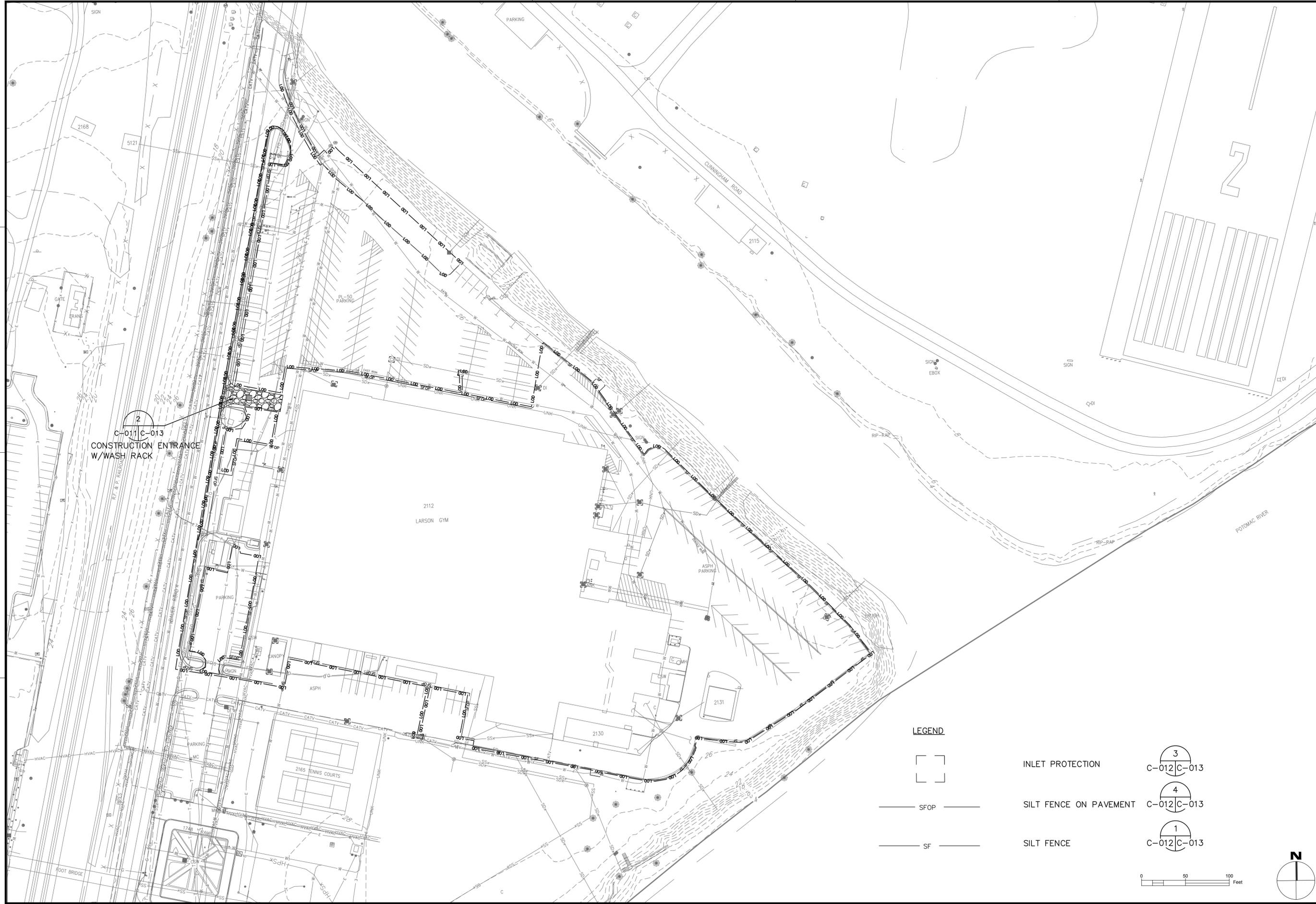
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MG MG MATCH EXISTING GRADE
 EP BC

CG-6R CG-6
 TRANSITION



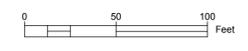
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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES GRADING PLAN - OPTION 2	
SCALE: AS NOTED	
HQC#OU1333M;PWB#2005438	
CONSTR. CONTR. NO.	
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SHEET 12 OF 40	
C-010	
<small>DRAWING REVISION: 10 MARCH 2009</small>	

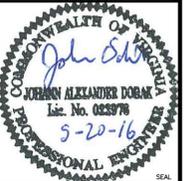


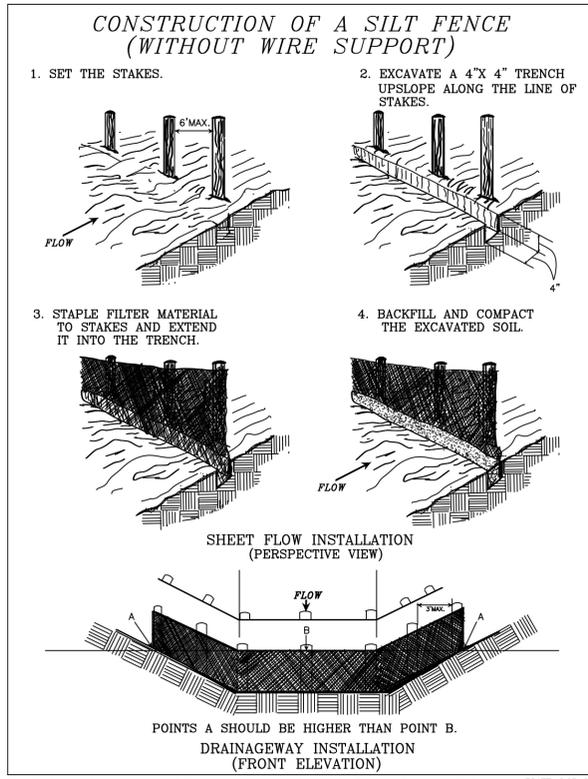
C-011 C-013
CONSTRUCTION ENTRANCE
W/WASH RACK

LEGEND

-  INLET PROTECTION
-  SFOP
-  SF
-  C-012 C-013
-  C-012 C-013
-  C-012 C-013

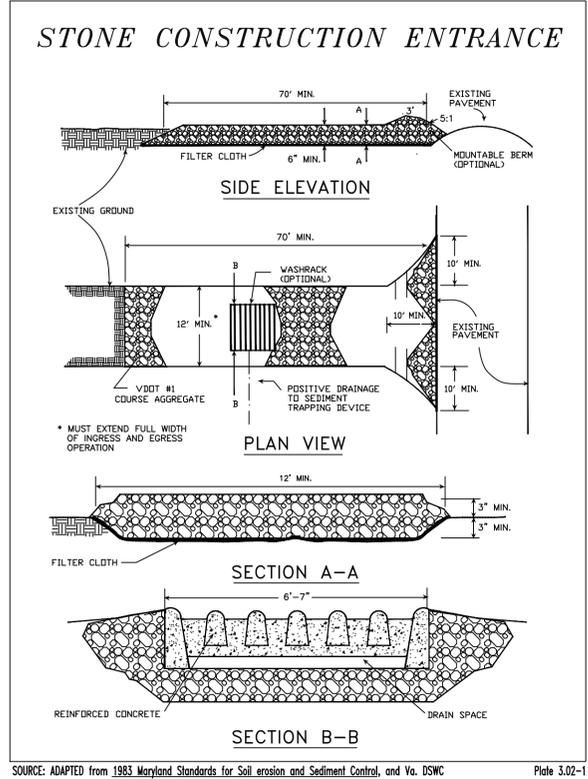


	DATE
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<small>APPROVED</small> PER COMMANDER NAVFAC ACTIVITY	
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<small>DEPARTMENT OF THE NAVY</small> NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON <small>PUBLIC WORKS BRANCH</small> <small>NAVAL FACILITIES ENGINEERING COMMAND</small> DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES <small>QUANTICO, VIRGINIA</small> <small>MARINE CORPS BASE QUANTICO</small> E&S CONTROL PLAN - OPTION 1	
<small>SCALE: AS NOTED</small> <small>HQMC#OU1333M;PWB#2005438</small> <small>CONSTR. CONTR. NO.</small>	
<small>NAVFAC DRAWING NO. 3190093</small> <small>SHEET 14 OF 40</small> C-012	
<small>DRAWING REVISION: 10 MARCH 2009</small>	



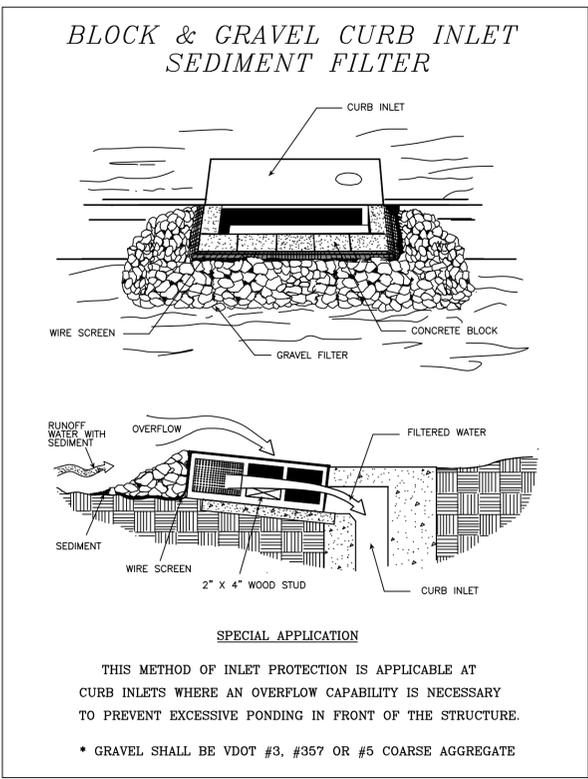
SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, VA. DSWC Plate 3.06-2 Sherwood and Wyant

1 SILT FENCE
C-011,12,13 C-013 NOT TO SCALE



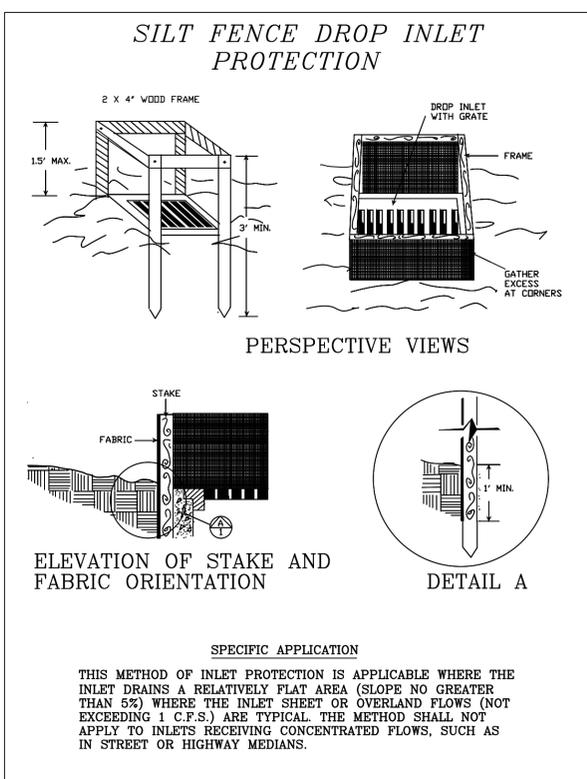
SOURCE: ADAPTED FROM 1983 Maryland Standards for Soil Erosion and Sediment Control, and Va. DSWC Plate 3.02-1

2 TEMPORARY STONE CONSTRUCTION ENTRANCE
C-011,12,13 C-013 NOT TO SCALE

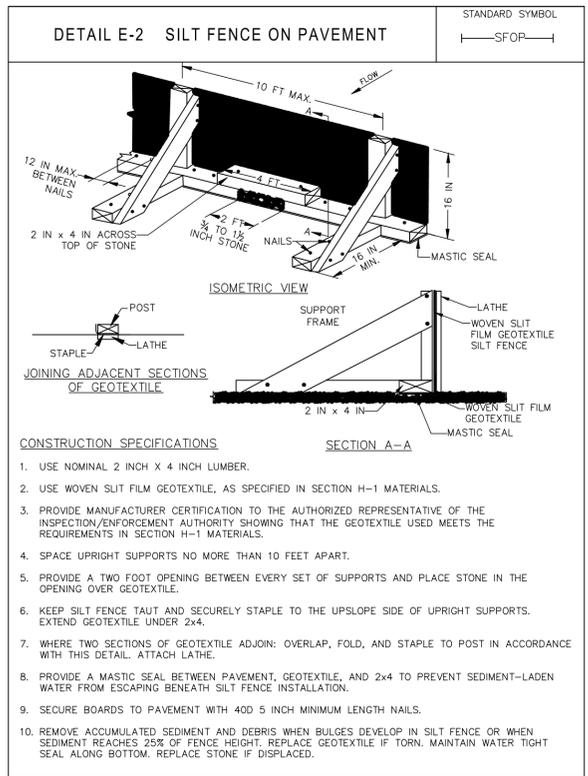


SOURCE: VA. DSWC PLATE 3.07-8

3 STORM DRAIN INLET PROTECTION
C-011,12,13 C-013 NOT TO SCALE



SOURCE: N.C. Erosion and Sediment Control Planning and Design Manual, 1988 PLATE 3.07-1



4 SILT FENCE ON PAVEMENT
C-011,12,13 C-013 NOT TO SCALE

TABLE 3.32-C SITE SPECIFIC PERMANENT SEEDING MIXTURES FOR APPALACHIAN/MOUNTAIN AREA

Minimum Care Lawn	Total Lbs. Per Acre
- Commercial or Residential	200-250 lbs.
- Ryegrass	90-100%
- Improved Perennial Ryegrass *	0-10%
High-Maintenance Lawn	
Minimum of three (3) up to five (5) varieties of bluegrass from approved list for use in Virginia.	125 lbs.
General Slope (3:1 or less)	
- Ryegrass	128 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop**	20 lbs.
	150 lbs.
Low-Maintenance Slope (Steeper than 3:1)	
- Ryegrass	108 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop**	20 lbs.
- Crownvetch ***	20 lbs.
	150 lbs.

* Perennial Ryegrass will germinate faster and at lower soil temperatures than fescue, thereby providing cover and erosion resistance for seedbed.

** Use seasonal nurse crop in accordance with seeding dates as stated below:

March, April through May 15th	Annual Rye
May 16th through August 15th	Foxtail Millet
August 16th through Sept., Oct.	Annual Rye
November through February	Winter Rye

*** If Flatpea is used, increase to 30 lbs./acre. All legume seed must be properly inoculated. Weeping Lovegrass may also be included in any slope or low-maintenance mixtures during warmer seeding periods; add 10-20 lbs./acre in mixes.

5 PERMANENT SEEDING TABLES
C-011,12,13 C-013 NOT TO SCALE

TABLE 3.31-B ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS "QUICK REFERENCE FOR ALL REGIONS"

Planting Dates	Species	Rate (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (<i>Lolium multi-florum</i>) & Cereal (Winter) Rye (<i>Secal cereale</i>)	50 - 100
Feb. 16 - Apr. 30	Annual Ryegrass (<i>Lolium multi-florum</i>)	60 - 100
May 1 - Aug. 31	German Millet (<i>Setaria italica</i>)	50

Seeding

Seed shall be evenly applied with a broadcast seeder, drill, cultipacker seeder or hydroseeder. Small grains shall be planted no more than one inch deep. Grasses and legumes shall be planted with no less than 1/4" soil cover.

APPROVED: _____ DATE: _____

DESCRIPTION: _____

SCALE: AS NOTED

HQMC#OU1333M;PWB#2005438

CONSTR. CONTR. NO. _____

NAVFAC DRAWING NO. 3190094

SHEET 15 OF 40

C-013

DRAWFORM REVISION: 10 MARCH 2009

NAVFAC

PROFESSIONAL ENGINEER

John S. ...

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DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON

PUBLIC WORKS BRANCH

MARINE CORPS BASE QUANTICO, VIRGINIA

DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES

EROSION & SEDIMENT CONTROL DETAILS

EROSION & SEDIMENT CONTROL STANDARD NOTES

1. ALL EROSION CONTROL MEASURES SHOWN ON THE APPROVED PLAN MUST BE IN PLACE AND INSPECTED AND APPROVED BY THE GOVERNMENT'S INSPECTOR PRIOR TO CLEARING, STRIPPING OF TOPSOIL OR GRADING.
2. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE KEPT ON THE SITE AT ALL TIMES.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE GOVERNMENT.
4. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL COMPLETE AND ADEQUATE STABILIZATION IS ACHIEVED.
5. WATER MUST BE PUMPED INTO AN APPROVED FILTERING DEVICE DURING DEWATERING OPERATIONS.
6. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.
7. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES AT ALL TIMES.
8. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY AND AFTER EACH SIGNIFICANT RAINFALL.
- A. GRAVEL OUTLETS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED.
- B. SILT FENCE BARRIERS WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.
- C. SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEED AS NEEDED.
- D. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES MUST BE MADE IMMEDIATELY AFTER THE INSPECTION.
9. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING AND WILL BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.
10. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.
11. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN FOURTEEN (14) DAYS. SEEDING AND SELECTION OF THE SEED MIXTURE SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK STANDARD AND SPECIFICATION 3.32. ROADS AND PARKING AREAS SHALL BE STABILIZED WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED.
12. WHEN SEDIMENT IS TRANSPORTED ONTO A PAVED ROAD SURFACE, THE ROAD WILL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT WILL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING WILL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
13. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC. TREE SAVE AREAS SHALL BE CLEARLY MARKED IN THE FIELD.
14. NO EROSION & SEDIMENT CONTROL MEASURE SHALL BE REMOVED WITHOUT THE PERMISSION OF THE GOVERNMENT.

GENERAL E&S NOTES:

THE GOVERNMENT HAS THE AUTHORITY TO ADD OR DELETE EROSION AND SEDIMENT CONTROLS IN THE FIELD AS SITE CONDITIONS WARRANT. IN ADDITION, SEDIMENT TRAPPING DEVICES MAY NOT BE REMOVED WITHOUT PRIOR APPROVAL OF THE CONTRACTING OFFICER.

AFTER CONSTRUCTION OPERATIONS HAVE ENDED AND ALL DISTURBED AREAS HAVE BEEN STABILIZED, MECHANICAL SEDIMENT CONTROLS SHALL BE REMOVED.

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO UPGRADE OR REPLACE EXISTING ELECTRICAL FACILITIES, WHICH WILL INCLUDE INSTALLATION OF NEW DUCT BANKS AND TRANSFORMER PADS.

EXISTING SITE CONDITIONS

THE SITE IS LOCATED TO THE SOUTH OF THE CHOPAWAMSIK CREEK. THERE IS A FRESH WATER SWAMP LOCATED IN THE NORTH WESTERN SECTION OF THE SITE. NORTHERN HALF OF THE SITE DRAINS NORTH TO THE CHOPAWAMSIK CREEK. THE SOUTHERN HALF DRAINS EAST TO THE POTOMAC RIVER.

ADJACENT PROPERTY

OLD TRIANGLE BORDERS THE PROPERTY ON THE NORTH SIDE ALONG WITH A NUMBER OF PRIVATE LOTS. FULLER HEIGHTS ROAD BORDERS THE SITE FORM THE WEST. ON THE SOUTH AND EAST SIDE OF THE PROPERTY IS BOARDED BY RESIDENTIAL AND COMMERCIAL LOTS.

SOILS

SEE SOIL MAP ON THIS SHEET FOR SOILS MAP AND SOILS DATA.

CRITICAL EROSION AREAS

THERE ARE NO CRITICAL AREAS ON THE SITE

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS OF THE 1992 VIRGINIA STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL.

STORMWATER RUNOFF CONSIDERATIONS

THE SITE DEVELOPMENT WILL CAUSE AN INCREASE IN PEAK RUNOFF RATE. THE BMP PRACTICE OF SHEET FLOW TO A CONSERVATION AREA WILL BE USED TO TREAT THE POLLUTION INCREASE.

CALCULATIONS

THE STORMWATER MANAGEMENT/BMP CALCULATIONS ARE ON SHEET C133.

EROSION & SEDIMENT CONTROL PRACTICES

1. **SILT FENCE BARRIER - 3.05**
SILT FENCE SEDIMENT BARRIERS WILL BE INSTALLED DOWNSLOPE OF AREAS WITH MINIMAL GRADES TO FILTER SEDIMENT-LADEN RUNOFF FROM SHEET FLOW AS INDICATED ON SHEETS .
2. **STORM DRAIN INLET PROTECTION - 3.07**
ALL STORM SEWER INLETS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS.
3. **PERMANENT STABILIZATION**
PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO REMAIN UNDISTURBED FOR MORE THAN ONE YEAR. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE ACCORDING TO STANDARD AND SPECIFICATION 3.32, PERMANENT SEEDING, OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. ALLOW SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER AND LIME WILL BE APPLIED PRIOR TO MULCHING. SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEED AS NEEDED.

EROSION AND SEDIMENT CONTROLS

EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO BEGINNING THE SITE DISTURBANCE ASSOCIATED WITH THE INITIATION OF THE CONSTRUCTION PROCESS. IN THIS CONTEXT, SILT FENCE SHALL BE INSTALLED FIRST, FOLLOWED BY THE INSTALLATION OF INLET PROTECTIONS. ALL CONTROLS ARE TO BE INSTALLED IN ACCORDANCE WITH THE E&S PLANS, DETAILS, AND THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

MANAGEMENT STRATEGIES

1. THE CONTRACTOR SHALL USE LIGHT RUBBER TIRE VEHICLES TO MINIMIZE SITE DISTURBANCE.
2. THE CONTRACTOR SHALL DISTURB ONLY AN AREA THAT CAN BE STABILIZED AT THE END OF EACH WORKDAY. NO AREAS SHALL BE LEFT UN-STABILIZED OVERNIGHT UNLESS RUNOFF IS DIRECTED TO AND EROSION & SEDIMENT CONTROL DEVICE.
3. TEMPORARY SEEDING OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER BACKFILLING TRENCHES.
4. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
5. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING EXCAVATION & BACKFILL ACTIVITIES.
6. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.
7. AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED.

MAINTENANCE

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

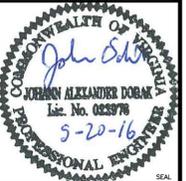
1. THE GRAVEL INLET PROTECTIONS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED.
2. THE SILT FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.

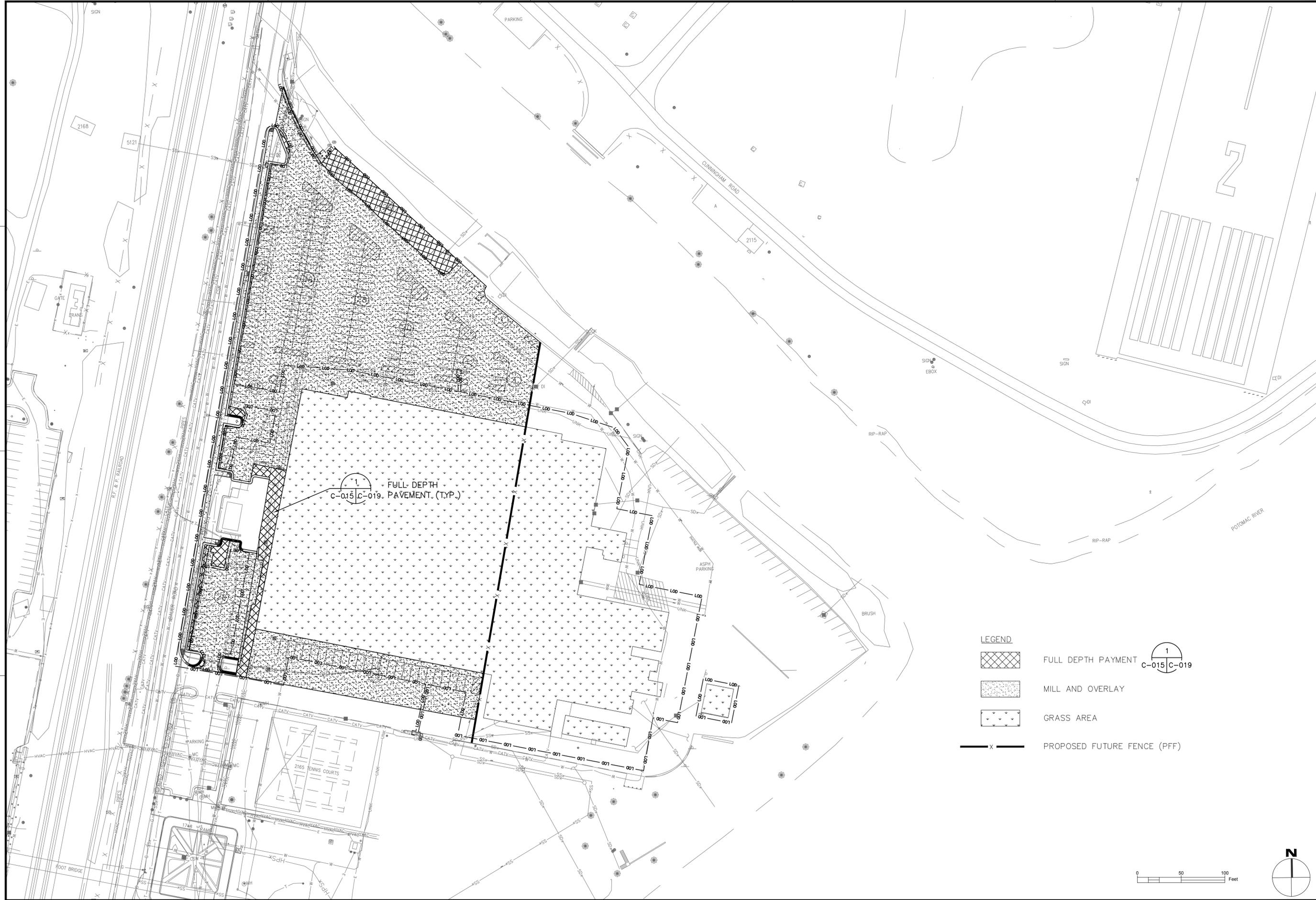


SOIL DATA	
MAP UNIT SYMBOL	MAP UNIT NAME
Cw	CUT AND FILL LAND

SITE INFORMATION:

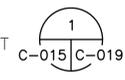
A. TOTAL AREA OF FACILITY	55148	ACRES
B. AREA DISTURBED		
B.1. BASE BID:	3.69	ACRES
B.2. OPTION 1 & OPTION 2	5.31	ACRES
C. AREA TO BE ROOFED OR PAVED		
C.1. BASE BID:	0.17	ACRES
C.2. OPTION 1:	0.17	ACRES
C.3. OPTION 2:	1.71	ACRES
D. OFF-SITE WASTE / BORROW AREA LOCATION	NONE	

	DATE
	DESCRIPTION
	DWG
	APPR
	
	
	
	
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ACTIVITY SATISFACTORY TO DATE DES DATE DRW CHK <<PM/DM>> BRANCH MANAGER CHIEF ENG/ARCH <<DD>>	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO	QUANTICO, VIRGINIA DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES EROSION AND SEDIMENT CONTROL NOTES
SCALE: AS NOTED HQMC#OU1333M;PWB#2005438 CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 3190095 SHEET 16 OF 40	
C-014 <small>DRAWFORM REVISION: 10 MARCH 2009</small>	

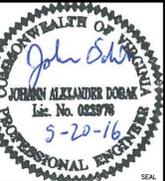


LEGEND

-  FULL DEPTH PAYMENT
-  MILL AND OVERLAY
-  GRASS AREA
-  PROPOSED FUTURE FENCE (PFF)



DATE	APP'R
DESCRIPTION	



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 (703) 556-8820 | www.summerconsultants.com



APPROVED
 PER COMMANDER NAVFAC

ACTIVITY	
SATISFACTORY TO DATE	
DES	CHK
<<PM/DM>>	
BRANCH MANAGER	
CHIEF ENG/ARCH	
<<DD>>	

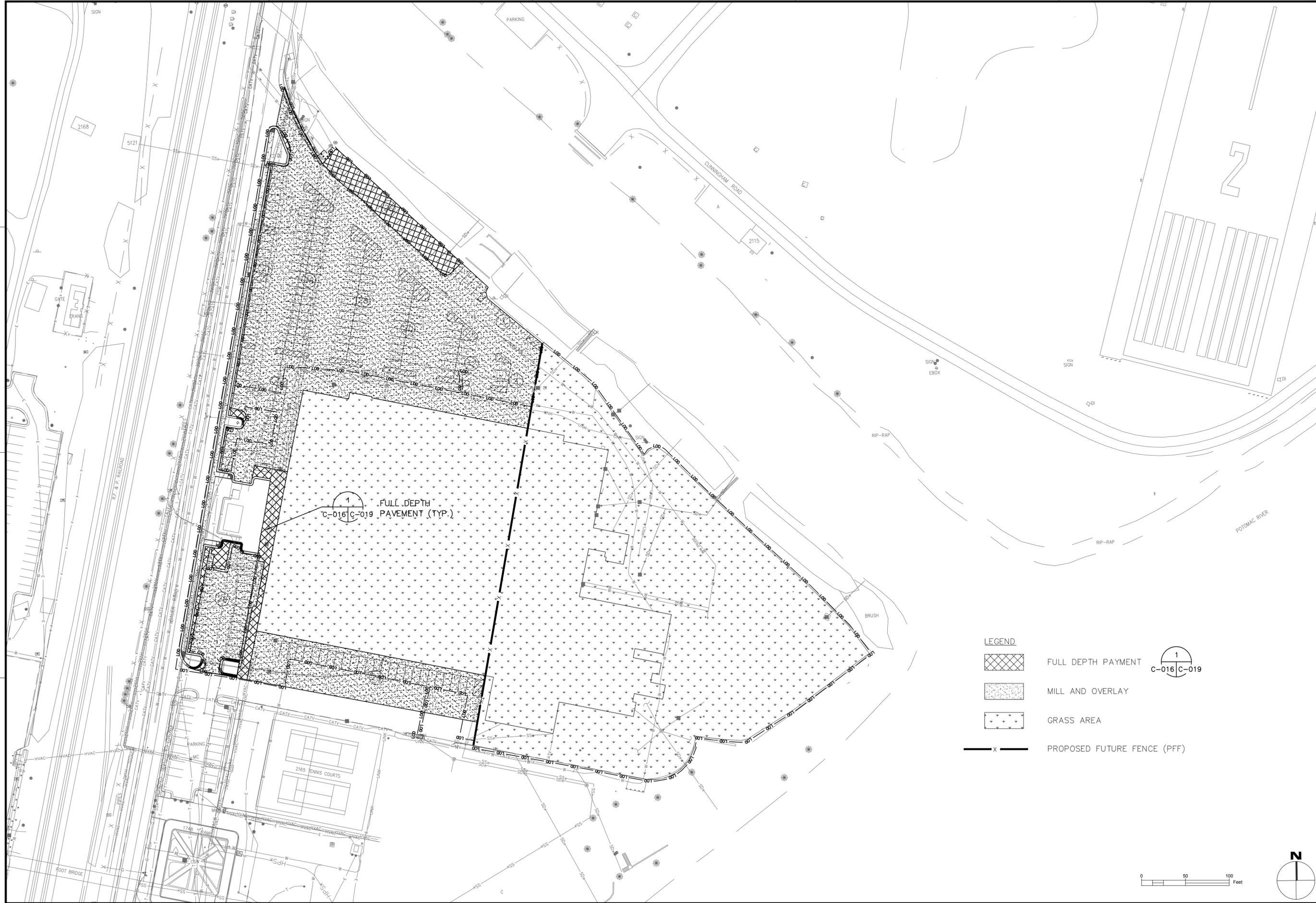
DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON
 PUBLIC WORKS BRANCH
 MARINE CORPS BASE QUANTICO
 QUANTICO, VIRGINIA
**DEMOLITION OF LARSON'S GYM (BLDG 2112),
 BLDGS 2130/2131, & ANCILLARY STRUCTURES**
 PAVEMENT PLAN - BASE BID

SCALE: AS NOTED
 HQMC/OU133M/PWB#2005438
 CONSTR. CONTR. NO.

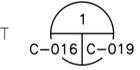
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 SHEET 17 OF 40

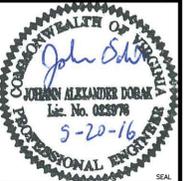
C-015

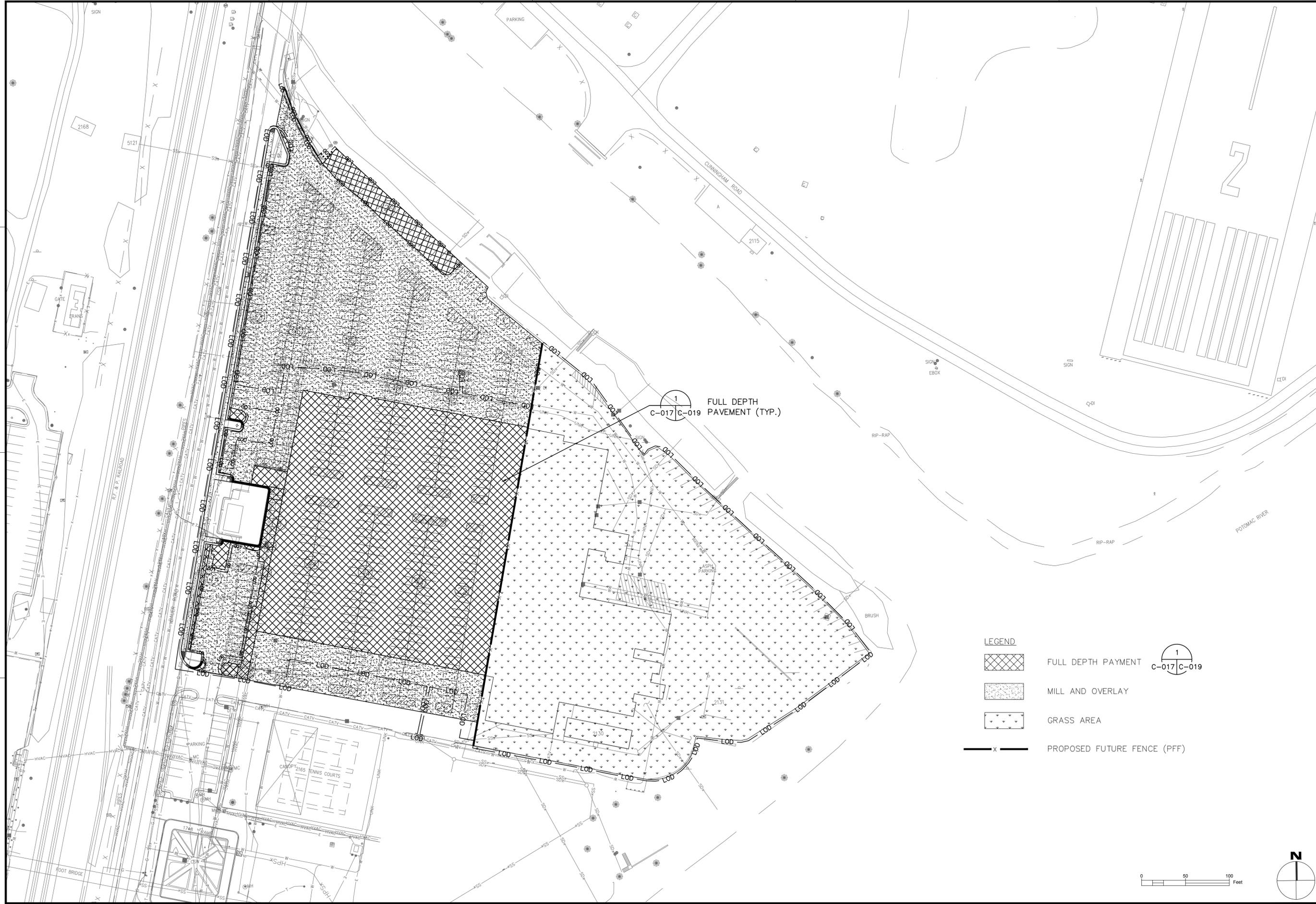
DRAWFORM REVISION: 10 MARCH 2009



- LEGEND**
-  FULL DEPTH PAYMENT
 -  MILL AND OVERLAY
 -  GRASS AREA
 -  PROPOSED FUTURE FENCE (PFF)



	DATE: _____ APP: _____
	SY: _____ DESCRIPTION: _____
 NAVFAC	
 JOHN ALEXANDER DOBAK Lic. No. 083976 5-20-16	
SUMMER CONSULTANTS INCORPORATED 6645 Elm Street Suite 200 McLean, VA 22101 (703) 556-8820 www.summerconsultants.com	
 ALPHA CORPORATION 2131 RIVERCHASE DRIVE SUITE 200 DULLES, VA 20166 (703) 451-0900 www.alphacorpva.com	
APPROVED: _____	
FOR COMMANDER NAVFAC	
ACTIVITY: _____	
SATISFACTORY TO DATE	
DES	CHK
<<PM/DM>>	
BRANCH MANAGER	
CHIEF ENG/ARCH	
<<DD>>	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES PAVEMENT PLAN - OPTION 1	
SCALE: AS NOTED	
HQM#QU1333M;PWB#2005438	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 3190097	
SHEET 18 OF 40	
C-016	
DRAWING REVISION: 10 MARCH 2009	

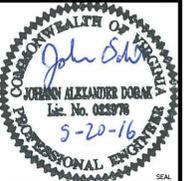


1
C-017 C-019 FULL DEPTH PAVEMENT (TYP.)

LEGEND

-  FULL DEPTH PAYMENT
-  MILL AND OVERLAY
-  GRASS AREA
-  PROPOSED FUTURE FENCE (PFF)

1
C-017 C-019

	DATE APPR
	DESCRIPTION DWG
 NAVFAC	
 JOHN ALEXANDER DOBAK Lic. No. 033976 5-20-16	
SUMMER CONSULTANTS INCORPORATED 6845 Elm Street Suite 200 McLean, VA 22101 (703) 556-8820 www.summerconsultants.com	
 ALPHA CORPORATION 2131 RIDGEWAY CIRCLE SUITE 200 DULLES, VA 20166 (703) 451-0900 www.alphaconsultants.com	
APPROVED	
PER. COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	CHK
<<PM/DM>>	
BRANCH MANAGER	
CHIEF ENG/ARCH	
<<DD>>	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES PAVEMENT PLAN - OPTION 2	
SCALE: AS NOTED	
HQM/OU1333M/PWB#2005438	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 3190098	
SHEET 19 OF 40	
C-017	
DRAWING REVISION: 10 MARCH 2009	

BMP/SWM NARRATIVE:

THE PROJECT IS TO DEMOLISH AN EXISTING LARSON GYM BUILDINGS 2112, 2130 AND 2131.

EXISTING CONDITION

THE PROJECT SITE CONSISTS OF A BUILDING AREA AND AN ASPHALT PARKING LOT. THE EXISTING STORMWATER RUNOFF FROM THE BUILDING AND PARKING LOT AREA CAPTURES BY STORM INLET STRUCTURES AND CONVEY THRU EXISTING PIPE NETWORK TO VARIOUS OUTFALLS AT CHOPAWAMSIK CREEK AND POTOMAC RIVER AS SHOWN ON SITE PLAN SHEETS.

PROPOSE CONDITION

THE PROPOSED BASE BID WORK INCLUDES A DEMOLITION OF EXISTING BUILDING; RESTORE THE BUILDING FOOTPRINT WITH GRASS SURFACE; RESTRIPIING, MILL AND OVERLAY OF EXISTING PARKING LOCATED NORTH, WEST AND SOUTH OF BUILDING 2112 WHICH ALSO INCLUDES RECONFIGURATION OF EXISTING PARKING LOT ISLAND LOCATED WEST OF BUILDING 2112 ALONG BAUER ROAD .

THE BASE BID WORK WILL DISTURB APPROXIMATELY 3.69 ACRES OF THE PROJECT SITE AND RESULT IN 2.60 ACRES OF NET INCREASE IN PERVIOUS AREA. FOUR GRATE INLETS ARE PROPOSED AT BUILDING FOOT PRINT AREA TO HONOR THE EXISTING DRAINAGE DIVIDES.

OPTION-1: DEMOLITION OF AN EXISTING PARKING LOT LOCATED EAST OF THE PROPOSED FUTURE FENCE (PFF) AND RESTORE IT WITH GRASS SURFACE. THE TOTAL DISTURBED AREA FOR OPTION 1 INCLUDING BASE BID IS 5.42 ACRES. THE PROPOSE WORK WILL HAVE A NET INCREASE IN PERVIOUS AREA OF 4.41 ACRES.

OPTION-2: REPLACING BUILDING FOOTPRINT WITH ASPHALT PARKING ON WEST OF PFF, DEMOLITION OF THE EXISTING PARKING LOT TO THE EAST OF THE PFF, AND RESTORE IT TO GRASS THE TOTAL AREA TO BE DISTURBED UNDER THIS OPTION INCLUDING BASE BID IS 5.42 ACRES WHICH RESULT IN 2.70 ACRES OF NET INCREASE IN PERVIOUS AREA.

AS PER VIRGINIA STORMWATER MANAGEMENT HANDBOOK JULY 2013, THE PROPOSED SITE IS SUBJECTED TO REDEVELOPMENT CRITERIA.

THE BMP REQUIREMENTS ARE CALCULATED USING THE VIRGINIA STORMWATER RUNOFF REDUCTION WORKSHEET (THE CALCULATION SHEETS ARE SHOWN BELLOW). THE NET INCREASE IN PERVIOUS AREA SATISFIED THE TOTAL LOAD REDUCTION REQUIREMENTS THUS NO BMP PRACTICE IS REQUIRED FOR PROPOSED PROJECT WORK.

THE MODIFIED RATIONAL METHOD IS USED TO CALCULATE THE PICK DISCHARGE AND RUNOFF VOLUME FROM THE PROJECT SITE. THE PRE-DEVELOPMENT AND POST-DEVELOPMENT RUNOFF CALCULATION ARE SHOW ON SAME SHEET.

THE NET INCREASE IN PERVIOUS AREA REDUCES THE PROPOSED RUNOFF FROM THE PROJECT SITE. THEREFORE, THE PEAK DISCHARGE RUNOFF VOLUME REQUIREMENTS ARE SATISFIED FOR THE PROJECT SITE.

WATER QUANTITY CALCULATIONS

PRE-DEVELOPMENT								
	Area (ac)	C _w	I ₂ (in/hr)	I ₁₀ (in/hr)	I ₁₀₀ (in/hr)	Q ₂ (cfs)	Q ₁₀ (cfs)	Q ₁₀₀ (cfs)
Base Bid	3.69	0.87	5.09	6.91	9.03	16.34	22.18	28.99
Option-1	5.31	0.88	5.09	6.91	9.03	23.78	32.29	42.20
Option-2	5.31	0.88	5.09	6.91	9.03	23.78	32.29	42.20

POST-DEVELOPMENT								
	Area (ac)	C _w	I ₂ (in/hr)	I ₁₀ (in/hr)	I ₁₀₀ (in/hr)	Q ₂ (cfs)	Q ₁₀ (cfs)	Q ₁₀₀ (cfs)
Base Bid	3.69	0.49	5.09	6.91	9.03	9.20	12.49	16.33
Option-1	5.31	0.42	5.09	6.91	9.03	11.35	15.41	20.14
Option-2	5.31	0.60	5.09	6.91	9.03	16.22	22.02	28.77

Q = A*Cw*I

Where, A = Drainage area (acres)

C_w (weighted C) = runoff coefficient; C = 0.35 pervious area
C = 0.9 impervious area

I = rainfall intensity (in/hr)

Virginia Runoff Reduction Method ReDevelopment Worksheet - v2.8 - June 2014									
To be used w/ 2011 BMP Standards and Specifications									
Site Data									
Project Name: DEMOLITION OF LARSON'S GYM, BASE BID									
4/29/2016									
Post-ReDevelopment Project & Land Cover Information									
Total Disturbed Acreage: 3.69									
Constants									
Annual Rainfall (inches)	43								
Target Rainfall Event (inches)	1.00								
Phosphorus EMC (mg/L)	0.25								
Target Phosphorus Target Load (lb/acre/yr)	0.41								
P _i	0.90								
Pre-ReDevelopment Land Cover (acres)									
Forest/Open Space (acres) - undisturbed, protected forest/open space or reforested land									
Managed Turf (acres) - disturbed, graded for yards or other turf to be mowed/managed									
Impervious Cover (acres)									
Post-ReDevelopment Land Cover (acres)									
Forest/Open Space (acres) - undisturbed, protected forest/open space or reforested land									
Managed Turf (acres) - disturbed, graded for yards or other turf to be mowed/managed									
Impervious Cover (acres)									
Area Check									
RV Coefficients									
Land Cover Summary									
Pre-Development									
Post-Development									
Post-Development New Impervious									
Total Site Area (acres)									
Pre-Development Treatment Volume (acre-ft)									
Pre-Development Treatment Volume (cubic feet)									
Pre-Development Load (TP) (lb/yr)									
Adjusted Land Cover Summary									
TP Load Reduction Required for Redeveloped Area (lb/yr)									
Total Load Reduction Required (lb/yr)									
Pre-Development Load (TN) (lb/yr)									

**VIRGINIA RUNOFF REDUCTION METHOD WORKSHEET
BASE BID**

Virginia Runoff Reduction Method ReDevelopment Worksheet - v2.8 - June 2014									
To be used w/ 2011 BMP Standards and Specifications									
Site Data									
Project Name: DEMOLITION OF LARSON'S GYM, OPTION 1									
4/29/2016									
Post-ReDevelopment Project & Land Cover Information									
Total Disturbed Acreage: 5.31									
Constants									
Annual Rainfall (inches)	43								
Target Rainfall Event (inches)	1.00								
Phosphorus EMC (mg/L)	0.25								
Target Phosphorus Target Load (lb/acre/yr)	0.41								
P _i	0.90								
Pre-ReDevelopment Land Cover (acres)									
Forest/Open Space (acres) - undisturbed, protected forest/open space or reforested land									
Managed Turf (acres) - disturbed, graded for yards or other turf to be mowed/managed									
Impervious Cover (acres)									
Post-ReDevelopment Land Cover (acres)									
Forest/Open Space (acres) - undisturbed, protected forest/open space or reforested land									
Managed Turf (acres) - disturbed, graded for yards or other turf to be mowed/managed									
Impervious Cover (acres)									
Area Check									
RV Coefficients									
Land Cover Summary									
Pre-Development									
Post-Development									
Post-Development New Impervious									
Total Site Area (acres)									
Pre-Development Treatment Volume (acre-ft)									
Pre-Development Treatment Volume (cubic feet)									
Pre-Development Load (TP) (lb/yr)									
Adjusted Land Cover Summary									
TP Load Reduction Required for Redeveloped Area (lb/yr)									
Total Load Reduction Required (lb/yr)									
Pre-Development Load (TN) (lb/yr)									

**VIRGINIA RUNOFF REDUCTION METHOD WORKSHEET
OPTION 1**

Virginia Runoff Reduction Method ReDevelopment Worksheet - v2.8 - June 2014									
To be used w/ 2011 BMP Standards and Specifications									
Site Data									
Project Name: DEMOLITION OF LARSON'S GYM, OPTION 2									
4/29/2016									
Post-ReDevelopment Project & Land Cover Information									
Total Disturbed Acreage: 5.31									
Constants									
Annual Rainfall (inches)	43								
Target Rainfall Event (inches)	1.00								
Phosphorus EMC (mg/L)	0.25								
Target Phosphorus Target Load (lb/acre/yr)	0.41								
P _i	0.90								
Pre-ReDevelopment Land Cover (acres)									
Forest/Open Space (acres) - undisturbed, protected forest/open space or reforested land									
Managed Turf (acres) - disturbed, graded for yards or other turf to be mowed/managed									
Impervious Cover (acres)									
Post-ReDevelopment Land Cover (acres)									
Forest/Open Space (acres) - undisturbed, protected forest/open space or reforested land									
Managed Turf (acres) - disturbed, graded for yards or other turf to be mowed/managed									
Impervious Cover (acres)									
Area Check									
RV Coefficients									
Land Cover Summary									
Pre-Development									
Post-Development									
Post-Development New Impervious									
Total Site Area (acres)									
Pre-Development Treatment Volume (acre-ft)									
Pre-Development Treatment Volume (cubic feet)									
Pre-Development Load (TP) (lb/yr)									
Adjusted Land Cover Summary									
TP Load Reduction Required for Redeveloped Area (lb/yr)									
Total Load Reduction Required (lb/yr)									
Pre-Development Load (TN) (lb/yr)									

**VIRGINIA RUNOFF REDUCTION METHOD WORKSHEET
OPTION 2**

DATE: _____
SYNOPSIS: _____
DESCRIPTION: _____
SCALE: AS NOTED
HQC#QU1333M;PWB#2005438
CONSTR. CONTR. NO. _____
NAVFAC DRAWING NO. 3190099
SHEET 20 OF 40
C-018
DRAWING REVISION: 10 MARCH 2009

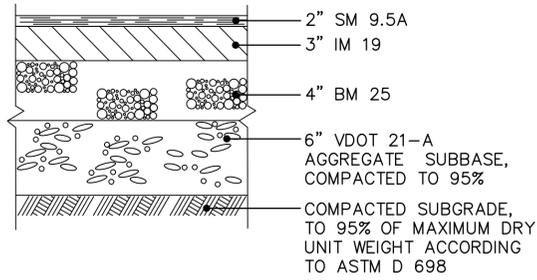
APPROVED: _____
FOR COMMANDER NAVFAC
ACTIVITY: _____
SATISFACTORY TO DATE: _____
DES: _____
DRAW: _____
CHK: _____
BRANCH MANAGER: _____
CHIEF ENG/ARCH: _____
CHECKED BY: _____

NAVFAC
CORPORATE HEALTH OF
JOHN S. DOBAK
S. ALEXANDER DOBAK
Lic. No. 023976
5-20-16
PROFESSIONAL ENGINEER
SEAL

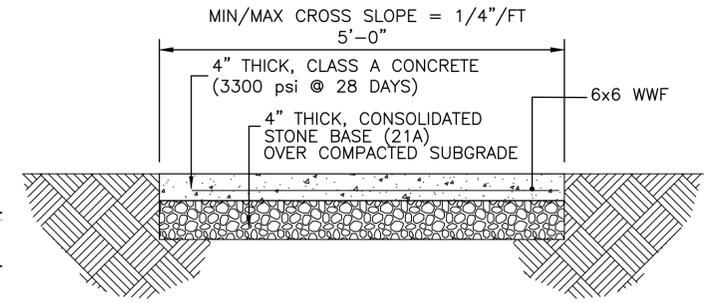
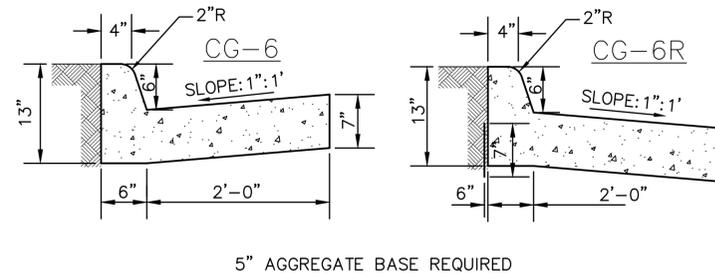
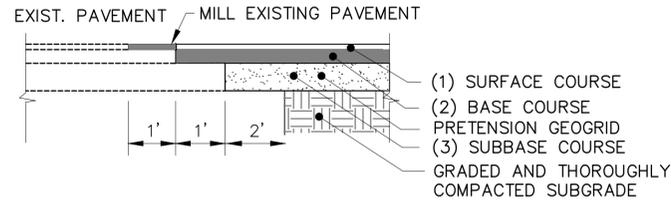
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NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON
PUBLIC WORKS BRANCH
MARINE CORPS BASE, QUANTICO, VIRGINIA
DEMOLITION OF LARSON'S GYM (BLDG 2112),
BLDG 2130/2131, & ANCILLARY STRUCTURES
BMP/SWM CALCULATIONS



PAVEMENT LOCATION	(1)	(2)	(3)
TYPICAL MIN.	2" SM-9.5A	3.5" BM-25.0	8.0" 21-A



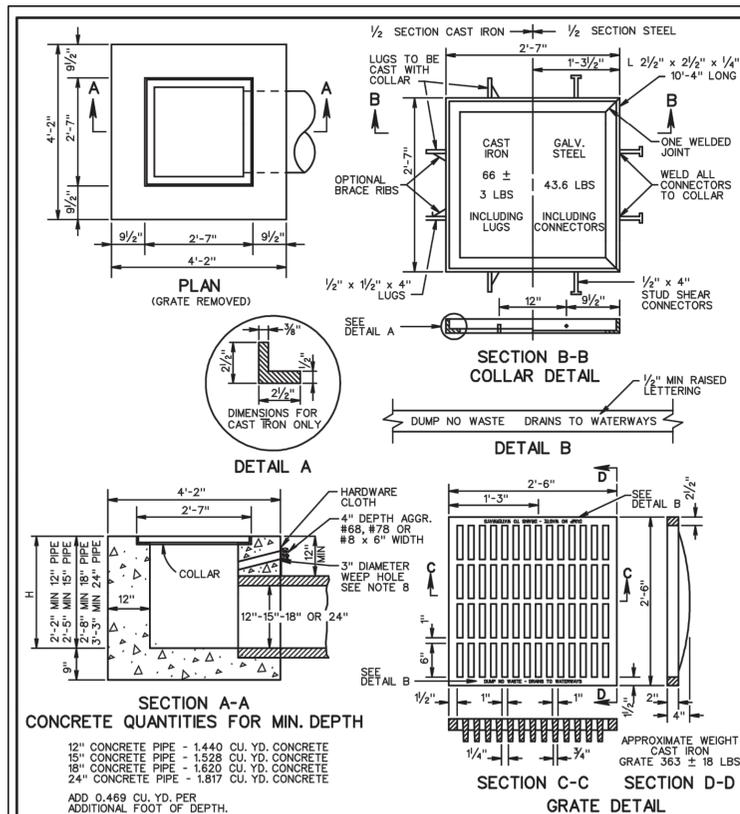
NOTE
1. EXPANSION JOINTS 1/2" WIDE PREMOULDED BIT MATERIAL SHALL BE INSTALLED AT 30' INTERVALS. CONTRACTION JOINTS TO BE SPACED AT EQUAL INTERVALS, 5' MAXIMUM LENGTH.

1 FULL DEPTH SECTION
C-005 | C-019 NOT TO SCALE
C-006
C-007

2 PAVEMENT MATCHING SECTION
C-007 | C-019 NOT TO SCALE

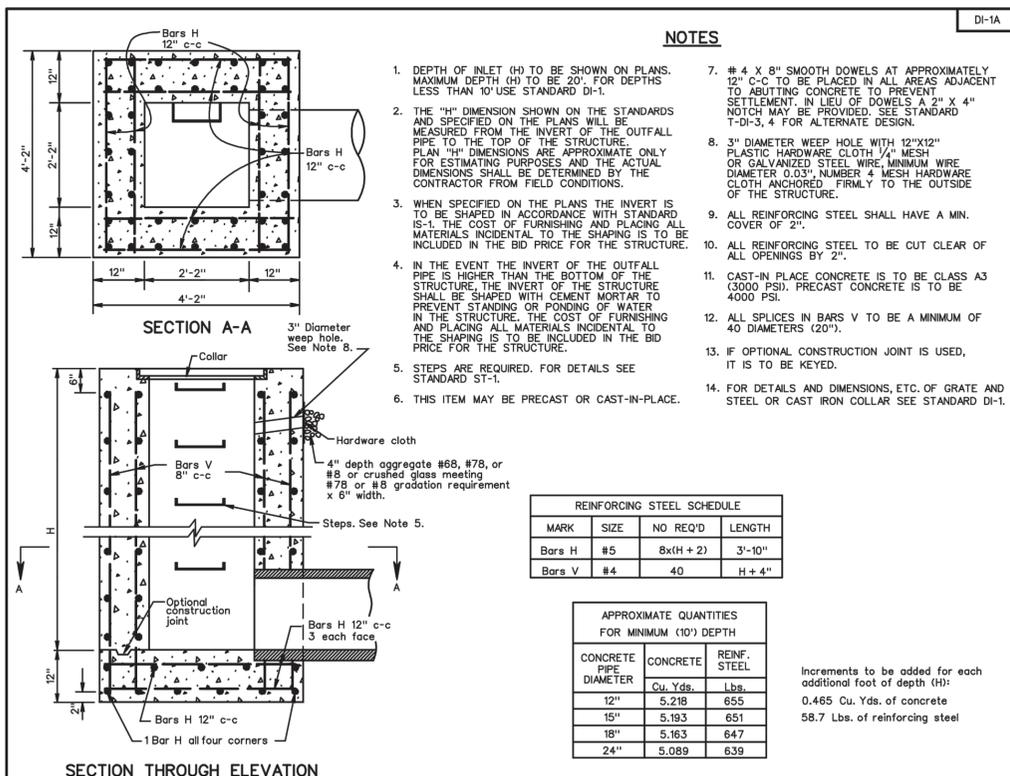
3 COMBINATION CURB + GUTTER
C-005 | C-019 NOT TO SCALE
C-006
C-007

4 CONCRETE SIDEWALK
C-005 | C-019 NOT TO SCALE
C-006
C-007



- NOTES**
- DEPTH OF INLET (H) TO BE SHOWN ON PLANS, FOR DEPTH GREATER THAN 10' USE STANDARD DI-1A
 - THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
 - WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD IS-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
 - IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO INLET SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
 - STEPS ARE TO BE PROVIDED WHEN H IS 4'-0" OR GREATER. FOR DETAILS SEE STANDARD ST-1.
 - THIS ITEM MAY BE PRECAST OR CAST-IN-PLACE.
 - #4 X 8" SMOOTH DOWELS AT APPROXIMATELY 12" C-C TO BE PLACED IN ALL AREAS ADJACENT TO ABUTTING CONCRETE TO PREVENT SETTLEMENT IN LIEU OF DOWELS A 2"x4" NOTCH MAY BE PROVIDED. SEE STANDARD T-DI-3, 4 FOR ALTERNATE DESIGN.
 - 3" DIAMETER WEEP HOLE WITH 12"x12" PLASTIC HARDWARE CLOTH 1/4" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03", NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
 - CAST IN PLACE CONCRETE IS TO BE CLASS A3 (3000 PSI). PRECAST CONCRETE IS TO BE 4000 PSI.
 - ANY ALTERNATE METHODS OF ANCHORAGE MEETING THE APPROVAL OF THE ENGINEER MAY BE SUBSTITUTED FOR THE CAST IRON LUGS AS SHOWN HEREON.
 - DUMP NO WASTE DRAINS TO WATERWAY LETTERING IS REQUIRED ON ALL DI-1 GRATES. LOCATION OF LETTERING MAY VARY BY MANUFACTURER.

STANDARD DROP INLET
12" - 24" PIPE: MAXIMUM DEPTH (H) = 10'
VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIFICATION REFERENCE: 233, 302
REV 8/07 104.01



REINFORCING STEEL SCHEDULE

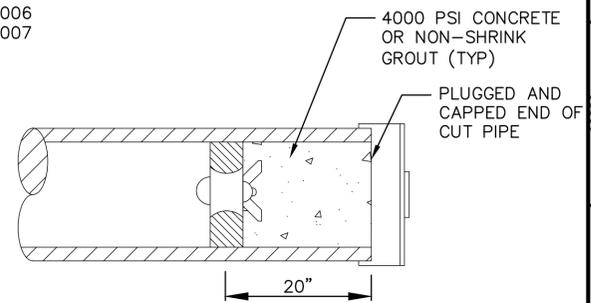
MARK	SIZE	NO REQ'D	LENGTH
Bars H	#5	8x(H+2)	3'-10"
Bars V	#4	40	H+4"

APPROXIMATE QUANTITIES FOR MINIMUM (10') DEPTH

CONCRETE PIPE DIAMETER	CONCRETE Cu. Yds.	REINF. STEEL Lbs.
12"	5.218	655
15"	5.193	651
18"	5.163	647
24"	5.089	639

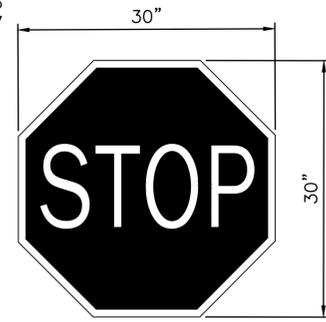
Increments to be added for each additional foot of depth (H):
0.465 Cu. Yds. of concrete
58.7 Lbs. of reinforcing steel

STANDARD DROP INLET
12" - 24" PIPE: DEPTH (H) 10' TO 20'
VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIFICATION REFERENCE: 233, 302
REV 8/07 104.02

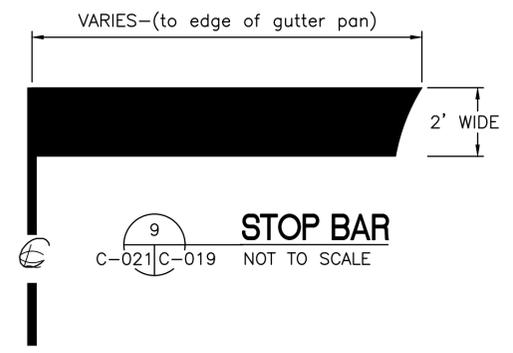


NOTES:
USE COMMERCIAL GRADE PIPE PLUG, CHERNE INDUSTRIES, INC. INSIDE GRIPPER PLUG OR EQUAL.

7 PIPE PLUG DETAIL
C-005 | C-019 NOT TO SCALE
C-006
C-007



8 STOP SIGN
C-021 | C-019 NOT TO SCALE

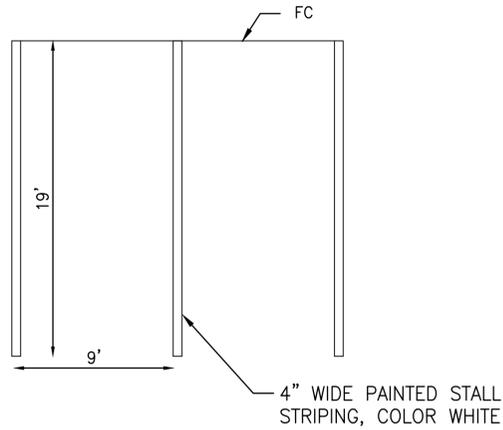


9 STOP BAR
C-021 | C-019 NOT TO SCALE

6 STANDARD DROP INLET
C-005 | C-019 NOT TO SCALE
C-006
C-007

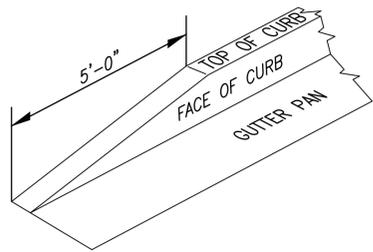
5 STANDARD DROP INLET
C-005 | C-019 NOT TO SCALE
C-006
C-007

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON
PUBLIC WORKS BRANCH
MARINE CORPS BASE QUANTICO
QUANTICO, VIRGINIA
DEMOLITION OF LARSON'S GYM (BLDG 2112),
BLDGS 2130/2131, & ANCILLARY STRUCTURES
CIVIL DETAILS - 1
SCALE: AS NOTED
HQM/QU1333M/PWB/2005438
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 3190100
SHEET 21 OF 40
C-019
DRAWING REVISION: 10 MARCH 2009



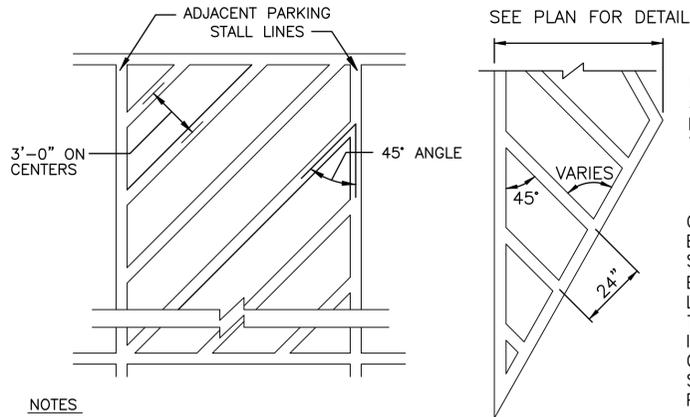
STANDARD PARKING SPACES

1
C-005 | C-020 NOT TO SCALE
C-006
C-007



CG-6 CURB TERMINUS

3
C-005 | C-020 NOT TO SCALE
C-006
C-007

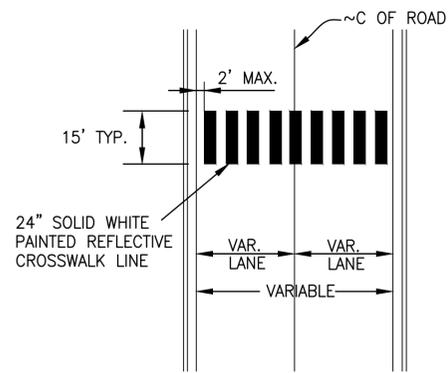


PAVEMENT MARKING

1. PAINTED STRIPING, 4" WIDE, COLOR TO MATCH EX COLOR SCHEME.
2. CONTRACTOR SHALL COORDINATE ALL PAVEMENT MARKINGS WITH THE OWNER PRIOR TO COMMENCEMENT OF PAINTING.

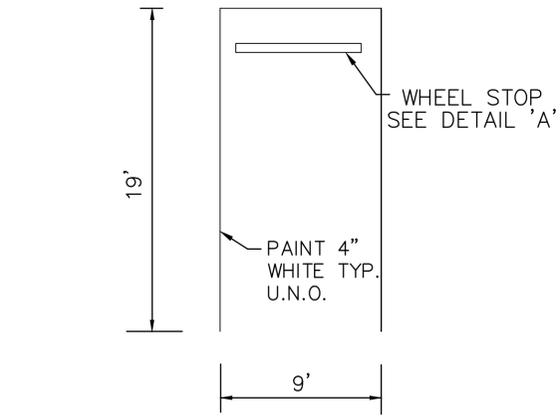
PAVEMENT MARKING

2
C-005 | C-020 NOT TO SCALE
C-006
C-007



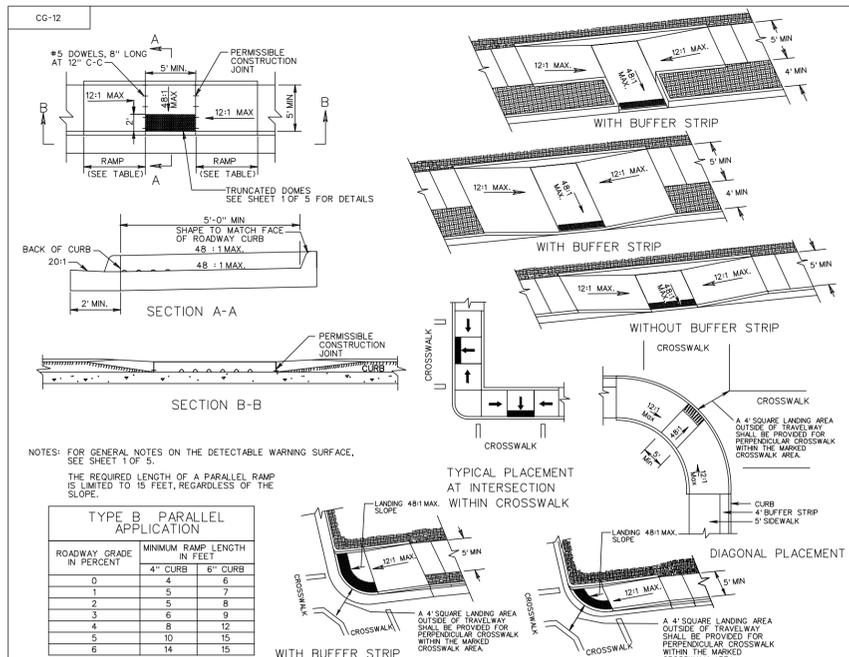
PEDESTRIAN CROSSWALK

6
C-021 | C-020 NOT TO SCALE



WHEEL STOP

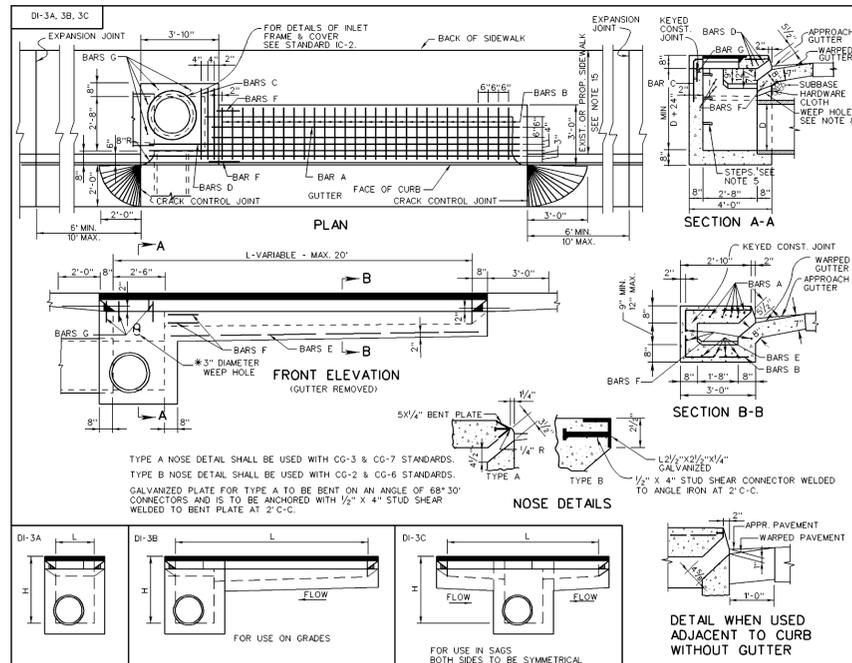
7
C-005 | C-020 NOT TO SCALE
C-006
C-007



CG-12 DETECTABLE WARNING SURFACE

HANDICAP RAMP

4
C-005 | C-020 NOT TO SCALE
C-006
C-007



DI-3C CURB INLET

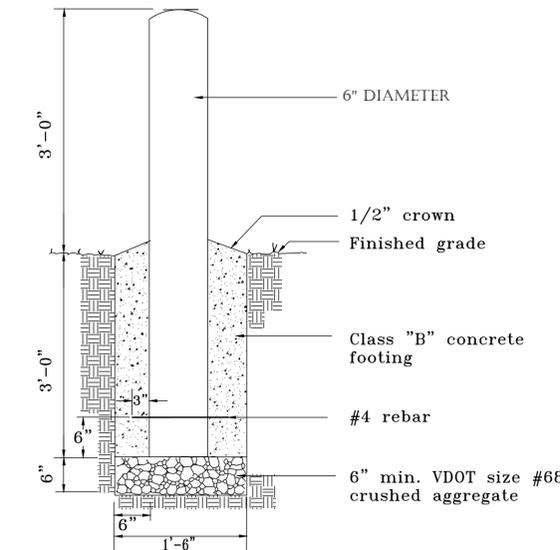
DI-3C CURB INLET

5
C-008 | C-020 NOT TO SCALE



NO PARKING SIGN

8
C-005 | C-020 NOT TO SCALE
C-006
C-007



BOLLARD

9
C-005 | C-020 NOT TO SCALE
C-006
C-007

DATE: _____
SYNOPSIS: _____
DESCRIPTION: _____

JOHN ALEXANDER DOBAK
Lic. No. 023976
5-20-16
PROFESSIONAL ENGINEER

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SUITE 200
DULLES, VA 20186
(703) 460-0000
www.alphacorpva.com

APPROVED: _____
PER. COMMANDER NAVFAC

ACTIVITY: _____

SATISFACTORY TO: DATE: _____
DES: _____ DRAW: _____ CHK: _____
BRANCH MANAGER: _____
CHIEF ENG/ARCH: _____

NAVAL FACILITIES ENGINEERING COMMANDANT
NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON
PUBLIC WORKS BRANCH
MARINE CORPS BASE QUANTICO
QUANTICO, VIRGINIA

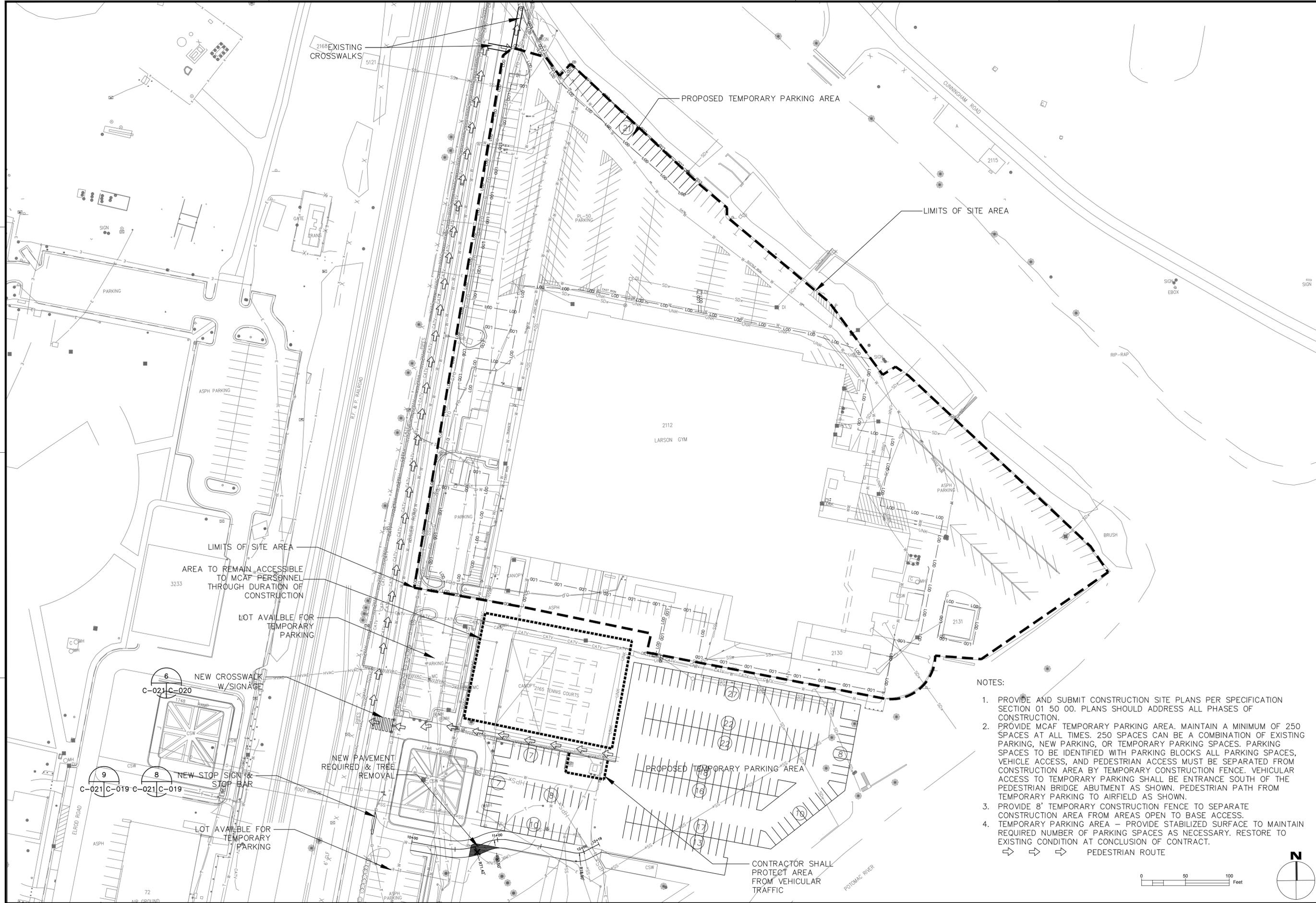
**DEMOLITION OF LARSON'S GYM (BLDG 2112),
BLDGS 2130/2131, & ANCILLARY STRUCTURES**

CIVIL DETAILS - 2

SCALE: AS NOTED
HQM#OU1333M;PWB#2005438
CONSTR. CONTR. NO. _____

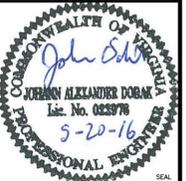
NAVFAC DRAWING NO. 3190101
SHEET 22 OF 40
C-020

DRAWING REVISION: 10 MARCH 2009

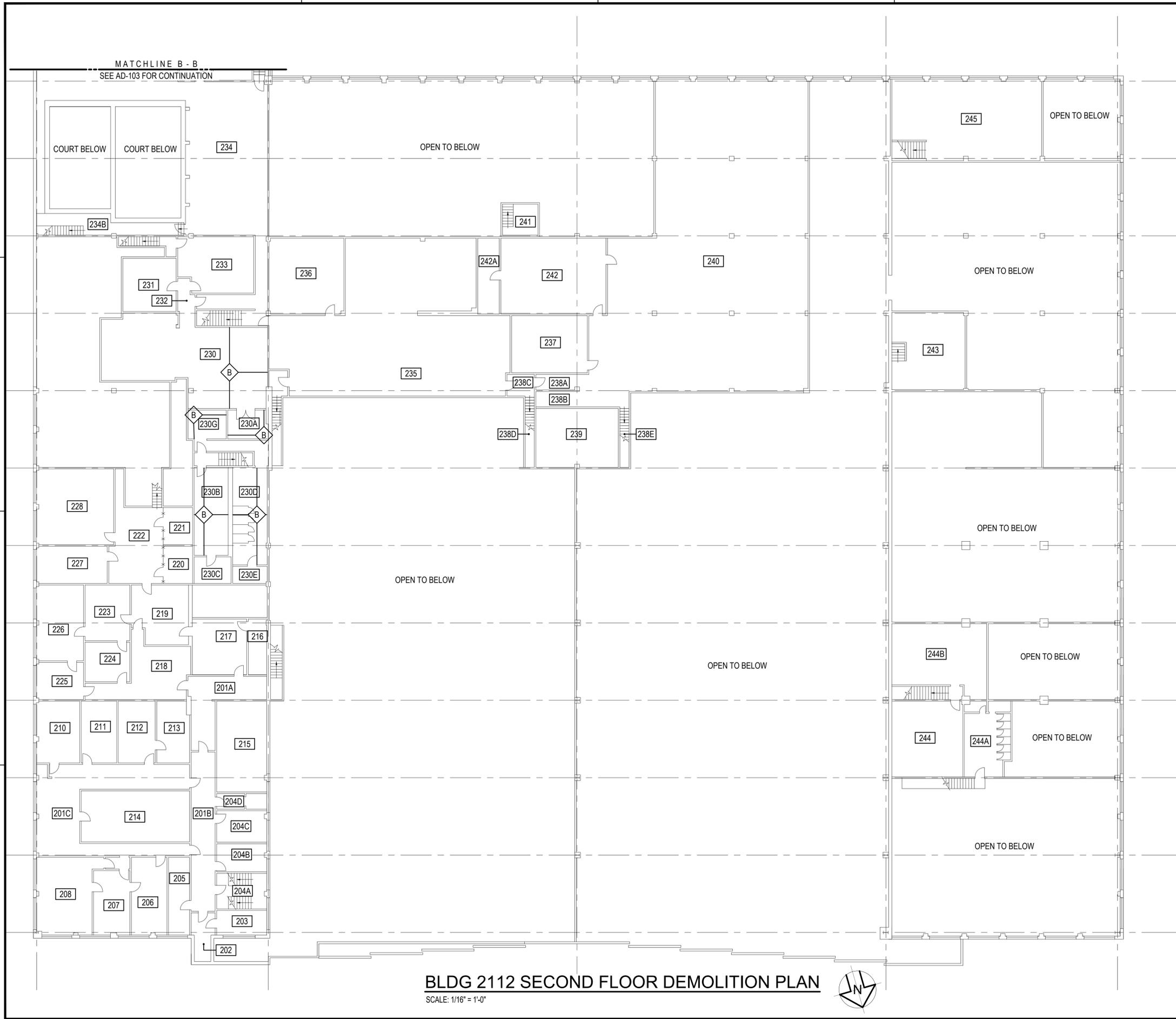


- NOTES:
1. PROVIDE AND SUBMIT CONSTRUCTION SITE PLANS PER SPECIFICATION SECTION 01 50 00. PLANS SHOULD ADDRESS ALL PHASES OF CONSTRUCTION.
 2. PROVIDE MCAF TEMPORARY PARKING AREA. MAINTAIN A MINIMUM OF 250 SPACES AT ALL TIMES. 250 SPACES CAN BE A COMBINATION OF EXISTING PARKING, NEW PARKING, OR TEMPORARY PARKING SPACES. PARKING SPACES TO BE IDENTIFIED WITH PARKING BLOCKS ALL PARKING SPACES, VEHICLE ACCESS, AND PEDESTRIAN ACCESS MUST BE SEPARATED FROM CONSTRUCTION AREA BY TEMPORARY CONSTRUCTION FENCE. VEHICULAR ACCESS TO TEMPORARY PARKING SHALL BE ENTRANCE SOUTH OF THE PEDESTRIAN BRIDGE ABUTMENT AS SHOWN. PEDESTRIAN PATH FROM TEMPORARY PARKING TO AIRFIELD AS SHOWN.
 3. PROVIDE 8' TEMPORARY CONSTRUCTION FENCE TO SEPARATE CONSTRUCTION AREA FROM AREAS OPEN TO BASE ACCESS.
 4. TEMPORARY PARKING AREA - PROVIDE STABILIZED SURFACE TO MAINTAIN REQUIRED NUMBER OF PARKING SPACES AS NECESSARY. RESTORE TO EXISTING CONDITION AT CONCLUSION OF CONTRACT.
- 


 PEDESTRIAN ROUTE

	DATE
	DESCRIPTION
	SYN
	
	
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APPROVED PER COMMANDER NAVFAC ACTIVITY	
SATISFACTORY TO DATE DES DRAW CHK	
BRANCH MANAGER CHIEF ENG/ARCH	
<<XXX>> />	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES LOGISTICS PLAN	
SCALE: AS NOTED HQMC#OU1333M/PWB#2005438 CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 3190102 SHEET 23 OF 40 C-021	
DRAWING REVISION: 10 MARCH 2009	

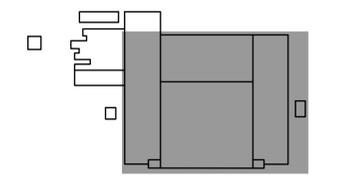
FILE NAME: AD-101.DWG
 OUR REF: 141.02
 PLOT DATE: 5/23/2016 2:43:52 PM



BLDG 2112 SECOND FLOOR DEMOLITION PLAN
 SCALE: 1/16" = 1'-0"

GENERAL NOTES

- G1. ALL ITEMS SHOWN SHALL BE DEMOLISHED UNLESS SPECIFICALLY NOTED OTHERWISE.
- G2. VERIFY LOCATION AND DIMENSIONS OF EXISTING STRUCTURES AND EQUIPMENT AND COORDINATE ALL WORK PRIOR TO THE START OF DEMOLITION.
- G3. SEE SHEET A-001 FOR ARCHITECTURAL DEMOLITION NOTES.



KEY PLAN
 SCALE: NO SCALE

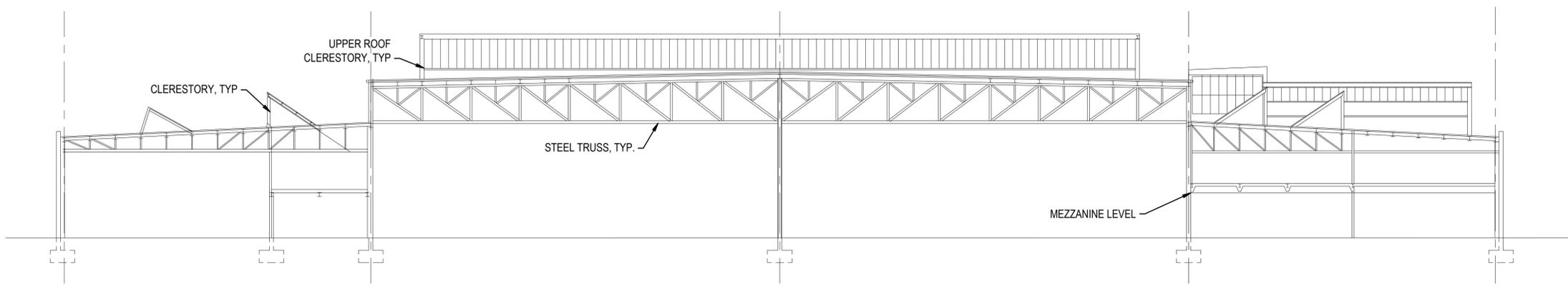


	DATE
	APPR
	DESCRIPTION
	SYN
	
	
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<small>APPROVED</small> <small>FOR COMMANDER NAVFAC</small> <small>ACTIVITY</small> <small>SATISFACTORY TO DATE</small> <small>DES</small> <small>DRW</small> <small>CHK</small> <small><<PM/DM>></small> <small>BRANCH MANAGER</small> <small>CHEF ENG/ARCH</small> <small><<CR>></small> <small>A</small>	
<small>DEPARTMENT OF THE NAVY</small> <small>NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON</small> <small>PUBLIC WORKS BRANCH</small> <small>MARINE CORPS BRANCH</small>	<small>QUANTICO, VIRGINIA</small> DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES SECOND FLOOR DEMOLITION PLAN
<small>SCALE: AS NOTED</small> <small>HQMC#QU1333M;PWB#2005438</small> <small>CONSTR. CONTR. NO.</small> <small>NAVFAC DRAWING NO. 3190105</small> <small>SHEET 26 OF 40</small> AD-102 <small>DRAWING REVISION: 10 MARCH 2009</small>	

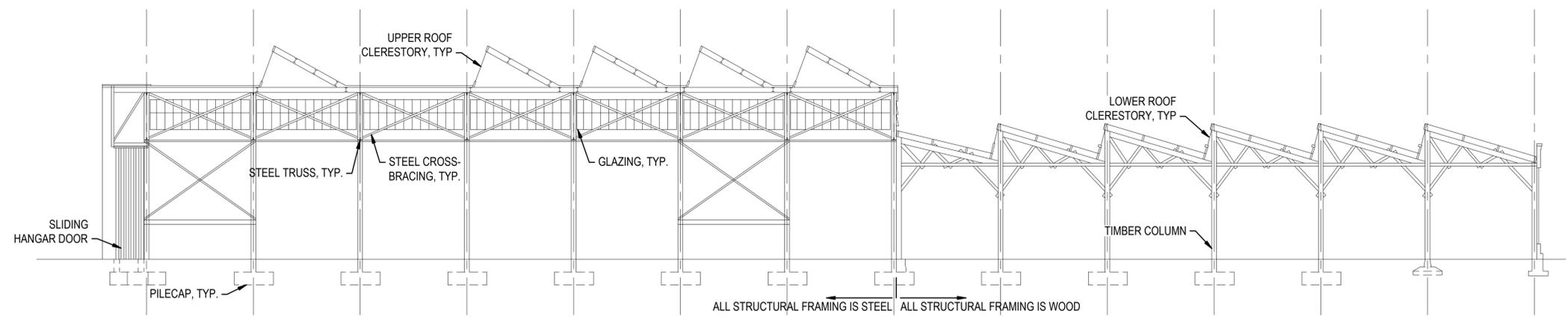
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GENERAL NOTES

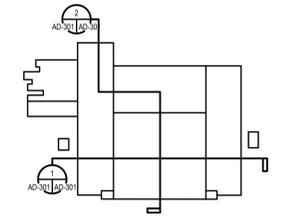
- G1. ALL ITEMS SHOWN SHALL BE DEMOLISHED UNLESS SPECIFICALLY NOTED OTHERWISE.
- G2. VERIFY LOCATION AND DIMENSIONS OF EXISTING STRUCTURES AND EQUIPMENT AND COORDINATE ALL WORK PRIOR TO THE START OF DEMOLITION.
- G3. SEE SHEET A-001 FOR ARCHITECTURAL DEMOLITION NOTES.



SECTION 1
BLDG 2112
 SCALE: 1/16" = 1'-0"



SECTION 2
BLDG 2112
 SCALE: 1/16" = 1'-0"



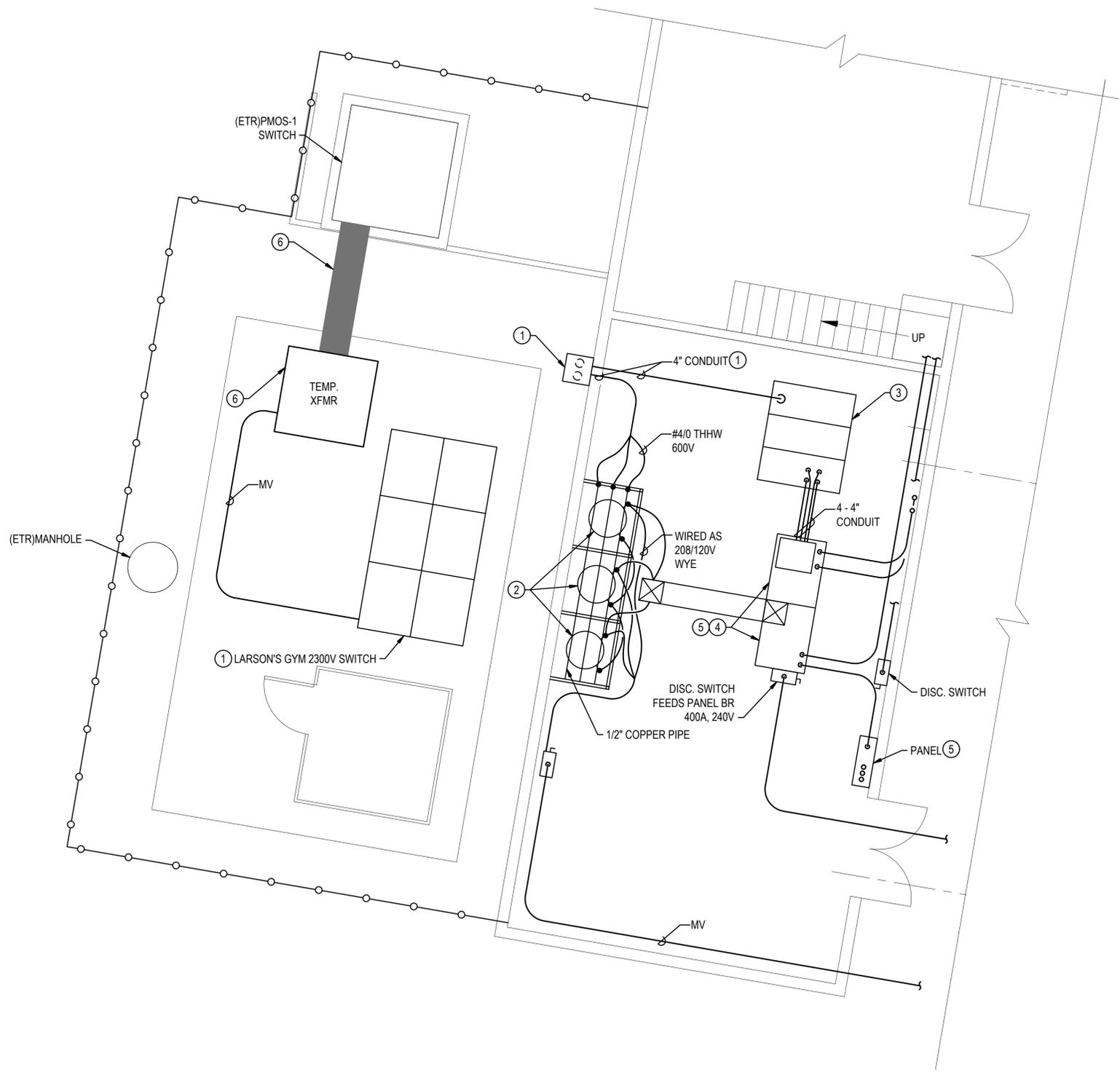
KEY PLAN
 SCALE: NO SCALE



DATE	APPR
DESCRIPTION	STA
 NAVFAC	
 GEORGE ANASTASI Lic. No. 032988 27 MAY 2016 PROFESSIONAL ENGINEER	
SUMMER CONSULTANTS INCORPORATED 6845 Elm Street Suite 200 McLean, VA 22101 (703) 556-8820 www.summerconsultants.com	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	CHK
<<PM/DM>>	
BRANCH MANAGER	
CHEF ENG/ARCH	
<<CRD>>	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES DEMOLITION SECTIONS	
SCALE:	AS NOTED
HQMC#	Q11333M;PWB#2005438
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	3190108
SHEET	29 OF 40
AD-301	
DRAWING REVISION: 10 MARCH 2009	

FILE NAME: AD-301.DWG
 OUR REF: 141.02
 PLOT DATE: 5/23/2016 2:44:08 PM

FILE NAME: ED-101.DWG
 OUR REF: 141.02
 PLOT DATE: 5/23/2016 2:44:18 PM

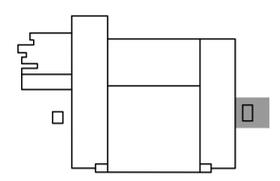


GENERAL NOTES

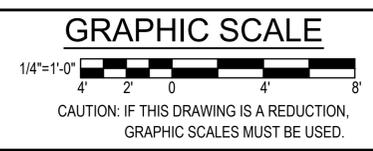
- G1. ALL WORK SHALL BE NEW AND PROVIDED UNDER THIS CONTRACT UNLESS SPECIFICALLY MARKED "EXISTING", "EXIST.", OR "(E)".
- G2. VERIFY LOCATION AND DIMENSIONS OF EXISTING EQUIPMENT AND COORDINATE ALL WORK PRIOR TO THE START OF CONSTRUCTION.
- G3. DEFINITION (DEMOLITION DRAWINGS ONLY): DISCONNECTION AND REMOVAL OF ASSOCIATED CONDUCTORS SHALL CONSIST OF THE REMOVAL OF THE CONDUCTORS BACK TO THE NEXT EXISTING DEVICE TO REMAIN. NEW CONDUIT AND CONDUCTORS SHALL BE PROVIDED TO RECONNECT ANY EXISTING TO REMAIN DEVICES INTERRUPTED BY THE DEMOLITION UNDER THIS PROJECT. DISCONNECTION AND REMOVAL OF ASSOCIATED CONDUIT SHALL INCLUDE ALL EXPOSED CONDUITS AND CONDUITS CONCEALED WITHIN DRYWALL SURFACES BACK TO NEXT EXISTING DEVICE. CUT AND PATCH DRYWALL SURFACES AS REQUIRED FOR REMOVAL OF CONDUIT, SEE ARCHITECTURAL DRAWINGS FOR ASSOCIATED DETAILS. FOR ALL CONDUITS THAT ARE EMBEDDED IN EXISTING CONCRETE OR MASONRY SURFACE, CHISEL AND CUT CONDUIT TO 1/2" BELOW EXISTING SURFACE. PATCH AND FINISH SURFACE TO MATCH ADJACENT.

NOTES

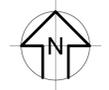
- ① OPEN THE 2300V SWITCHES SERVING THE EXISTING 2300V TO 240V AND 2300V TO 208/120V TRANSFORMERS IN BUILDING 2112. DISCONNECT AND REMOVE CONDUIT AND CONDUCTOR FROM PAD MOUNTED SWITCH TO THE 240V AND 208V TRANSFORMERS.
- ② DISCONNECT AND REMOVE THE 167KVA POLEMOUNTED TRANSFORMERS. REMOVE ALL ASSOCIATED CONDUIT AND CONDUCTORS TO SWITCHBOARD.
- ③ DISCONNECT AND REMOVE EXISTING 1500 KVA DRY TYPE TRANSFORMERS. REMOVE ALL ASSOCIATED CONDUIT AND CONDUCTOR TO SWITCHBOARD.
- ④ DISCONNECT AND REMOVE EXISTING 240V AND 208/120V SWITCHBOARDS.
- ⑤ DISCONNECT EXISTING PANEL BOARD. REMOVE ALL ASSOCIATED CONDUIT AND CONDUCTOR BACK TO SERVING SWITCHBOARD.
- ⑥ OPEN THE SWITCHES SERVING THE EXISTING TEMP. XFMR. DISCONNECT AND REMOVE TEMP XFMR. REMOVE ALL ASSOCIATED CONDUIT AND CONDUCTOR TO PMOS-1.



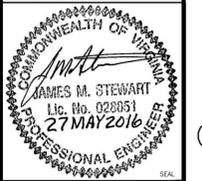
KEY PLAN
SCALE: NO SCALE



**BLDG 2112 FIRST FLOOR-
DEMOLITION PLAN - BASE BID**
SCALE: 1/4" = 1'-0"



NO.	DESCRIPTION	DATE	APPR.



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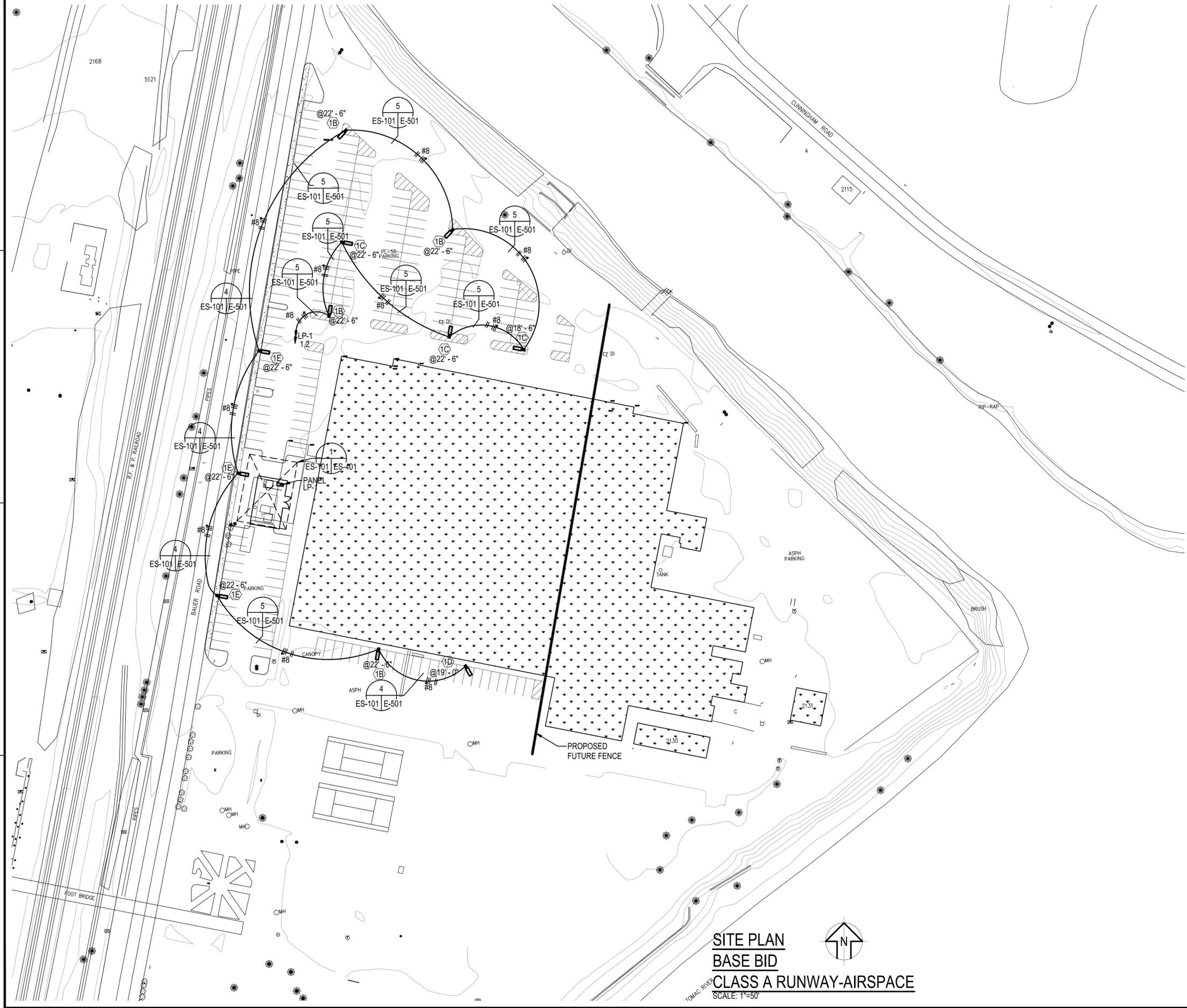
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES: DRW: CHK:
<<PM/DM>>
BRANCH MANAGER
CHEF ENGR/ARCH
<<CMD>> AC

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 PUBLIC WORKS BRANCH
 MARINE CORPS BRANCH
 QUANTICO, VIRGINIA
 DEMOLITION OF LARSON'S GYM (BLDG 2112),
 BLDGS 2130/2131, & ANCILLARY STRUCTURES
ELECTRICAL DEMOLITION - BASE BID

SCALE: AS NOTED
HQMC#QU1333M;PWB#2005438
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 3190110
SHEET 31 OF 40
ED-101

DRAWING REVISION: 10 MARCH 2009

FILE NAME: ES-101.DWG
 OUR REF: 141.02
 PROJECT: QUANTICO DEMOLISH LARSON'S GYM



GENERAL NOTES

- G1. ALL WORK SHALL BE NEW AND PROVIDED UNDER THIS CONTRACT UNLESS SPECIFICALLY MARKED "EXISTING", "EXIST.", OR "E".
- G2. VERIFY LOCATION AND DIMENSIONS OF EXISTING EQUIPMENT AND COORDINATE ALL WORK PRIOR TO THE START OF CONSTRUCTION.

NO.	DATE	DESCRIPTION



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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES: DJA | DRW: DJA | CHK: <<PM/DM>>

BRANCH MANAGER

CHIEF ENG/ARCH

<<CDD>> A

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON

PUBLIC WORKS BRANCH

MARINE CORPS BASE QUANTICO

QUANTICO, VIRGINIA

DEMOLITION OF LARSON'S GYM (BLDG 2112),

BLDGS 2130/2131, & ANCILLARY STRUCTURES

ELECTRICAL SITE PLAN - BASE BID/OPTION 1

SCALE: AS NOTED

HQMC#Q11333M;PWB#2005438

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 3190111

SHEET 32 OF 40

ES-101

DRAWING REVISION: 10 MARCH 2009

SITE PLAN
BASE BID
CLASS A RUNWAY-AIRSPACE
 SCALE: 1"=50'



D
C
B
A

D
C
B
A

1

2

3

4

5

1

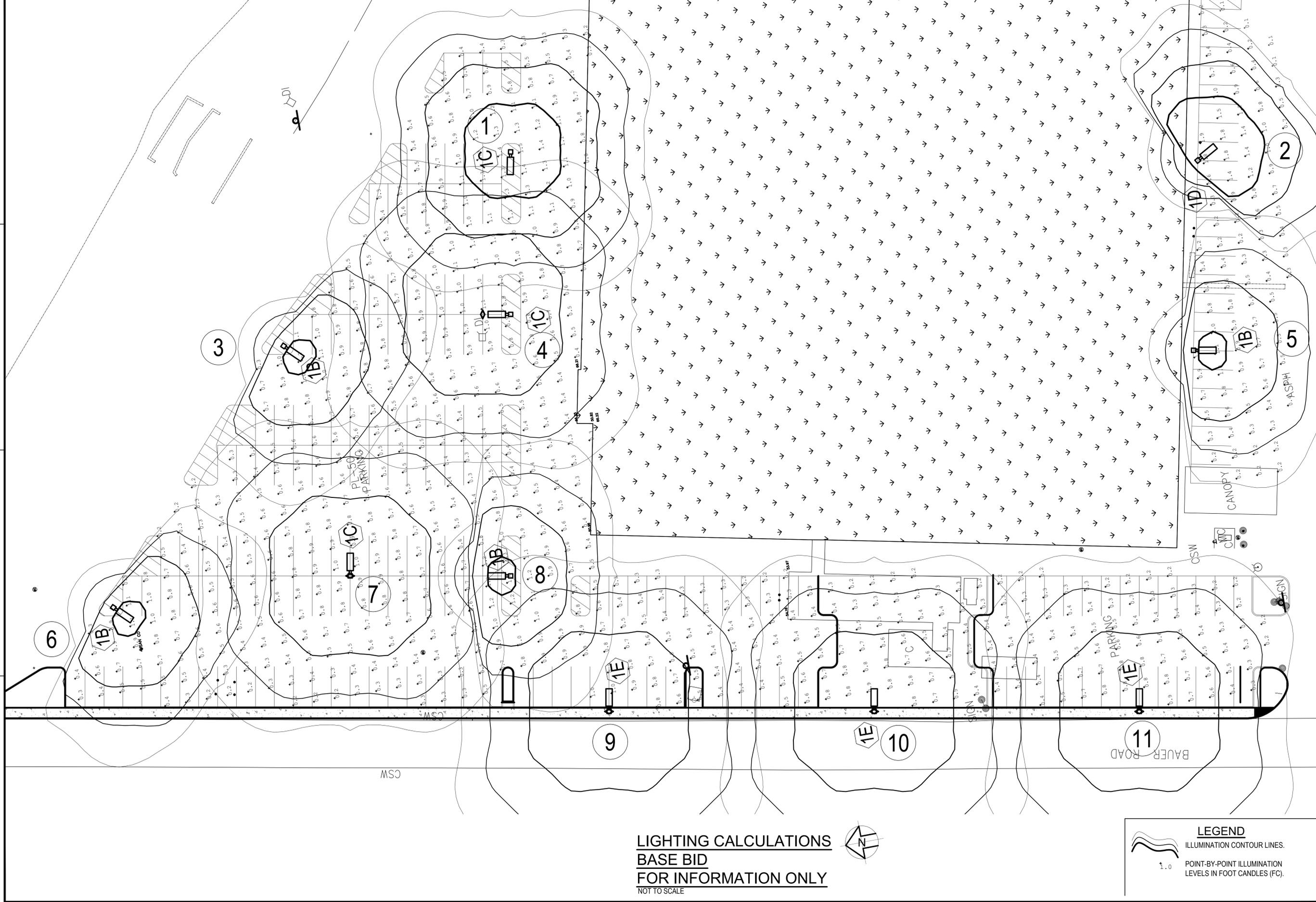
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3

4

5

FILE NAME: LC-101.DWG
 OUR REF: 141.02
 PROJECT: QUANTICO DEMOLISH LARSON'S GYM



**LIGHTING CALCULATIONS
 BASE BID
 FOR INFORMATION ONLY
 NOT TO SCALE**

LEGEND
 ILLUMINATION CONTOUR LINES.
 1.0 POINT-BY-POINT ILLUMINATION LEVELS IN FOOT CANDLES (FC).

APPROVED:	DATE:
FOR COMMANDER NAFAC:	DESCRIPTION:
ACTIVITY:	SYN:
SATISFACTORY TO DATE:	DATE:
DES: _____	DRW: _____
CHK: _____	CHK: _____
BRANCH MANAGER:	
CHEF ENGS/ARCH:	
CONTR. NO.:	
SCALE: AS NOTED	
HQMC#Q11333M;PWB#2005438	
CONSTR. CONTR. NO.:	
NAVFAC DRAWING NO.:	
3190115	
SHEET 36 OF 40	
LC-101	
DRAWING REVISION: 10 MARCH 2009	



COMMONWEALTH OF VIRGINIA
 JAMES M. STEWART
 Lic. No. 028051
 27 MAY 2016
 PROFESSIONAL ENGINEER



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DEPARTMENT OF THE NAVY
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 PUBLIC WORKS BRANCH
 MARINE CORPS BASE QUANTICO
 QUANTICO, VIRGINIA
 DEMOLITION OF LARSON'S GYM (BLDG 2112),
 BLDGS 2130/2131, & ANCILLARY STRUCTURES
 LIGHTING CALCULATIONS - BASE BID

1

2

3

4

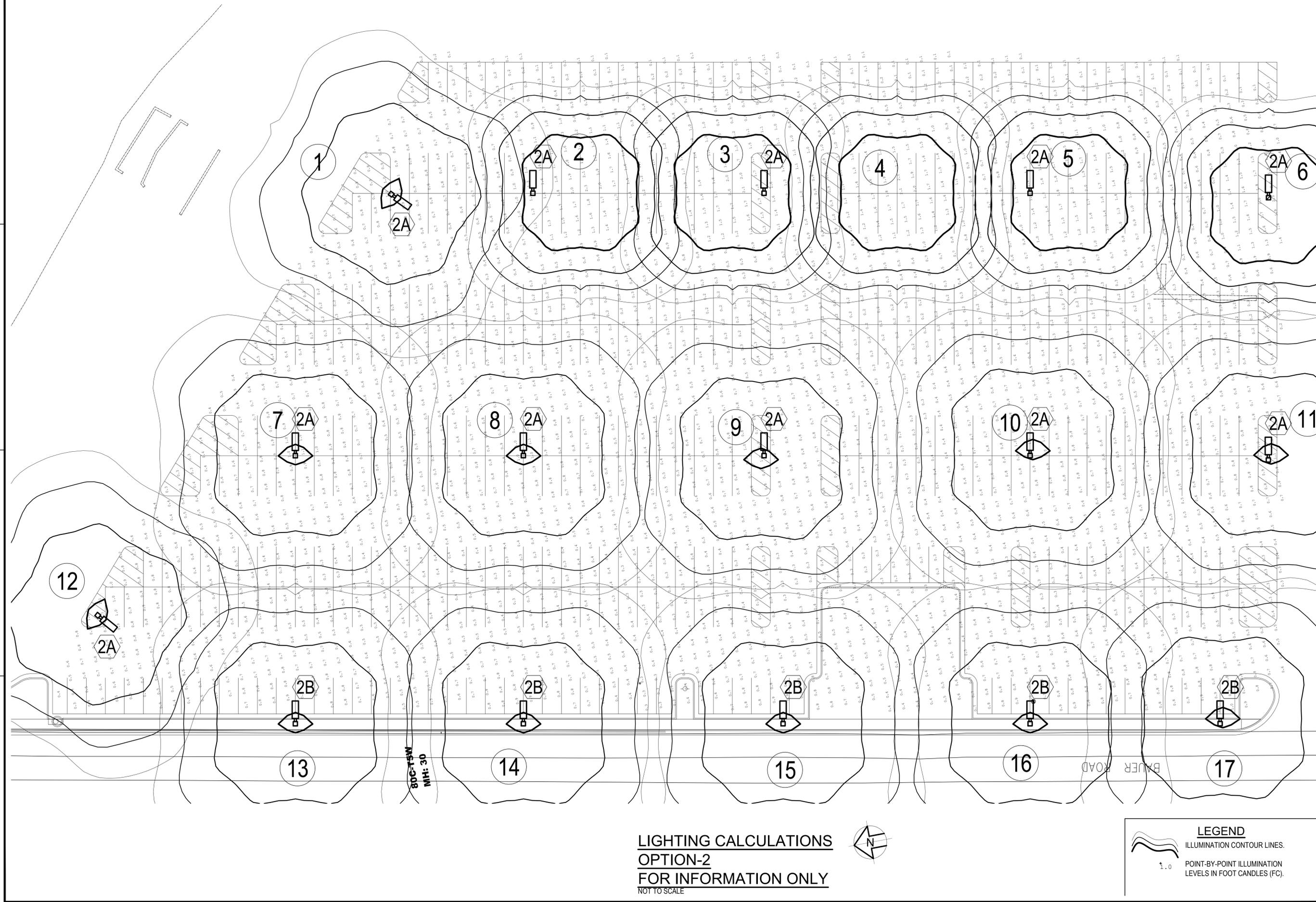
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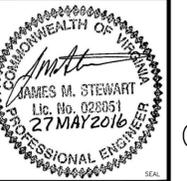
**LIGHTING CALCULATIONS
OPTION-2
FOR INFORMATION ONLY
NOT TO SCALE**

LEGEND

 ILLUMINATION CONTOUR LINES.

 POINT-BY-POINT ILLUMINATION LEVELS IN FOOT CANDLES (FC).

NO.	DESCRIPTION	DATE	APPR.



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DUALS, VA 20186
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www.alphacorporation.com

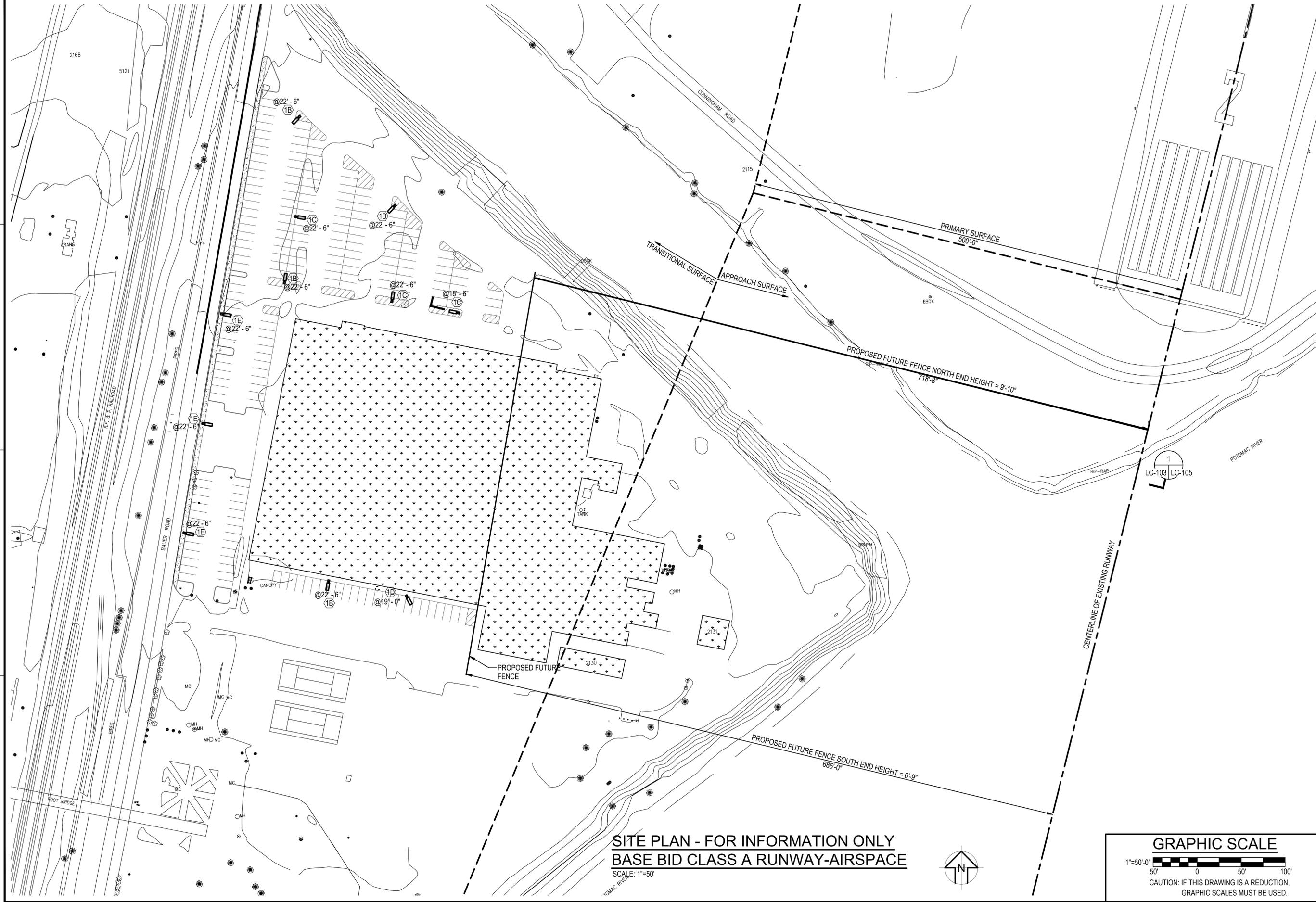
APPROVED	FOR COMMANDER NATAC
ACTIVITY	
SATISFACTORY TO DATE	
DES	DRW
CHK	
BRANCH MANAGER	
CHEF ENGS/ARCH	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON
PUBLIC WORKS BRANCH
MARINE CORPS BASE QUANTICO
QUANTICO, VIRGINIA
DEMOLITION OF LARSON'S GYM (BLDG 2112),
BLDGS 2130/2131, & ANCILLARY STRUCTURES
LIGHTING CALCULATIONS - OPTION-2

SCALE:	AS NOTED
HQMC#	QU11333M;PWB#2005438
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	3190116
SHEET	37 OF 40
LC-102	

FILE NAME: LC-102.DWG
OUR REF: 141.02
PROJECT: QUANTICO DEMOLITION LARSON'S GYM

DRAWING REVISION: 10 MARCH 2009



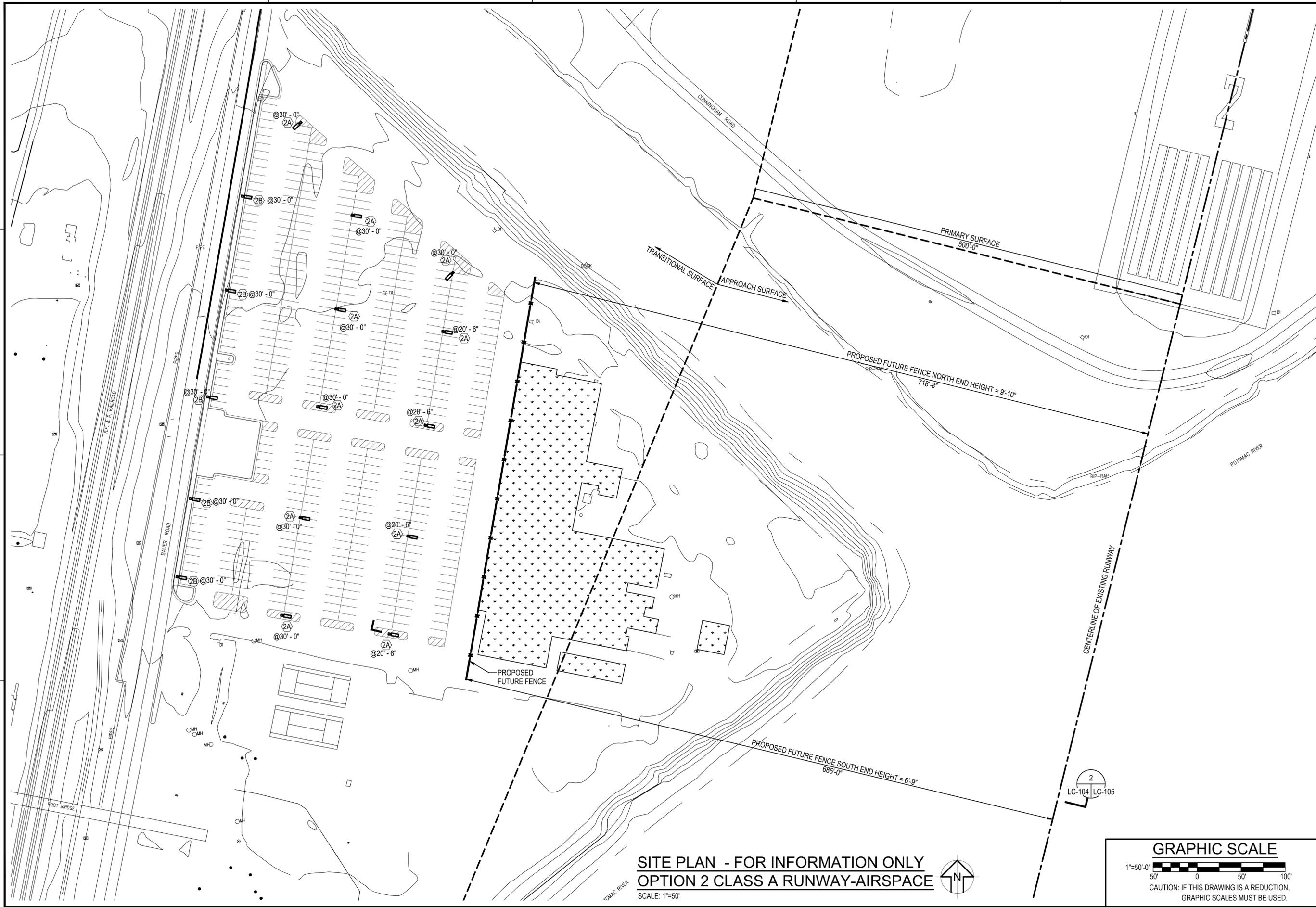
SITE PLAN - FOR INFORMATION ONLY
BASE BID CLASS A RUNWAY-AIRSPACE
 SCALE: 1"=50'



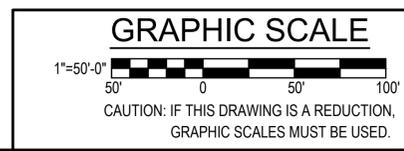
DATE	APPROVED
DESCRIPTION	DATE
SYN	DATE
6845 Elm Street Suite 200 McLean, VA 22101 (703) 556-8820 www.summerconsultants.com	
ALPHA CORPORATION 21351 RIDGETOP CIRCLE DALLAS, TX 75218 (703) 450-0900 www.alphacorporation.com	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	DRW
CHK	CHK
<<PM/DM>>	
BRANCH MANAGER	
CHEF ENG/ARCH	
<<CR>>	
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON	QUANTICO, VIRGINIA
PUBLIC WORKS BRANCH	MARINE CORPS BASE, QUANTICO, VA
MARINE CORPS BASE QUANTICO	QUANTICO, VIRGINIA
DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES LIGHTING SITE PLAN - BASE BID	
SCALE:	AS NOTED
HQMC#QU1333M;PWB#2005438	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	3190117
SHEET	38 OF 40
LC-103	
<small>DRAWING REVISION: 10 MARCH 2009</small>	

FILE NAME: LC-103.DWG
 OUR REF: 141.02
 PROJECT: QUANTICO DEMOLITION LARSON'S GYM

FILE NAME: LC-104.DWG
 OUR REF: 141.02
 PROJECT: QUANTICO DENGLISH LARSON'S GYM



SITE PLAN - FOR INFORMATION ONLY
OPTION 2 CLASS A RUNWAY-AIRSPACE
 SCALE: 1"=50'



DATE	APPR
DESCRIPTION	SYN
 NAVFAC	
 JAMES M. STEWART Lic. No. 028051 27 MAY 2016 PROFESSIONAL ENGINEER	
SUMMER CONSULTANTS INCORPORATED 6845 Elm Street Suite 200 McLean, VA 22101 (703) 556-8820 www.summerconsultants.com	
 ALPHA CORPORATION 21551 RIDGETOP CIRCLE, SUITE 200 DALLAS, TX 75218 (703) 450-0900 www.alphacorporation.com	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	CHK
<<PM/DM>>	
BRANCH MANAGER	
CHEF ENG/ARCH	
<<CR>>	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON PUBLIC WORKS BRANCH MARINE CORPS BRANCH QUANTICO, VIRGINIA QUANTICO, VIRGINIA DEMOLITION OF LARSON'S GYM (BLDG 2112), BLDGS 2130/2131, & ANCILLARY STRUCTURES LIGHTING SITE PLAN - OPTION 2	
SCALE:	AS NOTED
HQMC#	Q11333M;PWB#2005438
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	3190118
SHEET	49 OF 40
LC-104	
DRAWING REVISION: 10 MARCH 2009	

