GOVERNMENT OF THE DISTRICT OF COLUMBIA

DEPARTMENT OF GENERAL SERVICES

Engine Company 15, Training Area Renovation

2101 14th Street SE., Washington, D.C. 20020

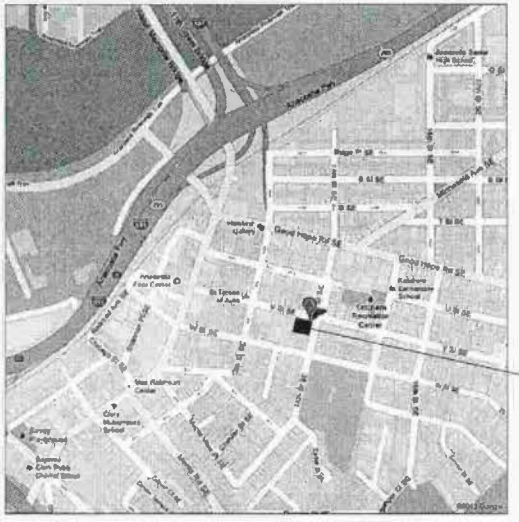
FINAL SET SUBMISSION

SEPTEMBER 27, 2013

PROJECT NARRATIVE

THIS PROJECT IS LOCATED AT 2101 14TH ST. S.E. WASHINGTON DC. PROPOSED SITE IMPROVEMENTS INCLUDE EXPANSION AND RE-CONSTRUCTION OF EXISTING CONCRETE PARKING LOT, REMOVE AND RE-BUILD RETAINING WALL, NEW BIO-RETENTION AREA FOR STORM WATER MANAGEMENT, AND NEW SIDEWALK AT PUBLIC AREA. THE EXISTING SITE IS APPROXIMATELY 0.31 ACRES AND COVERED BY CONCRETE PAVEMENT AND GRASS AREA. ELEVATION OF THE SITE VARIES FROM 68.3 AT SOUTH EAST CORNER TO 51 AT SIDEWALK AT NORTH WEST CORNER.

THE PROJECT INVOLVES ONLY OUTSIDE PARKING LOT IMPROVEMENTS, NO BUILDING WORK AND NO DOMESTIC AND FIRE WATER LINE CONNECTIONS, AND ALSO NO SANITARY SEWER CONNECTIONS.



LOCATION MAP
NOT TO SCALE

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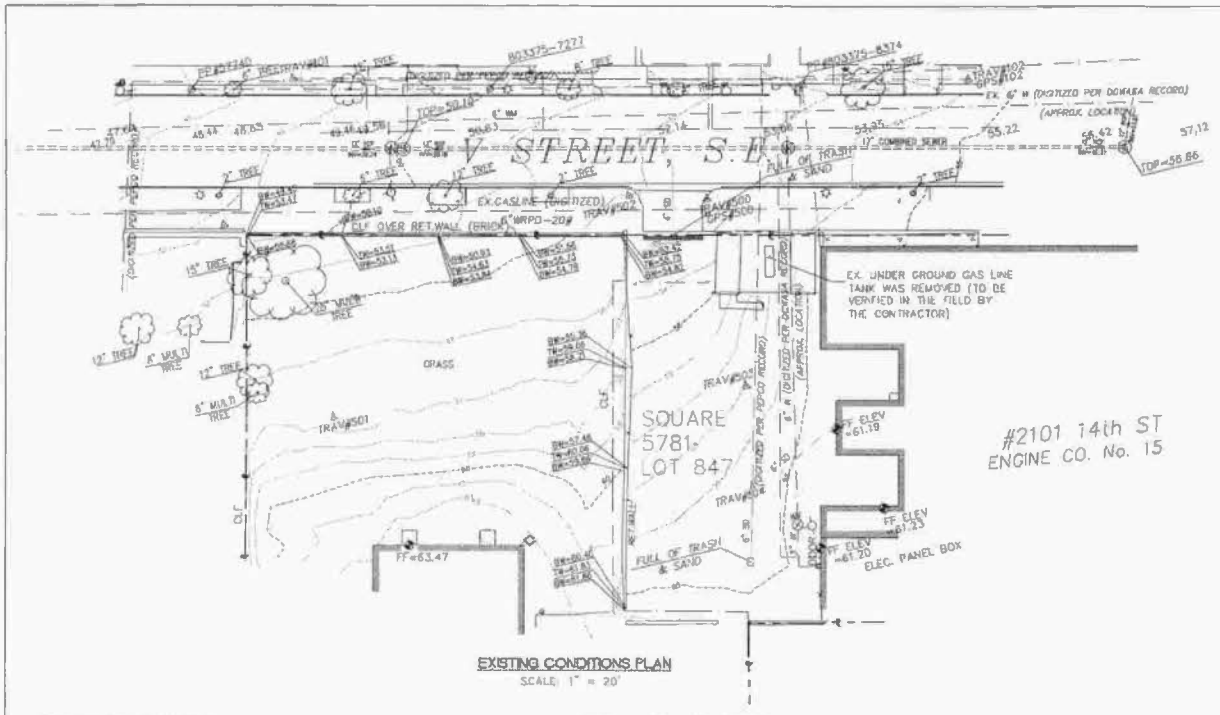
COVER SHEET

Engine Company 15, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20001

CS-1



EXISTING CONDITIONS PLAN
SCALE: 1" = 20'

EXISTING CONDITIONS LEGEND

	STORM MH	TW	TOP OF WALL ELEVATION
	GROUND LIGHT	BW	BOTTOM OF WALL ELEVATION
	WATER SHUT OFF	EXT.	EXTENSION
	SIGN		HANDICAP RAMP
U	UTILITY MH		TELEPHONE POLE
	LIGHT POLE		TRAFFIC LIGHT POLE
E	ELEC. MH		GUY
	GAS VALVE	EXST	EXISTING
	GAS METER	REC.	RECORD INFORMATION
S	SANITARY MH	MST.	MEASURED INFORMATION
	YARD GRATE-INLET		ROOF DRAIN W/CONC. BASE
W	WATER MH		EXST. FIRE HYDRANT
	WATER VALVE	C&G	CURB & GUTTER
	WATER METER	CLF	CHAIN LINK FENCE
PM	PARKING METER	WF	WOODEN FENCE
	CHAIN LINK FENCE	PL	PLANTER
	BOLLARD	CO	CLEAN OUT
	TREE		GENERATOR (NATURAL GAS OR OTHER)
	BUSH	RF	REBAR FOUND
	TRAVERSE	R/C	REBAR WITH CAP
S/W	SIDEWALK	FND	FOUND
TYP.	TYPICAL	O/E	OPEN END
CONC.	CONCRETE		BENCHMARK
R/W	RETAINING WALL		
IPF	IRON PIPE FOUND		
E	ELECTRIC LINE		
W	WATER LINE		
G	GAS LINE		
I	IRON PIPE FOUND		

GENERAL SURVEY NOTES

1. HORIZONTAL DATUM NADB3

   VERTICAL DATUM WERE BASED ON DC DPW BENCH MARK:

   BM#13 -181 N.E. CORNER 1ST STEP AT BLDG #2249 14TH STREET, S.E. IN THE VICINITY OF 14TH STREET BETWEEN CEDAR AND HIGH STREETS, S.E., WASHINGTON, D.C

   BM#13-180 S.W CORNER 1ST TERRACE STEP AT BLDG #2124 14TH STREET, S.E IN THE VICINITY OF N.E. CORNER 14TH AND W STREETS, S.E., WASHINGTON, D.C

2. PROPERTY ZONED: "R-3" ROW DWELLINGS & FLATS *ALL ZONING INTERPRETATIONS AND RELATED ISSUES ARE TO BE DONE BY A QUALIFIED ZONING ATTORNEYS PRACTICING IN THE DISTRICT OF COLUMBIA.

3. PROPERTY SHOWN HEREON LIES WITHIN FLOOD ZONE "X" - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN AS ESTABLISHED BY THE U.S. FEDERAL EMERGENCY MANAGEMENT AGENCY, NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 11000 1007BC, MAP REVISED DATE SEPTEMBER 27, 2010

4. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT REFLECT EASEMENTS, PROPERTY LINES AND OTHER RESTRICTIONS OF RECORD.

5. UNDERGROUND UTILITIES SHOWN HEREON, IF ANY, WERE LOCATED FROM AVAILABLE RECORDS AND SURFACE INDICATIONS. SUBSURFACE INVESTIGATIONS WERE NOT PERFORMED. ALL UNDERGROUND UTILITY LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. FOR MARKING OF UNDERGROUND UTILITY LINES, CALL MISS UTILITY AT 1-800- 257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.

6. CONTOUR = 1 FOOT

EXISTING CONDITION NOTES

1. THIS DRAWING IS ADAPTED FROM THE SURVEY INFORMATION PROVIDED BY KULTEC, INC. MARCH 7, 2011 (7205 CESSNA AVE, SUITE D, GAITHERSBURG, MARYLAND 20879-4161) , AND FIELD OBSERVATIONS CONDUCTED BY DHA. THE INFORMATION CONTAINED IN THIS DRAWING SHOULD BE CONSIDERED APPROXIMATE. FIELD VERIFICATION MUST BE CONDUCTED PRIOR TO ANY EXCAVATION OR CONSTRUCTION.

2. THE UTILITY INFORMATION SHOWN IS NOT NECESSARILY COMPLETE AND THE GENERAL LOCATIONS SHOWN ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES WELL IN ADVANCE OF CONDUCTING ANY OPERATIONS WHICH COULD DAMAGE OR INTERRUPT THESE FACILITIES IN AREAS WHERE THE PROPOSED CONSTRUCTION MAY CONFLICT WITH THE EXISTING UTILITIES.

3. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES. IF AN UNDERGROUND UTILITY IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S CONSTRUCTION MANAGER. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE AND BELOW GROUND SHALL BE REPAIRED BY CONTRACTOR AT HIS OWN EXPENSE TO THE SATISFACTION OF THE OWNER'S CONSTRUCTION MANAGER.

4. IT SHALL BE THE DUTY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS GIVEN ON THE DRAWINGS AND REPORT TO THE OWNER'S CONSTRUCTION MANAGER ANY ERROR OR INCONSISTENCY WITH THE ACTUAL CIRCUMSTANCES IN THE FIELD PRIOR TO COMMENCING WORK.

NOTE

PROPERTY BOUNDARY SHOWN IS BASED ON PLAT PROVIDED BY DC SURVEYOR'S OFFICE NOT FROM FIELD SURVEY. IT IS APPROXIMATE AND FOR REFERENCE ONLY.

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

GPS CONTROL STATIONS
MARYLAND STATE PLANE COORDINATE - NAD83

NO.	NORTHING	EASTING	COMBINED FACTOR	DESCRIPTION
102	436483.3515	1316308.9283	0.999990767	GPS POINT - TRAV#102
500	436464.8010	1316214.0770	0.999989865	GPS POINT - TRAV#500

TRAVERSE INFORMATION TABLE

NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
101	436535.1757	1316088.7450	48.96	-------
102	436483.3515	1316308.9283	54.79	-------
500	436464.8010	1316214.0770	52.65	-------
501	436422.8294	1316076.4254	56.42	-------
502	436471.8653	1316188.6525	52.05	-------
503	436401.5017	1316212.5389	57.94	-------
504	436389.0316	1316207.5605	59.40	-------

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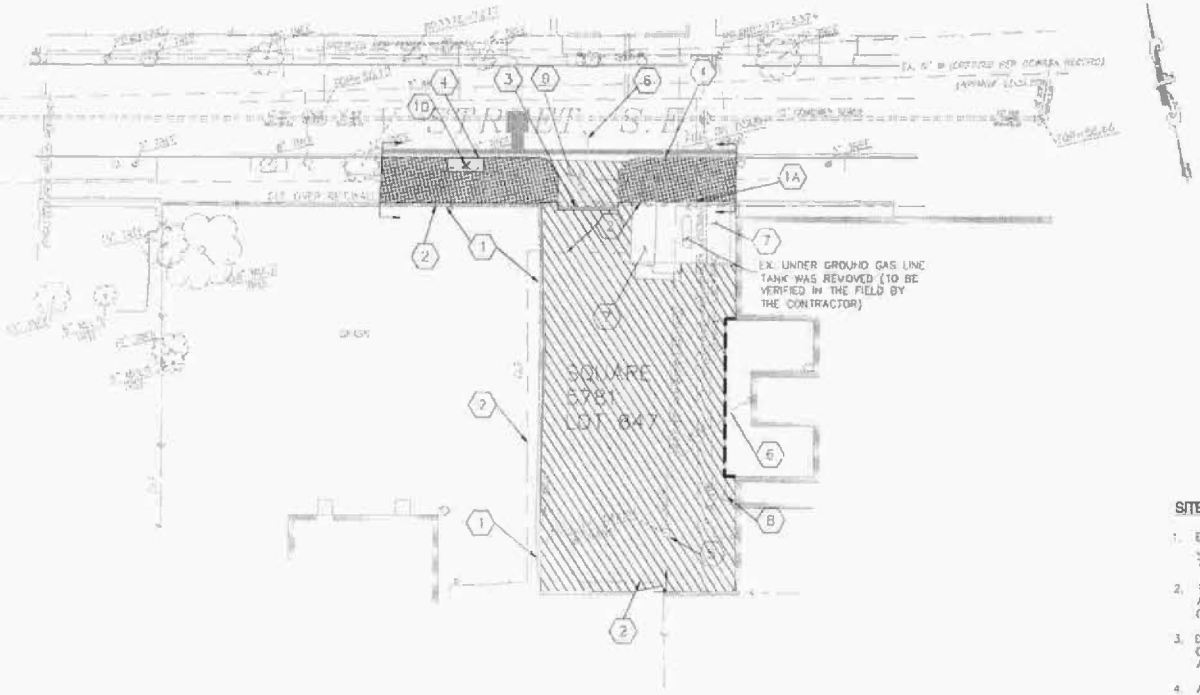
EXISTING SITE CONDITION PLAN

Engine Company 15, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

C-1.00



SITE DEMOLITION PLAN
SCALE: 1" = 20'
GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

SITE DEMOLITION LEGEND

- EXISTING CONCRETE PAVEMENT AND BASE TO BE REMOVED.
- EXISTING RED BRICK SIDEWALK TO BE REMOVED AND SALVAGED FOR RE-USE.
- EXISTING ASPHALT PAVEMENT AND BASE TO BE REMOVED.
- LIMIT OF DEMOLITION/REMOVAL.
- SAW CUT LINE.

SITE DEMOLITION CODED NOTES:

1. EXISTING RETAINING WALL AND BASE TO BE REMOVED WITHIN LIMITS SHOWN
1A. RED BRICK FACING ON EXISTING RETAINING WALL TO BE REMOVED.
2. EXISTING CHAIN LINK FENCE AND GATE TO BE REMOVED. LARGE STEEL POSTS TO BE SALVAGED FOR RE-USE
3. EXISTING TRENCH DRAIN TO BE REMOVED
4. EXISTING GRANITE CURB AND GUTTER TO BE REMOVED.
5. EXISTING INLET TO BE REMOVED.
6. EXISTING STORM DRAIN PIPE TO BE ABANDONED AND CAPPED PER DC WATER STANDARD.
7. EXISTING CONC. STORAGE DECK AND FOUNDATION TO BE REMOVED.
8. EXISTING FIRE HYDRANT TO BE REMOVED.
9. EXISTING CONC. DRIVEWAY TO BE REMOVED.
10. EXISTING 2" TREE (BLACK GUM) TO BE REMOVED.

SITE DEMOLITION NOTES

1. EXISTING PAVEMENT SHALL BE SAW CUT BEFORE REMOVAL. ALL SAW CUTS SHALL BE STRAIGHT, EVEN CUTS; JAGGED EDGES SHALL NOT BE PERMITTED. THE SAW CUT DEPTH SHALL EXTEND AT LEAST 1/3 TIMES THE THICKNESS OF THE EXISTING PAVEMENT TO REMAIN IN PLACE.
2. THE CONTRACTOR SHALL TAKE PROPER PRECAUTIONS SO AS NOT TO DAMAGE EXISTING FACILITIES, STRUCTURES, AND LANDSCAPING THAT ARE TO REMAIN. THE CONTRACTOR SHALL RESTORE DAMAGED AREAS TO THEIR ORIGINAL CONDITION OR BETTER UNLESS NOTED OTHERWISE.
3. DUE TO THE PROXIMITY OF LIVE UNDERGROUND AND OVERHEAD UTILITIES, DELON HAMPTON & ASSOCIATES, CHARTERED IS NOT RESPONSIBLE FOR ANY DAMAGE OR INJURY SUSTAINED DURING CONSTRUCTION BY ANY PERSON, VEHICLES OR EQUIPMENT USED ON OR ADJACENT TO THE SITE.
4. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL MEET CURRENT DCDOT STANDARDS & MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
5. ANY UNCHARTED FOOTINGS, STRUCTURES, UTILITIES, ETC. ENCOUNTERED DURING EXCAVATION/DEMOLITION WORK SHALL BE REMOVED AS DIRECTED BY THE OWNER'S REPRESENTATIVES. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY IF THIS SITUATION OCCURS.
6. EXISTING SMALL TREES, BRUSHES, VEGETATIONS, SIGNS, SIGN POSTS, BUMPER BLOCKS, BOLLARDS AND OTHER SIMILAR ITEMS, WHETHER OR NOT SHOWN ON THESE PLANS, SHALL BE REMOVED AS PART OF THE BASIC CLEARING AND DEMOLITION WORK.
7. PAVEMENT, SIDEWALK, AND CURB/GUTTER REMOVAL REQUIRED FOR UTILITY DEMOLITION AND INSTALLATION WORK SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS UTILITY ITEMS. THIS REMOVAL IS GENERALLY NOT SHOWN ON THESE PLANS.
8. ALL PIPES TO REMAIN SHALL BE CAPPED PER DC WATER STANDARDS.
9. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PREPARING SIDEWALK, ALLEY AND STREET CLOSURE AS WELL AS OBTAINING PERMITS FOR SUCH CLOSURES THROUGH THE DC GOVERNMENT.
10. ADJACENT STREETS AND ALLEYS SHALL BE MAINTAINED IN A CLEAN CONDITION, MUD AND DUST FREE. ADEQUATE MEANS AND FACILITIES SHALL BE PROVIDED BY THE CONTRACTOR TO CLEAN TRUCKS AND OTHER EQUIPMENT LEAVING THE SITE.
11. ALL DEBRIS, TRASH, RUBBLE, STUMPS, PIPES, ABANDONED EQUIPMENT AND OTHER DEMOLISHED ITEMS SHALL BE REMOVED IN ITS ENTIRETY FROM THE SITE.

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CERTIFICATION

Revisions	Date	Description	By	App

PROJECT DRAWING

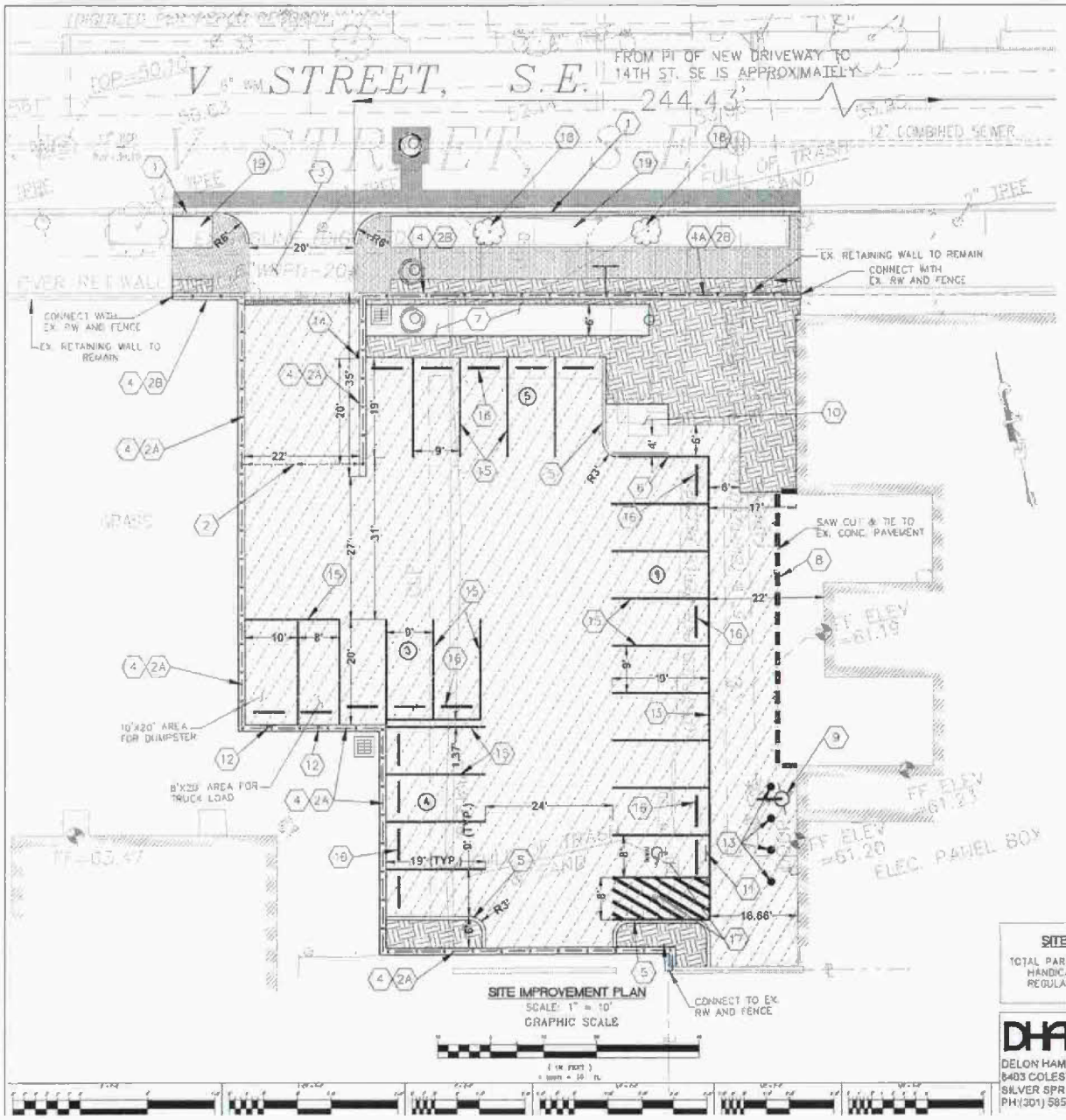
SITE DEMOLITION PLAN

Engine Company 15, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

C.A.D.

Drawing No.
C-2.00



SITE IMPROVEMENT LEGEND

- NEW CONCRETE PAVEMENT AND BASE
- NEW RED BRICK SIDEWALK
- NEW ASPHALT PAVEMENT AND BASE
- NEW LANDSCAPE AREA
- LIMIT OF IMPROVEMENT
- (17) NEW PAVEMENT MARKINGS FOR HANDICAP PARKING
- (18) NEW TREE (2-2.5" CALIPER, MILDRIC BLACK GUM) COORDINATE WITH DCDOT UFA FOR MORE REQUIREMENTS
- (19) NEW 8' CONTINUOUS TREE BOX PER DCDOT STANDARD

SITE IMPROVEMENT CODED NOTES

1. REUSE AND RESET BLUE STONE CURB AND BRICK GUTTER.
2. NEW 20' WIDE CHAIN LINK FENCE GATE (DOUBLE SWING). SEE ELECTRICAL PLAN LT-06 FOR DETAILS.
2A. NEW CHAIN LINK FENCE OVER RETAINING WALL.
2B. NEW WOOD PLANK FENCE OVER RETAINING WALL.
3. NEW TYPE A CONCRETE ENTRANCE W/GRANITE CURB RETURN.
4. NEW CONCRETE RETAINING WALL/COPING W/BRICK FACING. MATCH COLOR WITH EXISTING. SEE C 3.08-3.09 FOR DETAILS.
4A. REPLACE BRICK FACING ON EX. RETAINING WALL. MATCH COLOR WITH EXISTING WALL. SEE DDOT DETAIL 703.05.
5. NEW CONCRETE CURB.
6. NEW CONCRETE CURB END.
7. NEW BIORETENTION AREA. SEE SHEET C-3.03 AND C-3.04 FOR DETAILS.
8. NEW SAW CUT LINE.
9. REPLACE EXISTING FIRE HYDRANT WITH NEW FIRE HYDRANT PER DC STANDARD.
10. NEW 8'X6' CONCRETE BASE FOR GENERATOR.
11. NEW HANDICAP PARKING SIGN.
12. NEW NO PARKING SIGN.
13. NEW PROTECTION BOLLARDS.
14. NEW ELECTRIC ACCESS CARD READER FOR GATE. SEE ELECTRICAL PLAN FOR DETAILS.
15. NEW 4" WHITE PARKING MARKING LINE (TYP.).
16. NEW CONCRETE WHEEL STOP (TYP.).

SITE IMPROVEMENTS NOTES

1. SEE C-3.02 FOR PROPOSED SITE UTILITY PLAN.
2. TIES TO EXISTING PAVEMENT AREAS SHOULD BE SMOOTH CONSISTENT TRANSITIONS. NO ABRUPT CHANGE IN LINE AND/OR GRADE WILL BE PERMITTED.
3. POSITIVE DRAINAGE SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION. PONDING OR STANDING WATER WILL NOT BE PERMITTED.
4. IT SHALL BE THE RESPONSIBILITY OF CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. SURFACED STREETS AND PARKING AREAS SHALL BE MAINTAINED IN A CLEAN CONDITION MUD AND DUST FREE AT ALL TIMES. ADEQUATE MEANS SHALL BE PROVIDED TO CLEAN TRUCKS AND OTHER EQUIPMENT USING SURFACED STREETS AND PARKING AREAS.
6. THE EXISTING SURROUNDING FACILITIES ARE TO REMAIN IN OPERATION WHILE CONSTRUCTION WORK IS BEING DONE. ALL UTILITY WORK SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AND SHALL BE PERFORMED IN AN EXPEDITIOUS MANNER TO MINIMIZE ANY IMPACTS ON EXISTING FACILITY OPERATIONS.
7. THE CONTRACTOR SHALL TAKE PROPER PRECAUTIONS SO AS NOT TO DAMAGE EXISTING ADJACENT FACILITIES AND STRUCTURES. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION OR BETTER UNLESS NOTED OTHERWISE.
8. UTILITIES NOT SHOWN FOR PLAN CLARITY.
9. SEE C3.07 DDOT DETAIL 816.09 FOR TYPICAL TRAFFIC CONTROL PLAN FOR UTILITY CONNECTION AND SIDEWALK WORK.
10. CONTRACTOR SHALL SEND A BRICK SAMPLE TO DCHPO MR. TIM DENNEE (202-442-8847) FOR REVIEW AND APPROVAL.
11. SEE TREE PROTECTION NOTES ON C 4.03.

SITE DATA

TOTAL PARKING SPACE	21
HANDICAPPED PARKING	1
REGULAR PARKING	20

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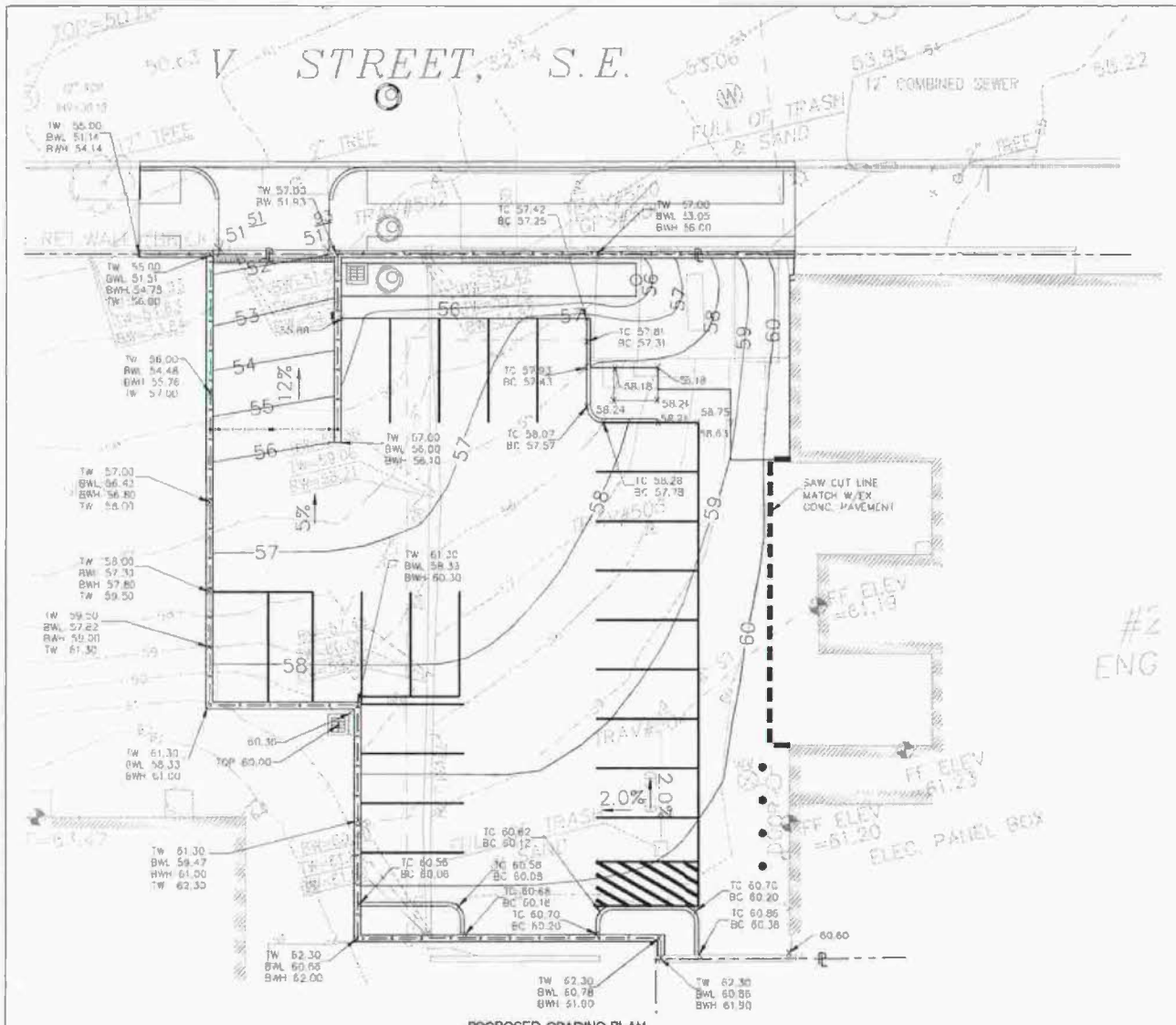
SITE IMPROVEMENT PLAN

Eagles Company 15, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

C-3.00



PROPOSED GRADING PLAN

SCALE: 1" = 10'

GRAPHIC SCALE

GRADING AND SPOT ELEVATION LEGEND

TC	TOP OF CURB ELEVATION
BC	BOTTOM OF CURB ELEVATION
TW	TOP OF WALL
BWH	BOTTOM OF WALL AT HIGH SIDE
BWL	BOTTOM OF WALL AT LOW SIDE

EXISTING MAJOR CONTOUR

EXISTING MINOR CONTOUR

50 PROPOSED CONTOUR

GRADING NOTES

1. TIES TO EXISTING PAVEMENT AREAS SHALL BE SMOOTH CONSISTENT TRANSITIONS. NO ABRUPT CHANGE IN LINE AND /OR GRADE WILL BE PERMITTED.
2. POSITIVE DRAINAGE SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION. PONDING OR STANDING WATER WILL NOT BE PERMITTED.
3. IT SHALL BE THE RESPONSIBILITY OF CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. UNDERGROUND UTILITY LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL CALL MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
5. SEE SHEET C4.00 FOR RETAINING WALL PROFILE.

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PROPOSED GRADING PLAN

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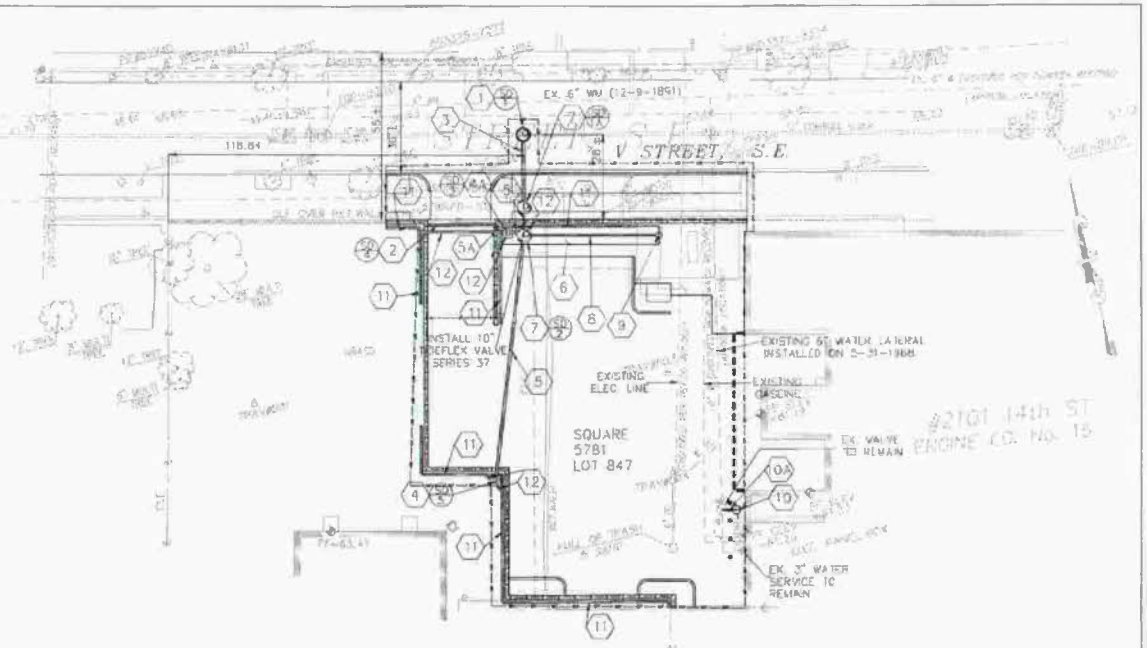
C-3.01

DC WATER GENERAL CONSTRUCTION NOTES

1. CONTACT: NOTIFY THE FOLLOWING DC WATER DEPARTMENTS PRIOR TO THE COMMENCEMENT OF UTILITY CONSTRUCTION
   A. CONSTRUCTION INSPECTION SECTION AT 202-787-4024 AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF UTILITY CONSTRUCTION TO SCHEDULE PRE-CONSTRUCTION MEETING.
   B. WATER SERVICES AT 202-612-3400 OR 3400 AT LEAST ONE WEEK PRIOR TO THE COMMENCEMENT OF UTILITY CONSTRUCTION.
   C. SEWER SERVICES AT 202-264-3824 OR 3829 AT LEAST ONE WEEK PRIOR TO THE COMMENCEMENT OF UTILITY CONSTRUCTION.
2. STANDARDS: ALL CONSTRUCTION MATERIALS, AND APPURTENANCES SHALL COMPLY WITH THE LATEST EDITIONS OF DC WATER PROJECT DESIGN MANUAL, STANDARD DETAILS & DESIGN GUIDELINES, AND SPECIFICATIONS.
3. LEAD SERVICE REPLACEMENT: IF THIS PROJECT INCLUDES THE REPLACEMENT OF A WATER MAIN THAT HAS EXISTING LEAD WATER SERVICE LATERALS, THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE DC WATER CONSTRUCTION INSPECTION SECTION AT 202-787-4024 AT LEAST 90 DAYS PRIOR TO CONSTRUCTION TO ALLOW ADEQUATE TIME TO INITIATE STANDARD LEAD SERVICE REPLACEMENT PROTOCOL.
4. OWNER RESPONSIBILITY: THE OWNER IS RESPONSIBLE FOR ALL WORK COSTS ASSOCIATED WITH EXCAVATION, INSTALLATION, AND RESTORATION OF PUBLIC SPACE TO PERFORM A WATER/SEWER CONNECTION/ABANDONMENT. ONCE THE CONTRACTOR HAS OBTAINED A PUBLIC SPACE PERMIT HE/SHE MUST THEN CONTACT DC WATER PRIOR TO PERFORMING THE EXCAVATION TO INSTALL/INSPECT THE UTILITY WORK. THE OWNER SHALL BE HELD RESPONSIBLE FOR ALL DAMAGES TO EXISTING STRUCTURES AND UTILITIES CAUSED BY CONSTRUCTION ACTIVITY.
5. DC WATER RESPONSIBILITY: DC WATER IS RESPONSIBLE FOR INSTALLATION OF SMALL WATER SERVICE TAPS (2" DIAMETER AND LESS) TO THE PUBLIC MAIN, SMALL WATER SERVICE TAP REMOVALS FROM THE PUBLIC MAIN, FURNISHING AND INSTALLING THE METER IN PUBLIC SPACE, AND INSPECTION OF WORK PERFORMED ON THE PUBLIC SYSTEM.
6. MISS UTILITY: CONTACT MISS UTILITY AT 800-257-7777 48 HOURS BEFORE DIGGING.
7. PLAN SET: A SET OF SIGNED & SEALED AND DC WATER STAMPED PLANS SHALL BE KEPT AT ALL TIMES AT THE JOB SITE ON WHICH ALL CHANGES OR VARIATIONS IN THE WORK, INCLUDING ALL EXISTING UTILITIES, ARE TO BE RECORDED AND/OR CORRECTED DAILY.
8. ABANDONMENT: THE OWNER MUST PHYSICALLY DISCONNECT EXISTING WATER, SEWER, AND STORM LATERALS THAT ARE TO BE ABANDONED AT THEIR CONNECTION TO THE PUBLIC MAIN.
9. UNMETERED WATER: THERE SHALL BE NO UNMETERED CONNECTIONS TO THE CITY'S WATER SYSTEM, INCLUDING CONNECTIONS BYPASSING METERS FOR TESTING ON-SITE PLUMBING OR FOR OBTAINING CONSTRUCTION WATER.
10. PRESSURE TESTING AGAINST VALVES: PRESSURE TESTING AGAINST VALVES WILL NOT BE ALLOWED.
11. WATER METER INSTALLATION: TO SCHEDULE THE INSTALLATION OF A DOMESTIC WATER METER CONTACT DC WATER AT 202-612-3600. DC WATER WILL FURNISH AND INSTALL THE METER AFTER THE CONNECTION TO THE MAIN HAS BEEN MADE AND THE METER PIT/VAULT HAS BEEN INSTALLED.
12. CROSS CONTAMINATION CONTROL: ASSE 1048 CERTIFIED BACK FLOW PREVENTION ASSEMBLIES ARE REQUIRED ON ALL FIRE SERVICES AND ARE TO BE LOCATED INSIDE THE BUILDING (UNLESS AN EXTERNAL LOCATION IS NECESSARY OR REQUIRED BY DC WATER), WHERE IT IS SUPPLIED, OWNED, OPERATED, AND MAINTAINED BY THE OWNER. DC WATER DOES NOT FURNISH NOR INSTALL FIRE DOUBLE CHECK DETECTOR FIRE PROTECTION BACK FLOW PREVENTION ASSEMBLIES.
13. UTILITY SERVICE DISRUPTIONS: PHASE ALL UTILITY WORK TO MAINTAIN UTILITY SERVICES TO THE SURROUNDING AREA DURING ALL PHASES OF CONSTRUCTION. LIMIT REQUIRED UTILITY SHUT-DOWNS IN NUMBER AND DURATION. COORDINATE THESE SHUT DOWNS WITH DC WATER CONSTRUCTION INSPECTION STAFF.
14. WATER VALVE OPERATION: THE CONTRACTOR IS REQUIRED TO COORDINATE WITH DC WATER FOR ALL NECESSARY WATER MAIN SHUT DOWNS WITH ADEQUATE ADVANCED NOTICE. ONLY DC WATER EMPLOYEES MAY SHUT DOWN A PUBLIC WATER MAIN. A CERTIFIED PLUMBER IS ONLY AUTHORIZED TO TURN OFF VALVES INSIDE METER PITS.
15. WATER GATE VALVE LOCATION: LOCATE GATE VALVES FOR DOMESTIC AND FIRE SERVICES AS CLOSE TO THE PUBLIC WATER MAIN TEE AS POSSIBLE. HOWEVER, IF NECESSARY ADJUSTMENTS ARE REQUIRED DUE TO CONFLICTS COORDINATE WITH A DC WATER INSPECTOR.
16. MATERIAL: THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SHOP CUTS TO THE APPROPRIATE DC WATER OFFICE FOR APPROVAL OR OBTAINING A DC WATER APPROVAL STAMP FOR ALL WORK IN PUBLIC SPACE IN ADVANCE OF INSTALLATION. ONLY APPROVED MATERIALS MAY BE USED.
17. TEMPORARY CONDITIONS MINIMUM COVER: A NORMAL FOUR FEET OF COVER IS REQUIRED FOR ALL WATER MAINS AT FINAL GRADE. COVER OF LESS THAN FOUR FEET REQUIRES DC WATER APPROVAL.
18. AS-BUILT: DEVELOPERS, CONTRACTORS AND/OR PLUMBERS MUST SUBMIT FINAL CONSTRUCTION AS-BUILT INFORMATION TO THE APPROPRIATE DC WATER INSPECTOR(S) FOR REVIEW AND APPROVAL UPON COMPLETION OF INSTALLATION OF NEW SERVICES OR ABANDONMENT OF EXISTING SERVICES. WHEN THE FINAL AS-BUILT IS APPROVED THE DEPOSIT WILL BE RETURNED TO THE APPLICANT. SEE DC WATER AS-BUILT REQUIREMENTS FOR ADDITIONAL INFORMATION.
19. CONFLICTS: THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING DC WATER INFRASTRUCTURE PRIOR TO INSTALLATION OF PROPOSED UTILITIES. A MINIMUM OF ONE FOOT VERTICAL AND FIVE FEET HORIZONTAL CLEARANCE FROM OTHER UTILITIES SHALL BE MAINTAINED.
20. FIRE HYDRANT USE: THE USE OF A FIRE HYDRANT AS A WATER SOURCE IS PROHIBITED UNLESS A PERMIT HAS BEEN OBTAINED FROM DC WATER FOR USE OF A SPECIFIC HYDRANT(S) DAILY OR EXTENDED USE PERMITS CAN BE OBTAINED FROM DC WATER PERMIT OPERATIONS DEPARTMENT.
21. FIRE HYDRANT STATUS: THE CONTRACTOR SHALL NOTIFY FEMS AT 202-377-1889, PRIOR TO TAKING ANY FIRE HYDRANT OUT OF SERVICE OR RENDERING ANY HYDRANT INACCESSIBLE FOR ANY REASON. FEMS IS ALSO TO BE PROVIDED WITH THE LOCATION OF ANY NEW INSTALLATION OF PRIVATE FIRE HYDRANTS.
22. DC WATER SAFETY OFFICE: THE DC WATER SAFETY OFFICE CAN BE CONTACTED AT 202-787-4350.
23. SEWER BACKERWATER PREVENTION: THE PLUMBING SYSTEM MUST BE INCOMPLIANT WITH SECTION 715 OF THE 2009 INTERNATIONAL PLUMBING CODE WHICH STATES A BACKWATER VALVE IS REQUIRED FOR ALL PLUMBING FIXTURES BELOW THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER.



SITE UTILITY PLAN
SCALE: 1" = 20'

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

SITE UTILITY LEGEND

- STORMDRAIN STRUCTURE ID#
- STORMDRAIN MANHOLE
- STORMDRAIN INLET
- FIRE HYDRANT
- STORM CLEANOUT
- STORM TRENCH DRAIN
- STORMDRAIN PIPE
- LIMIT OF DISTURBANCE

(11) NEW 8" PERF. PVC FOUNDATION DRAIN FOR RETAINING WALL

(12) NEW 8" PVC FOUNDATION DRAIN FOR RETAINING WALL

UTILITY CONSTRUCTION NOTES

1. UNDERGROUND UTILITY LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL CALL MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
2. ALL UTILITY WORK SHALL BE DONE USING CUT/COVER CONSTRUCTION. NO OPEN TRENCHES WILL BE PERMITTED TO EXIST OVERNIGHT IN PUBLIC SPACE.
3. THE EXISTING SURROUNDING FACILITIES ART TO REMAIN IN OPERATION WHILE CONSTRUCTION WORK IS BEING PERFORMED. ALL UTILITY WORK SHALL BE PERFORMED IN AN EXPEDITIOUS MANNER TO MINIMIZE ANY IMPACTS ON EXISTING FACILITY OPERATIONS.
4. ALL UTILITY VALVES, MANHOLES, CLEAN OUTS AND VAULTS SHOWN OR NOT SHOWN ON THIS PLAN SHOULD BE ADJUSTED TO FINAL ELEVATION BY THE CONTRACTOR.
5. PIPE BEDDING MATERIAL SHALL BE IN ACCORDANCE WITH DC WATER SPECIFICATIONS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TEMPORARY CONNECTIONS BETWEEN THE EXISTING AND NEW UTILITY SYSTEMS NECESSARY FOR MAINTAINING SERVICE.
7. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITY LINES AT THE PROPOSED TIE-IN POINTS PRIOR TO THE START OF ANY UTILITY CONSTRUCTION WORK.
8. ALL EXISTING LINES TO REMAIN THAT ARE DISTURBED BY THIS PROJECT SHALL BE REPAIRED/RELOCATED AS REQUIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THESE COSTS ARE CONSIDERED INCIDENTAL TO THE OTHER VARIOUS UTILITY CONSTRUCTION WORK.

SITE UTILITY CODED NOTES:

1. NEW 48" DIA. MANHOLE OVER EXISTING 12" SEWER PER DC WATER DETAIL S-20.11.
2. NEW HEAVY DUTY TRENCH DRAIN. SEE C3.05 FOR DETAIL.
3. NEW 15" CLASS IV RCPP.
4. NEW SINGLE FIELD INLET PER DC WATER DETAIL S-30.30.
4A. NEW SINGLE FIELD INLET W/ WATER QUALITY DEVICE, SEE DETAIL ON C3.05 AND DC WATER DETAIL S-30.30.
5. NEW 10" SCHEDULE 40 PVC STORM DRAIN PIPE.
5A. NEW 8" SCHEDULE 40 PVC STORM DRAIN PIPE.
6. NEW BIORETENTION AREA. SEE SHEET C-3.03 AND C-3.04 FOR DETAILS.
7. NEW 48" DIA. MANHOLE PER DC WATER DETAIL S-20.01
8. NEW 6" PERFORATED SCH. 40 PVC UNDER DRAIN PIPE
9. NEW CLEAN OUT SEE C-3.04 FOR DETAIL.
10. NEW DC STANDARD FIRE HYDRANT. COORDINATE W/FEMS FOR TYPE.
10A. NEW 6" LEADER TO FIRE HYDRANT

DHA
DELON HAMPTON & ASSOCIATES, Chartered
8403 COLESVILLE ROAD, SUITE 600
SILVER SPRING, MD. 20910-6331
PH:(301) 585-0100 ; FAX (301) 585-6486

SITE UTILITY PLAN

Engine Company 15, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

C-3.02

I. BIORETENTION SOIL AND MATERIAL REQUIREMENTS:

1. SOIL TEXTURE AND STRUCTURE

PLANTING SOIL FOR BIORETENTION SHALL HAVE A SANDY LOAM, LOAMY SAND, OR LOAM TEXTURE PER USDA TEXTURAL TRIANGLE. MAXIMUM CLAY CONTENT IS <5%. SOIL MIXTURE SHALL BE 50-60% SAND, 20-30% LEAF COMPOST, AND 20-30% TOPSOIL. THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE BIORETENTION THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, MUGWORT, NUTSEDGE, POISON IVY, CANADIAN THISTLE, TEARTHUMB OR OTHER NOXIOUS WEEDS.

2. SOIL TESTING

PLANTING SOIL FOR BIORETENTION AREAS MUST BE TESTED PRIOR TO INSTALLATION FOR PH AND ORGANIC MATTER. THE SOIL SHOULD MEET THE FOLLOWING CRITERIA (LANDSCAPE CONTRACTORS ASSOCIATION, 1986):

PH RANGE	5.5-6.5
ORGANIC MATTER	1.5-3.0%

IT IS REQUIRED THAT A SIEVE ANALYSIS, PH, AND ORGANIC MATTER TEST BE PERFORMED PER EACH BIORETENTION AREA.

3. SOIL PLACEMENT

PLACEMENT OF THE PLANTING SOIL IN THE BIORETENTION AREA SHOULD BE IN LIFTS OF 12 TO 18 INCHES AND LIGHTLY COMPACTED. (MINIMUM COMPACTIVE EFFORT CAN BE APPLIED TO THE SOIL BY TAMPING WITH A BUCKET FROM A DOZER OR BACKHOE. REFER ALSO TO "COMPACTION").

4. MULCH SPECIFICATIONS

INDIVIDUAL PLANTING SHALL BE MULCHED (REFER TO LANDSCAPING DETAILS). ACCEPTABLE MULCH SHALL BE SHREDDED HARDWOOD ONLY. MULCH MUST BE WELL AGED, UNIFORM IN COLOR, AND FREE OF FOREIGN MATERIAL INCLUDING PLANT MATERIAL. WELL AGED MULCH IS DEFINED AS MULCH THAT HAS BEEN STOCKPILED OR STORED FOR AT LEAST TWELVE (12) MONTHS.

5. SAND SPECIFICATIONS

PROVIDE CLEAN SAND FREE OF DELETERIOUS MATERIALS. SAND SHALL MEET AASHTO M-6 OR ASTM C-33 WITH GRAIN SIZE OF 0.02"-0.04".

6. GEOTEXTILE SPECIFICATIONS

GEOTEXTILE FABRIC SHALL MEET ASTM D-751 (PUNCTURE STRENGTH=125 LB)
ASTM D-1117 (MULLEN BURST STRENGTH=400 PSI)
ASTM D-1682 (TENSILE STRENGTH=300 LB)
FABRIC SHALL HAVE 0.08" THICKNESS, E.O.S. OF #80 SIEVE, AND MAINTAIN 125 GPM PER SQ. FT. FLOW RATE.

7. GRAVEL FILTER SPECIFICATIONS

UNDERDRAIN GRAVEL BLANKET SHALL BE DOUBLE WASHED, #57 STONE, 1-½" INCH IN SIZE. PEA GRAVEL SHALL BE WASHED, RIVER-RUN, ROUND DIAMETER 1/4-1/2" IN SIZE.

8. INSPECTION REQUIREMENTS

- THE CONTRACTOR SHALL ARRANGE A "PRECONSTRUCTION MEETING" WITH THE OWNER AND ARCHITECT/ENGINEER PRIOR TO BEGINNING WORK ON THE BIORETENTION FACILITY.
- AT THE COMPLETION OF EXCAVATION TO INSPECT SUBGRADE PREPARATION.
- DURING UNDERDRAIN AND FILTER INSTALLATION.
- BACK FILL OF SOIL INTO THE BIORETENTION AREAS. SOIL CERTIFICATIONS FOR BACK FILL ARE REQUIRED.
- THE FINAL TOPSOIL LAYERS SHOULD BE THOROUGHLY WETTED TO ACHIEVE SETTLEMENT OF THE SOIL/SAND BACKFILL MIX.
- ADDITIONAL SOIL BACKFILL SHOULD BE PLACED AS REQUIRED TO ACHIEVE THE DESIGN TOP SURFACE ELEVATIONS.
- THE WORK SHALL BE INSPECTED BY THE OWNER/ARCHITECT PRIOR TO FINAL STABILIZATION AND PLANTING.
- SEDIMENT & EROSION CONTROL PRACTICES MAY BE REMOVED UPON APPROVAL BY THE DDOE INSPECTOR.

II. BIORETENTION AREA PLANT SPECIFICATIONS

GENERAL PLANTING SPECIFICATIONS

- ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT FROM THE SOURCE TO THE JOB SITE AND UNTIL PLANTED.
- WALLS OF PLANTING PIT SHALL BE DUG SO THAT THEY ARE VERTICAL.
- THE DIAMETER OF THE PLANTING PIT SHALL BE A MINIMUM OF SIX INCHES (6") LARGER THAN THE DIAMETER OF THE BALL OF THE TREE.
- THE PLANTING PIT SHALL BE DEEP ENOUGH TO ALLOW 1/4" OF THE BALL TO BE ABOVE THE EXISTING GRADE. LOOSE SOIL AT THE BOTTOM OF THE PIT SHALL BE TAMPED BY HANDS.
- THE APPROPRIATE AMOUNT OF FERTILIZER SHALL BE PLACED AT THE BOTTOM OF THE PIT (SEE BELOW FOR FERTILIZATION RATES).
- THE PLANT SHALL BE REMOVED FROM THE CONTAINER AND SHALL BE PLACED IN THE PLANTING PIT BY LIFTING AND CARRYING THE PLANT BY ITS' BALL (NEVER LIFT BY BRANCHES OR TRUNK).
- SET THE PLANT STRAIGHT AND IN THE CENTER OF THE PIT SO THAT THE TOP OF THE BALL IS APPROXIMATELY 1/4" ABOVE THE FINAL GRADE.
- BACKFILL PLANTING PIT WITH EXISTING SOIL.
- MAKE SURE PLANT REMAINS STRAIGHT DURING BACKFILLING PROCEDURE.
- NEVER COVER THE TOP OF THE BALL WITH SOIL. MOUND SOIL AROUND THE EXPOSED BALL (1/4").
- TREES SHALL BE BRACED BY USING 2" BY 2" WHITE OAK STAKES. THE STAKES SHALL BE PLACED PARALLEL TO WALKWAYS AND BUILDINGS. THE STAKES SHALL BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL. UTILIZING HOSE AND WIRE THE TREE IS BRACED TO THE STAKES.

FERTILIZATION

- TREE AND SHRUB FERTILIZER SHALL BE A 21 GRAM, TIGHTLY COMPRESSED, LONG LASTING, SLOW RELEASE (2 YEAR) FERTILIZER TABLET WITH A MINIMUM GUARANTEED ANALYSIS OF 20-10-5:
  TOTAL NITROGEN (N) - 20%
  WATER SOLUBLE ORGANIC NITROGEN - 7%
  WATER SOLUBLE ORGANIC NITROGEN - 13%
  AVAILABLE PHOSPHORIC ACID (P O) - 10%
  SOLUBLE POTASH (K O) - 5%
- FOR CONTAINERIZED TREES AND SHRUBS, PLACE THE SPECIFIED FERTILIZER TABLET(S) IN THE BOTTOM OF THE PLANTING PIT ACCORDING TO THE FOLLOWING RATES:

1 GAL. CONTAINER	1EA. 21 GRAM	TABLETS
3 GAL. CONTAINER	2EA. 21 GRAM	TABLETS
5 GAL. CONTAINER	3EA. 21 GRAM	TABLETS
7 GAL. CONTAINER	5EA. 21 GRAM	TABLETS

III. UNDERDRAIN SPECIFICATIONS

1. UNDERDRAIN SYSTEMS MAY BE COMPOSED OF A VARIETY OF MATERIALS, WITH PVC PIPE MATERIAL BEING THE MOST COMMONLY USED.
2. PIPE JOINTS AND STORM DRAIN STRUCTURE CONNECTIONS MUST BE ADEQUATELY SEALED TO AVOID PIPING CONDITIONS (WATER SEEPING THROUGH PIPE OR STRUCTURE JOINTS). PIPE SECTIONS SHALL BE COUPLED USING SUITABLE CONNECTION RINGS AND FLANGES. FIELD CONNECTIONS TO STORM DRAIN STRUCTURES AND PIPES SHALL BE SEALED WITH POLYMER GROUT MATERIAL THAT IS CAPABLE OF ADHERING TO SURFACES. UNDERDRAIN PIPE SHALL BE CAPPED (AT STRUCTURE) UNTIL COMPLETION OF SITE. UNDERDRAINS CONNECTED DIRECTLY TO A STORM DRAINAGE STRUCTURE SHALL BE NON-PERFORATED FOR A DISTANCE OF AT LEAST 5' FROM THE STRUCTURE INTERFACE TO AVOID POSSIBLE PIPING PROBLEMS.
3. INTERNAL DIAMETERS OF LATERAL BRANCH PIPES SHOULD BE FOUR (4) INCHES OR GREATER AND PERFORATIONS SHOULD BE 3/8 INCH. EACH ROW OF PERFORATION SHALL CONTAIN AT LEAST FOUR (4) HOLES AND THE MAXIMUM SPACING BETWEEN ROWS OF PERFORATIONS SHALL BE SIX (6) INCHES. ALL PIPING IS TO BE SCHEDULE 40 POLYVINYL CHLORIDE OR GREATER STRENGTH.
   THE MINIMUM GRADE OF PIPING SHALL 1/16 INCH PER FOOT (0.5% SLOPE). ACCESS FOR CLEANING ALL UNDERDRAIN PIPING IS NEEDED. NO PERFORATIONS ARE TO BE WITHIN 5' OF WHERE THE UNDERDRAIN SYSTEM CONNECTS TO A STORMDRAIN STRUCTURE.
4. SOIL AND GRAVEL COVER OVER THE UNDER DRAIN SHALL BE AT LEAST 2" IN DEPTH. PLACEMENT OF 2"-3" GRAVEL BEDDING IS RECOMMENDED BENEATH THE DISCHARGE POINTS. UNDER DRAINS MUST "DAYLIGHT" OR CONNECT TO AN EXISTING DRAINAGE SYSTEM TO ACHIEVE POSITIVE FLOW.

IV. BIORETENTION AREA SEQUENCE OF CONTRUCTION

1. Install sediment control devices as shown on the plans.
   -Construction time: 1/2 Day
2. Grade site to elevations shown on plan. If applicable, construct curb openings, and/or remove and replace existing concrete as specified on the plan. Curb openings shall be blocked or other measures taken to prohibit drainage from entering construction area. At the end of each workday, all excavations shall be protected by construction safety fencing or temporary backfill as needed.
   -Construction time: 1 Day
3. Stabilize grading within Limit of Disturbance except for Bioretention Area. Bioretention areas may be utilized as sediment traps if the proposed invert of the bioretention facility is 1' lower then the sediment trap.
   -Construction time: 1/2 Day
4. Excavate bioretention area to proposed invert depth and scarify the existing soil surfaces, taking care not to compact the in-situ materials.
   -Construction time: 1/2 Day
4a. Install underdrain system and observation wells, if specified
   -Construction time: 1/2 Day
5. Backfill bioretention area with planting soil as shown in the plans and detailed in the specifications. Overfilling is recommended to account for settlement.
   -Construction time: 1/2 Day
6. Presoak the planting soil prior to planting vegetation to allow for settlement. This can be down by water truck or allowing water to enter the pit from a rain event.
   -Construction time: 1/4 Day
7. Excavate or fill to achieve proper design grade, leaving space for the upper layer of mulch and/or topsoil that will bring the surface to final grade and ready for planting.
   -Construction time: 1/4 Day
8. Plant vegetation specified in the planting plan for Bioretention Area.
   -Construction time: 1/2 Day
9. Mulch and install erosion protection at entrance points; remove sediment control practices or entrance blocks with Inspector authorization.
   -Construction time: 1/2 Day

V. COMPACTION IN BIORETENTION AREAS

It is very important to minimize compaction of both the base of the bioretention area and the required backfill. When possible, use excavation hoes to remove original soil. If bioretention areas are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf-type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause excessive compaction resulting in reducing infiltration rates and storage volumes and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a Chisel Plow, Ripper, or Subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before back filling the facility and placement of underdrain. Pump any ponded water before preparing (rototilling) base.

When back filling the bioretention facility, place soil in lifts 12" or greater. Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks. Overfill to allow for natural settlement.

BIORETENTION COMPUTATION

INPUTS:
SITE AREA (A) = 0.256 Ac
IMPERVIOUS AREA = 0.217 Ac
% IMPERVIOUSNESS (I) = (0.217/0.256)*100=84.77%
CALCULATE VOLUMETRIC RUNOFF VOLUME (Rv)
Rv=0.05+0.009(I)=0.05+0.009(84.77)=0.813
CALCULATE WATER QUALITY VOLUME (Wqv)
Wqv=(P*Rv*A*43560)/12
P=RUNOFF DEPTH TO BE TREATED = 0.5"
Wqv = 0.5*0.813*0.256*43560/12 = 377.75 cu.ft
CALCULATE RECHARGE VOLUME (Rev)
Rev = (S*Rv*A/12)*43560
S=RECHARGE FACTOR = 0.13
Rev = (0.13*0.813*0.256/12)*43560 = 98.22 cu.ft

CALCULATE TEMPORARY STORAGE VOLUME (Vt)
Vt=Wqv*0.75=377.75*0.75=283.31 cu. ft
CALCULATE AREA OF FILTER BED (Af)
Af = (Wqv*df)/[K*(hf+df)*tf]
df = DEPTH OF FILTER = 2.0
K = COEFFICIENT OF PERMEABILITY = 0.5'/DAY
hf = AVERAGE DEPTH OF WATER ABOVE FILTER = 0.5'
tf = DRAINAGE TIME = 2 DAYS
Af = (377.75*2.5)/[0.5*(0.5+2.5)*2] = 314.79 sq ft
CALCULATE STORM WATER QUANTITY CONTROL VOLUME
C = 0.85 Iq = 2.36 Ip = 5.28
Qiq = C Iq A = 0.85*2.36*0.256 = 1.645 cfs
FOR MEADOW CONDITION C= 0.35
Qi = C IpA = 0.35*5.28*0.256 = 0.473 cfs
STORM WATER QUANTITY CONTROL VOLUME
Vsqu = 1.25*(Qiq - Qi)*300 = 439.50 cu. ft
CHECK TREATMENT STORAGE VOLUME (Vtr)
Vtr = P*Af*d*(Af*n)
n = POROSITY FACTOR = 0.4
Vtr = 0.5*314.79+2.5*314.79*0.4
= 472.19 cu. ft > Vt = 283.31 cu ft (OK)
> Vsqu = 439.50 cu. ft (OK)
CALCULATE MINIMUM DEPTH NEEDED TO PROVIDE RECHARGE VOLUME (Rev)
D = Rev/(Af*n) = 98.22/(314.79*0.4) = 0.78 FT

CALCULATE DETENTION TIME
MAXIMUM HEAD H max = d+h1+0.25+0.25
= 2.5+0.25+0.25
= 3.5'

DRAW DOWN RATE
Qr=K*Af*H max/(2*df)
Qf=0.5*314.79*3.5/(2*02.5) = 110.2
DETENTION TIME
Td= Vsqu/Qr = 439.50/110.2 = 3.988 hr <72 (OK)
BIORETENTION AREA PROVIDED
6'x54' = 324sq ft > Af = 314.79 sq ft (OK)

DHA
DELON HAMPTON & ASSOCIATES, Chartered
8403 COLESVILLE ROAD, SUITE 600
SILVER SPRING, MD. 20910-6331
PH:(301) 585-0100 ; FAX:(301) 585-6486

Designer		
Drawn		
Checked		
CERTIFICATION		
Registration No.		
Date		
Architect		
Date		

PROJECT DRAWING

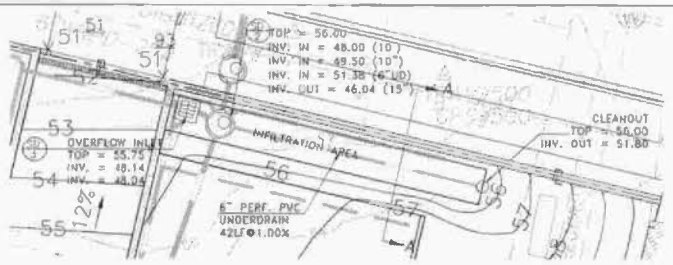
BIORETENTION NOTES

Engine Company 15, Training Area Renovation
2101 14th Street SE, Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

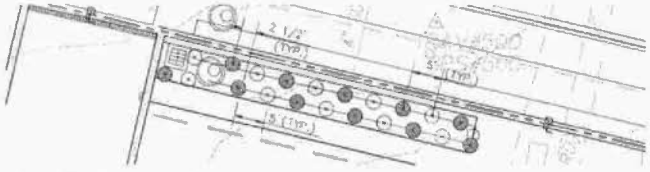
CIVIL
Drawing No.
C-3.03

Building ID No.
Project No.
Date: September 2011
Sheet 7 of 32



GRADING AND UNDERDRAIN PLAN

SCALE: 1"=10'



SHRUB COUNT		
SYMBOL	TYPE	AMOUNT
⊙	I	10
●	B	11

NOTE:

1. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO CHOOSE AT LEAST TWO (2) TYPES OF THE PLANTINGS FROM THE LIST PROVIDED.
2. SHRUBS SHALL BE PLANTED IN TWO PARALLEL ROWS @ 5' ON-CENTER.

PLANTING PLAN

SCALE: 1"=10'

STATEMENT BY PERSON RESPONSIBLE FOR MAINTENANCE

THE UNDERSIGNED AGREES TO MAINTAIN AND OPERATE THE DISCHARGE FACILITIES IN SUCH A MANNER AS TO COMPLY WITH THE PROVISIONS OF SECTION 526 THROUGH 535 OF DCMR-21, CHAPTER 5. RESPONSIBILITY FOR MAINTENANCE AND OPERATION MAY BE TRANSFERRED TO ANOTHER ENTITY UPON WRITTEN NOTICE TO WATERSHED PROTECTION DIVISION OF THE DEPARTMENT OF HEALTH FROM THE UNDERSIGNED AND THE ENTITY ASSUMING RESPONSIBILITY, CERTIFYING THAT THE TRANSFER OF RESPONSIBILITY FOR MAINTENANCE AND OPERATION IN COMPLIANCE WITH SECTION 526 THROUGH 535 OF DCMR-21, CHAPTER 5 HAS BEEN ACCEPTED.

DC WATER was notified that the pre-approved bio-retention area located at:
2101 14th ST.SE. Washington, DC 20020

SIGNATURE OF THE PERSON RESPONSIBLE FOR MAINTENANCE (IT MAY BE THE APPLICANT)

NAME AND TITLE (PLEASE TYPE)

ADDRESS

DATE _____ TELEPHONE NO. _____

STATEMENT BY PROFESSIONAL ENGINEER REGISTERED IN THE DISTRICT OF COLUMBIA

THIS IS TO CERTIFY THAT THE ENGINEERING FEATURES OF THIS STORMWATER DISCHARGE FACILITY HAVE BEEN DESIGNED/EXAMINED BY ME AND FOUND TO BE IN CONFORMITY WITH MODERN ENGINEERING PRINCIPLES APPLICABLE TO THE TREATMENT AND DISPOSAL OF STORMWATER POLLUTANTS. I FURTHER CERTIFY THAT THE FACILITY HAS BEEN DESIGNED IN ACCORDANCE WITH THE SPECIFICATION REQUIRED UNDER SECTION 526 THROUGH 535 OF DCMR-21, CHAPTER 5. IT IS ALSO STATED THAT THE UNDERSIGNED HAS FURNISHED THE APPLICANT WITH A SET OF INSTRUCTIONS FOR THE MAINTENANCE AND OPERATION OF THE STORMWATER DISCHARGE FACILITY.

SIGNATURE OF ENGINEER

BAOZHU WD. CIVIL GROUP MANAGER
NAME AND TITLE (PLEASE PRINT)

8403 COLESVILLE ROAD, SUITE 600
SILVER SPRING, MD 20910
ADDRESS

DATE _____ TELEPHONE NO. (301) 585-0100

AS BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

WITHIN 21 DAYS AFTER COMPLETION OF CONSTRUCTION OF THE STORMWATER DISCHARGE FACILITY, PLEASE SEND THIS PAGE TO THE WATERSHED PROTECTION DIVISION OF THE DISTRICT DEPARTMENT OF THE ENVIRONMENT.

1. STORMWATER DISCHARGE FACILITY INFORMATION:

SOURCE NAME: _____

SOURCE LOCATION: STREET: _____

CITY: _____

DCRA PERMIT NO.: _____

DATE ISSUED: _____

2. AS BUILT CERTIFICATION:

I HEREBY CERTIFY THAT THIS STORMWATER DISCHARGE FACILITY HAS BEEN BUILT SUBSTANTIALLY IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THAT ANY SUBSTANTIAL DEVIATIONS (NOTED BELOW) WILL NOT PREVENT THE SYSTEM FROM FUNCTIONING IN COMPLIANCE WITH THE REQUIREMENTS OF SECTION 526 THROUGH 535 OF DCMR-21, CHAPTER 5 WHEN PROPERLY MAINTAINED AND OPERATED. THESE DETERMINATIONS HAVE BEEN BASED UPON ON-SITE OBSERVATION OF CONSTRUCTION, SCHEDULED AND CONDUCTED BY ME OR BY A PROJECT REPRESENTATIVE UNDER MY DIRECT SUPERVISION. I HAVE ENCLOSED ONE SET OF AS-BUILT ENGINEERING DRAWINGS.

SIGNATURE OF ENGINEER

NAME (PLEASE TYPE) D.C. REG. NO.

AFFIX SEAL

COMPANY NAME

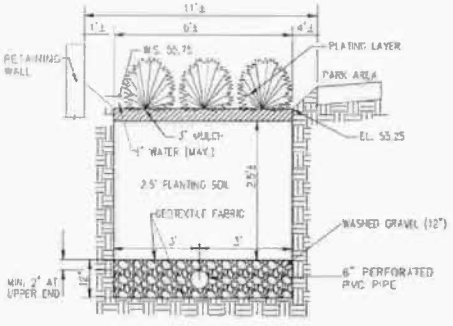
COMPANY ADDRESS

DATE: _____ PHONE NO.: _____

SUBSTANTIAL DEVIATIONS FROM THE APPROVED PLANS AND SPECIFICATIONS (ATTACH ADDITIONAL SHEETS IF REQUIRED)

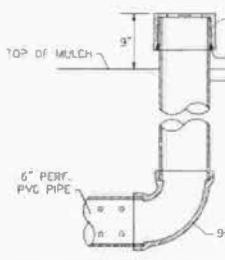
MAINTENANCE SCHEDULE FOR BIORETENTION AREAS

DESCRIPTION	METHOD	FREQUENCY	TIME OF THE YEAR
MOW			
INSPECT AND REPAIR EROSION	VISUAL	MONTHLY	MONTHLY
ORGANIC LAYER			
REMULCH ANY BARE AREAS	BY HAND	WHENEVER NEEDED	WHENEVER NEEDED
REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER (OPTIONAL)	BY HAND	ONCE EVERY TWO TO THREE YEARS	SPRING
ANY ADDITIONAL MULCH ADDED (OPTIONAL)	BY HAND	ONCE A YEAR	SPRING
PLANTS			
REMOVAL AND REPLACEMENT OF ALL DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT	SEE PLANTING SPECIFICATIONS	TWICE A YEAR	3/15 TO 4/30 AND 10/1 TO 11/30
TREAT ALL DISEASED TREES AND SHRUBS	MECHANICAL OR BY HAND	N/A	VARIES, DEPENDS ON INSECT OR DISEASE INFESTATION
WATERING OF PLANT MATERIAL SHALL TAKE PLACE AT THE END OF EACH DAY FOR FOURTEEN CONSECUTIVE DAYS AFTER PLANTING HAS BEEN COMPLETED	BY HAND	IMMEDIATELY AFTER COMPLETION OF PROJECT	N/A
REPLACE STAKES AFTER ONE YEAR	BY HAND	ONCE A YEAR	ONLY REMOVE STAKES IN THE SPRING
REPLACE ANY DEFECTIVE STAKES OR WIRES	BY HAND	N/A	WHENEVER NEEDED



SECTION A-A

NOT TO SCALE



BIORETENTION CLEANOUT DETAIL

NOT TO SCALE

SHRUB PLANTING LIST

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION
AM	Aronia Melanocarpa	Black Chokeberry	24"-30" HT	B&B
EA	Euonymus Americanus	Hearts-a-bustin	24"-30" HT	B&B
HD	Hypericum Densiflorum	St John's Wort	24"-30" HT	B&B
JC	Juniperus Communis	Compressed Juniper	24"-30" HT	B&B
JH	Juniperus Horizontalis	Creeping Juniper	24"-30" HT	B&B
RA	Rhus Aromatica	Fragrant Sumac	24"-30" HT	B&B
RC	Rosa Carolina	Pasture Rose	24"-30" HT	B&B
RO	Rubus Occidentalis	Blackcap Raspberry	24"-30" HT	B&B
VA	Vaccinium Angustifolium	Low Sweet Blueberry	24"-30" HT	B&B
VP	Vaccinium Pallidum	Early Low Blueberry	24"-30" HT	B&B
VT	Viburnum Acerifolium	Maple-leaved Vib	24"-30" HT	B&B

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BIORETENTION DETAILS

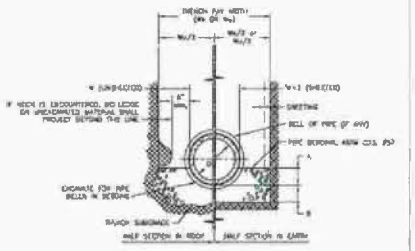
Engine Company 15, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

C-3.04

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

3-12.01
1 OF 3



STANDARD DETAIL
CONCRETE PIPE SEWER
TRENCH LAYING CONDITION

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

3-12.01
2 OF 3

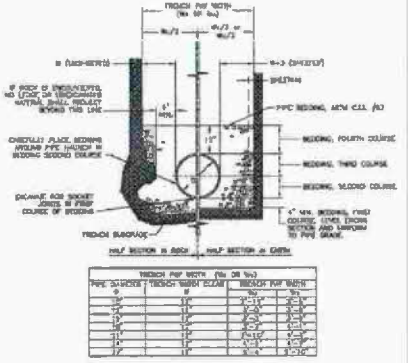
PIPE DIAMETER	PIPE BEDDING DIMENSION			TRENCH PIP WIDTH	
D	B	A	B IN SOIL, IN ROCK	UNSHEETED Wu	SHEETED Ws
12"	12"	0"	3"	0" – 4"	2' – 12"
15"	13"	0"	3"	0" – 4"	4' – 1"
18"	18"	0"	3"	0" – 11"	4' – 5"
21"	18"	3"	3"	4" – 3"	4' – 8"
24"	18"	6"	3"	8" – 0"	5' – 0"
27"	18"	9"	3"	11" – 9"	5' – 3"
30"	18"	12"	4"	1' – 1"	5' – 7"
33"	18"	15"	4"	1' – 4"	5' – 10"
36"	18"	18"	4"	1' – 8"	6' – 2"
42"	18"	24"	4"	2' – 3"	6' – 8"
48"	24"	18"	6"	2' – 10"	7' – 4"
54"	24"	24"	6"	3' – 5"	8' – 0"
60"	24"	30"	6"	4' – 0"	8' – 8"
66"	24"	36"	6"	4' – 7"	9' – 4"
72"	24"	42"	6"	5' – 2"	10' – 0"
78"	24"	48"	6"	5' – 8"	10' – 8"
84"	24"	54"	6"	6' – 3"	11' – 4"
90"	24"	60"	6"	6' – 10"	12' – 0"
96"	24"	66"	6"	7' – 5"	12' – 8"
102"	24"	72"	6"	8' – 0"	13' – 4"
108"	24"	78"	6"	8' – 7"	14' – 0"

NOTES:
1. IF NECESSARY TO EXCEED W BELOW A HORIZONTAL PLANE 1'-0" ABOVE TOP OF PIPE, SEE SPECIFICATION SECTION 02270.
2. SHEETING, IF USED, SHALL BE REMOVED IN CONJUNCTION WITH BACKFILLING OPERATION UNLESS OTHERWISE SPECIFIED OR SHOWN ON DRAWING. REMOVAL IF APPROVED IN WRITING, SHEETING MAY BE CUT-OFF AND LEFT IN PLACE BELOW A LINE 1'-0" ABOVE THE TOP OF THE PIPE OR AS DIRECTED BY THE ENGINEER.

STANDARD DETAIL
CONCRETE PIPE SEWER
TRENCH LAYING CONDITION

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

3-18.01
1 OF 1



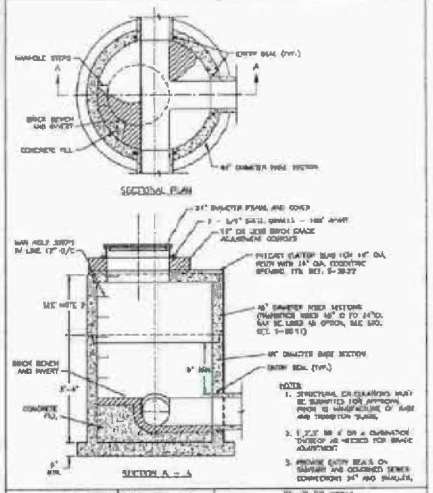
PIPE DIAMETER	TRENCH PIP WIDTH (Wu OR Ws)	
D	W	Wu
12"	3'-0"	2'-12"
15"	3'-0"	3'-1"
18"	3'-0"	3'-5"
21"	3'-0"	3'-8"
24"	3'-0"	4'-0"
27"	3'-0"	4'-3"
30"	3'-0"	4'-6"
33"	3'-0"	4'-10"
36"	3'-0"	5'-2"
42"	3'-0"	5'-8"
48"	3'-0"	6'-4"
54"	3'-0"	7'-0"
60"	3'-0"	7'-8"
66"	3'-0"	8'-4"
72"	3'-0"	9'-0"

NOTES:
1. IF NECESSARY TO EXCEED W BELOW A HORIZONTAL PLANE 1'-0" ABOVE TOP OF PIPE, SEE SPECIFICATION SECTION 02270.
2. SHEETING, IF USED, SHALL BE REMOVED IN CONJUNCTION WITH THE BACKFILLING OPERATION UNLESS OTHERWISE SPECIFIED OR SHOWN ON DRAWING.

STANDARD DETAIL
POLYVINYL CHLORIDE (PVC) PIPE SEWER
TRENCH LAYING CONDITION

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

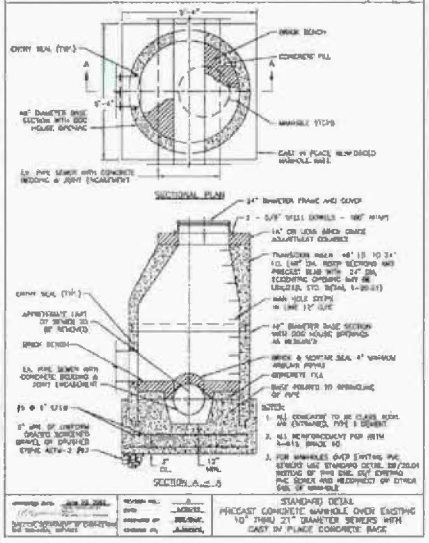
3-20.01
1 OF 1



STANDARD DETAIL
PRECAST CONCRETE MANHOLE
FOR INCH 72" THRU 21" DIAMETER SEWERS
(48" DIAMETER PRECAST BASE)

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

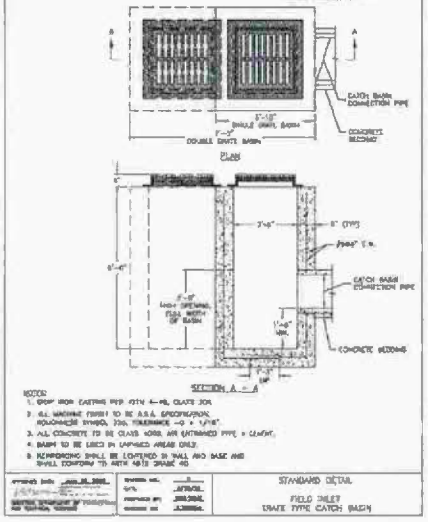
3-20.11
1 OF 1



STANDARD DETAIL
PRECAST CONCRETE MANHOLE OVER EXISTING
10" THRU 21" DIAMETER SEWERS WITH
CAST IN PLACE CONCRETE BASE

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

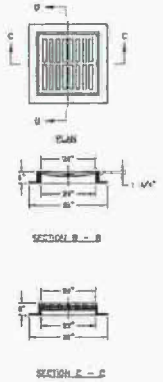
3-30.00
1 OF 2



STANDARD DETAIL
FIELD INLET
GRATE TYPE CATCH BASIN

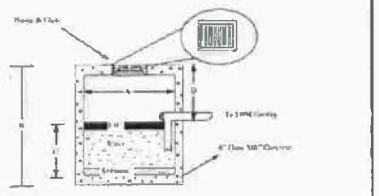
DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

3-30.02
2 OF 2



STANDARD DETAIL
FIELD INLET
GRATE TYPE CATCH BASIN

Storm Inlet Detail



INLET NO.	A	B	C	D
1	2.5'x2.5'	9'-0"	2'-3 1/2"	1'-8 1/2"

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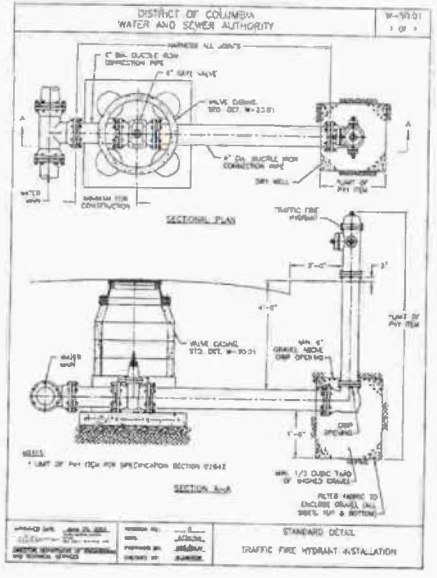
PROJECT DRAWING

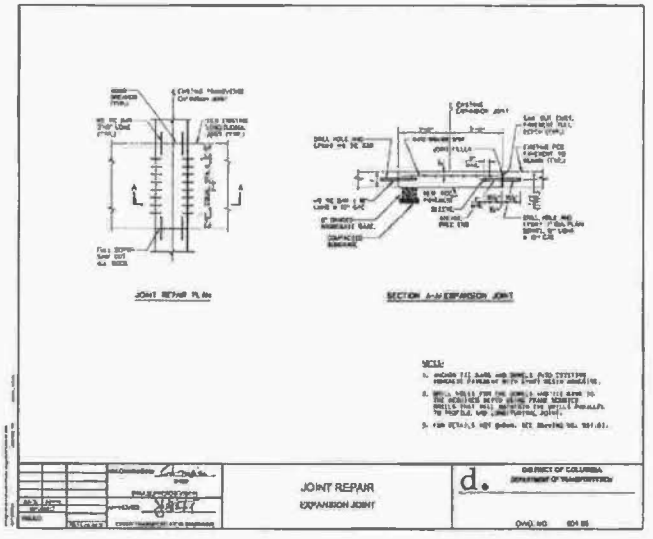
SITE DETAILS-1

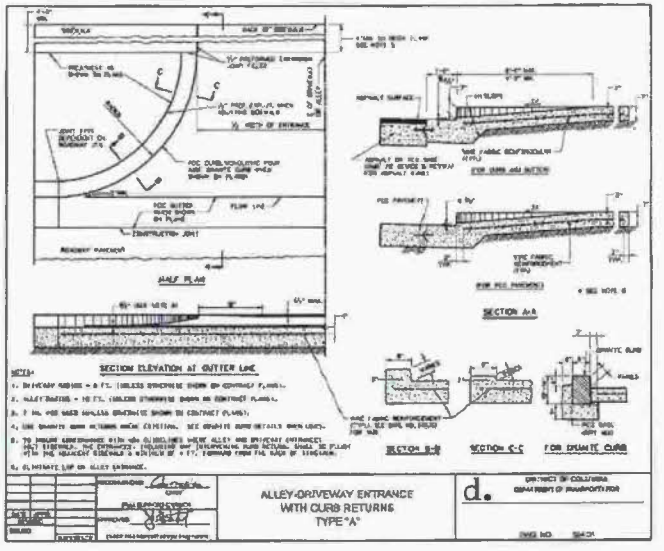
Engine Company 19, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

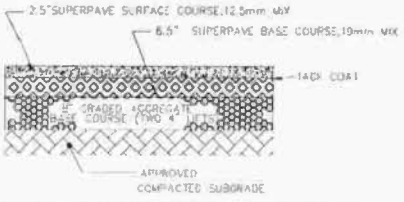
GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

C-3.05

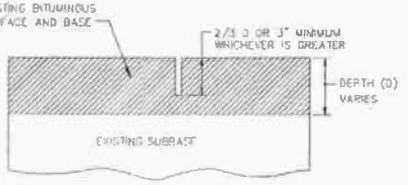








TYPICAL ASPHALT ROADWAY PAVEMENT SECTION
NOT TO SCALE



SAW CUT DETAIL
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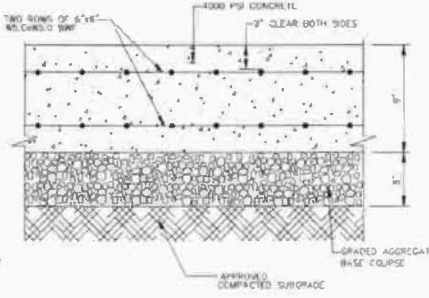

TYPICAL CONCRETE PAVEMENT DETAIL
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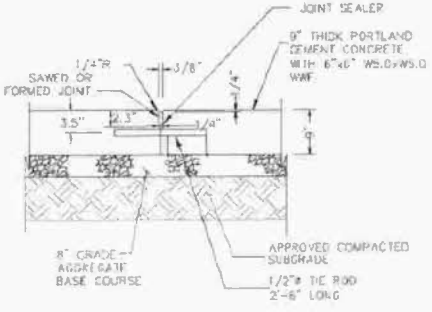
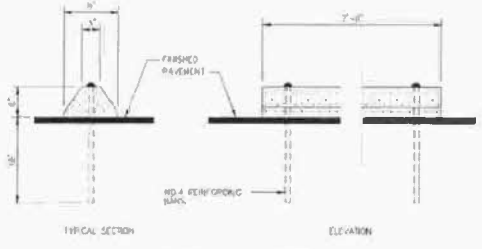
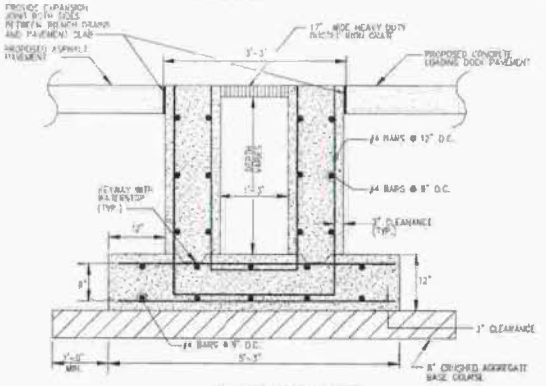


CONCRETE PAVEMENT TRAVERSE CONTRACTION JOINT
SCALE: NONE



WHEEL STOP DETAIL
NO SCALE



TRENCH DRAIN DETAIL
(NOT TO SCALE)

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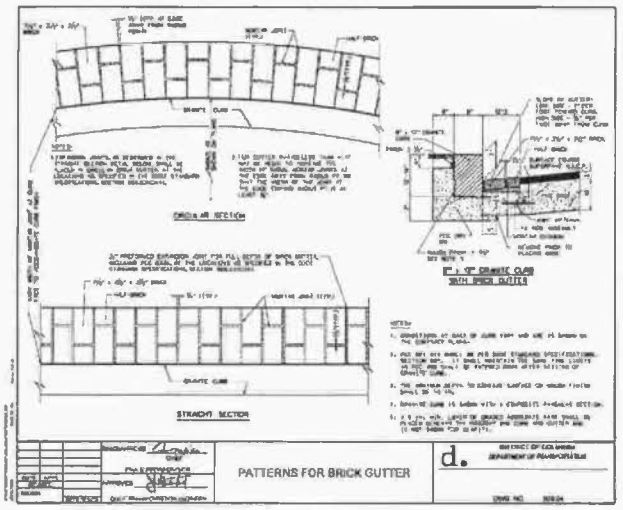
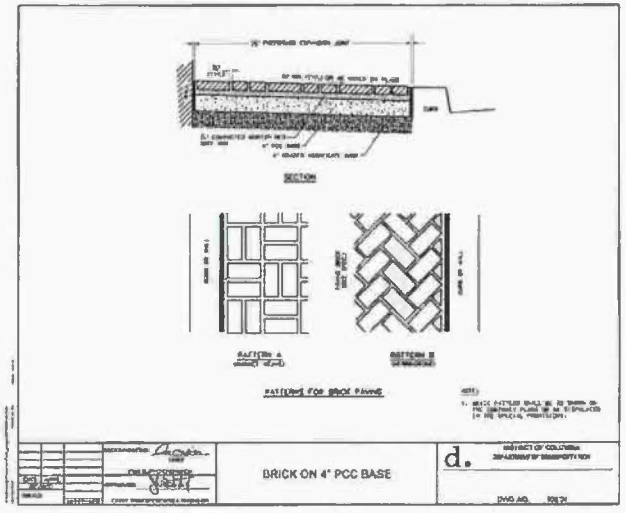
SITE DETAILS-2

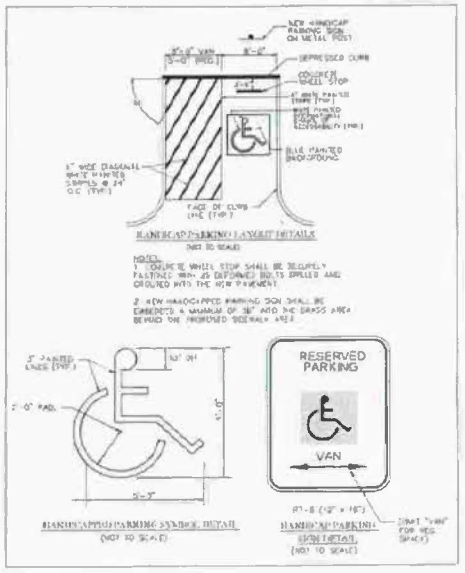
Engine Company 15, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

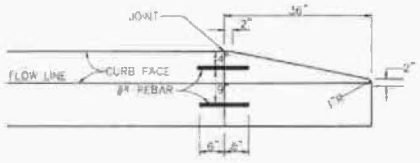
GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
7000 14TH STREET, NW, WASHINGTON, DC 20009

C-3.06

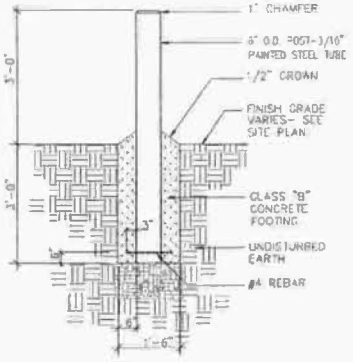




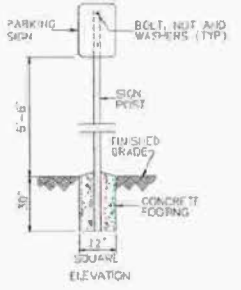




CURB NOSEDOWN DETAIL
(NOT TO SCALE)

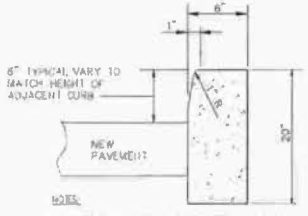


BOLLARD
NOT TO SCALE



PARKING SIGN POST DETAIL
NOT TO SCALE

NO PARKING
SIGN DETAIL



CONCRETE CURB
NTS

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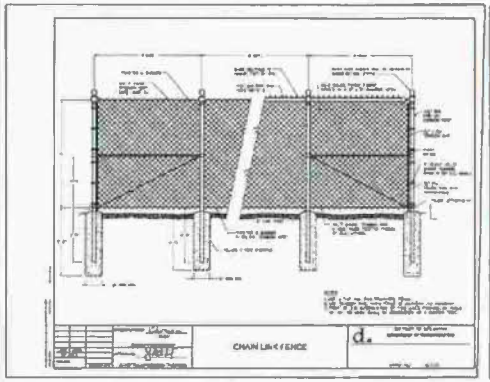
SITE DETAILS-3

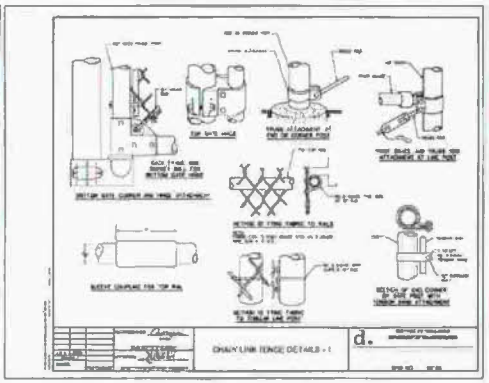
Engine Company 15, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW. WASHINGTON, DC 20009

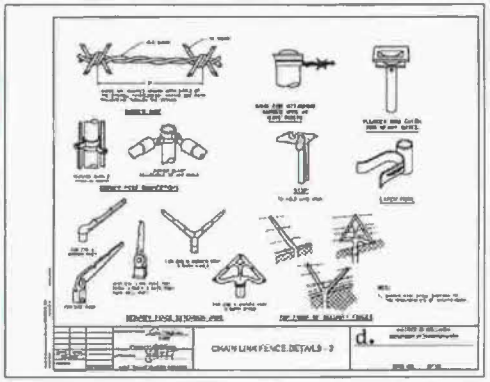
C-3.07



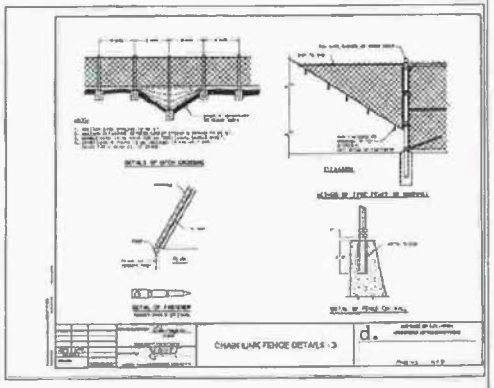
CHAIN LINK FENCE



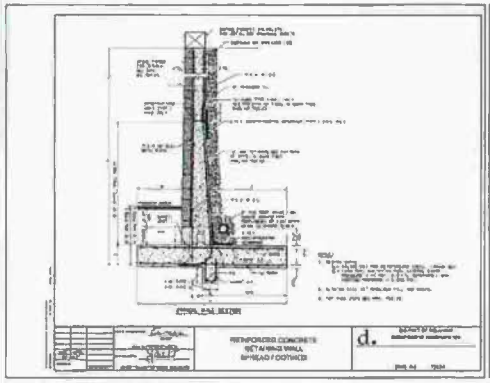
CHAIN LINK FENCE DETAILS - 1



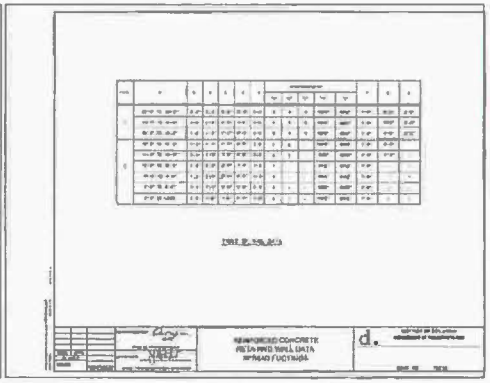
CHAIN LINK FENCE DETAILS - 2



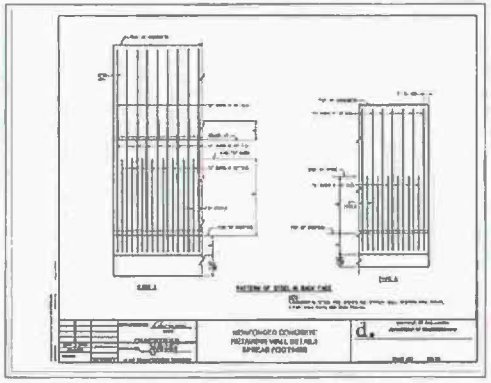
CHAIN LINK FENCE DETAILS - 3



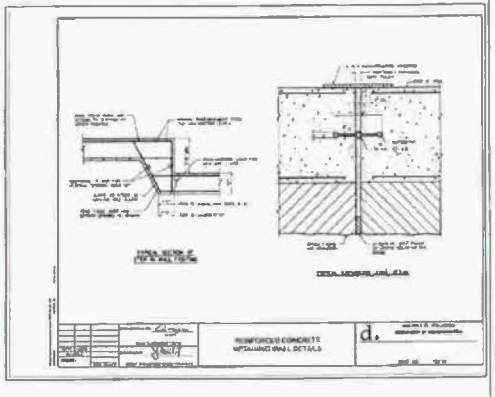
REINFORCED CONCRETE RETAINING WALL SPREAD FOOTINGS



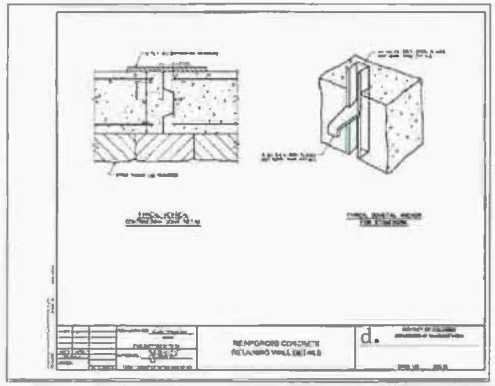
REINFORCED CONCRETE RETAINING WALL DATA SPREAD FOOTINGS



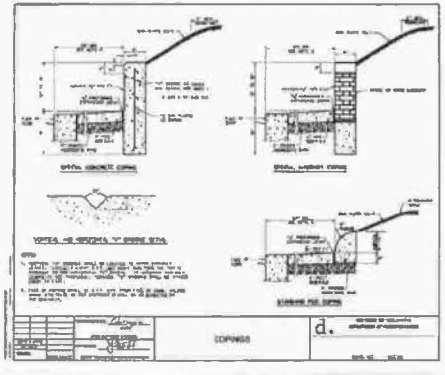
REINFORCED CONCRETE RETAINING WALL DETAILS SPREAD FOOTINGS



REINFORCED CONCRETE RETAINING WALL DETAILS



REINFORCED CONCRETE RETAINING WALL DETAILS



COPINGS

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PROJECT DIVISION

CIVIL

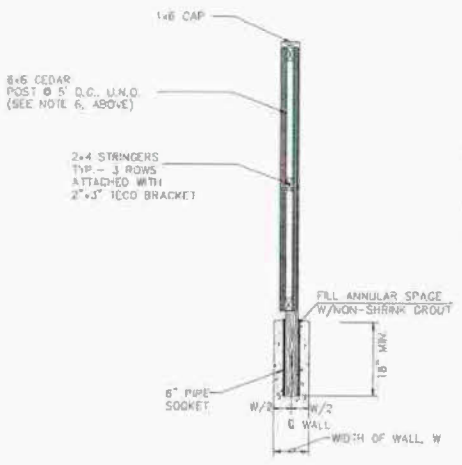
RETAINING WALL AND FENCE DETAILS

Engine Company 16, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

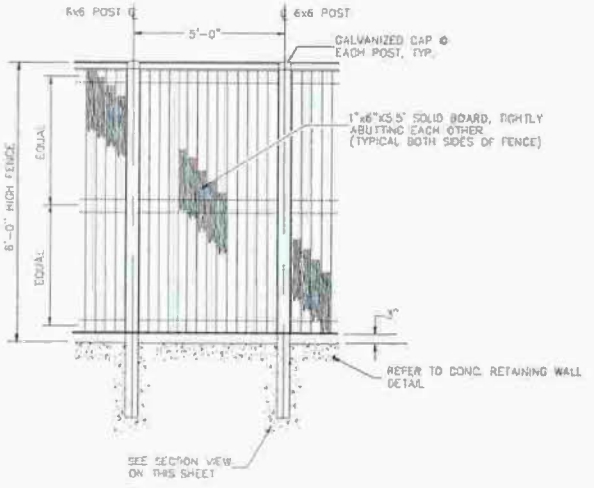
Drawing No.

C-3.08

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009



SECTION VIEW
NO SCALE



ELEVATION
NO SCALE

WOOD FENCE NOTES:

1. ALL LUMBER NO. 1 CEDAR;
2. ALL DIMENSIONS SHOWN ARE BASED ON ROUGH SAWN LUMBER DIMENSIONS, i.e. 4 x 4 IS ACTUALLY 4" x 4" LUMBER.
3. ALL NAILS, BOLTS, JOISTS AND HARDWARE SHALL BE HOT DIPPED GALVANIZED, TYP.
4. EXPOSED FENCE HEIGHT SHALL BE 6'-0".
5. BACKFILL POST HOLES W/ DRY MIX CONCRETE.
6. WHERE GATE(S) ARE REQUIRED, POSTS SHALL BE 6x6 AND DIAMETER OF POST HOLE BE A MIN. OF 18" TYP.
7. PROVIDE A HEAVY-DUTY SAFETY HASP AND PADLOCK FOR GATE, TYP.
8. BOLTS, HINGES AND STRAPS SHALL BE HEAVY-DUTY, U.N.O.
9. THE WOOD FENCE SHOULD BE PAINED AN OPAQUE STAIN.

PLANK FENCE DETAIL

SCALE: NONE

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RETAINING WALL AND FENCE DETAILS

Engine Company 15, Training Area Renovation
2101 16th Street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
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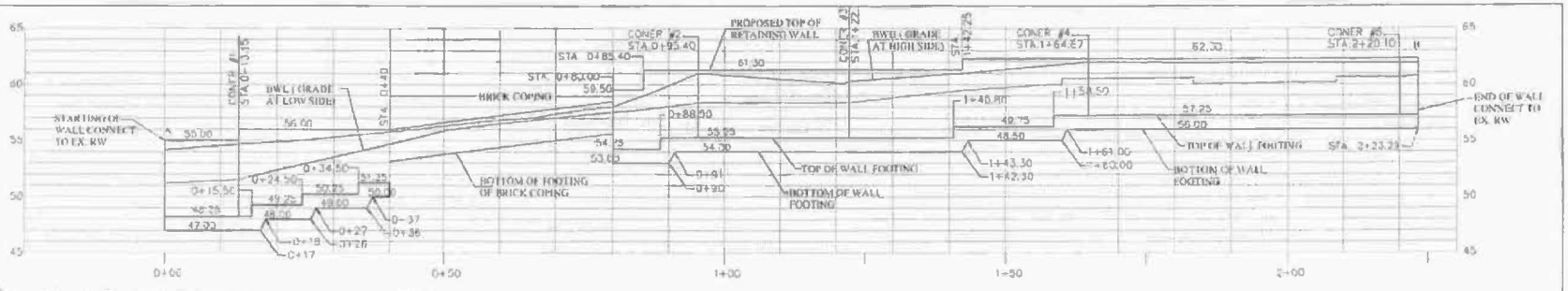
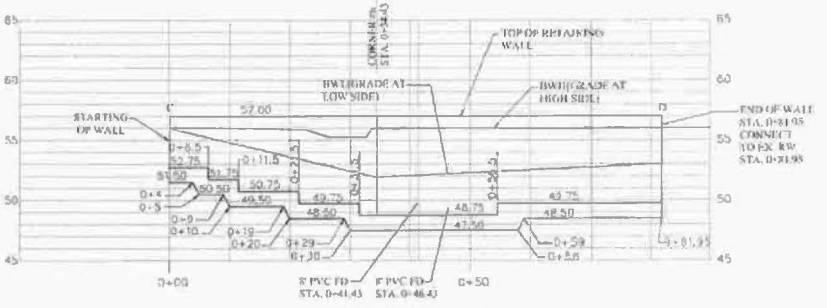
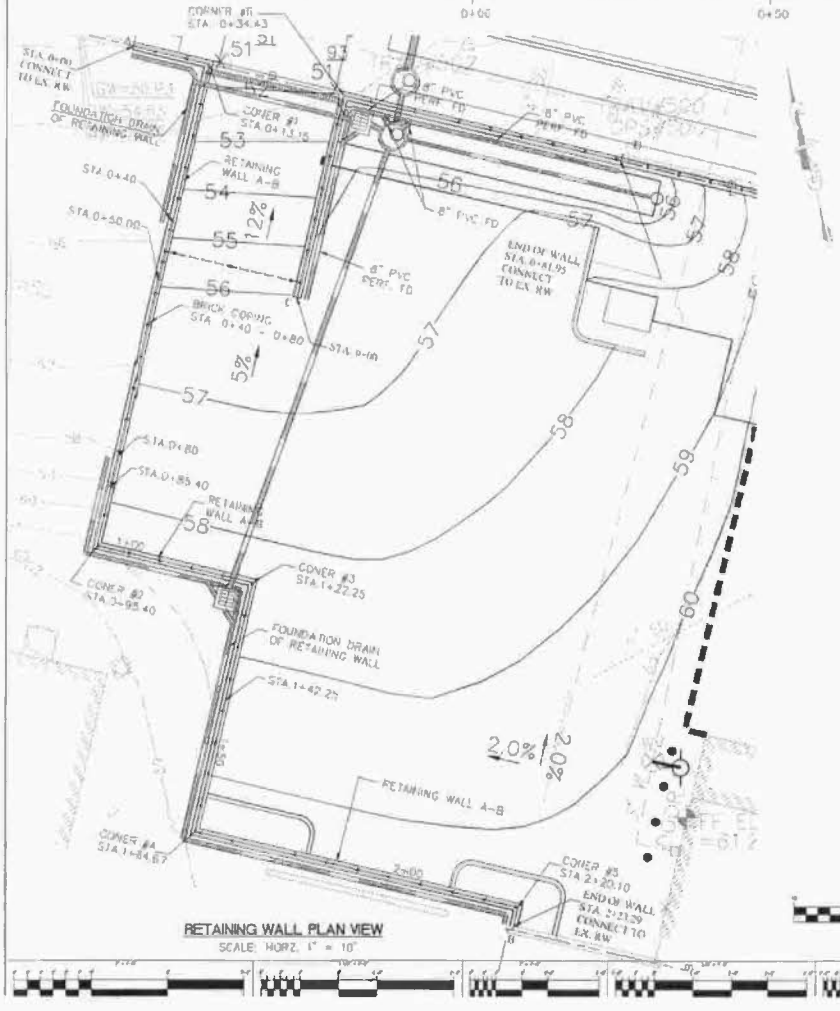
C-3.08A



RETAINING WALL A-B PROFILE
SCALE: HORZ. 1" = 10'
VERT. 1" = 5'



RETAINING WALL C-D PROFILE
SCALE: HORZ. 1" = 10'
VERT. 1" = 5'



RETAINING WALL PLAN VIEW
SCALE: HORZ. 1" = 10'

GRAPHIC SCALE
(IN FEET)
1 inch = 10 ft.

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CERTIFICATION

RETAINING WALL PROFILES

Engine Company 11, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

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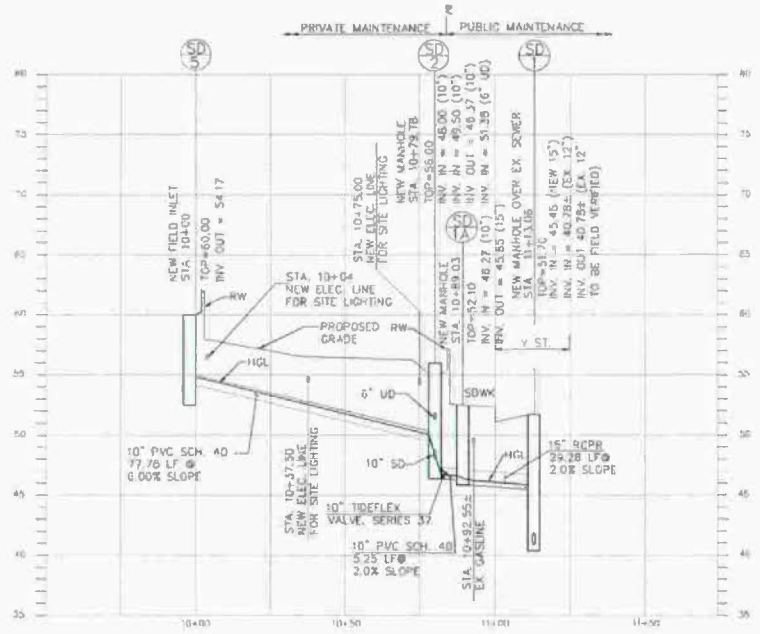
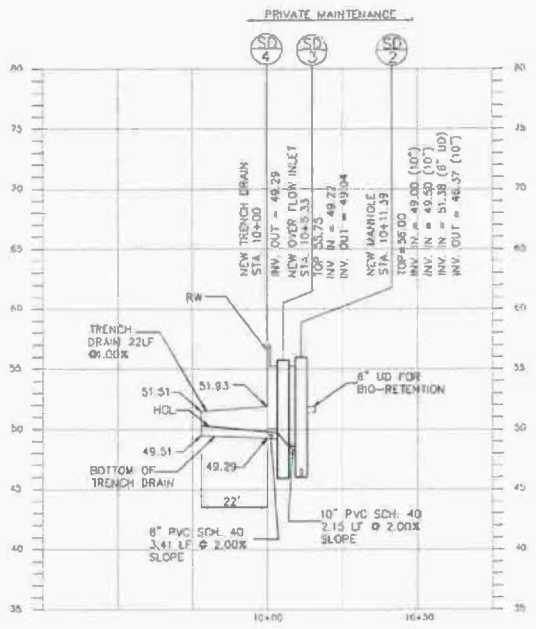
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

C-3.09



STORMWATER PIPE PROFILE
SD #5 - SD #1

SCALE: HOR: 1"=20'
VER: 1"=5'



STORMWATER PIPE PROFILE
SD #4 - SD #2

SCALE: HOR: 1"=20'
VER: 1"=5'

STORM DRAINAGE STRUCTURE TABLE

SD #	TYPE	DC WASA STANDARD NO.	TOP ELEV.*	D.A. (AC)	Q15 (cfs)	REMARKS
1	MANHOLE	S-30.11	51.70	-	-	OVER EXISTING 12" SSWER
1A	MANHOLE	S-30.01	55.10	-	-	-
2	MANHOLE	S-30.01	56.00	-	-	INSTALL 10" TIDEFLEX VALVE SERIES 37
3	SINGLE INLET	S-30.30	55.75	0.206	1.645	ALSO SEE STORM INLET DETAIL ON C3.05
4	TRENCH DRAIN	SEE DETAIL	51.51-51.93	0.040	0.290	SEE DETAIL ON C3.06
5	FIELD SINGLE INLET	S-30.30	60.00	0.057	0.260	PROVIDE BYPASS DRAINAGE FOR OUT SIDE OF THE PROJECT AREA

STORM DRAINAGE PIPE TABLE

FM SD #	EL. (ft)	TO SD #	EL. (ft)	SIZE (in)	TYPE	LENGTH (ft) *	SLOPE (%)	D.A. (ac)	Q15 (cfs)	Qc (cfs)	Vc (cfs)
5	54.17	2	49.50	10	PVC SCH. 40	77.78	6.00	0.026	0.052	6.344	11.61
2	46.37	1A	46.27	10	PVC SCH. 40	5.25	2.00	0.322	2.195	3.66	6.70
1A	45.65	1	45.45	15	CL. IV RCPR	20.03	2.00	0.322	2.195	9.14	7.45
4	49.29	3	49.22	8	PVC SCH. 40	3.41	2.00	0.040	0.290	2.02	5.80
3	48.04	2	48.00	10	PVC SCH. 40	2.15	2.00	0.322	2.195	3.66	6.70

NOTE 1. ALL RCPR ARE RUBBER GASKET, SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. ALL PIPE CAPS AND JOINTS SHALL BE WATER TIGHT.
* PIPE LENGTHS ARE FROM WALL TO WALL OF STRUCTURES.

* TOP ELEV. PROVIDED IS FOR REFERENCE ONLY. THE CONTRACTOR SHALL ADJUST THE TOP OF STRUCTURES TO MATCH PROPOSED OR EXISTING GRADE.

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Designed: DH
Drawn: DH
Checked: DH
CERTIFICATION

Registration No.:
Issue:
Re-Submit:
Date:

No. | Description | Date | Revised by

PROJECT DRAWINGS

STROM WATER PIPE PROFILE

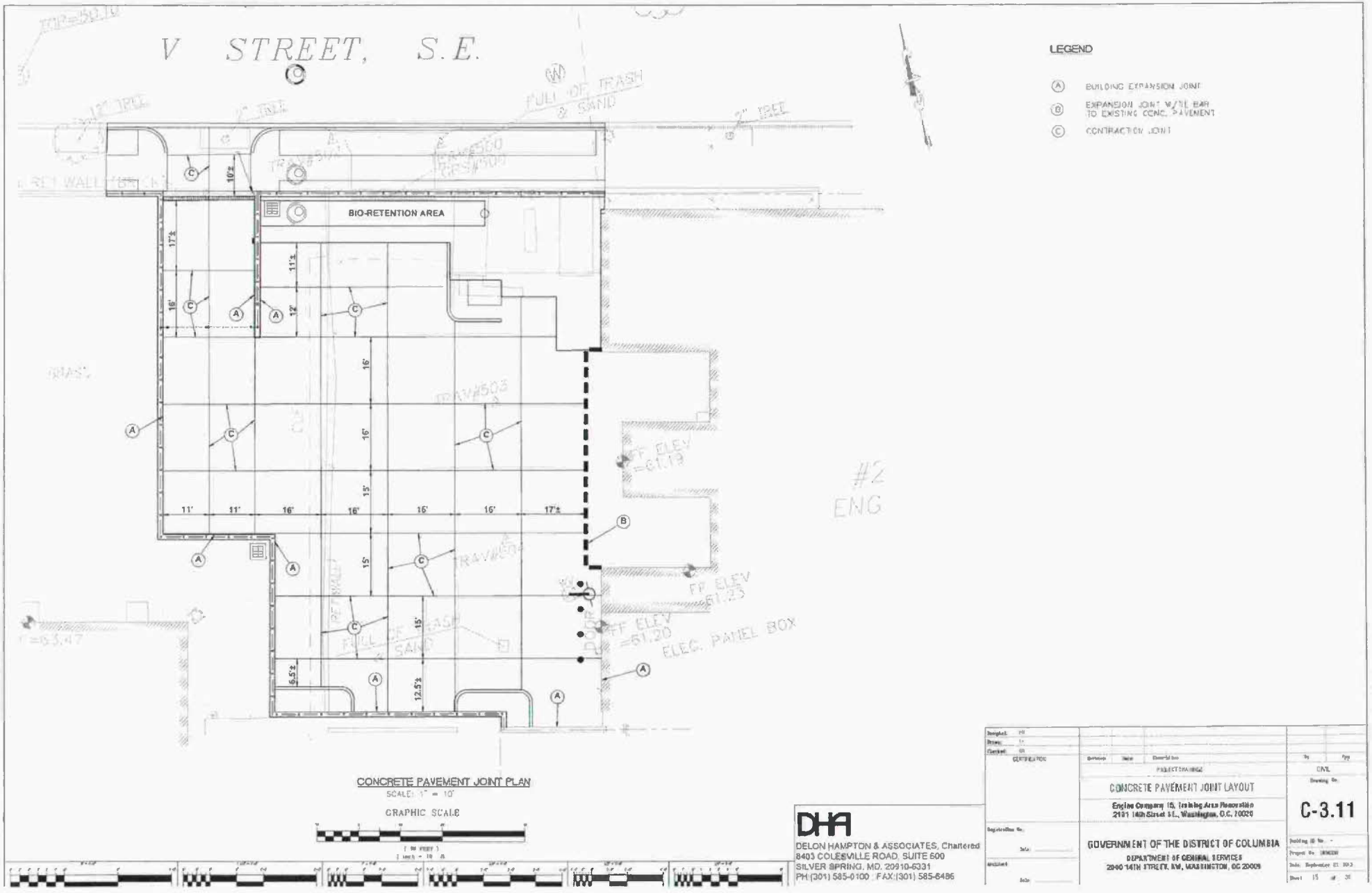
Engine Company 16, Training Area Renovation
2101 14th Street S.E., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

CIVIL

Drawing No.
C-3.10

Building ID No.:
Project No.: 1808000
Scale: As indicated
Sheet: 13 of 28



CONCRETE PAVEMENT JOINT PLAN

SCALE: 1" = 10'

GRAPHIC SCALE

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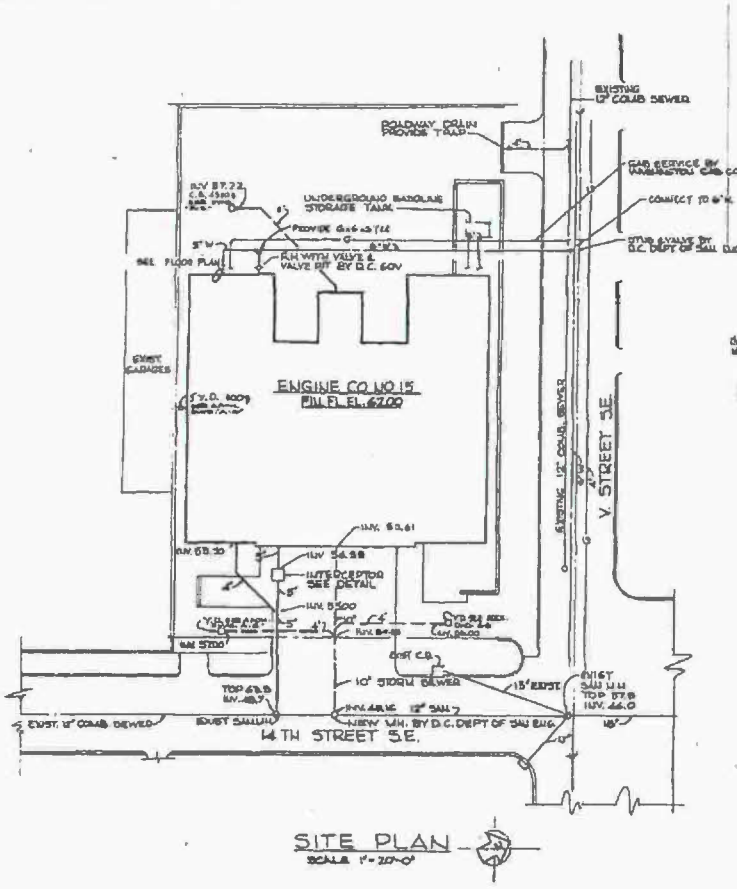
CONCRETE PAVEMENT JOINT LAYOUT

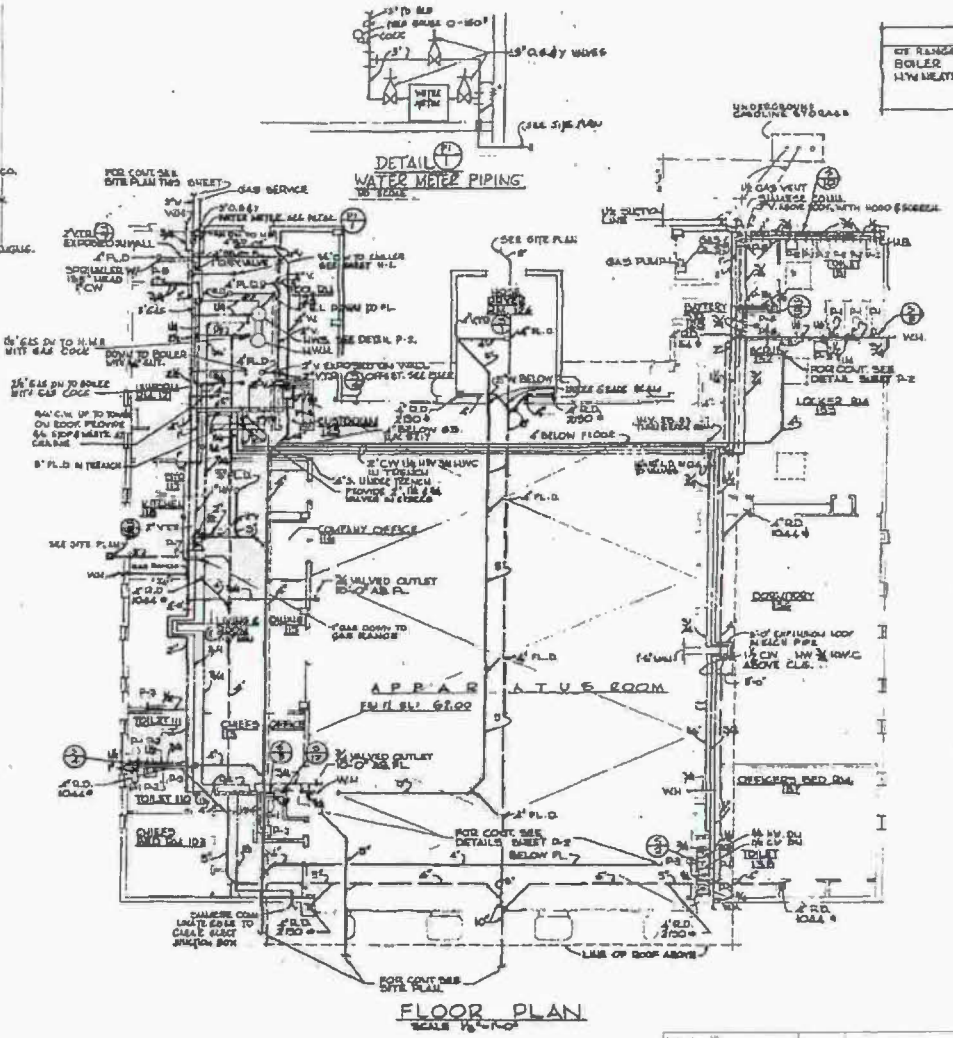
Engine Company 15, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2940 14TH STREET, NW, WASHINGTON, DC 20009

C-3.11



SITE PLAN
SCALE 1" = 20'-0"



FLOOR PLAN
SCALE 1/8"=1'-0"

TOTAL GAS LOAD	
KIT. RANGE	60,000 BTU/HR
BOILER	1,200,000 BTU/HR
H.W. HEATER	355,000 BTU/HR
	1,615,000 BTU/HR TOTAL LOAD

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RECORD DRAWING SHOWN UTILITY CONNECTIONS TO THE BUILDING

Engine Company 15, Training Area Renovation
2101 14th Street SE, Washington, D.C. 20020

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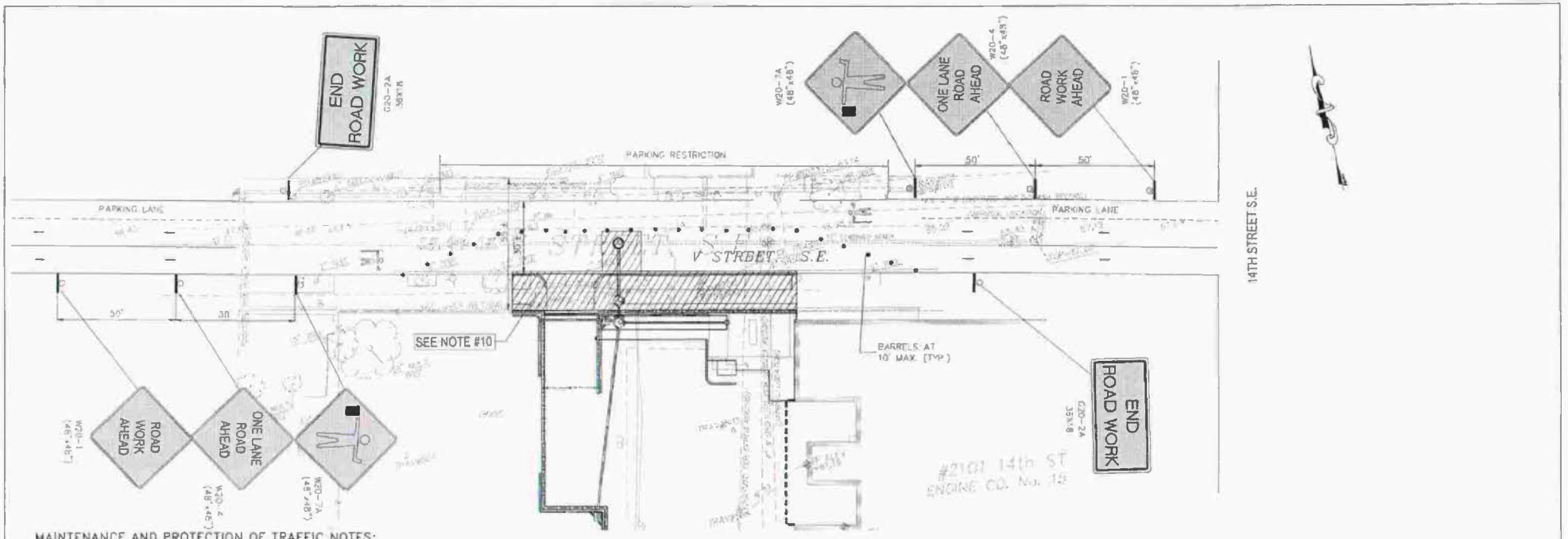
C-3.12



MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

1. ALL MAINTENANCE AND PROTECTION OF TRAFFIC PROCEDURES, DEVICES, SIGNS, SIGN MOUNTINGS AND BARRICADES SHALL CONFORM TO THE LATEST DCDOT DESIGN STANDARDS AND SPECIFICATIONS.
2. SIGNS SHALL BE DISPLAYED ONLY DURING THE TIME THAT THE TEXT APPLIES. ALL APPROPRIATE SIGNS SHALL BE COMPLETELY IN PLACE AND ON DISPLAY AS A PARTICULAR STAGE OF WORK COMMENCES. SIGNS SHALL BE MOUNTED ON SPRING LOADED STANDS.
3. ALL CONSTRUCTION SIGNS SHALL HAVE AN ORANGE BACKGROUND, BLACK LETTERS AND BORDERS. LETTER SIZE ON HIGHWAY SIGNS SHALL BE 8" MINIMUM AND LETTER SIZE ON STREET SIGNS SHALL BE 6" MINIMUM. SIGNS SHALL BE HINGE OR FLAP-TYPE AND FOLDED WHEN THE WORK THEY PERTAIN TO IS NOT IN PROGRESS. CORNERS OF SIGNS SHALL NOT BE CUT IN ANY CASE. ALL SIGNS ARE TO BE REFLECTORIZED IN ACCORDANCE WITH THE DCDOT STANDARD SPECIFICATIONS.
4. THE EDGE OF GROUND MOUNTED CONSTRUCTION SIGNS SHALL BE A MINIMUM OF 2 FEET AWAY FROM THE TRAVELED ROADWAY WITH THE BOTTOM OF SIGNS A MINIMUM OF 5 FEET ABOVE THE PAVEMENT. SIGN SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORK AND REMOVED IMMEDIATELY AFTER COMPLETION OF ACTIVITIES.
5. TEMPORARY SIGNS SHALL NOT BE PLACED AT ANY LOCATION WHERE THEY ARE OBSCURED BY TEMPORARY OR PERMANENT OBJECTS.
6. THE PLANS ARE BASED ON TOPOGRAPHICAL SURVEY AND CONFLICTS OR DIFFERING SITE CONDITIONS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION.
7. THE MAINTENANCE AND PROTECTION OF TRAFFIC SCHEMES ARE TO PROTECT THE TRAVELING PUBLIC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT HIS WORKMEN. THE COST OF ADDITIONAL LABOR MATERIALS AND EQUIPMENT SHALL BE INCLUDED IN THE PRICE BID.
8. THE ROADWAY SHALL BE SWEPT CLEAN BY THE CONTRACTOR BEFORE THE LANE IS REOPENED TO TRAFFIC.
9. THE CONTRACTOR SHALL RESTORE ALL PAVEMENT, CONCRETE AND GRADED AREAS DUE TO THE INSTALLATION AND REMOVAL OF TRAFFIC CONTROL DEVICES. THE AFFECTED AREAS SHALL BE RESTORED TO THEIR ORIGINAL OR UNDISTURBED STATE WITH MATERIALS MEETING THE SPECIFICATIONS AND APPROVAL OF THE ENGINEER.
10. CONTRACTOR SHALL CONSTRUCT THE SIDE WALK IN PHASES TO MAINTAIN 5 FEET MIN. SIDEWALK WIDTH AT ALL TIMES.
11. FLAGGERS SHALL BE CERTIFIED AND HAVE CERTIFICATION ON HAND AT ALL TIMES, AND HAVE ELECTRONIC COMMUNICATION.
12. THE SOLE DUTY OF THE FLAGGERS SHALL BE TO DIRECT TRAFFIC PROPERLY AT ALL TIMES. THEY SHALL NOT BE USED TO MOVE TEMPORARY SIGNS OR ASSIST IN OTHER WORK AND SHALL BE POSITIONED APPROPRIATELY IN ADVANCE OF THE WORK.
13. NO EXCAVATION FOR DRAINAGE OR UTILITIES SHALL REMAIN OPEN DURING NON-WORKING HOURS.
14. STOP/SLOW PADDLE SHALL BE MOUNTED ON A 5FT POLE.

TRAFFIC CONTROL PLAN
SCALE: 1" = 20'

MAINTENANCE OF TRAFFIC LEGEND

- WORK SITE
- TEMPORARY CONSTRUCTION SIGN
- TRAFFIC CONTROL DEVICE (DRUMS/CONES) (TYP.)
- DENOTES RUNNING TRAFFIC LANE & DIRECTION OF FLOW

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

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TRAFFIC CONTROL PLAN

Engine Company 15, Training Area Renovation
2501 14th Street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

C-3.13

STANDARD EROSION CONTROL NOTES

1. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR THE DISTRICT OF COLUMBIA. IF AN ON SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.
2. ALL DEBRIS IS TO BE REMOVED FROM SITE
3. ALLEY AND/OR STREETS/SIDEWALKS AND METAL ENTRANCES SHALL BE SWEPT CLEAN AT ALL TIMES DURING DEMOLITION, EXCAVATION AND CONSTRUCTION.
4. ALL CATCH BASINS AND DRAIN AREAS SHALL BE PROTECTED DURING EXCAVATION AND CONSTRUCTION.
5. IF ANY CATCH BASINS OR DRAINS BECOME CLOGGED AS A RESULT OF DEMOLITION, EXCAVATION OR CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS CLEANING.
6. WHEN SEDIMENT TRAP/SEDIMENT TANK HAS REACHED 60% CAPACITY, CLEANING OUT OF SAME IS REQUIRED.
7. ANY STOCKPILING, REGARDLESS OF LOCATION SHALL BE STABILIZED AND COVERED WITH PLASTIC OR CANVAS, AFTER ITS ESTABLISHMENT AND FOR DURATION OF THE PROJECT.
8. AFTER RAZING OR DEMOLITION, THERE IS THE NEED FOR GROUNDCOVER TO PREVENT EROSION AND SEDIMENT RUNOFF FROM OCCURRING. SUCH AS APPLYING SEED, SOD, PAVE, BRICKBAT OR MULCH, ETC.
9. THE SITE'S APPROVAL LETTER, APPROVED EROSION AND SEDIMENT CONTROL PLANS, DAILY LOG BOOKS AND TEST REPORTS SHALL BE AVAILABLE AT THE SITE FOR INSPECTION BY AUTHORIZED OFFICIALS OF DCRA RESPONSIBLE FOR PROJECT.
10. TEMPORARY SEDIMENT CONTROL DEVICES MAY BE REMOVED, WITH PERMISSION OF DCRA INSPECTOR, WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CONVERTED TO THE PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL.
11. VEGETATIVE STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE DCRA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. REFER TO APPROPRIATE SPECIFICATIONS FOR TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, SODDING AND GROUND COVERS.
12. SEDIMENT REMOVED FROM TRAPS (AND BASINS) SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN, WETLAND OR TREE-SAVE AREA. WHEN PUMPING SEDIMENT LADEN WATER, THE DISCHARGE MUST BE DIRECTED TO A SEDIMENT TRAPPING DEVICE PRIOR TO RELEASE FROM THE SITE. A SUMP PIT MAY BE USED IF SEDIMENT TRAPS THEMSELVES ARE BEING PUMPED OUT.
13. WHERE DEEMED APPROPRIATE BY THE ENGINEER OR INSPECTOR, SEDIMENT BASINS AND TRAPS MAY NEED TO BE SURROUNDED WITH AN APPROVED SAFETY FENCE. THE FENCE MUST CONFORM TO LOCAL ORDINANCES AND REGULATIONS. THE GENERAL CONTRACTOR SHALL CHECK WITH LOCAL BUILDING OFFICIALS ON APPLICABLE SAFETY REQUIREMENTS. WHERE SAFETY FENCE IS DEEMED APPROPRIATE AND LOCAL ORDINANCES DO NOT SPECIFY FENCING SIZES AND TYPES, THE FOLLOWING SHALL BE USED AS A MINIMUM STANDARD. THE SAFETY FENCE MUST BE MADE OF WELDED WIRE AND AT LEAST 42 INCHES HIGH, HAVE POSTS SPACED NO FARTHER APART THAN 8 FEET, HAVE MESH OPENINGS NO GREATER THAN 2 INCHES IN WIDTH AND 4 INCHES IN HEIGHT WITH A MINIMUM OF 14 GAUGE WIRE. SAFETY FENCE MUST BE MAINTAINED AND IN GOOD CONDITION AT ALL TIMES.
14. SEDIMENT CONTROL FOR UTILITY CONSTRUCTION FOR AREAS OUTSIDE OF DESIGNED CONTROLS OR AS DIRECTED BY ENGINEER OR DCRA INSPECTOR.

[A] CALL "MISS UTILITY" AT 1-800-257-7777 48 HOURS PRIOR TO THE START OF WORK

[B] EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH

[C] TRENCHES FOR UTILITY INSTALLATION SHALL BE BACKFILLED, COMPACTED AND STABILIZED AT THE END OF EACH WORKING DAY. NO MORE TRENCHES SHALL BE OPENED THAN CAN BE COMPLETED THE SAME DAY, UNLESS.

[D] TEMPORARY SILT FENCE SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED FOR MORE THAN ONE DAY

VEGETATIVE STABILIZATION

PERMANENT AND TEMPORARY SEEDING, SODDING AND MULCHING

I. SITE PREPARATION

PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN (A) SEVEN CALENDAR DAYS AS TO THE SURFACE OF ALL SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, DIKES, GRASSED WATERWAYS, SEDIMENT BASINS, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND (B) FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

II. SEEDBED PREPARATION AND SEEDING APPLICATION

THE TOP LAYER OF SOIL SHALL BE LOOSENED, LIMED AND FERTILIZED BY RAKING, DISCING OR HARROWING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. FLAT AREAS AND SLOPES UP TO 3 TO 1 GRADE SHALL BE LOOSE AND FRIABLE TO A DEPTH OF AT LEAST 3 INCHES SLOPES STEEPER THAN 3 TO 1 SHALL HAVE THE TOP 1-3 INCHES OF SOIL LOOSE AND FRIABLE BEFORE SEEDING. FLAT AREAS AND SLOPES UP TO 3 TO 1 GRADE SHALL BE LOOSE AND FRIABLE TO A DEPTH OF AT LEAST 3 INCHES SLOPES STEEPER THAN 3 TO 1 SHALL HAVE THE TOP 1-3 INCHES OF SOIL LOOSE AND FRIABLE BEFORE SEEDING.

APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL CULTIPACKER SEEDER OR HYDROSEEDER ON A FIRM MOIST SEEDBED.

III. SOIL AMENDMENTS

LIME AND FERTILIZE ACCORDING TO SOIL TESTS. IN LIEU OF SOIL TEST APPLY THE FOLLOWING:

DOLOMITIC LIMESTONE	2 TONS PER ACRE OR 92 LBS/1,000 (PERMANENT AND SODDING SQ.FT.)
FERTILIZER	1 TON PER ACRE OR 46 LB/1,000 (TEMPORARY) 10-10-10 OR EQUIVALENT AT 1,000 LBS PER ACRE OR 23 LBS PER 1,000 SQ. FT. (PERMANENT AND SODDING)

IV. SEDIMENT CONTROL PRACTICES, SEEDING

SEED:	"KENTUCKY 31" TALL FESCUE 60 LBS/ACRE OR 1.38 LBS/1,000 SQ. FT AND ITALIAN (ANNUAL) RYEGRASS 40 LBS/ACRE OR .92 LBS/1,000 SQ. FT.
DATES: IRRIGATION	1/2 - 10/31 5/1 - 8/14 WITH

V. TEMPORARY SEEDING PER GROWING SEASON

SEED:	ITALIAN OR PERENNIAL RYEGRASS 40 LBS/ACRE OR .92 LBS/1,000 SQ. FT.
DATES:	2/1 - 4/30 AND 8/15 - 11/10
SEED:	MILLET 40 LBS/ACRE OR 0.92 LBS/1,000 SQ. FT.
DATES:	5/1 - 8/14

VI. PERMANENT SEEDING

A. RESIDENTIAL AND HIGH MAINTENANCE AREAS

1. KENTUCKY BLUEGRASS: "PLUSH", "BIRKA", "PARADE", "VANTAGE", "COLUMBIA", "MERION", "ADELPHI", "SOUTH DAKOTA", "KENBLUE". ANY THREE VARIETIES AT 30 LBS. TO MAKE 90 LBS/ACRE OR 2 LBS/1,000 SQ.FT. AND RED FESCUE - "PENNLAWN" OR JAMESTOWN 10 LBS/1000 SQ.FT

DATES: 2/1 - 4/30 AND 8/15 - 10/31

2. "KENTUCKY 31" TALL FESCUE 220-200 LBS/ACRE OR 5-6 LBS/1,000 SQ. FT

DATES: 2/1 - 10/31 5/1 - 8/14 IRRIGATION REQUIRED.

B. LOW MAINTENANCE AND MOWING AREAS "KENTUCKY 31" TALL FESCUE 40 LBS/ACRE OR 0.92 LBS/1,000 SQ. FT. AND "INTERSTATE" SERICEA LESPEDEZA (INOCULATED)20 LBS/ACRE OR 0.46 LBS/1,000 SQ. FT

DATES: 2/1 - 4/30 AND 8/15 - 10/31 C. GENERAL AND LARGE ACREAGE "KENTUCKY 31" TALL FESCUE 60 LBS./ACRE OR 1.38 LBS/1,000 SQ.FT.(0.5 kg/100 sq.m)

VII. MULCHING

ALL SEEDINGS REQUIRE MULCHING. USE MULCH ONLY DURING NON-SEEDING DATES UNTIL SEEDING CAN BE DONE.

MULCH SHALL BE UNROTTED, UNCHOPPED SMALL GRAIN STRAW APPLIED AT A RATE OF 1 TO 2 TONS/ACRE OR 70-90 LBS/1000 SQ.FT. (2 BALES) MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEED SEEDS AND SHALL BE FREE OF PROHIBITED NOXIOUS WEEDS. SPREAD MULCH UNIFORMLY MECHANICALLY OR BY HAND. MULCH ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY MULCH NETTINGS, MULCH ANCHORING TOOL, PEG AND TWIN OR LIQUID MULCH BINDERS.

LIQUID MULCH BINDER SHALL BE RAPID CURING CUTBACK ASPHALT APPLIED AT A RATE OF 200 GAL/ACRE OR 5 GAL PER 1,000 SQ. FT. SLOPES 8 FEET OR MORE HIGH USE 348 GAL./ACRE OR 8 GAL./1,000 SQ. FT.

VIII. SODDING

CLASS OF TURFGRASS SOD SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED OR MARYLAND OR VIRGINIA STATE APPROVED SOD. SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD IS TO BE LAID WITH THE LONG EDGES PARALLEL TO THE CONTOUR WITH STAGGERED JOINTS WITH ALL ENDS TIGHTLY ABUTTING AND NOT OVERLAPPING. SOD SHALL BE ROLLED AND THOROUGHLY WATERED WITHIN EIGHT HOURS OF INSTALLATION. DAILY WATERING TO MAINTAIN 4 INCH DEPTH OF MOISTURE FOR THE FIRST WEEK IS REQUIRED IN THE ABSENCE OF RAINFALL. SOD IS NOT TO BE APPLIED ON FROZEN GROUND.

IX. MAINTENANCE

A. IRRIGATION - WHEN SOIL MOISTURE BECOMES DEFICIENT, IRRIGATE TO PREVENT LOSS OF STAND OF PROTECTIVE VEGETATION.
B. REPAIRS - IF STAND IS INADEQUATE FOR EROSION CONTROL, OVERSEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY APPLIED. IF STAND IS OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL RATES AND PROCEDURES.

NOTE: USE OF THIS INFORMATION DOES NOT PRECLUDE MEETING ALL OF THE REQUIREMENTS OF THE 1987 DISTRICT OF COLUMBIA DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL VEGETATIVE PRACTICES.

STANDARD EROSION AND SEDIMENT CONTROL MEASURES AND SEQUENCE

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING.
2. PROVIDE TEMPORARY STONE CONSTRUCTION ENTRANCE WHERE SHOWN. PROVIDE WATER SOURCE AND HOSE TO CLEAN ALL EQUIPMENT LEAVING SITE. INSTALL SILT FENCE AS SHOWN.
3. NO DISTURBED AREA WILL BE DENUDED FOR MORE THAN 7 CALENDAR DAYS. INSTALL THE NECESSARY TEMPORARY OR PERMANENT VEGETATIVE STABILIZATION MEASURES TO ACHIEVE ADEQUATE EROSION AND SEDIMENT CONTROL.
4. ALL CONSTRUCTION TO BE INSPECTED DAILY BY THE CONTRACTOR, AND ANY DAMAGED SILTATION OR EROSION CONTROL DEVICES OR MEASURES WILL BE REPAIRED AT THE CLOSE OF THE DAY.
5. ALL SILT FENCE TO BE MAINTAINED IN WORKING CONDITION.
6. STABILIZED CONSTRUCTION ENTRANCES TO BE PERIODICALLY SUPPLEMENTED WITH ADDITIONAL STONE AS NEEDED.
7. CONTROLS CAN BE REMOVED AFTER THEIR CONTRIBUTING BASINS HAVE BEEN PERMANENTLY STABILIZED, AND APPROVAL OF INSPECTOR IS OBTAINED.

GENERAL DEWATERING NOTES

1. TREATMENT OF SITE RUNOFF DURING CONSTRUCTION SHALL BE CAPTURED IN A SEDIMENT BASIN/TRAP. THE RUNOFF WILL THEN BE PUMPED INTO A SEDIMENT TANK AND SUBSEQUENTLY PROCESSED THROUGH AN ACTIVATED CARBON TREATMENT SYSTEM. THE EFFLUENT WILL THEN BE RELEASED INTO THE COMBINED SEWER SYSTEM. APPROVAL PRIOR TO DISCHARGE INTO THE PUBLIC SYSTEM WILL BE OBTAINED BY THE CONTRACTOR FROM DC WASA.

GENERAL INSPECTION NOTES

THE CONTRACTOR SHALL CONTACT THE INSPECTION/ENFORCEMENT BRANCH, WATERSHED PROTECTION DIVISION, DISTRICT DEPARTMENT OF THE ENVIRONMENT AT (202) 535-2240 OR (202) 535-2977 TO REQUEST A PRE-CONSTRUCTION MEETING 48-72 HOURS BEFORE THE START OF ANY LAND DISTURBING ACTIVITY.

NARRATIVE

THE PROJECT INVOLVES THE EXPANSION OF THE EXISTING PARKING LOT AND THE RECONSTRUCTION OF THE EXISTING PARKING LOT AT 2101 14th ST., SE FOR FEMS ENGINE COMPANY 15.

EROSION CONTROL WILL BE ACHIEVED THROUGH SILT FENCE, INLET PROTECTIONS, SUMP PITS AND PORTABLE SEDIMENT TANK. SITE RUNOFF PUMPED FROM THE SUMP PITS WILL BE TREATED THROUGH THE USE OF THE PORTABLE SEDIMENT TANK. ONCE TREATED, THE WATER SHALL BE DISCHARGED TO THE STORM DRAIN SYSTEM THROUGH THE REMOVABLE PUMPING STATION.

THE CONTRACTOR SHALL PROVIDE ADDITIONAL PUMPS AND SEDIMENT TANKS TO PROVIDE ADDITIONAL TREATMENT CAPACITY TO DEWATER THE SITE SHOULD FLOODING OCCUR AFTER A HEAVY RAIN/WEATHER EVENT.

SITE INFORMATION:

OFF-SITE SPOIL, WASTE, OR BORROW AREAS IN THE DISTRICT OF COLUMBIA OR ON FEDERAL PROPERTY MUST HAVE PRIOR APPROVAL BY DCRA. ALL WASTE AND BORROW AREAS OFF-SITE MUST BE PROTECTED BY SEDIMENT CONTROL MEASURES AND STABILIZED IN ACCORDANCE WITH THE ORDINANCES AND REGULATIONS OF THE JURISDICTION WHERE THE SPOIL, WASTE, OR BORROW AREA IS LOCATED/STABILIZED.

AREA LOCATION		
TOTAL AREA OF SITE	.11	AC
AREA DISTURBED	.31	AC
BUILDING AREA	0	ACRES (AT GROUND FLOOR)
TOTAL CUT	250	CU. YDS.*
TOTAL FILL	340	CU. YDS.*
OFFSITE WASTE/BORROW	TO BE SUBMITTED BY CONTRACTOR FOR APPROVAL	

* THESE NUMBERS ARE FOR PERMIT PURPOSES ONLY AND NOT FOR BIDDING.

TREE PROTECTION NOTES:

1. Existing street trees within or directly adjacent to the limits of work must be protected from the proposed construction. All tree protection measures and excavation operations shall comply with District Department of Transportation Standard Specifications for Highways and Structures Sections 107, 207, and 611.

2. None of the following shall occur within the street tree space: alteration or disturbance to existing grade; staging/storage of construction materials, equipment, soil, or debris; disposal of any liquids e.g. concrete, gas, oil, paint, and blacktop, and no trenching within 10 ft. of the tree trunk without UFA approval (measurements are taken from the closest edge of the tree to the utility work and not the center of the tree).

3. No heavy equipment shall be used to remove existing hardscape within the drip line of these street trees. Excavations within the drip line shall proceed with care by use of hand tools to avoid injury to tree trunks, branches, and roots. The drip line is defined as the ground area under the canopy of the trees. Exposed roots 1 inches and larger in diameter shall be wrapped in burlap or other approved material and kept moist at all times. No roots greater than two (2) inches in diameter shall be cut without UFA permission.

4. If there are any tree conflicts on this job site permit holder must suspend all work that contributes to the conflict and immediately contact Cliff McCully, Ward 8 Arborist at 202-527-1611 to receive clearance to continue the conflicting work. If a street tree needs to be removed, a Public Space Permit will be required and compensation paid, compensation is based on the size (diameter) of the tree.

Designed	[illegible]
Drawn	[illegible]
Checked	[illegible]
CERTIFICATION	
Registration No.	
Date	
Architect	
Date	

Revision	Date	Description	By	App

PROJECT DRAWING

CIVIL

Drawing No.

EROSION AND SEDIMENT CONTROL NOTES

Engine Company 15, Training Area Renovation
2101 14th Street SE, Washington, D.C. 20020

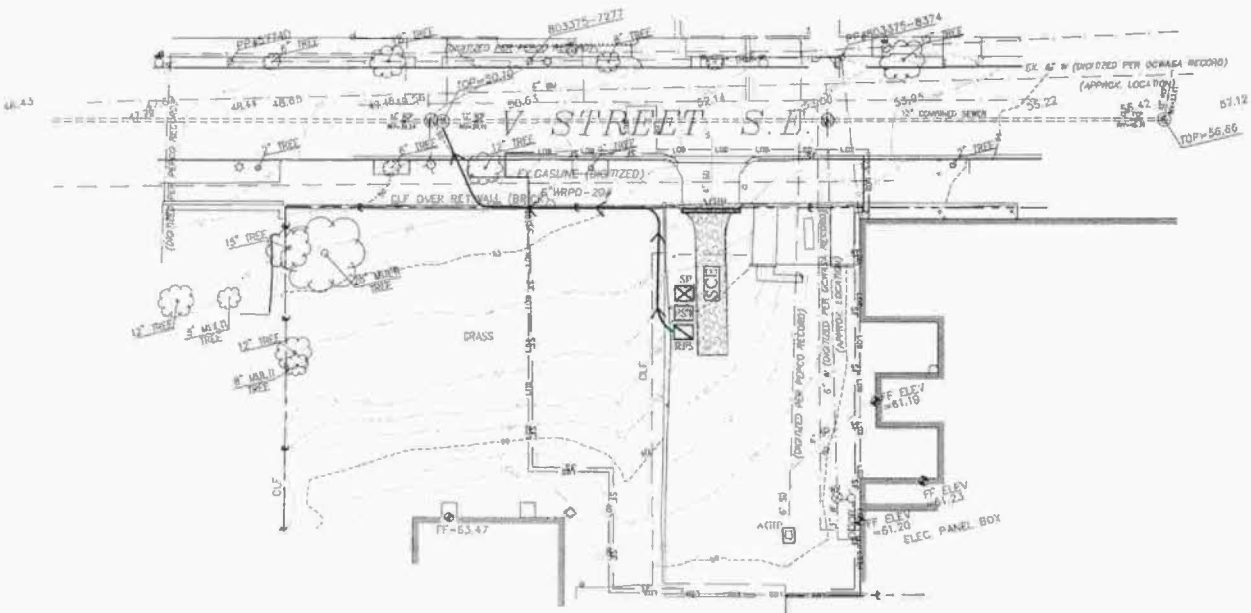
C-4.00

GOVERNMENT OF THE DISTRICT OF COLUMBIA

DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

Building ID No.: -
Project No.: [illegible]
Date: September 17, 2013
Sheet 19 of 30

DHA
DELON HAMPTON & ASSOCIATES, Chartered
8403 COLESVILLE ROAD, SUITE 600
SILVER SPRING, MD. 20910-6331
PH (301) 585-0100, FAX (301) 585-6486



EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

CONTROL LEGEND

SCE	TEMPORARY STABILIZED CONSTRUCTION ENTRANCE
—SF—	SILT FENCE
—LOD—	LIMIT OF DISTURBANCE
AGIP	AT GRADE INLET PROTECTION
SP	SUMP PITS
PST	PORTABLE SEDIMENT TANK
RPS	REMOVABLE PUMPING STATION

SEQUENCE OF CONSTRUCTION

1. THE CONTRACTOR SHALL CALL THE INSPECTION/ENFORCEMENT BRANCH, WATERSHED PROTECTION DIVISION, DISTRICT DEPARTMENT OF THE ENVIRONMENT AT (202) 535-2343 FOR A PRE-CONSTRUCTION MEETING 72 HOURS PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITY.
2. INSTALL CONSTRUCTION FENCE AROUND THE SITE.
3. INSTALL SILT FENCE AS SHOWN ON PLAN.
4. INSTALL INLET PROTECTION DEVICES AT THE EXISTING INLETS, AND STABILIZED CONSTRUCTION ENTRANCES WITH TRUCK WASH RACK. PROVIDE SUMP FOR COLLECTION AND TREATMENT OF WASH WATER.
5. WATER PUMPED FROM SUMP PITS SHALL BE TREATED FOR SILT REMOVAL THROUGH THE USE OF PORTABLE SEDIMENT TANKS AND/OR SILT BAGS.
6. ACCOMPLISH DEMOLITION PER SITE DEMOLITION PLAN C2.00.
7. DISCHARGE OF CLEAN WATER SHALL BE TO THE STORM DRAIN SYSTEM. THE CONTRACTOR SHALL OBTAIN THE NECESSARY DISCHARGE PERMITS FROM THE DC WATER (MS. ELLAINE WILSON, 202-787-4177).
8. STREET SWEEPING AND DUST CONTROL MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH DC STANDARD SPECIFICATIONS.

SITE INFORMATION:

TOTAL AREA OF SITE	31	ACRES
AREA DISTURBED	31	ACRES
BUILDING AREA		ACRES
TOTAL CUT	260	CU. YDS.*
TOTAL FILL	340	CU. YDS.*

* THESE NUMBERS ARE FOR PERMIT PURPOSES ONLY AND NOT FOR BIDDING.

NOTES

1. PORTABLE SEDIMENT TANK EFFLUENT SHALL BE PUMPED TO THE CITY'S STORM SEWER SYSTEM. CONTRACTOR SHALL CHOOSE QUANTITIES AND LOCATIONS OF SUMP PITS AND PORTABLE SEDIMENT TANKS AS NECESSARY FOR CONSTRUCTION ACTIVITIES.
2. SEE SHEET C4.04 FOR STANDARDS AND SPECIFICATIONS FOR DUST CONTROL.
3. CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR STAGING/PILING AREA.

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Designed:			
Drawn:			
Checked:			
CERTIFICATION	Revisions	Date	Description

PROJECT DRAWING

INITIAL EROSION AND SEDIMENT CONTROL PLAN

Engine Company 15, Training Area Renovation
2101 14th Street SE, Washington, D.C. 20020

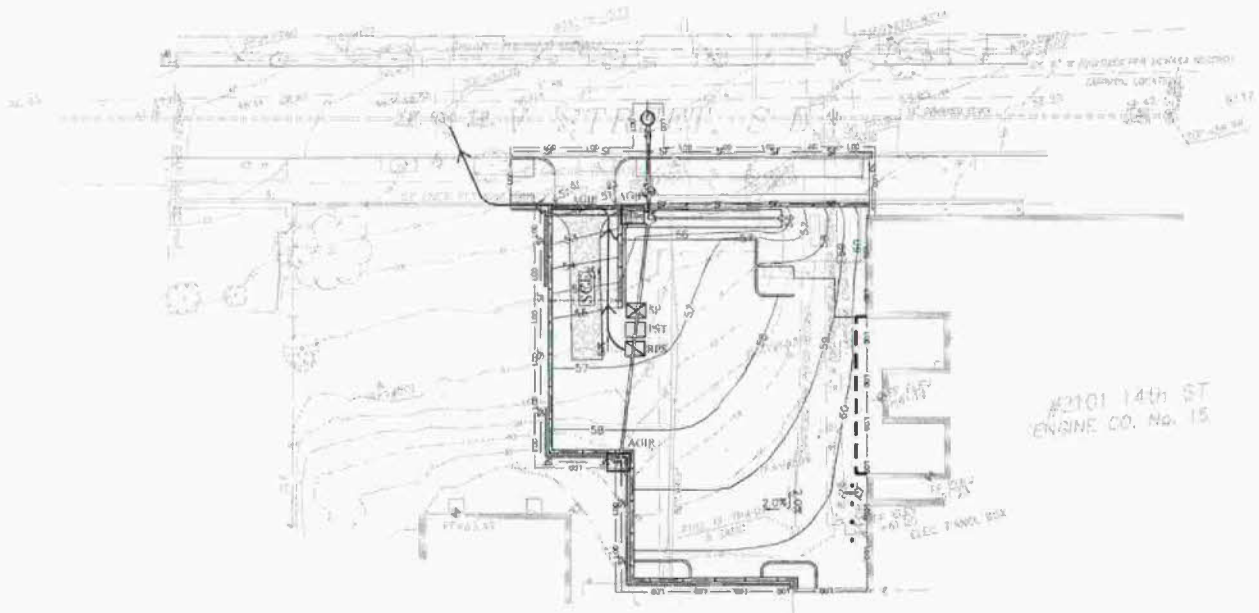
GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

CIVIL

Drawing No.

C-4.01

Building ID No.
Project No.
Date: September 27, 2013
Sheet 17 of 31



EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

CONTROL LEGEND

SCE	TEMPORARY STABILIZED CONSTRUCTION ENTRANCE
SF	SILT FENCE
LOD	LIMIT OF DISTURBANCE
ACIP	AT GRADE INLET PROTECTION
SP	SUMP PITS
PST	PORTABLE SEDIMENT TANKS
RPS	REMOVABLE PUMPING STATION

SEQUENCE OF CONSTRUCTION

1. MAINTAIN CONSTRUCTION FENCE AROUND THE SITE.
2. MAINTAIN AND/OR INSTALL SILT FENCE, SUPER SILT FENCE AND TREE PROTECTIONS AS NECESSARY TO ACCOMMODATE SITE WORK.
3. MAINTAIN INLET PROTECTION DEVICES AT THE EXISTING INLETS, AND STABILIZED CONSTRUCTION ENTRANCES WITH TRUCK WASH RACK. PROVIDE SUMP FOR COLLECTION AND TREATMENT OF WASH WATER.
4. INSTALL STORMWATER DRAINAGE SYSTEM.
5. INSTALL ALL PROPOSED UTILITIES.
6. INSTALL INLET PROTECTIONS AT PROPOSED INLETS.
7. EXCAVATE FOR FOUNDATIONS. CONTRACTOR SHALL MAINTAIN GRADES SO THAT WATER DOES NOT POND. EXCAVATION SHALL BE SLOPED TO DRAIN TO SUMP PITS AT LOCATIONS CHOSEN BY THE CONTRACTOR BASED UPON EXCAVATION ACTIVITIES.
8. WATER PUMPED FROM SUMP PITS SHALL BE TREATED FOR SILT REMOVAL THROUGH THE USE OF PORTABLE SEDIMENT TANKS AND/OR SILT BAGS.
9. DISCHARGE OF CLEAN WATER SHALL BE TO THE STORM DRAIN SYSTEM. THE CONTRACTOR SHALL OBTAIN THE NECESSARY DISCHARGE PERMITS FROM THE DCWASA (MS. ELLAINE WILSON (202) 787-4017).
10. STREET SWEEPING AND DUST CONTROL MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH DC STANDARD SPECIFICATIONS.
11. SITE CONSTRUCTION WORK SHALL BEGIN AS SOON AS THE APPROPRIATE AREA OF THE SITE IS BROUGHT TO GRADE AND STABILIZED.
12. BRING THE REST OF THE SITE TO GRADE.
13. SEDIMENT CONTROL DEVICES MAY BE REMOVED UPON COMPLETION OF WORK WITH APPROVAL OF THE DCRA INSPECTOR.

SITE INFORMATION:

TOTAL AREA OF SITE	.37	ACRES
AREA DISTURBED	.33	ACRES
BUILDING AREA	0	ACRES
TOTAL CUT	260	CU. YDS*
TOTAL FILL	340	CU. YDS*

* THESE NUMBERS ARE FOR PERMIT PURPOSE ONLY. NOT FOR BIDS

NOTES

1. PORTABLE SEDIMENT TANK EFFLUENT SHALL BE PUMPED TO THE CITY'S STORM SEWER SYSTEM. CONTRACTOR SHALL CHOOSE QUANTITIES AND LOCATIONS OF SUMP PITS AND PORTABLE SEDIMENT TANKS AS NECESSARY FOR CONSTRUCTION ACTIVITIES.
2. SEE SHEET C-4.04 FOR STANDARDS AND SPECIFICATIONS FOR DUST CONTROL.
3. CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR STAGING/PILING AREA.

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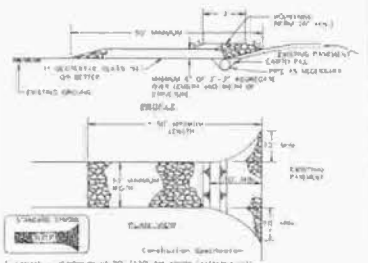
FINAL EROSION AND SEDIMENT CONTROL PLAN

Engine Company 16, Training Area Renovation
2101 14th Street N.E., Washington, D.C. 20029

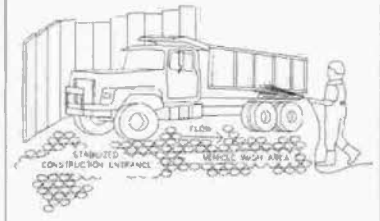
GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2360 14TH STREET, NW, WASHINGTON, DC 20009

C-4.02

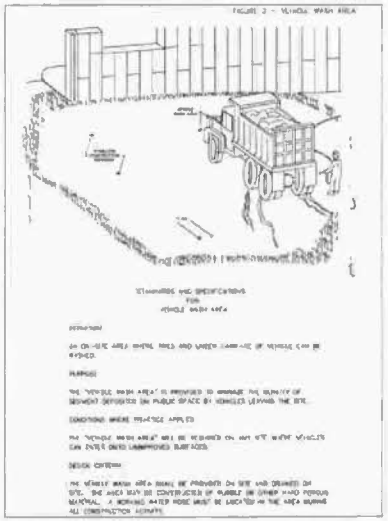
DETAIL 1 - STABILIZED CONSTRUCTION ENTRANCE



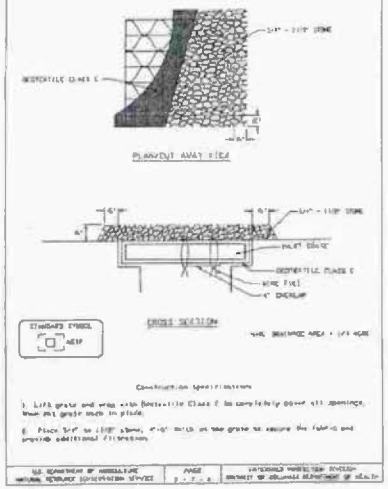
VEHICLE WASH DETAIL



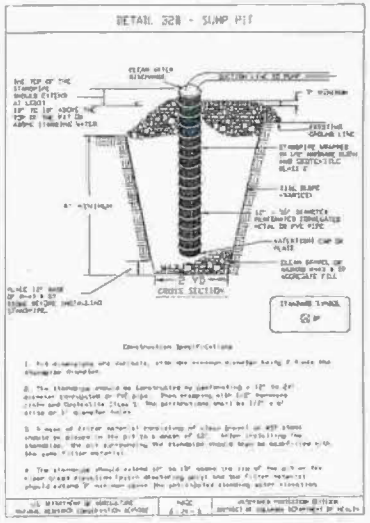
AND 2-4" DIAMETER PVC PIPE PERFORATED WITH FILTER FABRIC SLOPED TO DRAIN ALONG PERIMETER OF VEHICLE WASH AREA. SET AT DEPTH = 18" BELOW ROCK SURFACE. PIPES TO RUN ALONG LENGTH OF WASH AREA.



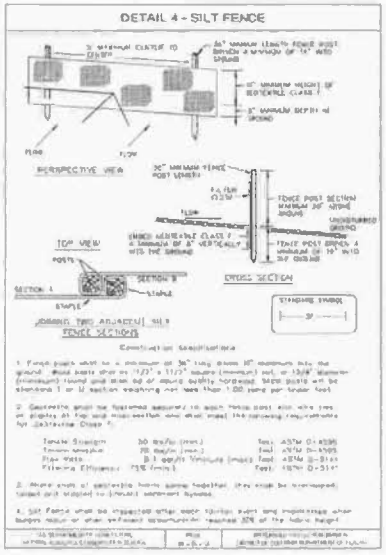
DETAIL 6B - AT GRADE INLET PROTECTION



DETAIL 32B - SUMP PIT



DETAIL 4 - SILT FENCE



SILT FENCE

Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	150 feet

Slope or slopes of less than 2% (less and sandy soils (USDA general classification system, add Class A) maximum slope length and silt fence length will be unlimited in these cases a silt fence may be the only perimeter control required

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Designed
Drawn
Checked
CERTIFICATION

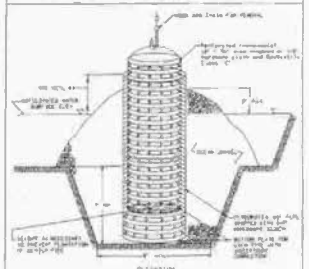
No.	Revision	Date	Description	By	App'd
			PROJECT NUMBER		

EROSION AND SEDIMENT CONTROL DETAILS-1
Engine Company 15, Training Area Renovation
2101 14th Street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

Drawing No.
C-4.03

DETAIL 32A - REMOVABLE PUMPING STATION



ELEVATION

STANDARDS AND SPECIFICATIONS
FOR DUST CONTROL

DEFINITION

PURPOSE

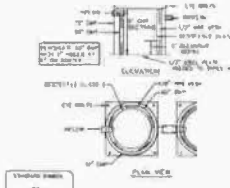
CONDITIONS WHERE PRACTICE APPLIES

SPECIFICATIONS

TEMPORARY METHODS:

PERMANENT METHODS:

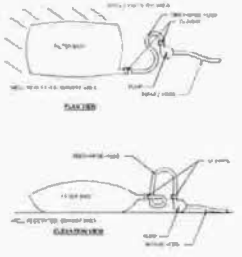
DETAIL 35 - PORTABLE SEDIMENT TANK (VERTICAL)



ELEVATION

PLAN VIEW

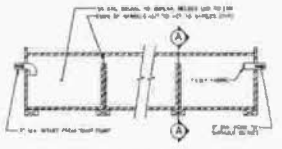
DETAIL 33 - PUMPED WATER FILTER BAG



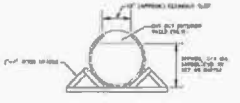
PLAN VIEW

ELEVATION VIEW

DETAIL 34 - PORTABLE SEDIMENT TANK (HORIZONTAL)



ELEVATION



CROSS-SECTION A-A

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CERTIFICATION

PROJECT TITLE

EROSION AND SEDIMENT CONTROL DETAILS-2

Engine Company 15, Training Area Renovation
2101 14th Street S.E., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

CIVIL

Drawing No.

C-4.04

GENERAL NOTES:

1. THE LOCATION OF THE UTILITIES SHOWN ON THESE PLANS ARE BASED ON FIELD OBSERVATION AND/OR RECORD DRAWINGS.THE INFORMATION SHOWN IS NOT NECESSARILY COMPLETE AND THE LOCATION OF THE UTILITIES SHOWN IS APPROXIMATE. THE CONTRACTOR WILL VERIFY THE EXISTENCE OF ALL UTILITIES IN ADVANCE OF CONDUCTING CONSTRUCTION OPERATIONS THAT COULD DAMAGE THESE UTILITIES.

2. IN THE AREAS WHERE PROPOSED CONSTRUCTION MAY CONFLICT WITH EXISTING UTILITIES, THE CONTRACTOR WILL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THESE UTILITIES.

3. IF AN UNDERGROUND UTILITY IS DAMAGED, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE DISTRICT AND THE OWNER OF THE UTILITY. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE OR BELOW GROUND WILL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE UTILITY OWNER AT THE CONTRACTOR'S EXPENSE. UNDER NO CIRCUMSTANCE WILL THE CONTRACTOR BACKFILL AN EXCAVATION AFFECTING SAID UTILITY WITHOUT FIRST RECEIVING PERMISSION FROM THE UTILITY OWNER.

4. THE CONTRACTOR WILL NOTIFY THE FOLLOWING PARTIES AT LEAST FORTY EIGHT (48) HOURS, BUT NOT MORE THAN TEN (10) WORKING DAYS IN ADVANCE OF PROCEEDING WITH ANY EXCAVATION WORK:

TYPE OF WORK	NOTIFY AGENCIES
GAS, TELEPHONE, ELECTRICAL, CONDUIT & CABLE TV	MISS UTILITY (800-257-7777)
WATERMAIN & SEWERS	WASA (202-673-6600)

5. THE CONTRACTOR WILL INSTALL THE NEW MAINLINE CONDUIT AND MANHOLE SYSTEM ALONG WITH THE ENERGIZED FEEDER CABLES BEFORE STARTING TO INSTALL THE LIGHTING CONDUITS, FOUNDATIONS AND POLES.

6. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD CHECK FOR ALL EXISTING LOCATIONS AND MAKE NECESSARY ADJUSTMENTS TO ACCOMMODATE THE NEW WORK AT NO ADDITIONAL COST TO THE OWNER.

LEGEND:

- EXISTING LIGHT POLE
- PROPOSED 5A LIGHT POLE
- PROPOSED LOCATION FOR POWER CONNECTION
- PB — PROPOSED ELECTRICAL PULL BOX
- PROPOSED DRAINAGE INLET
- PROPOSED LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT
- EXISTING TREE
- EXISTING FIRE HYDRANT
- S — EXISTING SANITARY SEWER MANHOLE
- W — EXISTING WATER MANHOLE
- PROPOSED DRAINAGE MANHOLE
- EXISTING PEPCO ELECTRICAL LINE
- EXISITNG GAS LINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- PROPOSED DDOT 1-2" ELECTRICAL PVC CONDUIT
- PROPOSED DDOT 2-2" ELECTRICAL PVC CONDUIT
- PROPOSED STORM DRAINAGE LINE

ABBREVIATION LIST:

LED	LIGHT EMITTING DIODE
M.H.	MOUNTING HEIGHT
P1	POWER SOURCE
Lx	INSTALL NEW 5A ALLEY LIGHT POLE AND LUMINAIRE

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PSI
Precision Systems, Inc.
Engineers, Planners and Architects
WASHINGTON, D.C.

PROJECT DRAWINGS

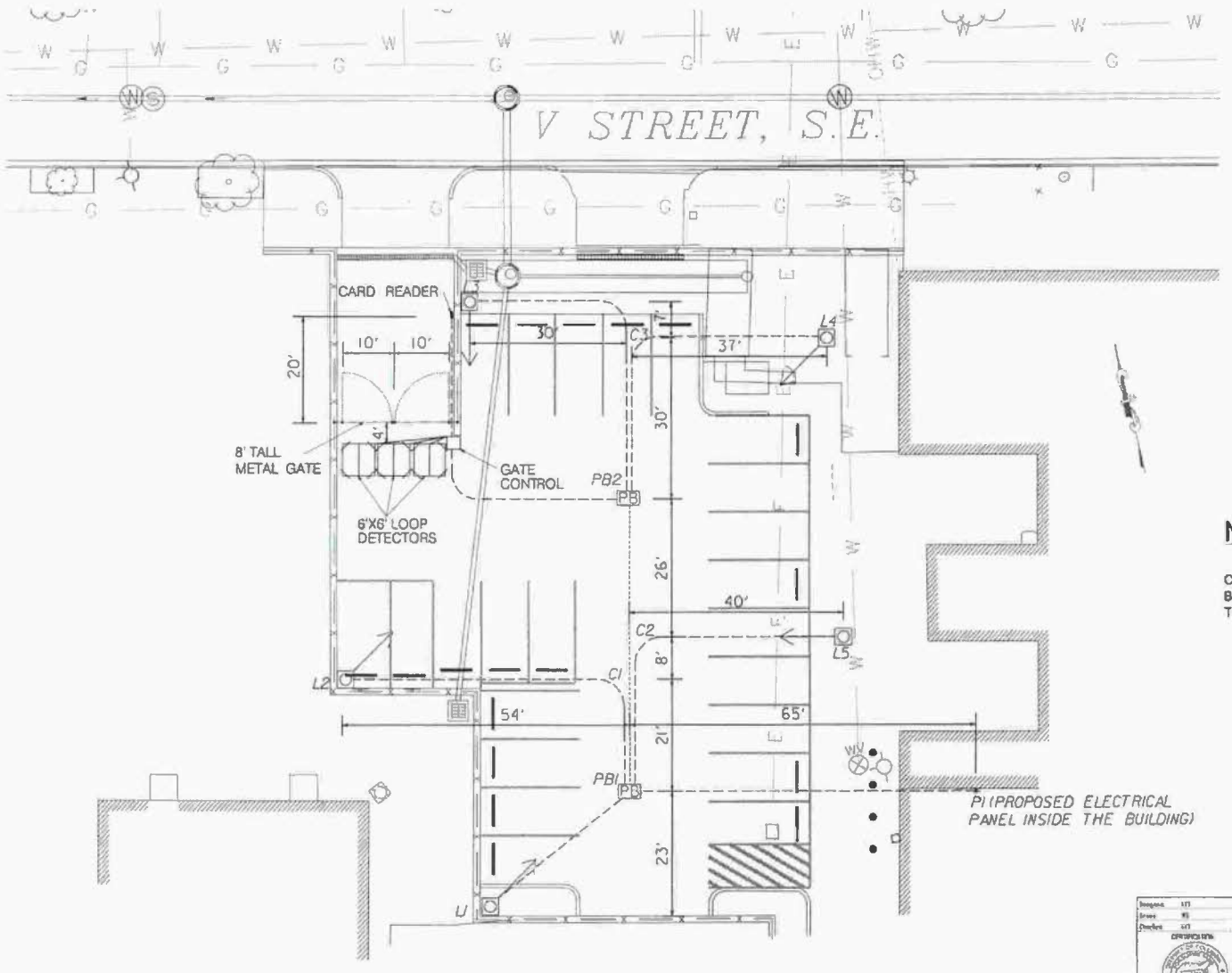
LEGENDS AND GENERAL NOTES FOR LIGHTING AND GATE PLANS

2101 14th street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

LIGHTING AND GATE DESIGN

LT-01



NOTES:

CONDUITS INSIDE THE BUILDING TO BE RIGID METAL, AND OTHER CONDUITS TO BE PVC.

GRAPHIC SCALE

10 5 0 10 20

1" = 10'-0"

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PSI
Precision Systems, Inc.
Engineers, Planners and Architects
WASHINGTON, D.C.

PROJECT DRAWINGS

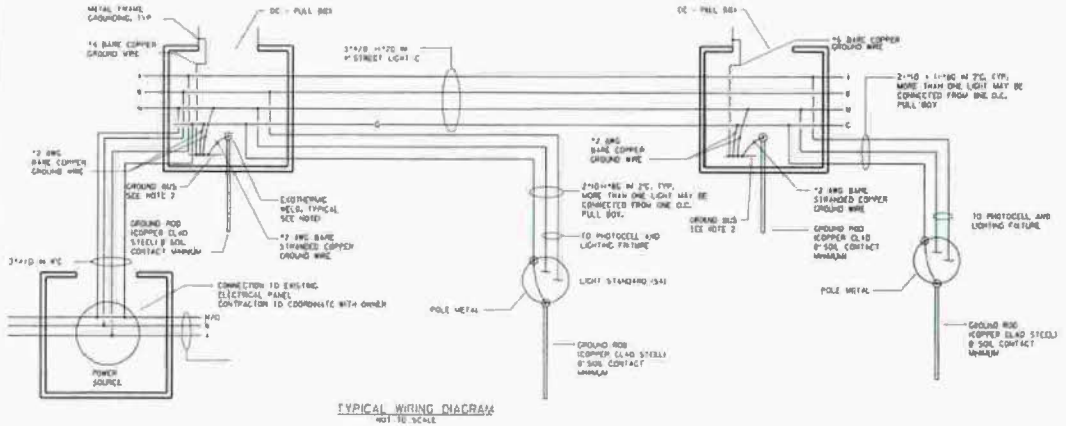
LIGHTING AND GATE PLAN

2101 14th street SE., Washington, D.C. 20020

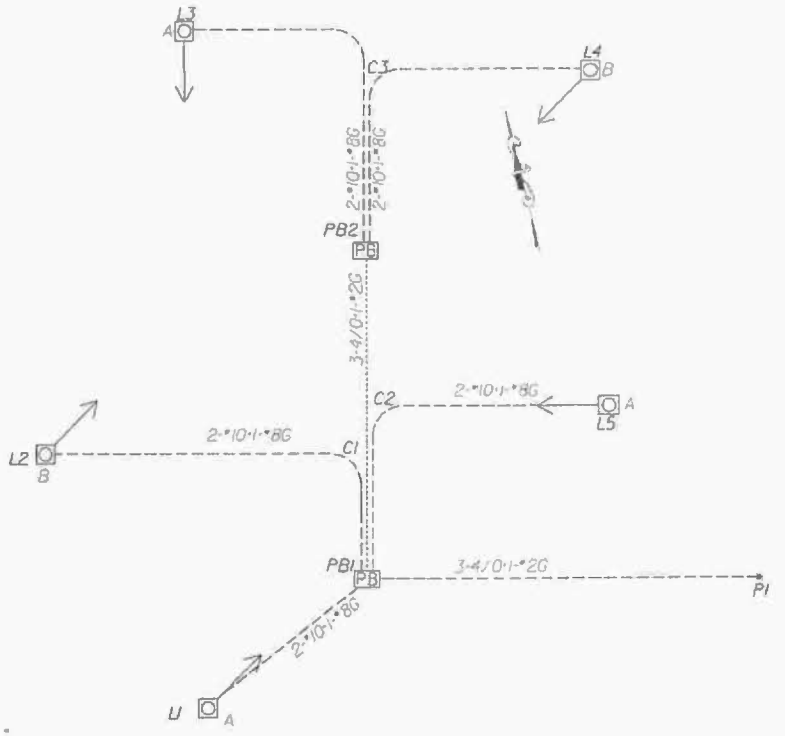
GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

LIGHTING AND GATE DESIGN

LT-02



TYPICAL WIRING DIAGRAM
NOT TO SCALE



GENERAL NOTES:

1. PROVIDE TWO COATS OF ELECTRICAL WATERPROOF COATING OVER WELD AND BARE METALS IN THE SURROUNDING AREAS. REQUIREMENT IS TYPICAL FOR ALL EXOTHERMIC WELD FOR GROUND CONNECTION.

2. PROVIDE A 2"W/4"D"HR(MIN.) COPPER GROUND BUS NEAR THE GROUND ROD. INSTALL THE BUS ON MANHOLE WALL WITH ANCHORS AND TWO 1/4 " BOLTS, 2 INCHES FROM PULL BOX WALL SURFACE.

DHA
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PSI
Precision Systems, Inc.
Engineers, Planners and Architects
WASHINGTON, D.C.

Designed: AFF
Drawn: WI
Checked: AFF

CERTIFICATION

Signature/Seal No.: PE80733
Date: February 3, 2023

Applicant: N/A
Date:

No.	By	Description	Date

PROJECT DRAWINGS

LIGHTING CABLE SCHEMATIC PLAN

2100 14th street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

By: AFF
LIGHTING AND DATE DESIGN

Drawing No.: LT-03

Building ID No.: -
Project No.: 1420020
Date: February 3, 2023
Sheet: 20 of 30

CONDUIT SUMMARY					
FROM STA.	TO STA.	DISTANCE	2-2"	1-1"	1-2"
P1	PB1	80			80
PB1	L1	35			35
PB1	C1	21	21		
C1	L2	54			54
C1	C2	9	9		
C2	L5	41			41
C2	PB2	26	26		
PB2	C3	30			30
C3	L4	38			38
C3	L3	40			40
PB2	GATE CONTROL	50			50
GATE CONTROL	CARD READER	30		30	
TOTAL			56	30	368

CABLE SUMMARY						
SCHEDULE			QUANTITY			
			CABLE		GROUND WIRE	
FROM STA.	TO STA.	DISTANCE	4/0	#10	#2	#8
P1	PB1	80	270		90	
PB1	L1	35		80		40
PB1	L2	76		162		81
PB1	L5	71		152		76
PB1	PB2	56	198		66	
PB2	L3	70		150		75
PB2	L4	68		146		73
TOTAL			468	690	156	345

STREET LIGHT POLE INFORMATION (INSTALLS)					
LIGHT NO.	POLE TYPE	LIGHT SOURCE	LAMP WATTS AND TYPE	REMARKS	DATE IN SERVICE
L1	5A	LED	PHILIPS 80W48LED RVS OR EQUIVALENT		
L2	5A	LED	PHILIPS 80W48LED RVS OR EQUIVALENT		
L3	5A	LED	PHILIPS 80W48LED RVS OR EQUIVALENT		
L4	5A	LED	PHILIPS 80W48LED RVS OR EQUIVALENT		
L5	5A	LED	PHILIPS 80W48LED RVS OR EQUIVALENT		

POWER SOURCE	
PANEL NUMBER	ACTION REQUIRED
P1	CONTRACTOR TO INSTALL A NEW ELECTRICAL PANEL

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Precision Systems, Inc.
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PROJECT DRAWINGS

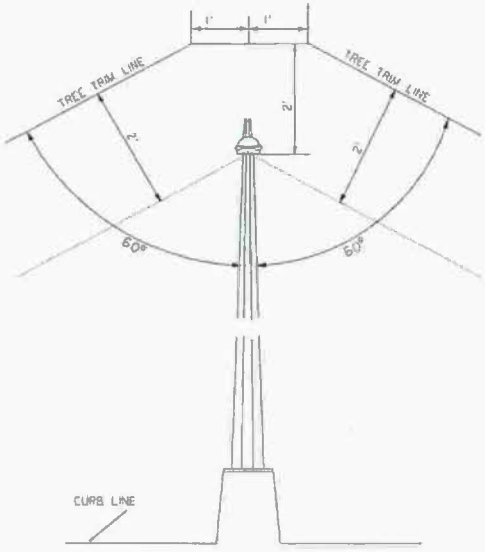
SUMMARY TABLES

2101 14th street SE., Washington, D.C. 20020

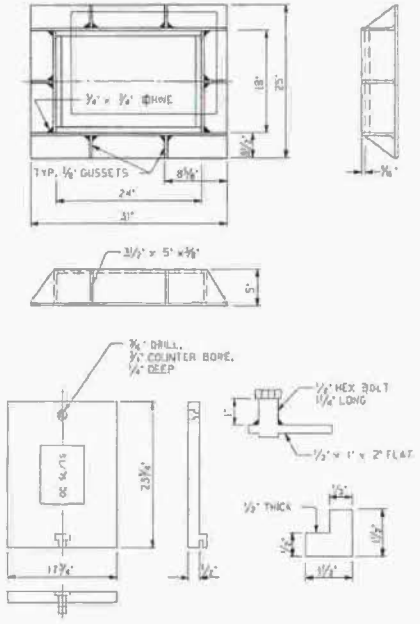
GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

LIGHTING AND GATE DESIGN

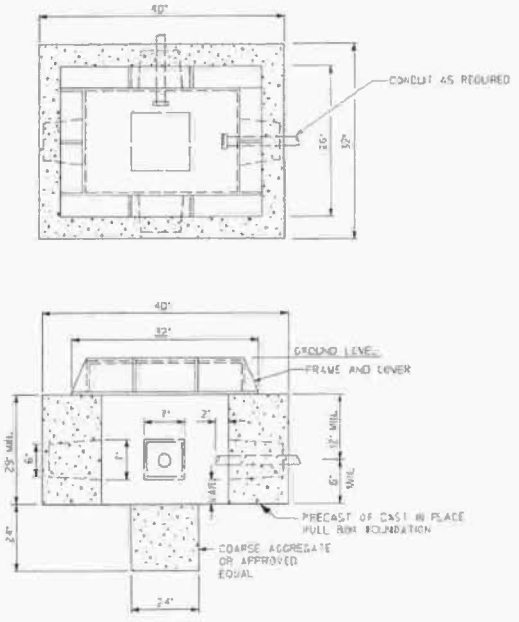
LT-04



TREE TRIM DETAIL FOR
PENDANT POST OR WOOD POLE



FRAME AND COVER



PULL BOX INSTALLATION

NOTES:

1. PULL BOX AND HANDBOX CONCRETE TO SATISFY D.C. SPECIFICATION 803.01 (3500 PSI).

PULL BOX DETAILS

DHA
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CERTIFICATION

PROJECT DRAWINGS

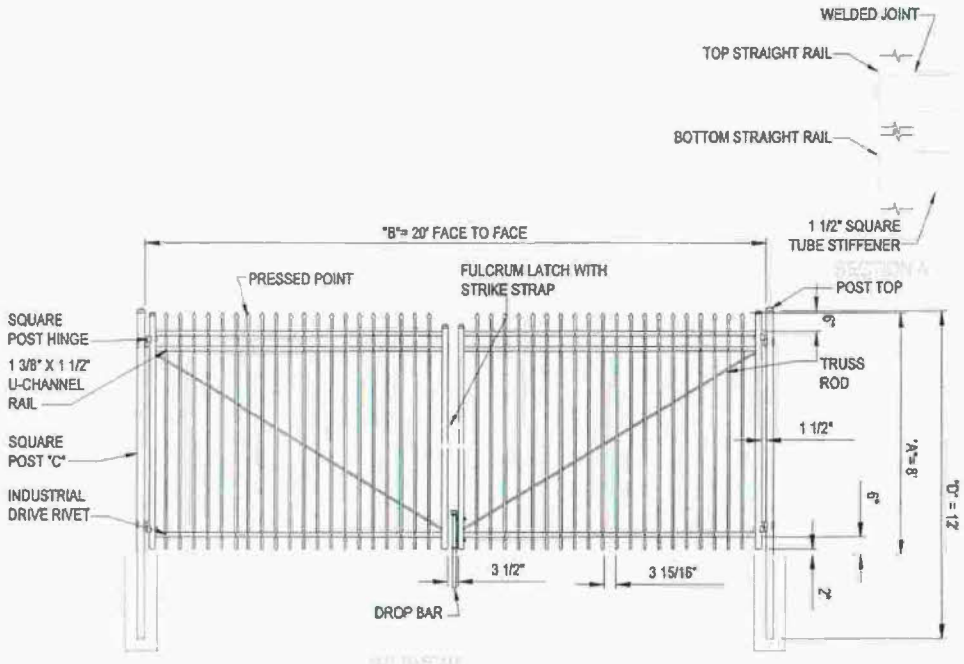
LIGHTING AND GATE DETAILS - 1

2101 14th street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

LIGHTING AND GATE DESIGN

LT-05



NOM HEIGHT (A)	POST OPTION (C)	PICKET OPTION (E)
8' - 0"	10" SQ X 1/4" WALL	1" SQ 18 GA
CUSTOM HEIGHTS AVAILABLE		

A ___ " NOM HEIGHT
B ___ " FACE TO FACE OF POSTS
C ___ " POST SIZE ___ GAUGE
D ___ " POST LENGTH
E ___ " PICKET SIZE ___ GAUGE

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. SPECIFICATIONS SHOWN CAN BE CHANGED ONLY BY THE MANUFACTURER.
4. FOOTING WIDTH TO BE (4) X POST WIDTH.

DOUBLE SWING GATE DETAIL

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LIGHTING AND GATE DETAILS - 2

2101 14th street SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

LT-06

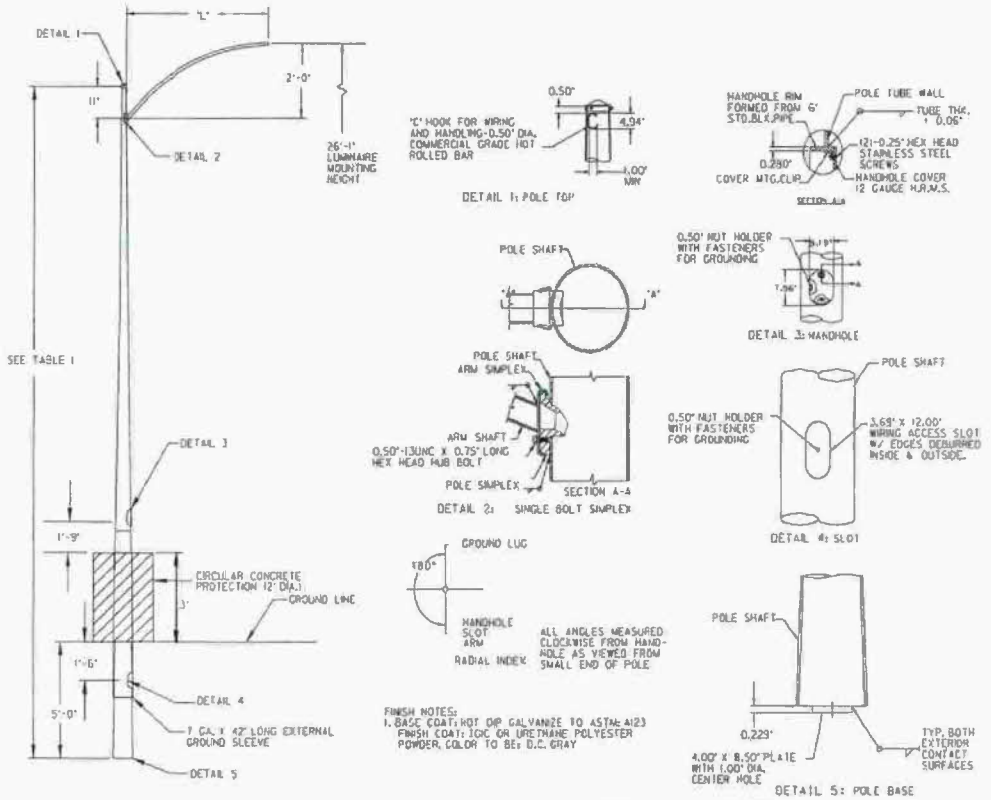

TABLE 1: POLE DATA

ITEM NO.	POLE DATA				LUMINAIRE ARM DATA			
	BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	GAUGE	FREE END DIA. (IN)	WALL THICK. (IN)	SPAN ∠ (FT)	MTG HEIGHT (FT)
5A2	6.60	2.40	30.00	11	2.38	0.154	3.00	26.08

TABLE 2: MATERIAL DATA

COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)
POLE & ARM SHAFT	A595 GR. 55	55
BOTTOM PLATE	A36	36
LUM. ARM ATTACHMENT	A36	36
LUM. ARM CONN. BOLTS	SAE GR. 5	

5A STREETLIGHT POLE

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WASHINGTON, D.C.

Designed: STT
Drawn: MG
Checked: STT

DISTRICT OF COLUMBIA
STEPHEN T. TOTH
No. 13466
REGISTERED PROFESSIONAL ENGINEER

Registration No.: PE000770
Date: February 5, 2013

LICENSE
N/A
Date:

No.	Revision	Date	Description

PROJECT DISCIPLINES
LIGHTING AND GATE DETAILS - 3

2101 14th street, SE., Washington, D.C. 20020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES
2000 14TH STREET, NW, WASHINGTON, DC 20009

By: MG
LIGHTING AND GATE DESIGN

Drawing No.:
LT-07

Building ID No.: —
Project No.: GD0831C
Date: February 5, 2013
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