RDS	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	1	75

KEY MAP

SHEET INDEX

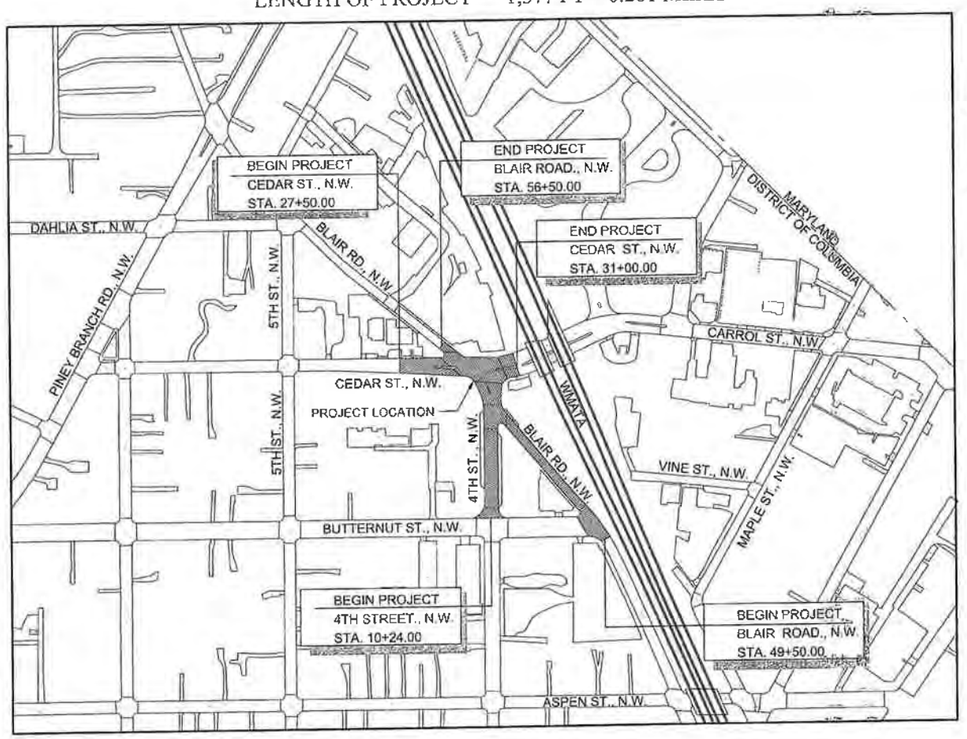
DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

FEDERAL AID PROJECT NO.: STP-8888 (416)

LENGTH OF PROJECT = 1,377 FT = 0.261 MILES



KEY MAP

50' 0 50' 100'

SCALE: 1" = 100'

TRAFFIC DATA			
LOCATION	BLAIR ROAD	CEDAR STREET	4TH STREET
CONTROL OF ACCESS	N/A	N/A	N/A
ADT (2017)	12,140	5,610	1,220
ADT (2037)	14,810	6,850	750*
DHV (2037)	1,500	690	75
DISTRIBUTION (%)	50/50	50/50	100
TRUCKS (%)	2	3	12
POSTED V (MPH)	25	25	25
DESIGN V (MPH)	30	30	30
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL	LOCAL ROAD	COLLECTOR ROAD

*CONVERTED FROM TWO-WAY TO ONE-WAY TRAFFIC

DISTRICT OF COLUMBIA
CESAR E. VARGAS
No. 10402
REGISTERED
PROFESSIONAL ENGINEER

03/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION	DEPT. OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
RECOMMENDED FOR APPROVAL: _____ PROGRAM MANAGER DDOT, IPMD / TEAM 2	APPROVED:
APPROVED: _____ CHIEF ENGINEER	_____ DIVISION ADMINISTRATOR
DATE: 8/8/18	DATE:

F.H.W.A. REQ. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	2	75

N

BEGIN PROJECT
CEDAR ST., N.W.
STA. 27+50.00

END PROJECT
BLAIR ROAD., N.W.
STA. 56+50.00

END PROJECT
CEDAR ST., N.W.
STA. 31+00.00

BEGIN PROJECT
BLAIR ROAD., N.W.
STA. 49+50.00

BEGIN PROJECT
4TH STREET., N.W.
STA. 10+24.00

PROJECT LOCATION

8TH ST., N.W.
DAHLIA ST., N.W.
PINEY BRANCH RD., N.W.
5TH ST., N.W.
BLAIR RD., N.W.
CEDAR ST., N.W.
HIGHLAND AVE., N.W.
6TH ST., N.W.
BUTTERNUT ST., N.W.
ASPEN ST., N.W.
4TH ST., N.W.
WMATA
MARYLAND
DISTRICT OF COLUMBIA
CARROL ST., N.W.
MAPLE ST., N.W.
VINE ST., N.W.
WILLOW ST., N.W.
LAUREL ST., N.W.

SCALE: 1" = 100' 50' 0 50' 100'

DISTRICT OF COLUMBIA
DANA E. VANGA
No. 19448
REGISTERED
PROFESSIONAL ENGINEER
03/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY DW
PROJECT MGR CV

LOCATION MAP

DIVISION CHIEF
DATE:
FILE:
SHEET 2 OF 75

E:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\002_plGOC-PN00_15690.dgn
Thursday, September 13, 2018 At 02:53 PM

STANDARD SYMBOLS

FHWA PROJ. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	3	75

- SANITARY SEWER VENT
- EXISTING WATER MANHOLE
- EXISTING WATER METER
- EXISTING WATER CUT-OFF
- PROPOSED WATER VALVE
- GAS METER
- PROPOSED GAS VALVE
- PROPOSED WATER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- EXISTING STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- EXISTING COMBINED SANITARY & STORMDRAIN MANHOLE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING STORM, WATER, SANITARY LINE OR COMBINED SEWER < 24"
- EXISTING STORM, WATER, SANITARY LINE OR COMBINED SEWER > 24"
- PROPOSED STORM, WATER OR SANITARY LINE
- PROPOSED INLET CONNECTION
- EXISTING UNDERGROUND-(ELECTRIC, GAS OR TELEPHONE) (SURVEY)
- EXISTING UNDERGROUND-(ELECTRIC, GAS OR TELEPHONE) (RECORD)
- UNDERGROUND TO BE ABANDONED
- UNDERGROUND TO BE REMOVED
- EXISTING DC WOOD POLE
- PROPOSED DC WOOD POLE
- EXISTING PEPCO WOOD POLE
- PROPOSED PEPCO WOOD POLE
- EXISTING PENDANT POLE
- PROPOSED PENDANT POLE
- EXISTING 20 FOOT TRAFFIC SIGNAL POLE
- PROPOSED 20 FOOT TRAFFIC SIGNAL POLE
- EXISTING TWIN 20 STREETLIGHT POLE
- PROPOSED TWIN 20 STREETLIGHT POLE
- EXISTING #4 STREETLIGHT POLE
- PROPOSED #4 STREETLIGHT POLE
- EXISTING 5A STREETLIGHT POLE
- PROPOSED 5A STREETLIGHT POLE
- EXISTING #6 STREETLIGHT POLE
- PROPOSED #6 STREETLIGHT POLE
- EXISTING #8 STREETLIGHT POLE
- PROPOSED #8 STREETLIGHT POLE
- EXISTING TRAFFIC SIGNAL COMMUNICATION CABINET
- PROPOSED TRAFFIC SIGNAL COMMUNICATION CABINET
- EXISTING TRAFFIC SIGNAL CONTROLLER
- PROPOSED TRAFFIC SIGNAL CONTROLLER
- REMOVE INDICATED TRAFFIC SIGNAL OR STREETLIGHT UNIT
- PROPOSED CULVERT
- EXISTING CULVERT

- RAILROAD
- EXISTING STREET CAR TRACKS (ABANDONED)
- PROPOSED LIMIT OF MAJOR WORK
- PROPOSED LIMIT OF REPAIR WORK
- PROPOSED WALK (Indicate Width and Type) — 6" P.C.C
- HEDGE
- TREE, EVERGREEN, EXISTING
- STUMP
- EXISTING DECIDUOUS TREE
- PROPOSED DECIDUOUS TREE
- EXISTING TREE TO BE REMOVED — Dia.
- EXISTING TREE TO REMAIN WITH WELL — Dia.
- EDGE OF WOODS OR SHRUBS
- EXISTING COPINGS & WALLS (Indicate Height) — Coping or Wall
- PROPOSED WALL (Indicate Height)
- PROPOSED COPING (Indicate Height)
- ELECTRIC VAULT — E.V.
- ELECTRIC METER — E.M.
- EXISTING STORM INLET TO REMAIN
- STORM INLET TO BE ABANDONED
- EXISTING SINGLE CATCH BASIN — SD
- EXISTING SINGLE CATCH BASIN W/DOUBLE THROAT — SD
- EXISTING SINGLE CATCH BASIN W/TRIPLE THROAT — SD
- PROPOSED SINGLE CATCH BASIN
- EXISTING SINGLE CATCH BASIN W/GRATE
- PROPOSED SINGLE CATCH BASIN W/GRATE
- EXISTING DOUBLE CATCH BASIN — SD SD
- PROPOSED DOUBLE CATCH BASIN
- EXISTING TRIPLE CATCH BASIN — SD SD SD
- PROPOSED TRIPLE CATCH BASIN
- EXISTING DOUBLE CATCH BASIN W/GRATE
- PROPOSED DOUBLE CATCH BASIN W/GRATE
- EXISTING WHEELCHAIR-BICYCLE RAMP
- PROPOSED WHEELCHAIR-BICYCLE RAMP
- STRAW BALE DIKE — SBD
- SILT FENCE — SF
- INLET PROTECTION
- EX LUMINAIRE & SUPPORT ARM INDICATES DIRECTION OF LIGHT
- PROPOSED LUMINAIRE & SUPPORT ARM INDICATES DIRECTION OF LIGHT
- DITCH FLOW
- XXXXXXXXXXXXX DEMOLISH CURB AND GUTTER

- EXISTING PEDESTRIAN SIGNAL
- PROPOSED PEDESTRAIAN SIGNAL
- EXISTING 3 SECTION TRAFFIC SIGNAL
- PROPOSED 3 SECTION TRAFFIC SIGNAL
- EXISTING 4 SECTION TRAFFIC SIGNAL
- PROPOSED 4 SECTION TRAFFIC SIGNAL
- EXISTING 5 SECTION TRAFFIC SIGNAL
- PROPOSED LOCATION FOR PEPCO POWER CONNECTION
- REVISION
- UNDERDRAIN — U.D.
- GUIDE RAIL-DOUBLE FACE (W BEAM)
- GUIDE RAIL-SINGLE FACE (W BEAM)
- GUIDE RAIL (BOX BEAM)
- CENTER LINE — ℄
- BASE LINE — ℄
- NORTH ARROW
- DRILL HOLE
- LESS THAN OR EQUAL TO
- GREATER THAN OR EQUAL TO
- SIDEWALK DRAIN
- FEATURES TO REMAIN
- FEATURES TO BE ABANDONED OR REMOVED
- PROPOSED FEATURES
- STATE LINE
- RIGHT - OF - WAY LINE
- BULDING RESTRICTION LINE
- LOT LINE
- PROPERTY LINE
- FENCE WOOD
- FENCE METAL
- FENCE METAL EXISTING
- FILL — F
- CUT — C
- *45.67 (Slant Lettering)* EXISTING ELEVATIONS AND/OR FEATURES
- 46.89 (Upper Cap.) PROPOSED ELEVATIONS AND/OR FEATURES
- HORIZONTAL TRAVERSE POINT / PROPERTY LINE TRAVERSE
- EXISTING PARKING METER
- EXISTING FIRE ALARM BOX
- EXISTING POLICE CALL BOX
- EXISTING TELEPHONE MANHOLE
- EXISTING ELECTRIC MANHOLE
- EXISTING MANHOLE, UNKNOWN — M.H.
- EXISTING TRASH/WASTE CAN — T

- EXISTING 3'X3'X3' ELECTRICAL MANHOLE
- PROPOSED 3'X3'X3' ELECTRICAL MANHOLE
- EXISTING 4'X4'X4' ELECTRICAL MANHOLE
- PROPOSED 4'X4'X4' ELECTRICAL MANHOLE
- EXISTING 4'X4'X6' ELECTRICAL MANHOLE
- PROPOSED 4'X4'X6' ELECTRICAL MANHOLE
- EXISTING 6'X6'X6' ELECTRICAL MANHOLE
- EXISTING GAS MANHOLE — G
- EXISTING GAS DRIP OR BOX
- EXISTING MAIL BOX — M.B.
- BENCH MARK — 3
- LOCATION OF TEST BORING — #55
- LOCATION OF TEST PIT — #5
- SOIL BORINGS
- SANITARY SEWER / UNDER DRAIN CLEAN OUT — C.O.
- COMPUTATION POINT
- COMBINED SD-SAN SEWER MANHOLE — CS
- EQUATION STATION
- HORIZONTAL CURVE NO. — CB-1
- EXISTING SIGN AND POST
- PROPOSED ROAD SIGN
- DIRECTION OF TRAFFIC
- MISC.
- EXISTING MISC. LIGHT POLES
- EXISTING TRAFFIC SIGNALS
- EXISTING TRASH RECEPTACLES
- PROPOSED TRASH RECEPTACLES
- EXISTING BIKE RACKS
- PROPOSED BIKE RACKS

DISTRICT OF COLUMBIA · CESAR E. VARELA · No. 16402 · REGISTERED · PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY CW
PROJECT MGR. CV

STANDARD SYMBOLS

DIVISION CHIEF
DATE
FILE
SHEET 3 OF 75

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvement\07 Design\DGN\Sheets\Plan Sheets\003_pGN-SYMB_16#0.dgn
Thursday, September 13, 2018 01:02:03 PM

FHWA REG. NO.	STATE	FED AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	4	75

STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AHD.	AHEAD
APPROX.	APPROXIMATE(LY)
ASPH.	ASPHALT
ASW	ASPHALT SIDEWALK
@	AT
AWG.	AMERICAN WIRE GAUGE
B	BOTTOM
BC	BASELINE CONTROL
BK.	BACK
℄	BASELINE
BM	BEAM
B.M.	BENCH MARK
BRG.	BEARING
B.O.	BLOW OFF
B.V.	BUTTERFLY VALVE
BRSW	BRICK SIDEWALK
CIP	CAST IN PLACE/CAST IRON PIPE
C.J.	CONSTRUCTION JOINT
C-C	CENTER TO CENTER
CFS	CUBIC FOOT PER SECOND
CTRS.	CENTERS
℄	CENTERLINE
CL.	CLASS
CLR.	CLEAR
CONC.	CONCRETE
CONSTR.	CONSTRUCTION
CONN.	CONNECT, CONNECTING
CONT.	CONTINUOUS
CSW	CONCRETE SIDEWALK
CY	CUBIC YARD
D	DEGREE OF CURVE
DET.	DETAIL
DIA., Ø	DIAMETER
DWG.	DRAWING
DIP	DUCTILE IRON PIPE
E	EAST
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
ELEC.	ELECTRICAL
EL., ELEV.	ELEVATION
EQ.	EQUAL
EXIST., EX.	EXISTING
EXP., EXPAN.	EXPANSION
EXP. JT.	EXPANSION JOINT
EXT.	EXTERIOR
FIX., F	FIXED
FT.	FEET/FOOT
GA.	GAUGE
GALV.	GALVANIZED
GRD	GROUND
H.P.S	HIGH PRESSURE SODIUM
H.P.I.	HORIZONTAL POINT OF INTERSECTION
HORIZ.	HORIZONTAL
IMPER.	IMPERVIOUS
INT.	INTERIOR
INV.	INVERT
INT. R/W	INTERSTATE RIGHT OF WAY
INT. R/W & C/A	INTERSTATE RIGHT OF WAY AND CONTROL OF ACCESS
JT.	JOINT
LF.	LINEAR FOOT
LT.	LEFT/LIGHTING
LS	LUMP SUM
LED	LIGHT EMITTING DIODE
MH	MANHOLE
MAT'L.	MATERIAL
MAX.	MAXIMUM
MHL	MEAN HIGH WATER LEVEL
MIN.	MINIMUM
MLL	MEAN LOW WATER LEVEL
M.J.	MECHANICAL JOINT
M.J.B.	MECHANICAL JOINT BELL
M.J.S.	MECHANICAL JOINT SPIGOT

NB.	NORTHBOUND
NOM.	NOMINAL
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
N	NORTH
NO.	NUMBER
N.W.	NORTHWEST
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
PED.	PEDESTRIAN
PC	POINT OF CURVE
P.C.C.	PORTLAND CEMENT CONCRETE
PCC	POINT OF COMPOUND CURVE
PGE	PROFILE GRADE ELEVATION
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
℘	PLATE
POC	POINT ON CURVE
POT	POINT ON TANGENT
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
PCP	PRESTRESSED CONCRETE PIPE
PVMT.	PAVEMENT
P.M.	PAVEMENT MARKER
R	RADIUS
REQ'D.	REQUIRED
REINF.	REINFORCED/REINFORCEMENT/ REINFORCING
RCP	REINFORCED CONCRETE PIPE
RCPRS	REINFORCED CONCRETE PIPE W/ RUBBER GASKET, SEWER
RET.	RETAINING
RT.	RIGHT
R.O.W., R/W	RIGHT OF WAY
REFL.	REFLECTIVE / REFLECTOR
SB.	SOUTHBOUND
SECT.	SECTION
SHT.	SHEET
S/W, SDWK	SIDEWALK
SP	SPECIAL PROVISION
SPA.	SPACES
SPECS.	SPECIFICATIONS
SF	SQUARE FEET
STA	STATION
STD.	STANDARD
ST.	STREET
SQ.	SQUARE
SYMM.	SYMMETRICAL
STL.	STEEL
S.S.	STAINLESS STEEL
S	SOUTH
SY	SQUARE YARD
TEMP.	TEMPORARY/TEMPERATURE
THRU	THROUGH
T	TOP
T & B	TOP AND BOTTOM
TYP.	TYPICAL
TY.	TYPE
VAR.	VARIABLE/VARIES
VERT.	VERTICAL
VCL	VERTICAL CURVE LENGTH
VFL	VERTICAL LINEAR FOOT
W	WEST
W/	WITH
WP	WORKING POINT
W/O	WITHOUT

GENERAL NOTES:

1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS WAS TAKEN FROM AVAILABLE RECORDS.
   THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR OMISSION SHOWN ON THESE PLANS.
   VOLKERT DOES NOT CERTIFY AS TO THE LOCATION OR EXISTENCE OF ANY UNDERGROUND UTILITIES SHOWN ON THIS PLAN. WITH THE APPROVAL OF THE DDOT, THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 1-800-257-7777 PRIOR TO COMMENCEMENT OF ANY EXCAVATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A SAFE AND CLEAN WORK SITE.
3. THE CONTRACTOR SHALL ENSURE THAT HIS/HER CONSTRUCTION OPERATIONS DO NOT INTERFERE WITH THE ACCESSIBILITY TO ANY PROPERTY ALONG THE PROJECT SITE.
4. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF OPERATIONS TO THE CONTRACTING OFFICER FOR APPROVAL.
5. ALL UTILITIES SHALL REMAIN IN OPERATION THROUGHOUT THE DURATION OF CONSTRUCTION.
6. THE EXISTING TOPOGRAPHIC FEATURES SHOWN ON THESE PLANS MAY NOT REFLECT CURRENT CONDITIONS.
   THE CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
7. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR RESTORING ANY DAMAGE TO EXISTING ROADS, SIDEWALKS, RAMPS, CURBS & GUTTERS, FENCES, STAIRS, RETAINING WALLS, OR OTHER HARDSCAPE FEATURES THAT ARE NOT INTENDED FOR RECONSTRUCTION IN THE PLANS AND WHICH OCCURS AS A RESULT OF THIS CONSTRUCTION PROJECT. THE PROPERTY AND RIGHT OF WAY LINE ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY ALL PROPERTY DATA.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENT OR RECONSTRUCTION OF ALL UTILITY COVERS (SUCH AS MANHOLE FRAMES AND COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
9. ALL FINISHED GRADING, SEEDING, SODDING OR PAVEMENT SHALL BE DONE IN SUCH A MANNER TO PRECLUDE THE PONDING OF WATER ON THE SITE, PARTICULARLY ADJACENT TO BUILDING AND STORM INLETS.
10. ANY AREA PAVEMENTS OPENED TO TRAFFIC SHALL RECEIVE A TACK COAT PRIOR TO THE PLACEMENT OF OVERLYING ASPHALT COURSE.
11. ALL RADII AND DIMENSION LINES ARE TO BE TO THE FACE OF CURB.
12. THE CONTRACTOR SHALL CLEAN UP THE PROJECT SITE AT ALL STAGES OF WORK AT NO ADDED EXPENSE TO THE DISTRICT. IF THE CONTRACTOR FAILS TO CLEAN UP THE WORK SITE, THE CONTRACTING OFFICER MAY ORDER THE WORK TO BE DONE BY OTHERS AND THE COST CHARGED TO THE CONTRACTOR.

SURVEY NOTES:

1. HORIZONTAL CONTROL IS BASED ON NAD 83/91.
2. VERTICAL CONTROL IS BASED ON D.C. ENGINEER'S DATUM.
3. PROPERTY AND RIGHT OF WAY LINES WERE PREPARED FROM PLATS AND SURVEY DATA OBTAINED FROM LAND RECORDS, AND DOES NOT INCLUDE PROPERTY LINE SURVEYS OR PREPARATION OF RIGHT OF WAY OR OTHER RECORD PLATS.
4. TOPOGRAPHY AND PLANIMETRY SHOWN HERON FROM AERIAL MAPPING, SUPPLEMENTED WITH FIELD OBSERVATIONS TO CLARIFY OBSCURED FEATURES.
5. CENTERLINE OF ROADWAYS AND CENTERLINE OF RIGHT-OF WAY MAY NOT NECESSARILY BE COINCIDENT.
6. UTILITY INFORMATION SHOWN HEREON WAS GATHERED FROM LOCAL UTILITY COMPANIES USING AS-BUILT DRAWINGS AND PLOTTING APPROXIMATE LOCATIONS OF EXISTING UTILITIES PER THE DRAWINGS RECEIVED AND SURFACE INDICATIONS FOUND ON SITE. THIS SURVEY IS A COMPILATION OF AERIAL MAPPING, DATA COLLECTOR SURVEY, UTILITY ANNOTATION AND FIELD OBSERVATION.

TREE PROTECTION NOTES:

1. ALL EXISTING STREET TREES, TO REMAIN WITHIN A WORK ZONE UNTIL A PROJECT IS COMPLETED, REQUIRE THE FOLLOWING AS TREE PROTECTION. IF FOR ANY REASON THE SCOPE OF THE PROJECT REQUIRES WORK TO BE PERFORMED WITHIN THE FENCED PROTECTION ZONE, THE PERMIT HOLDER MUST CONTACT THE DISTRICT DEPARTMENT OF TRANSPORTATION'S URBAN FORESTRY ADMINISTRATION (UFA) AT 202-671-5133 BEFORE ENTERING.
   - SIX (6) FOOT TALL CHAIN LINK FENCING ON ALL SIDES.
   - INSTALL FENCING PRIOR TO AND MAINTAIN THROUGHOUT CONSTRUCTION, REMOVING ONLY AT THE END OF THE PROJECT.
   - FENCING SHALL HAVE VERTICAL AND HORIZONTAL SUPPORT RAILINGS TO DECREASE FLEXIBILITY AND PREVENT SAGGING.
   - FENCE POSTS SHALL BE ANCHORED IN THE GROUND TO PREVENT MOVEMENT AND PROVIDE A SECURE BARRIER.
   - A MINIMUM OF TWO (2) DDOT/UFA STANDARD TREE PRESERVATION SIGNS SHALL BE MOUNTED TO THE FENCE OF EACH ENCLOSED TREE PROTECTION AREA.
2. NO INSTALLATION OF SILT FENCE/SUPER SILT FENCE, TRENCHING, ALTERATION OR DISTURBANCE TO EXISTING GRADE; STAGING/STORAGE OF CONSTRUCTION MATERIALS, EQUIPMENT, SOIL, OR DEBRIS; DISPOSAL OF ANY MATERIALS SUCH AS CONCRETE, GAS, OIL, PAINT, OR BLACKTOP IS ALLOWED WITHIN THE FENCED TREE PROTECTION ZONE.
3. EXCAVATIONS WITHIN THE DRIPLINE SHALL PROCEED WITH CARE BY USE OF HAND TOOLS. THE DRIPLINE IS DEFINED AS THE GROUND AREA UNDER THE CANOPY OF THE TREE.
4. NO ROOTS LARGER THAN TWO (2) INCHES IN DIAMETER ARE TO BE CUT WITHOUT UFA PERMISSION.
5. EXPOSED ROOTS TWO (2) INCHES AND LARGER IN DIAMETER SHALL BE WRAPPED IN BURLAP OR OTHER APPROVED MATERIAL AND KEPT MOIST AT ALL TIMES.
6. TREES THAT ARE PROTECTED ARE TO BE WATERED EVERY TEN (10) DAYS FROM APRIL THROUGH SEPTEMBER.
7. SECTIONS 608.07–TREE PROTECTION AND REPLACEMENT AND 608.08–TREE ROOT PROTECTION OF THE 2013 DISTRICT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES WILL APPLY SHOULD ANY DAMAGE OCCUR TO THE EXISTING STREET TREES.
8. ANY FINES RELATED TO DAMAGE TO A STREET TREE ON A JOB SITE SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER.
9. FOR ANY QUESTIONS, CALL DDOT URBAN FORESTRY ADMINISTRATION AT 202-671-5133.

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY EW
PROJECT MGR. CV

STANDARD ABBREVIATIONS
AND NOTES

DIVISION CHIEF
DATE
FILE
SHEET 4 OF 75

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int Improvements\07 Design\DGN\Sheets\Plan Sheets\004_pGN-ABBR_15690.dgn
Thursday, September 13, 2018 AT 02:03 PM

F.H.W.A. PROJ. NO.	STATE	F.E.D. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	5	75

SUMMARY OF QUANTITIES

GROUP 1000 – GENERAL REQUIREMENTS

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
099803	EMPLOYEE TRAINING	HR	2080
109002	MOBILIZATION	LS	1
109004	PROGRESS PHOTOGRAPHS	LS	1
109006	RECORD DRAWINGS AND AS-BUILT DRAWINGS	LS	1
109012	ENGINEER'S FIELD FACILITIES	LS	1
109015	FIELD LAYOUT	LS	1

GROUP 2000 – EARTHWORK & EXCAVATION

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
201002	CLEAR AND GRUB	LS	1
202002	COMMON EXCAVATION	CY	570
204004	BORROW EMBANKMENT FILL	CY	15
204006	FLOWABLE BACK FILL	CY	2
205012	REMOVE ABANDONED STREETCAR TRACK	LF	50
207002	TRENCH EXCAVATION AND BACKFILL	CY	70
209002	AGGREGATE BASE COURSE	CY	70
212002	TEST PIT	EACH	5

GROUP 3000 – WATER SERVICES

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
302002	VALVE CASING	EACH	1
303002	ABANDON VALVE CASING	EACH	1
303004	REMOVE FIRE HYDRANT	EACH	1
305004	DUCTILE IRON PIPE, 6 INCH	LF	20
306004	GATE BUTTERFLY VALVE, 6 INCH	EACH	1
307006	FURNISH AND INSTALL FIRE HYDRANT	EACH	1
308024	ADJUST WATER METER FRAME	EACH	2
308028	ADJUST CURB COCK BOX	EACH	2

GROUP 3100 – SEWER SERVICES

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
309002	SEWER MANHOLE ON SEWER 48 INCH AND LESS DIA.	VLF	15
310004	F&I STANDARD DOUBLE BASIN	EACH	3
310008	BASIN CONNECT PCC PIPE, CLASS III, 15 INCH	LF	85
311002	ADJUST SEWER-WATER-UTILITY MANHOLE FRAME	EACH	45
311010	ADJUST STANDARD BASIN TOP	EACH	1
313002	ABANDON BASIN CONNECTING PIPE	EACH	2
313006	ABANDON BASIN	EACH	4
314004	PCC PIPE, CLASS III, GASKET, 15 INCH	LF	50
315004	PIPE SEWER TV INSPECTION	LF	50
323002	PCC COLLAR FOR SEWER	EACH	1
328002	CLEAN STORM SEWER STRUCTURE	EACH	6
328004	CLEAN STORM SEWER CONNECTING PIPE	LF	160

GROUP 4000 – ASPHALT CONSTRUCTION

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
402006	HMA LEVELING COURSE, 9.5 MM	TON	110
402010	HMA SURFACE COURSE, 12.5 MM	TON	815
403002	TACK COAT	SY	5145
405016	TEMPORARY AC HMA SURFACE COURSE, 12.5 MM	TON	25
410002	PAVEMENT PROFILING (MILLING)	SY	5300

GROUP 5000 – PORTLAND CEMENT CONCRETE CONSTRUCTION

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
502010	PCC BASE, 10 INCH	CY	40
505030	ANCHOR BOLTS – PAVING	EACH	230
505040	ADDITIONAL STANDARD PORTLAND CEMENT	BAGS	40
507008	PCC STEPS	CY	10
507012	SPECIAL PCC COPING	CY	3

GROUP 6000 – STORMWATER MANAGEMENT

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
209004	AGGREGATE BASE COURSE FOR LID #57 STONE	CY	30
209012	SANDY GRAVEL FILTER FOR LID	CY	5
310022	LID UNDERDRAIN CONNECTION TO CATCH BASIN	EACH	1
310028	DOMED OVERFLOW GRATE AND RISER	EACH	1
600011	LID OBSERVATION WELL 4 INCH	EACH	1
600017	LID ORNAMENTAL TREE FENCE	LF	32
601004	UNDERDRAIN PIPE, 6 INCH	LF	25
601018	UNDERDRAIN PIPE, RISERS	VLF	6
602012	LID SPLASH STONE, RIVER ROCK	CY	2
606112	PCC LID CURB INLET/OUTLET	CY	3
606991	THICKENED FOR CURB AND GUTTER	CY	15
606995	LID PCC L-WALL (FLUSH)	LF	85
607032	MULCH	SY	40
607042	BIORETENTION SOIL	CY	40

606124	PERENNIAL, 1 GALLON	EACH	290
618002	EROSION AND SEDIMENT CONTROL	LS	1
618018	WATERPROOF MEMBRANE FOR STORMWATER MANEGEMENT – (IMPERMEABLE PVC LINER)	SY	135

GROUP 6100 – INCIDENTAL CONSTRUCTION

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
600025	GREEN PAINT FOR BICYCLE LANES	SF	589
604060	ORNAMENTAL SAFETY FENCE	LF	70
605006	PCC SIDEWALK, 4 INCH	SY	380
605026	BRICK SIDEWALK ON PCC BASE	SY	200
605050	REMOVE BIKE RACK	EACH	2
605996	REINSTALL EXISTING BIKE RACK	EACH	2
605995	RELOCATE TRASH RECEPTACLE	EACH	1
605995	INSTALL PARKING METER	EACH	4
606002	PCC CURB	LF	90
606004	PCC CURB AND/OR GUTTER	LF	530
606020	PCC CIRCULAR CURB AND GUTTER	LF	75
606046	PCC GUTTER	SY	15
606064	FURNISH AND SET 8"X12" GRANITE STRAIGHT CURB	LF	175
606068	FURNISH AND SET 8"X12" GRANITE CIRCULAR CURB RADIUS 10-100 FT	LF	185
606098	PCC WHEELCHAIR/BICYCLE RAMP – NEW CONSTRUCTION	EACH	9
606100	PCC WHEELCHAIR/BICYCLE RAMP – EXISTING CONSTRUCTION	EACH	3
606108	BRICK GUTTER	SF	250
606110	DETECTABLE WARNING PAVER ON EXISTING RAMP AND RETROFITTING	SF	40
607004	SEED WITH 4 INCH TOPSOIL	SY	70
607020	SOD WITH 4 INCH TOPSOIL	SY	70
608072	TREE PROTECTION AND REPLACEMENT	EACH	3
608086	WHEEL STOP	EACH	30
612002	MAINTENANCE OF HIGHWAY TRAFFIC	LS	1
612008	REMOVE LANE MARKINGS	SF	130
612040	DOUBLE-FACED WHITE SNOW PLOWABLE REFLECTIVE PAVEMENT MARKERS	EACH	13
612042	DOUBLE-FACED YELLOW SNOW PLOWABLE REFLECTIVE PAVEMENT MARKER	EACH	10
612054	THERMOPLASTIC PAVEMENT MARKING, 4 INCH	LF	2500
612058	THERMOPLASTIC PAVEMENT MARKING, 4 INCH DASH	LF	380
612058	THERMOPLASTIC PAVEMENT MARKING, 6 INCH	LF	800
612060	THERMOPLASTIC PAVEMENT MARKING, 6 INCH DASH	LF	60
612062	THERMOPLASTIC PAVEMENT MARKING, 8 INCH	LF	440
612064	THERMOPLASTIC PAVEMENT MARKING, 12 INCH	LF	650
612066	THERMOPLASTIC PAVEMENT MARKING, 24 INCH	LF	1150
612068	THERMOPLASTIC PAVEMENT LETTER	EACH	8
612070	THERMOPLASTIC PAVEMENT ARROW	EACH	11
612072	THERMOPLASTIC PAVEMENT BICYCLE ARROW	EACH	3
612074	THERMOPLASTIC PAVEMENT BICYCLE MARKING, 4 FOOT	EACH	7
612075	THERMOPLASTIC PAVEMENT BICYCLE MARKING, 8 FOOT	EACH	6
612078	FLEXIBLE DELINEATORS FOR BICYCLE LANE	EACH	12
616014	METAL SIGN POSTS, 2.00 POUNDS PER FOOT	LF	250
616022	TRAFFIC SIGN PANELS	SF	130
616036	REMOVE GROUND MOUNTED SIGN	SF	35
616995	RELOCATE EXISTING SIGN	EACH	21

GROUP 6200 – TRAFFIC SIGNAL

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
613006	REMOVE ABANDONED TRAFFIC SIGNAL/STREET LIGHT POLE FOUNDATION	EACH	15
613008	F&I PCC FOUNDATION FOR TRAFFIC SIG /PENDANT POST ST LT POLE	EACH	4
613016	FURNISH&INSTALL ONE 2 IN PVC ENCASED ELECTRICAL CONDUIT	LF	20
613030	F&I GALVANIZED STEEL TRANSFORMER BASE	EACH	13
613036	FURNISH&INSTALL ONE 2 IN&TWO 4 IN PVC ENCASED ELEC CONDUITS	LF	45
613038	FURNISH&INSTALL ONE 2 IN&ONE 4 IN PVC ENCASED ELEC CONDUITS	LF	400
613040	FURNISH&INSTALL FOUR 4 IN PVC ENCASED ELECTRICAL CONDUITS	LF	600
613050	F&I PCC FOUNDATION FOR CONTROLLER CABINET	EACH	2
613052	F&I TEMP PORTABLE CONC BASE FOR MODEL 336-S & 336-SS TRAF SIG CAB	EACH	1
613054	F&I TEMPORY PORTABLE CONC BASE FOR 20 FT STEEL TRAF POLE MOUNTED ON TRANS BASE	EACH	15
613056	RELOCATE ANY TEMPORARY, PORTABLE, CONCRETE BASE	EACH	16
613068	F&I 20 FOOT TALL STEEL TRAFFIC SIGNAL POLE	EACH	8
613078	FURNISH&INSTALL 8 FT MAST ARM W/CLAMP & REMOVABLE END CLAMP	EACH	6
613095	FURNISH&INSTALL CLOSED CIRCUIT TELEVISION CAMERA SYSTEM	EACH	1
613098	F&I 7 CONDUCTOR 14 AWG STRANDED ELECTRICAL TRAFFIC SIG CABLE	LF	3400
613100	F&I 4 CONDUCT 18 AWG SHIELDED STRANDED ELEC TRAF SIG CABLE	LF	2200
613106	F&I 25 PAIR 19 AWG UNDERGROUND COMMUNICATIONS CABLE	LF	1500
613108	F&I 25 PAIR 19 AWG OVERHEAD COMMUNICATIONS CABLE	LF	250
613150	FURNISH RED BALL LED MODULE (12 INCH)	EACH	28
613156	FURNISH YELLOW BALL LED MODULE (12 INCH)	EACH	28
613157	FURNISH GREEN BALL LED MODULE (12 INCH)	EACH	28
613158	FURNISH GREEN ARROW LED MODULE	EACH	1
613192	12 IN OVERLAY WHITE WLKNG PERSON & PORTLND ORANGE LED MOD	EACH	12
613194	FURNISH 12 INCH PORTLAND ORANGE COUNTDOWN LED MODULE	EACH	12
613202	F&I 3 SECTION CONVENTIONAL TRAF SIG HEAD ON POLE(LENSES 12")	EACH	20
613204	F&I 4 SECTION CONVENTIONAL TRAF SIG HEAD ON POLE(LENSES 12")	EACH	1
613208	F&I 3 SECTION CONV TRAF SIG HEAD ON MAST ARM(LENSES 12")	EACH	6
613226	F&I 2 SECT CONVENTIONAL PEDESTRIAN SIGNAL HEAD ON POLE(12")	EACH	12
613234	MAINTAIN EXISTING TRAFFIC SIGNALS DURING CONSTRUCTION	EACH	1
613240	F&I ACCESSIBLE PEDESTRIAN SIGNAL CONTROL UNIT	EACH	12
613322	F&I TRAFFIC SIGNAL CONTROLLER AND CABINET	EACH	2
613334	REMOVE ABANDONED TRAFF SIGNAL CONTROLLER CABINET FOUNDATION	EACH	1
613338	REMOVE TRAFFIC SIGNAL POLE AND TRAFFIC SIGNAL EQUIPMENT	EACH	1
613340	REMOVE TRAFFIC SIGNAL CONTROLLER AND CABINET	EACH	1
613348	REI EXISTTRAFSIG CONTROLLER CAB ONTO TEMP PRTBLE CONCRETE BASE	EACH	1
613350	REL ANY SIZE TRAF SIG HEAD(12" LED MOD)ONTOTEMP POLE ASSEM	EACH	18
613352	REL ANY PEDEST SIGHEAD(12" LED MODULES)ONTO TEMP POLE ASMBLY	EACH	10
614084	F&I 48" X 48" X 48" MANHOLE	EACH	3
614210	F&I 2-4" SCHEDULE 40 RIGID PVC CONDUIT (DUCT BANK)	LF	25
614991	PAYMENT TO TRAFFIC SIGNAL CONTRACTOR FOR CONNECTION, DISCONNECTION OF TRAFFIC SIGNAL CABLES	LS	1
614999	PAYMENT TO PEPCO FOR CONNECTION DISCONNECTION, INSPECTION	LS	1

GROUP 6300 – STREETLIGHTS

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY
613038	FURNISH AND INSTALL ONE 2 INCH AND ONE 4 INCH PVC ENCASED ELECTRICAL CONDUITS	LF	354
614014	FURNISH AND INSTALL 26'-6" PENDANT POST	EACH	8
614050	REMOVE ARM FROM METAL POLE	EACH	5
614052	REMOVE WOOD POLE	EACH	1
614078	FURNISH AND INSTALL 36" x 36" x 36" MANHOLE	EACH	11
614084	FURNISH AND INSTALL 48" x 48" x 48" MANHOLE	EACH	9
614214	FURNISH AND INSTALL 1-2" SCHEDULE 40 RIGID PVC CONDUIT (SUPPLEMENTAL TO DUCT BANK)	LF	281
614204	FURNISH AND INSTALL 4-4" SCHEDULE 40 RIGID PVC CONDUIT (DUCT BANK)	LF	1338
614206	FURNISH AND INSTALL 4-4" AND 1-2" SCHEDULE 40 RIGID PVC CONDUIT (DUCT BANK)	LF	403
614210	FURNISH AND INSTALL 2-4" SCHEDULE 40 RIGID PVC CONDUIT (DUCT BANK)	LF	18
614290	FURNISH AND INSTALL #10 STRANDED WIRE	LF	2612
614298	FURNISH AND INSTALL #0000 STRANDED WIRE	LF	6026
614332	FURNISH AND INSTALL #8 STRANDED GROUND WIRE	LF	1306
614350	FURNISH AND INSTALL #2 STRANDED GROUND WIRE	LF	2009
613008	FURNISH AND INSTALL PCC FOUNDATION FOR TRAFFIC SIGNAL POLE OR PENDANT POST STREET	EACH	8
614430	REMOVE STREET LIGHT POLE FOUNDATION	EACH	4
613030	FURNISH AND INSTALL GALVANIZED STEEL	EACH	8
614470	REMOVE STEEL TRANSFORMER BASE	EACH	4
614472	FURNISH AND INSTALL NO. 14 CAST IRON POLE	EACH	15
614568	REMOVE PENDANT POLE 30 FT. HEIGHT OR LESS	EACH	4
614634	FURNISH AND INSTALL OVER 35 FT. HEIGHT	EACH	1
614644	FURNISH AND INSTALL 8 FT. ARM ON PENDANT POLE	EACH	9
614662	REMOVE ARM FROM WOOD POLE UP TO 8 FT. IN	EACH	6
614670	FURNISH AND INSTALL 8 FT. ARM ON WOOD POLE	EACH	5
614682	REMOVE ARM FROM WOOD POLE OVER 8 FT. IN	EACH	15
614698	REMOVE LUMINAIRE FROM WOOD POLE	EACH	21
614700	REMOVE LUMINAIRE FROM STEEL POLE	EACH	5
614806	FURNISH AND INSTALL 100 W POST-TOP LED FIXTURE W/WASHINGTON GLOBE AND PHOTOCELL	EACH	1
614864	FURNISH AND INSTALL 4" PVC RIGID U-GUARD ON	LF	40
614991	TEMPORARY LIGHTING	LS	1
614904	FURNISH AND INSTALL 200 WATT TEARDROP LED FIXTURE COMPLETE WITH PHOTOCELL	EACH	14
614993	RELOCATE UTILITY POLE AND TRANSFORMER	EACH	1
614993	FURNISH AND INSTALL 120 W POST-TOP LED FIXTURE W/WASHINGTON GLOBE AND PHOTOCELL	EACH	14
614424	FURNISH AND INSTALL 15" B.C. STREET LIGHT FOUNDATION	EACH	15
614999	PAYMENT TO PEPCO FOR CONNECTION, DISCONNECTION, INSPECTION	LS	1

DISTRICT OF COLUMBIA
MOHAMMED A. RIZVI
PE900533
REGISTERED PROFESSIONAL ENGINEER

4/29/2019

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

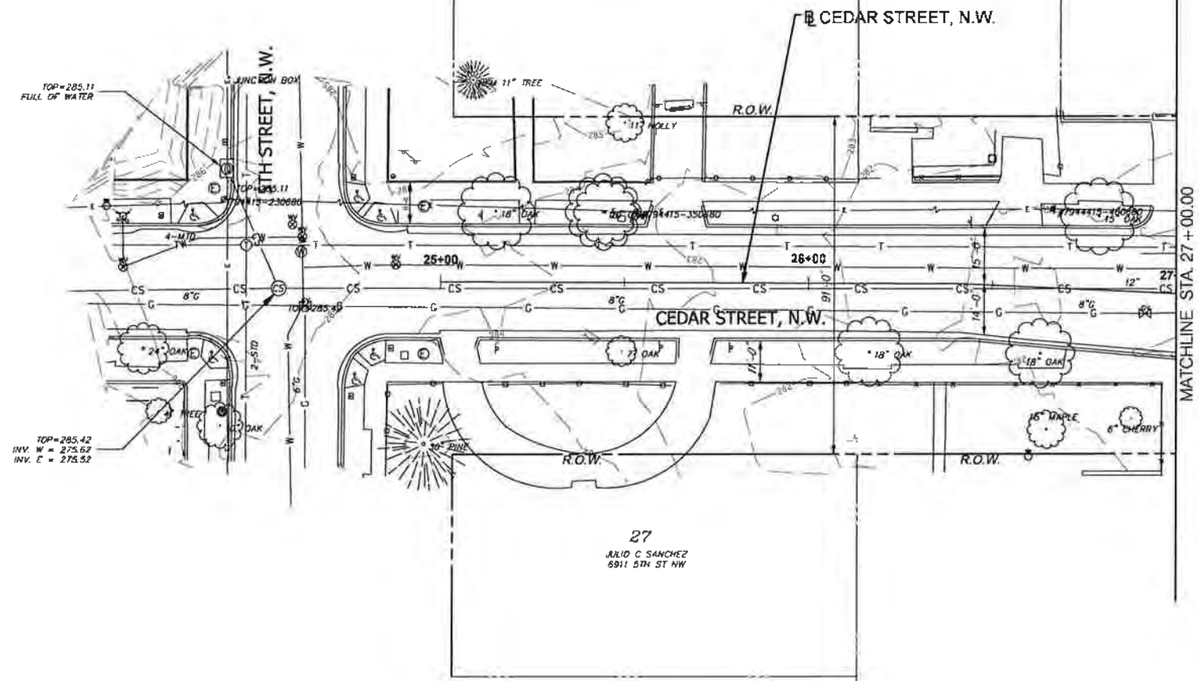
PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY DW
PROJECT MGR CV

SUMMARY OF QUANTITIES

DIVISION CHIEF
DATE
FILE
SHEET 5 OF 75

I:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_NW Improvements\07 Design\DGN\Sheets\Plan Sheets\005_pGN-GI_15690.dgn
Monday, April 29, 2019 AT 03:58 PM

FHWA PROJ NO.	STATE	FED AND PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP 8888 (416)	6	75



3/14/2018

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

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EXISTING CONDITIONS
SHEET 1 OF 3

DIVISION CHIEF
DATE
FILE
SHEET 8 OF 75

VOLKERT ENGINEERING, P.C.
80 M ST, SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
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SCALE: 1"=20'

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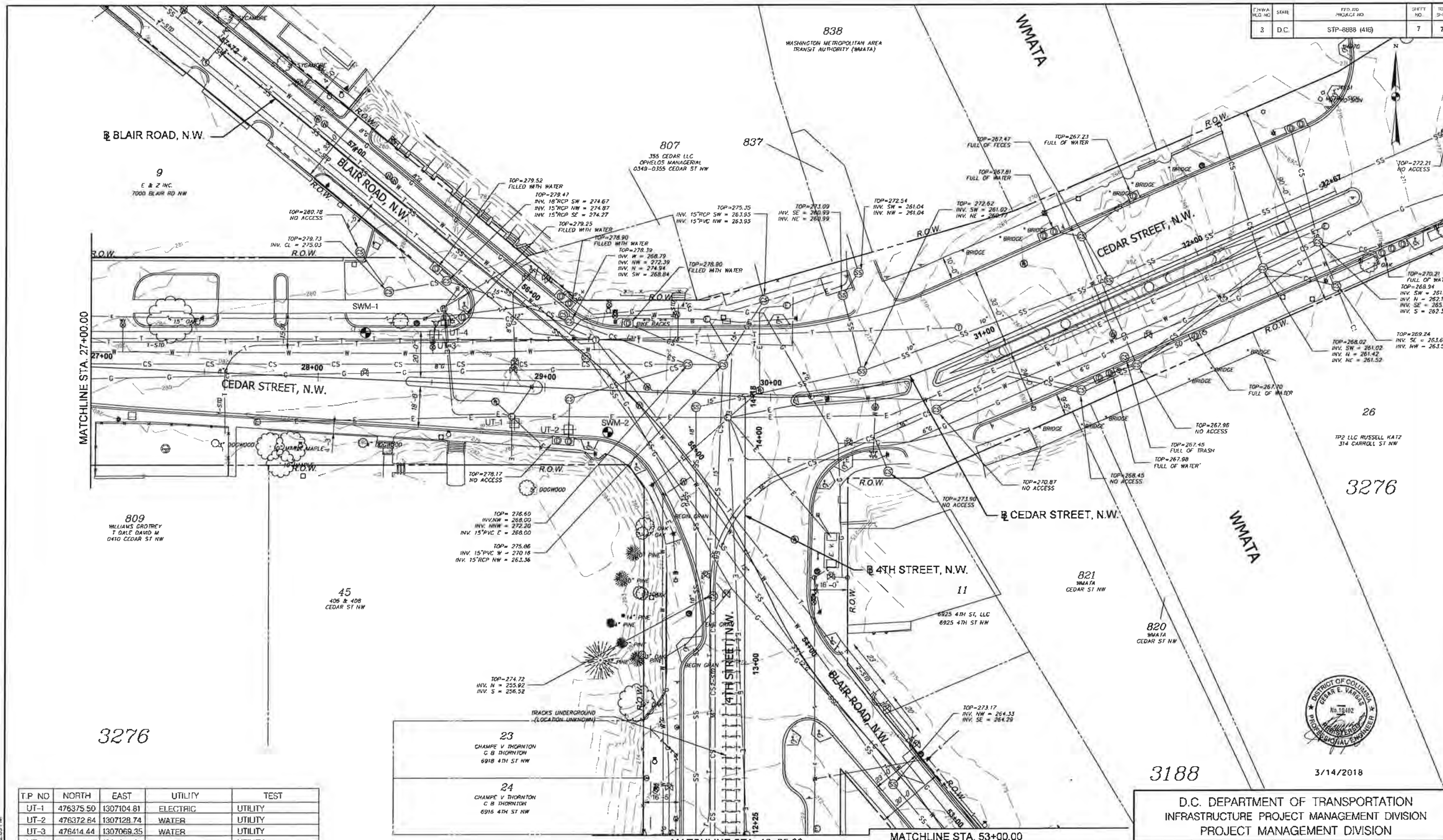
Thursday, September 13, 2018 AT 02:03 PM

FHWA REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	7	75



T.P. NO.	NORTH	EAST	UTILITY	TEST
UT-1	476375.50	1307104.81	ELECTRIC	UTILITY
UT-2	476372.64	1307128.74	WATER	UTILITY
UT-3	476414.44	1307069.35	WATER	UTILITY
UT-4	476420.65	1307074.32	ELECTRIC	UTILITY
UT-5	476420.65	1307074.32	WATER	UTILITY
SWM-1	476420.95	1307039.09	SOIL	INFILTRATION
SWM-2	476371.40	1307146.06	SOIL	INFILTRATION

3/14/2018

20' 0 20' 40'
SCALE: 1"=20'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY EW
PROJECT MGR. CV

EXISTING CONDITIONS
SHEET 2 OF 3

DIVISION CHIEF
DATE
FOR

FHWA REG NO	STATE	FED AID PROJECT NO	SHEET NO	TOTAL SHEETS
3	D.C.	STP-6888 (415)	8	75

MATCHLINE STA. 12+25.00

MATCHLINE STA. 53+00.00

810
CHAMPE V THORNTON
C B THORNTON
6914 4TH ST NW

43
CHAMPE V THORNTON
C B THORNTON
6912 4TH ST NW

44
CHAMPE V THORNTON
C B THORNTON
6910 4TH ST NW

813
CHAMPE V THORNTON
C B THORNTON
6904-6908 4TH ST NW

39
CHAMPE V THORNTON
C B THORNTON
6902 4TH ST NW

40
CHAMPE V THORNTON
C B THORNTON
6900 4TH ST NW

41
CHAMPE V THORNTON
C B THORNTON
0401 BUTTERNUT ST NW

4TH STREET, N.W.

ABANDONED STREETCAR TRACKS

801
DISTRICT OF COLUMBIA
ROOM 238
6905 4TH ST NW

4
ELLIS CLAYTON BURRUSS
TRUSTEE THE BARAC CO
6911 4TH ST NW

3278

802
WILLIAM J DAVIS INC.
ANTHONY V BRYNO
6901 4TH ST NW

13
6925 BLAIR RD LLC
6925 BLAIR RD NW

823
WMATA
BLAIR RD NW

800
WMATA
6909 BLAIR RD NW

819
WMATA
BLAIR RD NW

818
WMATA
BLAIR RD NW

BLAIR ROAD, N.W.

BUTTERNUT STREET, N.W.

30+00 31+00 32+00 33+00 33+89 49+00 9+00

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

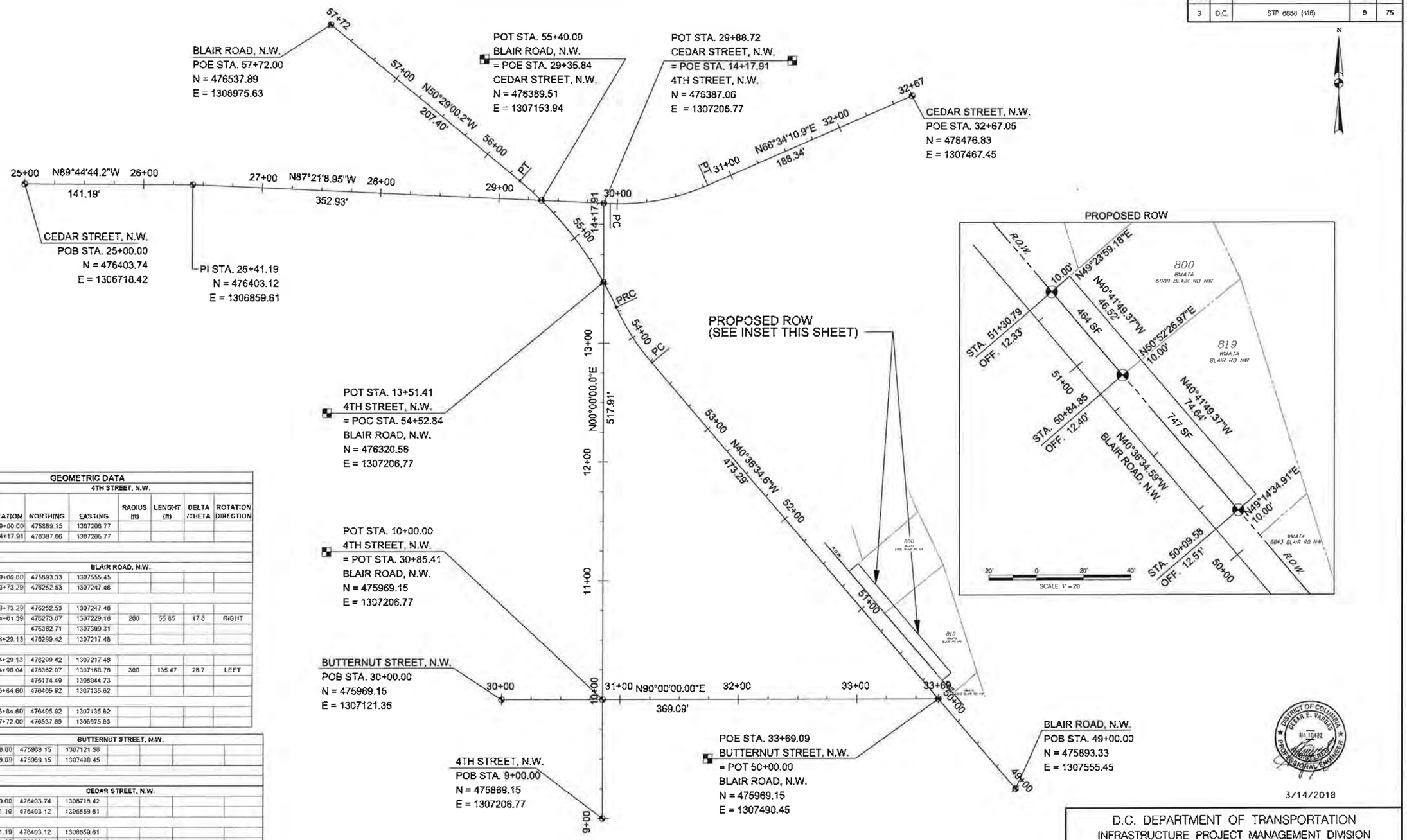
PROJECT ENG BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY KW
PROJECT MGR CV

EXISTING CONDITIONS
SHEET 3 OF 3

DIVISION CHIEF
DATE
FILE
SHEET 8 OF 75

F:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int Improvements\07 Design\DGN\Sheets\Plan Sheets\008_gSY-P003_1569D.dgn
Thursday, September 13, 2018 AT 02:03 PM

FHWA REG. NO.	STATE	HTD AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP 8888 (416)	9	75



GEOMETRIC DATA

ALIGMENT NAME:		4TH STREET, N.W.						
ELEMENT	POINT TYPE	STATION	NORTHING	EASTING	RADIUS (ft)	LENGHT (ft)	DELTA /THETA	ROTATION DIRECTION
TANGENT	POB	9+00.00	475869.15	1307206.77				
TANGENT	POE	14+17.91	476387.06	1307206.77				
ALIGMENT NAME:		BLAIR ROAD, N.W.						
TANGENT	POB	49+00.00	475893.33	1307555.45				
TANGENT	PC	53+73.29	476252.53	1307247.48				
ARC	PC	53+73.29	476252.53	1307247.48				
ARC	PI	54+01.39	476273.87	1307229.18	260	55.85	17.8	RIGHT
ARC	CC		476382.71	1307399.31				
ARC	PRC	54+29.13	476299.42	1307217.48				
ARC	PRC	54+29.13	476299.42	1307217.48				
ARC	PI	54+98.04	476382.07	1307188.78	300	135.47	28.7	LEFT
ARC	CC		476174.49	1308944.73				
ARC	PT	55+64.60	476405.92	1307135.82				
TANGENT	PT	55+64.60	476405.92	1307135.82				
TANGENT	POE	57+72.00	476537.89	1306975.63				
ALIGMENT NAME:		BUTTERNUT STREET, N.W.						
TANGENT	POB	30+00.00	475969.15	1307121.36				
TANGENT	POE	33+69.09	475969.15	1307490.45				
ALIGMENT NAME:		CEDAR STREET, N.W.						
TANGENT	POB	25+00.00	476403.74	1306718.42				
TANGENT	PI	26+41.19	476403.12	1306859.61				
TANGENT	PI	26+41.19	476403.12	1306859.61				
TANGENT	PC	29+94.12	476386.81	1307212.16				
ARC	PC	29+94.12	476386.81	1307212.16				
ARC	PI	30+37.16	476384.83	1307255.15	185.88	84.59	29	LEFT
ARC	CC		476572.47	1307220.74				
ARC	PT	30+78.71	476401.94	1307294.64				
TANGENT	PT	30+78.71	476401.94	1307294.64				
TANGENT	POE	32+67.05	476476.83	1307467.45				

DISTRICT OF COLUMBIA
CESAR E. VARGAS
No. 10422
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

GEOMETRIC LAYOUT PLAN

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY SW
PROJECT MGR. CV

DIVISION CHIEF
DATE
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SHEET 9 OF 75

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\009_pGD-PR00_154R.dgn
Thursday, September 13, 2018 AT 02:03 PM

F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	10	75

END SIDEWALK DEMOLITION
END CURB AND GUTTER REMOVAL
BLAIR ROAD, N.W.
STA. = 56+25.53
OFFSET = 11.03 LT.

END FULL DEPTH PAVEMENT DEMOLITION
BLAIR ROAD, N.W.
STA. = 56+19.92
OFFSET = 11.11 LT.

BEGIN SIDEWALK DEMOLITION
BEGIN CURB AND GUTTER REMOVAL
BEGIN FULL DEPTH PAVEMENT DEMOLITION
CEDAR STREET, N.W.
STA. = 28+10.37
OFFSET = 28.76 LT.

TREE PROTECTION FENCING 4' X 9' MIN.

BEGIN PAVEMENT MILLING
CEDAR STREET, N.W.
STA. 27+50.00

BEGIN MEDIAN AND FULL DEPTH PAVEMENT DEMOLITION
CEDAR STREET, N.W.
STA. 28+38.64

BEGIN CURB AND GUTTER REMOVAL
CEDAR STREET, N.W.
STA. 28+66.22
OFFSET = 20.49' RT.

BEGIN FULL DEPTH PAVEMENT DEMOLITION
CEDAR STREET, N.W.
STA. 28+77.39
OFFSET = 20.49 RT.

END PAVEMENT MILLING
BLAIR ROAD, N.W.
STA. 56+50.00

END SIDEWALK DEMOLITION
END CURB AND GUTTER DEMOLITION
BLAIR ROAD, N.W.
STA. 56+11.74
OFFSET = 10.92' RT.

BEGIN SIDEWALK DEMOLITION
BEGIN CURB AND GUTTER DEMOLITION
BLAIR ROAD, N.W.
STA. 55+81.30
OFFSET = 10.98' RT.

BEGIN SIDEWALK DEMOLITION
BEGIN CURB AND GUTTER DEMOLITION
BLAIR ROAD, N.W.
STA. 55+81.35
OFFSET = 10.08' RT.

END CURB AND GUTTER REMOVAL
BLAIR ROAD, N.W.
STA. 55+00.86
OFFSET = 16.44' LT.

END CURB AND GUTTER REMOVAL
4TH STREET, N.W.
STA. 13+16.32
OFFSET = 18.03' LT.
TRACKS UNDERGROUND (LOCATION UNKNOWN)

BEGIN CURB AND GUTTER REMOVAL
4TH STREET, N.W.
STA. 12+81.74
OFFSET = 28.60' LT.

BEGIN FULL DEPTH PAVEMENT DEMOLITION
4TH STREET, N.W.
STA. 12+46.85
OFFSET = 18.93 LT.

END MEDIAN AND FULL DEPTH PAVEMENT DEMOLITION
CEDAR STREET, N.W.
STA. 28+98.82

END FULL DEPTH PAVEMENT DEMOLITION
CEDAR STREET, N.W.
STA. 29+48.34
OFFSET = 33.02 RT.

END SIDEWALK DEMOLITION
CEDAR ROAD, N.W.
STA. 30+46.22

END CURB AND GUTTER DEMOLITION
CEDAR STREET, N.W.
STA. 30+31.76
OFFSET = 32.27 ' LT.

END PAVEMENT MILLING
CEDAR STREET, N.W.
STA. 31+00.00

END MEDIAN AND FULL DEPTH PAVEMENT DEMOLITION
CEDAR STREET, N.W.
STA. 30+98.18

BEGIN MEDIAN AND FULL DEPTH PAVEMENT DEMOLITION
CEDAR STREET, N.W.
STA. 30+04.22

END CURB AND GUTTER DEMOLITION
CEDAR STREET, N.W.
STA. 30+31.94
OFFSET = 27.32' RT.

BEGIN CURB AND GUTTER DEMOLITION
4TH STREET, N.W.
STA. 13+74.99
OFFSET = 30.45' RT.

END CURB AND GUTTER DEMOLITION
CEDAR STREET, N.W.
STA. 54+13.32
OFFSET = 13.68' RT.

BEGIN CURB AND GUTTER DEMOLITION
END ENTRANCE REMOVAL
BLAIR STREET, N.W.
STA. 53+69.12
OFFSET = 15.54 RT.

END FULL DEPTH PAVEMENT DEMOLITION
BLAIR ROAD, N.W.
STA. 53+65.56
OFFSET = 11.15' LT.

END CURB AND GUTTER DEMOLITION
BLAIR ROAD, N.W.
STA. 53+47.97
OFFSET = 11.92' LT.

BEGIN CURB AND GUTTER DEMOLITION
4TH STREET, N.W.
STA. 12+35.46
OFFSET = 28.66 RT.

MATCHLINE STA. 12+25.00

MATCHLINE STA. 53+00.00

LEGEND

1. EXISTING TREE TO REMAIN
2. DEMOLISH EXISTING CURB AND GUTTER
3. DEMOLISH EXISTING PCC SIDEWALK
4. DEMOLISH CURB RAMP
5. DEMOLISH EXISTING CONCRETE MEDIAN /FULL DEPTH PAVEMENT
6. DEMOLISH FULL DEPTH PAVEMENT
7. RELOCATE EXISTING TRASH RECEPTACLE AS DIRECTED BY THE ENGINEER
8. REMOVE AND REINSTALL EXISTING BIKE RACKS
9. CLEAR AND GRUB
10. DEMOLISH EXISTING BRICK SIDEWALK

DEMOLITION LEGEND

- DEMOLISH FULL DEPTH PAVEMENT
- DEMOLISH SIDEWALK
- DEMOLISH MEDIAN
- MILL ASPHALT PAVEMENT
- XXXXXXXXXXXXXX DEMOLISH CURB AND GUTTER

NOTE:
SEE PAVEMENT MARKING AND SIGNING PLANS FOR PROPOSED PARKING METER LOCATIONS

SCALE: 1"=20'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

DEMOLITION PLAN
SHEET 1 OF 2

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY DW
PROJECT MGR CV
DIVISION CHIEF
DATE
FILE
SHEET 10 OF 75

DISTRICT OF COLUMBIA
CESAR E. VARGAS
No. 10402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	11	75

MATCHLINE STA. 12+25.00

MATCHLINE STA. 53+00.00

810
CHAMPE V THORNTON
C B THORNTON
6914 4TH ST NW

43
CHAMPE V THORNTON
C B THORNTON
6912 4TH ST NW

44
CHAMPE V THORNTON
C B THORNTON
6910 4TH ST NW

813
CHAMPE V THORNTON
C B THORNTON
6904-6908 4TH ST NW

39
CHAMPE V THORNTON
C B THORNTON
6902 4TH ST NW

40
CHAMPE V THORNTON
C B THORNTON
6900 4TH ST NW

41
CHAMPE V THORNTON
C B THORNTON
(400 BUTTERNUT ST NW)

801
DISTRICT OF COLUMBIA
ROOM 238
6905 4TH ST NW

4
ELLIS CLAYTON BURRUSS
TRUSTEE THE BARAC CO
6911 4TH ST NW

3278

802
WILLIAM J DAVIS INC
ANTHONY V BENYOO
6901 4TH ST NW

13
6925 BLAIR RD LLC
6925 BLAIR RD NW

803
WMATA
BLAIR RD NW

823
WMATA
BLAIR RD NW

800
WMATA
6909 BLAIR RD NW

819
WMATA
BLAIR RD NW

818
WMATA
BLAIR RD NW

4TH STREET, N.W.

BLAIR ROAD, N.W.

BUTTERNUT STREET, N.W.

℄ 4TH STREET, N.W.

R.O.W.

END CURB AND GUTTER DEMOLITION
END SIDEWALK DEMOLITION
END FULL DEPTH PAVEMENT DEMOLITION
4TH STREET, N.W.
STA. 11+07.81
OFFSET = 21.89' LT.

REMOVE AND RESTORE EXISTING PERENNIALS, ANNUAL, AND GRASSES. COORDINATE WITH URBAN FORESTRY ADMINISTRATION.

BEGIN FULL DEPTH PAVEMENT DEMOLITION
4TH STREET, N.W.
STA. 10+51.00
OFFSET = 19.44 LT.

BEGIN CURB AND GUTTER DEMOLITION
BEGIN SIDEWALK DEMOLITION
4TH STREET, N.W.
STA. 10+42.99
OFFSET = 25.91' LT.

END CURB AND GUTTER DEMOLITION
END FULL DEPTH PAVEMENT DEMOLITION
BLAIR STREET, N.W.
STA. 51+28.96
OFFSET = 10.94' LT.

PROPOSED R.O.W.
SEE SHEET 9 FOR DIMENSIONS

RELOCATE POLE BY OTHERS

BEGIN CURB AND GUTTER DEMOLITION
BEGIN FULL DEPTH PAVEMENT DEMOLITION
BLAIR ROAD, N.W.
STA. 50+09.61
OFFSET = 11.20' LT.

BEGIN PAVEMENT MILLING
4TH STREET, N.W.
STA. 10+24.00

BEGIN PAVEMENT MILLING
4TH STREET, N.W.
STA. 33+10.21

DEMOLISH EXISTING BRICK SIDEWALK FOR PROPOSED TRAFFIC SIGNAL EQUIPMENT INSTALLATION

BEGIN PAVEMENT MILLING
BLAIR ROAD, N.W.
STA. 49+50.00

10+00 11+00 12+00 12+25 30+00 31+00 32+00 33+00 33+69 49+00 9+00

LEGEND

1. EXISTING TREE TO REMAIN.
2. DEMOLISH EXISTING CURB AND GUTTER.
3. DEMOLISH EXISTING PCC SIDEWALK.
4. DEMOLISH CURB RAMP.
5. DEMOLISH EXISTING CONCRETE MEDIAN /FULL DEPTH PAVEMENT.
6. DEMOLISH FULL DEPTH PAVEMENT.
7. RELOCATE EXISTING TRASH RECEPTACLE AS DIRECTED BY THE ENGINEER.
8. REMOVE AND REINSTALL EXISTING BIKE RACKS.
9. CLEAR AND CRUB
10. DEMOLISH EXISTING BRICK SIDEWALK

DEMOLITION LEGEND

- DEMOLISH FULL DEPTH PAVEMENT
- DEMOLISH SIDEWALK
- MILL ASPHALT PAVEMENT
- XXXXXXXXXXXXX DEMOLISH CURB AND GUTTER

NOTE:
SEE PAVEMENT MARKING AND SIGNING PLANS FOR PROPOSED PARKING METER LOCATIONS

20' 0 20' 40'
SCALE: 1" = 20'

DISTRICT OF COLUMBIA
OSCAR E. VARGAS
No. 13402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

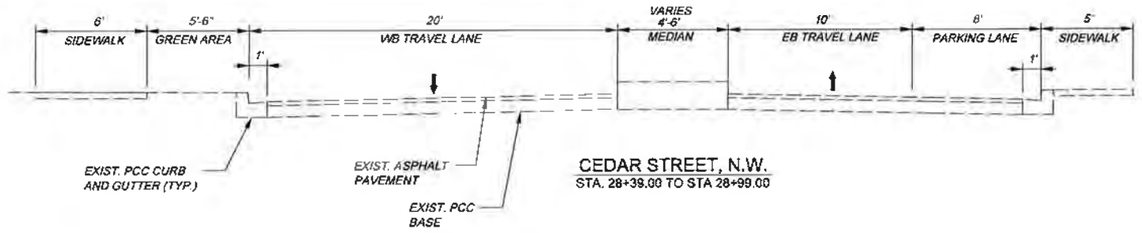
DEMOLITION PLAN
SHEET 2 OF 2

PROJECT ENG. SS
DESIGNED BY SS
CHECKED BY CV
DRAWN BY EW
PROJECT MGR CV

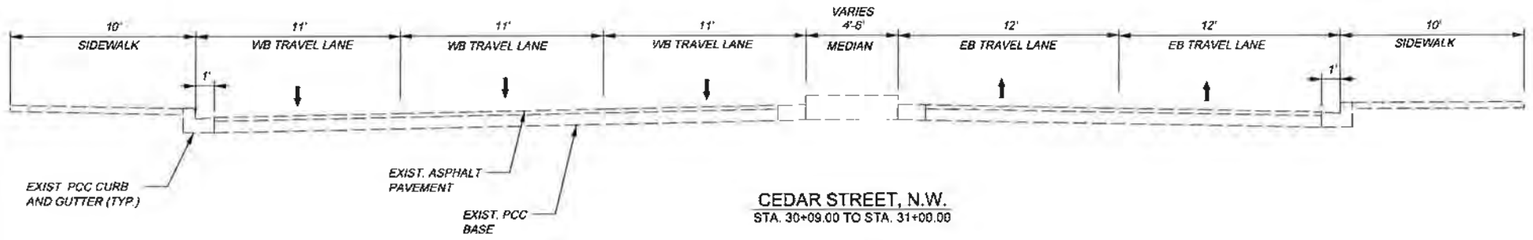
DIVISION CHIEF
DATE
FILE
SHEET 11 OF 75

T:\34420 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_INT Improvements\07 Design\DGN\Sheets\Plan Sheets\011_pDW-PP02_15690.dgn
Thursday, September 13, 2018 AT 02:03 PM

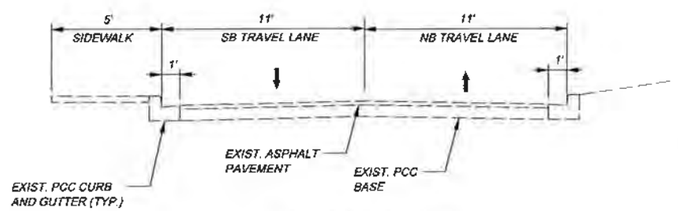
FHWA/W.O. YR	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	12	75



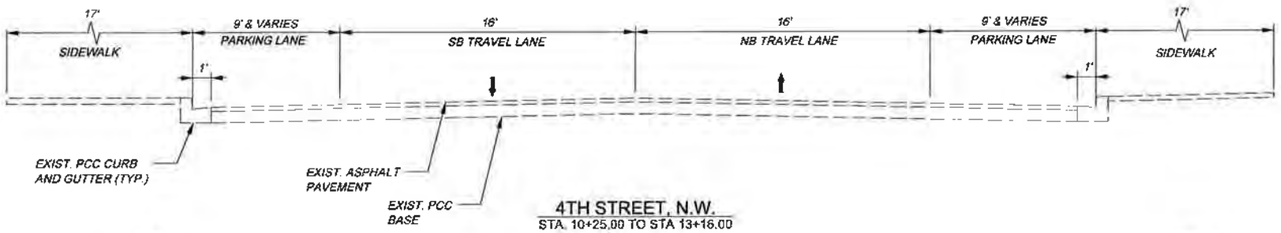
CEDAR STREET, N.W.
STA. 28+39.00 TO STA 28+99.00



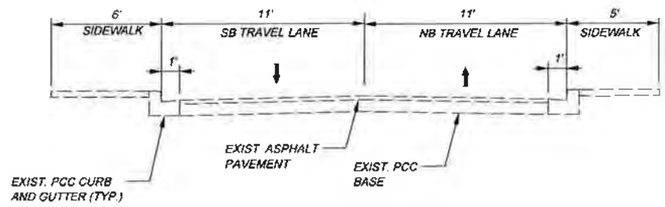
CEDAR STREET, N.W.
STA. 30+09.00 TO STA. 31+00.00



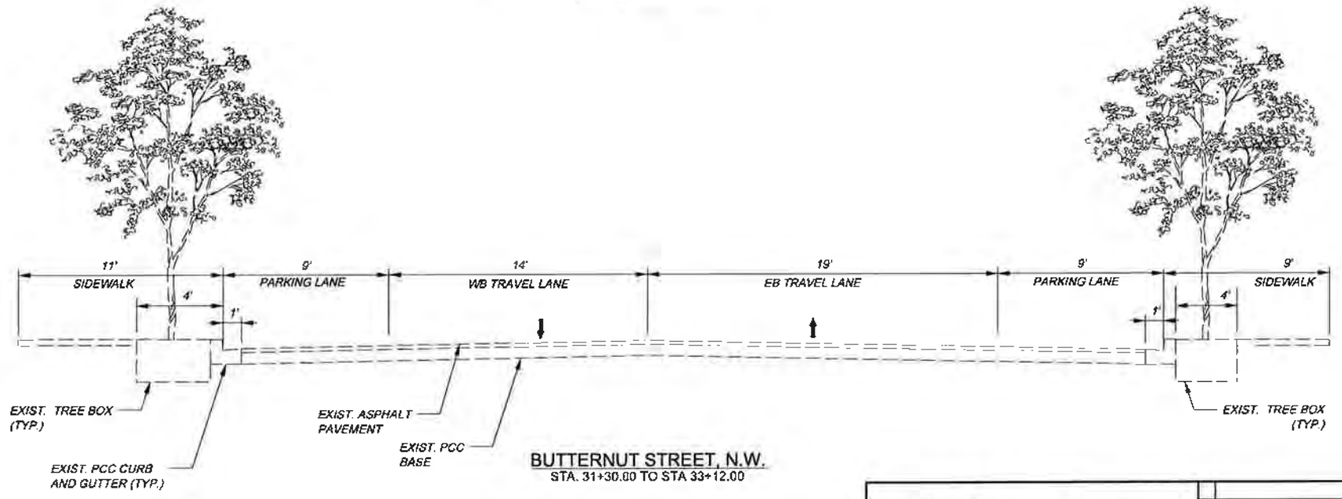
BLAIR ROAD, N.W.
STA. 50+65.00 TO STA 53+75.00



4TH STREET, N.W.
STA. 10+25.00 TO STA 13+16.00



BLAIR ROAD, N.W.
STA. 56+25.00 TO STA 55+50.00



BUTTERNUT STREET, N.W.
STA. 31+30.00 TO STA 33+12.00

4' 0 4' 8'
SCALE: 1"=4'

DISTRICT OF COLUMBIA
CESAR E. VARGAS
No. 19492
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

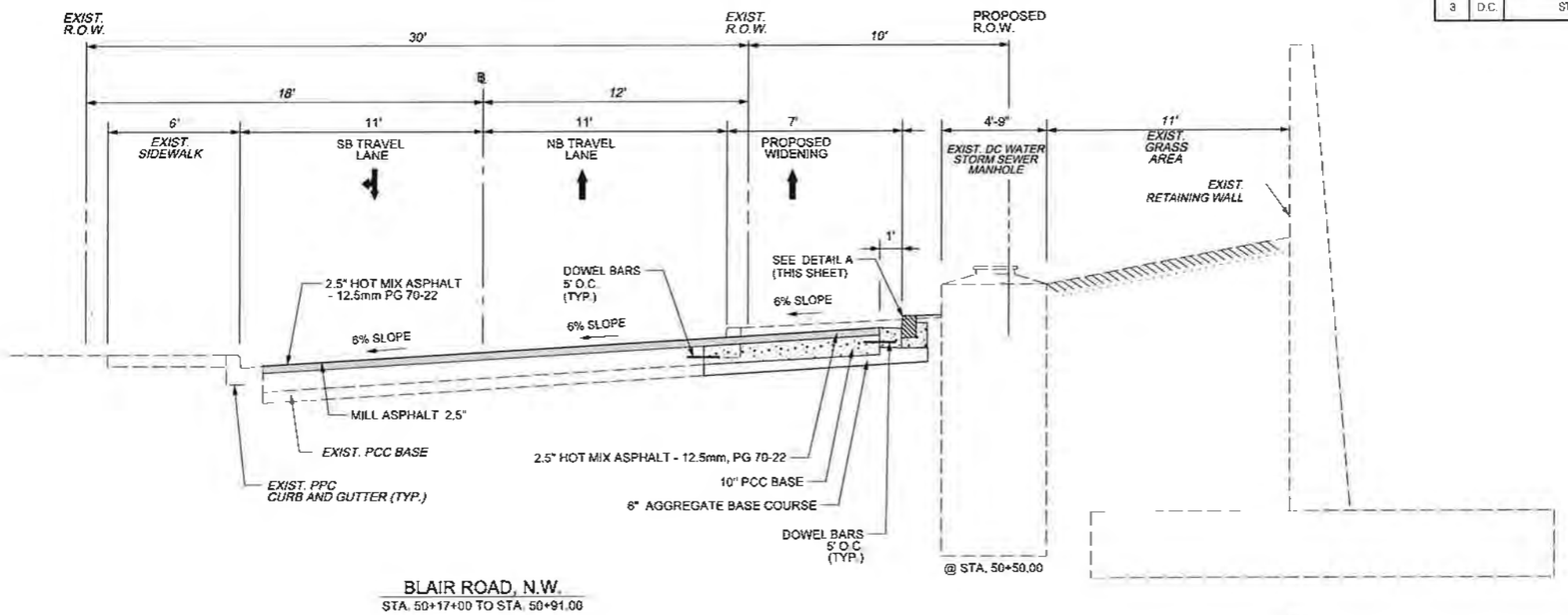
PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY SW
PROJECT MGR. CV

EXISTING TYPICAL SECTIONS

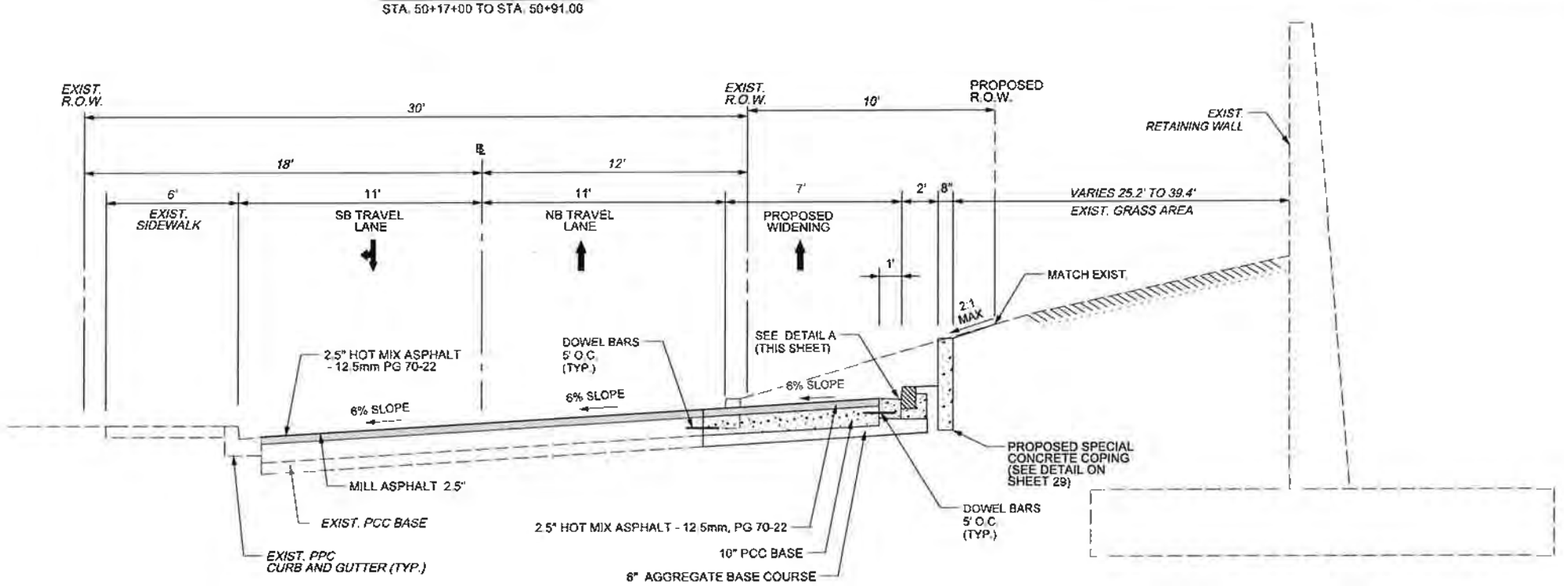
DIVISION CHIEF
DATE
FILE
SHEET 12 OF 75

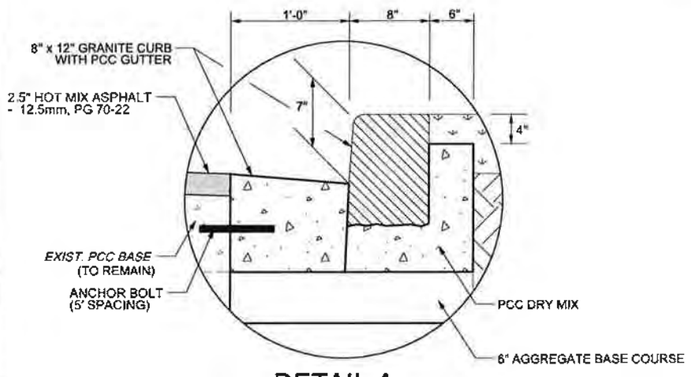
T:\34400 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\012_STTYPP00_15690.dgn
Thursday, September 13, 2018 At 02:03 PM

F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	13	75



BLAIR ROAD, N.W.
STA. 50+17+00 TO STA. 50+91.00





DETAIL A

BLAIR ROAD, N.W.
STA. 50+91+00 TO STA. 51+30.00

NOT TO SCALE

DISTRICT OF COLUMBIA
CESAR E. VARELA
No. 10402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

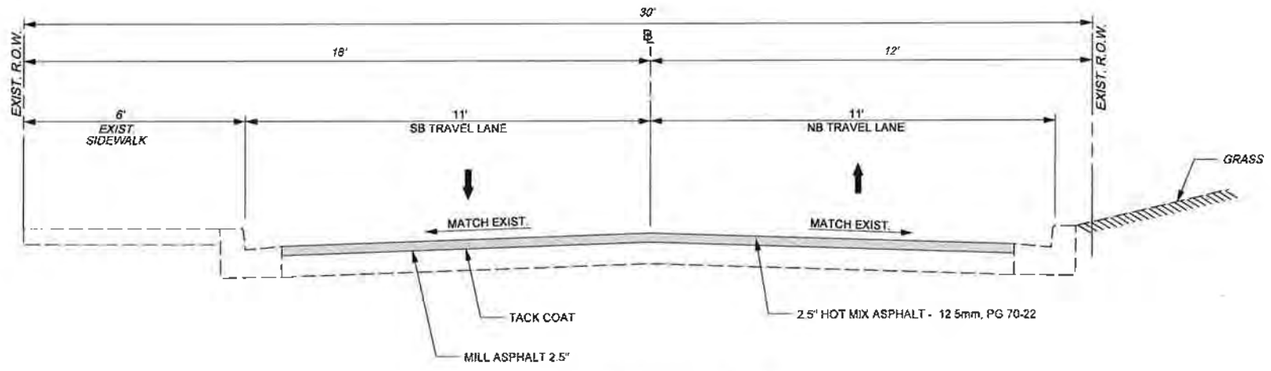
PROJECT ENG. BS
DESIGNED BY BS
CHECKED BY CV
DRAWN BY EW
PROJECT MGR. CV

PROPOSED TYPICAL SECTIONS
BLAIR ROAD, N.W.
SHEET 1 OF 2

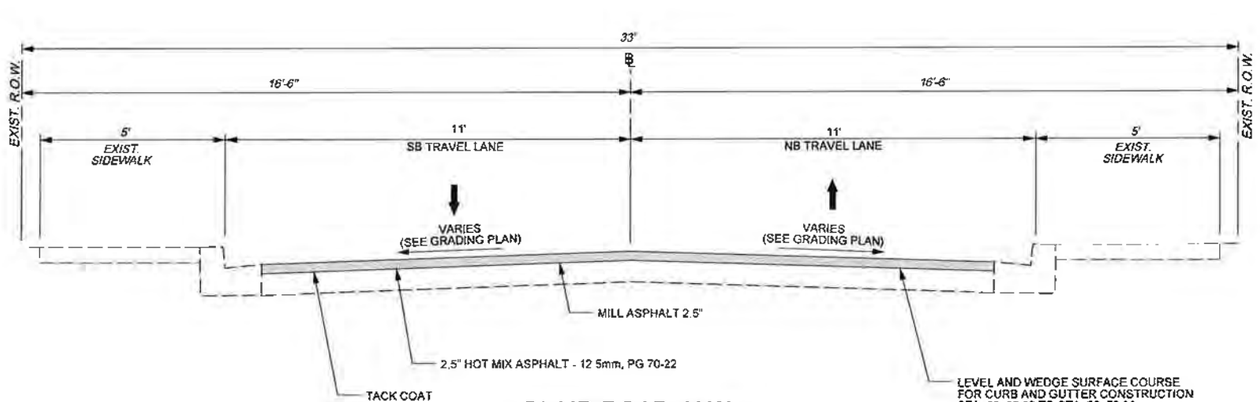
DIVISION CHIEF
DATE
FILE
Sheet 13 OF 75

I:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\013_pdT-PP01_15850.dgn
Thursday, September 13, 2018 At 02:03 PM

F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	14	75



BLAIR ROAD, N.W.
STA. 51+30.00 TO STA 53+90.00



BLAIR ROAD, N.W.
STA. 56+25.00 TO STA 56+50.00

2' 0 2' 4'
SCALE: 1"=2'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	INITIALS	DATE
	REVISIONS		

3/14/2018

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

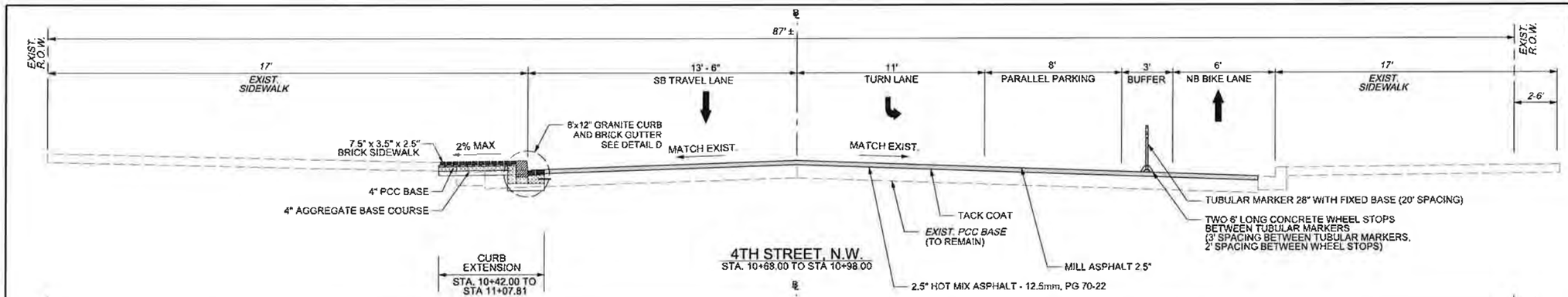
PROJECT ENG. BR
DESIGNED BY BR
CHECKED BY CV
DRAWN BY LW
PROJECT MGR CV

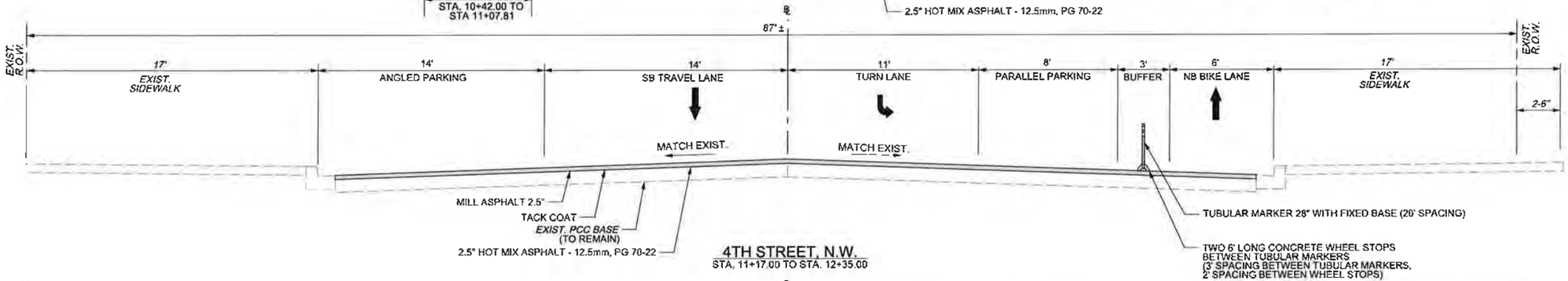
PROPOSED TYPICAL SECTIONS
BLAIR ROAD, N.W.
SHEET 2 OF 2

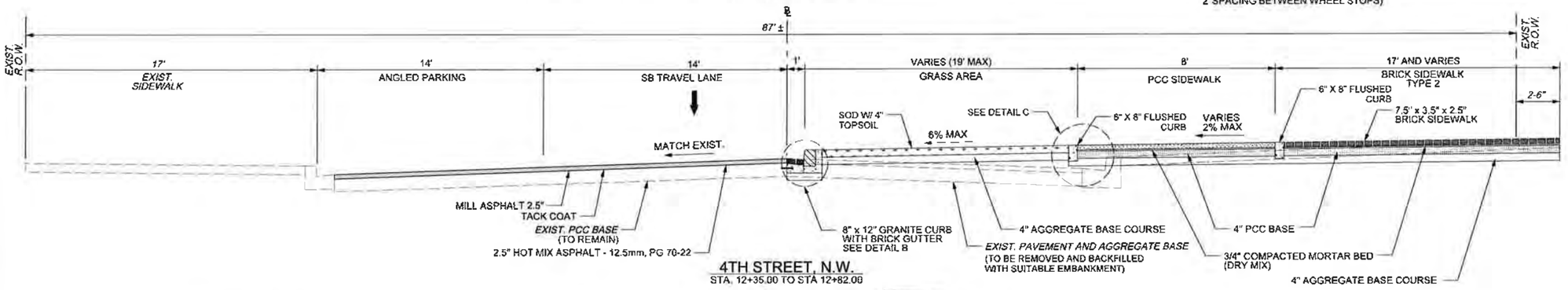
DIVISION CHIEF
DATE:
FILE
SHEET 14 OF 75

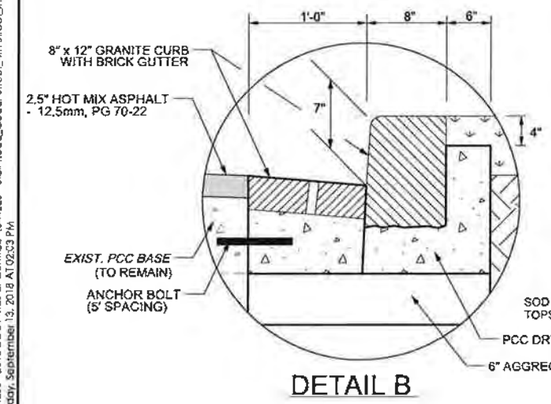
T:\344209 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\014_DTT-PP02_15490.dgn
Thursday, September 13, 2018 at 02:03 PM

FHWA PROJ. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	15	75

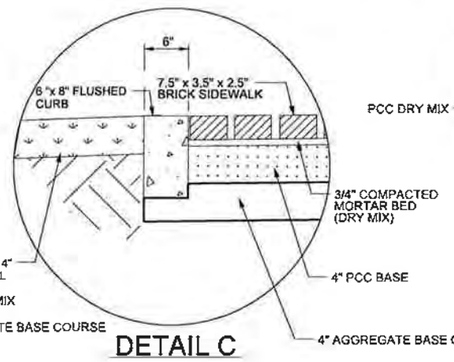




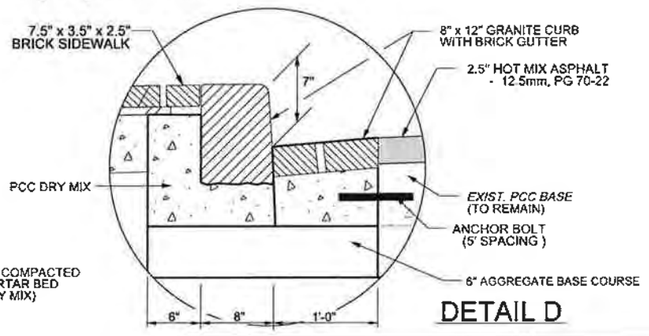




DETAIL B



DETAIL C



DETAIL D

NOT TO SCALE

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROPOSED TYPICAL SECTIONS
4TH STREET, N.W.

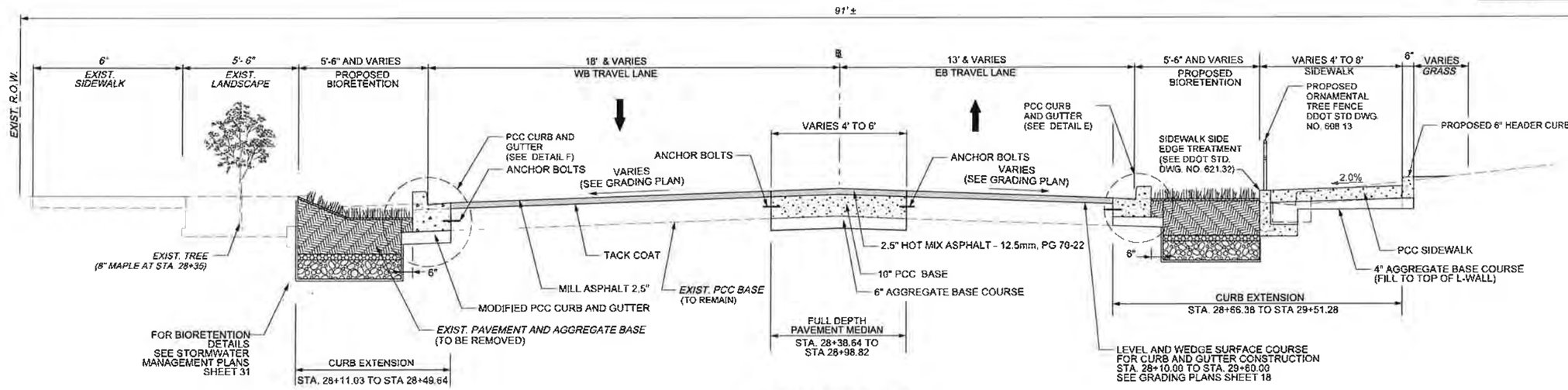
PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY CW
PROJECT MGR. CV

DIVISION CHIEF

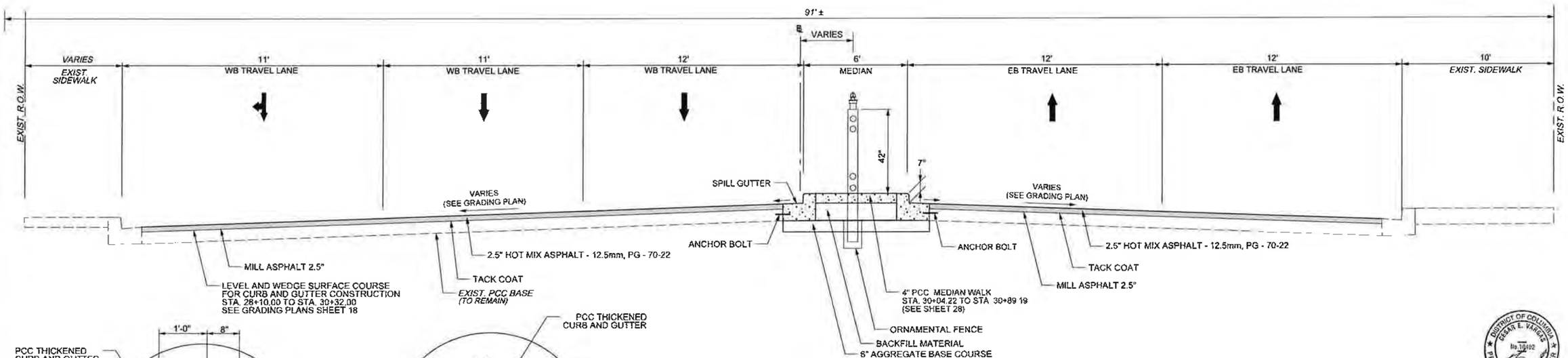
DATE
FILE
SHEET 15 OF 75

D:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int Improvements\07 Design\DGN\Sheets\Plan Sheets\01 S_pTP-PP03_15690.dgn
Thursday, September 13, 2018 At 02:03 PM

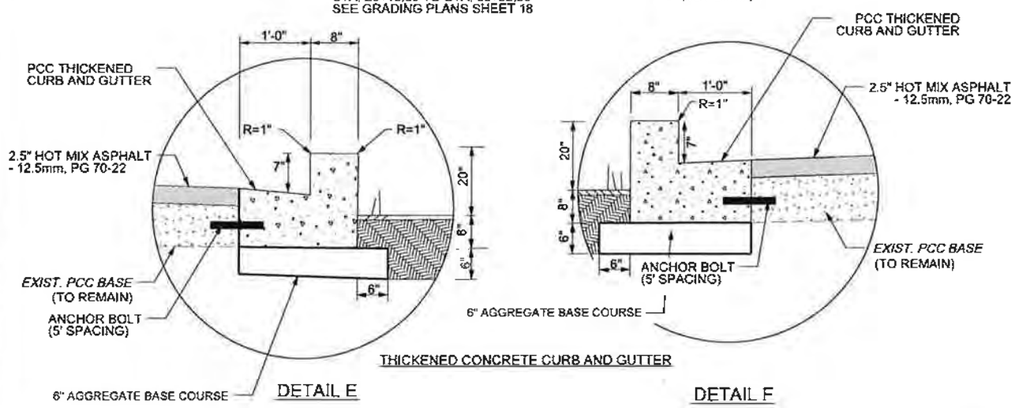
I.-HWA. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	16	75



CEDAR STREET, N.W.
STA. 27+50+00 TO STA 29+35.84



CEDAR STREET, N.W.
STA. 29+35.84 TO STA 31+00.00



THICKENED CONCRETE CURB AND GUTTER

NOT TO SCALE

NOTE:

1. SLOPE OF GUTTER AND CURB REVEAL TO MATCH STANDARD CURB AND GUTTER, PER DWG. 606.01

VOLKERT ENGINEERING, P.C.
80 M ST, SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA CESAR E. VARGAS No. 19102 REGISTERED PROFESSIONAL ENGINEER

3/14/2018

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

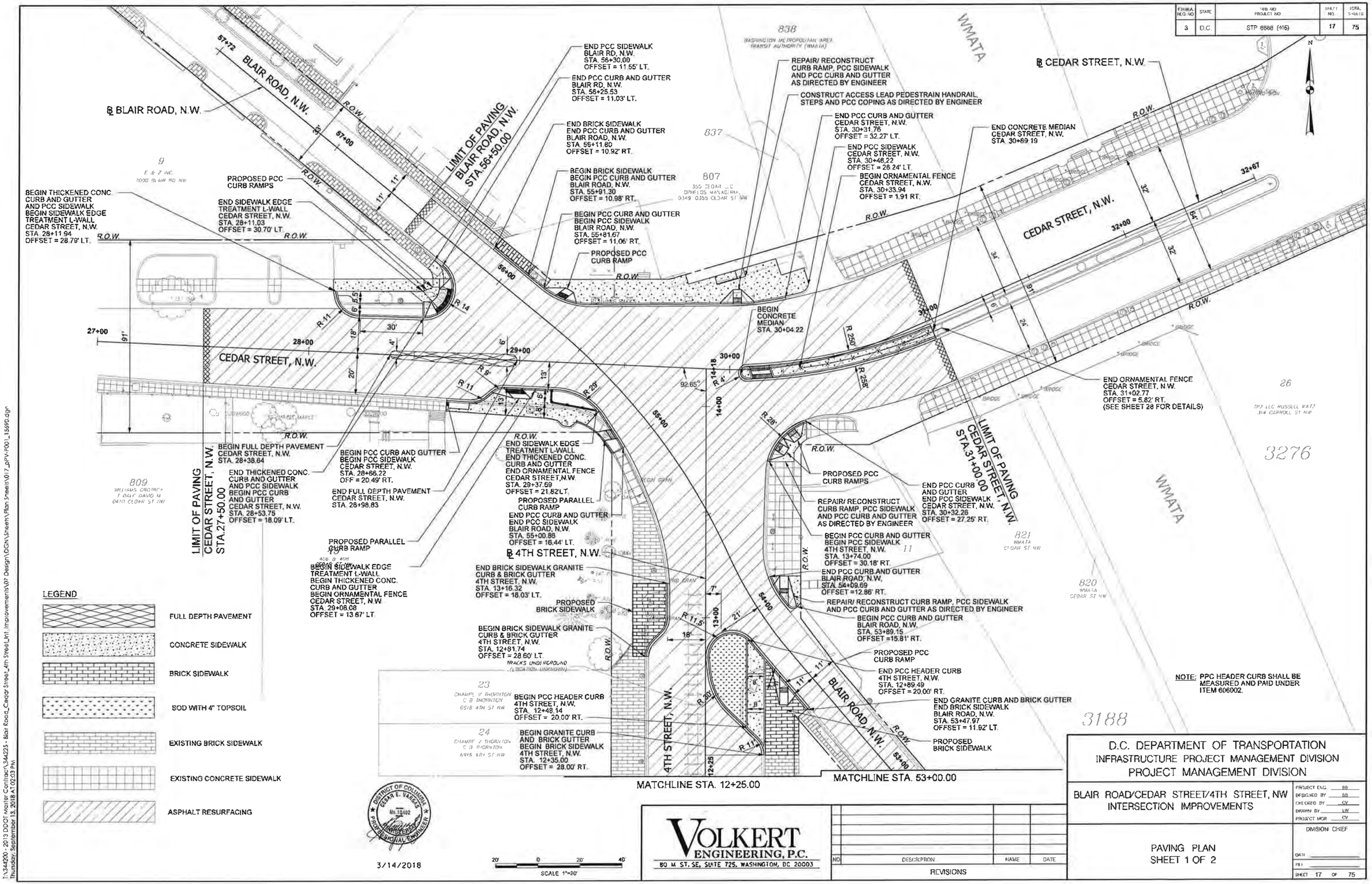
PROJECT ENG. SS
DESIGNED BY SS
CHECKED BY CV
DRAWN BY DW
PROJECT MGR. CV

PROPOSED TYPICAL SECTIONS
CEDAR STREET, N.W.

DIVISION CHIEF
DATE
FILE
SHEET 16 OF 75

I:\344200 - 2013 DDOT Master Contract\344223 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\016_GIT-PP04_16690.dgn
Thursday, September 13, 2018 AT 02:03 PM

FHWA REG. NO	STATE	FED. AID PROJECT NO	SHEET NO.	TOTAL SHEETS
3	D.C.	STP 9888 (416)	17	75



VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY LW
PROJECT MGR CV

PAVING PLAN
SHEET 1 OF 2

DIVISION CHIEF
DATE
FILE
SHEET 17 OF 75

I:\344200 - 2013 DDOT Master Contract\344223 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\07_gPV-P001_15690.dgn
Thursday, September 13, 2018 A 7:02:03 PM

F.H.W.A. REG. NO.	STATE	T.E.D. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-9588 (416)	18	75

MATCHLINE STA. 12+25.00

MATCHLINE STA. 53+00.00

℄ 4TH STREET, N.W.

END GRANITE CURB & BRICK GUTTER END BRICK SIDEWALK 4TH STREET, N.W. STA. 11+07.81 OFFSET = 21.89' LT

REMOVE AND RESTORE EXISTING PERENNIALS, ANNUAL, AND GRASSES. COORDINATE WITH URBAN FORESTRY ADMINISTRATION.

PROPOSED 9' X 10' TREE MULCH PIT

PROPOSED CATCH BASIN

PROPOSED PCC CURB RAMP

BEGIN BRICK SIDEWALK GRANITE CURB & BRICK GUTTER BEGIN BRICK SIDEWALK 4TH STREET, N.W. STA. 10+42.00 OFFSET = 25.91' LT

RELOCATE EXISTING TRASH RECEPTACLE TO BUTTERNUT ST.

℄ BLAIR ROAD, N.W.

PROPOSED SPECIAL CONCRETE COPING (SEE SHEET 29 FOR DETAILS)

RELOCATE POLE (BY PEPCO)

END GRANITE CURB & PCC GUTTER BLAIR RD, N.W. STA. 51+28.97 OFFSET = 12.00' RT

BEGIN GRANITE CURB & PCC GUTTER BLAIR RD, N.W. STA. 50+09.47 OFFSET = 12.00' RT (SEE SHEET 21 FOR DETAILS)

LIMIT OF PAVING
4TH STREET, N.W.
STA. 10+24.00

LIMIT OF PAVING
BUTTERNUT STREET, N.W.
STA. 33+10.21

LIMIT OF PAVING
BLAIR ROAD, N.W.
STA. 49+50.00

RELOCATED TRASH RECEPTACLE LOCATION FROM 4TH ST.

℄ BUTTERNUT STREET, N.W.

REPLACE BRICK SIDEWALK ON PCC BASE

BUTTERNUT STREET, N.W.

4TH STREET, N.W.

BLAIR ROAD, N.W.

LEGEND

- FULL DEPTH PAVEMENT
- CONCRETE SIDEWALK
- BRICK SIDEWALK
- SOD WITH 4" TOPSOIL
- EXISTING BRICK SIDEWALK
- EXISTING CONCRETE SIDEWALK
- ASPHALT RESURFACING

SCALE: 1" = 20'

DISTRICT OF COLUMBIA CEDAR E. VARGAS No. 10402 REGISTERED PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	MAM	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

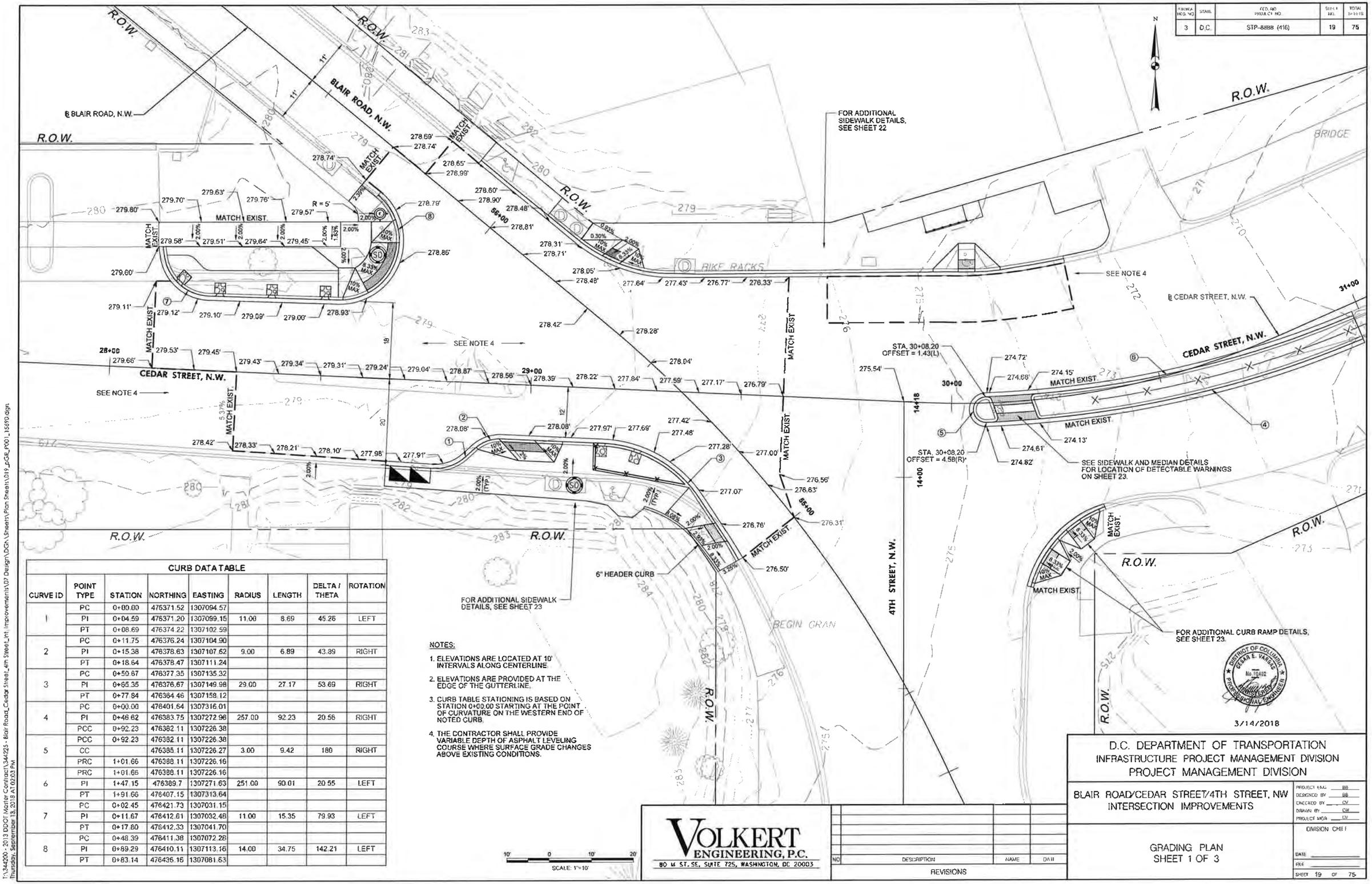
PROJECT ENG: BB
DESIGNED BY: BB
CHECKED BY: CV
DRAWN BY: CW
PROJECT MGR: CV

PAVING PLAN
SHEET 2 OF 2

DIVISION CHIEF
DATE:
FILE:
SHEET 18 OF 75

T:\344209 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int Improvements\07 Design\DGN\Sheets\Plan Sheets\018_pPV-P002_15690.dgn
Thursday, September 13, 2018 A7:02:03 PM

RAILWAY REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	19	75



CURB DATA TABLE

CURVE ID	POINT TYPE	STATION	NORTHING	EASTING	RADIUS	LENGTH	DELTA / THETA	ROTATION
1	PC	0+00.00	476371.52	1307094.57				
	PI	0+04.59	476371.20	1307099.15	11.00	8.69	45.26	LEFT
	PT	0+08.69	476374.22	1307102.59				
2	PC	0+11.75	476376.24	1307104.90				
	PI	0+15.38	476378.63	1307107.62	9.00	6.89	43.89	RIGHT
	PT	0+18.64	476378.47	1307111.24				
3	PC	0+50.67	476377.35	1307135.32				
	PI	0+65.35	476376.67	1307149.98	29.00	27.17	53.69	RIGHT
	PT	0+77.84	476384.46	1307158.12				
4	PC	0+00.00	476401.64	1307316.01				
	PI	0+46.62	476383.75	1307272.98	257.00	92.23	20.56	RIGHT
	PCC	0+92.23	476382.11	1307226.38				
5	PCC	0+92.23	476382.11	1307226.38				
	CC		476385.11	1307226.27	3.00	9.42	180	RIGHT
	PRC	1+01.66	476388.11	1307226.16				
6	PRC	1+01.66	476388.11	1307226.16				
	PI	1+47.15	476389.7	1307271.63	251.00	90.01	20.55	LEFT
	PT	1+91.66	476407.15	1307313.64				
7	PC	0+02.45	476421.73	1307031.15				
	PI	0+11.67	476412.61	1307032.48	11.00	15.35	79.93	LEFT
	PT	0+17.80	476412.33	1307041.70				
8	PC	0+48.39	476411.38	1307072.28				
	PI	0+89.29	476410.11	1307113.16	14.00	34.75	142.21	LEFT
	PT	0+83.14	476436.16	1307081.63				

NOTES:

1. ELEVATIONS ARE LOCATED AT 10' INTERVALS ALONG CENTERLINE.
2. ELEVATIONS ARE PROVIDED AT THE EDGE OF THE GUTTERLINE.
3. CURB TABLE STATIONING IS BASED ON STATION 0+00.00 STARTING AT THE POINT OF CURVATURE ON THE WESTERN END OF NOTED CURB.
4. THE CONTRACTOR SHALL PROVIDE VARIABLE DEPTH OF ASPHALT LEVELING COURSE WHERE SURFACE GRADE CHANGES ABOVE EXISTING CONDITIONS.

DISTRICT OF COLUMBIA CESAR E. VARGAS No. 19492 REGISTERED PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
REVISIONS			

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY CW
PROJECT MGR. CV

GRADING PLAN
SHEET 1 OF 3

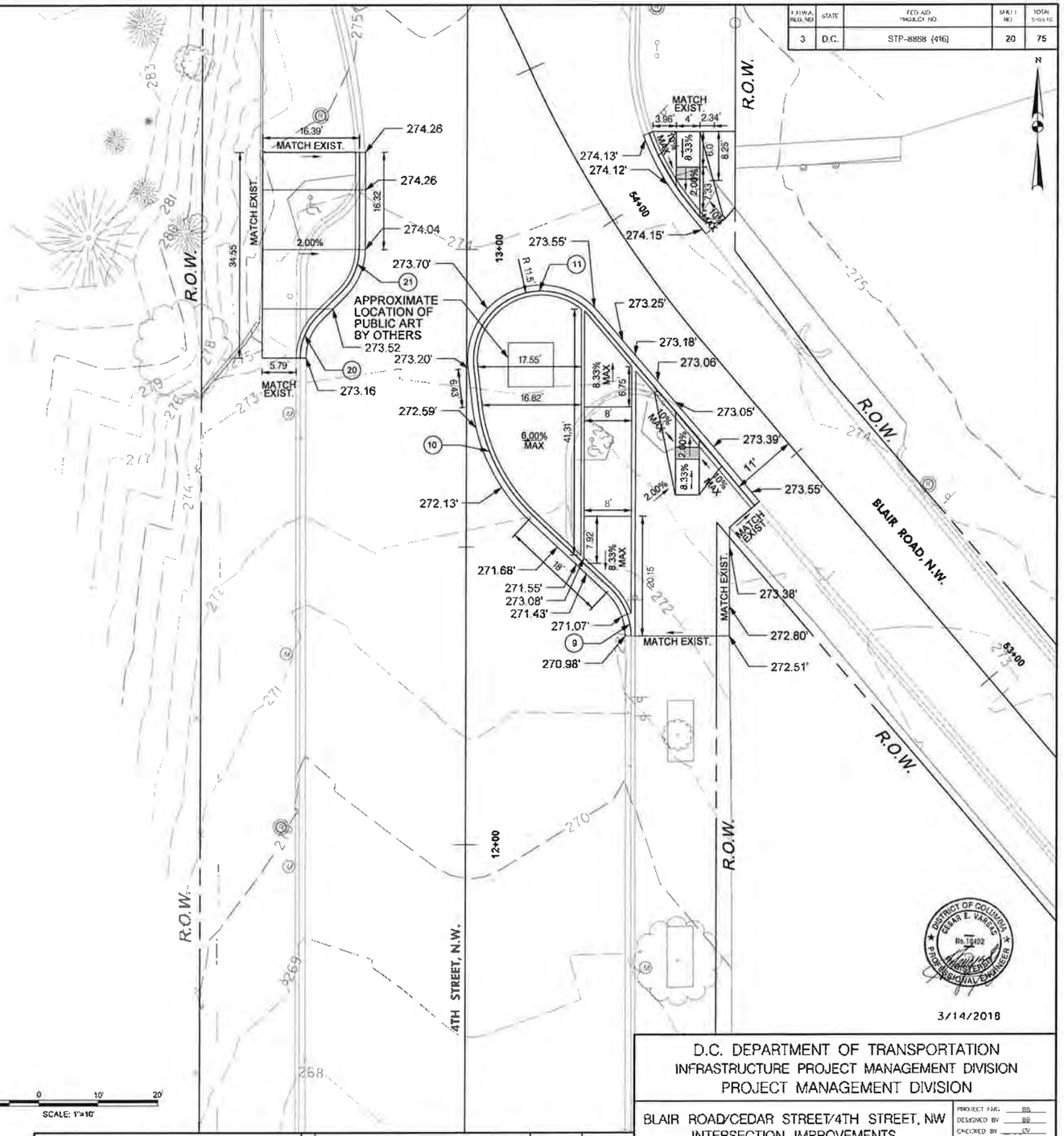
DIVISION CHIEF
DATE
FILE
SHEET 19 OF 75

T:\34000 - 2013 DDOT Master Contract\34225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\019_GRE_P001_15690.dgn
Thursday, September 13, 2018 A1:02:03 PM

F.A.H.W.A. PROJ. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	20	75

CURB DATA TABLE								
Element	Point Type	Station	Easting	Northing	Radius	Length	Delta / Theta	Direction
9	P.C.	0+00.00	476204.14	1307234.76				
	P.I.	0+04.77	476208.91	1307234.75	11	9.01	52.1	LEFT
	C.C.		476204.13	1307223.76				
	P.T.	0+09.01	476212.17	1307231.26				
10	P.C.	0+27.00	476224.45	1307218.11				
	P.I.	0+38.08	476231.97	1307210.05	30	21.13	44.8	RIGHT
	C.C.		176246.38	1307238.59				
	P.T.	0+48.13	476242.93	1307208.79				
11	P.C.	0+54.56	476249.31	1307208.05				
	P.I.	0+92.17	476286.67	1307203.72	11.5	29.3	162.2	RIGHT
	C.C.		476250.63	1307219.47				
	P.T.	0+83.86	476258.12	1307228.2				

CURB DATA TABLE								
Element	Point Type	Station	Easting	Northing	Radius	Length	Delta / Theta	Direction
20	P.C.	0+00.00	476250.92	1307178.8				
	P.I.	0+04.14	476255.06	1307178.8	10	7.85	50	RIGHT
	C.C.		476250.92	1307188.8				
	P.T.	0+07.85	476257.99	1307181.8				
	P.T.	0+07.85	476257.99	1307181.8				
	P.C.	0+13.61	476262.06	1307185.8				
21	P.C.	0+13.61	476262.06	1307185.8				
	P.I.	0+17.75	476264.99	1307188.8	10	7.85	50	LEFT
	C.C.		476269.13	1307178.8				
	P.T.	0+21.47	476269.13	1307188.8				
	P.T.	0+21.47	476269.15	1307188.8				
	POE	0+37.78	476285.46	1307188.8				



NOTES:

1. ELEVATIONS ARE LOCATED AT 10' INTERVALS ALONG CENTERLINE
2. ELEVATIONS ARE PROVIDED AT THE EDGE OF THE GUTTERLINE
3. CURB TABLE STATIONING IS BASED ON STATION 0+00.00 STARTING AT THE POINT OF CURVATURE ON THE SOUTHERN END OF NOTED CURB

10' 0 10' 20'
SCALE: 1"=10'

DISTRICT OF COLUMBIA
CESAR E. VARGAS
No. 19402
REGISTERED PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

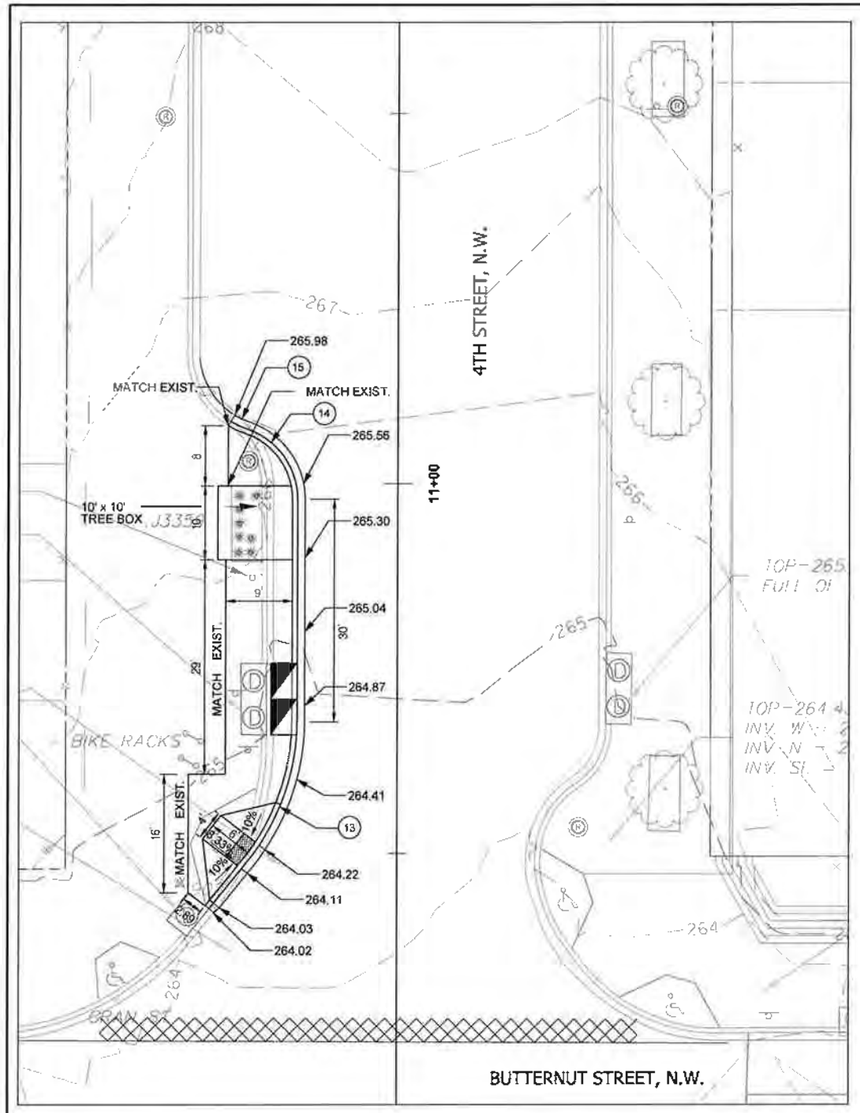
PROJECT ENG. BS
DESIGNED BY BB
CHECKED BY CV
DRAWN BY CV
PROJECT MGR. CV

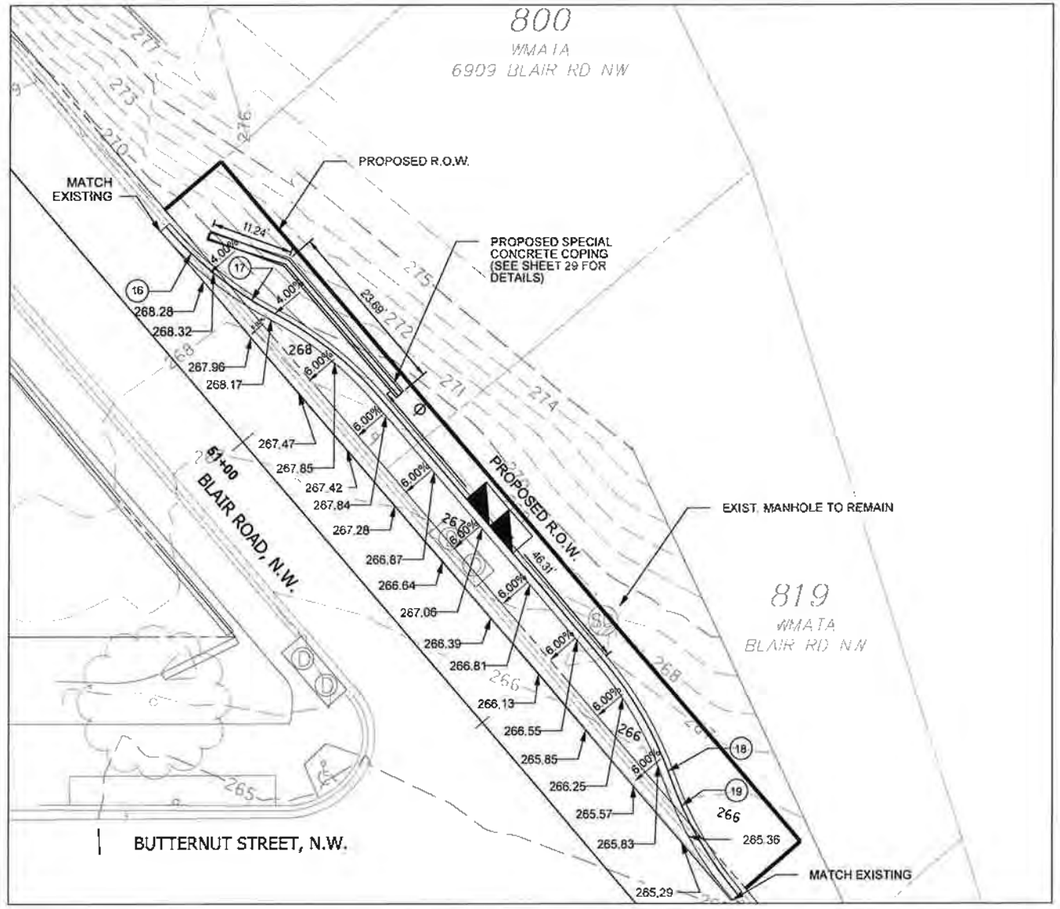
GRADING PLAN
SHEET 2 OF 3

DIVISION CHIEF
DATE
FILE
SHEET 20 OF 75

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int Improvements\07 Design\DGN\Sheets\Plan Sheets\020_pGR_P002_15690.dgn
Thursday, September 13, 2018 AT 02:03 PM

F.H.W.A. PROJ. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (415)	21	75





CURB DATA TABLE

Element	Point Type	Station	Easting	Northing	Radius	Length	Delta / Theta	Direction
13	P.C.	0+08.20	476018.05	1307186.58				
	P.I.	0+18.82	476026.3	1307193.27	30	20.42	43.3	LEFT
	C.C.		476036.93	1307163.27				
	P.T.	0+28.62	476036.93	1307193.27				
14	P.C.	0+58.73	476067.04	1307193.27				
	P.I.	0+65.94	476074.25	1307193.27	10	12.5	79.6	LEFT
	C.C.		476067.04	1307183.27				
	PRC	0+71.22	476076.52	1307186.42				
15	PRC	0+71.22	476076.52	1307186.42				
	P.I.	0+72.44	476076.91	1307185.27	10.77	2.43	14.4	RIGHT
	C.C.		476086.75	1307189.83				
	P.T.	0+73.65	476077.54	1307184.22				

CURB DATA TABLE

Element	Point Type	Station	Easting	Northing	Radius	Length	Delta / Theta	Direction
16	P.C.	0+00.00	475983.73	1307492.7				
	P.I.	0.09.38	475990.85	1307486.6	50	18.55	23.6	RIGHT
	C.C.		476016.28	1307530.66				
	PRC	0+18.55	475999.7	1307483.49				
17	PRC	0+18.55	475999.7	1307483.49				
	P.I.	0+27.93	476008.55	1307480.38	50	18.55	23.6	LEFT
	C.C.		475983.13	1307436.31				
	P.T.	0+37.09	476015.67	1307474.27				
	P.T.	0+37.09	476015.67	1307474.27				
	P.C.	0+83.40	476050.83	1307444.13				
18	P.C.	0+83.40	476050.83	1307444.13				
	P.I.	0+92.97	476058.09	1307437.9	50	18.9	24.1	LEFT
	C.C.		476018.29	1307406.17				
	PRC	1+02.30	476062.54	1307429.44				
19	PRC	1+02.30	476062.54	1307429.44				
	P.I.	1+11.81	476066.97	1307421.02	50	18.79	23.9	RIGHT
	C.C.		476106.8	1307452.7				
	P.T.	1+21.10	476074.17	1307414.81				

NOTES:

1. ELEVATIONS ARE LOCATED AT 10' INTERVALS ALONG CENTERLINE
2. ELEVATIONS ARE PROVIDED AT THE EDGE OF THE GUTTERLINE
3. CURB TABLE STATIONING IS BASED ON STATION 0+00.00 STARTING AT THE POINT OF CURVATURE ON THE SOUTHERN END OF NOTED CURB

DISTRICT OF COLUMBIA · CESAR E. VARGAS · No. 19402 · REGISTERED · PROFESSIONAL ENGINEER

3/14/2018

10' 0 10' 20'
SCALE: 1"=10'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

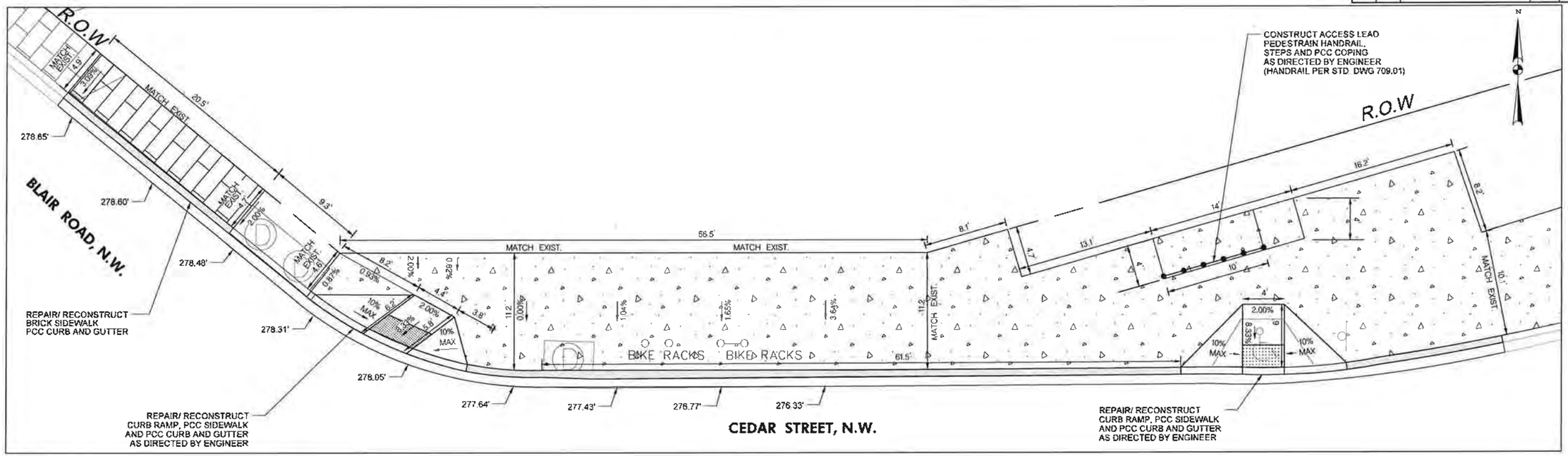
PROJECT ENG. BS
DESIGNED BY BS
CHECKED BY CV
DRAWN BY DW
PROJECT MGR. CV

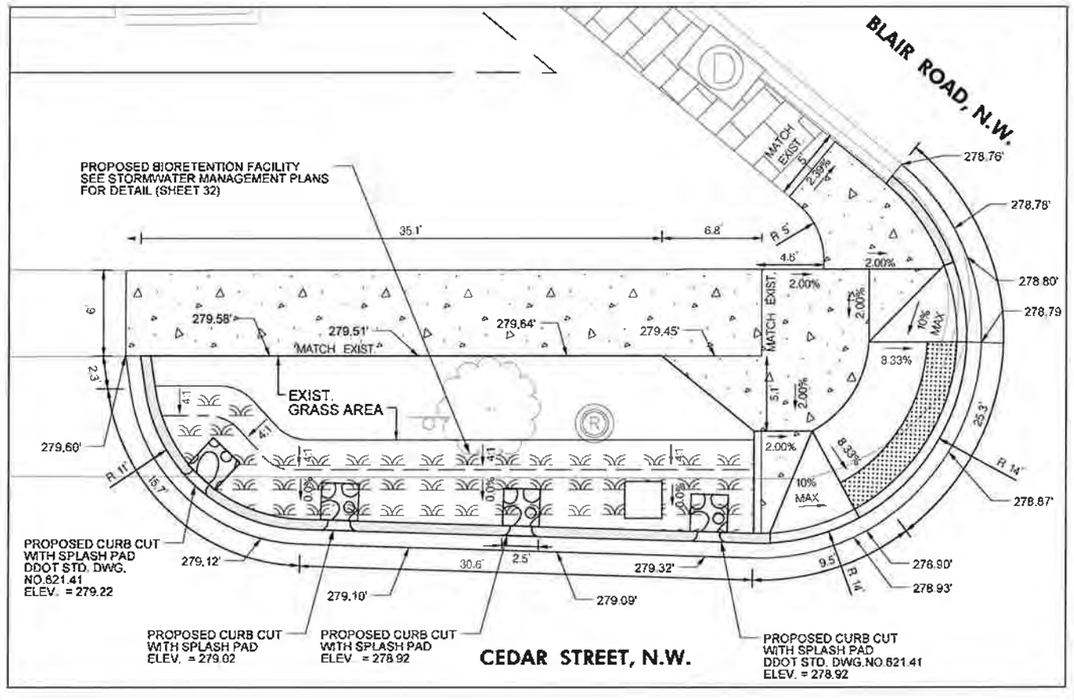
GRADING PLAN
SHEET 3 OF 3

DIVISION CHIEF
DATE
FILE
SHEET 21 OF 75

I:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int Improvements\07 Design\DGN\Sheets\Prior Sheets\021_pGR_P003_I5690.dgn
Thursday, September 13, 2018 A10:02:04 PM

FHWA REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8868 (415)	22	75





LEGEND

- CONCRETE CURB
- CONCRETE SIDEWALK
- BIORETENTION FACILTY
- BRICK SIDEWALK

DISTRICT OF COLUMBIA
CESAR E. VARGAS
No. 19402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

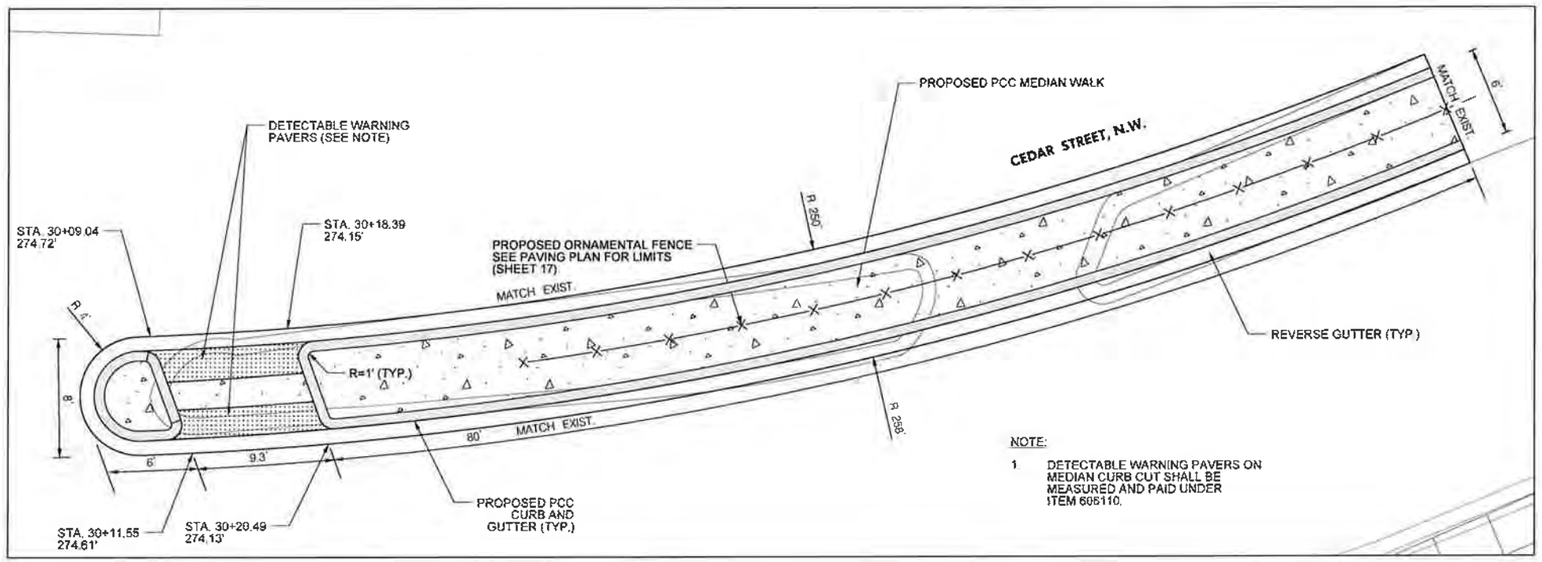
PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY LV
DRAWN BY EW
PROJECT MGR. CV

ADA IMPROVEMENTS
SHEET 1 OF 4

DIVISION CHIEF
DATE
FILE
SHEET 22 OF 75

I:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\CADD\Sheets\Plan Sheets\022_pHD-P001_1569.dgn
Thursday, September 13, 2018 AT 02:04 PM

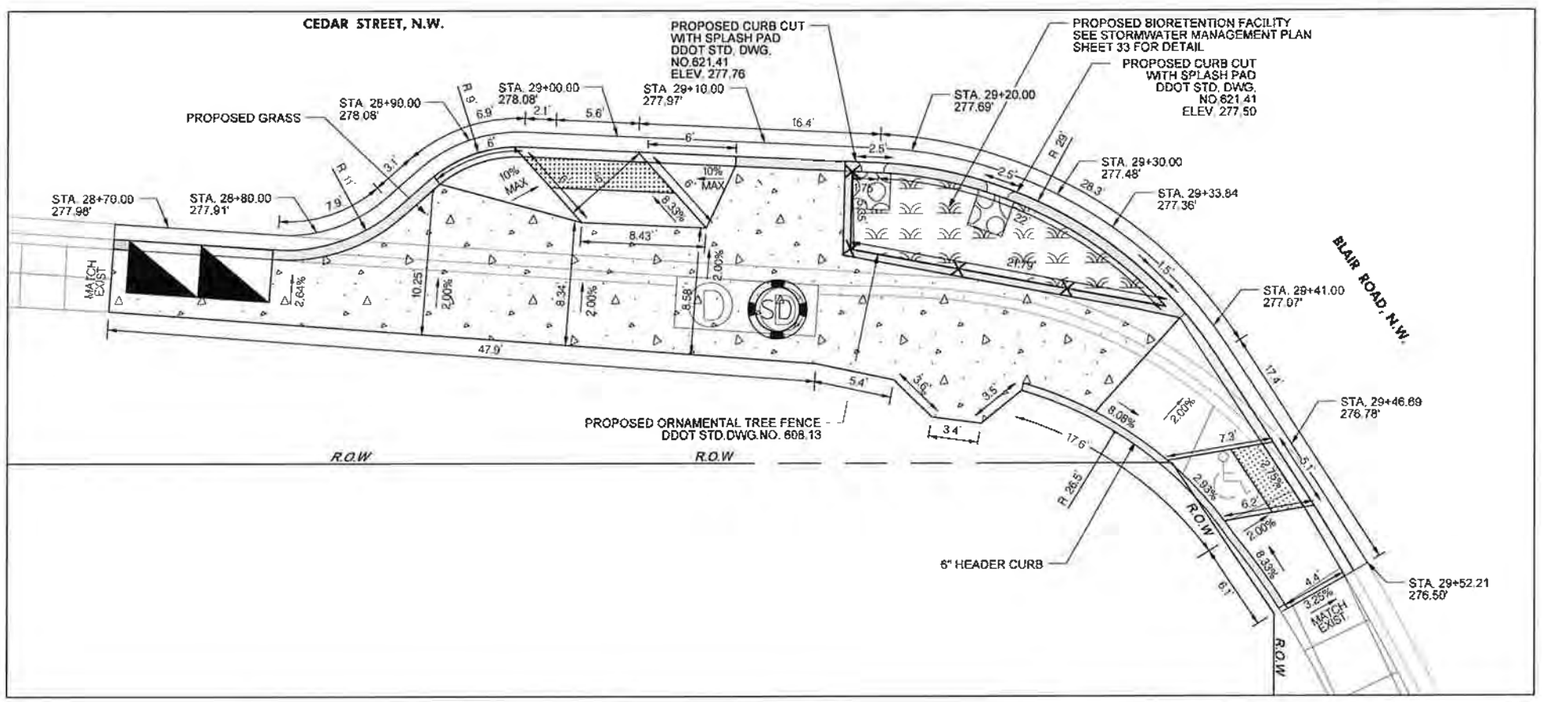
F.H.W.A. REGION NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP 8888 (416)	23	75

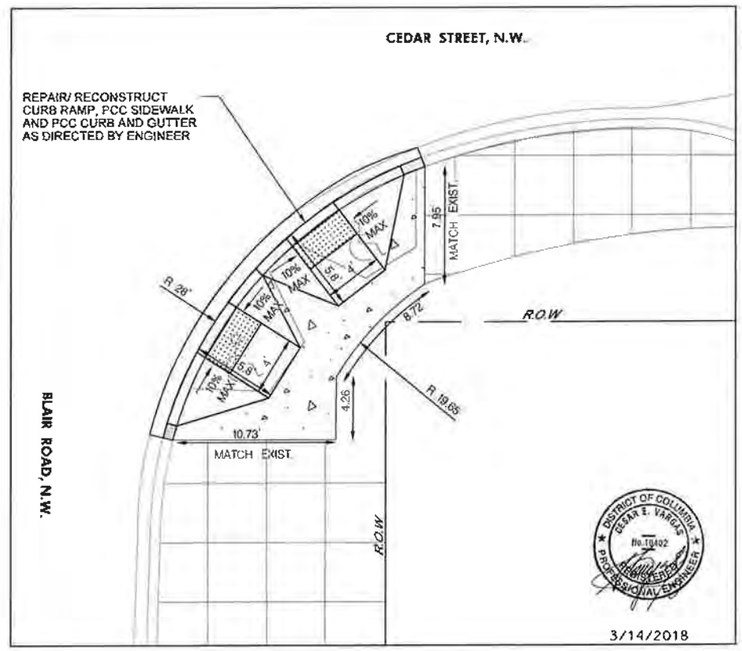


N

LEGEND

- CONCRETE CURB
- CONCRETE WALK (MEDIAN & SIDEWALK)
- BIORETENTION FACILTY
- EX. CONCRETE SIDEWALK





SCALE: 1" = 5'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

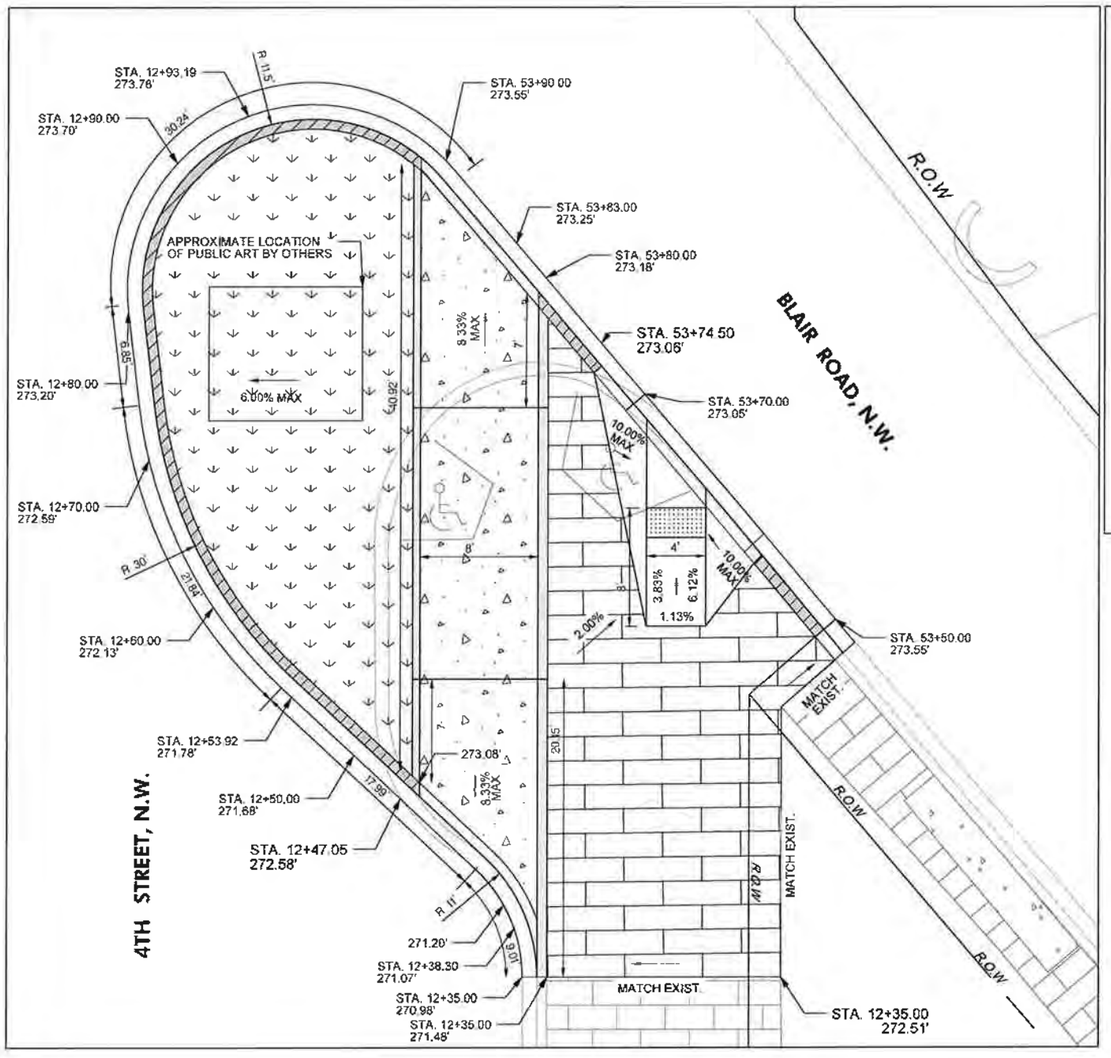
ADA IMPROVEMENTS
SHEET 2 OF 4

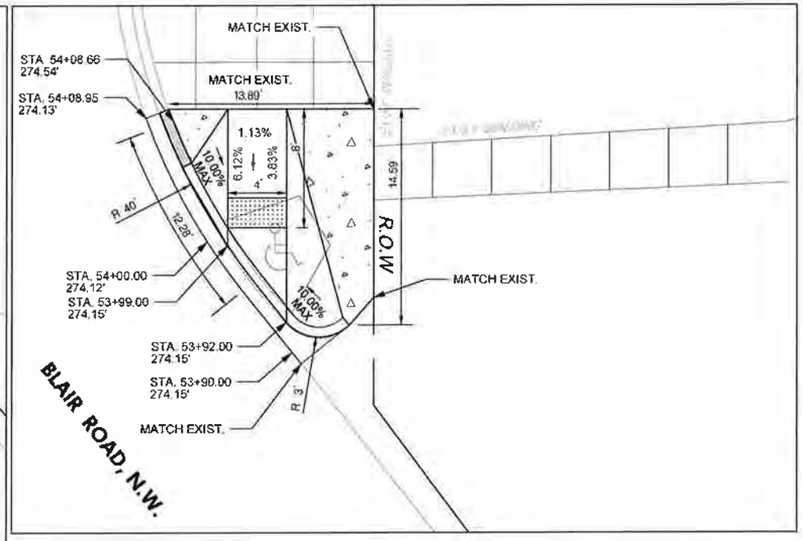
PROJECT ENG. SB
DESIGNED BY SB
CHECKED BY DZ
DRAWN BY RW
PROJECT MGR DZ

DIVISION CHIEF
DATE
TITLE
SHEET 23 OF 75

T:\344200 - 2013 DDOT Master Contract\344235 - Blair Road_Cedar Street_4th Street_Int. Improvement\107 Design\DGN\Sheets\Plan Sheets\023_phD-P002_15#90.dgn
Thursday, September 13, 2018 AT 02:04 PM

FHWA REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	24	75





LEGEND

- CONCRETE CURB
- CONCRETE SIDEWALK
- GRASS
- BRICK SIDEWALK
- GRANITE CURB
- EX. BRICK SIDEWALK
- EX. CONCRETE SIDEWALK

N

5' 0 5' 10'
SCALE: 1"=5'

DISTRICT OF COLUMBIA
CESAR E. VARGAS
No. 19402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

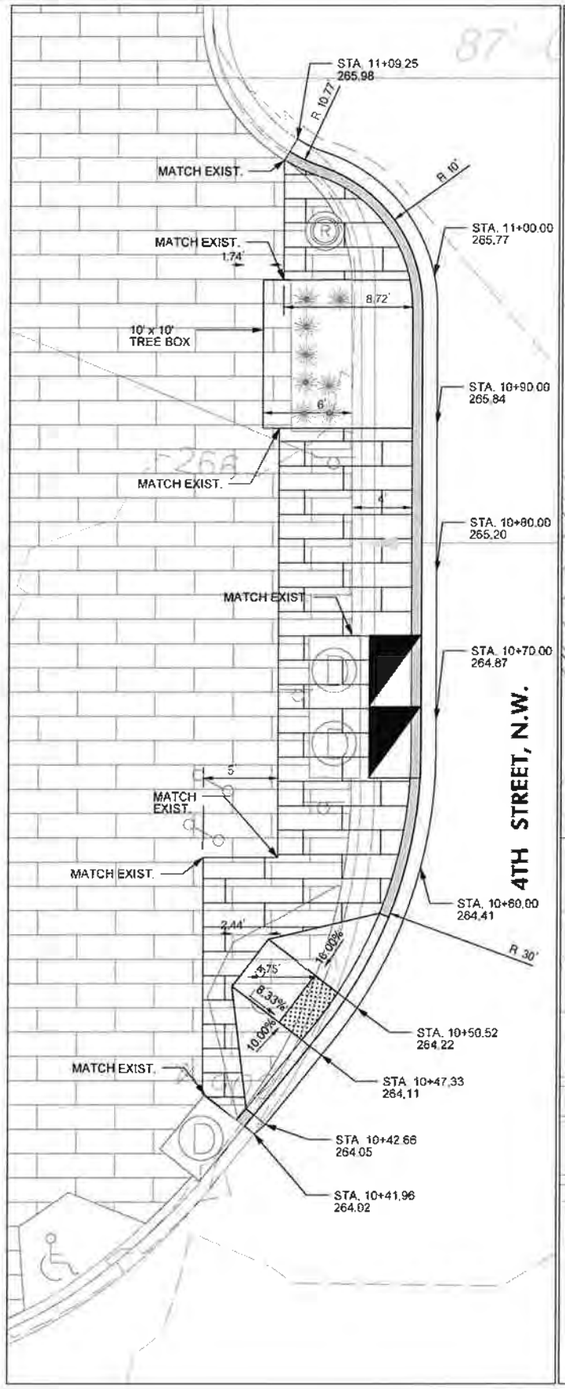
PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY LW
PROJECT MGR CV

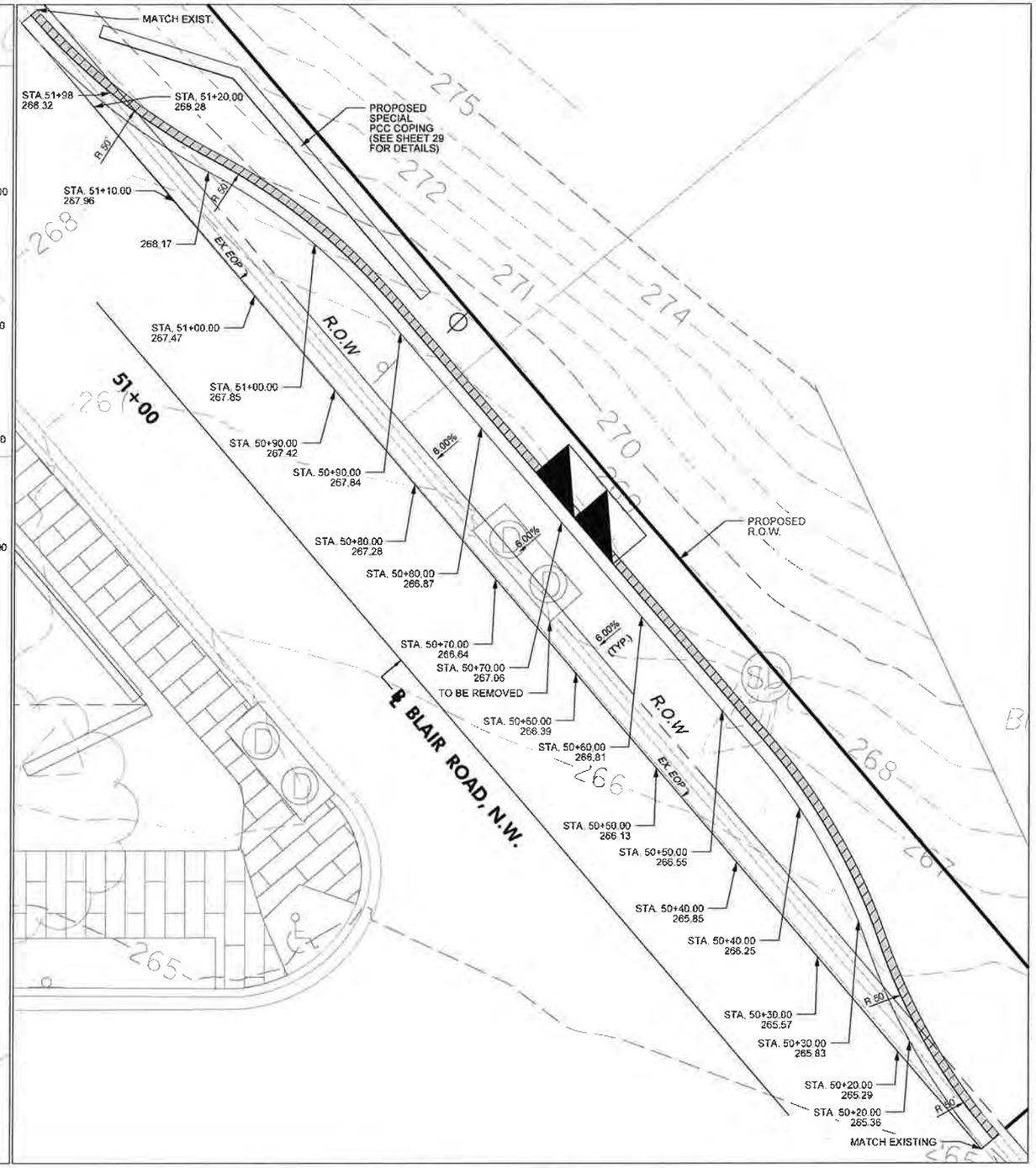
ADA IMPROVEMENTS
SHEET 3 OF 4

DIVISION CHIEF
DATE
FHWA
SHEET 24 OF 75

F.H.W.A. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	25	75

N





LEGEND

- CONCRETE CURB
- BRICK SIDEWALK
- GRANITE CURB
- EX. BRICK SIDEWALK

DISTRICT OF COLUMBIA
OSKAR E. VARGAS
No. 19402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

SCALE: 1"=5'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

ADA IMPROVEMENTS
SHEET 4 OF 4

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY EW
PROJECT MGR CV

DIVISION CHIEF
DATE
FILE
SHEET 25 OF 75

F:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvement\07 Design\DGN\Sheets\Plan Sheets\025_PHID-P004_15590.dgn
Thursday, September 13, 2018 AT 02:04 PM

FHWA REG NO	STATE	FED AID PROJECT NO	SHEET NO	TOTAL SHEETS
3	D.C.	STP 8888 (416)	26	75

DRAINAGE STRUCTURE TABLE								
LABEL	TYPE	ELEVATION	ELEVATION TYPE	PIPE INVERT	STATION	OFFSET	REFERENCE ALIGNMENT	CATCHMENT
MH-1	MANHOLE	279.25	TOP	272.90	28+62.10	29.15 R	CEDAR ST.	N
MH-1A	MANHOLE	278.39	TOP	272.00	29+09.55	29.75 L	CEDAR ST.	N
MH-2	MANHOLE	278.65	TOP	273.30	29+11.35	23.20 L	CEDAR ST.	N
CB-1	DOUBLE CATCH BASIN	278.09	TOP	274.60	28+77.10	20.75 R	CEDAR ST.	Y
OR-1	OVERFLOW RISER W/BEEHIVE GRATE	279.09	CAP	273.30	28+45.65	20.65 L	CEDAR ST.	N

BLAIR ROAD, NW

SEE NOTE 1

8" RED OAK

15" RCP

MH-1

MH-1A

OR-1

MH-2

CB-1

CEDAR STREET, N.W.

LOCATION OF RELOCATED TRAFFIC SIGNAL CONTROLLER

4TH STREET, NW

#792645

BIKE RACKS

JUNK BOX

BEGIN GRAIN

TC

LEGEND

1. INSTALL OVERFLOW RISER WITH BEEHIVE GRATE
2. INSTALL STANDARD DOUBLE CATCH BASIN
3. INSTALL PROPOSED 15" RCP STORM DRAIN
4. INSTALL 4' MANHOLE
5. REMOVE FIRE HYDRANT
- 5A. SET FIRE HYDRANT WITH 8"x6" CUT IN TEE, 8" SLEEVE VALVE, 17 LINEAR FEET, 6" DI PIPE AND VALVE CASING
6. ADJUST WATER VALVE TO THE PROPOSED GRADE
7. ADJUST WATER METER TO PROPOSED GRADE
8. ADJUST WATER MANHOLE TO PROPOSED GRADE
9. ADJUST ELECTRIC MANHOLE TO PROPOSED GRADE
10. ADJUST SEWER MANHOLE TO PROPOSED GRADE
11. ADJUST PHONE MANHOLE TO EXISTING GRADE
12. ADJUST UTILITY MANHOLE TO PROPOSED GRADE
13. CONNECT EXISTING PIPE TO NEW MANHOLE WITH 5' MIN. LENGTH OF NEW PIPE AND CONCRETE COLLAR
14. REMOVE VALVE AND PIPING AND PLUG EXISTING TEE
15. REMOVE EXISTING CATCH BASIN
16. ADJUST INLET TO PROPOSED GRADE
17. ADJUST GAS VALVE TO PROPOSED GRADE
18. INSTALL PROPOSED 6" PVC UNDER DRAIN
19. PRESERVE EXISTING TREE
20. RELOCATE TRAFFIC SIGNAL CONTROLLER

CLEAN OUT EXISTING INLETS			
#	STATION	OFFSET	REFERENCE ALIGNMENT
1	56+38.89	11.00 L	BLAIR RD.
2	31+43.77	31.75 L	CEDAR ST.
3	31+84.50	31.90 L	CEDAR ST.
4	31+41.20	32.00 R	CEDAR ST.
5	31+85.60	32.00 R	CEDAR ST.
6	32+67.00	31.62 R	CEDAR ST.

CONTRACTOR TO CLEAN OUT EXISTING INLETS FILLED WITH WATER/DIRT.

SEE LIGHTING AND TRAFFIC SIGNAL PLANS FOR ADDITIONAL INFORMATION (TYP.)

SCALE: 1"=10'

NOTE:

1. FURNISH AND INSTALL FIRE HYDRANT ON BLAIR ROAD, NW. (2' FROM CURB) STA. 56+22.38, OFFSET 14.22 (LT)
2. CONTRACTOR SHALL TEST PIT EXISTING UTILITIES TO PROVIDE REQUIRED UTILITY CLEARANCES FOR STORM SEWERS.
3. THE CONTRACTOR SHALL PROVIDE A 12" HORIZONTAL AND VERTICAL CLEARANCE BETWEEN VERIZON UTILITIES AND PEPCO LINES.
4. ALL CATCH BASIN AND OVERFLOW RISER STRUCTURES CONNECTING TO COMBINED SEWERS SHALL BE PROVIDED WITH APPROVED DC WATER WATERSEAL CONNECTION.

SEWER PIPE SCHEDULE

OR-1 TO MH-1: BASIN CONNECT PIPE - 17 LF - INV. IN = 273.30 INV. OUT = 272.90
MH-1 TO MH-1A: PCC PIPE, CLASS III, GASKET 15 INCH - 44 LF - INV. IN = 272.90 INV. OUT = 268.80
CB-1 TO MH-2: BASIN CONNECT PIPE - 34 LF - INV. IN = 274.00 INV. OUT = 273.30

DISTRICT OF COLUMBIA · GEMAR E. VARGAS · No. 10402 · REGISTERED PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

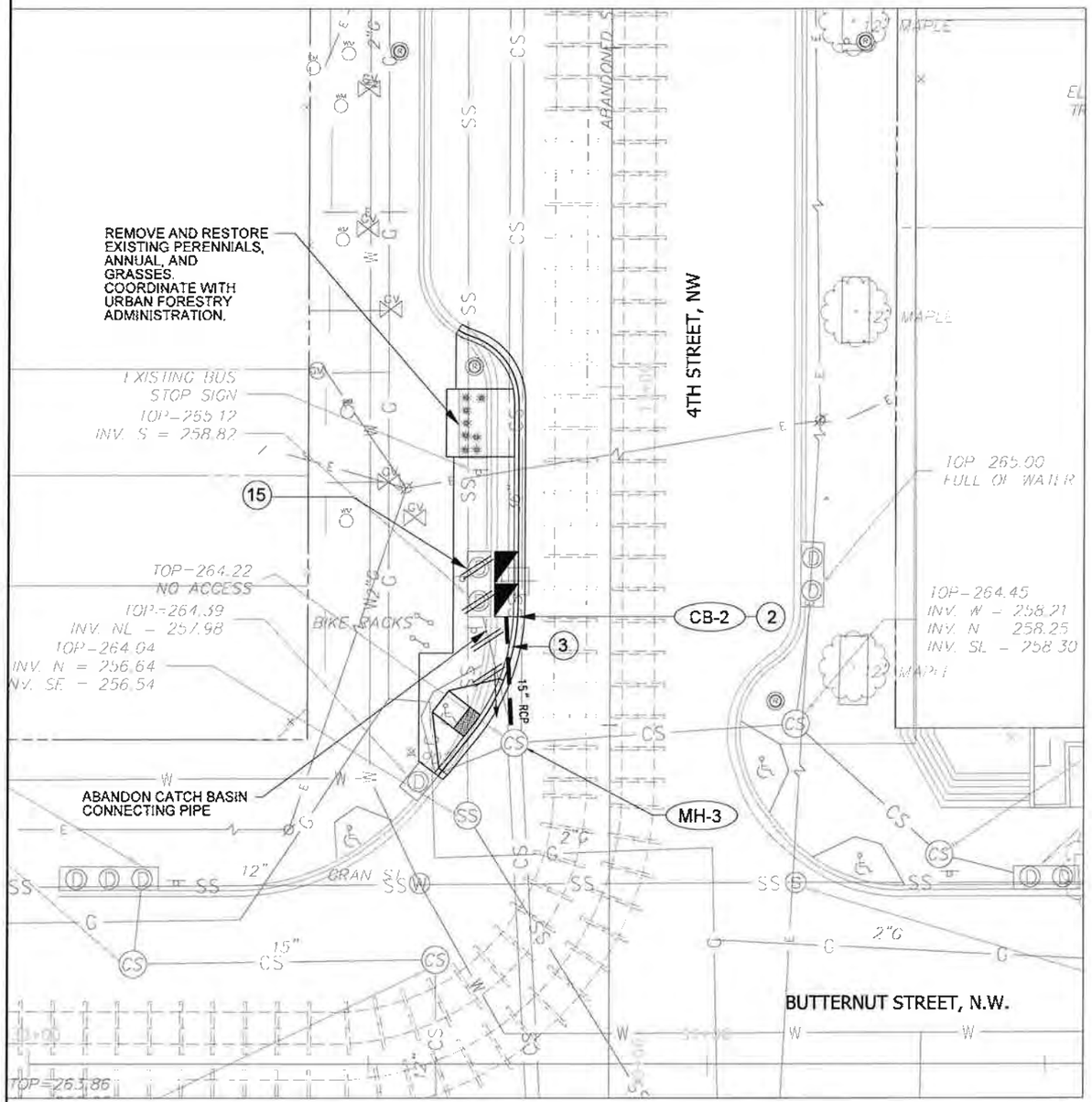
PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY BR
PROJECT MGR CV

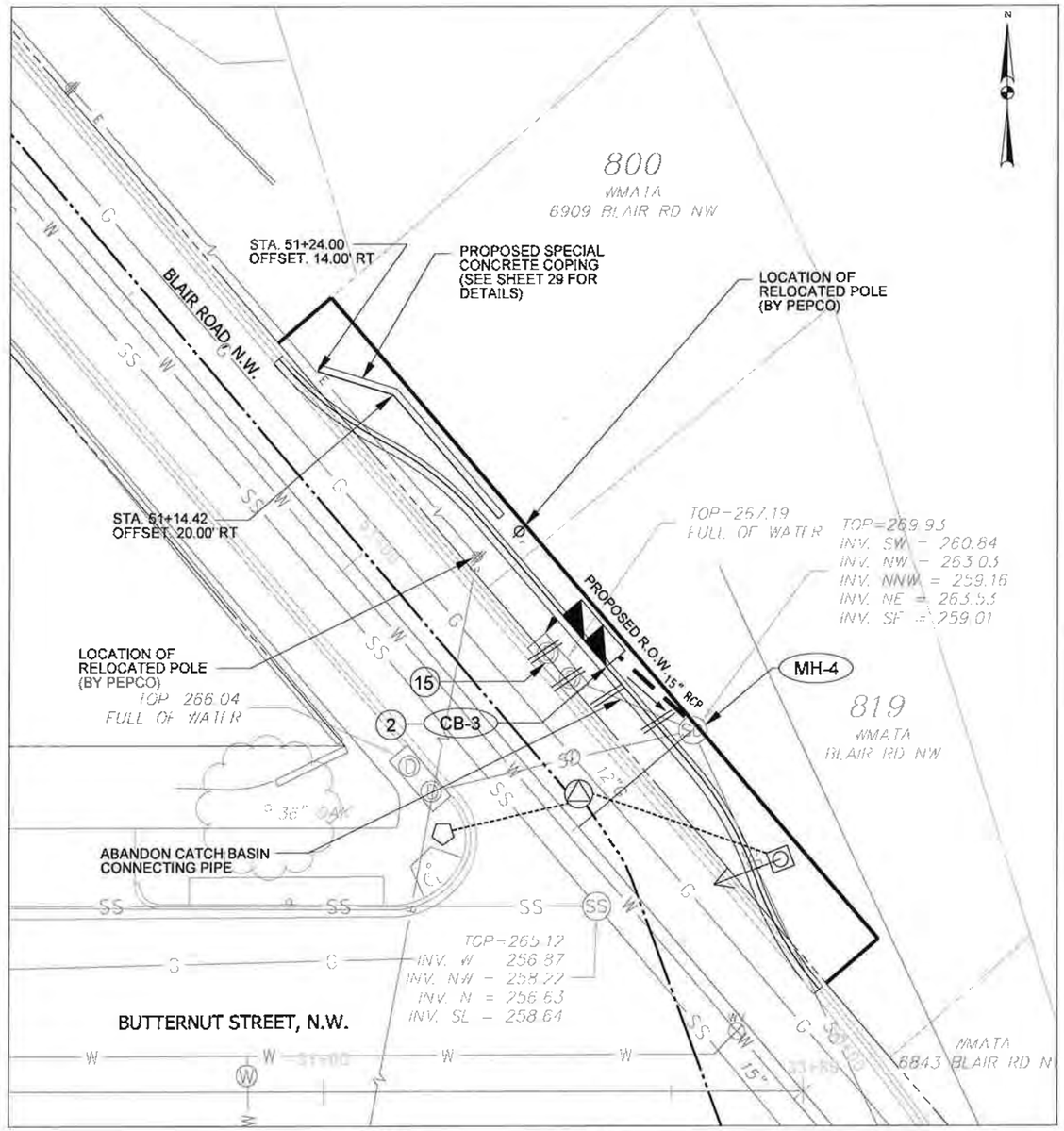
COMPOSITE UTILITY / DRAINAGE PLAN
SHEET 1 OF 2

DIVISION CHIEF
DATE
FILE
SHEET 26 OF 75

I:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\026_pUT-P001_15690.dgn
Thursday, September 13, 2018 AT 02:04 PM

F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP 6888 (416)	27	75





DRAINAGE STRUCTURE TABLE								
LABEL	TYPE	ELEVATION	ELEVATION TYPE	PIPE INVERT	STATION	OFFSET	REFERENCE ALIGNMENT	CATCHMENT
MH-3	MANHOLE	264.22	TOP	260.00	10+47.50	14.00 L	4TH ST.	N
MH-4	MANHOLE	269.93	TOP	262.30	50+49.80	21.40 R	BLAIR RD.	N
CB-2	DOUBLE CATCH BASIN	265.20	TOP	260.35	28+77.10	13.50 L	4TH ST.	Y
CB-3	DOUBLE CATCH BASIN	267.45	TOP	262.60	50+64.70	18.00 R	BLAIR RD.	Y

SEWER PIPE SCHEDULE

CB-2 TO MH-3: BASIN CONNECT PIPE - 18 LF - INV. IN = 260.35 INV. OUT = 260.00

CB-3 TO MH-4: BASIN CONNECT PIPE - 15 LF - INV. IN = 262.60 INV. OUT = 262.30

NOTE:

1. FOR LEGEND SEE SHEET 26.

10' 0 10' 20'

SCALE: 1"=10'

DISTRICT OF COLUMBIA · CLEAR E. VARELAS · No. 10402 · REGISTERED PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

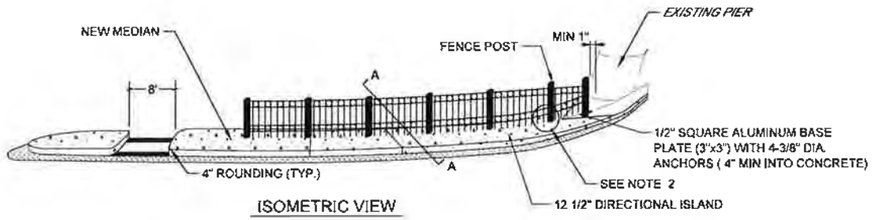
COMPOSITE UTILITY / DRAINAGE PLAN
SHEET 2 OF 2

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY KW
PROJECT MGR. CV

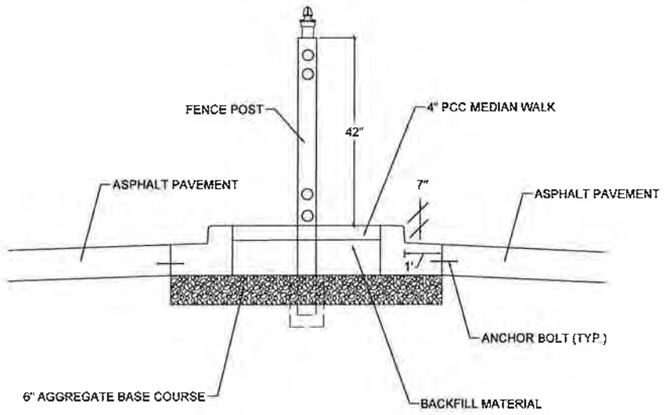
DIVISION CHIEF
DATE
FILE
SHEET 27 OF 75

I:\344200 - 2013 DDOT Master Contract\344223 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\027_pu1-F002_15690.dgn
Thursday, September 13, 2018 AT 02:04 PM

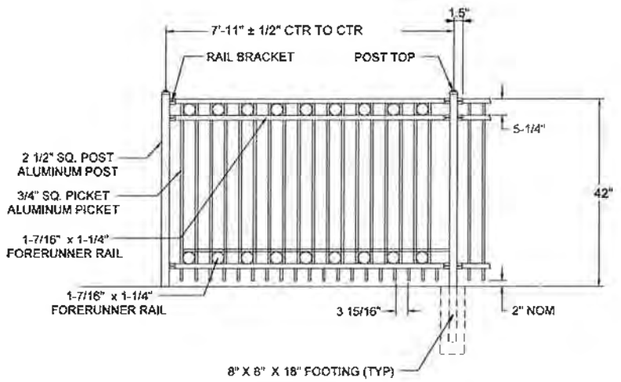
FHWA REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	28	75



ISOMETRIC VIEW



SECTION A-A



FENCE SECTION ELEVATION

ORNAMENTAL SAFETY FENCE

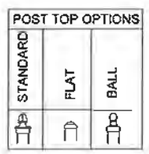
N.T.S

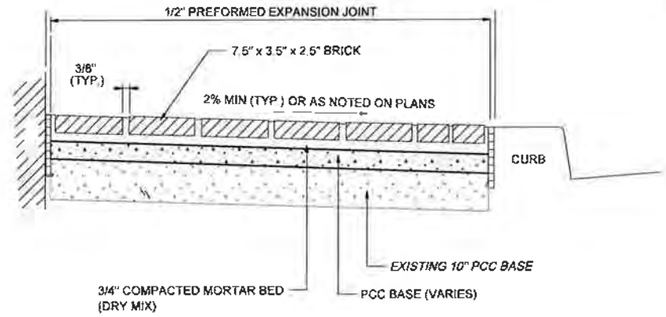
NOTES:

1. THE ORNAMENTAL SAFETY FENCE SHALL BE HALCO ECHELON II FENCE OR APPROVED EQUAL.
2. THE CONTRACTOR MAY INSTALL A DIFFERENT FENCE TYPE ONLY WITH THE APPROVAL OF DDOT.
3. FOOTING SIZE SHALL BE 8" x 8" WITH A MINIMUM DEPTH OF 18".
4. POST SPACING SHALL BE 7'-11".
5. THE POST TOP OPTION SHALL BE APPROVED BY DDOT.

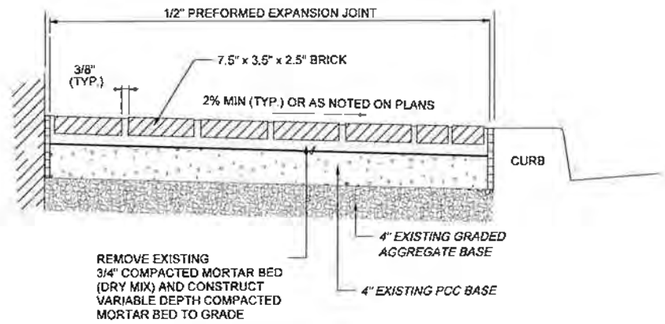
RING OPTIONS

POST TOP OPTIONS



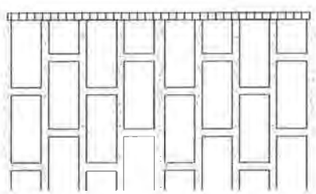


BRICK SIDEWALK TYPE 1



BRICK SIDEWALK TYPE 2

CURB OR WALL



PATTERN FOR BRICK PAVING

3/14/2018

NOTE:
1. BRICK PATTERN SHALL MATCH EXISTING FIELD CONDITIONS.

BRICK SIDEWALK

N.T.S

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

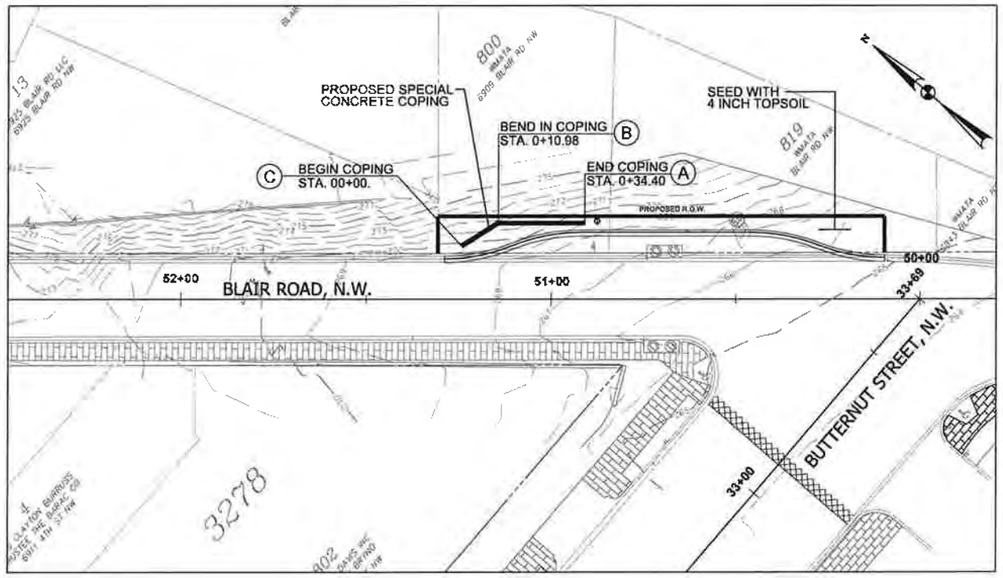
BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROJECT ENG: BS
DESIGNED BY: BS
CHECKED BY: CV
DRAWN BY: CW
PROJECT MGR: CV

SIDEWALK, MEDIAN AND FENCE DETAILS

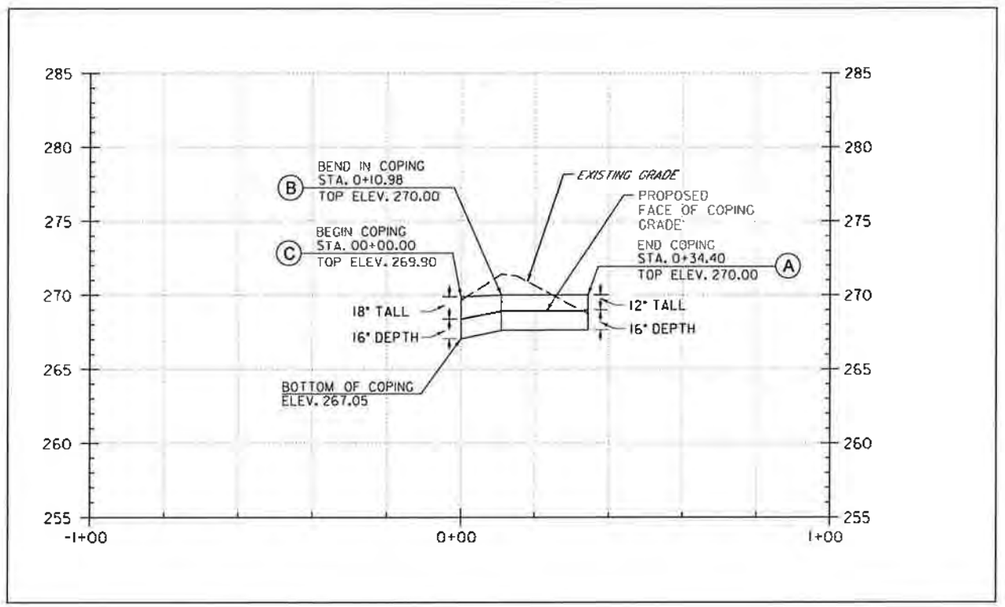
DIVISION CHIEF
DATE:
FILE:
SHEET 28 OF 75

FHWA REG NO	STATE	FED AID PROJECT NO	SHEET NO	TOTAL SHEETS
3	D.C.	STP-8888 (416)	29	75



SPECIAL CONCRETE COPING PLAN

20' 0 10' 20' 40'
SCALE IN FEET

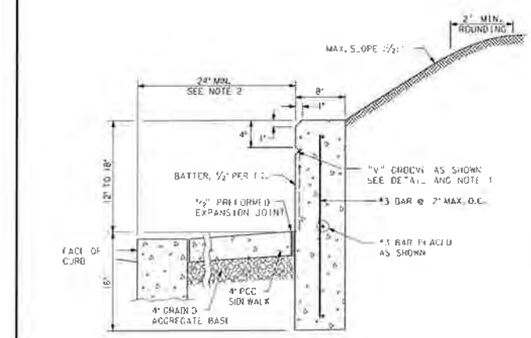


SPECIAL CONCRETE COPING PROFILE

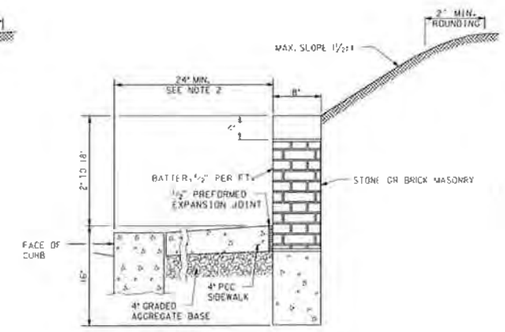
(STA. ALONG FRONT FACE OF WALL)

HORIZONTAL 20' 0 10' 20' 40'
SCALE IN FEET

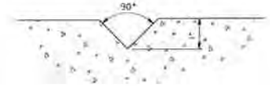
VERTICAL 5' 0 2.5' 5'
SCALE IN FEET



SPECIAL CONCRETE COPING



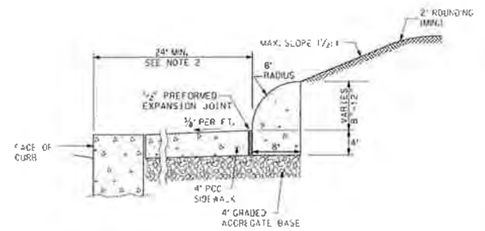
SPECIAL MASONRY COPING



VERTICAL AND HORIZONTAL "V" GROOVE DETAIL

NOTES:

1. VERTICAL "V" GROOVES SHALL BE LOCATED TO MATCH SIDEWALK JOINTS. TYPICALLY EVERY 3 FT. AND SHALL RUN FROM THE TOP OF SIDEWALK TO THE HORIZONTAL "V" GROOVE. IF MATCHING SIDEWALK JOINTS IS NOT PRACTICAL, VERTICAL "V" GROOVES SHALL BE SPACED EVERY 10 FEET.
2. FACE OF COPING SHALL BE 2 FT. MIN. FROM FACE OF CURB, UNLESS SHOWN OTHERWISE ON THE CONTRACT PLANS, OR AS DIRECTED BY THE ENGINEER.



STANDARD PCC COPING

DATE	APPR	REVISED	ISSUED	REFERENCE

RECOMMENDED: DEPUTY CHIEF ENGINEER

APPROVED: CHIEF TRANSPORTATION ENGINEER

COPINGS

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG NO. 602.06

COPING DATA TABLE					
LABEL	BLAIR RD STATION	BLAIR RD OFFSET	TOP OF WALL ELEVATION	SURFACE ELEVATION (FACE OF WALL)	BOTTOM ELEVATION (FOOTING)
A	50+91.00	20.00 RT	271.50	268.38	265.50
B	51+14.42	20.00 RT	271.50	268.94	265.50
C	51+24.00	14.00 RT	271.50	268.99	265.50

DISTRICT OF COLUMBIA · EDGAR E. VARGAS · No. 10402 · REGISTERED PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY DW
PROJECT MGR. CV

COPING PLAN, PROFILE AND DETAILS

DIVISION CHIEF
DATE
FILE
SHEET 29 OF 75

T:\344200 - 2013 DDOT Master Contract\344223 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\029_pHD-0002_15690.dgn
Thursday, September 13, 2018 At 02:54 PM

F.H.W.A. PROJ. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	30	75

BLAIR ROAD, N.W.

CEDAR STREET, N.W.

4TH STREET, N.W.

R.O.W.

DA1

DA2

DA3

DA4

DA5

DA6

DA7

DA8

DA9

UxC HYDROLOGIC SOIL GROUP B

SgB HYDROLOGIC SOIL GROUP B

U1 HYDROLOGIC SOIL NOT RATED

MATCHLINE STA. 12+25.00

MATCHLINE STA. 53+00.00

838
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY (WMATA)

807
355 CEDAR LLC
OPHELLOS MANAGERIAL
6349-6355 CEDAR ST NW

837

9
E & T INC.
7000 BLAIR RD NW

809
WILLIAMS GROTREY
T DALE DAVID M
6410 CEDAR ST NW

45
406 & 408
CEDAR ST NW

23
CHAMPE V THORNTON
C B THORNTON
6916 4TH ST NW

21
CHAMPE V THORNTON
C B THORNTON
6916 4TH ST NW

26
1172 LLC RUSSELL KAT
314 CANNON ST

11
6925 4TH ST, LLC
6975 4TH ST NW

821
WMATA
CEDAR ST NW

820
WMATA
CEDAR ST

LEGEND

- HYDROLOGIC SOIL BOUNDARY
- DRAINAGE AREA BOUNDARY
- FLOW ARROW

DRAINAGE AREA (D.A.) WITHIN LOD

NO.	AREA (AC)	% IMPER	C FACTOR	I 15 (IN/HR)	Q15 (CFS)	Q15 (CFS) with BMP	DISCHARGE STRUCTURES
DA1	0.01	60.00%	0.67	7.56	0.06	0.04	BMP-1
DA2	0.01	100.00%	0.95	7.56	0.04	0.04	CI-1
DA3	0.02	100.00%	0.95	7.56	0.13	0.08	BMP-2
DA4	0.00	100.00%	0.95	7.56	0.02	0.02	EX-4
DA5	0.02	100.00%	0.95	7.56	0.13	0.13	EX-5
DA6	0.04	100.00%	0.95	7.56	0.28	0.28	EX-6
DA7	0.03	96.43%	0.93	7.56	0.18	0.18	CI-2
DA8	0.01	100.00%	0.95	7.56	0.08	0.08	EX-8
DA9	0.02	100.00%	0.95	7.56	0.14	0.14	EX-9
DA10	0.03	80.49%	0.87	7.56	0.17	0.17	EX-10
DA11	0.01	100.00%	0.95	7.56	0.04	0.04	EX-11
DA12	0.01	100.00%	0.95	7.56	0.07	0.07	EX-12
DA13	0.01	100.00%	0.95	7.56	0.08	0.08	EX-13

SCALE: 1"=20'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE
	REVISIONS		

DISTRICT OF COLUMBIA
OSCAR E. VARGAS
No. 19402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY OV
DRAWN BY DW
PROJECT MGR. OV

DRAINAGE AREA MAP
SHEET 1 OF 2

DIVISION CHIEF
DATE
FILE
SHEET 30 OF 75

T:\34200 - 2013 DDOT Master Contract\34225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\030_DA-PLAN.dgn
Thursday, September 13, 2018 AT 02:04 PM

FHWA REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (415)	31	75

MATCHLINE STA. 12+25.00

MATCHLINE STA. 53+00.00

DA 9

DA7 DA10

DA11

DA12

DA13

R.O.W.

BLAIR ROAD, N.W.

BUTTERNUT STREET, N.W.

LIMIT OF PAVING
4TH STREET, N.W.
STA. 10+24.00

LIMIT OF PAVING
BLAIR ROAD, N.W.
STA. 50+25.30

9+00

ABANDONED STREETCAR TRACKS

UxC HYDROLOGIC SOIL GROUP B
UxB HYDROLOGIC SOIL GROUP B

U/I HYDROLOGIC SOIL NOT RATED
U/C HYDROLOGIC SOIL GROUP B

810 CHAUNE V THORNTON C B THORNTON 6914 4TH ST NW

43 CHAUNE V THORNTON C B THORNTON 6917 4TH ST NW

44 CHAUNE V THORNTON C B THORNTON 6910 4TH ST NW

813 CHAUNE V THORNTON C B THORNTON 6904 6908 4TH ST NW

39 CHAUNE V THORNTON C B THORNTON 6902 4TH ST NW

40 CHAUNE V THORNTON C B THORNTON 6900 4TH ST NW

41 CHAUNE V THORNTON C B THORNTON 3401 BUTTERNUT ST NW

801 DISTRICT OF COLUMBIA ROOM 238 6905 4TH ST NW

4 ELIAS CLAYTON BURRUSS TRUSTEE THE BAHAI CO 6911 4TH ST NW

3278

802 WILLIAM J DAVIS INC ANTHONY J BRYNG 6901 4TH ST NW

13 6925 BLAIR RD LLC 6925 BLAIR RD NW

805 WMATA BLAIR RD NW

823 WMATA BLAIR RD NW

800 WMATA 6909 BLAIR RD NW

819 WMATA BLAIR RD NW

818 WMATA BLAIR RD NW

LEGEND

- HYDROLOGIC SOIL BOUNDARY
- DRAINAGE AREA BOUNDARY
- FLOW ARROW

DRAINAGE AREA (D.A.) WITHIN LOD

NO.	AREA (AC)	% IMPER	C FACTOR	I 15 (IN/HR)	Q15 (CFS)	Q15 (CFS) with BMP	DISCHARGE STRUCTURES
DA1	0.01	68.00%	0.87	7.56	0.06	0.04	BMP-1
DA2	0.01	100.00%	0.95	7.56	0.04	0.04	CI-1
DA3	0.02	100.00%	0.95	7.56	0.13	0.08	BMP-2
DA4	0.00	100.00%	0.95	7.56	0.02	0.02	EX-4
DA5	0.02	100.00%	0.95	7.56	0.13	0.13	EX-5
DA6	0.04	100.00%	0.95	7.56	0.28	0.28	EX-6
DA7	0.03	96.43%	0.93	7.56	0.18	0.18	CI-2
DA8	0.01	100.00%	0.95	7.56	0.08	0.08	EX-8
DA9	0.02	100.00%	0.95	7.56	0.14	0.14	EX-9
DA10	0.03	60.49%	0.67	7.56	0.17	0.17	EX-10
DA11	0.01	100.00%	0.95	7.56	0.04	0.04	EX-11
DA12	0.01	100.00%	0.95	7.56	0.07	0.07	EX-12
DA13	0.01	100.00%	0.95	7.56	0.08	0.08	EX-13

20' 0 20' 40'
SCALE: 1" = 20'

DISTRICT OF COLUMBIA
GEDAR E. VARGAS
No. 10402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	MAMS	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

DRAINAGE AREA MAP
SHEET 2 OF 2

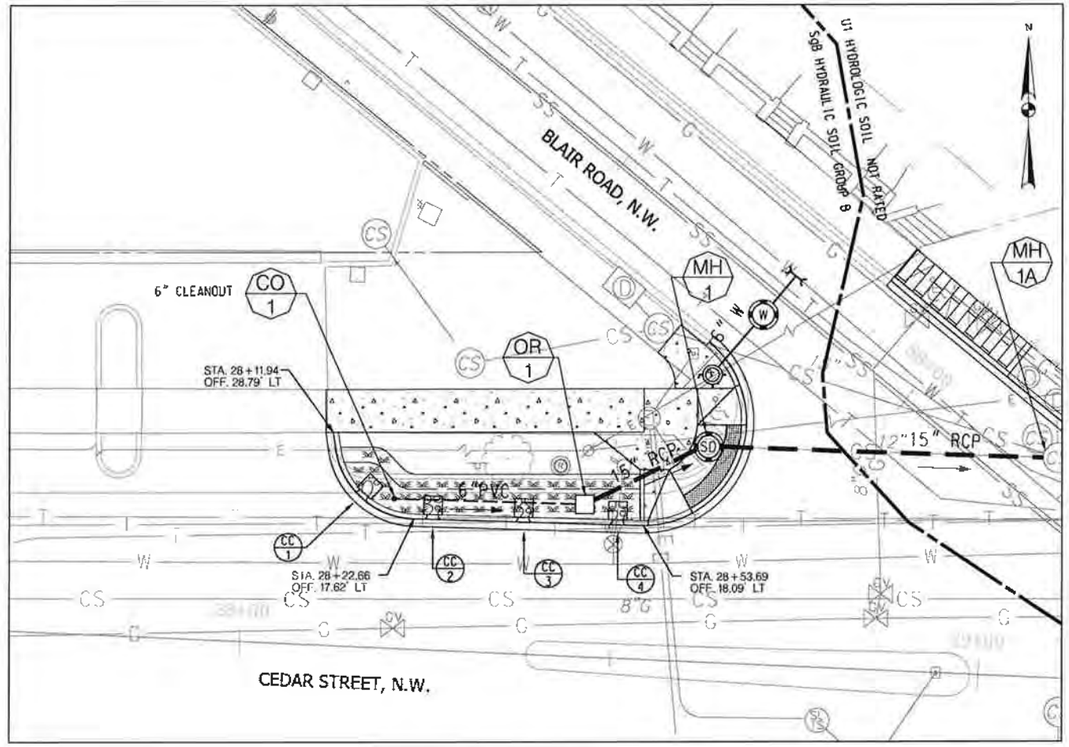
PROJECT ENG. BS
DESIGNED BY BS
CHECKED BY CY
DRAWN BY CW
PROJECT MGR CY

DIVISION CHIEF

DATE
FILE
SHEET 31 OF 75

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int Improvements\07 Design\DGN\Sheets\Plan Sheets\031_pDA-P002_1540.dgn
Thursday, September 13, 2018 AT 02:04 PM

F.HWA REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP 8888 (416)	32	75



BIORETENTION PLANTER #1 SITE PLAN

SCALE: 1" = 10'

PLANTER #1
UNDERDRAIN PIPE SCHEDULE

UPSTREAM STRUCTURE						TO	DOWNSTREAM STRUCTURE						PIPE		
STRUCT ID	SURFACE ELEV.	INV. ELEV.	STRUCT TYPE	CEDAR ST. CL STATION	CEDAR ST. CL OFFSET		STRUCT ID	SURFACE ELEV.	INV. ELEV.	STRUCT TYPE	CEDAR ST. CL STATION	CEDAR ST. CL OFFSET	Horizontal length (FT)	SLOPE %	SIZE INCHES	PIPE TYPE
1	279.09	273.49	CLEANOUT	28+19.91	20.25 LT		OR-1	279.09	273.30	BEEHIVE RISER	28+45.65	20.63 LT	23'	0.50%	6	PERFORATED PVC
OR-1	279.09	273.30	BEEHIVE RISER	28+45.65	20.63 LT		MH-1	279.03	272.90	MANHOLE	28+62.10	29.15 LT	15'	2.00%	15	RCP

Table 4: Constant Head Permeameter Borehole Infiltration Test, Laboratory Soil Classification and Field Measured Ksat Results

Boring Number	Test Depth (ft)	Estimated Test Elevation (ft)	USDA Texture Classification	USCS Soil Classification	Saturated Hydraulic Conductivity Ksat (Field) (in/hr)	Minimum USDA Infiltration Rates Classified by Soil Texture (Rawls et al 1982) (in /hr)
SWM-1	7	271±	SILTY CLAY LOAM	CL-ML	0.004	0.06

CURB CUT TABLE

STRUCT ID.	SURFACE ELEV.	STATION	OFFSET	DESIGN FLOW (15YR) (CFS)	INLET OPENING (FT)	WIDTH OF SPREAD (FT)	INTERCEPTED FLOW (CFS)	BYPASS FLOW (CFS)
CC-1	279.22	28+15.32	20.27 LT	0.880	1.5	6.71	0.289	0.611
CC-2	279.02	28+23.23	17.66 LT	0.660	1.5	5.29	0.203	0.457
CC-3	278.92	28+37.48	17.84 LT	0.462	1.5	4.61	0.160	0.292
CC-4	278.92	28+50.18	18.04 LT	0.252	1.5	3.92	0.136	0.151

LEGEND

- PROPOSED BIORETENTION FACILITY
- INSTALL STANDARD 18" CURB CUT WITH SPLASH PAD (DDOT STD DWG. NO. 621.42)
- PROPOSED 6" PVC UNDERDRAIN
- DRAINAGE AREA BOUNDARY
- HYDRAULIC SOIL BOUNDARY

PLANTER #1

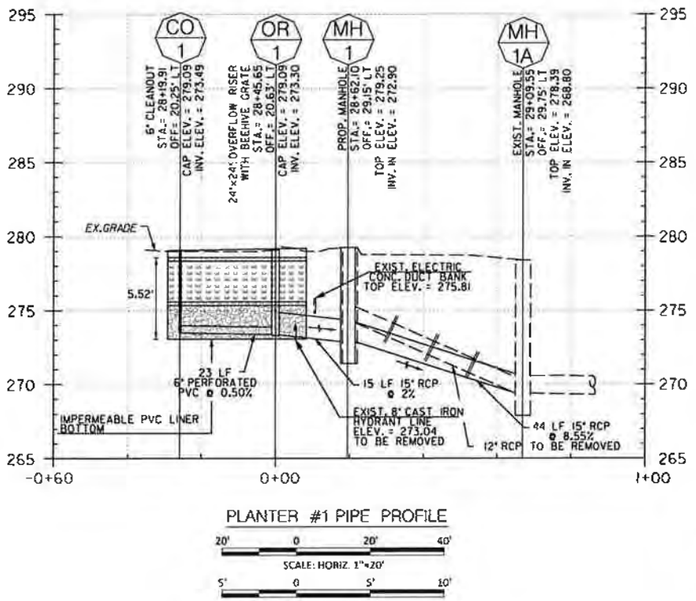
BIORETENTION DETAILS	ACRONYM	VALUE	UNIT
TOP OF PONDING AREA	SA(top)	210	SF
BOTTOM OF PONDING AREA	SA(bot)	133	SF
AVERARGE SURFACE AREA (SA(top)+ SA(bot))/2	SA(avg)	171.5	SF
DEPTH OF PONDING	D(pond)	0.5	FT
DEPTH OF FILTER MEDIA + MULCH	D(media)	2.75	FT
EFFECTIVE POROSITY OF FILTER MEDIA	N(media)	0.25	(FT/DAY)
DEPTH OF GRAVEL LAYER + CHOKER LAYER (USE ONLY 1.0' FOR CALC.)	D(gravel)	2.52	FT
EFFECTIVE POROSITY OF GRAVEL LAYER	N(gravel)	0.4	(FT/DAY)
MAXIMUM BIORETENTION STORAGE VOLUME SV = (SA(top) x (D(media) x N(media)) + (D(gravel) x N(media))) +(SA(avg) X D(pond))	SV	314	CF
RETENTION VALUE CREDIT (60% OF MAX) SV X (.60)		188	CF

QUALITY CONTROL

	ACRONYM	VALUE	UNIT
MAXIMUM RETENTION VOLUME TO BMP SWRv = ((DA(Comp) x 0.25) + DA(Imp) x 0.95) + DA(natural) X 0.00) }/DA(total)) X (1.7/12)		1,456	CF
C COEFFICIENT	C	0.84	
RAINFALL INTENSITY (2 YEAR)	I2YR	1.2/12	FT
STORMWATER RETENTION VOLUME (PEAK FLOW 2 YEAR) QP2 = C * (I2YR) * DA(total)	SWRv	1,028	CF
STORAGE VOLUME PROVIDED BY BMPs (TREATED VOLUME)	SWRv(BMP)	209	CF
STORMWATER RETENTION VOLUME REMAINING SWRv(untreated) = SWRv - SWRv(BMP)	SWRv (untreated)	819	CF
AT LEAST 50% OF SWRV RETAINED?		No	
VEHICULAR ACCESS AREA VOLUME ADDRESSED?		No	

QUANTITY CONTROL

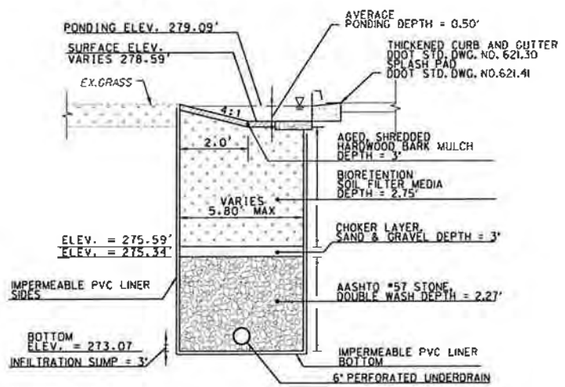
	ACRONYM	VALUE	UNIT
NATURAL COVER	DA(nat)	0	SF
COMPACTED COVER	DA(comp)	2,000	SF
IMPERVIOUS COVER	DA(imp)	10,080	SF
TOTAL DRAINAGE AREA	DA(total)	12,290	SF
WEIGHTED CN		94	
S		0.63	
		2-YEAR STORM	
RV DEVELOPED WITH NO BMPS		2.55	IN
RV DEVELOPED WITH BMPS		2.35	IN
ADJUSTED CN		92	
		15-YEAR STORM	
RV DEVELOPED WITH NO BMPS		4.52	IN
RV DEVELOPED WITH BMPS		4.31	IN
ADJUSTED CN		92	
		100-YEAR STORM	
RV DEVELOPED WITH NO BMPS		7.66	IN
RV DEVELOPED WITH BMPS		7.46	IN
ADJUSTED CN		92	



PLANTER #1 PIPE PROFILE

SCALE: HORIZ. 1"=20'

SCALE: VERT. 1"=5'



PLANTER #1 CROSS SECTION

NOT TO SCALE

NOTES:

1. INSTALL 6" PERFORATED PVC PIPES ONLY IN BIORETENTION FACILITIES
2. PROVIDE IMPERMEABLE PVC LINER FOR ALL PLANTERS ADJACENT TO ROADWAY
3. PROVIDE FULL IMPERMEABLE PVC LINER FOR BIORETENTION FACILITIES WHERE VERTICAL CLEARANCE IS LESS THAN 5' AND HORIZONTAL CLEARANCE IS LESS THAN 3' FROM SEWER LINES.

DISTRICT OF COLUMBIA — CESAR E. VARGAS — No. 19402 — PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

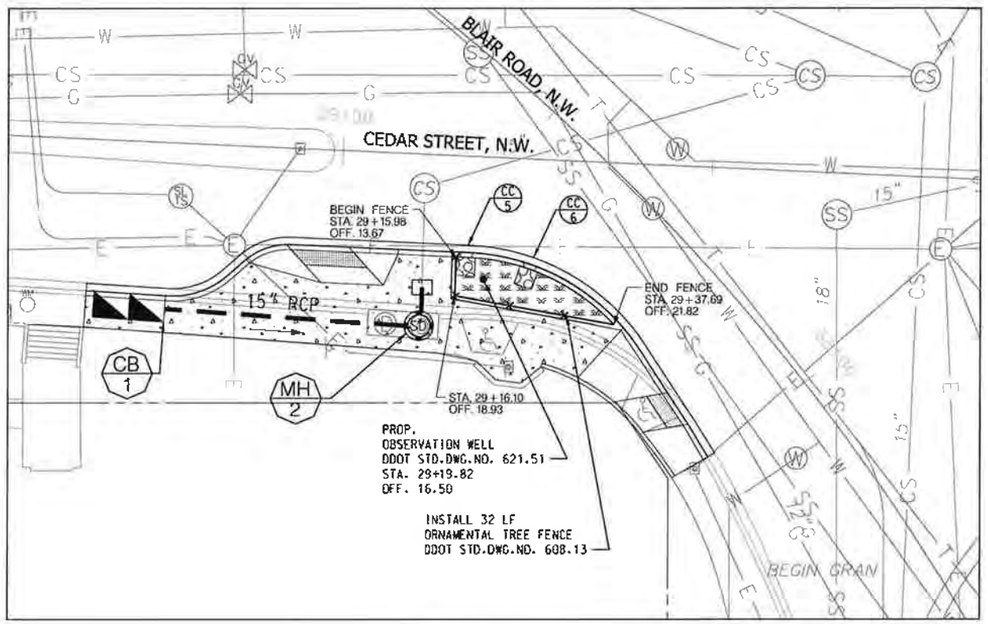
PROJECT MGR. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY CV
PROJECT MGR. CV

STORMWATER MANAGEMENT PLAN
SHEET 1 OF 2

DIVISION CHIEF
DATE
FILE
SHEET 32 OF 75

F:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int Improvements\07 Design\DGN\Sheets\Plan Sheets\032_pSWM-P001_15490.dgn
Thursday, September 13, 2018 AT 02:04 PM

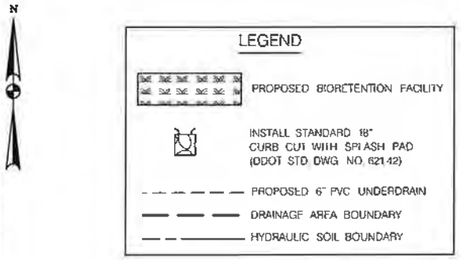
FHWA REG. NO.	STATE	TRD. AID PROJECT NO.	SHEET NO.	TODAY 5-19-15
3	D.C.	STP-8888 (416)	33	75

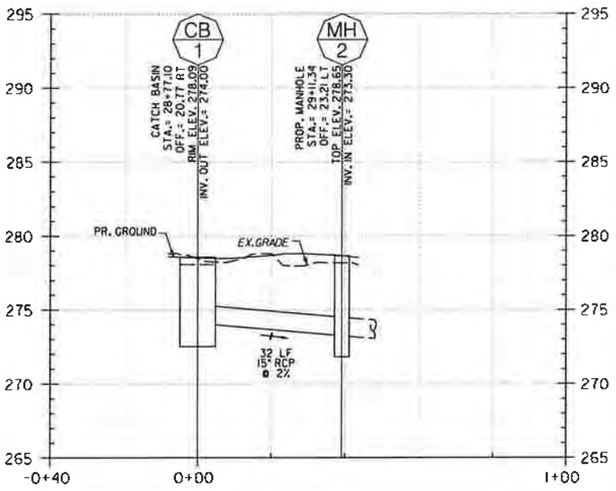


BIORENTION PLANTER #2 SITE PLAN

10' 0 10' 20'

SCALE: 1" = 10'





DRAINAGE PROFILE CB-1 TO MH-2

20' 0 20' 40'

SCALE: HORIZ. 1"=20'

5' 0 5' 10'

SCALE: VERT. 1"=5'

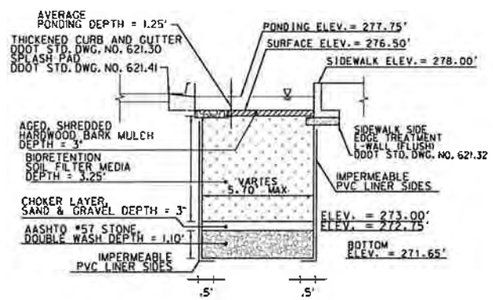
CURB CUTS TABLE								
STRUCT ID	SURFACE ELEV.	STATION	OFFSET	DESIGN FLOW (CFS)	INLET OPENING (FT)	WIDTH OF SPREAD (FT)	INTERCEPTED FLOW (CFS)	BYPASS FLOW (CFS)
CC-5	277.76	29+17.38	13.00 RT	0.068	1.5	2.57	0.063	0.005
CC-6	277.90	29+26.10	14.21 RT	0.009	1.5	0.98	0.009	0.000

Table 4: Constant Head Permeameter Bore-Hole Infiltration Test, Laboratory Soil Classification and Field Measured Ksat Results						
Boring Number	Test Depth (ft)	Estimated Test Elevation (ft)	USDA Texture Classification	USCS Soil Classification	Saturated Hydraulic Conductivity Ksat (Field) (in/hr)	Minimum USDA Infiltration Rates Classified by Soil Texture (Rawls et al 1982) (in/hr)
SWM 2	8	270±	LOAMY SAND	SM	0.560	2.41

PLANTER #2			
BIORETENTION DETAILS	**ACRONYM**	**VALUE**	**UNIT**
TOP OF PONDING AREA	SA(top)	103	SF
BOTTOM OF PONDING AREA	SA(bot)	103	SF
AVERAGE SURFACE AREA (SA(top)+ SA(bot))/2	SA(avg)	103	SF
DEPTH OF PONDING	D(pond)	1.25	FT
DEPTH OF FILTER MEDIA + MULCH	D(media)	3.25	FT
EFFECTIVE POROSITY OF FILTER MEDIA	N(media)	0.25	(FT/DAY)
DEPTH OF GRAVEL LAYER + CHOKER LAYER (USE ONLY 1.0' FOR CALC.)	D(gravel)	1.35	FT
EFFECTIVE POROSITY OF GRAVEL LAYER	N(gravel)	0.4	(FT/DAY)
MAXIMUM BIORETENTION STORAGE VOLUME SV = {SA(bot) x [D(media) x N(media)) + (D(gravel) x N(media))} +(SA(avg) X D(pond)}	SV	254	CF
RETENTION VALUE CREDIT (100% OF MAX) SV X (1.00)		**254**	**CF**

QUALITY CONTROL			
	ACRONYM	**VALUE**	**UNIT**
MAXIMUM RETENTION VOLUME TO BMP SWRv = {(DA(Comp) x 0.25) + DA(Imp) x 0.95) + DA(natural) X 0.00) }/DA(total)} X (1.7/12)		233	CF
C COEFFICIENT	C	0.71	
RAINFALL INTENSITY (2 YEAR)	I.2YR	1.2/12	FT
STORMWATER RETENTION VOLUME (PEAK FLOW 2 YEAR) QP2 = C * (I.2YR) * DA(total)	SWRv	164	CF
STORAGE VOLUME PROVIDED BY BMPs (TREATED VOLUME)	SWRv(BMP)	**233**	CF
STORMWATER RETENTION VOLUME REMAINING SWRv(untreated) = SWRv - SWRv(BMP)	SWRv (untreated)	0	CF
AT LEAST 50% OF SWRV RETAINED?		**Yes**	
VEHICULAR ACCESS AREA VOLUME ADDRESSED?		**Yes**	

QUANTITY CONTROL			
	ACRONYM	**VALUE**	**UNIT**
NATURAL COVER	DA(nat)	0	SF
COMPACTED COVER	DA(comp)	800	SF
IMPERVIOUS COVER	DA(imp)	1,417	SF
TOTAL DRAINAGE AREA	DA(total)	2,320	SF
WEIGHTED CN		**90**	
S		**1.15**	
		2-YEAR STORM	
RV DEVELOPED WITH NO BMPS		2.14	IN
RV DEVELOPED WITH BMPS		0.94	IN
ADJUSTED CN		**72**	
		15-YEAR STORM	
RV DEVELOPED WITH NO BMPS		4.04	IN
RV DEVELOPED WITH BMPS		2.84	IN
ADJUSTED CN		**77**	
		100-YEAR STORM	
RV DEVELOPED WITH NO BMPS		7.14	IN
RV DEVELOPED WITH BMPS		5.93	IN
ADJUSTED CN		**80**	



PLANTER #2
CROSS SECTION

NOT TO SCALE

20' 0 20' 40'

SCALE: HORIZ. 1"=20'

5' 0 5' 10'

SCALE: VERT. 1"=5'

NOTES:

1. INSTALL IRON TREE FENCE AROUND BIORETENTION PLANTERS ADJACENT TO SIDEWALKS
2. PROVIDE IMPERMEABLE PVC LINER FOR ALL PLANTERS ADJACENT TO ROADWAY
3. PROVIDE FULL IMPERMEABLE PVC LINER FOR BIORETENTION FACILITIES WHERE VERTICAL CLEARANCE IS LESS THAN 5' AND HORIZONTAL CLEARANCE IS LESS THAN 3' FROM SEWER LINES.

DISTRICT OF COLUMBIA
GEDAR E. VARGAS
No. 10402
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

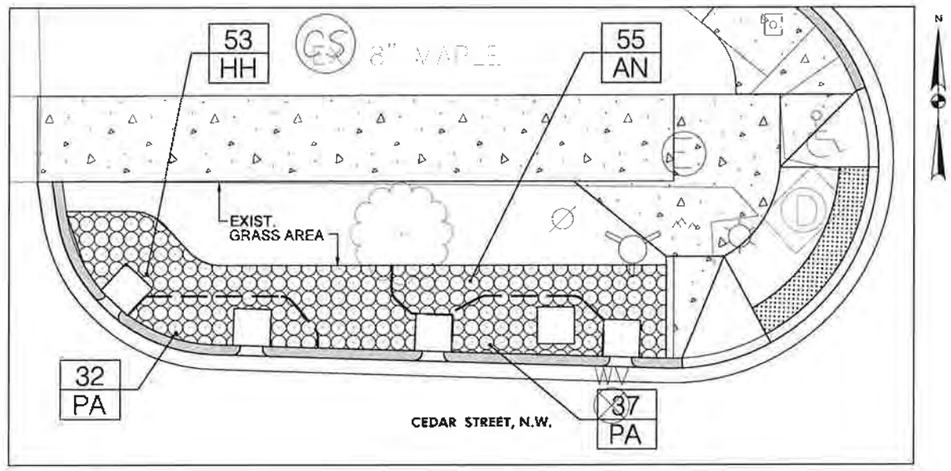
PROJECT ENG. SB
DESIGNED BY SB
CHECKED BY CV
DRAWN BY EW
PROJECT MGR. CV

STORMWATER MANAGEMENT PLAN
SHEET 2 OF 2

DIVISION CHIEF
DATE:
FRF
SHEET 33 OF 75

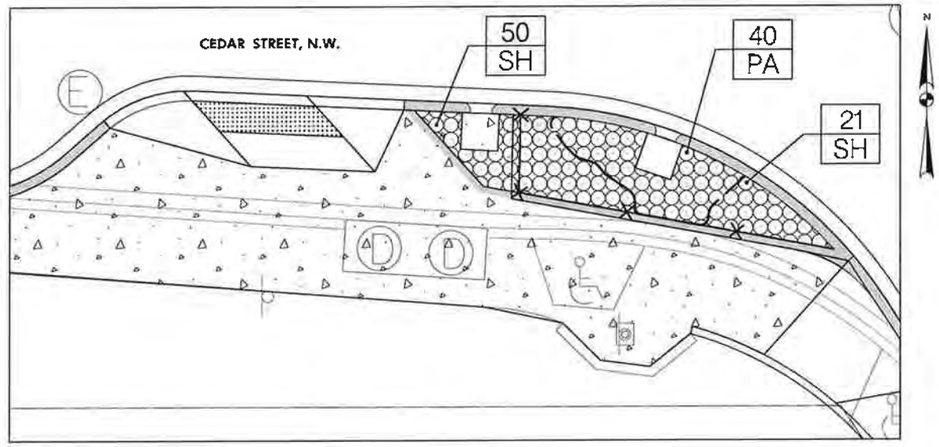
I:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int Improvements\07 Design\LDGN\Sheets\Plan Sheets\033_pSWM002_1500.dgn
Thursday, September 13, 2018 AT 02:04 PM

FHWA PROJ. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-9588 (416)	34	75



BIORETENTION PLANTER #1 PLANTING PLAN

SCALE: 1" = 5'



BIORETENTION PLANTER #2 PLANTING PLAN

SCALE: 1" = 5'

PLANTING NOTES:

1. ALL NEW PLANTINGS SHALL BE MANUALLY IRRIGATED AS REQUIRED BY DDOT CONTRACT.

2. DDOT STANDARD SPECIFICATIONS GUARANTEE PERIOD & REPLACEMENT SECTION 611.02 (14) - THE ACCEPTABILITY OF PLANTS FURNISHED AND PLANTED WILL BE DETERMINED AT THE END OF A TWO (2) YEAR GUARANTEE PERIOD DURING WHICH THE CONTRACTOR SHALL EMPLOY ALL PRACTICABLE MEANS TO PRESERVE THE PLANTS IN A HEALTHY GROWING CONDITION. CARE DURING THIS PERIOD SHALL INCLUDE WATERING, CULTIVATING, PRUNING, REPAIR AND ADJUSTMENT OF STAKES, AND OTHER STANDARD PROPER CARE AS DIRECTED. PLANTS, SAUCER S, AND BEDS SHALL BE KEPT WEED FREE. REMULCH AS NECESSARY TO MAINTAIN MULCH DEPTH AS SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF STAKES AND ARBOR TIES AT THE END OF THE 2 YEAR

DEAD AND UNSATISFACTORY PLANTS AS DIRECTED SHALL BE PROMPTLY REMOVED FROM THE PROJECT. AN INSPECTION BY THE CONTRACTOR AND THE CHIEF ENGINEER WILL BE HELD 30 DAYS BEFORE THE START OF THE PLANTING SEASON TO DETERMINE PLANT ACCEPTABILITY AND NUMBER OF REPLACEMENTS. DURING THE NEXT PLANTING SEASON FOLLOWING COMPLETION OF ACTUAL SPRING OR FALL PLANTING, ALL DEAD AND UNSATISFACTORY PLANTS SHALL BE REPLACED IN KIND AND SIZE WITH LIVE HEALTHY PLANTS INSTALLED PER SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.

ALTERNATE OR SUBSTITUTED VARIETIES OF PLANTS SHALL BE USED ONLY IF APPROVED. A FINAL INSPECTION OF ALL PLANTS WILL BE HELD AFTER THE REPLACEMENT PLANTING HAS BEEN COMPLETED.

IF THE CONTRACTOR FAILS WITHIN 10 DAYS TO SATISFACTORILY CARE FOR AND REPLACE PLANTS AS NEEDED OR ORDERED, THE DISTRICT MAY PROCEED WITH LABOR, EQUIPMENT, AND MATERIAL TO PERFORM THE WORK, WITH THE COST OF SUCH WORK CHARGED TO THE CONTRACTOR.

THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR THEFT OR DAMAGE TO PLANTS BY VEHICLES OR VANDALISM FOLLOWING COMPLETION AND APPROVAL OF THE CONSTRUCTION PORTION OF PLANTING

3. SOIL DEPTH AND MULCH. EXCEPT AT STORMWATER MANAGEMENT PLANTERS (LID), TOPSOIL MEETING DDOT SPECIFICATIONS SHALL BE PROVIDED AS FOLLOWS:

PLANTING AREAS ADJACENT TO EXISTING TREES: AS REQUIRED TO MEET PROPOSED GRADES PLANTING AREAS AT PREVIOUSLY PAVED AREAS: 18" MINIMUM DEPTH AT SHRUBS AND GROUNDCOVERS 4" MINIMUM DEPTH AT LAWN PLANTING AREAS WITH EXISTING LANDSCAPE TO BE REPLACED WITH NEW PLANTINGS: TILL NATIVE SOIL TO 12" DEPTH AND AMEND WITH 6" DEPTH COMPOST.MULCH 2" TO 3" THICK AROUND EXISTING TREE 2' MIN. MEASURED FROM ROOT FLARE (CROWN) OF THE STREET TREE AT STORMWATER MANAGEMENT PLANTER PROVIDE 36" DEPTH LID BIORETENTION SOIL MIX, REFER TO SPECIAL PROVISION

4. SIDEWALK AREAS ADJACENT TO EXISTING STREET TREE AND AREAS NOTED ON SITE PLAN SHALL HAVE 3' DEPTH STRUCTURAL SOIL PLACED BELOW SURFACE TO THE LIMITS SHOWN ON PLANS, OUTSIDE OF DRIPLINE OF EXISTING TREE. AREAS TO BE FIELD VERIFIED BY DDOT WARD 1 ARBORIST, JANET MILLER.

5. FOR ALL TREES REFER TO DDOT MANUAL TO USE ARBOR TIES FOR STAKING SEE 611.02(B)(7): STAKES- 822.12(0) MALLEABBLE IRON, ARROW-SHAPED ANCHORS, OR STAKES AS APPROVED BY THE CHIEF ENGINEER- ARBOR TIE MUST BE ATTACHED TO THE TOP OF THE STAKES THAT BEEN DRIVEN INTO THE GROUND AND WILL PROVIDE PROTECTION FOR THE TREE

6. TREE STAKING MUST BE INSTALLED WITH CLOTH WEBBING STRAP MATERIAL ("ARBOR-TIE") ATTACHED TO THE STAKES- REFER TO THE 2013 DDOT STANDARDS SPECIFICATIONS FOR STRUCTURES AND HIGHWAYS (GOLD BOOK)

7. AREAS INDICATED AS MULCHED PLANTERS ARE TO HAVE MULCH APPLIED AROUND EXISTING TREES TO REMAIN, MIN. OF 3' AROUND TREE TRUNK, OR AT CRITICAL ROOT ZONE (CRZ). NEW PLANTS TO BE PLANTED OUTSIDE OF THE CRZ.

8. TREE PROTECTION NOTES
- SUPER SILT FENCE IS PROHIBITED WITH IN THE DRIPLINE OF A STREET TREE

- ROOT PRUNING AND/OR TREE TRIMMING SHALL NOT BE PERFORMED WITHOUT UFA CONSENT. APPROVED PRUNING OF TREES SHALL BE IN ACCORDANCE WITH INDUSTRY STANDARDS (INTERNATIONAL SOCIETY OF ARBORICULTURE AND PRUNING ANSI A300, PART 1-2008) AND PERFORMED BY AND IS A CERTIFIED ARBORIST

- INSTALL SIX (6) FOOT HIGH CHAIN LINK FENCING TO PROTECT EXISTING STREET TREES TO REMAIN WITHIN THE LIMITS OF DISTURBANCE OR DIRECTLY ADJACENT TO.

-TREE PROTECTION MUST BE INSTALLED PRIOR TO AND THROUGHOUT CONSTRUCTION. FENCING SHALL BE REMOVED AT THE END OF THE PROJECT.
- INSTALL FENCING WITHIN THE EXTENT OF THE TREE BOX E.G. 4' X 9'. FRAMING SHOULD SIT DIRECTLY INSIDE THE BOX WITHOUT ANCHOR STAKES IN GROUND

- NONE OF THE FOLLOWING SHALL OCCUR WITHIN IN THE TREE BOXES: 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 TRENCHING.

- 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 TREE.

- EXPOSED ROOTS 2 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.

- IF THERE ARE ANY TREE CONFLICTS ON THIS JOB SITE PERMIT HOLDER MUST SUSPEND ALL WORK THAT CONTRIBUTES TO THE CONFLICT AND IMMEDIATELY CONTACT JANET MILLER, WARD 1 ARBORIST AT 202-557-4-646 TO RECEIVE CLEARANCE PRIOR TO CONFLICT TO CONTINUING ANY FURTHER WORK.

LANDSCAPE PLANTING LIST TO BE REVIEWED BY DDOT URBAN FORESTRY ADMINISTRATION FOR FINAL APPROVAL.

CONTRACTOR SHALL CONTACT URBAN FORESTER WHEN THE STREET TREES ARE READY TO BE PLANTED PROVIDING AT LEAST 48 HOURS' NOTICE.

ALL PLANTING REQUIRED TO BE WATERED FOR MINIMUM 1-YEAR , TREE BAGS ARE ACCEPTABLE AND PREFERRED FOR ALL TREE LOCATIONS (UFA TREE BAG PROGRAM) PROVIDES SLOW RELEASE WATER AND NUTRIENTS OR OTHERWISE NOTED BY CHIEF ENGINEER OR LANDSCAPE ARCHITECT

LEGEND

BIORETENTION PLANTING AREA

##
XX

PLANTING ANNOTATION
XX = PLANT CODE, REFER TO TABLE
= QUANTITY

PLANTING TABLE – BIORETENTION PLANTER # 1

QUANTITY	CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
69	PA	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN FOUNTAIN GRASS	1 GAL	1' O.C
55	AN	ASTER NOVI BELGII 'WOOD'S PURPLE'	WOOD'S PURPLE ASTER	1 GAL	1' O.C
53	HH	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	1 GAL	1' O.C

PLANTING TABLE – BIORETENTION PLANTER # 2

QUANTITY	CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
40	PA	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN FOUNTAIN GRASS	1 GAL	1' O.C
71	SH	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	1 GAL	1' O.C

DISTRICT OF COLUMBIA
BRIAN E. VARGA
No. 10402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

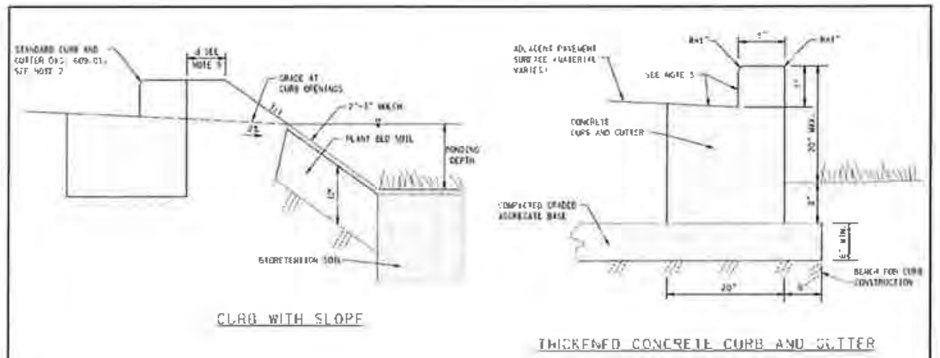
PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY KW
PROJECT MGR. CV

STORMWATER MANAGEMENT
PLANTING PLANS

DIVISION CHIEF
DATE
FILE
SHEET 34 OF 75

F:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_NW Improvements\07 Design\DGN\Sheets\Plan Sheets\034_pshw-f003_1.dgn
Thursday, September 13, 2018 AT 02:04 PM

FHWA REG. NO.	STATE	FED AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	35	75



NOTES:

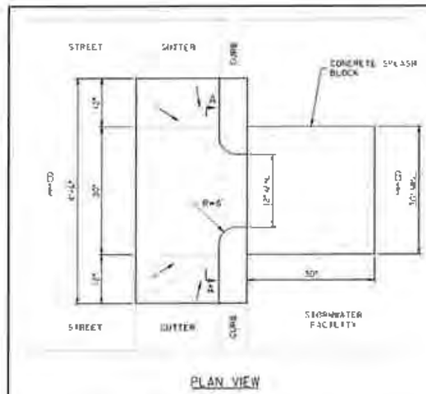
1. CONCRETE SHALL BE CLASS E; FINISH ALL EXPOSED CONCRETE SURFACES.
2. CURB TYPE AND MATERIAL TO MATCH PLANS.
3. SLOPE OF GUTTER AND CURB REVEAL TO MATCH STANDARD CURB AND GUTTER, PER DWG. 609.01.
4. REFER TO DESIGN AND ENGINEERING MANUAL SECTION "SIGNING SAFETY AND ACCESS" FOR PEDESTRIAN SAFETY DESIGN REQUIREMENTS.
5. 0" TO 20" STEP OUT ZONE, PER PLAN.
6. EXPANSION AND CONTRACTION JOINTS SHALL BE PLACED IN ACCORDANCE WITH STANDARD DDOT CONCRETE CURB REQUIREMENTS.

RECOMMENDED: DEPUTY CHIEF ENGINEER
APPROVED: CHIEF TRANSPORTATION ENGINEER

BIORETENTION FACILITY STREET SIDE EDGE TREATMENT- 1

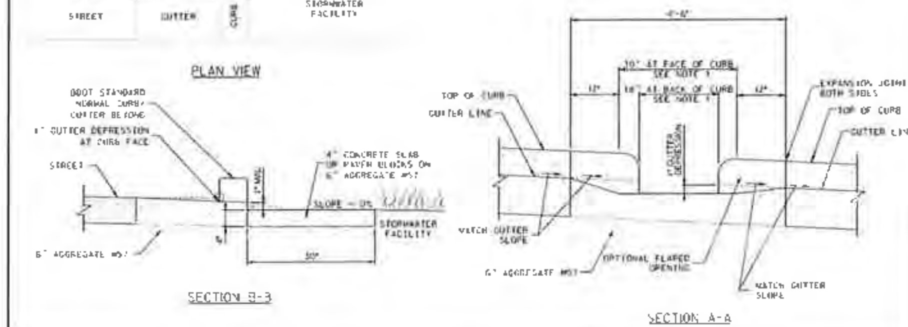
DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG NO. 621.30



NOTES:

1. CURB OPENING DIMENSION SHOWN IS A MINIMUM. CURB CUT SHALL BE SIZED TO CONVEY 1.2" RAINFALL (OR LARGER) OR TO CONTROL SPREAD IN THE GUTTER PAN WHICHEVER ... DDOT DESIGN AND ENGINEERING MANUAL.

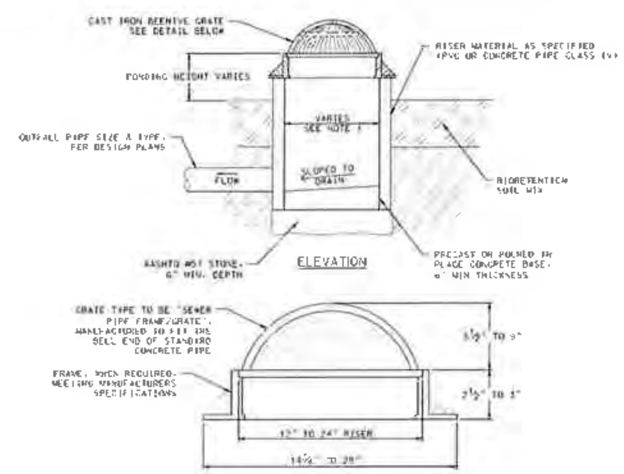


RECOMMENDED: DEPUTY CHIEF ENGINEER
APPROVED: CHIEF TRANSPORTATION ENGINEER

CURB CUT WITH SPLASH PAD - 2

DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG NO. 621.42



NOTES:

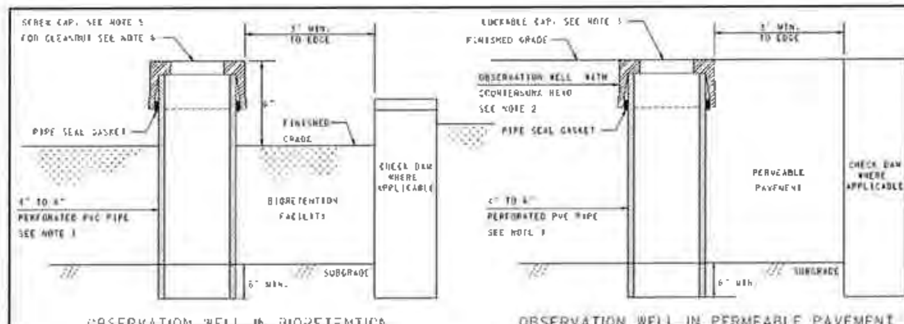
1. MINIMUM OPENING SIZE IN GRATE SHALL BE 1/4" INCHES.
2. SIZE OF GRATE SHALL MATCH SIZE OF THE RISER, PER PLANS, SHALL FIT SNUG AND WATERTIGHT, AND SHALL BE REMOVEABLE FOR MAINTENANCE PURPOSES.
3. ALTERNATE MATERIAL TO CAST IRON SHALL BE ALLOWED AS APPROVED BY DDOT PM.

RECOMMENDED: DEPUTY CHIEF ENGINEER
APPROVED: CHIEF TRANSPORTATION ENGINEER

OVERFLOW RISER WITH BEEHIVE GRATE

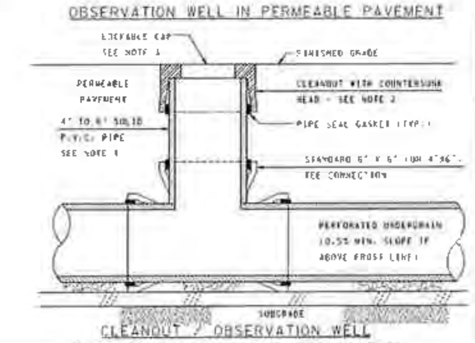
DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG NO. 621.50



NOTES:

1. PROVIDE A TUBE MADE OF NON-CORROSIVE MATERIAL, SCHEDULE 40 P.V.C. OR EQUAL, AT LEAST 3 FEET LONG WITH AN INSIDE DIAMETER OF 4 TO 6 INCHES. PERFORATED PIPE IS REQUIRED FOR ALL OBSERVATION WELLS, OR CLEANOUTS USED AS OBSERVATION WELLS.
2. FACTORY ATTACHED BRASS OR HIGH IMPACT PLASTIC HEAD WITH RIBS TO PREVENT ROTATION WHEN REMOVING LOCKABLE CAP.
3. LOCKABLE CAP SHALL BE BRASS AND RATED FOR HS-20 LOADING IN VEHICULAR AREAS, MOUNTED FLUSH TO GRADE. LOCKABLE CAP MAY BE HIGH IMPACT PLASTIC THAT IS UV STABLE IN NON-VEHICULAR LOADING AREA, AT LEAST 6 INCHES ABOVE GRADE.
4. IN FACILITIES SUBJECT TO VEHICULAR TRAFFIC, CONCRETE APRONS AROUND CLEANOUTS ARE AN OPTION AS SHOWN IN DESIGN PLANS.
5. CAP ON RISERS IN BIORETENTION FACILITY SHALL BE PVC SCREW IN PLUG.
6. FOR CLEANOUT IN BIORETENTION (NOT SHOWN), USE SIMILAR DETAIL, BUT USE PVC SCREW CAP SET 6" ABOVE FINISHED GRADE.



RECOMMENDED: DEPUTY CHIEF ENGINEER
APPROVED: CHIEF TRANSPORTATION ENGINEER

STORMWATER FACILITY UNDERDRAIN PIPE RISERS

DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG NO. 621.51

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY BW
PROJECT MGR. DV

STORMWATER MANAGEMENT DETAILS

DIVISION CHIEF

SHEET 35 OF 75

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int Improvements\07 Design\DGN\Sheets\Plan Sheets\035_pSW-D001_15590.dgn
Thursday, September 13, 2018 AT 02:04 PM

F.A.H.W.A. PROJ. NO.	STATE	CONTRACT NO. PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	36	75

MAINTENANCE SCHEDULE FOR BIORETENTION PRACTICES

	MAINTENANCE TASKS	FREQUENCY	TIME OF YEAR / TIMING
INITIAL TASKS DURING ESTABLISHMENT (FIRST THREE YEARS)	WITHIN 6 MONTHS FOLLOWING CONSTRUCTION, THE PRACTICE AND DRAINAGE AREA SHOULD BE INSPECTED AFTER STORM EVENTS THAT EXCEED 1/2 INCH OF RAINFALL.	TWICE AFTER INSTALLATION	FOLLOWING STORM EVENTS THAT EXCEED 1/2 INCH OF RAINFALL
	REMOVE STAKES, WIRES, AND TAGS	ONE TIME	6 MONTHS AFTER PLANTING
	WATER PLANTS – INITIAL THREE YEARS	WEEKLY DURING FIRST 2-3 MONTHS AFTER INSTALLATION, AND WHEN RAINFALL IS LESS THAN 1 INCH PER WEEK	APRIL-OCTOBER
	SPOT FERTILIZATION	ONE TIME AS NEEDED IN FIRST-SECOND YEAR OF INSTALLATION	EARLY SPRING
ROUTINE INSPECTION	* CONDUCT A MAINTENANCE INSPECTION * CHECK CURB CUTS AND INLETS FOR ACCUMULATED GRIT, LEAVES, AND DEBRIS THAT MAY BLOCK INFLOW * IDENTIFY MAINTENANCE TASKS NEEDED * LOOK FOR EROSION, BARE AREAS, AND WHERE MULCH NEEDS TO BE APPLIED	QUARTERLY	
ROUTINE MAINTENANCE	* SPOT WEED * ADJUST MULCH AS NEEDED TO ENSURE FULL COVER * REMOVE TRASH AND ANIMAL WASTE * REMOVE ANY DEAD OR DISEASED PLANTS * REMOVE SEDIMENT IN PRETREATMENT CELLS AND INFLOW POINTS * MOW GRASS FILTER STRIPS AND BIORETENTION WITH TURF COVER	QUARTERLY	MARCH - NOVEMBER
	MULCH WITH 3 INCHES SHREDDED HARDWOOD MULCH	ANNUALLY	FEBRUARY - APRIL
AS-NEEDED MAINTENANCE	PRUNE TREES AND SHRUBS	AS-NEEDED	FEB-APRIL AND SEPT- NOV AS APPROPRIATE
	WATER PLANTS – AFTER THREE YEARS	WEEKLY DURING DROUGHTS (MORE THAN 2 WEEKS OF NO RAIN)	APRIL-OCTOBER
	* REMOVE INVASIVE PLANTS USING RECOMMENDED CONTROL METHODS. * ADD PLANTING TO MAINTAIN DESIRED VEGETATION DENSITY. * REPLACE STONE AT CURB CUTS, INFLOW, WEIRS, & CHECK DAMS * BLOW-OFF CLEANOUTS USING COMPRESSED AIR, HIGH PRESSURE WATER HOSE, OR DRAIN SNAKE IN PRACTICES THAT SHOW EVIDENCE OF CLOGGED UNDERDRAIN * STABILIZE THE SURROUNDING DRAINAGE AREA TO PREVENT EROSION	AS NEEDED FOLLOWING INSPECTION	AT APPROPRIATE TIME FOR DISEASE OR PEST TREATMENT. OCTOBER-APRIL PER DDOT STD SPECS NOVEMBER-MARCH AS-NEEDED AS-NEEDED
	REMOVE AND REPLACE THE MULCH LAYER	ONCE EVERY 3 YEARS	FEB-APRIL

MAINTENANCE SCHEDULE FOR STREET TREE SPACE

MAINTENANCE TASKS	FREQUENCY	TIME OF YEAR / TIMING
INSPECT TREE FOR HEALTH AND ESTABLISHMENT AND REPORT ANY CHANGES TO UFA VIA 311 OR 311.DC.GOV.	THREE TIMES DURING ESTABLISHMENT; EVERY FIVE YEARS FOR LIFE OF TREE	SPRING 1ST SEASON FALL 1ST SEASON FALL 2ND SEASON
REMOVE STAKES AND WIRES.	ONE TIME	ONE YEAR AFTER PLANTING
WATER TREE - FIRST YEAR	25 GALLONS WEEKLY VIA SLOW RELEASE DEVICE	APRIL-OCTOBER
WATER TREE - SECOND & THIRD YEAR	25 GALLONS BI-MONTHLY VIA SLOW RELEASE DEVICE	APRIL-OCTOBER
REMOVE WEEDS AND TRASH	QUARTERLY	MARCH-NOVEMBER
MULCH WITH 3 INCHES DOUBLE GROUND SHREDDED HARDWOOD MULCH. PLACE MUCH IN A RING TO CAPTURE RAIN WATER. MULCH SHALL NOT BE MOUNDED AROUND TREE.	ANNUALLY OR AS NEEDED.	FEB-APRIL
IF TREE PRUNING IS NEEDED, CALL 311 OR 311.DC.GOV TO REQUEST AN INSPECTION BY UFA.	AS-NEEDED	
REMOVE SEDIMENT AND TRASH FROM ANY INLETS AND SLOT DRAINS	ANNUALLY	

BIORETENTION MATERIAL SPECIFICATIONS

MATERIAL	SPECIFICATION	NOTES
MULCH LAYER	USE AGED, SHREDDED HARDWOOD BARK MULCH	LAY A 2 TO 3-INCH LAYER ON THE SURFACE OF THE FILTER BED.
FILTER MEDIA	SEE BIORETENTION SOIL TABLE (THIS PAGE)	MINIMUM DEPTH OF 24 INCHES (18 INCHES FOR SMALL-SCALE PRACTICES) TO ACCOUNT FOR SETTLING/COMPACTION, IT IS RECOMMENDED THAT 110% OF THE PLAN VOLUME BE UTILIZED.
CHOKING LAYER	A 3 INCH LAYER OF CHOKER STONE (E.G., TYPICALLY ASTM D448 NO. 8 OR NO. 89 WASHED GRAVEL) SHOULD BE PLACED BENEATH THE SOIL MEDIA AND OVER THE UNDERDRAIN STONE.	
UNDERDRAIN STONE LAYER	1-INCH DIAMETER STONE MUST BE DOUBLE-WASHED AND CLEAN AND FREE OF ALL FINES (E.G., ASTM D448 NO. 57 OR SMALLER STONE).	AT LEAST 2 INCHES ABOVE AND BELOW THE UNDERDRAIN.
IMPERMEABLE LINER (OPTIONAL)	WHERE APPROPRIATE, USE A THIRTY MIL (MINIMUM) PVC GEOMEMBRANE LINER	
UNDERDRAINS, CLEANOUTS, AND OBSERVATION WELLS	USE 4- OR 6-INCH RIGID SCHEDULE 40 PVC PIPE, OR EQUIVALENT CORRUGATED HDPE FOR SMALL BIORETENTION BMPS, WITH 3/8-INCH PERFORATIONS AT 6 INCHES ON CENTER. MULTIPLE UNDERDRAINS ARE NECESSARY FOR BIORETENTION AREAS WIDER THAN 40 FEET, AND EACH UNDERDRAIN MUST BE LOCATED NO MORE THAN 20 FEET FROM THE NEXT PIPE OR THE EDGE OF THE BIORETENTION.	LAY THE PERFORATED PIPE UNDER THE LENGTH OF THE BIORETENTION CELL, AND INSTALL NON- PERFORATED PIPE AS NEEDED TO CONNECT WITH THE STORM DRAIN SYSTEM OR TO DAYLIGHT IN A STABILIZED CONVEYANCE. INSTALL T'S AND Y'S AS NEEDED, DEPENDING ON THE UNDERDRAIN CONFIGURATION. EXTEND CLEANOUT PIPES TO THE SURFACE.

BIORETENTION SOIL

BIORETENTION SOIL SHALL CONSIST OF A BLEND OF APPROXIMATELY 55% BY VOLUME COARSE SAND, 20% BY VOLUME BASE LOAM AND 25% BY VOLUME OF ORGANIC AMENDMENT. THIS BLEND WILL COMPLY WITH THE BIORETENTION SOIL REQUIREMENT IN THE DISTRICT DEPARTMENT OF ENVIRONMENT STORMWATER GUIDEBOOK, IN WHICH SOIL COMPONENTS ARE GIVEN BY WEIGHT. THE COMPONENTS SHALL BE BLENDED TO CREATE A UNIFORM MIXTURE THAT MEETS THE FOLLOWING CRITERIA. PERCENTAGES WILL BE ADJUSTED AS NECESSARY TO ACHIEVE THE FOLLOWING GRAIN SIZE DISTRIBUTION AND CRITERIA BELOW FOR MATERIAL PASSING THE #10 SIEVE BY WEIGHT:

PERCENT PASSING

U.S. SIEVE SIZE NUMBER	MINIMUM	MAXIMUM	
10	100	-	COARSE SAND
18	68	95	COARSE SAND
35	38	65	COARSE SAND
60	22	37	FINE SAND
140	15	22	FINE SAND
270	12	14	SILT
.002MM	1	4	CLAY

DISTRICT OF COLUMBIA · GERAN E. VARGAS · No. 19402 · REGISTERED PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

STORMWATER MANAGEMENT SPECIFICATIONS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CY
DRAWN BY DW
PROJECT MGR CY

DIVISION CHIEF
DATE
FILE
SHEET 36 OF 75

I:\344209 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_INT. Improvements\07 Design\LOCAL\Sheets\Plan Sheets\036_psVH-P003_15490.dgn
Thursday, September 13, 2018 AT 02:05 PM

F.H.W.A. REGION NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	37	75

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DISTRICT DEPARTMENT OF THE ENVIRONMENT

★ ★ ★

BIORETENTION CONSTRUCTION INSPECTION REPORT

Building Permit #_____Plan and File #_____Lot:_____Square: _____

Project Name and Address: _____ Ward: _____

Contractor:_____Telephone # _____

Engineer:_____Telephone # _____

Responsible For Maintenance:_____Telephone # _____

Bioretention Type: Traditional ___ Streetscape _____ Tree Pits_____ Planters: _____Residential _____

Date Started:_____Final Inspection Date:_____As-Built Plan Due Date: _____

Inspection Items	Yes	No	Remarks	Date
Inflow/Overflow: Is overflow invert at correct elevation? Is inflow pipe to filter plugged with watertight seal (prior to stabilization)?				
Basin and Impermeable Liner (where applicable): Basin graded as per approved plan? Basin liner material and installation meets specification of approved plan? (attach labeled sample)				
Underdrains: Does collector pipes meet specifications with correct hole pattern? (attach materials invoice) Does collector stone and stone beneath sand meet specifications and is installed to design depth?				
Filter Components: Does filter sand meet specifications? (Attach lab report and material certification) Filter media installed to design depth and compacted on _____(date) and refilled to designed depth				

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DISTRICT DEPARTMENT OF THE ENVIRONMENT

★ ★ ★

BIORETENTION CONSTRUCTION INSPECTION REPORT - Continued

Project Name and Address: _____ File and WPD No_____

Inspection Item	No	Yes	Remarks	Date
Bioretention Plant Materials: Do plants meet size and variety specifications? Are all plants installed as per landscape plan? Is mulch and cover crop installed as per plan specifications? Are plant/ trees staked as per specifications? Has watering of plant material been provided once a week during the first two months for fourteen consecutive days after planting has been completed, then as needed during first growing season?				
Clear well Manholes and Inlets: Is observation well free of construction debris and soil? Is outflow pipe invert at the design elevation?				
Notes: 1. A qualified professional must treat disease plants. 2. Deficient stakes and wires must be replaced. 3. Dead plants or plants diseased beyond treatment must be replaced by plant meeting original specifications 4. New plants must be watered every day for the first 14 days after planting.				

Owner/Agent_____Inspector_____Date_____

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DISTRICT DEPARTMENT OF THE ENVIRONMENT

★ ★ ★

Bioretention Practice Maintenance Inspection Report

Name/Address: _____ WPD No _____

Mailing Address: _____ Ward: _____

Owner / Agent_____ Telephone:_____ Lot:_____ Square: _____

As-Built Plan Available (Y/N) Last Inspection Date: ____ Last Service Date _____ Service Contract (Y/N) Type: _____

Bioretention Type: Traditional ___ Streetscape ___Tree Pits ____ Planters:_____ Residential:_____

List all other stormwater management facilities on site: _____

Review of on-site maintenance logs: _____

1. Inlets and Drainage Area Stabilization:

Inlet Type (s)_____ Total Number_____ Repair Needed Debris/ Sediment Accumulation _____

Evidence of Erosion in Drainage Area Area Needs Mowing or Clipping Removal Drainage Area Debris Accumulation

Observations _____

_____

2. Bioretention Practice:

Sediments/Trash Accumulation___ Filter Surface Clogging Erosion in Practice __ Inadequate Mulch Thickness or Cover

Outlet_____ Condition of Outlet _____ Debris/ Sediment in Overflow _____ Repair Needed _____

Underdrains and Cleanouts Underdrains Y/N, Number _____ Observation Wells Y/N, Number ____

Evidence of subsurface clogging ___ Inadequate drawdown ____ Standing Water ____ Last Rain Event >1" in _____ Days/Hours _____

Observations _____

_____

3. Plants:

Specific Number and Types of Plants in Place ___Dead or Diseased plants ___Stakes and Wires___Inadequate Watering ___

Observations _____

_____

Note: A qualified professional must treat disease plants. Deficient stakes or wires must be replaced. Dead plants or plants beyond treatment must be replaced by plants meeting original specifications. New plants must be watered every day for the first 14 days after planting.

Inspector _____ Received By _____ Date_____

DISTRICT OF COLUMBIA
CESAR E. VARGAS
No. 10402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROJECT ENG. SS
DESIGNED BY SS
CHECKED BY CV
DRAWN BY DW
PROJECT MGR CV

STORMWATER MANAGEMENT CONSTRUCTION AND MAINTENANCE INSPECTION REPORT

DIVISION CHIEF
DATE
FILE
SHEET 37 OF 75

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\037_gSW-P004_15490.dgn
Thursday, September 13, 2018 AT 02:05 PM

FHWA PROJ. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP 8888 (416)	38	75

TABLE OF REGULATORY , WARNING AND SPECIAL SIGNS			
MESSAGE ON SIGN	SIGN TYPE CODE NUMBER	NO. OF SIGNS REQUIRED	SIGN SIZE
	R7-1C(R)	1	12 in x 18 in
	R10-6a	2	24 in x 36in
	R10-11	2	24 in x 30in

TABLE OF REGULATORY , WARNING AND SPECIAL SIGNS			
MESSAGE ON SIGN	SIGN TYPE CODE NUMBER	NO. OF SIGNS REQUIRED	SIGN SIZE
	R10-6a MOD.	2	24 in x 42in
	R7-7A	2	12 in X 18 in
	R9-9 MOD.	3	24 in x 12 in
	R7-1C(L)	1	12 in x 18 in

TABLE OF REGULATORY , WARNING AND SPECIAL SIGNS			
MESSAGE ON SIGN	SIGN TYPE CODE NUMBER	NO. OF SIGNS REQUIRED	SIGN SIZE
	W11-2	1	30 in x 30 in
	SPECIAL	2	18 in x 24 in
	R4-4	1	36 in x 30 in
	R-17 MOD.	2	24 in x 30 in

TABLE OF REGULATORY , WARNING AND SPECIAL SIGNS			
MESSAGE ON SIGN	SIGN TYPE CODE NUMBER	NO. OF SIGNS REQUIRED	SIGN SIZE
	R10-15	1	30 in x 30 in
	SPECIAL	2	36 in x 36 in
	R3-4	1	24 in x 24 in
	R3-1	1	24 in x 24 in
	R3-2	5	24 in x 24 in
	R5-1	2	36 in x 36 in
	R7-6L MOD.	1	12 in x 18 in
	R7-6R MOD.	1	12 in x 18 in

SHEET	600025 GREEN PAINT FOR BICYCLE LANES	605995 INSTALL PARKING METER	608086 WHEEL STOP	612008 REMOVE LANE MARKINGS	612040 DOUBLE FACED WHITE SNOW PLOABLE REFLECTIVE PAVEMENT MARKER	612042 DOUBLE FACED YELLOW SNOW PLOABLE REFLECTIVE PAVEMENT MARKER	612054 THERMOPLASTIC PAVEMENT MARKING, 4 INCH	612056 THERMOPLASTIC PAVEMENT MARKING, 4 INCH DASH	612058 THERMOPLASTIC PAVEMENT MARKING, 6 INCH	612060 THERMOPLASTIC PAVEMENT MARKING, 6 INCH DASH	612062 THERMOPLASTIC PAVEMENT MARKING, 8 INCH	612064 THERMOPLASTIC PAVEMENT MARKING, 12 INCH	612066 THERMOPLASTIC PAVEMENT MARKING, 24 INCH	612068 THERMOPLASTIC PAVEMENT LETTER	612070 THERMOPLASTIC PAVEMENT ARROW	612070 THERMOPLASTIC PAVEMENT BICYCLE ARROW	612074 THERMOPLASTIC PAVEMENT BICYCLE MARKING, 4 FOOT	612076 THERMOPLASTIC PAVEMENT BICYCLE MARKING, 8 FOOT	612078 FLEXIBLE DELINEATORS FOR BICYCLE LANE	616014 METAL SIGN POSTS, 2.00 POUNDS PER FOOT	616022 TRAFFIC SIGNAL PANELS	616036 REMOVE GROUND MOUNTED SIGN	616995 RELOCATE EXISTING SIGN
	SF	EA	LF	SF	EA	EA	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	LF	SF	SF	EA
SM-1	410	1	5	0	12	9	990	300	520	0	290	315	754	8	5	0	4	4	4	80	118	22	12
SM-2	150	3	23	120	0	0	1340	50	220	50	110	300	296	0	3	3	3	2	8	150	0	9	7
SUB-TOTAL	560	4	28	120	12	9	2330	350	740	50	400	615	1050	8	8	3	7	6	12	230	118	31	19
CONTINGENCY	20	-	2	10	1	1	170	30	60	10	40	35	100	-	-	-	-	-	-	20	12	4	2
GRAND TOTAL	580	4	30	130	13	10	2500	380	800	60	440	650	1150	8	8	3	7	6	12	250	130	35	21

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

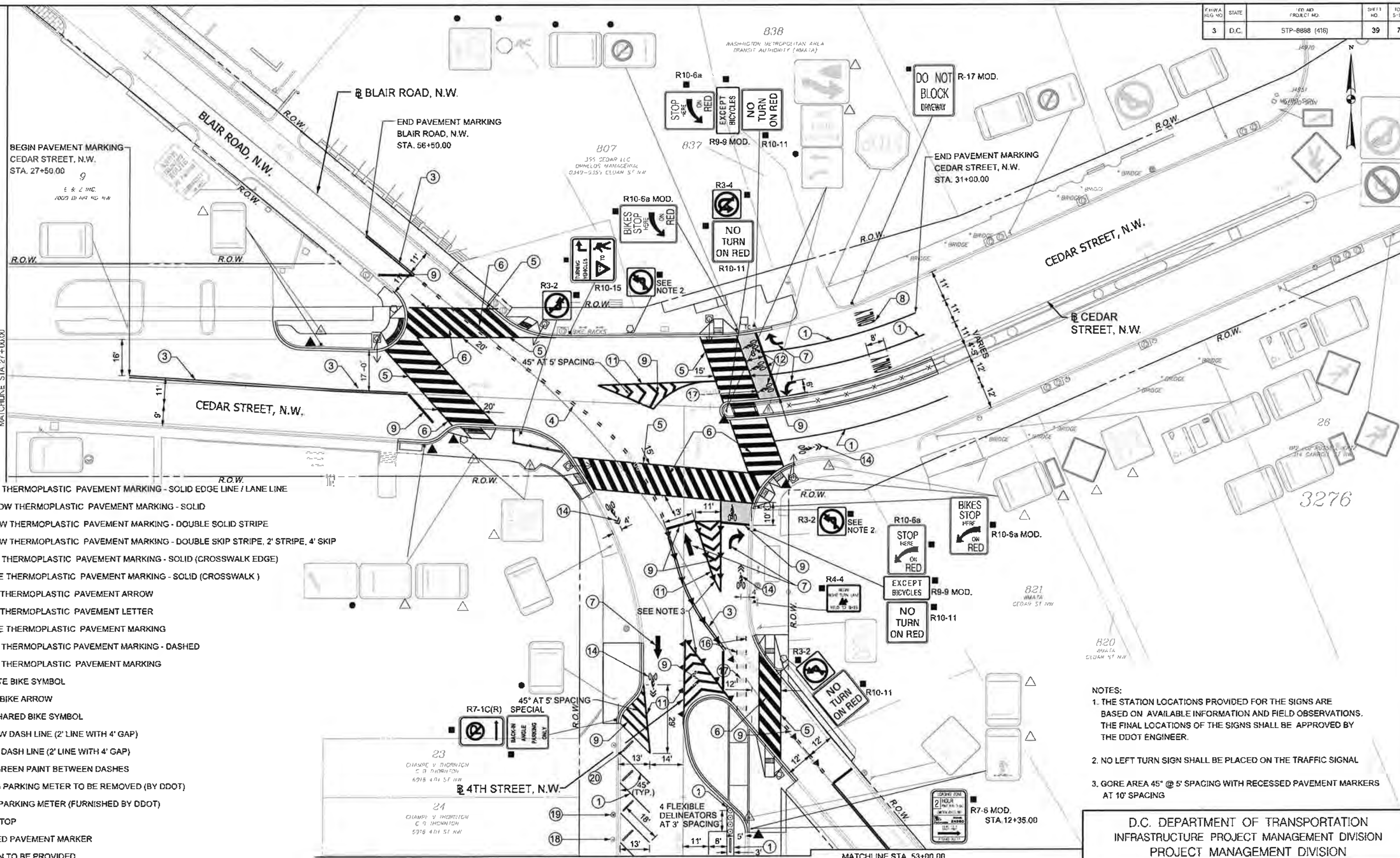
BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY TW
PROJECT MGR. CV

PERMANENT SIGN SCHEDULE

DIVISION CHIEF
DATE:
FILE:
SHEET 38 OF 75

FHWA REG. NO.	STATE	FED AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (418)	39	75



LEGEND

1. 4" WHITE THERMOPLASTIC PAVEMENT MARKING - SOLID EDGE LINE / LANE LINE
2. 12" YELLOW THERMOPLASTIC PAVEMENT MARKING - SOLID
3. 4" YELLOW THERMOPLASTIC PAVEMENT MARKING - DOUBLE SOLID STRIPE
4. 4" YELLOW THERMOPLASTIC PAVEMENT MARKING - DOUBLE SKIP STRIPE, 2' STRIPE, 4' SKIP
5. 6" WHITE THERMOPLASTIC PAVEMENT MARKING - SOLID (CROSSWALK EDGE)
6. 24" WHITE THERMOPLASTIC PAVEMENT MARKING - SOLID (CROSSWALK)
7. 8' WHITE THERMOPLASTIC PAVEMENT ARROW
8. 8' WHITE THERMOPLASTIC PAVEMENT LETTER
9. 12" WHITE THERMOPLASTIC PAVEMENT MARKING
10. 4" WHITE THERMOPLASTIC PAVEMENT MARKING - DASHED
11. 8" WHITE THERMOPLASTIC PAVEMENT MARKING
12. 8'x4' WHITE BIKE SYMBOL
13. 6' WHITE BIKE ARROW
14. WHITE SHARED BIKE SYMBOL
15. 6" YELLOW DASH LINE (2' LINE WITH 4' GAP)
16. 4" WHITE DASH LINE (2' LINE WITH 4' GAP)
17. 5' WIDE GREEN PAINT BETWEEN DASHES
18. EXISTING PARKING METER TO BE REMOVED (BY DDOT)
19. INSTALL PARKING METER (FURNISHED BY DDOT)
20. WHEEL STOP

- ▼ RECESSED PAVEMENT MARKER
- ■ NEW SIGN TO BE PROVIDED
- ⊗ EXISTING TO BE REPLACED WITH SAME MESSAGE
- △ EXISTING SIGN TO BE RELOCATED (FROM △ TO ▲)
- ● TO BE REMOVED
- ⊙ FLEXIBLE DELINEATOR 20' O.C. (TYP.)
- PROPOSED SIGN
- GREEN PAINT

NOTES:

1. THE STATION LOCATIONS PROVIDED FOR THE SIGNS ARE BASED ON AVAILABLE INFORMATION AND FIELD OBSERVATIONS. THE FINAL LOCATIONS OF THE SIGNS SHALL BE APPROVED BY THE DDOT ENGINEER.
2. NO LEFT TURN SIGN SHALL BE PLACED ON THE TRAFFIC SIGNAL
3. GORE AREA 45° @ 5' SPACING WITH RECESSED PAVEMENT MARKERS AT 10' SPACING

DISTRICT OF COLUMBIA CESAR E. VARGAS No. 10402 REGISTERED PROFESSIONAL ENGINEER

3/14/2018

SCALE: 1" = 20'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PAVEMENT MARKING AND SIGNING PLAN
SHEET 1 OF 2

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY CW
PROJECT MGR. CV
DIVISION CHIEF
DATE
FILE
SHEET 39 OF 75

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\039_pPN-P001_13690.dgn
Thursday, September 13, 2018 AT 02:05 PM

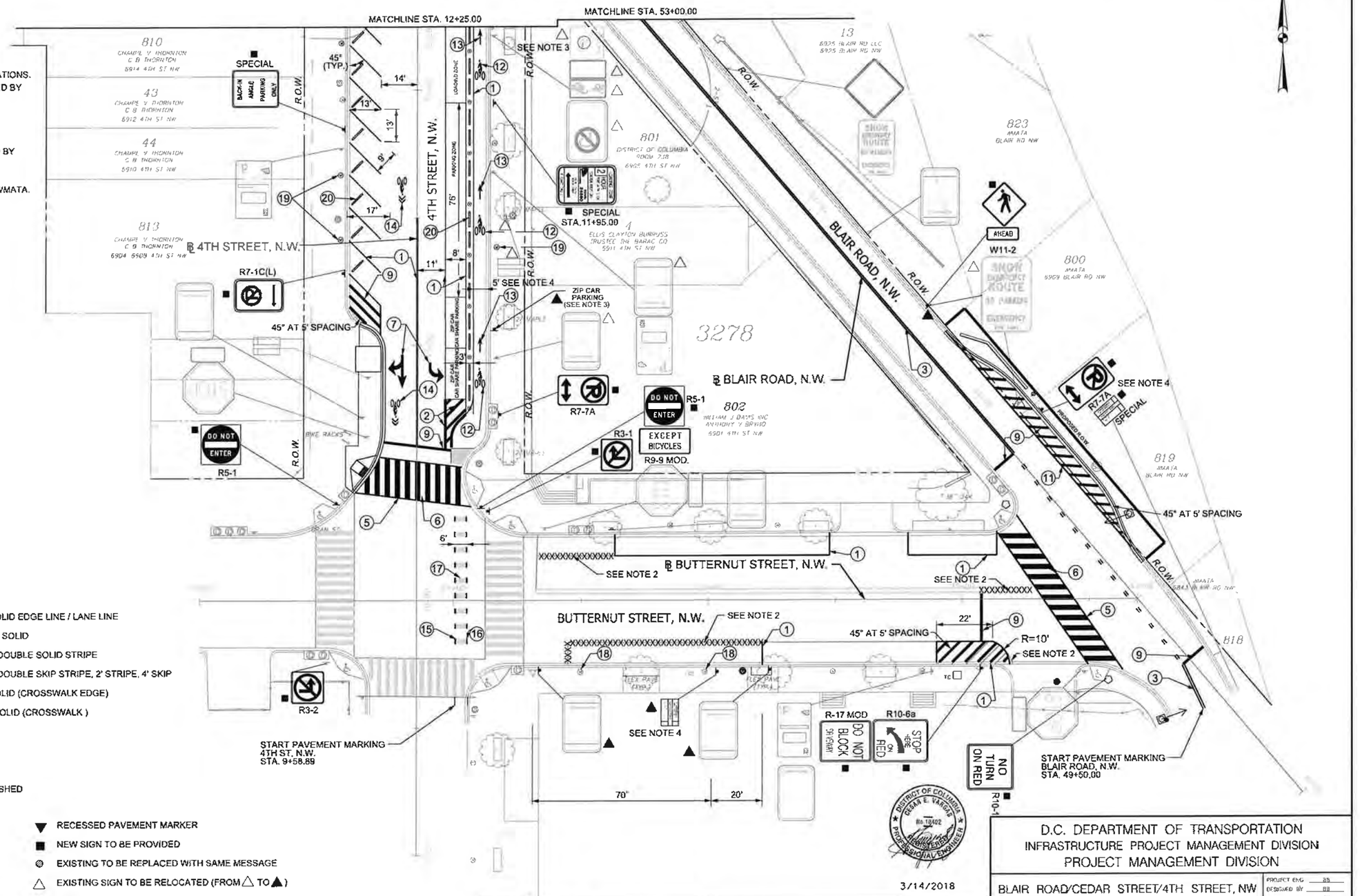
FHWA REG NO	STATE	FED AID PROJECT NO	SHEET NO	TOTAL SHEETS
3	D.C.	STP-8888 (416)	40	75

NOTES:
1. THE STATION LOCATIONS PROVIDED FOR THE SIGNS ARE BASED ON AVAILABLE INFORMATION AND FIELD OBSERVATIONS. THE FINAL LOCATIONS OF THE SIGNS SHALL BE APPROVED BY THE DDOT ENGINEER.

2. REMOVE EXISTING PAVEMENT MARKING.

3. RELOCATION OF ZIPCAR PARKING SPOTS TO BE HANDLED BY OTHERS.

4. RELOCATION OF METRO BUS STOPS TO BE HANDLED BY WMATA.



LEGEND

(1)	4" WHITE THERMOPLASTIC PAVEMENT MARKING - SOLID EDGE LINE / LANE LINE
(2)	12" YELLOW THERMOPLASTIC PAVEMENT MARKING - SOLID
(3)	4" YELLOW THERMOPLASTIC PAVEMENT MARKING - DOUBLE SOLID STRIPE
(4)	4" YELLOW THERMOPLASTIC PAVEMENT MARKING - DOUBLE SKIP STRIPE, 2' STRIPE, 4' SKIP
(5)	6" WHITE THERMOPLASTIC PAVEMENT MARKING - SOLID (CROSSWALK EDGE)
(6)	24" WHITE THERMOPLASTIC PAVEMENT MARKING - SOLID (CROSSWALK)
(7)	8' WHITE THERMOPLASTIC PAVEMENT ARROW
(8)	8' WHITE THERMOPLASTIC PAVEMENT LETTER
(9)	12" WHITE THERMOPLASTIC PAVEMENT MARKING
(10)	4" WHITE THERMOPLASTIC PAVEMENT MARKING - DASHED
(11)	8" WHITE THERMOPLASTIC PAVEMENT MARKING
(12)	8'x4' WHITE BIKE SYMBOL
(13)	6' WHITE BIKE ARROW
(14)	WHITE SHARED BIKE SYMBOL
(15)	6" YELLOW DASH LINE (2' LINE WITH 4' GAP)
(16)	4" WHITE DASH LINE (2' LINE WITH 4' GAP)
(17)	5' WIDE GREEN PAINT BETWEEN DASHES
(18)	EXISTING PARKING METER TO BE REMOVED (BY DDOT)
(19)	INSTALL PARKING METER (FURNISHED BY DDOT)
(20)	WHEEL STOP

▼	RECESSED PAVEMENT MARKER
■	NEW SIGN TO BE PROVIDED
⊘	EXISTING TO BE REPLACED WITH SAME MESSAGE
△	EXISTING SIGN TO BE RELOCATED (FROM △ TO ▲)
●	TO BE REMOVED
⊙	FLEXIBLE DELINEATOR 20' O.C. (TYP.)
◂	PROPOSED SIGN
▬	GREEN PAINT
▮	WHEEL STOP

20' 0 20' 40'
SCALE: 1" = 20'

DISTRICT OF COLUMBIA
OSAMA E. VARGAS
No. 18402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PAVEMENT MARKING AND SIGNING PLAN
SHEET 2 OF 2

PROJECT ENG	BS
DESIGNED BY	BB
CHECKED BY	CV
DRAWN BY	LW
PROJECT MGR	CV

DIVISION CHIEF
DATE
FILE
SHEET 40 OF 75

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Thursday, September 13, 2018 AT 02:05 PM

F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	41	75

MAINTENANCE OF TRAFFIC GENERAL NOTES

1. MAINTENANCE OF TRAFFIC PROCEDURES. DEVICES. SIGNS. AND SIGN MOUNTINGS SHALL CONFORM TO THE LATEST MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE LATEST DDOT TEMPORARY TRAFFIC CONTROL MANUAL.
2. THE CONTRACTOR SHALL OPEN ALL LANES TO TRAFFIC INCLUDING TURN LANES DURING THE PEAK HOURS OF 6:30 AM TO 9:30 AM AND 3:30 PM TO 6:30 PM MONDAY THROUGH FRIDAY. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE 11 FOOT LANE IN EACH DIRECTION AT ALL OTHER TIMES.
3. ALL TEMPORARY RAMPS AND SIDEWALKS SHALL ADHERE TO ADA DESIGN STANDARDS.
4. CONTRACTOR SHALL MAINTAIN 10 FEET MINIMUM WIDTH ACCESS TO DRIVEWAYS AT ALL TIMES WITHIN THE AREAS SHOWN ON MAINTENANCE AND PROTECTION OF TRAFFIC PLANS.
5. PRIOR TO EACH CONSTRUCTION STAGE, THE CONTRACTOR SHALL REMOVE AND STORE OR COVER EXISTING SIGNS THAT CONFLICT WITH TEXT OR CONSTRUCTION SIGNS. EXISTING SIGNS COVERED OR REMOVED SHALL BE UNCOVERED OR REINSTALLED AT EXISTING LOCATIONS AND ONTO EXISTING POLES OR NEW POLES AT THE COMPLETION OF THE CONSTRUCTION STAGE AS DIRECTED BY THE DDOT ENGINEER.
6. 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 AND SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF ACTIVITIES.
7. TEMPORARY SIGNS SHALL NOT BE PLACED AT ANY LOCATION WHERE THEY ARE OBSCURED BY TEMPORARY OR PERMANENT OBJECTS
8. THE PLANS ARE BASED ON A TOPOGRAPHICAL SURVEY. CONFLICTS OR DIFFERING SITE CONDITIONS SHALL BE BROUGHT TO THE DDOT ENGINEER'S ATTENTION FOR RESOLUTION.
9. ALL MATERIAL AND EQUIPMENT NOT IN USE MUST BE AT LEAST 10 FEET FROM THE EDGE OF THE TRAVELED ROADWAY AT LEAST 10 FEET FROM FACE OF CURB OR BEYOND THE DEFLECTION AREA OF GUARDRAIL OR BARRIER.
10. 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.
11. THE CLEANING OF THE ROADWAY AS REQUESTED BY THE DDOT ENGINEER WITHIN THE PROJECT LIMITS UP TO THE FINAL ACCEPTANCE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
12. THE TRAVEL LANES SHALL BE SWEPT CLEAN BY THE CONTRACTOR BEFORE THE LANE IS REOPENED TO TRAFFIC.
13. 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 DDOT ENGINEER.
14. THE CONTRACTOR SHALL BE REQUIRED TO REPAIR OR REPLACE ANY MAINTENANCE OF TRAFFIC COMPONENT CALLED FOR IN THE PLANS, WHICH IS DAMAGED DURING THE LIFE OF THE CONTRACT.
15. THE CONTRACTOR IS TO MINIMIZE THE LENGTH OF TIME OF ANY DROP OFF GREATER THAN 6 INCHES ADJACENT TO A TRAVEL LANE. THE CONTRACTOR IS NOT TO EXCAVATE THE PAVEMENT AREA UNTIL HE IS PREPARED TO COMPLETE ALL WORK ON THE SAME DAY. IN THE EVENT OF CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL, SUCH DROP OFF SHALL BE ELIMINATED BY AND AT THE EXPENSE OF THE CONTRACTOR AT THE END OF THE DAY. NO DROP OFF GREATER THAN 6 INCHES OUTSIDE THE CONSTRUCTION AREA SHALL REMAIN OVER A WEEKEND OR HOLIDAY. A DROP OFF IS CONSIDERED ELIMINATED IF TAPERED AWAY BY A 1V:4H SLOPE OR FLATTER.
16. ALL EXISTING PAVEMENT MARKINGS INCONSISTENT WITH THE TEMPORARY TRAFFIC PATTERN SHALL BE REMOVED AS DIRECTED BY THE DDOT ENGINEER.
17. DURING THE LIFE OF THE CONTRACT, THE CONTRACTOR SHALL REMOVE SNOW AND/OR ICE FROM THE FOLLOWING AREAS WITHIN THE SITE: ALL AREAS WHERE ICE OR SNOW REMOVAL IS NEEDED TO ENABLE THE PERFORMANCE OF THE WORK UNDER THIS CONTRACT: SIDEWALKS THAT ARE OPENED TO THE PUBLIC (EXCEPT SIDEWALKS ADJACENT TO PRIVATE PROPERTIES WHICH ARE THE RESPONSIBILITIES OF THE PRIVATE OWNERS); ROADWAYS (EXCEPT TRAVELED ROADWAYS OPEN TO THE PUBLIC WHICH SHALL BE THE RESPONSIBILITY OF DC ACCESS WAYS); AREAS NEEDED TO ENSURE ACCESS TO THE DDOT ENGINEER'S FIELD OFFICE; OTHER AREAS AS NEEDED TO ENSURE THE SAFETY OF ALL PERSONS AT THE SITE AND THE SAFE PEDESTRIAN AND VEHICULAR PASSAGE OF THE PUBLIC THROUGH THE SITE.
20. THE CONTRACTOR SHALL PROVIDE PROPERLY TRAINED AND EQUIPPED FLAGGERS WITH APPROPRIATE SIGNING WHEREVER OPERATIONS INTERFERE WITH TRAFFIC. EXAMPLES INCLUDE BUT NOT LIMITED TO DELIVERY / REMOVAL OF MATERIALS, LIFTING OPERATIONS AND OTHER ACTIVITIES AS ORDERED BY DDOT ENGINEER.
21. 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.
22. THE CONTRACTOR SHALL SUBMIT THE TEXT AND SIZE OF CONSTRUCTION SIGNS TO THE DDOT ENGINEER BEFORE FABRICATION.
23. ALL CONSTRUCTION SIGNS SHALL HAVE AN IDENTIFICATION TEXT PLACED ON THE BACK OF THE PROJECT SIGN UNOBSTRUCTED BY THE PROPOSED SIGN SUPPORT IN WHICH IT WILL IDENTIFY THE CONTRACT. THE CONTRACTOR. THE CONTRACTING AGENCY AND DIVISION, AND THE CONTACT NUMBER. LETTERING SHALL BE 3 INCHES HIGH.
24. NO EXCAVATION FOR DRAINAGE OR UTILITIES SHALL REMAIN OPEN DURING NON-WORKING HOURS.
25. PRIOR TO COMMENCING OPERATIONS. THE PERMITTEE SHALL TAKE A COMPLETE AND THOROUGH SET OF PHOTOGRAPHS OF THE SITE AND ACCESS AREAS TO BE USED, AS AN AIDE IN THE ESTABLISHMENT OF RESTORATION REQUIREMENTS. PHOTOGRAPHS SHALL BE SUBMITTED TO DDOT ENGINEER.
26. ALL STATIONS AND OFFSETS ARE BASED ON THE STATED REFERENCE ALIGNMENT ON THE PLANS UNLESS OTHERWISE NOTED. STATIONS, OFFSETS AND ELEVATIONS ARE TO THE FACE OF CURB FACING TRAFFIC AT THE GUTTER LINE. UNLESS OTHERWISE NOTED. SIGN PLACEMENT AND DEVICE SPACING MAY NOT BE DRAWN TO SCALE AND SHALL BE PLACED ACCORDING TO THE DDOT TEMPORARY TRAFFIC CONTROL MANUAL 2009.

SEQUENCE OF CONSTRUCTION NOTES

STAGE 1

STAGE 1 CONSISTS OF REMOVAL AND PAVEMENT RESTORATION OF MEDIAN ALONG CEDAR STREET WEST OF BLAIR ROAD.

STAGE 2

STAGE 2 CONSISTS OF REMOVAL AND REPLACEMENT OF MEDIAN ALONG CEDAR STREET EAST OF BLAIR ROAD.

STAGE 3

STAGE 3 CONSISTS OF RECONSTRUCTION OF NORTHERN SIDEWALK AND RAMPS ALONG CEDAR STREET, EAST OF BLAIR ROAD.

STAGE 4

STAGE 4 CONSISTS OF RECONSTRUCTION OF NORTHERN SIDEWALK, RAMPS, AND LID FACILITY ALONG CEDAR STREET, WEST OF BLAIR ROAD, AND CONSTRUCTION OF BUS BAY ALONG BLAIR ROAD.

STAGE 5

STAGE 5 CONSISTS OF RECONSTRUCTION OF RAMPS, SIDEWALK, AND LID FACILITY ALONG SOUTHSIDE OF CEDAR STREET. EXTENSION OF CURB ALONG 4TH STREET WEST OF BLAIR ROAD.

STAGE 6

STAGE 6 CONSISTS OF RECONSTRUCTION OF SIDEWALK AND RAMPS IN THE SOUTHEAST CORNER OF CEDAR STREET AND BLAIR ROAD.

STAGE 7

STAGE 7 CONSISTS OF CONSTRUCTION OF BULBOUT ALONG 4TH STREET AT THE INTERSECTION WITH BLAIR ROAD.

STAGE 8

STAGE 8 CONSISTS OF RECONSTRUCTION OF SIDEWALK, RAMPS, AND CURB EXTENSION ALONG 4TH STREET AT BUTTERNUT STREET.

STAGE 9

STAGE 9 CONSISTS OF COMPLETING CONSTRUCTION OF LIGHTING AND SIGNAL INFRASTRUCTURE, INITIATED DURING PREVIOUS STAGES, MILL PAVEMENT, RESURFACE AND PERFORM PAVEMENT MARKING OPERATIONS IN ACCORDANCE WITH THE FOLLOWING DDOT WORK ZONE TEMPORARY TRAFFIC CONTROL MANUAL TYPICAL APPLICATIONS:

9-1 CLOSURE OF CURB LANES
9-2 MOBILE OR SHORT DURATION
9-4 MODERATE DURATION OR STATIONARY OPERATION
9-5 CLOSURE IN CENTER OF A LOCAL ROAD
9-6 LANE CLOSURE ON A MINOR STREET
9-9 RIGHT LANE CLOSURE AT FAR SIDE OF THE INTERSECTION
9-10 LEFT LANE CLOSURE AT FAR SIDE OF THE INTERSECTION
9-12 CLOSURE IN CENTER OF INTERSECTION
9-13 CLOSURE OF SIDE OF INTERSECTION (W/O PARKING LANES)
9-14 CLOSURE OF SIDE OF INTERSECTION (W/ PARKING LANES)
9-15 INTERIOR LANE CLOSURE ON MULTI -LANE ROADWAY
9-17 MULTI- LEG INTERSECTION
9-18 SIDEWALK CLOSURE AND BYPASS SIDEWALK OPERATION
9-19 CROSSWALK CLOSURE AND PEDESTRIAN DETOURS

REMOVE TEMPORARY TRAFFIC CONTROL DEVICES AND TEMPORARY SIGNS

MAINTENANCE OF TRAFFIC QUANTITIES

PAY ITEM NUMBER	610012	612005	612008	612010	612014	612016	612028	612100	612108	612110	612022	612993
SHEET	PORTABLE PRECAST PCC BARRIER	CONSTRUCTION LANE CLOSING	REMOVE LANE MARKINGS	TEMPORARY CONSTRUCTION SIGNS/SUPPORTS	CONSTRUCTION WARNING AND DETOUR SIGNS	REFLECTORIZED TRAFFIC CONES	TYPE III PVC BARRICADE	PORTABLE CHANGEABLE MESSAGE SIGN	FLAGGER SERVICE	PREFORMED PAVEMENT MARKINGS, LINES	ARROW BOARD	TRAFFIC CONTROL SPECIAL ITEM -EACH- HIGH LEVEL WARNING DEVICES
	LF	LS	SF	EA	SF	EA	EA	EA	HR	LF	EA	EA
Stage 1				11		40						
Stage 2				11		60					2	
Stage 3	120			13		37	3					
Stage 4				32		95	2				1	
Stage 5				16		70	1					
Stage 6				8		15						
Stage 7						45	6					
MOST NEEDED AMONG ALL PHASES	120	1		32	393	95	6	2			2	2
TOTAL			860						160	555		
TOTAL X UNIT												
CONTINGENCY	30		90	3	57	15	2			45		
GRAND TOTAL	150	1	950	35	450	110	8	2	160	600	2	2

NOTE: SUMMARY OF TRAFFIC QUANTITIES FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL PERFORM HIS/HER OWN QUANTITY TAKEOFF. MAINTENANCE OF TRAFFIC WILL BE MEASURED AND PAID UNDER LUMP SUM ITEM 612002.

DISTRICT OF COLUMBIA
SEAN E. VARGAS
No 18492
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROJECT ENG: BB
DESIGNED BY: SS
CHECKED BY: CV
DRAWN BY: CW
PROJECT MGR: DZ

MAINTENANCE OF TRAFFIC GENERAL NOTES AND SEQUENCE OF CONSTRUCTION NOTES

DIVISION CHIEF
DATE:
FILE:
SHEET 41 OF 75

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Thursday, September 13, 2018 AT 02:05 PM

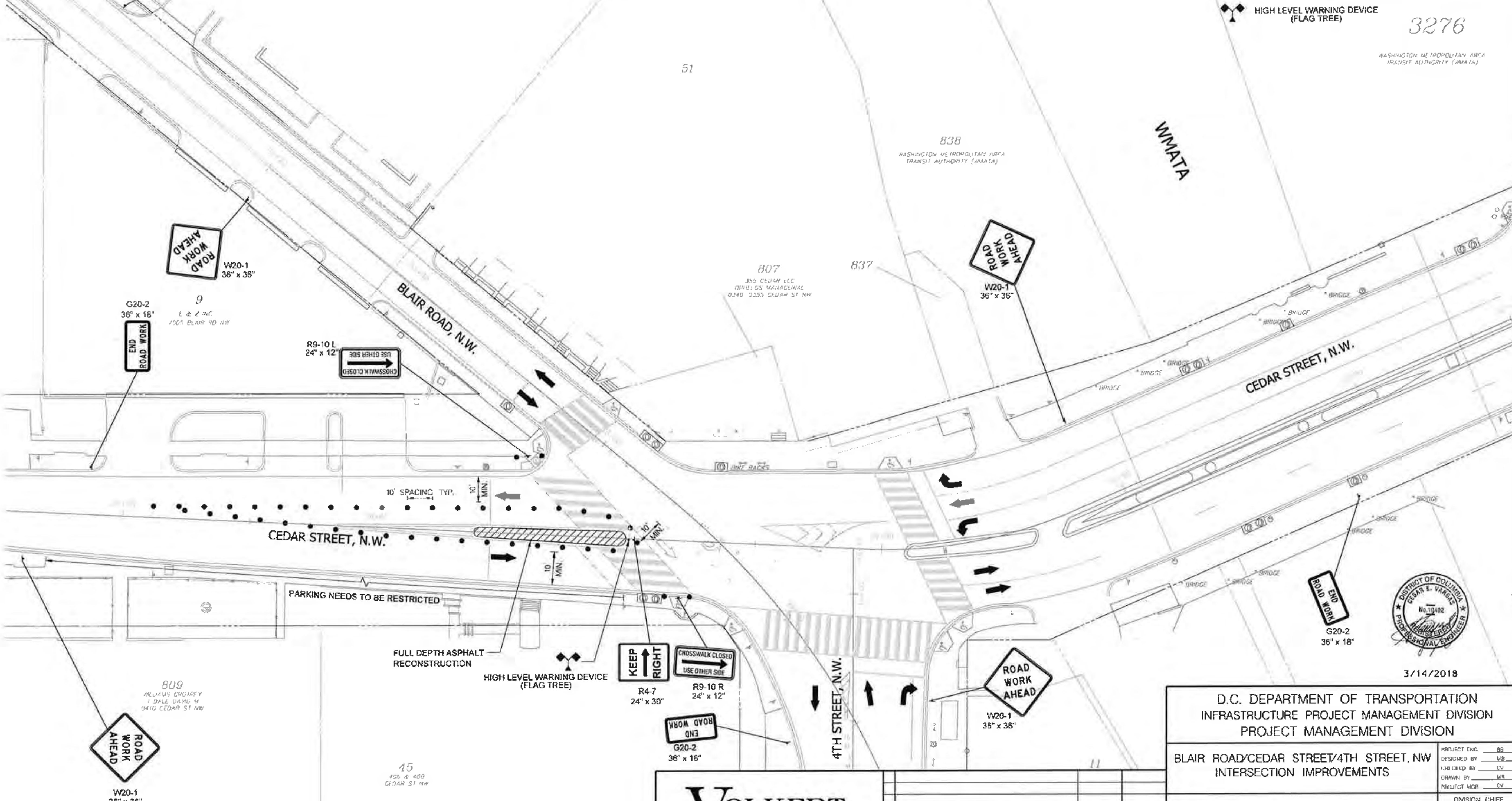
FHWA REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP 8888 (416)	42	75

SEQUENCE OF CONSTRUCTION

1. INSTALL SIGNS AS SHOWN ON THE PLAN
2. REMOVE INCONSISTENT PAVEMENT MARKINGS
3. PLACE TRAFFIC CONTROL DEVICES FOR THE WORK ZONE AS SHOWN ON THE PLAN
4. INSTALL TEMPORARY SIGNALS AND TEMPORARY LIGHTING
5. REMOVE EXISTING MEDIAN AND EXISTING LIGHTING AND SIGNALS
6. RECONSTRUCT FULL DEPTH PAVEMENT

MAINTENANCE OF TRAFFIC LEGEND

- CONSTRUCTION ZONE
- TEMPORARY TRAFFIC LANE & DIRECTION OF FLOW ARROWS
- TEMPORARY CONSTRUCTION SIGN
- TRAFFIC CHANNELIZING DEVICE
- TYPE III PVC BARRICADES (TYP.)
- ARROW PANEL BOARD
- ILLUMINATED FLASHING AMBER (CAUTION MODE), TYPE B OR C
- HIGH LEVEL WARNING DEVICE (FLAG TREE)



3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

PROJECT ENG. ____
DESIGNED BY MR
CHECKED BY CV
DRAWN BY MR
PROJECT MGR. CV

MAINTENANCE OF TRAFFIC PLAN
STAGE 1

DIVISION CHIEF
DATE
FILE

SHEET 42 OF 75

Thursday, September 13, 2018 AT 02:05 PM

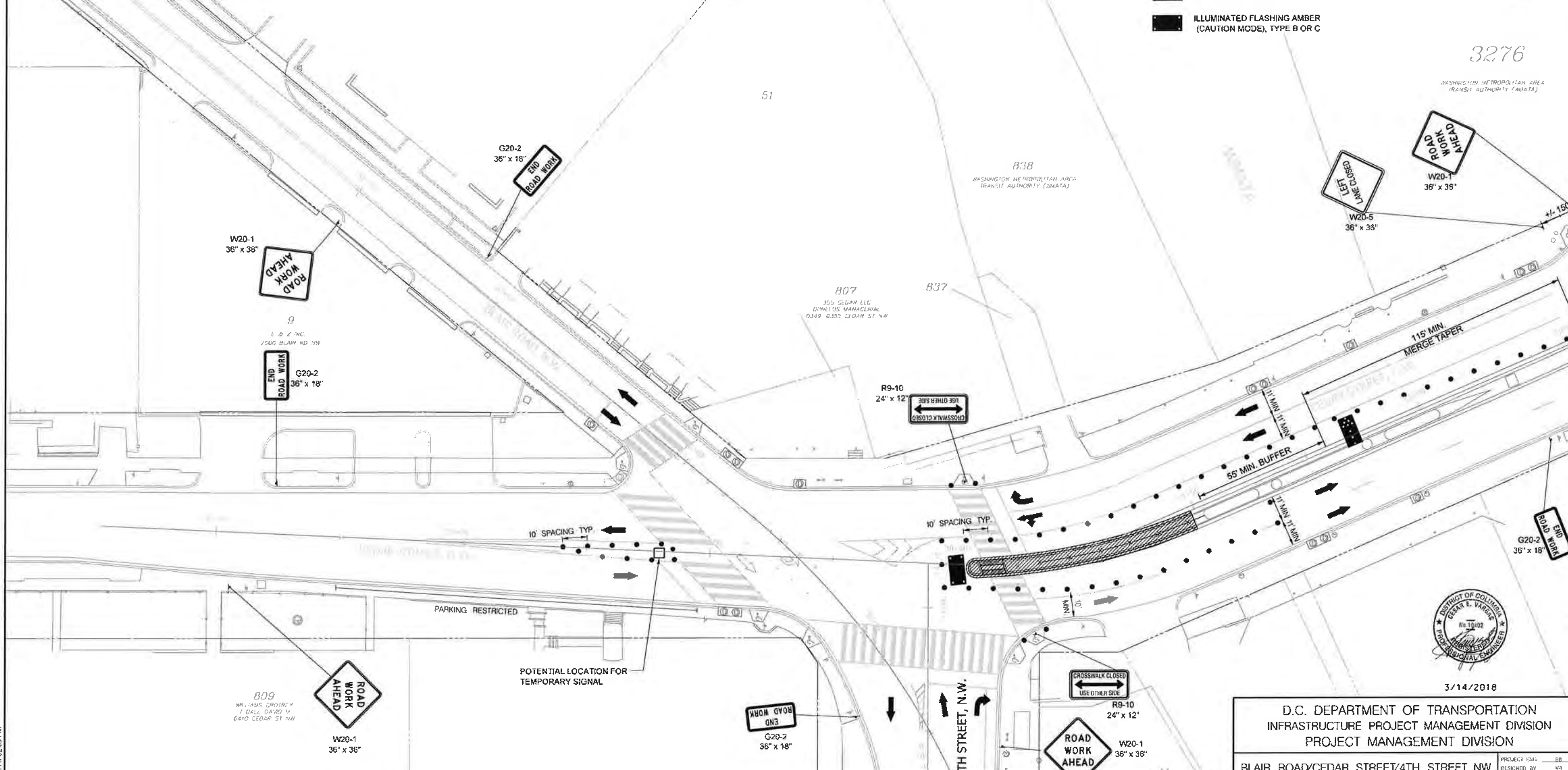
F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP 8888 (416)	43	75

SEQUENCE OF CONSTRUCTION

1. INSTALL SIGNS AS SHOWN ON THE PLAN
2. PLACE TRAFFIC CONTROL DEVICES FOR THE WORK ZONE AS SHOWN ON THE PLAN
3. INSTALL TEMPORARY SIGNALS AND TEMPORARY LIGHTING
4. REMOVE EXISTING CONCRETE MEDIAN AND CONSTRUCT NEW CONCRETE MEDIAN AND FENCE.

MAINTENANCE OF TRAFFIC LEGEND

- CONSTRUCTION ZONE
- TEMPORARY TRAFFIC LANE & DIRECTION OF FLOW ARROWS
- TEMPORARY CONSTRUCTION SIGN
- TRAFFIC CHANNELIZING DEVICE
- TYPE III PVC BARRICADES (TYP.)
- ARROW PANEL BOARD
- ILLUMINATED FLASHING AMBER (CAUTION MODE), TYPE B OR C



3/14/2018

SCALE: 1"=20'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

MAINTENANCE OF TRAFFIC
STAGE 2

DIVISION CHIEF
DATE
FILE
SHEET 43 OF 75

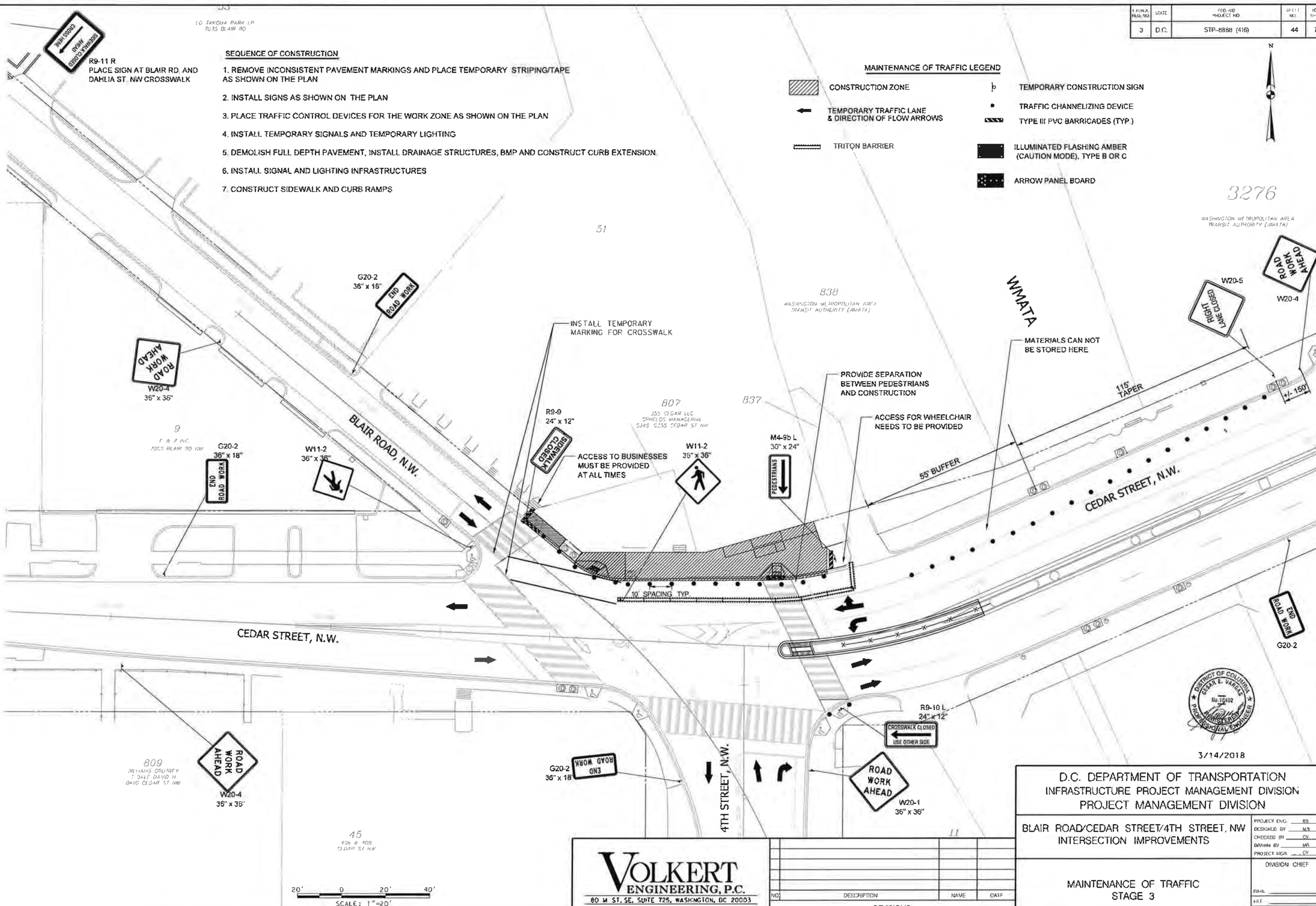
T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\043_pMT-P102_15690.dgn
Thursday, September 13, 2018 AT 02:05 PM

SEQUENCE OF CONSTRUCTION

1. REMOVE INCONSISTENT PAVEMENT MARKINGS AND PLACE TEMPORARY STRIPING/TAPE AS SHOWN ON THE PLAN
2. INSTALL SIGNS AS SHOWN ON THE PLAN
3. PLACE TRAFFIC CONTROL DEVICES FOR THE WORK ZONE AS SHOWN ON THE PLAN
4. INSTALL TEMPORARY SIGNALS AND TEMPORARY LIGHTING
5. DEMOLISH FULL DEPTH PAVEMENT, INSTALL DRAINAGE STRUCTURES, BMP AND CONSTRUCT CURB EXTENSION
6. INSTALL SIGNAL AND LIGHTING INFRASTRUCTURES
7. CONSTRUCT SIDEWALK AND CURB RAMPS

MAINTENANCE OF TRAFFIC LEGEND

- CONSTRUCTION ZONE
- TEMPORARY TRAFFIC LANE & DIRECTION OF FLOW ARROWS
- TRITON BARRIER
- TEMPORARY CONSTRUCTION SIGN
- TRAFFIC CHANNELIZING DEVICE
- TYPE III PVC BARRICADES (TYP.)
- ILLUMINATED FLASHING AMBER (CAUTION MODE), TYPE B OR C
- ARROW PANEL BOARD



DISTRICT OF COLUMBIA CESAR E. VARGAS No. 10402 REGISTERED PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROJECT ENG. ES
DESIGNED BY MA
CHECKED BY CV
DRAWN BY MR
PROJECT MGR. CV

DIVISION CHIEF

MAINTENANCE OF TRAFFIC STAGE 3

FHWA REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	45	75

SEQUENCE OF CONSTRUCTION

1. REMOVE INCONSISTENT PAVEMENT MARKINGS AND PLACE TEMPORARY STRIPING/TAPE AS SHOWN ON THE PLAN
2. INSTALL SIGNS AS SHOWN ON THE PLAN
3. PLACE TRAFFIC CONTROL DEVICES FOR THE WORK ZONE AS SHOWN ON THE PLAN
4. INSTALL TEMPORARY SIGNALS AND TEMPORARY LIGHTING
5. DEMOLISH FULL DEPTH PAVEMENT, INSTALL DRAINAGE STRUCTURES, BMP AND CONSTRUCT CURB EXTENSION.
6. INSTALL SIGNAL AND LIGHTING INFRASTRUCTURES
7. CONSTRUCT SIDEWALK AND CURB RAMPS

MAINTENANCE OF TRAFFIC LEGEND

- CONSTRUCTION ZONE
- TEMPORARY TRAFFIC LANE & DIRECTION OF FLOW ARROWS
- TEMPORARY CONSTRUCTION SIGN
- TRAFFIC CHANNELIZING DEVICE
- TYPE III PVC BARRICADES (TYP.)
- ARROW PANEL BOARD
- ILLUMINATED FLASHING AMBER (CAUTION MODE): TYPE B OR C

R9-11 L
24" x 16"
PLACE SIGN AT BLAIR RD. AND DAHLIA ST. NW CROSSWALK

R9-11 R
24" x 16"
PLACE SIGN AT 5TH ST. NW AND CEDAR ST. NW CROSSWALK

G20-2
36" x 18"

W20-1
36" x 36"

W20-2
36" x 36"

R9-9
24" x 12"

R9-10
24" x 12"

R9-10 R
24" x 12"

W1-4L
36" x 36"

W1-4R
36" x 36"

M4-9
30" x 24"

DOUBLE YELLOW TEMPORARY TAPE

TEMPORARY DASHED WHITE TAPE

40'

+/- 150'

10' SPACING TYP.

2' MIN.

11' MIN.

PARKING RESTRICTION

BLAIR ROAD, N.W.

CEDAR STREET, N.W.

4TH STREET, N.W.

SCALE: 1"=20'

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

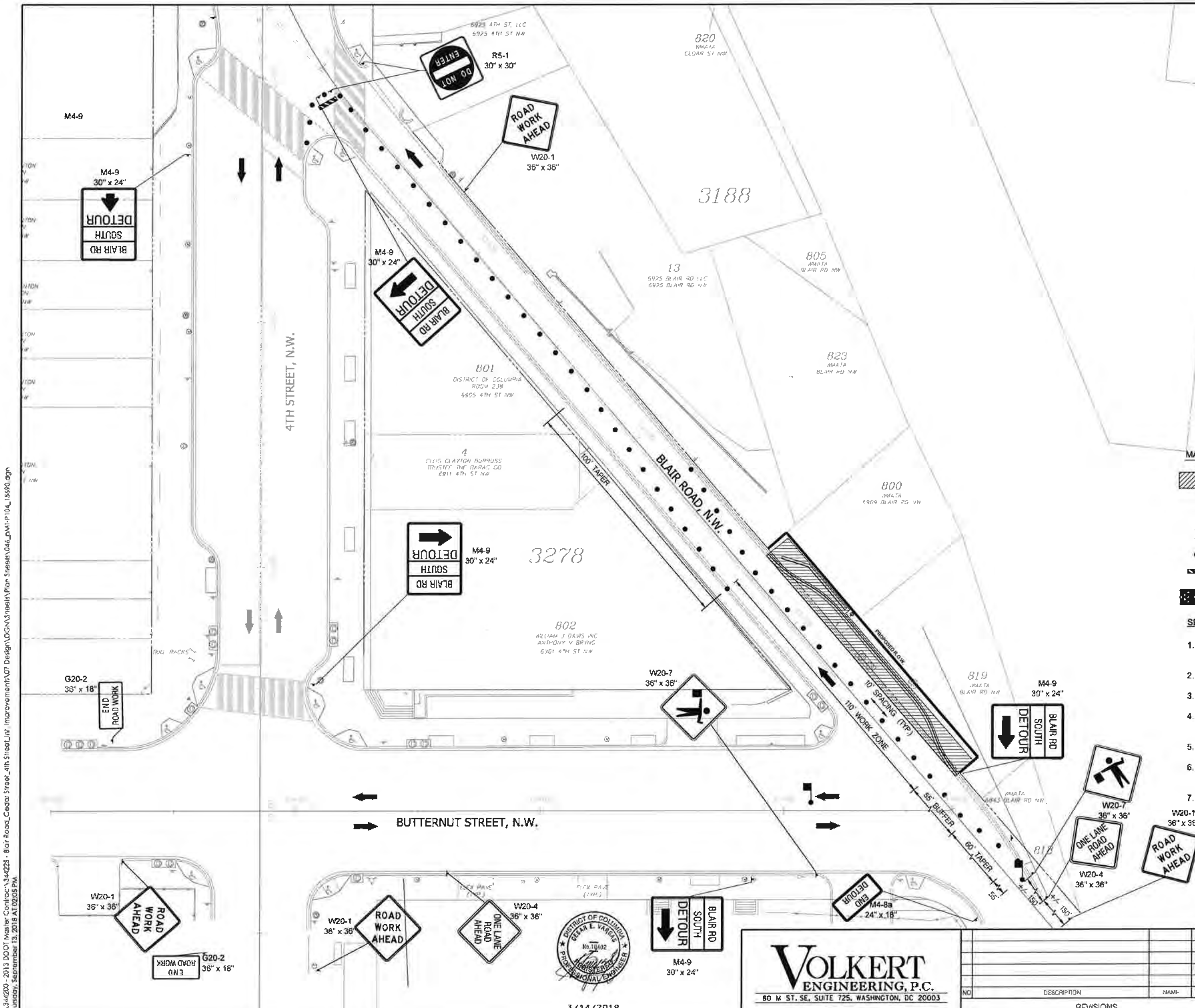
BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY MR
CHECKED BY CV
DRAWN BY MR
PROJECT MGR CV

MAINTENANCE OF TRAFFIC
STAGE 4
SHEET 1 OF 2

DIVISION CHIEF
DATE
FHWA
SHEET 45 OF 75

FHWA REG. NO.	STATE	FED AID PROJECT NO	SHEET NO	TOTAL SHEETS
3	D.C.	STP-8888 (416)	46	75



MAINTENANCE OF TRAFFIC LEGEND

- CONSTRUCTION ZONE
- TEMPORARY TRAFFIC LANE & DIRECTION OF FLOW ARROWS
- TEMPORARY CONSTRUCTION SIGN
- TRAFFIC CHANNELIZING DEVICE
- TYPE III PVC BARRICADES (TYP.)
- ARROW PANEL BOARD

SEQUENCE OF CONSTRUCTION

1. REMOVE INCONSISTENT PAVEMENT MARKINGS AND PLACE TEMPORARY STRIPING/TAPE AS SHOWN ON THE PLAN
2. INSTALL SIGNS AS SHOWN ON THE PLAN
3. PLACE TRAFFIC CONTROL DEVICES FOR THE WORK ZONE AS SHOWN ON THE PLAN
4. DEMOLISH FULL DEPTH PAVEMENT, CURB AND GUTTER AND REMOVE EXISTING DRAINAGE STRUCTURE
5. INSTALL DRAINAGE STRUCTURES
6. INSTALL LIGHTING AND TRAFFIC SIGNAL CONDUITS, MANHOLES AND POLES AS SHOWN AT BUTTERNUT ST. AND BLAIR RD. NW.
7. CONSTRUCT CURB AND GUTTER, SIDEWALK AND CURB RAMPS

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY VR
CHECKED BY CV
DRAWN BY VR
PROJECT MGR CV

MAINTENANCE OF TRAFFIC
STAGE 4
SHEET 2 OF 2

DIVISION CHIEF
DATE
FILE
SHEET 46 OF 75

I:\34420 - 2013 DDOT Master Contract\34425 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\046_pMT-P104_15590.dgn
Thursday, September 13, 2018 AT 02:05 PM

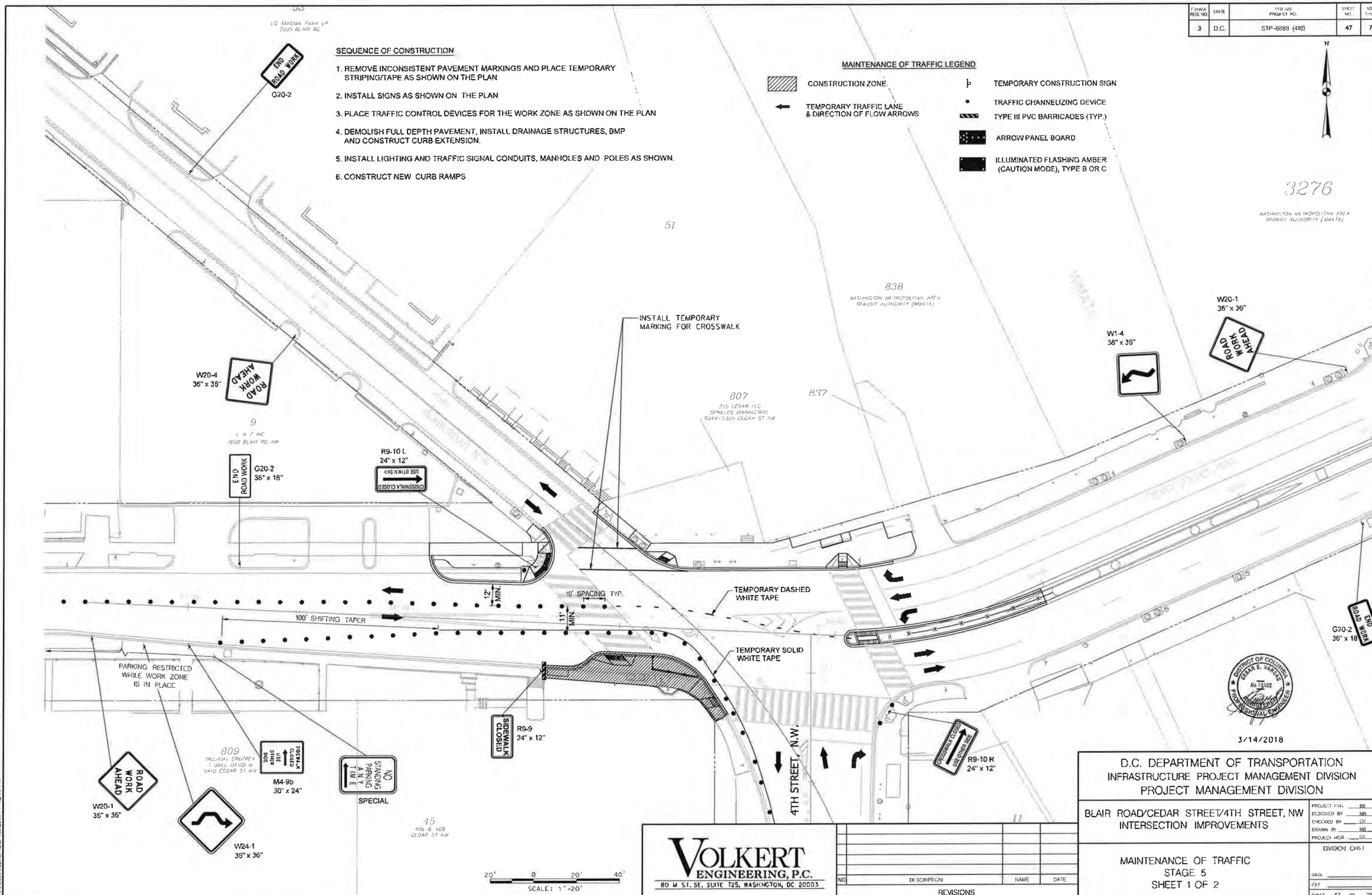
FHWA REG. NO.	STATE	FED AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	47	75

SEQUENCE OF CONSTRUCTION

1. REMOVE INCONSISTENT PAVEMENT MARKINGS AND PLACE TEMPORARY STRIPING/TAPE AS SHOWN ON THE PLAN
2. INSTALL SIGNS AS SHOWN ON THE PLAN
3. PLACE TRAFFIC CONTROL DEVICES FOR THE WORK ZONE AS SHOWN ON THE PLAN
4. DEMOLISH FULL DEPTH PAVEMENT, INSTALL DRAINAGE STRUCTURES, BMP AND CONSTRUCT CURB EXTENSION.
5. INSTALL LIGHTING AND TRAFFIC SIGNAL CONDUITS, MANHOLES AND POLES AS SHOWN.
6. CONSTRUCT NEW CURB RAMPS

MAINTENANCE OF TRAFFIC LEGEND

- CONSTRUCTION ZONE
- TEMPORARY TRAFFIC LANE & DIRECTION OF FLOW ARROWS
- TEMPORARY CONSTRUCTION SIGN
- TRAFFIC CHANNELIZING DEVICE
- TYPE III PVC BARRICADES (TYP.)
- ARROW PANEL BOARD
- ILLUMINATED FLASHING AMBER (CAUTION MODE), TYPE B OR C



VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY MB
CHECKED BY CV
DRAWN BY MB
PROJECT MGR CV

MAINTENANCE OF TRAFFIC
STAGE 5
SHEET 1 OF 2

DIVISION CHIEF
DATE
FILE
SHEET 47 OF 75

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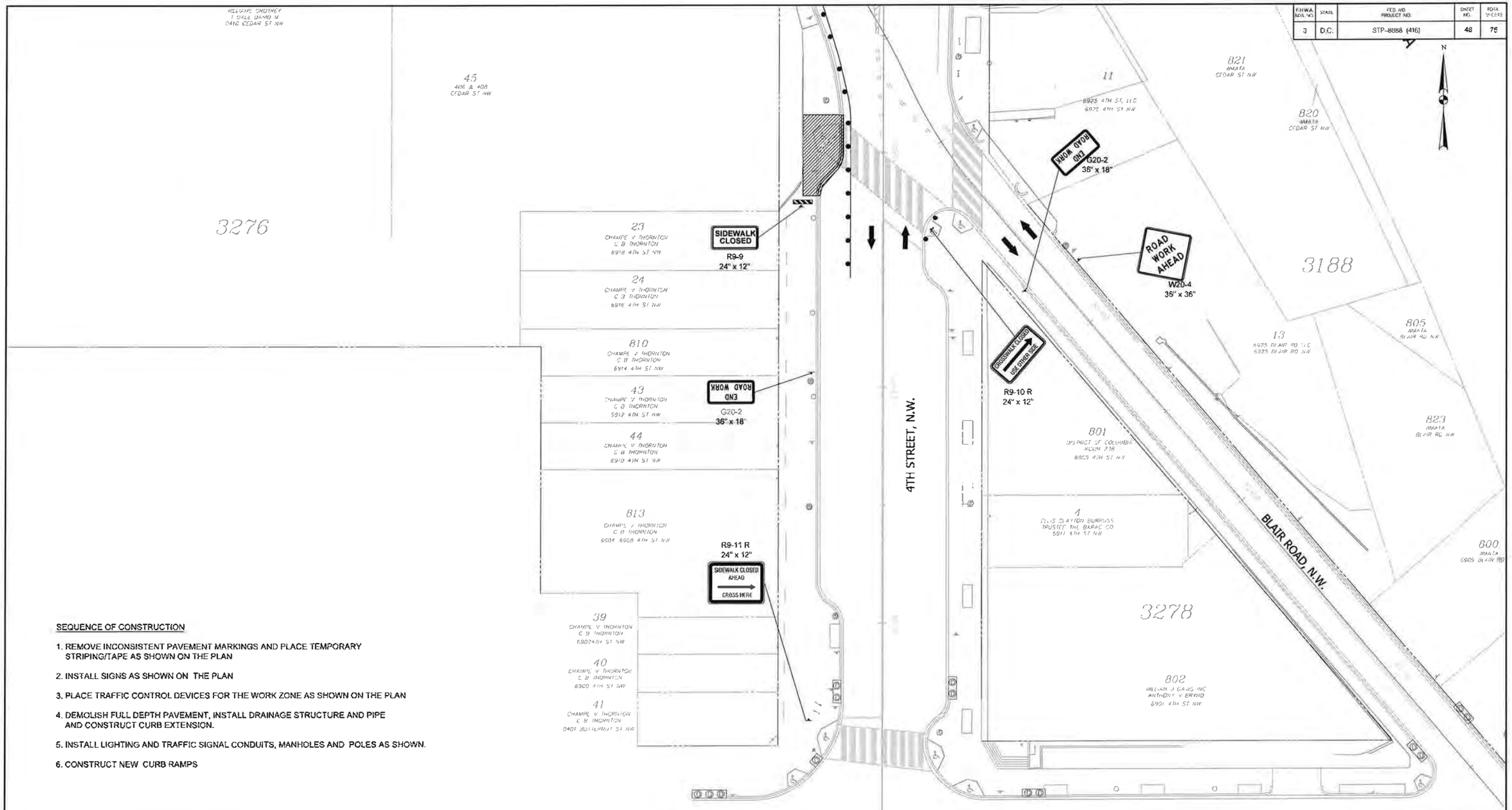
Thursday, September 13, 2018 AT 02:05 PM

FHWA REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTA SHEETS
3	D.C.	STP-8888 (416)	48	75



SEQUENCE OF CONSTRUCTION

1. REMOVE INCONSISTENT PAVEMENT MARKINGS AND PLACE TEMPORARY STRIPING/TAPE AS SHOWN ON THE PLAN
2. INSTALL SIGNS AS SHOWN ON THE PLAN
3. PLACE TRAFFIC CONTROL DEVICES FOR THE WORK ZONE AS SHOWN ON THE PLAN
4. DEMOLISH FULL DEPTH PAVEMENT, INSTALL DRAINAGE STRUCTURE AND PIPE AND CONSTRUCT CURB EXTENSION.
5. INSTALL LIGHTING AND TRAFFIC SIGNAL CONDUITS, MANHOLES AND POLES AS SHOWN.
6. CONSTRUCT NEW CURB RAMPS

MAINTENANCE OF TRAFFIC LEGEND

- CONSTRUCTION ZONE
- TEMPORARY TRAFFIC LANE & DIRECTION OF FLOW ARROWS
- TEMPORARY CONSTRUCTION SIGN
- TRAFFIC CHANNELIZING DEVICE
- TYPE III PVC BARRICADES (TYP.)
- ARROW PANEL BOARD
- ILLUMINATED FLASHING AMBER (CAUTION MODE), TYPE B OR C

DISTRICT OF COLUMBIA · GERARD E. VARGAS · No. 10402 · REGISTERED PROFESSIONAL ENGINEER

3/14/2018

20' 0 20' 40'
SCALE: 1"=20'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

MAINTENANCE OF TRAFFIC
STAGE 5
SHEET 2 OF 2

PROJECT ENG. BB
DESIGNED BY MR
CHECKED BY KV
DRAWN BY MH
PROJECT MGR. CV

DIVISION CHIEF
DATE
FILE
SHEET 48 OF 75

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Thursday, September 13, 2018 AT 02:05 PM

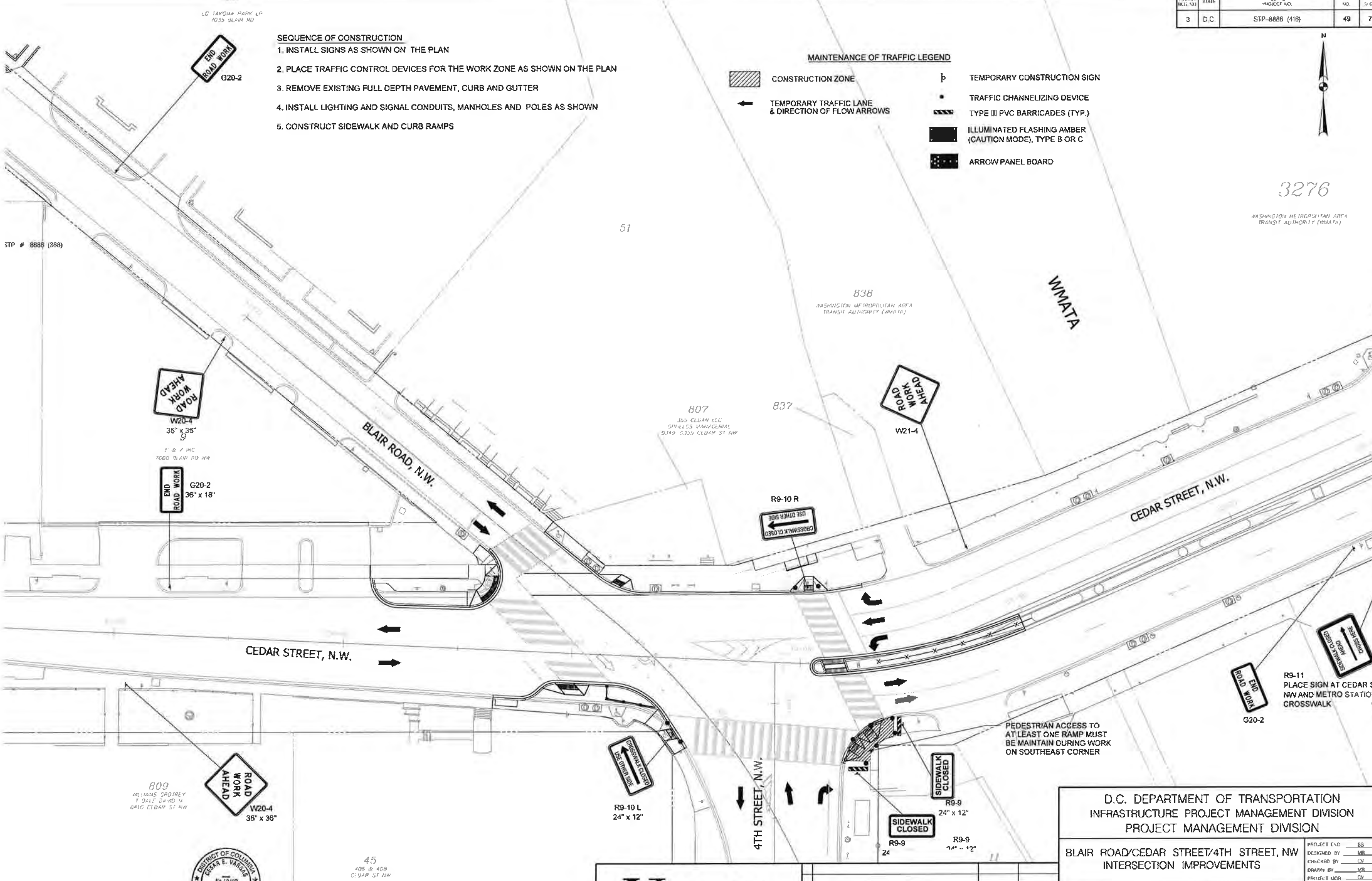
F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	49	75

SEQUENCE OF CONSTRUCTION

1. INSTALL SIGNS AS SHOWN ON THE PLAN
2. PLACE TRAFFIC CONTROL DEVICES FOR THE WORK ZONE AS SHOWN ON THE PLAN
3. REMOVE EXISTING FULL DEPTH PAVEMENT, CURB AND GUTTER
4. INSTALL LIGHTING AND SIGNAL CONDUITS, MANHOLES AND POLES AS SHOWN
5. CONSTRUCT SIDEWALK AND CURB RAMPS

MAINTENANCE OF TRAFFIC LEGEND

- CONSTRUCTION ZONE
- TEMPORARY TRAFFIC LANE & DIRECTION OF FLOW ARROWS
- TEMPORARY CONSTRUCTION SIGN
- TRAFFIC CHANNELIZING DEVICE
- TYPE III PVC BARRICADES (TYP.)
- ILLUMINATED FLASHING AMBER (CAUTION MODE), TYPE B OR C
- ARROW PANEL BOARD



3/14/2018

SCALE: 1"=20'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY MB
CHECKED BY CV
DRAWN BY VR
PROJECT MGR. CV

MAINTENANCE OF TRAFFIC
STAGE 6

DIVISION CHIEF
DATE
FILE

FHWA REGION	STATE	FED AID PROJECT NO	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	50	75

PHASE 7A

PHASE 7B

SEE DETAILS FOR SIDEWALK PHASING

4TH STREET, N.W.

BLAIR ROAD, N.W.

BUTTERNUT STREET, N.W.

SIDEWALK CLOSED

R9-9 24" x 12"

R3-4 24" x 24"

ROAD WORK AHEAD W20-1 36" x 36"

END ROAD WORK G20-2 36" x 18"

SIDEWALK CLOSED AHEAD CROSS HERE R9-11 R 24" x 12"

DO NOT ENTER R5-1

10' MIN.

55' MIN.

10' SPACING TYP.

45 406 & 408 CEDAR ST NW

23 CHAMPE V THORNTON C B THORNTON 6918 4TH ST NW

24 CHAMPE V THORNTON C B THORNTON 6916 4TH ST NW

810 CHAMPE V THORNTON C B THORNTON 6914 4TH ST NW

43 CHAMPE V THORNTON C B THORNTON 6912 4TH ST NW

44 CHAMPE V THORNTON C B THORNTON 6910 4TH ST NW

813 CHAMPE V THORNTON C B THORNTON 5304 6908 4TH ST NW

39 CHAMPE V THORNTON C B THORNTON 6904 4TH ST NW

40 CHAMPE V THORNTON C B THORNTON 6906 4TH ST NW

41 CHAMPE V THORNTON C B THORNTON 6401 BUTTERNUT ST NW

821 AMATA CEDAR ST NW

820 AMATA CEDAR ST NW

3188

13 6925 BLAIR RD LLC 6925 BLAIR RD NW

805 AMATA BLAIR RD NW

823 AMATA BLAIR RD NW

801 DISTRICT OF COLUMBIA ROOM 208 6900 4TH ST NW

4 ELLIS CLAYTON BURRUSS TRUSTEE INC BARAC CO 6911 4TH ST NW

800 AMATA 6909 BLAIR RD

3278

802 WILLIAM J DAVIS INC ANTHONY V BRUNO 6901 4TH ST NW

SEQUENCE OF CONSTRUCTION

1. REMOVE INCONSISTENT PAVEMENT MARKINGS AND PLACE TEMPORARY STRIPING/TAPE AS SHOWN ON THE PLAN
2. INSTALL SIGNS AS SHOWN ON THE PLAN
3. PLACE TRAFFIC CONTROL DEVICES FOR THE WORK ZONE AS SHOWN ON THE PLAN
4. REMOVE EXISTING FULL DEPTH PAVEMENT, CURB AND GUTTER
5. INSTALL LIGHTING AND TRAFFIC SIGNAL CONDUITS, MANHOLES AND POLES AS SHOWN
6. CONSTRUCT BULB OUT, SIDEWALK AND CURB RAMPS

MAINTENANCE OF TRAFFIC LEGEND

- CONSTRUCTION ZONE
- TEMPORARY TRAFFIC LANE & DIRECTION OF FLOW ARROWS
- ARROW PANEL BOARD
- TEMPORARY CONSTRUCTION SIGN
- TRAFFIC CHANNELIZING DEVICE
- TYPE III PVC BARRICADES (TYP.)
- ILLUMINATED FLASHING AMBER (CAUTION MODE), TYPE B OR C

DISTRICT OF COLUMBIA CESAR E. VARGAS No. 10402 REGISTERED PROFESSIONAL ENGINEER

3/14/2018

SCALE: 1"=20'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

MAINTENANCE OF TRAFFIC STAGE 7

PROJECT ENG BB
DESIGNED BY MB
CHECKED BY CV
DRAWN BY MB
PROJECT MGR CV

DIVISION CHIEF

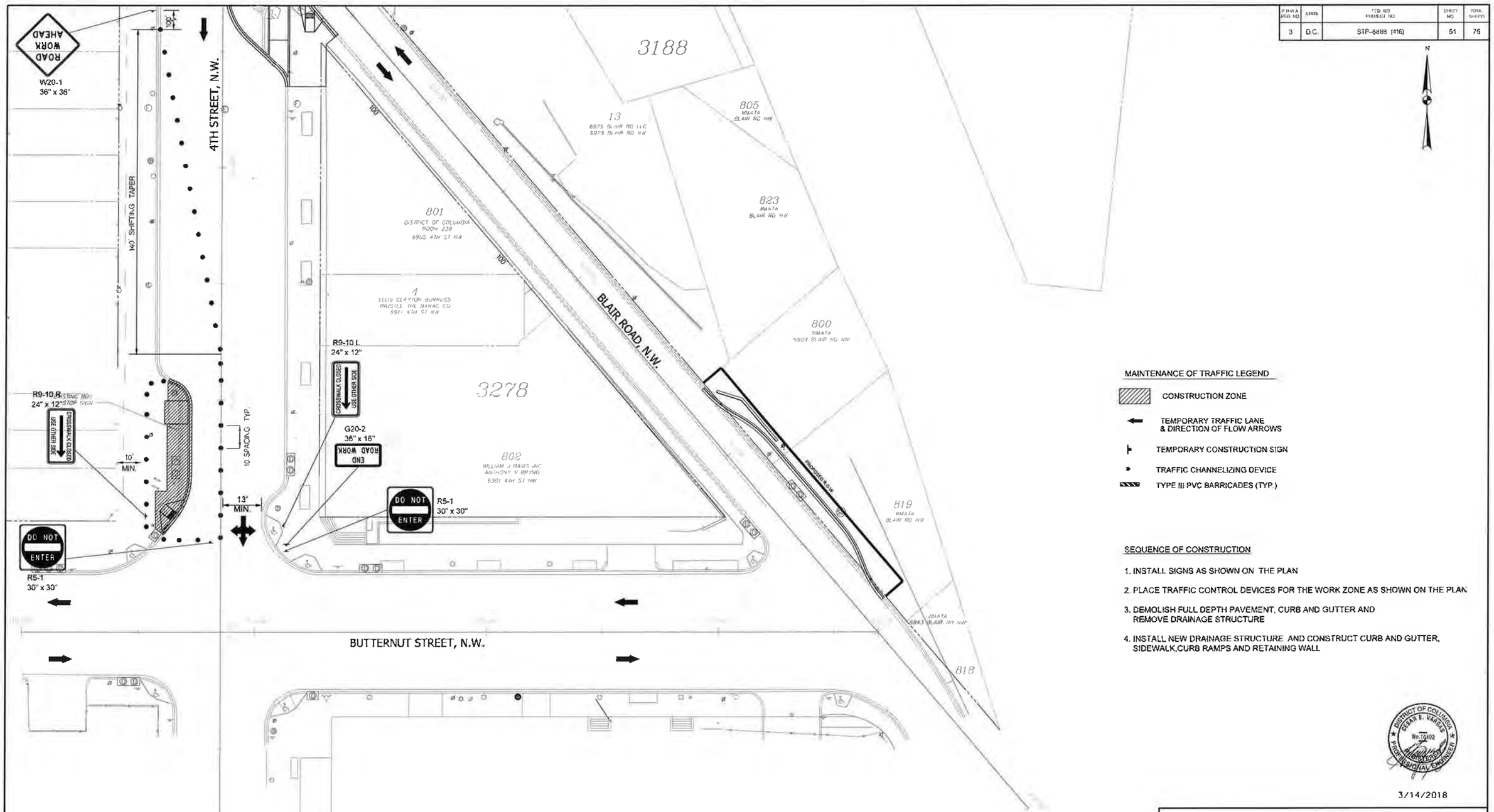
DATE

FILE

SHEET 50 OF 75

I:\34200 - 2013 DDOT Master Contract\34225 - Blair Road_Cedar Street_4th Street_Int Improvements\07 Design\DGN\Sheets\Plan Sheets\050_pMT-P1058_15490.dgn
Thursday, September 13, 2018 AT 02:06 PM

FHWA PROJ NO	STATE	FED AID PROJECT NO	SHEET NO	TOTAL SHEETS
3	D.C.	STP-8888 (416)	51	75



MAINTENANCE OF TRAFFIC LEGEND

- CONSTRUCTION ZONE
- TEMPORARY TRAFFIC LANE & DIRECTION OF FLOW ARROWS
- TEMPORARY CONSTRUCTION SIGN
- TRAFFIC CHANNELIZING DEVICE
- TYPE III PVC BARRICADES (TYP.)

SEQUENCE OF CONSTRUCTION

1. INSTALL SIGNS AS SHOWN ON THE PLAN
2. PLACE TRAFFIC CONTROL DEVICES FOR THE WORK ZONE AS SHOWN ON THE PLAN
3. DEMOLISH FULL DEPTH PAVEMENT, CURB AND GUTTER AND REMOVE DRAINAGE STRUCTURE
4. INSTALL NEW DRAINAGE STRUCTURE AND CONSTRUCT CURB AND GUTTER, SIDEWALK,CURB RAMPS AND RETAINING WALL

DISTRICT OF COLUMBIA
CESAR E. VARGAS
No. 16402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY MR
CHECKED BY CV
DRAWN BY MR
PROJECT MGR. CV

MAINTENANCE OF TRAFFIC
STAGE 8

DIVISION CHIEF
DATE
FILE
SHEET 51 OF 75

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Thursday, September 13, 2018 AT 02:06 PM

1. DOEE SOIL EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. FOLLOWING INITIAL LAND DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR INTERIM STABILIZATION MUST BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS FOR THE SURFACES OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND SLOPES GREATER THAN THREE (3) HORIZONTAL TO ONE (1) VERTICAL (3:1); AND FOURTEEN (14) DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. THESE REQUIREMENTS DO NOT APPLY TO AREAS SHOWN ON THE PLAN THAT ARE USED FOR MATERIAL STORAGE OTHER THAN STOCKPILING, OR FOR THOSE AREAS ON THE PLAN WHERE ACTUAL CONSTRUCTION ACTIVITIES ARE BEING PERFORMED. MAINTENANCE SHALL BE PERFORMED AS NECESSARY SO THAT STABILIZED AREAS CONTINUOUSLY MEET THE APPROPRIATE REQUIREMENTS OF THE DISTRICT OF COLUMBIA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (ESC). [21 DCMR ß542.9 (C)]
2. ESC MEASURES SHALL BE IN PLACE BEFORE AND DURING LAND DISTURBANCE. [21 DCMR ß543.6]
3. CONTACT DOEE INSPECTION (202) 535-2977 TO SCHEDULE A PRE CONSTRUCTION MEETING AT LEAST THREE (3) BUSINESS DAYS BEFORE THE COMMENCEMENT OF A LAND -DISTURBING ACTIVITY. [21 DCMR ß503.7 (A)]
4. A COPY OF THE APPROVED PLAN SET WILL BE MAINTAINED AT THE CONSTRUCTION SITE FROM THE DATE THAT CONSTRUCTION ACTIVITIES BEGIN TO THE DATE OF FINAL STABILIZATION AND WILL BE AVAILABLE FOR DOEE INSPECTORS. [21 DCMR ß542.15]
5. ESC MEASURES SHALL BE IN PLACE TO STABILIZE AN EXPOSED AREA AS SOON AS PRACTICABLE AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED BUT NO LATER THAN FOURTEEN (14) DAYS FOLLOWING CESSATION, EXCEPT THAT TEMPORARY OR PERMANENT STABILIZATION SHALL BE IN PLACE AT THE END OF EACH DAY OF UNDERGROUND UTILITY WORK THAT IS NOT CONTAINED WITHIN A LARGER DEVELOPMENT SITE. [21 DCMR ß543.7]
6. STOCKPILED MATERIAL BEING ACTIVELY USED DURING A PHASE OF CONSTRUCTION SHALL BE PROTECTED AGAINST EROSION BY ESTABLISHING AND MAINTAINING PERIMETER CONTROLS AROUND THE STOCKPILE. [21 DCMR ß543.16 (A)]
7. STOCKPILED MATERIAL NOT BEING ACTIVELY USED OR ADDED TO SHALL BE STABILIZED WITH MULCH, TEMPORARY VEGETATION, HYDRO-SEED OR PLASTIC WITHIN FIFTEEN (15) CALENDAR DAYS AFTER ITS LAST USE OR ADDITION. [21 DCMR ß543.16 (B)]
8. PROTECT BEST MANAGEMENT PRACTICES FROM SEDIMENTATION AND OTHER DAMAGE DURING CONSTRUCTION FOR PROPER POST CONSTRUCTION OPERATION. [21 DCMR ß543.5]
9. REQUEST A DOEE INSPECTORIS APPROVAL AFTER THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. [21 DCMR ß542.12 (A)]
10. REQUEST A DOEE INSPECTORIS APPROVAL AFTER FINAL STABILIZATION OF THE SITE AND BEFORE THE REMOVAL OF EROSION AND SEDIMENT CONTROLS. [21 DCMR ß542.12 (B)]
11. FINAL STABILIZATION MEANS THAT ALL LAND -DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND EITHER OF THE FOLLOWING TWO CRITERIA HAVE BEEN MET: (1) A UNIFORM (FOR EXAMPLE, EVENLY DISTRIBUTED, WITHOUT LARGE BARE AREAS) PERENNIAL VEGETATIVE COVER WITH A DENSITY OF SEVENTY PERCENT (70%) OF THE NATIVE BACKGROUND VEGETATIVE COVER FOR THE AREA HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, OR (2) EQUIVALENT PERMANENT STABILIZATION MEASURES HAVE BEEN EMPLOYED (SUCH AS THE USE OF RIP RAP, GABIONS, OR GEOTEXTILES). [21 DCMR ß 542.12 (B.1, B.2)]
12. FOLLOW THE REQUIREMENTS OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY APPROVED STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND MAINTAIN A LEGIBLE COPY OF THIS SWPPP ON SITE [21 DCMR ß543.10 (B)]
13. POST A SIGN ON SITE THAT NOTIFIES THE PUBLIC TO CONTACT DOEE IN THE EVENT OF EROSION OR OTHER POLLUTION. THIS SIGN MUST BE IN PLAIN VIEW OF AND READABLE BY THE PUBLIC AT A DISTANCE OF TWELVE FEET (12 FT). THE SIGN WILL BE PLACED AT EACH ENTRANCE TO THE SITE OR AS DIRECTED BY THE DOEE INSPECTOR. THE SIGN WILL PROVIDE DOEE'S TELEPHONE NUMBER (202-535-2977) AND E-MAIL ADDRESS. [21 DCMR ß543.22]

2. SITE DESCRIPTION

THE INTENT OF THIS PROJECT IS TO PROVIDE AN INTERSECTION DESIGN THAT ALLOWS FOR THE SAFE MOBILITY OF VEHICLES, BICYCLISTS AND PEDESTRIANS WHILE ADDRESSING THE TRAFFIC AND PEDESTRIAN ISSUES OF THE CURRENT CONDITION.

1. LOCATION/AREA CONSIDERATIONS:

GENERAL:

NEW DEVELOPMENT: SPRING PLACE CURRENT CONSTRUCTION AT CARROLL STREET TRUCK ROUTE.
SIGN AT BLAIR/EASTERN, NO SIGN AT BLAIR/GEORGIA NEW PARK DESIGN (ACROSS FROM LIQUOR STORE)

DESIGN:

1. SW CORNER OF CEDAR STREET/BLAIR ROAD BUSH/TREE REMOVAL, IMPROVE LINE OF SIGHT (FOR VEHICLES), GENERAL SAFETY OF PEDESTRIANS
2. INNOVATIVE BARRIERS TO KEEP PEDESTRIANS SAFE AND PROTECTED SIGNAL AT 4TH STREET /BLAIR ROAD
3. CRITICAL SIGNAL OPERATIONS; NEW REQUIREMENTS (INTERVAL TO PHASE BASE SIGNALIZATION)
4. LIGHTING FOR DESIGN (SAFETY); WASHINGTON GLOBES

3. EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS FOR DUST CONTROL:

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND MAINTAIN THE PROJECT SITE AS TO MINIMIZE THE CREATION AND DISPERSIONS OF DUST, DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT SITE.
2. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL AND OTHER DELETERIOUS MATERIAL TO BE USED FOR ON-SITE DUST CONTROL.
3. THE CONTRACTOR SHALL SUPPLY WATER SPRAYING EQUIPMENT CAPABLE OF ACCESSING ALL WORK AREAS.
4. THE CONTRACTOR SHALL IMPLEMENT STRICT DUST CONTROL MEASURES DURING ACTIVE CONSTRUCTION PERIODS ON-SITE. THESE CONTROL MEASURES WILL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED A MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST EMISSIONS.
5. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACES, THE CONTRACTOR SHALL:
   - A. APPLY WATER WITH EQUIPMENT CONSISTING OF TANK, SPRAY BAR, PUMP WITH DISCHARGE PRESSURE GAUGE;
   - B. ARRANGE SPRAY BAR HEIGHT, NOZZLE SPACING AND SPRAY PATTERN TO PROVIDE COMPLETE COVERAGE OF GROUND WITH WATER.
   - C. DISPERSE WATER THROUGH NOZZLES ON SPRAY BAR AT 20 PSI (137.8 KPa) MINIMUM. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING.
6. FOR WATER APPLICATION TO SOIL SURFACES DURING DEMOLITION AND/OR EXCAVATION, THE CONTRACTOR SHALL:
   - A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, PUMP WITH DISCHARGE GAUGE, HOSES AND MIST NOZZLES;
   - B. LOCATE TANK AND SPRAYING EQUIPMENT SO THAT THE ENTIRE EXCAVATION AREA CAN BE MISTED WITHOUT INTERFERING WITH DEMOLITION AND/OR EXCAVATION EQUIPMENT OR OPERATIONS. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING;
   - C. APPLY WATER SPRAY IN A MANNER TO PREVENT MOVEMENT OF SPRAY BEYOND THE SITE BOUNDARIES.

4. SEQUENCE OF CONSTRUCTION

1. PRIOR TO ANY REMOVAL OR EXCAVATION, CONSTRUCT ANY REQUIRED PERIMETER CONTROLS, AS DIRECTED BY THE ENGINEER TO ENSURE THAT DISTURBED SEDIMENT DOES NOT LEAVE THE PROJECT SITE.
2. OTHER EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED NO LATER THAN THE FIRST PHASE OF LAND GRADING
3. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED AS SOON AS NEW SITE- RELATED RUNOFF IS DETECTED AND EMPLOYED AT ALL TIMES TO PROTECT INLETS OR STORM SEWERS BELOW SILT -PRODUCING AREAS;
4. IMMEDIATELY AFTER DEBRIS BASINS, DIVERSIONS, WATERWAYS, AND RELATED STRUCTURES ARE BUILT, THEY MUST BE SEEDED AND MULCHED OR HAVE A SOD AND STABILIZATION BLANKET INSTALLED;
5. NO LATER THAN THE FIRST DAY OF CONSTRUCTION, SITE ACCESS MEASURES MUST BE INSTALLED TO MINIMIZE OFF- SITE VEHICLE TRACKING OF SEDIMENTS. EACH CONSTRUCTION ENTRANCE MUST BE STABILIZED AND INCLUDE EACH ADDITIONAL MEASURES REQUIRED TO KEEP SEDIMENT FROM BEING CARRIED ONTO PUBLIC STREETS BY CONSTRUCTION VEHICLES AND WASHED INTO A STORM DRAIN OR WATERWAYS;
6. REMOVE OFF- SITE ACCUMULATIONS OF SEDIMENT DAILY DURING CONSTRUCTION AND IMMEDIATELY AT THE REQUEST OF A DOEE INSPECTOR;
7. PERFORM ROUTINE MAINTENANCE TO PREVENT ANY NEW DESTABILIZED AREAS.

EARTHWORK QUANTITIES		
AREA	CUT	FILL
BMP 1	42 CU. YD	42 CU. YD
BMP 2	23 CU. YD	23 CU. YD
BLAIR ROAD COPING WALL	75 CU. YD	2 CU. YD
4TH ST CURB EXTENSION	0 CU. YD	21 CU. YD
TOTAL	141 CU. YD	88 CU. YD

DISTURBED AREA	
AREA ID	AREA
AREA 1	843 SQ. FT
AREA 2	284 SQ. FT
AREA 3	1012 SQ. FT
AREA 4	1858 SQ. FT
AREA 5	748 SQ. FT
AREA 6	207 SQ. FT
AREA 7	178 SQ. FT
AREA 8	1717 SQ. FT
AREA 9	514 SQ. FT
AREA 10	683 SQ. FT
AREA 11	1170 SQ. FT
TOTAL	9214 SQ. FT

3/14/2018

5. EROSION AND TEMPORARY SEEDING, SODDING AND MULCHING

1. WHEN CONDUCTING UNDERGROUND UTILITY WORK, DO NOT OPEN MORE THAN FIVE HUNDRED LINEAR FEET (500-ft) OF TRENCH AT ONE TIME;
2. FILTER WATER PUMPED OUT OF TRENCH EXCAVATIONS PRIOR TO DISCHARGING TO THE STORM SEWER SEWER SYSTEM
3. PLACE EXCAVATED MATERIAL FOR UTILITY WORK ON THE UPHILL SIDE OF A TRENCH;
4. INSTALL INTERIM OR PERMANENT STABILIZATION IMMEDIATELY AFTER A UTILITY TRENCH IS REFILLED;
5. USE MULCH AND MATTING ON EXCAVATED MATERIAL TO MINIMIZE THEIR EROSION WHEN NATURAL OR ARTIFICIAL GRASS FILTER STRIPS ARE INSTALLED TO RECEIVE STORMWATER RUNOFF FROM THE EXCAVATED MATERIALS

AREA OF DISTURBANCE FOR THE RECONSTRUCTION IS APPROXIMATELY 8964 S.F.

6. 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 ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

II. SODDING

CLASS OF TURF GRASS SOD SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED OR MARYLAND OR VIRGINIA 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.

III. 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, OVER SEED 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.

7. STORMWATER MANAGEMENT PLAN (SWMP) GOOD HOUSEKEEPING STAMP NOTES

FUELS AND OILS

ON-SITE REFUELING WILL BE CONDUCTED IN A DEDICATED LOCATION AWAY FROM ACCESS TO SURFACE WATERS. INSTALL CONTAINMENT BERMS AND, OR SECONDARY CONTAINMENTS AROUND REFUELING AREAS AND STORAGE TANKS. SPILLS WILL BE CLEANED UP IMMEDIATELY AND CONTAMINATED SOILS DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL AND DISTRICT OF COLUMBIA REGULATIONS. PETROLEUM PRODUCTS WILL BE STORED IN CLEARLY LABELED TIGHTLY SEALED CONTAINERS. ALL VEHICLES ON SITE WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE ACTIVITIES. ANY ASPHALT SUBSTANCES USED ON SITE WILL BE APPLIED ACCORDING TO MANUFACTURERIS RECOMMENDATIONS. SPILL KITS WILL BE INCLUDED WITH ALL FUELING SOURCES AND MAINTENANCE ACTIVITIES.

SOLID WASTE.

NO SOLID MATERIALS SHALL BE DISCHARGED TO SURFACE WATER. SOLID MATERIALS INCLUDING BUILDING MATERIALS, GARBAGE AND PAINT DEBRIS SHALL BE CLEANED UP DAILY AND DEPOSITED INTO DUMPSTERS, WHICH WILL BE PERIODICALLY REMOVED AND DEPOSITED INTO A LANDFILL.

ABRASIVE BLASTING.

WATER BLASTING, SANDBLASTING, AND OTHER FORMS OF ABRASIVE BLASTING ON PAINTED SURFACES BUILT PRIOR TO 1978 MAY ONLY BE PERFORMED IF AN EFFECTIVE CONTAINMENT SYSTEM PREVENTS DISPERSAL OF PAINT DEBRIS.

FERTILIZER.

FERTILIZERS WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER, WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER, AND STORED IN A COVERED SHED. PARTIALLY USED BAGS WILL BE TRANSFERRED TO A SEALABLE BIN TO AVOID SPILLS.

PAINT AND OTHER CHEMICALS.

ALL PAINT CONTAINERS AND CURING COMPOUNDS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGES TO THE STORM SEWERS, BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERIS RECOMMENDATIONS. SPRAY GUNS WILL BE CLEANED ON A REMOVABLE TARP. CHEMICALS USED ON SITE ARE KEPT IN SMALL QUANTITIES AND IN CLOSED CONTAINERS UNDERCOVER AND KEPT OUT OF DIRECT CONTACT WITH STORMWATER. AS WITH FUELS AND OILS, ANY INADVERTENT SPILLS WILL BE CLEANED UP IMMEDIATELY AND DISPOSED OF ACCORDING FEDERAL AND DISTRICT OF COLUMBIA REGULATIONS.

CONCRETE.

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH ON SITE, EXCEPT IN A SPECIALLY DESIGNATED CONCRETE DISPOSAL AREA. FORM RELEASE OIL FOR DECORATIVE STONE WORK WILL BE APPLIED OVER A PALLET COVERED WITH AN ABSORBENT MATERIAL TO COLLECT EXCESS FLUID. THE ABSORBENT MATERIAL WILL BE REPLACED AND DISPOSED OF PROPERLY WHEN SATURATED.

WATER TESTING.

WHEN TESTING AND, OR CLEANING WATER SUPPLY LINES, THE DISCHARGE FROM THE TESTED PIPE WILL BE COLLECTED AND CONVEYED TO A COMPLETED STORMWATER CONVEYANCE SYSTEM FOR ULTIMATE DISCHARGE INTO A STORMWATER BEST MANAGEMENT PRACTICE (BMP).

SANITARY WASTE.

PORTABLE LAVATORIES LOCATED ON SITE WILL BE SERVICES ON A REGULAR BASIS BY A CONTRACTOR. PORTABLE LAVATORIES WILL BE LOCATED IN AN UPLAND AREA AWAY FROM DIRECT CONTACT WITH SURFACE WATERS. ANY SPILLS OCCURRING DURING SERVICING WILL BE CLEANED IMMEDIATELY AND CONTAMINATED SOILS DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL AND DISTRICT OF COLUMBIA REGULATIONS.

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY CV
DRAWN BY EW
PROJECT MGR. CV

DIVISION CHIEF

EROSION & SEDIMENT CONTROL NOTES
SHEET 1 OF 2

DATE
FILE

FHWA REG. NO	STATE	FED. AID PROJECT NO	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	53	75

CALL MISS UTILITY
TELEPHONE 1-800-257-7777
FOR UTILITY LOCATIONS
AT LEAST 24-HOURS BEFORE
BEGINNING DEMOLITION AND OR EXCAVATION

WPD FILE NUMBER _____

THIS APPROVAL IS FOR GRADING AND SEDIMENT CONTROL PERMIT ONLY. THE APPLICANT IS REQUIRED TO CONSTRUCT DESIGN FEATURES AS SHOWN ON THESE APPROVED PLANS. THE APPLICANT MUST NOTIFY THE WATERSHED PROTECTION DIVISION AT 202-535-2240 , ATLEAST 24 HOURS PRIOR TO THE START OF GRADING ACTIVITY AND WITHIN TWO (2) WEEKS AFTER COMPLETION OF THE PROJECT TO REQUEST FINAL INSPECTION. IF THERE IS NEED TO MAKE CHANGES OR MODIFICATIONS IN THE APPROVED DESIGN, THE WATERSHED PROTECTION DIVISION MUST BE NOTIFIED IMMEDIATELY.

STATEMENT BY PROFESSIONAL ENGINEER REGISTERED IN THE DISTRICT OF COLUMBIA

THIS IS TO CERTIFY THAT THE ENGINEERING FEATURES OF ALL STORMWATER BEST MANAGEMENT PRACTICES (BMPS), STORMWATER INFRASTRUCTURE, AND LAND COVERS (COLLECTIVELY THE 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 CHAPTER 5 OF TITLE 21 OF THE DISTRICT OF COLUMBIA MUNICIPAL REGULATIONS. IT IS ALSO STATED THAT THE UNDERSIGNED HAS FURNISHED THE APPLICANT WITH A SET OF INSTRUCTIONS FOR THE MAINTENANCE AND OPERATION OF THE SITE'S FACILITY.

_____
NAME AND TITLE (PLEASE TYPE)

_____
ADDRESS

DATE _____ PHONE NO: _____

AFFIX SEAL:

STATEMENT BY PERSON RESPONSIBLE FOR MAINTENANCE

THE UNDERSIGNED AGREES TO MAINTAIN AND OPERATE THE STORMWATER BEST MANAGEMENT PRACTICES (BMPS), STORMWATER INFRASTRUCTURE, AND LAND COVERS IN SUCH A MANNER AS TO COMPLY WITH THE PROVISIONS OF CHAPTER 5 OF TITLE 21 OF THE DISTRICT OF COLUMBIA MUNICIPAL REGULATIONS (DCMR). RESPONSIBILITY FOR MAINTENANCE AND OPERATION MAY BE TRANSFERED TO ANOTHER ENTITY UPON WRITTEN NOTICE TO THE WATERSHED PROTECTION DIVISION OF THE DISTRICT DEPARTMENT OF THE ENVIRONMENT FROM THE UNDERSIGNED AND THE ENTITY ASSUMING RESPONSIBILITY. THIS NOTICE MUST CERTIFY THAT THE TRANSFER OF RESPONSIBILITY FOR MAINTENANCE AND OPERATION IS IN COMPLIANCE WITH 21 DCMR CHAPTER 5.

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

_____
NAME AND TITLE (PLEASE TYPE)

_____
ADDRESS

_____
DATE PHONE NO:

AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

WITHIN 21 DAYS AFTER COMPLETION OF CONSTRUCTION OF ALL STORMWATER BEST MANAGEMENT PRACTICES (BMPS), STORMWATER INFRASTRUCTURE, AND LAND COVERS (COLLECTIVELY THE FACILITY), PLEASE SEND THIS PAGE TO THE WATERSHED PROTECTION DIVISION OF THE DISTRICT DEPARTMENT OF THE ENVIRONMENT.

1. FACILITY INFORMATION:

SOURCE NAME: _____

SOURCE LOCATION: STREET: _____

CITY: _____

DCRA PERMIT NO.: _____

DATE ISSUED: _____

1. AS BUILT CERTIFICATION

I HEREBY CERTIFY THAT ALL STORMWATER BEST MANAGEMENT PRACTICES (BMPS), STORMWATER INFRASTRUCTURE, AND LAND COVERS HAVE BEEN BUILT SUBSTANTIALLY IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THAT ANY DEVIATIONS NOTED BELOW WILL NOT PREVENT THE SYSTEM FROM FUNCTIONING IN COMPLIANCE WITH THE REQUIREMENTS CHAPTER 5 OF TITLE 21 OF THE DISTRICT OF COLUMBIA MUNICIPAL REGULATIONS 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)

DISTRICT OF COLUMBIA
CESAR E. VARGAS
No.16402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

EROSION & SEDIMENT CONTROL NOTES
SHEET 2 OF 2

PROJECT ENG. BB
DESIGNED BY BB
CHECKED BY DV
DRAWN BY DW
PROJECT MGR. DV

DIVISION CHIEF
DATE
FILE
SHEET 53 OF 75

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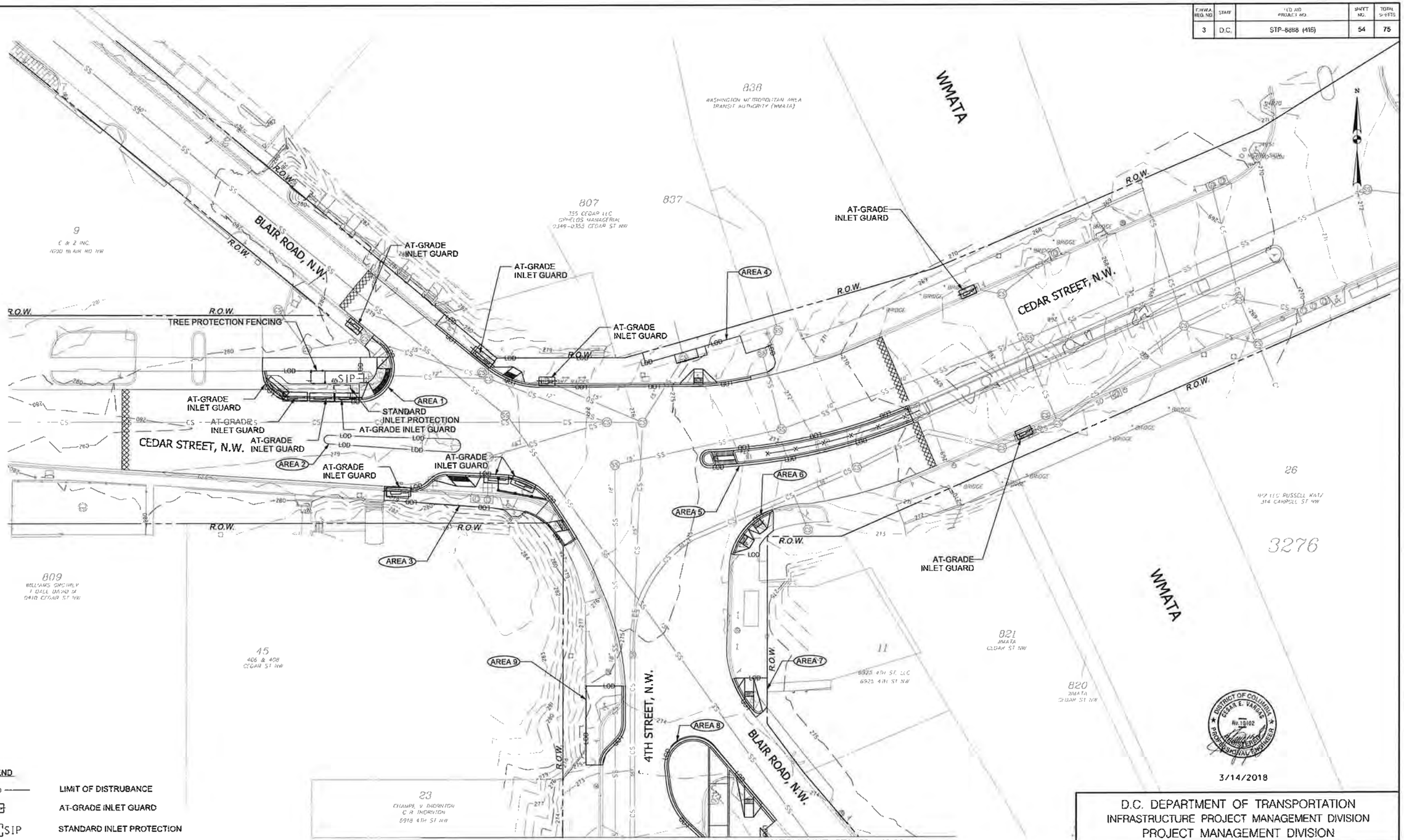
Thursday, September 13, 2018 AT 02:06 PM

F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	54	75



LEGEND

LOD	LIMIT OF DISTRUBANCE
	AT-GRADE INLET GUARD
SIP	STANDARD INLET PROTECTION
	TREE PROTECTION FENCING 4' X 9' MIN.

NOTES:

1. SEE EROSION CONTROL PLAN - (SHEET 52) FOR GENERAL NOTES.
2. SEE EROSION CONTROL PLAN - (SHEET 52) FOR AREA OF DISTURBANCE.
3. FIELD VERIFY TREES AND PROTECT AS NEEDED

SCALE: 1"=20'

DISTRICT OF COLUMBIA — REGAN E. VARGAS — No. 15102 — REGISTERED PROFESSIONAL ENGINEER

3/14/2018

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

EROSION & SEDIMENT CONTROL PLAN
SHEET 1 OF 2

PROJECT ENG. BH
DESIGNED BY BB
CHECKED BY CV
DRAWN BY CW
PROJECT MGR. CV

DIVISION CHIEF
DATE
FILE
SHEET 54 OF 75

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	INIT.	DATE

REVISIONS

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Thursday, September 13, 2018 AT 02:06 PM

FHWA REG NO	STATE	DDD 420 PROJECT NO	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (418)	55	75

MATCH LINE STA. 12+50.00

MATCH LINE STA. 53+40.00

24
CHAMPE V THORNTON
C B THORNTON
6916 4TH ST NW

810
CHAMPE V THORNTON
C B THORNTON
6914 4TH ST NW

43
CHAMPE V THORNTON
C B THORNTON
6912 4TH ST NW

44
CHAMPE V THORNTON
C B THORNTON
6910 4TH ST NW

813
CHAMPE V THORNTON
C B THORNTON
6904 6908 4TH ST NW

39
CHAMPE V THORNTON
C B THORNTON
6902 4TH ST NW

40
CHAMPE V THORNTON
C B THORNTON
5900 4TH ST NW

41
CHAMPE V THORNTON
C B THORNTON
0401 BUTTERNUT ST NW

3188

13
6925 BLAIR RD LLC
6925 BLAIR RD NW

805
WMATA
BLAIR RD NW

823
WMATA
BLAIR RD NW

801
DISTRICT OF COLUMBIA
ROOM 238
6900 4TH ST NW

4
ELLIS CLAYTON MURPHUSS
TRUSTEE THE BARAC CO
6911 4TH ST NW

800
WMATA
6909 BLAIR RD NW

3278

802
WILLIAM J DAVIS JR
ANTHONY Y BRYDO
6951 4TH ST NW

819
WMATA
BLAIR RD NW

818
WMATA
BLAIR RD NW

AREA 8

AREA 10

AREA 11

TREE PROTECTION FENCING

TREE PROTECTION FENCING

AT-GRADE INLET GUARD

AT-GRADE INLET GUARD

AT-GRADE INLET GUARD

AT-GRADE INLET GUARD

4TH STREET, N.W.

BLAIR ROAD, N.W.

BUTTERNUT STREET, N.W.

R.O.W.

LEGEND

———	LIMIT OF DISTRUBANCE
	AT-GRADE INLET GUARD
SIP	STANDARD INLET PROTECTION
	TREE PROTECTION FENCING 4' X 9' MIN.

NOTES:

1. SEE EROSION CONTROL PLAN - (SHEET 52) FOR GENERAL NOTES.
2. SEE EROSION CONTROL PLAN - (SHEET 52) FOR AREA OF DISTURBANCE.
3. FIELD VERIFY TREES AND PROTECT AS NEEDED

SCALE: 1"=20'

DISTRICT OF COLUMBIA
CESAR E. VARGAS
No. 19402
REGISTERED
PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW
INTERSECTION IMPROVEMENTS

PROJECT ENG. SB
DESIGNED BY SB
CHECKED BY CV
DRAWN BY LW
PROJECT MGR CV

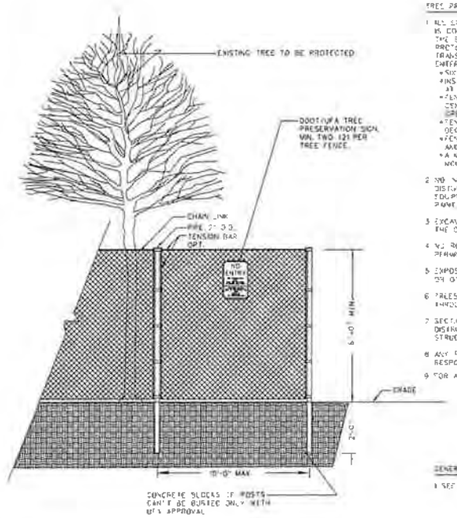
EROSION & SEDIMENT CONTROL PLAN
SHEET 2 OF 2

DIVISION CHIEF
DATE:
FILE:

SHEET 55 OF 75

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\LDGN\Sheets\Plan Sheets\055_p65-P02_1569D.dgn
Thursday, September 13, 2018 AT 02:04 PM

F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	56	75



TREE PROTECTION NOTES:

1. ALL EXISTING STREET TREES TO REMAIN WITHIN A WORK ZONE UNTIL A PROJECT IS COMPLETED REQUIRE THE FOLLOWING AS TREE PROTECTION. IF FOR ANY REASON THE SCOPE OF THE PROJECT REQUIRES WORK TO BE PERFORMED WITHIN THE FENCE PROTECTION ZONE, THE PERMIT HOLDER MUST CONTACT THE DISTRICT DEPARTMENT OF TRANSPORTATION'S URBAN FORESTRY ADMINISTRATION (UFA) AT 202-671-5133 BEFORE CHIPPING.
   - SIX (6) FOOT TALL CHAIN LINK FENCING ON ALL SIDES.
   - INSTALL FENCING PRIOR TO AND MAINTAIN THROUGHOUT CONSTRUCTION REMOVING ONLY AT THE END OF THE PROJECT.
   - FENCING SHALL PROTECT AN AREA NO SMALLER THAN FOUR (4) FEET BY ONE (1) FEET, CENTERED ON THE TREE OR ENCLOSE MULTIPLE STREET TREES WHEN IN A CONTINUOUS OPEN TREE PLANTING SPACE AND SITE ACCESS ALLOWS.
   - FENCING SHALL HAVE VERTICAL AND HORIZONTAL SUPPORT RAILINGS TO DECREASE FLEXIBILITY AND PREVENT SAGGING.
   - FENCE POSTS SHALL BE ANCHORED IN THE GROUND TO PREVENT MOVEMENT AND PROVIDE A SECURE BARRIER.
   - A MINIMUM OF TWO (2) DDOT/UFA STANDARD TREE PRESERVATION SIGNS SHALL BE MOUNTED ON THE FENCE OF EACH ENCLOSED TREE PROTECTION AREA.
2. NO INSTALLATION OF SILT FENCE/SUPER SILT FENCE, TRENCHING, ALTERATION OR DISTURBANCE TO EXISTING GRADE/GRADING/STORAGE OF CONSTRUCTION MATERIALS, EQUIPMENT, SOIL OR DEBRIS, DISPOSAL OF ANY MATERIALS SUCH AS CONCRETE, GAS, OIL, PAINT, OR BLACKTOP IS ALLOWED WITHIN THE FENCED TREE PROTECTION ZONE.
3. EXCAVATIONS WITHIN THE DRIP LINE SHALL PROCEED WITH CARE BY USE OF HAND TOOLS THE DRIPLINE IS DEFINED AS THE GROUND AREA UNDER THE CANOPY OF THE TREE.
4. NO ROOTS LARGER THAN TWO (2) INCHES IN DIAMETER ARE TO BE CUT WITHOUT UFA PERMISSION.
5. EXPOSED ROOTS TWO (2) INCHES AND LARGER IN DIAMETER SHALL BE WRAPPED IN BURLAP OR OTHER APPROVED MATERIAL AND KEPT MOIST AT ALL TIMES.
6. TREES THAT ARE PROTECTED ARE TO BE WATERED EVERY TEN (10) DAYS FROM APRIL THROUGH SEPTEMBER.
7. SECTION 6008.01 - TREE PROTECTION AND 6008.08 - TREE ROOT PROTECTION OF THE 2nd DISTRICT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES WILL APPLY SHOULD ANY DAMAGE OCCUR TO THE EXISTING STREET TREES.
8. ANY TREE RELATED DAMAGE TO A STREET TREE ON A JOB SITE SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER.
9. FOR ANY QUESTIONS, CALL DDOT URBAN FORESTRY ADMINISTRATION AT 202-671-5133.

GENERAL NOTES:

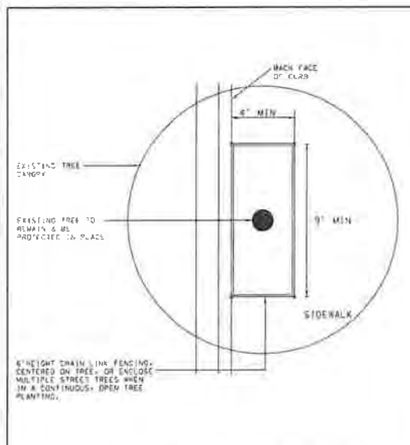
1. SEE TREE PROTECTION FENCE - PLAN DWG NO 608.11

ISSUED 8/2015	RECOMMENDED: Adil Rizi, PROJECT MANAGER
REVISION / APPROVAL	APPROVED: Mohammed Khalid, CHIEF ENGINEER

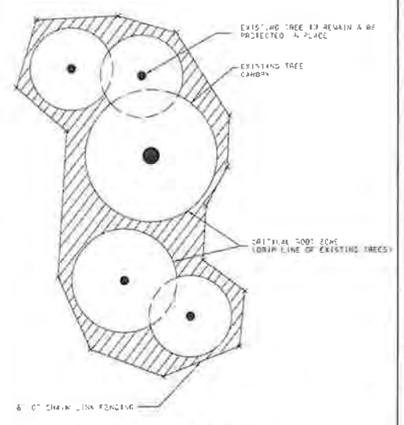
TREE PROTECTION FENCE - ELEVATION

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG NO 608.10



TYPICAL STREET TREE PROTECTION



TYPICAL OPEN AREA TREE PROTECTION

NOTES:

1. FOR STREET TREES (TREES PLANTED IN THE TREE PLANTING SPACE BETWEEN CURB AND SIDEWALK), REFER TO DETAIL ABOVE LABELED "TYPICAL STREET TREE PROTECTION" FOR WELLS IN OPEN AREAS (PUBLIC PARKING BEHIND SIDEWALK OR PARK SPACE), REFER TO DETAIL ABOVE LABELED "TYPICAL OPEN AREA TREE PROTECTION".
2. SEE TREE PROTECTION FENCE ELEVATION, DWG. NO. 608.10 FOR TREE PROTECTION NOTES

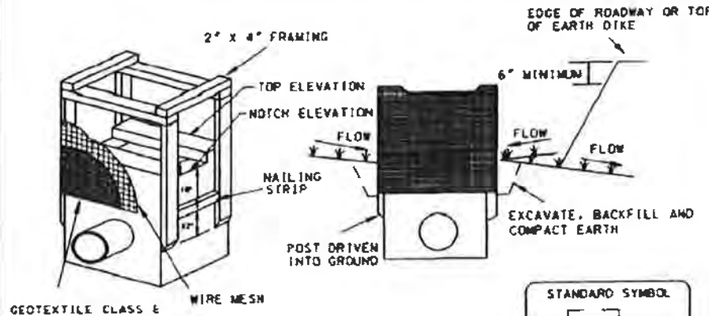
ISSUED 8/2015	RECOMMENDED: Adil Rizi, PROJECT MANAGER
REVISION / APPROVAL	APPROVED: Mohammed Khalid, CHIEF ENGINEER

TREE PROTECTION FENCE - PLAN VIEW

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG NO 608.11

DETAIL 7A - STANDARD INLET PROTECTION



STANDARD SYMBOL: SIP

MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications

1. Excavate completely around the inlet to a depth of 18" below the notch elevation.

2. Drive the 2" x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlap joint shown on Detail 23A. The top of the frame (weir) must be 6" below adjacent roadways where flooding and safety issues may arise.

3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post.

4. Stretch the Geotextile Class E tightly over the wire mesh with the geotixtile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.

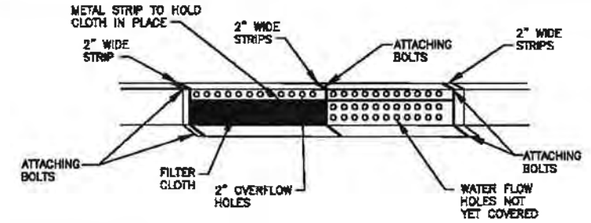
5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and top elevation on the sides.

6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike should be at least 6" higher than the top of the frame.

7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

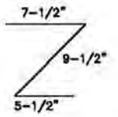
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE	PAGE B - 8 - 4	WATERSHED PROTECTION DIVISION DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH

DETAIL 6E - AT GRADE INLET GUARD



* AT EACH INTERSECTION OF INLET PROTECTOR OVERLAP A MINIMUM OF 2"

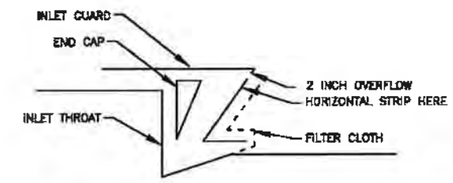
STANDARD INLET GUARD ATTATCHMENT METHOD



* THE TOP MEASUREMENT OF 7-1/2" IS SET TO PROVIDE A 2" EXTENSION FOR OVERFLOW WHILE AVOIDING BLOCKAGE OF THE MANHOLE COVER.

* MAKE A WATERTIGHT CONNECTION ALONG THE SIDES AND BOTTOM OF THE INLET GUARD WITH THE STREET AND CURB.

STANDARD INLET GUARD DIMENSIONS



STANDARD INLET GUARD CROSS SECTION

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE	PAGE B - 7 - 9	WATERSHED PROTECTION DIVISION DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH

DISTRICT OF COLUMBIA GERAN E. VARGAS No. 13402 REGISTERED PROFESSIONAL ENGINEER

3/14/2018

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

BLAIR ROAD/CEDAR STREET/4TH STREET, NW INTERSECTION IMPROVEMENTS

EROSION & SEDIMENT CONTROL DETAILS

PROJECT ENG. BR
DESIGNED BY BR
CHECKED BY DV
DRAWN BY DW
PROJECT MGR DV

DIVISION CHIEF
DATE
FILE

SHEET 56 OF 75

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\06_pE5-2001_16690.dgn
Thursday, September 13, 2018 AT 02:06 PM

STANDARD SYMBOLS

- EXISTING PEPCO WOOD POLE
- EXISTING ELECTRICAL MANHOLE
- GUY — EXISTING GUY WIRE ANCHOR
- EXISTING STREETLIGHT POLE
- EXISTING WOOD POLE WITH LUMINAIRE
- PROPOSED 3'x3'x3' ELECTRICAL MANHOLE
- PROPOSED 4'x4'x4' ELECTRICAL MANHOLE
- PROPOSED LUMINAIRE AND SUPPORT ARM INDICATES DIRECTION OF LIGHT
- C* — MEASUREMENT POINT
- PROPOSED PENDANT POST POLE W/ TEARDROP LUMINAIRE
- PENDANT POST STREETLIGHT POLE
- PROPOSED #16 STREET LIGHT POLE
- PROPOSED PEPCO FEED POINT
- E — EMPTY CONDUIT
- EXISTING POLE WITH PROPOSED DIRECTION OF LUMINAIRE ARM
- PROPOSED DOUBLE CATCH BASIN
- PROPOSED WATER MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED FIRE HYDRANT
- PROPOSED TRASH RECEPTACLES
- 4-4" SCHEDULE 40 RIGID PVC CONDUIT
- 2-4" SCHEDULE 40 RIGID PVC CONDUIT
- 1-2", 1-4" SCHEDULE 40 RIGID PVC CONDUIT
- 1-2" SCHEDULE 40 RIGID PVC CONDUIT
- EXISTING CONDUIT TO REMAIN
- RIGHT OF WAY LINE
- L* — STREETLIGHT INSTALLATION CALLOUT
- R* — STREETLIGHT REMOVAL CALLOUT

ABBREVIATIONS

ALUM.	ALUMINUM
COMB.	COMBINATION
GND	GROUND
HPS	HIGH PRESSURE SODIUM
H.S.	HIGH STRENGTH
LUM.	LUMINAIRE
P.E.	PHOTO ELECTRIC CELL
RGS	RIGID GALVANIZED STEEL
TS	TRAFFIC SIGNALS
W	WATTS

GENERAL NOTES

1. LOCATIONS OF PROPOSED STREETLIGHT POLES AND MANHOLES ARE PROVIDED ON THE STREETLIGHT PLANS E2-E3.
2. TREE PRUNING MUST BE AUTHORIZED BY THE DEPARTMENT OF TRANSPORTATION'S URBAN FORESTRY ADMINISTRATION (UFA). CONTRACTOR MUST CONTACT THE UFA LEAD ARBORIST AT 202-671-5133 REGARDING ANY PRUNING ISSUES.

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTITY
613038	FURNISH AND INSTALL ONE 2 INCH AND ONE 4 INCH PVC ENCASED ELECTRICAL CONDUITS	LF	354
614014	FURNISH AND INSTALL 28'-6" PENDANT POST	EACH	8
614050	REMOVE ARM FROM METAL POLE	EACH	5
614052	REMOVE WOOD POLE	EACH	1
614078	FURNISH AND INSTALL 36" x 36" x 36" MANHOLE	EACH	11
614084	FURNISH AND INSTALL 48" x 48" x 48" MANHOLE	EACH	9
614214	FURNISH AND INSTALL 1-2" SCHEDULE 40 RIGID PVC CONDUIT (SUPPLEMENTAL TO DUCT BANK)	LF	281
614204	FURNISH AND INSTALL 4-4" SCHEDULE 40 RIGID PVC CONDUIT (DUCT BANK)	LF	1338
614206	FURNISH AND INSTALL 4-4" AND 1-2" SCHEDULE 40 RIGID PVC CONDUIT (DUCT BANK)	LF	403
614210	FURNISH AND INSTALL 2-4" SCHEDULE 40 RIGID PVC CONDUIT (DUCT BANK)	LF	18
614230	FURNISH AND INSTALL #10 STRANDED WIRE	LF	2612
614290	FURNISH AND INSTALL #0000 STRANDED WIRE	LF	6026
614332	FURNISH AND INSTALL #8 STRANDED GROUND WIRE	LF	1306
614350	FURNISH AND INSTALL #2 STRANDED GROUND WIRE	LF	2009
613008	FURNISH AND INSTALL PCC FOUNDATION FOR TRAFFIC SIGNAL POLE OR PENDENT POST STREET LIGHT POLE	EACH	8
614430	REMOVE STREET LIGHT POLE FOUNDATION	EACH	4
613030	FURNISH AND INSTALL GALVANIZED STEEL TRANSFORMER BASE	EACH	8
614470	REMOVE STEEL TRANSFORMER BASE	EACH	4
614488	FURNISH AND INSTALL NO. 16 CAST IRON POLE	EACH	15
614568	REMOVE PENDANT POLE 30 FT. HEIGHT OR LESS	EACH	4
614634	FURNISH AND INSTALL OVER 35 FT. HEIGHT	EACH	1
614644	FURNISH AND INSTALL 8 FT. ARM ON PENDANT POLE	EACH	9
614662	REMOVE ARM FROM WOOD POLE UP TO 8 FT. IN LENGTH	EACH	6
614670	FURNISH AND INSTALL 8 FT. ARM ON WOOD POLE	EACH	5
614682	REMOVE. ARM FROM WOOD POLE OVER 8 FT. IN LENGTH	EACH	15
614698	REMOVE LUMINAIRE FROM WOOD POLE	EACH	21
614700	REMOVE LUMINAIRE FROM STEEL POLE	EACH	5
614806	FURNISH AND INSTALL 100 W POST-TOP LED FIXTURE W/ WASHINGTON GLOBE AND PHOTOCELL	EACH	1
614864	FURNISH AND INSTALL 4" PVC RIGID U-GUARD ON WOOD POLE	LF	40
614991	TEMPORARY LIGHTING	LS	1
614804	FURNISH AND INSTALL 200 WATT TEARDROP LED FIXTURE COMPLETE WITH PHOTOCELL	EACH	14
614993	RELOCATE UTILITY POLE AND TRANSFORMER	EACH	1
614993	FURNISH AND INSTALL 120 W POST-TOP LED FIXTURE W/ WASHINGTON GLOBE AND PHOTOCELL	EACH	14
614424	FURNISH AND INSTALL 15' B.C. STREET LIGHT FOUNDATION	EACH	15
614999	PAYMENT TO PEPCO FOR CONNECTION, DISCONNECTION, INSPECTION	LS	1

ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO NATIONAL ELECTRICAL CODE (NEC), DC ELECTRICAL CODE, DDOT 2013 STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATION, 2015 STANDARD DRAWINGS, CONTRACT SPECIAL PROVISIONS AND THE DISTRICT OF COLUMBIA STREETLIGHT POLICY AND DESIGN GUIDELINES (FEBRUARY 2013).
2. THE ELECTRICAL CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY SUCH FEES AS MAY BE NECESSARY FOR INSPECTIONS, TESTS, AND OTHER SERVICES NECESSARY FOR THE COMPLETION OF HIS/HER WORK.
3. CONTRACTOR SHALL VISIT THE SITE AND EXAMINE CONDITIONS OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS. ANY DIFFICULTIES IN COMPLYING WITH THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE BIDDING.
4. ALL MATERIAL SHALL BE NEW AND BARE THE U.L. LABEL LISTED APPROVAL FOR ITS INSTALLED APPLICATION.
5. IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES AS MAY BE NECESSARY TO ACHIEVE THIS PRODUCT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BRING TO THE ATTENTION OF THE ENGINEER ANY DISCREPANCIES IN THE PLANS AND SPECIFICATION THAT WILL AFFECT THE WORK, PRIOR TO SUBMISSION OF HIS/HER BID PRICE.
6. THE CONTRACTOR SHALL GUARANTEE ALL HIS WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY OWNER.
7. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER AS WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. ALL POWER OUTAGES SHALL BE COORDINATED WITH THE OWNER AND PEPCO.
8. ALL EMPTY CONDUIT RUNS IN EXCESS OF 10 FT SHALL BE PROVIDED WITH A PULL WIRE OR FISH TAPE/CORD.
9. ALL WIRE/CABLE SHALL BE COPPER AND ALL WIRE SIZES ARE BASED ON COPPER CONDUCTORS UNLESS INDICATED OTHERWISE.
10. ALL EXISTING ELECTRICAL CONDUIT MUST BE MAINTAINED UNTIL THE NEW OR TEMPORARY CONDUIT AND CABLE ARE IN PLACE. ALL ELECTRICAL DEMOLITION SHALL BE COORDINATED WITH PEPCO.
11. PEPCO IS TO BE NOTIFIED 72 HOURS (THREE WORKING DAYS) PRIOR TO WORKING IN THE VICINITY OF PEPCO FACILITIES.
12. 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. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UTILITIES IN ADVANCE OF CONDUCTING CONSTRUCTION OPERATIONS THAT COULD DAMAGE THESE UTILITIES.
13. IN THE AREAS WHERE PROPOSED CONSTRUCTION MAY CONFLICT WITH EXISTING UTILITIES, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THESE UTILITIES. THE CONTRACTOR SHALL PROVIDE TEST PITS TO ACCURATELY LOCATE BOTH VERTICALLY AND HORIZONTALLY ALL EXISTING UTILITIES THAT MAY BE IN CONFLICT WITH THE PROPOSED STREET LIGHTING SYSTEM. A MINIMUM OF 12" VERTICAL CLEARANCE SHOULD BE MAINTAINED BETWEEN EXISTING GAS / WATER LINES AND PROPOSED DUCTBANKS.
14. IF AN UNDERGROUND UTILITY IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE OWNER OF THE UTILITY. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE OR BELOW GROUND SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE UTILITY OWNER AT THE CONTRACTOR'S EXPENSE. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR BACKFILL AN EXCAVATION AFFECTING SAID UTILITY WITHOUT FIRST RECEIVING PERMISSION FROM THE UTILITY OWNER.
15. THE CONTRACTOR SHALL 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
WATER MAIN & SEWERS	DC WATER (202) 673-6600
STREETLIGHT	DDOT (202) 671-1351
ELECTRICAL INSPECTION	DDOT (202) 698-3630
TRAFFIC SIGNAL	DDOT (202) 671-2626
RADIO BOX ON POLE	METRICOM (703) 928-5799

16. ALL STREETLIGHT FOUNDATIONS SHOWN ON THE PLANS SHALL BE REPLACED OR REMOVED. REMOVE COMPLETELY ALL THE ITEMS IN THE FOUNDATION (ANCHOR BOLTS, GROUND ROD, CONDUITS, FRAMES, WIRES, ETC.).
17. THE CONTRACTOR SHALL KEEP PROPER RECORD OF ALL TRAFFIC AND PARKING SIGNS THAT WILL BE REMOVED PRIOR TO REMOVING A STREETLIGHT POLE.
18. ALL LIGHT POLE FOUNDATIONS SHALL BE INSTALLED 3' FROM FACE OF CURB TO CENTER OF FOUNDATION UNLESS DIRECTED BY THE ENGINEER.
19. THE CONTRACTOR SHALL KEEP PROPER RECORDS OF ALL STREET LIGHTING CHANGES BY DATE. (DATE ENERGIZED AND DATE DE-ENERGIZED).
20. THE ELECTRICAL SUB-CONTRACTOR IS RESPONSIBLE FOR ALL STREETLIGHT MAINTENANCE OF ALL STREETLIGHTS WITHIN THE PROJECT LIMITS DURING THE TIME PERIOD BETWEEN NOTICE TO PROCEED (NTP) UNTIL THE DATE THE ELECTRICAL INSPECTION OFFICE HAS ACCEPTED THE PROJECT. THE CONTRACTOR SHALL INSPECT THE STREETLIGHTS DURING NORMAL NIGHT OPERATION ON A WEEKLY BASIS. THE CONTRACTOR SHALL PROVIDE A LIST OF MALFUNCTIONING STREETLIGHTS TO DDOT STREETLIGHT SECTION ON A WEEKLY BASIS. STREETLIGHTS FOUND MALFUNCTIONING SHALL BE REPAIRED OR REPLACED WITHIN THREE (3) DAYS OF THE NOTED DEFICIENCY.
21. THE CONTRACTOR SHALL SUBMIT TO DDOT CATALOG CUTS FOR ALL MATERIALS TO BE FURNISHED AND INSTALLED. WRITTEN APPROVAL FROM DDOT SHALL BE SECURED PRIOR TO PROCUREMENT.

TEMPORARY LIGHTING

EXISTING LIGHTING SYSTEM SHALL REMAIN OPERATIONAL DURING ALL CONSTRUCTION ACTIVITIES AND SHALL NOT BE DEACTIVATED UNTIL TEMPORARY OR NEW LIGHTING SYSTEM IS INSTALLED AND OPERATIONAL.

DISTRICT OF COLUMBIA · MOHAMMED A. RIZVI · PE900533 · REGISTERED PROFESSIONAL ENGINEER

4/29/2019

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE

REVISIONS

E – 1

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

4TH STREET BLAIR ROAD AND CEDAR STREET, N.W.
WARD 4 – WASHINGTON, D.C.

STANDARD SYMBOLS, NOTES LIGHTING QUANTITIES

PROJECT ENG. MR
DESIGNED BY MR
CHECKED BY MG
DRAWN BY JG
PROJECT MGR MG
DIVISION CHIEF
DATE 10/2017
FILE

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\057_sLT-P001_01580.dgn
Monday, April 29, 2019 AT 03:58 PM

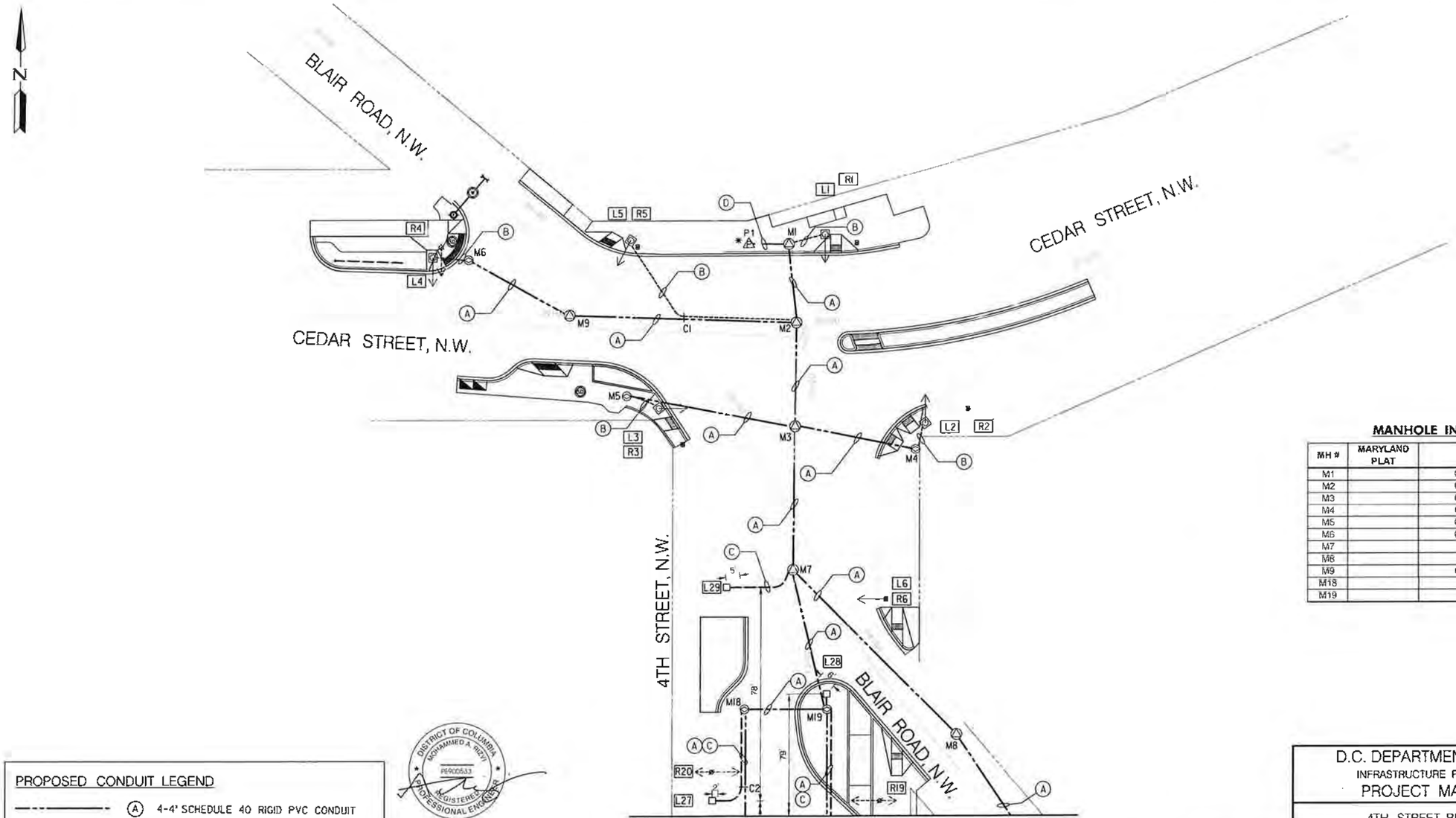
INFO	STATE	PROJECT	SHEET NO	TOTAL SHEETS
3	D.C.	STP-8888 (416)	58	75

STREETLIGHT POLE INFORMATION (ARM & LUMINAIRE REMOVAL)

LIGHT #	MARYLAND PLAT	GRID #	LOCATION	POLE TYPE	LIGHT	WATTS	SERV DATE	REMOVE
R1			CEDAR STREET, NW	STEEL	HPS	400		ARM, LUMINAIRE, CONDUCTORS, POLE, FOUNDATION
R2			CEDAR STREET, NW	STEEL	HPS	400		ARM, LUMINAIRE, CONDUCTORS, POLE, FOUNDATION
R3			CEDAR STREET, NW	STEEL	HPS	400		ARM, LUMINAIRE, CONDUCTORS, POLE, FOUNDATION
R4			CEDAR STREET, NW	WOOD	HPS	400		ARM, LUMINAIRE
R5			CEDAR STREET, NW	STEEL	HPS	400		ARM, LUMINAIRE, CONDUCTORS, POLE, FOUNDATION
R8			BLAIR ROAD, NW	STEEL	HPS	400		ARM, LUMINAIRE
R19			4TH STREET, NW	WOOD	LED	215.35		ARMS, LUMINAIRES
R20			4TH STREET, NW	WOOD	LED	215.35		ARMS, LUMINAIRES

STREETLIGHT POLE INFORMATION (ARM & LUMINAIRE INSTALLATION)

LIGHT #	MARYLAND PLAT	GRID #	LOCATION	POLE TYPE	LIGHT	WATTS	SERV DATE	INSTALL	STATION / OFFSET
L1			CEDAR STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	29+98.78 / 37.87 LT
L2			CEDAR STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	30+31.15 / 33.16 RT
L3			CEDAR STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	29+40.31 / 27.94 RT
L4			CEDAR STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	28+55.35 / 23.03 LT
L5			CEDAR STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	29+27.13 / 32.49 LT
L6			BLAIR ROAD, NW	PENDANT POST	LED	200		8' ARM, TEAR DROP LED	54+11.57 / 16.65 RT
L27			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	12+49.67 / 29.92 LT
L28			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	12+88.39 / 11.71 RT
L29			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	13+27.14 / 24.88 LT



MATCH LINE, SEE SHEET E – 3

MANHOLE INSTALLATION

MH #	MARYLAND PLAT	LOCATION	MH TYPE
M1		CEDAR STREET, NW	4'X4'X4'
M2		CEDAR STREET, NW	4'X4'X4'
M3		CEDAR STREET, NW	4'X4'X4'
M4		CEDAR STREET, NW	3'X3'X3'
M5		CEDAR STREET, NW	3'X3'X3'
M6		CEDAR STREET, NW	3'X3'X3'
M7		BLAIR ROAD, NW	4'X4'X4'
M8		BLAIR ROAD, NW	4'X4'X4'
M9		CEDAR STREET, NW	4'X4'X4'
M18		4TH STREET, NW	3'X3'X3'
M19		4TH STREET, NW	3'X3'X3'

PROPOSED CONDUIT LEGEND

- (A) 4-4" SCHEDULE 40 RIGID PVC CONDUIT
- (B) 1-2", 1-4" SCHEDULE 40 RIGID PVC CONDUIT
- (C) 1-2" SCHEDULE 40 RIGID PVC CONDUIT
- (D) 2-4" SCHEDULE 40 RIGID PVC CONDUIT

DISTRICT OF COLUMBIA
MOHAMMED A. RIZVI
PE900533
REGISTERED
PROFESSIONAL ENGINEER

4/29/2019

SCALE: 1" = 20' 10' 0 10' 20'

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	MMP	DATE
	REVISIONS		

E – 2

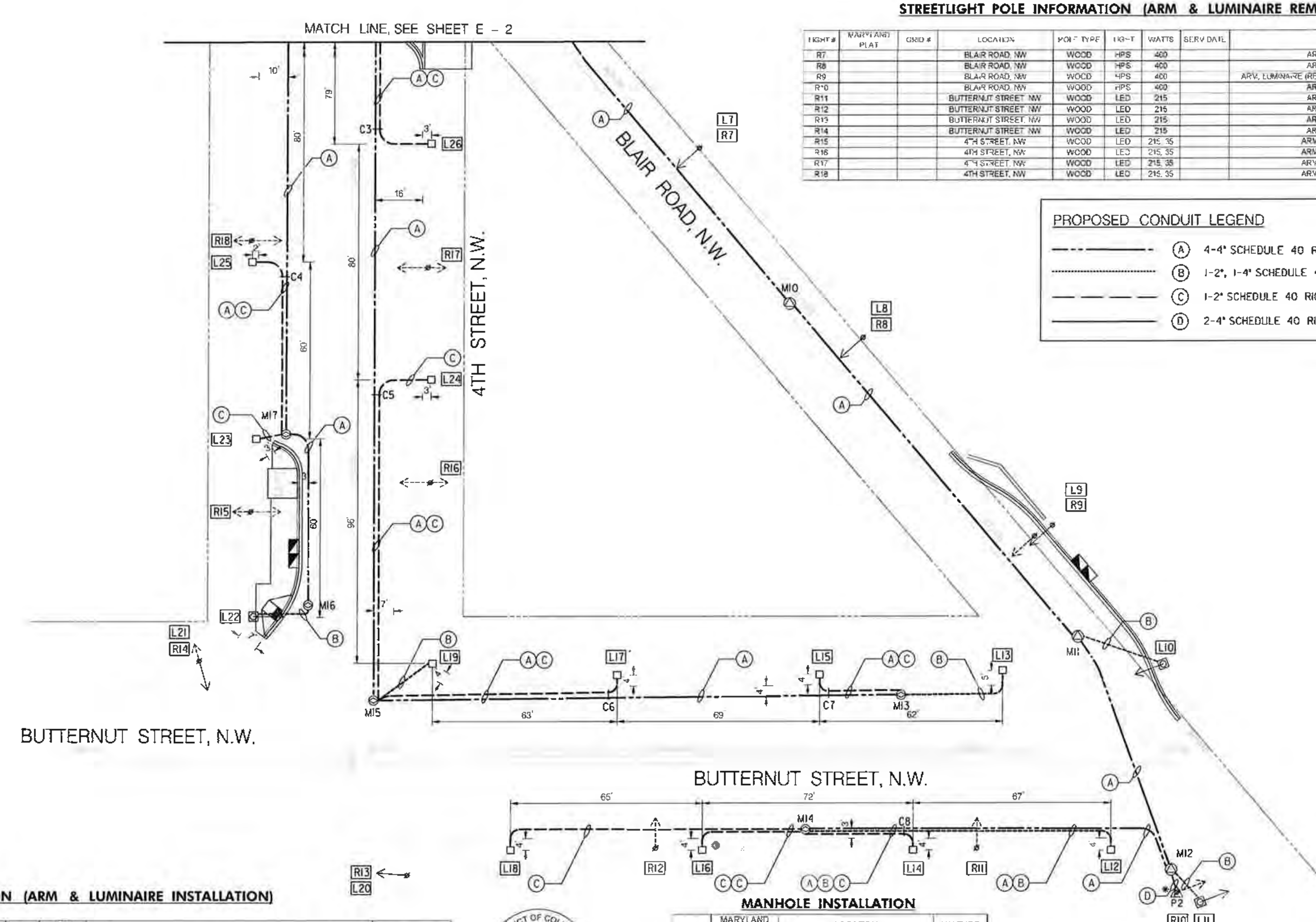
D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

4TH STREET BLAIR ROAD AND CEDAR STREET, N.W.
WARD 4 – WASHINGTON, D.C.

LIGHTING PLAN

PROJECT ENG. MR
DESIGNED BY MR
CHECKED BY MG
DRAWN BY JD
PROJECT MGR. MG
DIVISION CHIEF
DATE 10/2017
FILE
SHEET 58 OF 75

T:\344200 - 2013 0007 Master Contract\344225 - Blair Road,Cedar Street,4th Street,Int. Improvements\07 Design\DDN\Sheets\Plan Sheets\058.plt-P002_015680.dgn
Monday, April 29, 2019 at 02:25 PM



STREETLIGHT POLE INFORMATION (ARM & LUMINAIRE REMOVAL)

LIGHT #	MARYLAND PLAT	GRID #	LOCATION	POLE TYPE	LIGHT	WATTS	SERV DATE	REMOVE
R7			BLAIR ROAD, NW	WOOD	HPS	400		ARM, LUMINAIRE
R8			BLAIR ROAD, NW	WOOD	HPS	400		ARM, LUMINAIRE
R9			BLAIR ROAD, NW	WOOD	HPS	400		ARM, LUMINAIRE (RELOCATE POLE, TRANSFORMER)
R10			BLAIR ROAD, NW	WOOD	HPS	400		ARM, LUMINAIRE
R11			BUTTERNUT STREET, NW	WOOD	LED	215		ARM, LUMINAIRE
R12			BUTTERNUT STREET, NW	WOOD	LED	215		ARM, LUMINAIRE
R13			BUTTERNUT STREET, NW	WOOD	LED	215		ARM, LUMINAIRE
R14			BUTTERNUT STREET, NW	WOOD	LED	215		ARM, LUMINAIRE
R15			4TH STREET, NW	WOOD	LED	215, 35		ARMS, LUMINAIRES
R16			4TH STREET, NW	WOOD	LED	215, 35		ARMS, LUMINAIRES
R17			4TH STREET, NW	WOOD	LED	215, 35		ARMS, LUMINAIRES
R18			4TH STREET, NW	WOOD	LED	215, 35		ARMS, LUMINAIRES

PROPOSED CONDUIT LEGEND

- (A) 4-4" SCHEDULE 40 RIGID PVC CONDUIT
- (B) 1-2", 1-4" SCHEDULE 40 RIGID PVC CONDUIT
- (C) 1-2" SCHEDULE 40 RIGID PVC CONDUIT
- (D) 2-4" SCHEDULE 40 RIGID PVC CONDUIT

STREETLIGHT POLE INFORMATION (ARM & LUMINAIRE INSTALLATION)

LIGHT #	MARYLAND PLAT	GRID #	LOCATION	POLE TYPE	LIGHT	WATTS	SERV DATE	INSTALL	STATION / OFFSET
L7			BLAIR ROAD, NW	WOOD	LED	200		8' ARM, TEAR DROP LED	52+63.20 / 12.71 RT
L8			BLAIR ROAD, NW	WOOD	LED	200		8' ARM, TEAR DROP LED	51+78.12 / 13.40 RT
L9			BLAIR ROAD, NW	WOOD	LED	200		WOOD POLE, TRANSFORMER, 8' ARM, TEAR DROP LED	50+88.67 / 14.15 RT
L10			BLAIR ROAD, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	50+27.42 / 19.12 RT
L11			BLAIR ROAD, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	49+57.84 / 23.58 LT
L12			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	33+48.10 / 30.46 RT
L13			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	33+11.17 / 31.14 LT
L14			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	32+80.83 / 29.61 RT
L15			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	32+48.97 / 29.79 LT
L16			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	32+09.12 / 29.61 RT
L17			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	31+80.14 / 29.67 LT
L18			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	31+43.93 / 29.60 RT
L19			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	31+17.36 / 33.57 LT
L20			BUTTERNUT STREET, NW	WOOD	LED	200		8' ARM, TEAR DROP LED	31+08.96 / 37.96 RT
L21			BUTTERNUT STREET, NW	WOOD	LED	200		8' ARM, TEAR DROP LED	30+38.15 / 34.65 LT
L22			4TH STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	10+49.62 / 29.01 LT
L23			4TH STREET, NW	CAST IRON #16	LED	100		FOUNDATION, POLE, LED LUMINAIRE	11+09.73 / 28.80 LT
L24			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	11+29.74 / 31.90 RT
L25			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	11+69.60 / 29.76 LT
L26			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	12+09.56 / 31.94 RT

MANHOLE INSTALLATION

MH #	MARYLAND PLAT	LOCATION	MH TYPE
M10		BLAIR ROAD, NW	4'X4'X4'
M11		BLAIR ROAD, NW	4'X4'X4'
M12		BLAIR ROAD, NW	4'X4'X4'
M13		BUTTERNUT STREET, NW	3'X3'X3'
M14		BUTTERNUT STREET, NW	3'X3'X3'
M15		BUTTERNUT STREET, NW	3'X3'X3'
M16		4TH STREET, NW	3'X3'X3'
M17		4TH STREET, NW	3'X3'X3'

SCALE: 1" = 20'   10' 0 10' 20'

DISTRICT OF COLUMBIA · REGISTERED PROFESSIONAL ENGINEER · PE900533

4/29/2019

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE

REVISIONS

E – 3

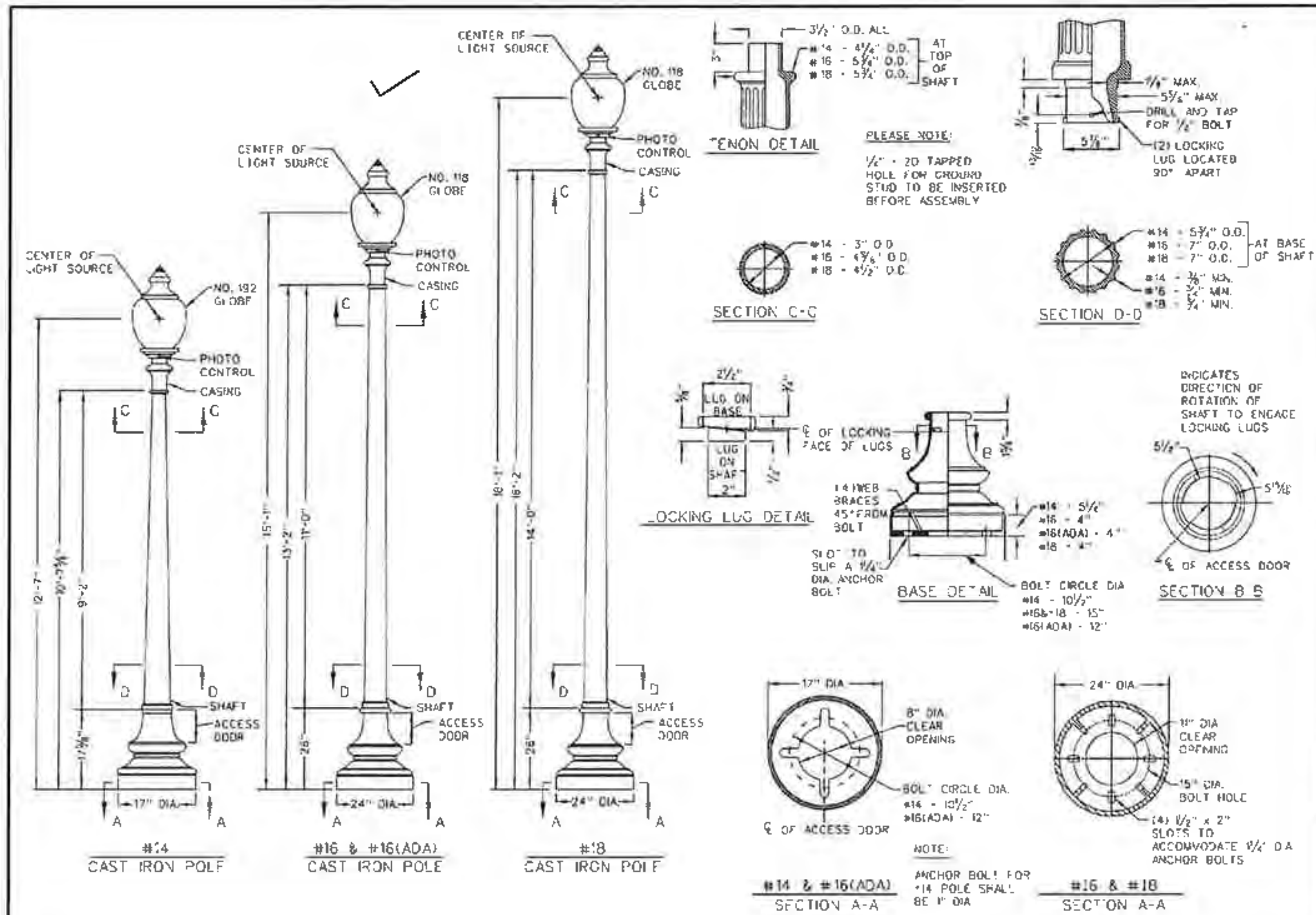
D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

4TH STREET BLAIR ROAD
AND CEDAR STREET, N.W.

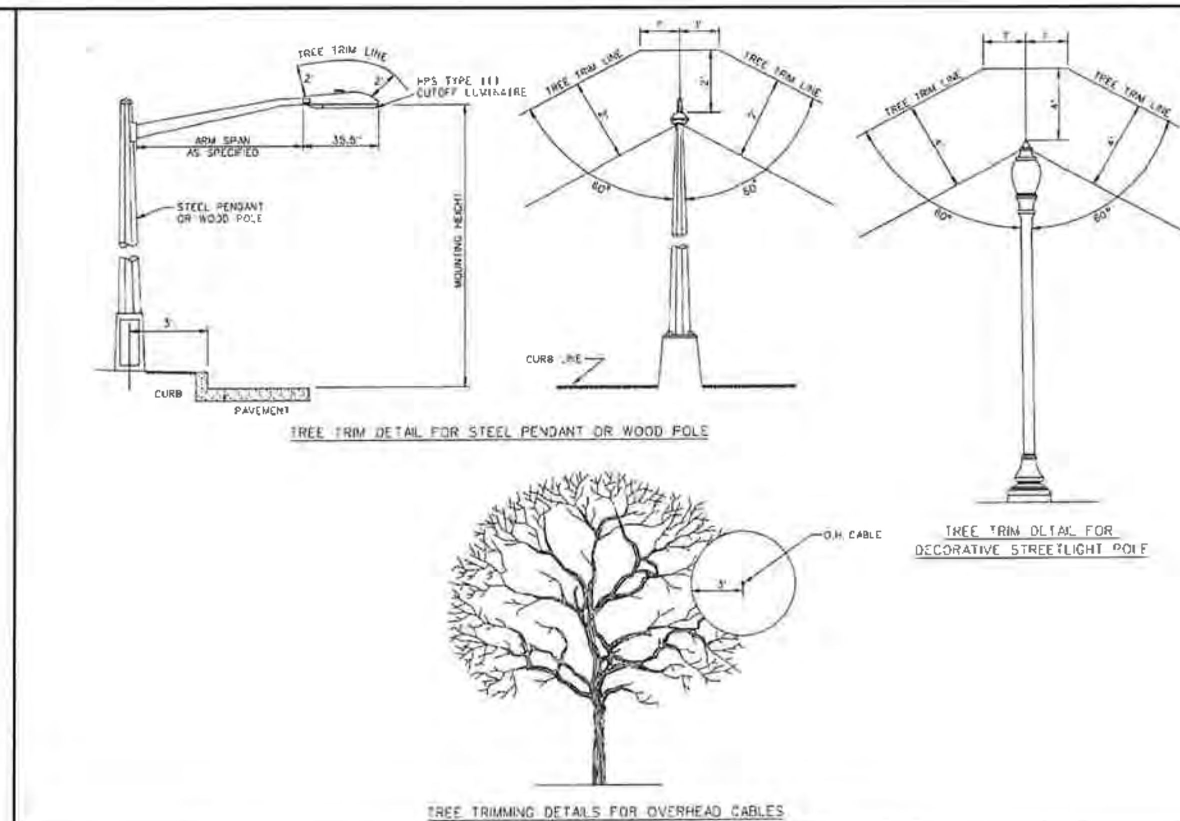
WARD 4 – WASHINGTON, D.C.

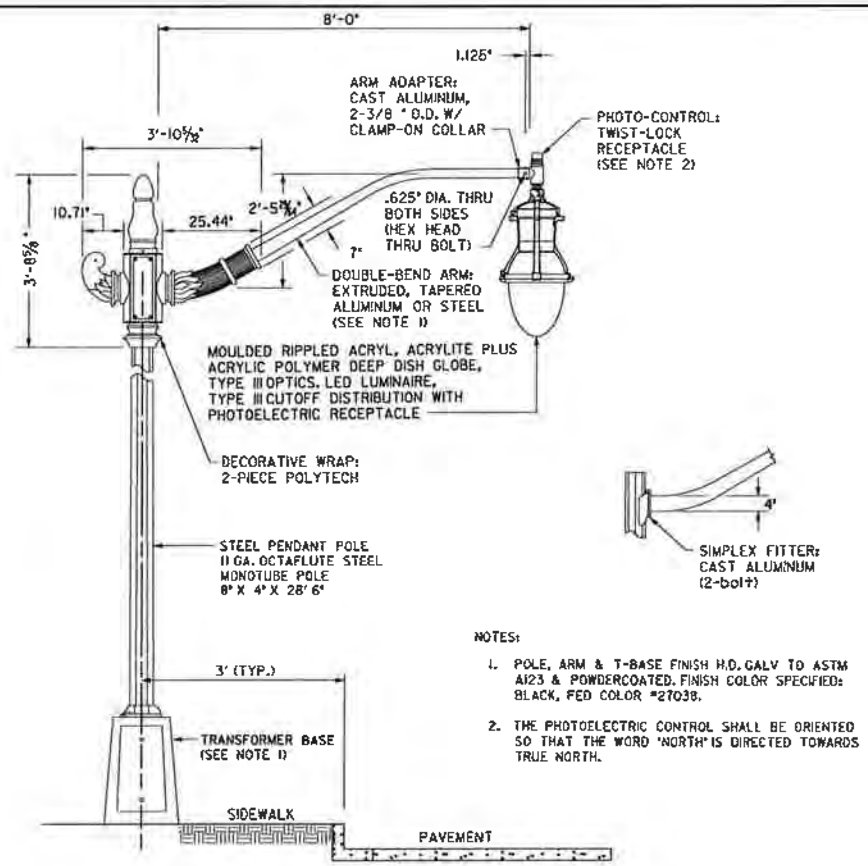
LIGHTING PLAN

PROJECT ENG. MR
DESIGNED BY MR
CHECKED BY MG
DRAWN BY JG
PROJECT MGR. MG
DIVISION CHIEF
DATE 09/2017
FILE
SHEET 59 OF 75



NOTE: MARKS (✓) DENOTE PROJECT REQUIREMENTS.



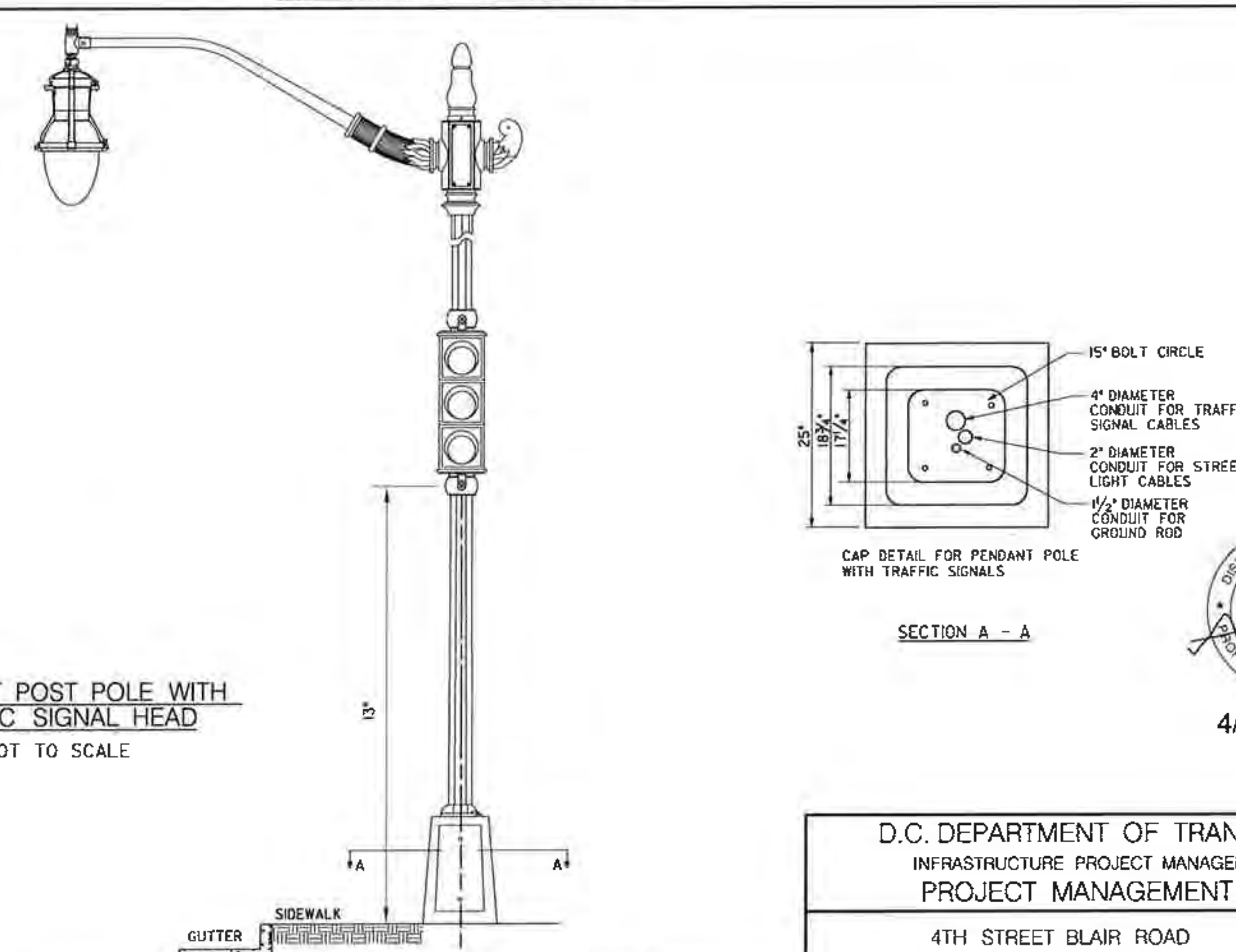


NOTES:

1. POLE, ARM & T-BASE FINISH H.D. GALV TO ASTM A123 & POWDERCOATED. FINISH COLOR SPECIFIED: BLACK, FED COLOR #27038.
2. THE PHOTOELECTRIC CONTROL SHALL BE ORIENTED SO THAT THE WORD 'NORTH' IS DIRECTED TOWARDS TRUE NORTH.

PENDANT POST POLE WITH ARM AND TEARDROP LUMINAIRE

NOT TO SCALE



PENDANT POST POLE WITH TRAFFIC SIGNAL HEAD

NOT TO SCALE

DISTRICT OF COLUMBIA MOHAMMED A. RIZVI PE900533 REGISTERED PROFESSIONAL ENGINEER

4/29/2019

E - 4

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

4TH STREET BLAIR ROAD AND CEDAR STREET, N.W.

WARD 4 - WASHINGTON, D.C.

LIGHTING DETAILS - 1

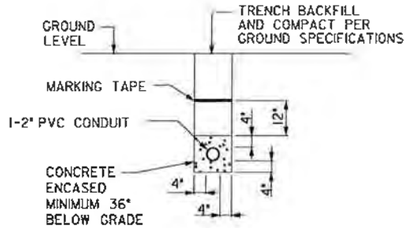
PROJECT ENG. MR
DESIGNED BY MR
CHECKED BY MG
DRAWN BY JG
PROJECT MGR. MG
DIVISION CHIEF
DATE 10/2017
FILE

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

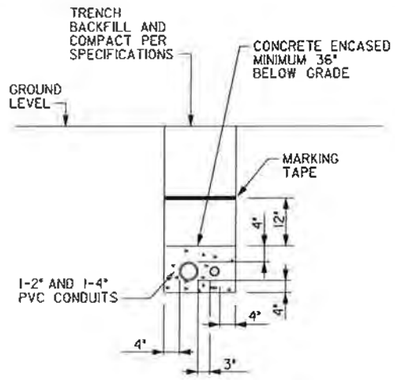
NO.	DESCRIPTION	NAME	DATE

REVISIONS

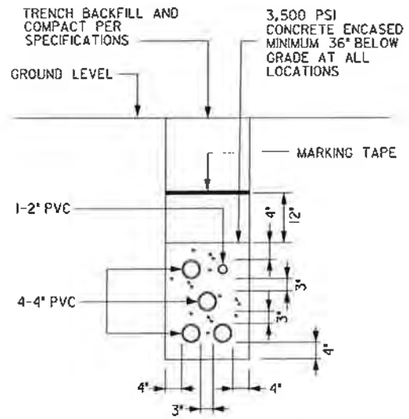
REG	STAFF	PROJECT	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-6888 (416)	61	75



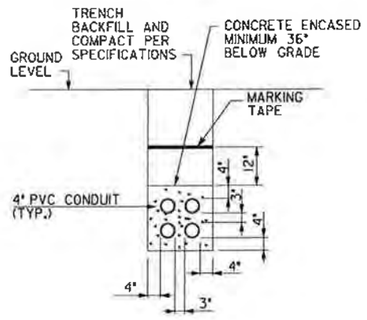
1 WAY DUCT BANK – 1 – 2" CONCRETE
NOT TO SCALE



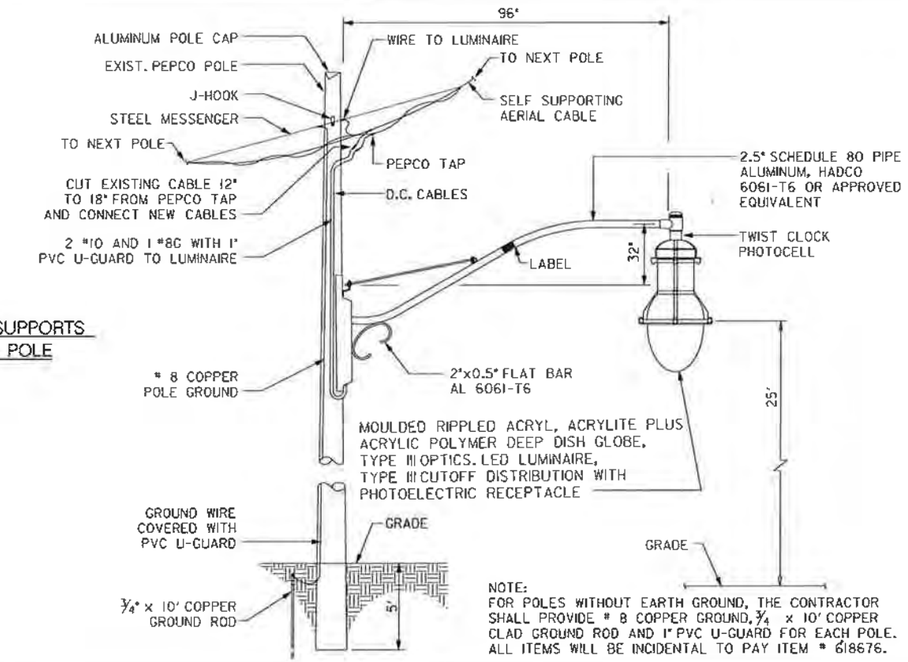
2 WAY DUCT BANK – 1 – 2" AND 1 – 4" CONCRETE
NOT TO SCALE



5 WAY DUCT BANK – 4-4" AND 1-2" CONCRETE
NOT TO SCALE



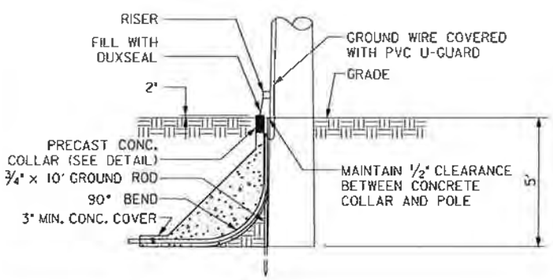
4 WAY DUCT BANK – 4 – 4" CONCRETE
NOT TO SCALE



TEAR DROP LUMINAIRE SUPPORTS FOR CLASS 3 WOOD POLE

N.T.S.

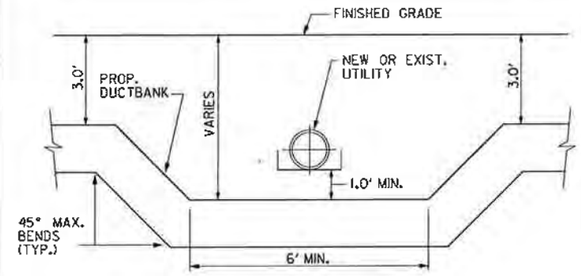
NOTE:
FOR POLES WITHOUT EARTH GROUND, THE CONTRACTOR SHALL PROVIDE # 8 COPPER GROUND, ¾ x 10' COPPER CLAD GROUND ROD AND 1" PVC U-GUARD FOR EACH POLE. ALL ITEMS WILL BE INCIDENTAL TO PAY ITEM # 618676.



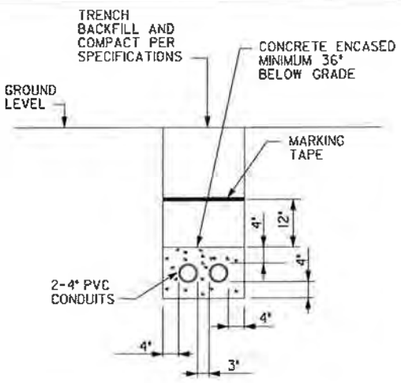
POLE RISER SHIELD FOR CLASS 3 WOOD POLE AND OVERHEAD TO UNDERGROUND SERVICE CONNECTION

N.T.S.

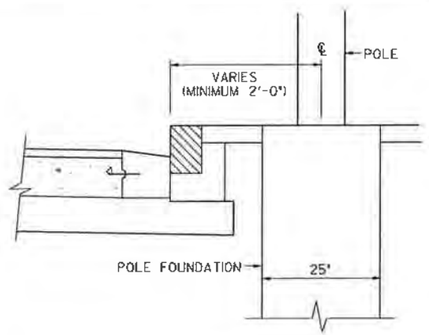
NOTE:
INSTALL 2-4" PVC SWEEP BENDS AT EACH PEPCO WOOD POLE USED AS POWER FEED POINT



DUCTBANK CROSSING UNDER UTILITIES (TYP.)
NOT TO SCALE



2 WAY DUCT BANK – 2 – 4" CONCRETE
NOT TO SCALE



POLE AND FOUNDATION LOCATION
NOT TO SCALE

DISTRICT OF COLUMBIA
MOHAMMED A. RAVI
PE900533
REGISTERED
PROFESSIONAL ENGINEER

4/29/2019

E – 5

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

4TH STREET BLAIR ROAD AND CEDAR STREET, N.W.
WARD 4 – WASHINGTON, D.C.

LIGHTING DETAILS – 2

PROJECT ENG. MR
DESIGNED BY MR
CHECKED BY MG
DRAWN BY JC
PROJECT MGR MG
DIVISION CHIEF
DATE 10/2019
FILE
SHEET 61 OF 75

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

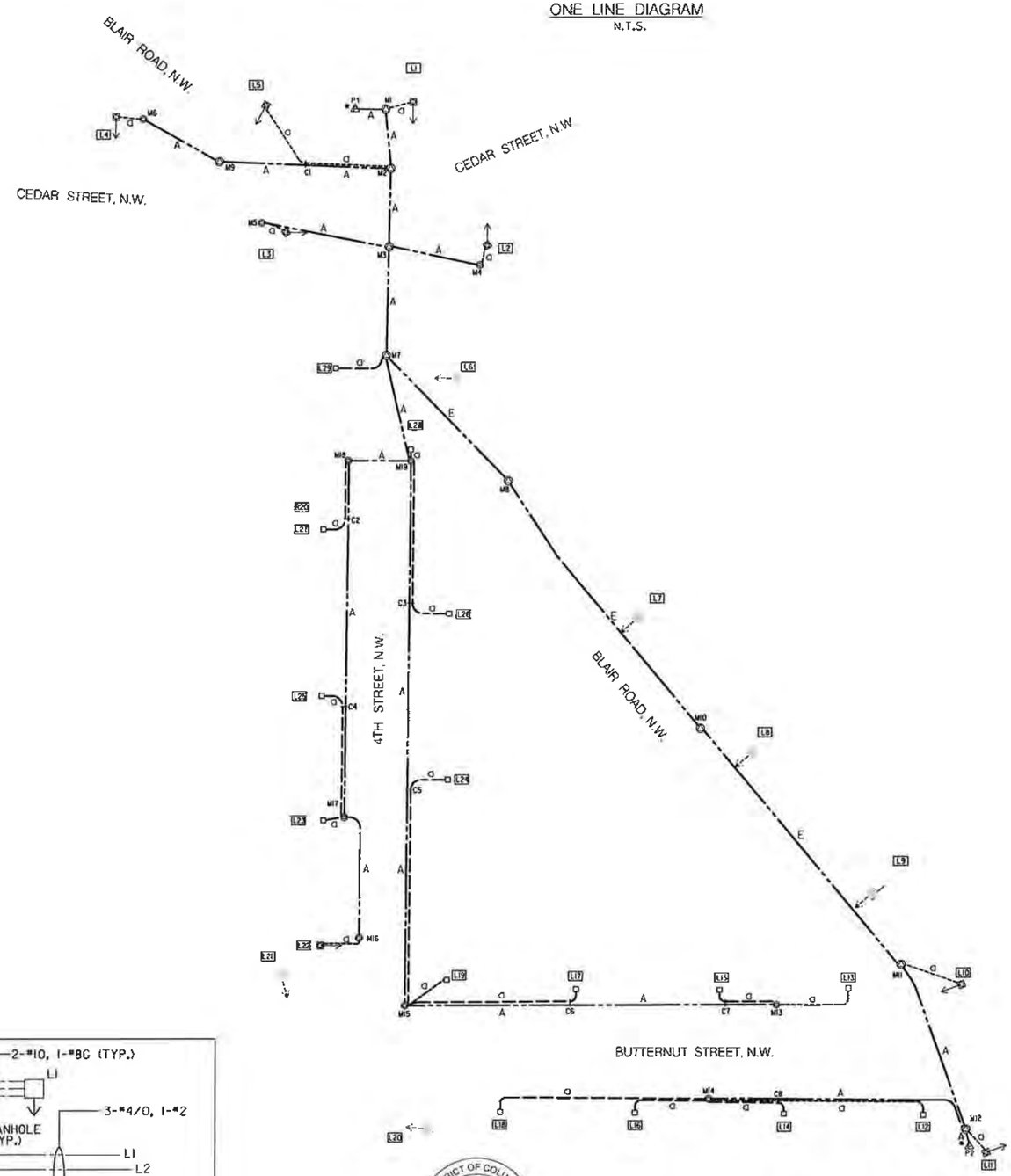
NO.	DESCRIPTION	NAME	DATE

REVISIONS

T:\344200 - 2013 DDOT Master Contract\344225 - Blair Rock Cedar Street 4th Street Int. Improvements\07 Design\DGN\Sheets\Plan Sheets\061.plt - Monday, April 29, 2019 AT 02:25 PM

REV.	STAFF	PROJECT	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	82	75

ONE LINE DIAGRAM
N.T.S.



POWER FEEDS

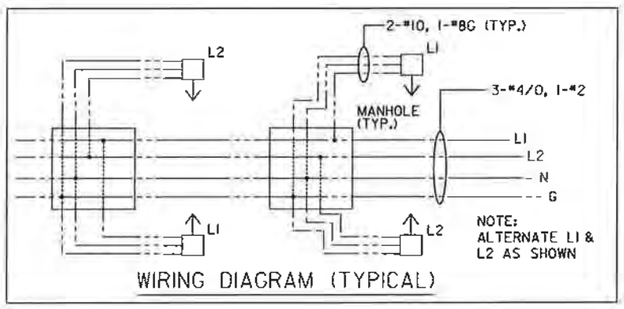
PEPCO FEED P1 - MANHOLE #778687

PEPCO FEED P2 - POLE #795415-060170

NOTE:
THE FOLLOWING TEAR DROP LUMINAIRES ARE PROPOSED ON EXISTING POLES. NO NEW WIRING IS REQUIRED. EXISTING WIRING/CONDUCTORS SHALL BE USED TO MAKE CONNECTIONS TO NEW TEAR DROP LUMINAIRES :
L6, L7, L8, L9, L20, L21.

SYMBOLS LEGEND

*△	PEPCO FEED P#
⊖	PROPOSED 3'x3'x3' MANHOLE
⊘	PROPOSED 4'x4'x4' MANHOLE
⊙→	PENDANT POST STREELIGHT POLE
□	PROPOSED #16 STREET LIGHT POLE
G	2 #10, 1 #8 GROUND
A	3 #4/0, 1 #2 GROUND
E	EMPTY CONDUIT
←-	EXISTING POLE WITH PROPOSED DIRECTION OF LUMINAIRE ARM



WIRING DIAGRAM (TYPICAL)

DISTRICT OF COLUMBIA · MOHAMMED A. NAZIR · PE900533 · REGISTERED PROFESSIONAL ENGINEER

4/29/2019

E – 6

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	NAME	DATE
	REVISIONS		

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

4TH STREET BLAIR ROAD AND CEDAR STREET, N.W.
WARD 4 – WASHINGTON, D.C.

ONE-LINE LIGHTING DIAGRAM

PROJECT ENG. MR
DESIGNED BY MR
CHECKED BY MG
DRAWN BY JG
PROJECT MGR. MG

DIVISION CHIEF
DATE 10/2017
FILE
SHEET 82 OF 75

REC	STAM	PROJECT #	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	63	75

STREETLIGHT POLE INFORMATION (ARM & LUMINAIRE INSTALLATION)

LIGHT #	MARYLAND PLAT	GRID #	LOCATION	POLE TYPE	LIGHT	WATTS	SERV DATE	INSTALL	STATION / OFFSET
L1			CEDAR STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	29+98.78 / 37.87 LT
L2			CEDAR STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	30+31.15 / 33.18 RT
L3			CEDAR STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	29+40.31 / 27.94 RT
L4			CEDAR STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	28+55.35 / 23.03 LT
L5			CEDAR STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	29+27.13 / 32.49 LT
L6			BLAIR ROAD, NW	PENDANT POST	LED	200		8' ARM, TEAR DROP LED	54+11.57 / 16.65 RT
L7			BLAIR ROAD, NW	WOOD	LED	200		8' ARM, TEAR DROP LED	52+63.20 / 12.71 RT
L8			BLAIR ROAD, NW	WOOD	LED	200		8' ARM, TEAR DROP LED	51+78.12 / 13.40 RT
L9			BLAIR ROAD, NW	WOOD	LED	200		WOOD POLE, TRANSFORMER, 8' ARM, TEAR DROP LED	50+88.87 / 14.15 RT
L10			BLAIR ROAD, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	50+27.42 / 19.12 RT
L11			BLAIR ROAD, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	49+57.84 / 23.58 LT
L12			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	33+48.10 / 30.46 RT
L13			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	33+11.17 / 31.14 LT
L14			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	32+80.83 / 29.61 RT
L15			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	32+48.97 / 29.79 LT
L16			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	32+09.12 / 29.61 RT
L17			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	31+80.14 / 29.67 LT
L18			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	31+43.93 / 29.60 RT
L19			BUTTERNUT STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	31+17.36 / 33.57 LT
L20			BUTTERNUT STREET, NW	WOOD	LED	200		8' ARM, TEAR DROP LED	31+08.96 / 37.96 RT
L21			BUTTERNUT STREET, NW	WOOD	LED	200		8' ARM, TEAR DROP LED	30+38.15 / 34.65 LT
L22			4TH STREET, NW	PENDANT POST	LED	200		FOUNDATION, TRANS. BASE, PENDANT POLE, 8' ARM, TEAR DROP LED	10+49.62 / 29.01 LT
L23			4TH STREET, NW	CAST IRON #16	LED	100		FOUNDATION, POLE, LED LUMINAIRE	11+09.73 / 28.80 LT
L24			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	11+29.74 / 31.90 RT
L25			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	11+69.60 / 29.76 LT
L26			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	12+09.56 / 31.94 RT
L27			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	12+49.67 / 29.92 LT
L28			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	12+88.39 / 11.71 RT
L29			4TH STREET, NW	CAST IRON #16	LED	120		FOUNDATION, POLE, LED LUMINAIRE	13+27.14 / 24.86 LT

MANHOLE INSTALLATION

MH #	MARYLAND PLAT	LOCATION	MH TYPE
M1		CEDAR STREET, NW	4'X4'X4'
M2		CEDAR STREET, NW	4'X4'X4'
M3		CEDAR STREET, NW	4'X4'X4'
M4		CEDAR STREET, NW	3'X3'X3'
M5		CEDAR STREET, NW	3'X3'X3'
M6		CEDAR STREET, NW	3'X3'X3'
M7		BLAIR ROAD, NW	4'X4'X4'
M8		BLAIR ROAD, NW	4'X4'X4'
M9		CEDAR STREET, NW	4'X4'X4'
M10		BLAIR ROAD, NW	4'X4'X4'
M11		BLAIR ROAD, NW	4'X4'X4'
M12		BLAIR ROAD, NW	4'X4'X4'
M13		BUTTERNUT STREET, NW	3'X3'X3'
M14		BUTTERNUT STREET, NW	3'X3'X3'
M15		BUTTERNUT STREET, NW	3'X3'X3'
M16		4TH STREET, NW	3'X3'X3'
M17		4TH STREET, NW	3'X3'X3'
M18		4TH STREET, NW	3'X3'X3'
M19		4TH STREET, NW	3'X3'X3'

POWER FEED POINTS

PEPCO FEED #	LOCATION	TYPE
P1	CEDAR STREET, NW	MANHOLE #778687
P2	BLAIR ROAD, NW	POLE #795415-060170

DISTRICT OF COLUMBIA
MOHAMMED A. REZVI
PE900533
REGISTERED PROFESSIONAL ENGINEER

4/29/2019

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

E – 7

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

4TH STREET BLAIR ROAD
AND CEDAR STREET, N.W.
WARD 4 – WASHINGTON, D.C.

PROJECT ENG. MR
DESIGNED BY MR
CHECKED BY MR
DRAWN BY JC
PROJECT MGR MG

LIGHTING INSTALLATION AND
MANHOLE INSTALLATION SCHEDULE

DIVISION CHIEF
DATE 10/2017
FILE:
SHEET 63 OF 75

T:\344200 - 20.3 DDOT Master Contract\344225 - Blair Road_Cedar Street_4th Street_nt. Improvements\07 Design\DDN\Sheets\Plan Sheets\063_PLT-P007_05880.cgn
Monday, Apr 29, 2019 AT 02:25 PM

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	64	75

STREETLIGHT POLE INFORMATION (ARM & LUMINAIRE REMOVAL)

LIGHT #	MARYLAND PLAT	GRID #	LOCATION	POLE TYPE	LIGHT	WATTS	SERV DATE	REMOVE
R1			CEDAR STREET, NW	STEEL	HPS	400		ARM, LUMINAIRE, CONDUCTORS, POLE, FOUNDATION
R2			CEDAR STREET, NW	STEEL	HPS	400		ARM, LUMINAIRE, CONDUCTORS, POLE, FOUNDATION
R3			CEDAR STREET, NW	STEEL	HPS	400		ARM, LUMINAIRE, CONDUCTORS, POLE, FOUNDATION
R4			CEDAR STREET, NW	WOOD	HPS	400		ARM, LUMINAIRE
R5			CEDAR STREET, NW	STEEL	HPS	400		ARM, LUMINAIRE, CONDUCTORS, POLE, FOUNDATION
R6			BLAIR ROAD, NW	STEEL	HPS	400		ARM, LUMINAIRE
R7			BLAIR ROAD, NW	WOOD	HPS	400		ARM, LUMINAIRE
R8			BLAIR ROAD, NW	WOOD	HPS	400		ARM, LUMINAIRE
R9			BLAIR ROAD, NW	WOOD	HPS	400		ARM, LUMINAIRE (RELOCATE POLE, TRANSFORMER)
R10			BLAIR ROAD, NW	WOOD	HPS	400		ARM, LUMINAIRE
R11			BUTTERNUT STREET, NW	WOOD	LED	215		ARM, LUMINAIRE
R12			BUTTERNUT STREET, NW	WOOD	LED	215		ARM, LUMINAIRE
R13			BUTTERNUT STREET, NW	WOOD	LED	215		ARM, LUMINAIRE
R14			BUTTERNUT STREET, NW	WOOD	LED	215		ARM, LUMINAIRE
R15			4TH STREET, NW	WOOD	LED	215, 35		ARMS, LUMINAIRES
R16			4TH STREET, NW	WOOD	LED	215, 35		ARMS, LUMINAIRES
R17			4TH STREET, NW	WOOD	LED	215, 35		ARMS, LUMINAIRES
R18			4TH STREET, NW	WOOD	LED	215, 35		ARMS, LUMINAIRES
R19			4TH STREET, NW	WOOD	LED	215, 35		ARMS, LUMINAIRES
R20			4TH STREET, NW	WOOD	LED	215, 35		ARMS, LUMINAIRES

DISTRICT OF COLUMBIA
MOHAMMED A. ROUF
PE900533
REGISTERED
PROFESSIONAL ENGINEER

4/29/2019

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO.	DESCRIPTION	MARK	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

4TH STREET BLAIR ROAD
AND CEDAR STREET, N.W.
WARD 4 - WASHINGTON, D.C.

PROJECT ENG. MR
DESIGNED BY MR
CHECKED BY MC
DRAWN BY JG
PROJECT MGR. MC

LIGHTING REMOVAL SCHEDULE

DIVISION CHIEF
DATE 10/2017
FILE
SHEET 64 OF 75

T:\344200 - 2013 3301 Master Contrac-\344225 - Blair Road_Cedar Street_4th Street_Int. Improvements\07 Design\DGN\Sheets\Plot Sheets\064.plt-PDDB.015680.dgn
Monday, April 29, 2019 AT 02:25 PM

DIST.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
3	D.C.	STP-8888 (416)	65	75

CONDUIT AND CABLE SUMMARY

FROM STA.	TO STA.	DISTANCE (FT)	4-4"	2-4"	4-4",1-2"	1-2", 1-4"	1-2"	#4/0	#10	#2G	#8G	TRENCHING
P1	M1	12		12				26		9		19
M1	L1	10				10			37		19	17
M1	M2	25	25					101		34		32
M2	C1	40	40					146		49		47
C1	L5	72				72			161		81	79
C1	M9	40	40					146		49		47
M9	M6	39	39					143		48		46
M6	L4	10				10			37		19	17
M2	M3	34	34					128		43		41
M3	M4	41	41					149		50		48
M4	L2	7				7			31		16	14
M3	M5	59	59					203		68		66
M5	L3	13				13			43		22	20
M3	M7	49	49					173		58		56
M7	L29	28					28		73		37	35
M7	M8	81	81					269		90		88
M8	M10	148	148					470		157		155
M10	M11	146	146					464		155		153
M12	L11	12				12			41		21	19
M11	M12	82	82					272		91		89
M11	L10	27				27			71		36	34
P2	M12	5		5				26		9		12
M12	C8	98	98					320		107		105
M14	L18	104					104		225		113	111
C8	L12	107				107			231		116	114
M14	C8	34			34			128	85	43	43	41
C8	L14	7					7		31		16	14
M14	L16	38					38		93		47	45
M13	L13	39				39			95		48	46
M13	C7	23			23			95	63	32	32	30
C7	L15	7					7		31		16	14
C6	C7	75	75					251		84		82
M15	C6	79			79			263	175	88	88	86
C6	L17	7					7		31		16	14
M15	L19	22				22			61		31	29
M15	C5	102			102			332	221	111	111	109
C5	L24	20					20		57		29	27
C3	C5	90	90					296		99		97
M19	C3	67			67			227	151	76	76	74
C3	L26	21					21		59		30	28
M19	L28	3					3		23		12	10
M19	M7	49	49					173		58		56
M19	M18	27	27					107		36		34
M18	C2	27			27			107	71	36	36	34
C2	L27	13					13		43		22	20
C2	C4	90	90					296		99		97
C4	L25	12					12		41		21	19
C4	M17	52			52			182	121	61	61	59
M17	M16	61	61					209		70		68
M17	L23	8					8		33		17	15
M16	L22	18				18			53		27	25
SUB-TOTAL			1274	17	384	337	268	5688	2488	1896	1244	2637
CONTINGENCY			64	1	19	17	13	284	124	95	62	
TOTAL			1338	18	403	354	281	5972	2612	1991	1306	

DISTRICT OF COLUMBIA
MOHAMMED A. RUVI
PE900533
REGISTERED
PROFESSIONAL ENGINEER

4/29/2019

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

NO	DESCRIPTION	NAME	DATE

REVISIONS

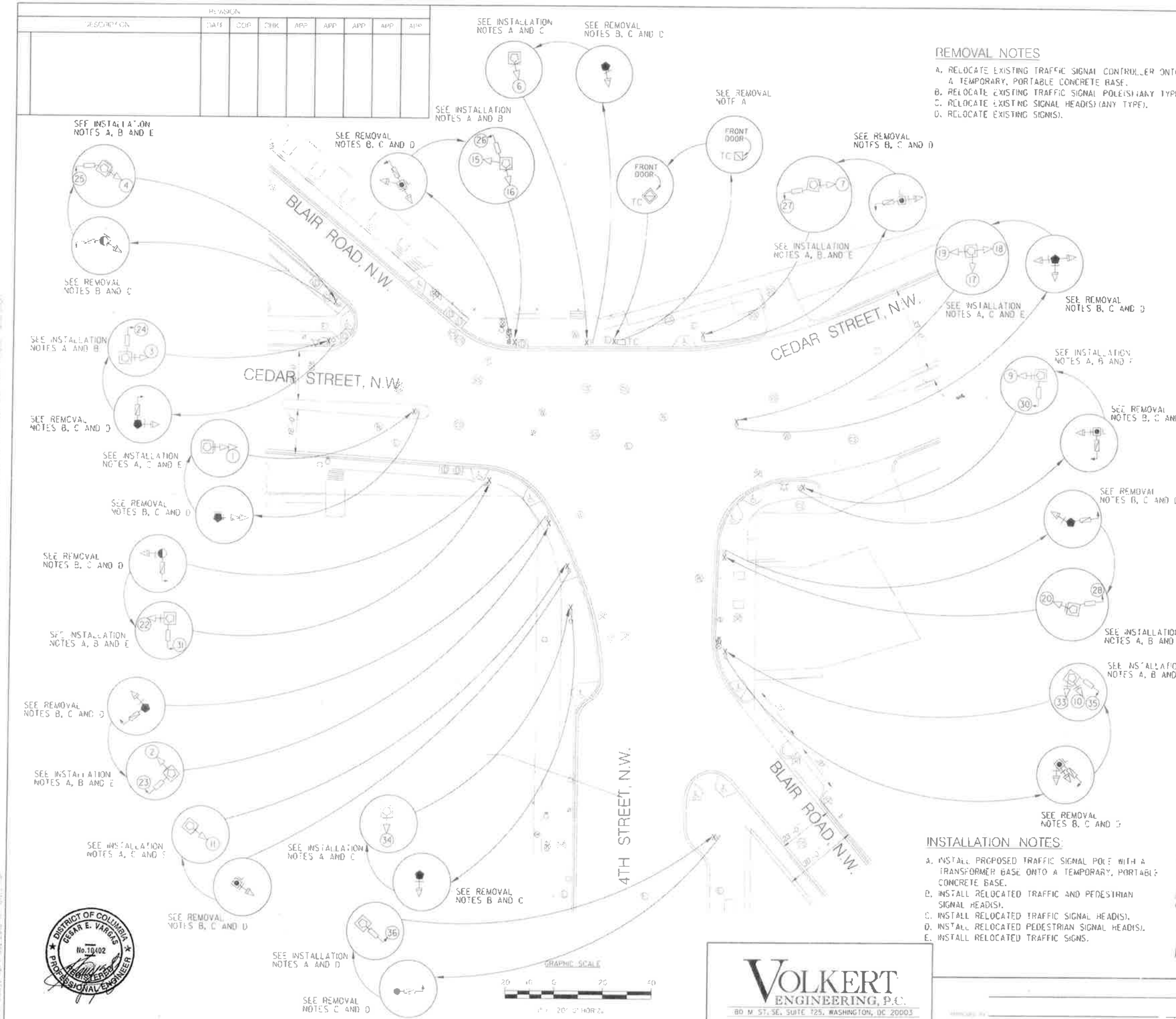
D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION
PROJECT MANAGEMENT DIVISION

4TH STREET BLAIR ROAD
AND CEDAR STREET, N.W.
WARD 4 – WASHINGTON, D.C.

PROJECT ENG. MR
DESIGNED BY MR
CHECKED BY MG
DRAWN BY JG
PROJECT MGR. MG

LIGHTING INSTALLATION AND
MANHOLE INSTALLATION SCHEDULE

DIVISION CHIEF
DATE 10/2019
FILE
SHEET 65 OF 75



REMOVAL NOTES

A. RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER ONTO A TEMPORARY, PORTABLE CONCRETE BASE.
B. RELOCATE EXISTING TRAFFIC SIGNAL POLE(S) (ANY TYPE).
C. RELOCATE EXISTING SIGNAL HEAD(S) (ANY TYPE).
D. RELOCATE EXISTING SIGN(S).

LEGEND:

- EXISTING TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336S CABINET
- EXISTING TRAFFIC SIGNAL CONTROLLER ON A TEMPORARY, PORTABLE CONCRETE BASE
- EXISTING AD II POLE
- EXISTING PENDANT POLE WITH LUMINAIRE
- EXISTING WOOD POLE
- EXISTING 20' TRAFFIC SIGNAL POLE
- PROPOSED 20 FOOT TRAFFIC SIGNAL POLE WITH A TRANSFORMER BASE MOUNTED ON A TEMPORARY, PORTABLE CONCRETE BASE
- PROPOSED LOCATION OF TEMPORARY, PORTABLE CONCRETE BASE
- EXISTING 3 SECTION TRAFFIC SIGNAL HEAD (ALL LENSES 12")
- RELOCATED 3 SECTION TRAFFIC SIGNAL HEAD (ALL LENSES 12")
- EXISTING 4 SECTION TRAFFIC SIGNAL HEAD (ALL LENSES 12")
- RELOCATED 4 SECTION TRAFFIC SIGNAL HEAD (ALL LENSES 12")
- EXISTING 2 SECTION PEDESTRIAN SIGNAL HEAD (ALL LENSES 12")
- RELOCATED 2 SECTION PEDESTRIAN SIGNAL HEAD (ALL LENSES 12")
- EXISTING WHEELCHAIR RAMP
- EXISTING SINGLE CATCH BASIN
- EXISTING DRAINAGE MANHOLE
- EXISTING SEWER MANHOLE
- EXISTING ELECTRICAL MANHOLE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING SIGN

GENERAL NOTES:

1. ALL WORK RELATING TO THE INSTALLATION OF THE TRAFFIC SIGNALS SHALL CONFORM WITH APPROPRIATE PROVISIONS OF THE DDOT 2013 STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATION, STANDARD DRAWINGS AND THE CONTRACT SPECIAL PROVISIONS.
2. CONTRACTOR SHALL SUBMIT TO DDOT CATALOG CUTS FOR ALL MATERIALS TO BE FURNISHED AND INSTALLED. WRITTEN APPROVAL FROM DDOT SHALL BE SECURED PRIOR TO PROCUREMENT.
3. CONTRACTOR SHALL FURNISH ALL TEMPORARY, PORTABLE, CONCRETE BASES, TRAFFIC SIGNAL POLES, TRAFFIC AND PEDESTRIAN SIGNAL HEADS, TRANSFORMER BASES AND ALL MOUNTING HARDWARE.
4. CONTRACTOR SHALL RETURN ALL REMOVED TRAFFIC SIGNAL EQUIPMENT TO THE DDOT SIGNAL SHOP. CONTACT TRAFFIC SIGNAL SHOP AT LEAST 72 HOURS IN ADVANCE AT 202-698-3654 TO ARRANGE SERVICE.
5. THE EXISTING PEPCO POWER IS TO BE MODIFIED. THE CONTRACTOR SHALL CONTACT PEPCO TO ARRANGE SERVICE AND PAY FEES.
6. CONTRACTOR SHALL RELOCATE ALL SIGNS ON EXISTING POLES TO TEMPORARY POLES, UNLESS INDICATED OTHERWISE ON PLAN.
7. NO ABOVE GROUND HARDWARE WILL BE PLACED SUCH THAT A MINIMUM 4' CONTINUOUS PATH FOR ADA PURPOSES IS NOT MAINTAINED.
8. ALL TEMPORARY POLES SHALL BE PROPERLY GROUNDED. DDOT SIGNAL TECHNICIAN WILL NOT ACTIVATE ANY SIGNAL UNLESS POLES ARE PROPERLY GROUNDED.
9. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROPER ALIGNMENT AND OPERATION OF ALL SIGNALS ON TEMPORARY POLES.
10. NO TEMPORARY CABLES SHALL BE DIRECT BURIED. ALL TEMPORARY CABLING SHALL BE PROPERLY ENCLOSED IN FLEX CONDUIT AND SHALL BE ACCESSIBLE SHOULD EMERGENCY REPLACEMENT BE REQUIRED.

CABLE NOTES:

1. DDOT TO MAKE ALL ELECTRICAL CONNECTIONS INSIDE CONTROLLER CABINET. CONTRACTOR TO MAKE ALL ELECTRICAL CONNECTIONS IN TRAFFIC AND PEDESTRIAN SIGNAL HEADS.
2. CONTRACTOR SHALL FURNISH AND INSTALL NEW 7C, 14 AWG CABLE TO ALL NEW TRAFFIC AND PEDESTRIAN SIGNAL HEADS.
3. CONTRACTOR SHALL PROVIDE 50 FEET OF SLACK CABLE COILED NEATLY AT EACH TEMPORARY, PORTABLE, CONCRETE BASE.
4. TEMPORARY SIGNAL CABLES EXTENDING OVER GROUND SURFACE SHALL BE PROTECTED BY FLEXIBLE PLASTIC CONDUIT.

INSTALLATION NOTES:

A. INSTALL PROPOSED TRAFFIC SIGNAL POLE WITH A TRANSFORMER BASE ONTO A TEMPORARY, PORTABLE CONCRETE BASE.
B. INSTALL RELOCATED TRAFFIC AND PEDESTRIAN SIGNAL HEAD(S).
C. INSTALL RELOCATED TRAFFIC SIGNAL HEAD(S).
D. INSTALL RELOCATED PEDESTRIAN SIGNAL HEAD(S).
E. INSTALL RELOCATED TRAFFIC SIGNS.

TS - 1

SEQUENCE OF OPERATION DRAWING NO. TS- 213 (OPT)

ACISA 5009 TEMP

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATIONS ADMINISTRATION

BLAIR ROAD / CEDAR STREET / 4TH STREET
TRAFFIC SIGNAL MODIFICATION

SUBMITTED: TRAFFIC SIGNAL PROJECT ENGINEER — DATE 4-6-2018
RECOMMENDED: TRAFFIC SIGNAL DESIGN PROJECT MANAGER — DATE
TRAFFIC SIGNAL MAINTENANCE DIVISION MANAGER
APPROVED: TRAFFIC SIGNAL PROGRAM MANAGER — DATE 4-6-2018

DESIGNED BY: MR
DRAWN BY: JG
REVISED BY: MG
DATE: 04/2018
DRAWING NO. S 128

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

DISTRICT OF COLUMBIA CESAR E. VARGAS No. 10402 REGISTERED PROFESSIONAL ENGINEER

DESCRIPTION	REVISION							
	NO.	COP	CHK	APP	APP	APP	APP	APP

INSTALLATION NOTES:

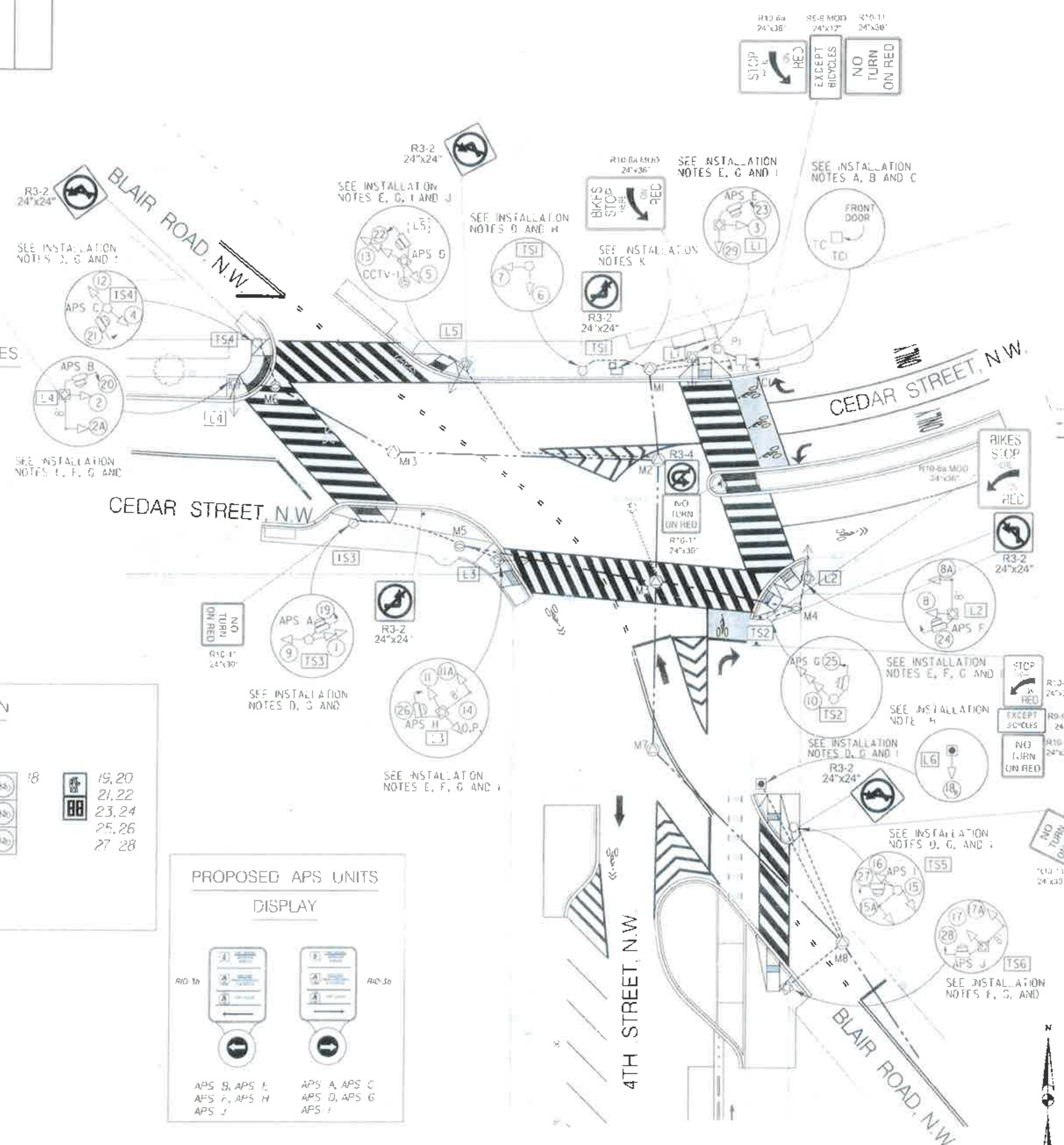
A. INSTALL PROPOSED TRAFFIC CONTROLLER FOUNDATION.
B. INSTALL PROPOSED TRAFFIC CONTROLLER CABINET.
C. INSTALL PROPOSED TRAFFIC CONTROLLER.
D. INSTALL PROPOSED 20 FOOT TRAFFIC SIGNAL POLE.
E. INSTALL PROPOSED PENDANT POLE WITH LUMINAIRE.
F. INSTALL 8' MAST ARM.
G. INSTALL PROPOSED LED TRAFFIC AND PEDESTRIAN SIGNAL HEAD(S).
H. INSTALL PROPOSED LED TRAFFIC SIGNAL HEAD(S).
I. INSTALL PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS) SYSTEM.
J. INSTALL CCTV CAMERA.
K. RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER CABINET.

ACCESSIBLE PEDESTRIAN SIGNAL (APS) SYSTEM NOTES

1. CONTRACTOR SHALL SUBMIT TO DDOT CATALOG CUTS FOR THE ACCESSIBLE PEDESTRIAN SIGNAL (APS) SYSTEM TO BE FURNISHED AND INSTALLED AS PER ADA REQUIREMENTS. WRITTEN APPROVAL FROM DDOT SHALL BE SECURED PRIOR TO APS SYSTEM PROCUREMENT.
2. ALL ASSOCIATED HARDWARE AND CABLING FOR THE APS SHALL BE INCIDENTAL TO EACH APS SYSTEM. CONTRACTOR SHALL INSTALL APS PER THE SPECIFICATIONS PROVIDED BY THE VENDOR.

MAST ARM NOTES

1. BACK PLATE SHALL BE AFFIXED TO EACH MAST ARM MOUNTED SIGNAL HEAD.
2. BOTTOM OF MAST ARM MOUNTED SIGNAL HEADS SHALL BE 16 FEET ABOVE ROADWAY SURFACE.
3. ASTRO-BRAC OR APPROVED EQUIVALENT SHALL BE USED TO MOUNT SIGNAL HEADS 2A, 8A AND 11A TO MAST ARM.



PROPOSED TRAFFIC AND PEDESTRIAN SIGNAL HEAD DISPLAY

PROPOSED APS UNITS DISPLAY

APS B, APS E, APS F, APS H, APS J

APS A, APS C, APS D, APS G, APS I

CABLE NOTES:

1. DDOT TO MAKE ALL ELECTRICAL CONNECTIONS INSIDE CONTROLLER CABINET. CONTRACTOR TO MAKE ALL ELECTRICAL CONNECTIONS IN TRAFFIC AND PEDESTRIAN SIGNAL HEADS.
2. CONTRACTOR SHALL FURNISH AND INSTALL NEW 7C, 14 AWG CABLE TO ALL TRAFFIC AND PEDESTRIAN SIGNAL HEADS (SEE CABLE SCHEMATICS).

LEGEND:

- PROPOSED TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336S CABINET AND EXTERNAL UPS SYSTEM
- PROPOSED 28.5-FOOT PENDANT POST STREETLIGHT POLE WITH LUMINAIRE AND TRANSFORMER BASE
- PROPOSED 20 FOOT TRAFFIC SIGNAL POLE
- PROPOSED 3 SECTION TRAFFIC SIGNAL HEAD (ALL LENSES 12")
- PROPOSED 4 SECTION TRAFFIC SIGNAL HEAD (ALL LENSES 12")
- PROPOSED 5 SECTION TRAFFIC SIGNAL HEAD (ALL LENSES 12")
- PROPOSED 3 SECTION O.P. TRAFFIC SIGNAL HEAD (ALL LENSES 12")
- PROPOSED 2 SECTION PEDESTRIAN SIGNAL HEAD (ALL LENSES 12")
- PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSH BUTTON
- PROPOSED WHEELCHAIR RAMP
- PROPOSED SINGLE CATCH BASIN
- PROPOSED 3'X3'X3' ELECTRICAL MANHOLE
- PROPOSED 4'X4'X4' ELECTRICAL MANHOLE
- PROPOSED CCTV CAMERA
- EXISTING DRAINAGE MANHOLE
- EXISTING SEWER MANHOLE
- EXISTING ELECTRICAL MANHOLE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING TREE
- EXISTING SIGN
- TRAVEL DIRECTION
- RIGHT OF WAY LINE
- PROPOSED 2" PVC CONDUIT
- PROPOSED 2" & 4" PVC CONDUIT
- PROPOSED 4 4" PVC CONDUIT
- 8-FOOT MAST ARM WITH CAP AND CLAMP
- PROPOSED LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT

GENERAL NOTES:

1. ALL WORK RELATING TO THE INSTALLATION OF THE TRAFFIC SIGNALS SHALL CONFORM WITH APPROPRIATE PROVISIONS OF THE DDOT 2013 STANDARD SPECIFICATIONS AND STANDARD DRAWINGS, 2007 SUPPLEMENTAL SPECIFICATION AND THE CONTRACT SPECIAL PROVISIONS.
2. CONTRACTOR SHALL SUBMIT TO DDOT CATALOG CUTS FOR ALL MATERIALS TO BE FURNISHED AND INSTALLED. WRITTEN APPROVAL FROM DDOT SHALL BE SECURED PRIOR TO PROCUREMENT.
3. CONTRACTOR SHALL FURNISH AND INSTALL TRAFFIC SIGNAL POLES, TRAFFIC AND PEDESTRIAN SIGNAL HEADS, TRANSFORMER BASES AND ALL MOUNTING HARDWARE.
4. CONTRACTOR SHALL REMOVE ALL TEMPORARY, PORTABLE, CONCRETE BASES, TRAFFIC SIGNAL POLES AND SIGNAL HEADS.
5. CONTRACTOR SHALL RETURN ALL REMOVED TRAFFIC SIGNAL EQUIPMENT TO THE DDOT SIGNAL SHOP. CONTACT TRAFFIC SIGNAL SHOP AT LEAST 72 HOURS IN ADVANCE AT 202-698-3654 TO ARRANGE SERVICE.
6. A NEW PEPCO POWER IS REQUIRED. THE CONTRACTOR SHALL CONTACT PEPCO TO ARRANGE SERVICE AND PAY FEES.
7. THE CONTRACTOR SHALL COORDINATE TRAFFIC SIGNAL WORK WITH STREETLIGHTING WORK.
8. THE CONTRACTOR SHALL NOT REMOVE ANY EXISTING TRAFFIC SIGNAL EQUIPMENT UNTIL THE NEW TRAFFIC SIGNAL EQUIPMENT IS INSTALLED, OPERATIONAL AND ACCEPTED BY DDOT IPMA/TOA.
9. NO ABOVE GROUND HARDWARE SHALL BE LOCATED SUCH THAT A CONTINUOUS 4' PATH FOR ADA PURPOSES IS NOT MAINTAINED.
10. ALL NEW CONTROLLER CABINETS SHALL INCLUDE DDOT FULL UPS.

SEQUENCE OF OPERATION DRAWING NO. TS-213-J

ACISA 5009

FINAL

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATIONS ADMINISTRATION

BLAIR ROAD / CEDAR STREET / 4TH STREET

SUBMITTED: TRAFFIC SIGNAL PROJECT ENGINEER — DATE 4-9-2018

RECOMMENDED: TRAFFIC SIGNAL DESIGN PROJECT MANAGER — DATE

TRAFFIC SIGNAL MAINTENANCE DIVISION MANAGER — DATE

APPROVED: TRAFFIC SIGNAL PROGRAM MANAGER — DATE 4-10-2018

GRAPHIC SCALE 20 10 0 20 40 — 1" = 20' HORIZ.

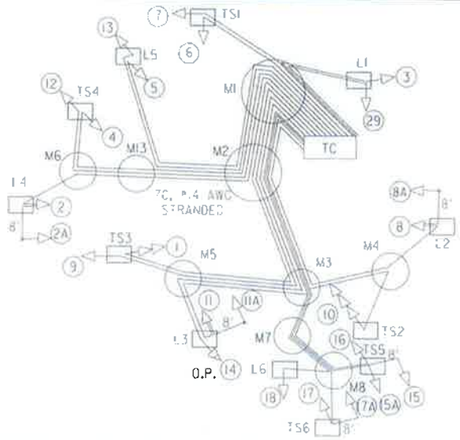
VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

DISTRICT OF COLUMBIA — CESAR E. VARGAS — No. 10402 — REGISTERED PROFESSIONAL ENGINEER

REVISION								
DESCRIPTION	DATE	COR	CHK	APP	APP	APP	APP	APP

NO	STATE	PROJECT	SHEET NO	TOTAL SHEETS
3	D.C.	STP-8888 (416)	68	75

PROPOSED TRAFFIC SIGNAL HEAD CABLE SCHEMATIC



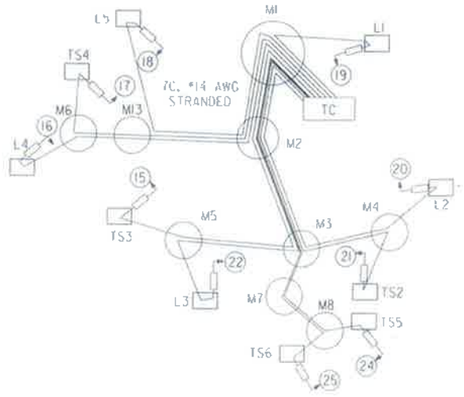
PROPOSED TRAFFIC SIGNAL HEAD CABLE ROUTING

TC-M1-M2-M3-M5-TS3 - 9
TC-M1-M2-M13-M6-L4 - 20
TC-M1-M2-M13-M6-TS4 - 21
TC-M1-M2-L5 - 22
TC-M1-M2-M3-M4-L2 - 8
8-8A
TC-M1-M2-M3-M5-TS3 - 9
5-5A
TC-M1-M2-M3-M4-TS2 - 10
TC-M1-M2-M3-M5-L3 - 11
11-11A
TC-M1-M2-M13-M6-TS4 - 2
TC-M1-M2-L5 - 3
TC-M1-M2-M3-M5-L3 - 14
TC-M1-M2-M3-M7-M8-TS5 - 15
TC-M1-M2-M3-M7-M8-TS5 - 16
TC-M1-M2-M3-M7-M8-TS6 - 17
17-17A
TC-M1-M2-M3-M7-M8-L6 - 18
TC-M1-L1 - 29

CONDUIT SUMMARY

LOCATION TO LOCATION	SCHEDULE	SIZE (DIA.) INCH	NUMBER OF CONDUITS	QUANTITY: CONDUIT FEET	2 INCH BEND (EA)	4 INCH BEND (EA)
TC-P1	PROPOSED	2	1	10	1	--
TC-M1	PROPOSED	2.4	1,2	30	1	2
M1-TS1	PROPOSED	2.4	1,1	25	1	1
M1-L1	PROPOSED*	2.4	1,1	15	1	1
M1-M2	PROPOSED*	4	4	25	-	-
M2-M3	PROPOSED*	4	4	40	-	-
M2-L5	PROPOSED*	2.4	1,1	80	1	1
M2-M13	PROPOSED*	4	4	85	-	-
M3-M4	PROPOSED*	4	4	50	-	-
M4-L2	PROPOSED*	2.4	1,1	10	1	1
M4-TS2	PROPOSED	2.4	1,1	10	1	1
M3-M5	PROPOSED*	4	4	55	-	-
M5-L3	PROPOSED*	2.4	1,1	20	1	1
M5-TS3	PROPOSED	2.4	1,1	35	1	1
M6-L4	PROPOSED*	2.4	1,1	15	1	1
M6-TS4	PROPOSED	2.4	1,1	15	1	1
M3-MH#792645	PROPOSED	4	2	25	-	-
M3-M7	PROPOSED*	4	4	55	-	-
M7-M8	PROPOSED	4	4	85	-	-
M8-TS5	PROPOSEC	2.4	1,1	40	-	-
M8-TS6	PROPOSED	2.4	1,1	20	-	1
M13-M6	PROPOSED*	4	4	45	-	-
M8-L6	PROPOSED*	2.4	1,1	60	-	-

PROPOSED PEDESTRIAN SIGNAL HEAD CABLE SCHEMATIC



PROPOSED PEDESTRIAN SIGNAL HEAD CABLE ROUTING

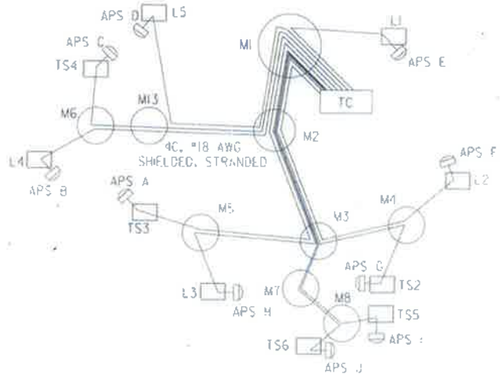
TC-M1-M2-M3-M5-TS3 - 9
TC-M1-M2-M13-M6-L4 - 20
TC-M1-M2-M13-M6-TS4 - 21
TC-M1-M2-L5 - 22
TC-M1-L1 - 23
TC-M1-M2-M3-M4-L2 - 24
TC-M1-M2-M3-M4-TS2 - 25
TC-M1-M2-M3-M5-L3 - 26
TC-M1-M2-M3-M7-M8-TS5 - 27
TC-M1-M2-M3-M7-M8-TS6 - 28

STATION SCHEDULE

STA.	STATUS	DESCRIPTION
TC-□	PROPOSED	TRAFFIC SIGNAL CONTROLLER WITH UPS
P1	EXISTING	PEPCO MANHOLE (SERVICE FEED LOCATION #XXXXX)
M1	PROPOSED*	DDOT MANHOLE (4'X4'X4')
M2	PROPOSED*	DDOT MANHOLE (4'X4'X4')
M3	PROPOSED*	DDOT MANHOLE (4'X4'X4')
M4	PROPOSED*	DDOT MANHOLE (3'X3'X3')
M5	PROPOSED*	DDOT MANHOLE (3'X3'X3')
M6	PROPOSED*	DDOT MANHOLE (3'X3'X3')
M7	PROPOSED*	DDOT MANHOLE (4'X4'X4')
M8	PROPOSED*	DDOT MANHOLE (4'X4'X4')
M13	PROPOSED*	DDOT MANHOLE (4'X4'X4')
L1	PROPOSED*	PENDANT POLE WITH LUMINAIRE
L2	PROPOSED*	PENDANT POLE WITH LUMINAIRE,8 FOOT MAST ARM WITH CAP AND CLAMP
L3	PROPOSED*	PENDANT POLE WITH LUMINAIRE,8 FOOT MAST ARM WITH CAP AND CLAMP
L4	PROPOSED*	PENDANT POLE WITH LUMINAIRE,8 FOOT MAST ARM WITH CAP AND CLAMP
L5	PROPOSED*	PENDANT POLE WITH LUMINAIRE
L6	EXISTING	PENDANT POLE
TS1	PROPOSED	20 FOOT TRAFFIC SIGNAL POLE
TS2	PROPOSED	20 FOOT TRAFFIC SIGNAL POLE
TS3	PROPOSED	20 FOOT TRAFFIC SIGNAL POLE
TS4	PROPOSED	20 FOOT TRAFFIC SIGNAL POLE
TS5	PROPOSED	20 FOOT TRAFFIC SIGNAL POLE
TS6	PROPOSED	20 FOOT TRAFFIC SIGNAL POLE

* SEE NOTE 6 ON SHEET 69

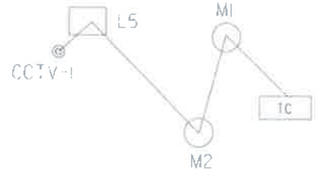
PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS) CABLE SCHEMATIC



PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS) CABLE ROUTING

TC-M1-M2-M3-M5-TS3 - APS A
TC-M1-M2-M13-M6-L4 - APS B
TC-M1-M2-M13-M6-TS4 - APS C
TC-M1-M2-L5 - APS D
TC-M1-L1 - APS E
TC-M1-M2-M3-M4-L2 - APS F
TC-M1-M2-M3-M4-TS2 - APS G
TC-M1-M2-M3-M5-L3 - APS H
TC-M1-M2-M3-M7-M8-TS5 - APS I
TC-M1-M2-M3-M7-M8-TS6 - APS J

PROPOSED CCTV CAMERA CABLE SCHEMATIC



7 CONDUCTOR #14 AWG STRANDED CABLE TWISTED PAIR COMMUNICATION CABLE (CAT 5E OSP) RODENT RESISTANT FROM POWER TO COMPOSITE CABLE

PROPOSED CCTV CAMERA CABLE ROUTING

TC-M1-M2-TS-CCTV-

TS - 3

SEQUENCE OF OPERATION DRAWING NO. TS 213.0

ACISA 5009

FINAL

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATIONS ADMINISTRATION

BLAIR ROAD /CEDAR STREET /4TH STREET

SIGNAL NO./TYPE OF CONTROL

SUBMITTED:	TRAFFIC SIGNAL PROJECT ENGINEER	DATE 4-9-2018
RECOMMENDED:	TRAFFIC SIGNAL DESIGN PROJECT MANAGER	DATE
	TRAFFIC SIGNAL MAINTENANCE DIVISION MANAGER	DATE
APPROVED	TRAFFIC SIGNAL PROGRAM MANAGER	DATE 4/10/2018

DRAWN CHECKED BY MR
DESIGNED BY MR
DRAWN BY JC
REVIEWED BY MG
DATE 04/2018
SCALE N.T.S
SHEET 2 OF 3
DRAWING NO. S-188 B

DISTRICT OF COLUMBIA CESAR E. VARGAS No. 10402 REGISTERED PROFESSIONAL ENGINEER

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

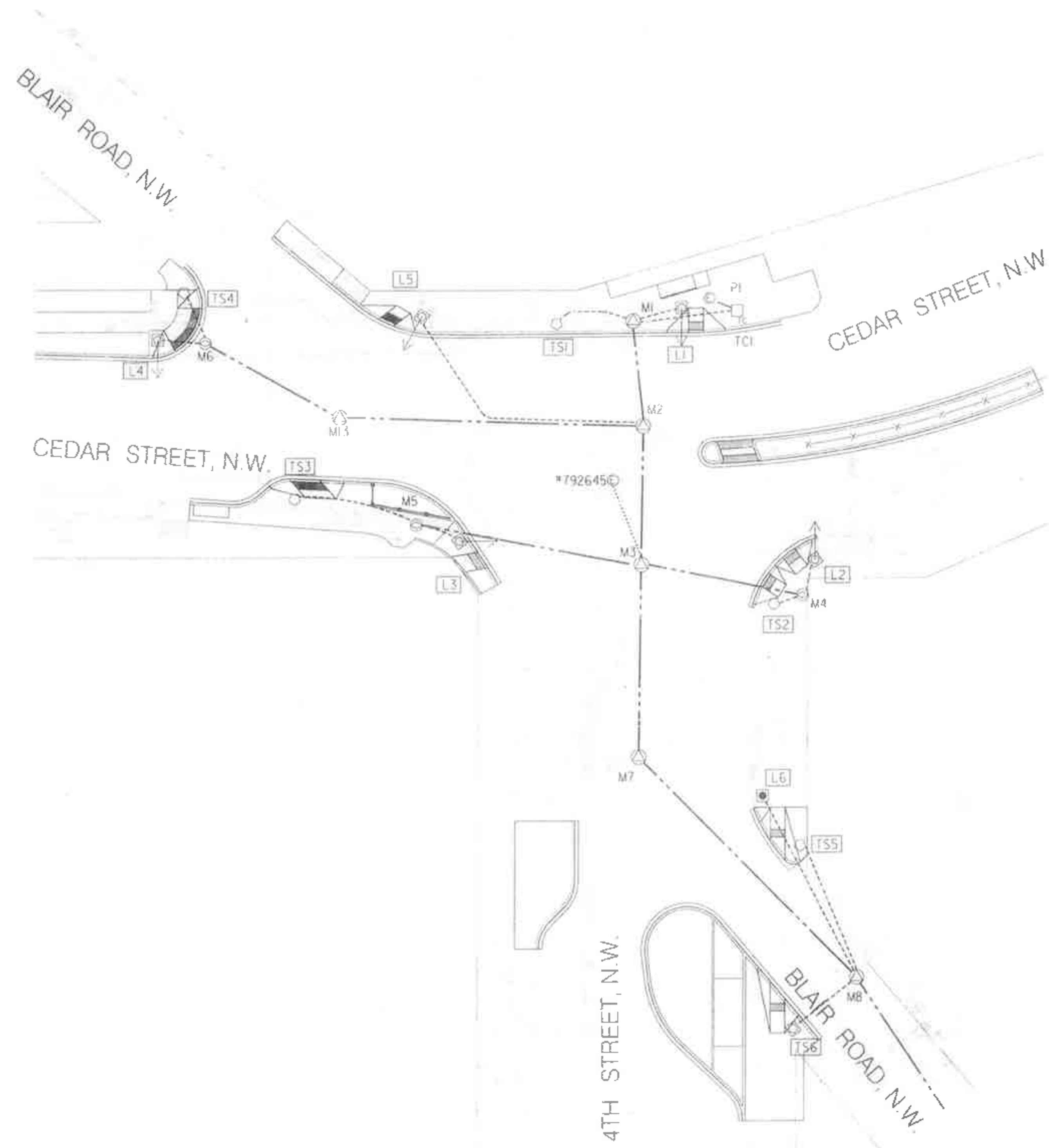
APPROVED AS NOTED — DATE

REVISION							
DESCRIPTION	DATE	CON	CHK	APP	APP	APP	APP

		PROJECT		
3	D.C.	STP 8888 (416)	69	75

GENERAL NOTES

1. THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE BASED ON FIELD SURVEY DATA AND/OR RECORD DRAWINGS OF THE ORIGINAL LOCATIONS. THE INFORMATION SHOWN IS NOT NECESSARILY COMPLETE AND THE LOCATION OF UTILITIES SHOWN IS APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UTILITIES WELL IN ADVANCE OF CONDUCTING CONSTRUCTION OPERATIONS WHICH COULD DAMAGE THESE FACILITIES, IN THE AREAS WHERE PROPOSED CONSTRUCTION MAY CONFLICT WITH EXISTING UTILITIES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES. IF AN UNDERGROUND UTILITY IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE OWNER OF THE SAID UTILITY. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE OR BELOW THE GROUND SHALL BE REPAIRED BY OR UNDER THE DIRECTION OF THE UTILITY OWNER AT CONTRACTOR'S EXPENSE. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR BACKFILL AN EXCAVATION AFFECTING SAID UTILITY WITHOUT FIRST RECEIVING PERMISSION FROM THE UTILITY OWNER.
2. THE CONTRACTOR SHALL EXCAVATE AND LOCATE VERTICALLY AND HORIZONTALLY ALL UTILITIES IN CLOSE PROXIMITY TO THE PROPOSED TRAFFIC SIGNAL WORK AREA AS NECESSARY FOR CONSTRUCTION.
3. NOTIFY MISS UTILITY 1-800-257-7777, 48 HOURS PRIOR TO EXCAVATING.
4. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 2' CLEARANCE TO ALL UTILITIES DURING CONSTRUCTION.
5. ALL TRAFFIC SIGNAL CONDUITS SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR.
6. CONDUIT SUMMARIES AND STATION SCHEDULE ITEMS INDICATED WITH AN ASTERISK (*) ARE TO BE INSTALLED AND PAID FOR AS PART OF THE UNDERGROUND STREETLIGHTING WORK.
7. THE QUANTITIES SHOWN IN THE SUMMARY OF QUANTITIES ARE ESTIMATED BASED ON WHAT IS INDICATED ON THE PLANS. THE CONTRACTOR SHALL MAKE HIS/HER OWN DETERMINATION OF QUANTITIES FOR THE PAY ITEM BID.



LEGEND:

- PROPOSED TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336SS CABINET
- PROPOSED PENDANT POLE WITH LUMINAIRE
- PROPOSED 20 FOOT TRAFFIC SIGNAL POLE
- PROPOSED WHEELCHAIR RAMP
- PROPOSED SINGLE CATCH BASIN
- PROPOSED 3'X3'X3' ELECTRICAL MANHOLE
- PROPOSED 4'X4'X4' ELECTRICAL MANHOLE
- EXISTING DRAINAGE MANHOLE
- EXISTING SEWER MANHOLE
- EXISTING ELECTRICAL MANHOLE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING TREE
- EXISTING SIGN
- PROPOSED SEWER LINE
- EXISTING STORM DRAIN LINE
- EXISTING SANITARY SEWER LINE
- EXISTING WATER UTILITY LINE
- EXISTING ELECTRICAL UTILITY LINE
- EXISTING GAS UTILITY LINE
- PROPOSED 2" PVC CONDUIT
- PROPOSED 2" & 4" PVC CONDUIT
- PROPOSED 4-4" PVC CONDUIT
- R.O.W. RIGHT OF WAY LINE
- PROPOSED LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT

DISTRICT OF COLUMBIA · CESAR E. VARGAS · No. 10402 · REGISTERED PROFESSIONAL ENGINEER

GRAPHIC SCALE

20 10 0 20 40

1" = 20' HORIZ.

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

SEQUENCE OF OPERATION DRAWING NO. TS-2113

TS 4

ACISA 5009

UTILITY

DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATIONS ADMINISTRATION

BLAIR ROAD / CEDAR STREET / 4TH STREET
UTILITY PLAN

SUBMITTED: TRAFFIC SIGNAL PROJECT ENGINEER — DATE 4-6-2018

RECOMMENDED: TRAFFIC SIGNAL DESIGN PROJECT MANAGER — DATE

TRAFFIC SIGNAL MAINTENANCE DIVISION MANAGER — DATE

APPROVED: TRAFFIC SIGNAL PROGRAM MANAGER — DATE 4-6-2018

FIELD CHECKED BY MR · DESIGNED BY MR · DRAWN BY JG · REVIEWED BY MC · DATE 04/2018 · SCALE 1"=20' · SHEET 3 OF 3 · DRAWING NO. S-1664

REVISION								
DESCRIPTION	DATE	COR	CHK	APP	APP	APP	APP	APP

NO	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
3	DC	STP 8888 (016)	70	75

INSTALLATION NOTES:

A. INSTALL PROPOSED TRAFFIC CONTROLLER FOUNDATION.
B. INSTALL PROPOSED TRAFFIC CONTROLLER CABINET.
C. INSTALL PROPOSED TRAFFIC CONTROLLER.
D. INSTALL PROPOSED 20 FOOT TRAFFIC SIGNAL POLE.
E. INSTALL PROPOSED PENDANT POLE WITH LUMINAIRE.
F. INSTALL 8' MAST ARM.
G. INSTALL PROPOSED LED TRAFFIC AND PEDESTRIAN SIGNAL HEAD(S).
H. INSTALL PROPOSED LED TRAFFIC SIGNAL HEAD(S).
I. INSTALL PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS) SYSTEM.

ACCESSIBLE PEDESTRIAN SIGNAL (APS) SYSTEM NOTES:

1. CONTRACTOR SHALL SUBMIT TO DDOT CATALOG CUTS FOR THE ACCESSIBLE PEDESTRIAN SIGNAL (APS) SYSTEM TO BE FURNISHED AND INSTALLED AS PER ADA REQUIREMENTS. WRITTEN APPROVAL FROM DDOT SHALL BE SECURED PRIOR TO APS SYSTEM PROCUREMENT.

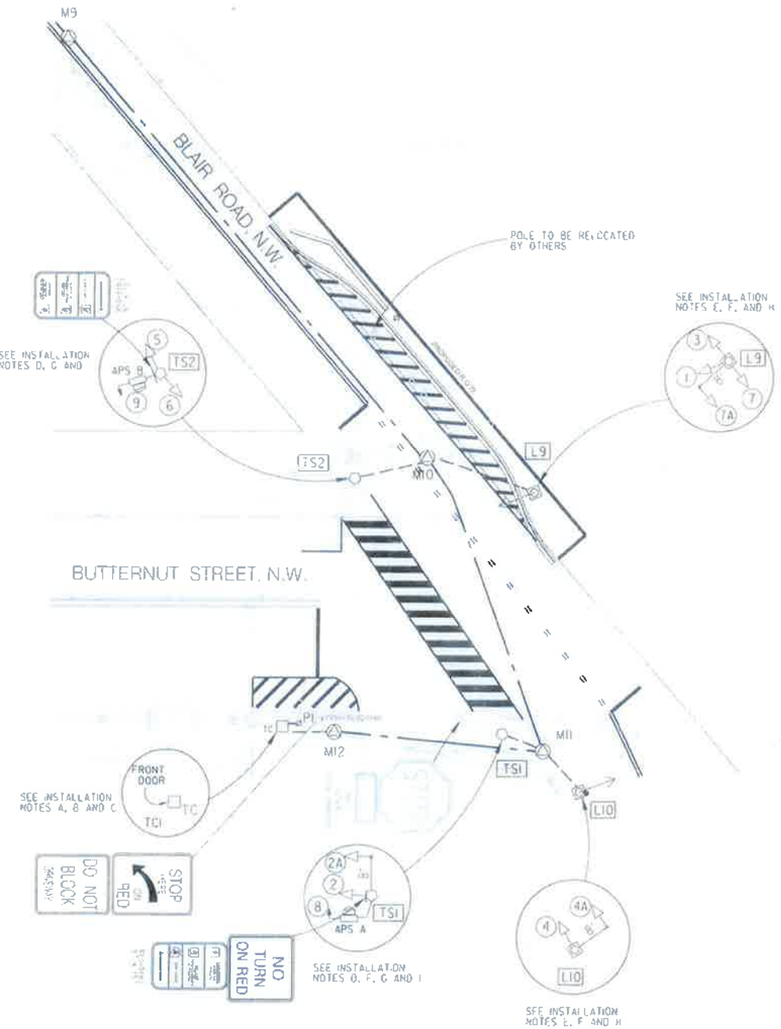
2. ALL ASSOCIATED HARDWARE AND CABLING FOR THE APS SHALL BE INCIDENTAL TO EACH APS SYSTEM. CONTRACTOR SHALL INSTALL APS PER THE SPECIFICATIONS PROVIDED BY THE VENDOR.

MAST ARM NOTES:

1. BACK PLATE SHALL BE AFFIXED TO EACH MAST ARM MOUNTED SIGNAL HEAD.
2. BOTTOM OF MAST ARM MOUNTED SIGNAL HEADS SHALL BE 16 FEET ABOVE ROADWAY SURFACE.
3. ASTRO-BRAC OR APPROVED EQUIVALENT SHALL BE USED TO MOUNT SIGNAL HEADS 2A, 4A AND 7A TO MAST ARM.

PROPOSED TRAFFIC AND PEDESTRIAN SIGNAL HEAD DISPLAY

PROPOSED APS UNITS DISPLAY



GRAPHIC SCALE
20 10 0 20 40
1" = 20'-0" HORIZ.

LEGEND:

- TC — PROPOSED TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336S5 CABINET AND EXTERNAL UPS SYSTEM
- PROPOSED PENDANT POLE WITH LUMINAIRE
- PROPOSED 20 FOOT TRAFFIC SIGNAL POLE
- PROPOSED 3 SECTION TRAFFIC SIGNAL HEAD (ALL LENSES 12")
- PROPOSED 2 SECTION PEDESTRIAN SIGNAL HEAD (ALL LENSES 12")
- PROPOSED LUMINAIRE AND SUPPORT
- PROPOSED SINGLE CATCH BASIN
- PROPOSED 3'X3'X3' ELECTRICAL MANHOLE
- PROPOSED 4'X4'X4' ELECTRICAL MANHOLE
- 8 — PROPOSED 8-FOOT MAST ARM
- EXISTING WOOD POLE
- D — EXISTING DRAINAGE MANHOLE
- S — EXISTING SEWER MANHOLE
- E — EXISTING ELECTRICAL MANHOLE
- W — EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING TREE
- EXISTING SIGN
- TRAVEL DIRECTION
- RIGHT OF WAY LINE
- PROPOSED 2" PVC CONDUIT
- PROPOSED 2" & 4" PVC CONDUIT
- PROPOSED 4-4" PVC CONDUIT

GENERAL NOTES:

1. ALL WORK RELATING TO THE INSTALLATION OF THE TRAFFIC SIGNALS SHALL CONFORM WITH APPROPRIATE PROVISIONS OF THE DDOT 2003 STANDARD SPECIFICATIONS AND STANDARD DRAWINGS, 2007 SUPPLEMENTAL SPECIFICATION AND THE CONTRACT SPECIAL PROVISIONS.
2. CONTRACTOR SHALL SUBMIT TO DDOT CATALOG CUTS FOR ALL MATERIALS TO BE FURNISHED AND INSTALLED. WRITTEN APPROVAL FROM DDOT SHALL BE SECURED PRIOR TO PROCUREMENT.
3. CONTRACTOR SHALL FURNISH AND INSTALL TRAFFIC SIGNAL POLES, TRAFFIC AND PEDESTRIAN SIGNAL HEADS, TRANSFORMER BASES AND ALL MOUNTING HARDWARE.
4. CONTRACTOR SHALL REMOVE ALL TEMPORARY, PORTABLE, CONCRETE BASES, TRAFFIC SIGNAL POLES AND SIGNAL HEADS.
5. CONTRACTOR SHALL RETURN ALL REMOVED TRAFFIC SIGNAL EQUIPMENT TO THE DDOT SIGNAL SHOP. CONTACT TRAFFIC SIGNAL SHOP AT LEAST 72 HOURS IN ADVANCE AT 202-698-3654 TO ARRANGE SERVICE.
6. A NEW PEPCO POWER IS REQUIRED. THE CONTRACTOR SHALL CONTACT PEPCO TO ARRANGE SERVICE AND PAY FEES.
7. THE CONTRACTOR SHALL COORDINATE TRAFFIC SIGNAL WORK WITH STREETLIGHTING WORK.
8. THE CONTRACTOR SHALL NOT REMOVE ANY EXISTING TRAFFIC SIGNAL EQUIPMENT UNTIL THE NEW TRAFFIC SIGNAL EQUIPMENT IS INSTALLED, OPERATIONAL AND ACCEPTED BY DDOT (PMA/TOA).
9. NO ABOVE GROUND HARDWARE SHALL BE LOCATED SUCH THAT A CONTINUOUS 4' PATH FOR ADA PURPOSES IS NOT MAINTAINED.
10. ALL NEW CONTROLLER CABINETS SHALL INCLUDE DDOT FULL UPS.

VOLKERT ENGINEERING, P.C.
80 M ST. SE. SUITE 725, WASHINGTON, DC 20003

DISTRICT OF COLUMBIA CESAR E. VARGAS No. 10402 REGISTERED PROFESSIONAL ENGINEER

N

SEQUENCE OF OPERATION DRAWING NO TS 1859

TS - 5

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATIONS ADMINISTRATION

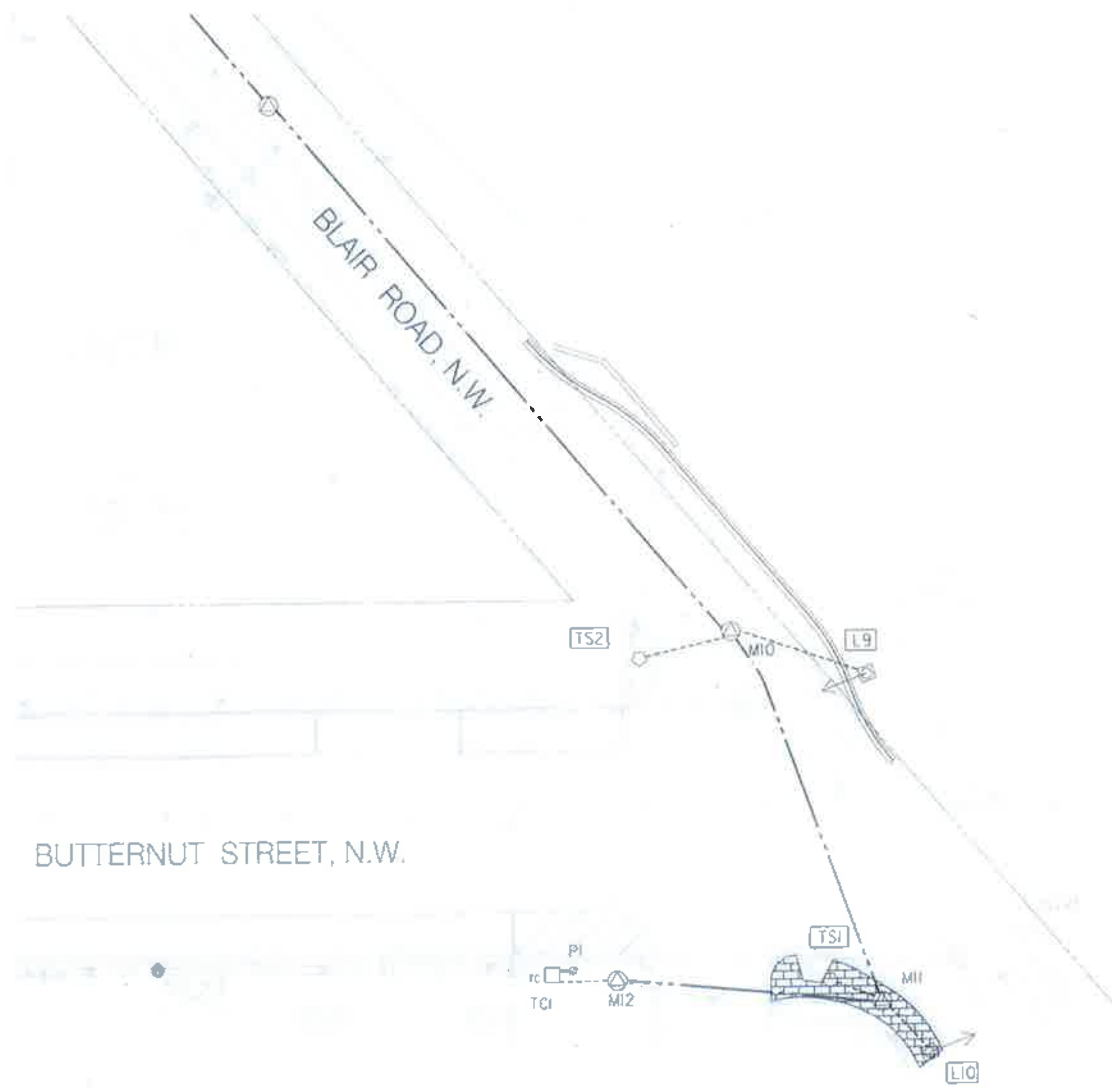
BLAIR ROAD AND BUTTERNUT STREET N.W
TRAFFIC SIGNAL INSTALLATION

SUBMITTED: TRAFFIC SIGNAL PROJECT ENGINEER — DATE 4-6-2018
RECOMMENDED: TRAFFIC SIGNAL DESIGN PROJECT MANAGER — DATE
TRAFFIC SIGNAL MAINTENANCE DIVISION MANAGER — DATE
APPROVED: TRAFFIC SIGNAL PROGRAM MANAGER — DATE 4-6-18

ACISA	5274
FINAL	
FIELD CHECKED BY	MR
DESIGNED BY	MR
DRAWN BY	JG
REVIEWED BY	MC
DATE	04/2018
SCALE	1" = 20'
SHEET	5
DRAWING NO.	S 2398

FED. RD.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
3	DC	STP-8888 (416)	72	75

REVISION								
DESCRIPTION	DATE	COR	CHK	APP	APP	APP	APP	APP



GENERAL NOTES:

1. THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE BASED ON FIELD SURVEY DATA AND/OR RECORD DRAWINGS OF THE ORIGINAL LOCATIONS. THE INFORMATION SHOWN IS NOT NECESSARILY COMPLETE AND THE LOCATION OF UTILITIES SHOWN IS APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UTILITIES WELL IN ADVANCE OF CONDUCTING CONSTRUCTION OPERATIONS WHICH COULD DAMAGE THESE FACILITIES, IN THE AREAS WHERE PROPOSED CONSTRUCTION MAY CONFLICT WITH EXISTING UTILITIES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES. IF AN UNDERGROUND UTILITY IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE OWNER OF THE SAID UTILITY. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE OR BELOW THE GROUND SHALL BE REPAIRED BY OR UNDER THE DIRECTION OF THE UTILITY OWNER AT CONTRACTOR'S EXPENSE. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR BACKFILL AN EXCAVATION AFFECTING SAID UTILITY WITHOUT FIRST RECEIVING PERMISSION FROM THE UTILITY OWNER.
2. THE CONTRACTOR SHALL EXCAVATE AND LOCATE VERTICALLY AND HORIZONTALLY ALL UTILITIES IN CLOSE PROXIMITY TO THE PROPOSED TRAFFIC SIGNAL WORK AREA AS NECESSARY FOR CONSTRUCTION.
3. NOTIFY MISS UTILITY 1-800-257-7777, 48 HOURS PRIOR TO EXCAVATING.
4. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 2' CLEARANCE TO ALL UTILITIES DURING CONSTRUCTION.
5. ALL TRAFFIC SIGNAL CONDUITS SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR.
6. CONDUIT SUMMARIES AND STATION SCHEDULE ITEMS INDICATED WITH AN ASTERISK (*) ARE TO BE INSTALLED AND PAID FOR AS PART OF THE UNDERGROUND STREETLIGHTING WORK.
7. THE QUANTITIES SHOWN IN THE SUMMARY OF QUANTITIES ARE ESTIMATED BASED ON WHAT IS INDICATED ON THE PLANS. THE CONTRACTOR SHALL MAKE HIS/HER OWN DETERMINATION OF QUANTITIES FOR THE PAY ITEM BID.

LEGEND:

- TC PROPOSED TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336SS CABINET
- PROPOSED PENDANT POLE WITH LUMINAIRE
- PROPOSED 20 FOOT TRAFFIC SIGNAL POLE
- PROPOSED 4'X4'X4' ELECTRICAL MANHOLE
- EXISTING DRAINAGE MANHOLE
- EXISTING SEWER MANHOLE
- EXISTING WATER MANHOLE
- EXISTING SIGN
- EXISTING STORM DRAIN LINE
- EXISTING SANITARY SEWER LINE
- EXISTING WATER UTILITY LINE
- EXISTING OVERHEAD ELECTRICAL UTILITY LINE
- EXISTING GAS UTILITY LINE
- PROPOSED 2' PVC CONDUIT
- PROPOSED 2' & 4' PVC CONDUIT
- PROPOSED 4 4' PVC CONDUIT
- R.O.W. RIGHT OF WAY LINE
- PROPOSED LUMINAIRE AND SUPPORT

DISTRICT OF COLUMBIA REGISTERED PROFESSIONAL ENGINEER CESAR E. VARGAS No. 10402

GRAPHIC SCALE 20 10 0 20 40

1" = 20'-0" HORIZ.

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

TS - 7

SEQUENCE OF OPERATION DRAWING NO. TS- 1859

ACISA 5274

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATIONS ADMINISTRATION

UTILITY

BLAIR ROAD AND BUTTERNUT STREET, N.W.
UTILITY PLAN

SUBMITTED: TRAFFIC SIGNAL PROJECT ENGINEER — DATE 4-6-2018

RECOMMENDED: TRAFFIC SIGNAL DESIGN PROJECT MANAGER — DATE

TRAFFIC SIGNAL MAINTENANCE DIVISION MANAGER — DATE

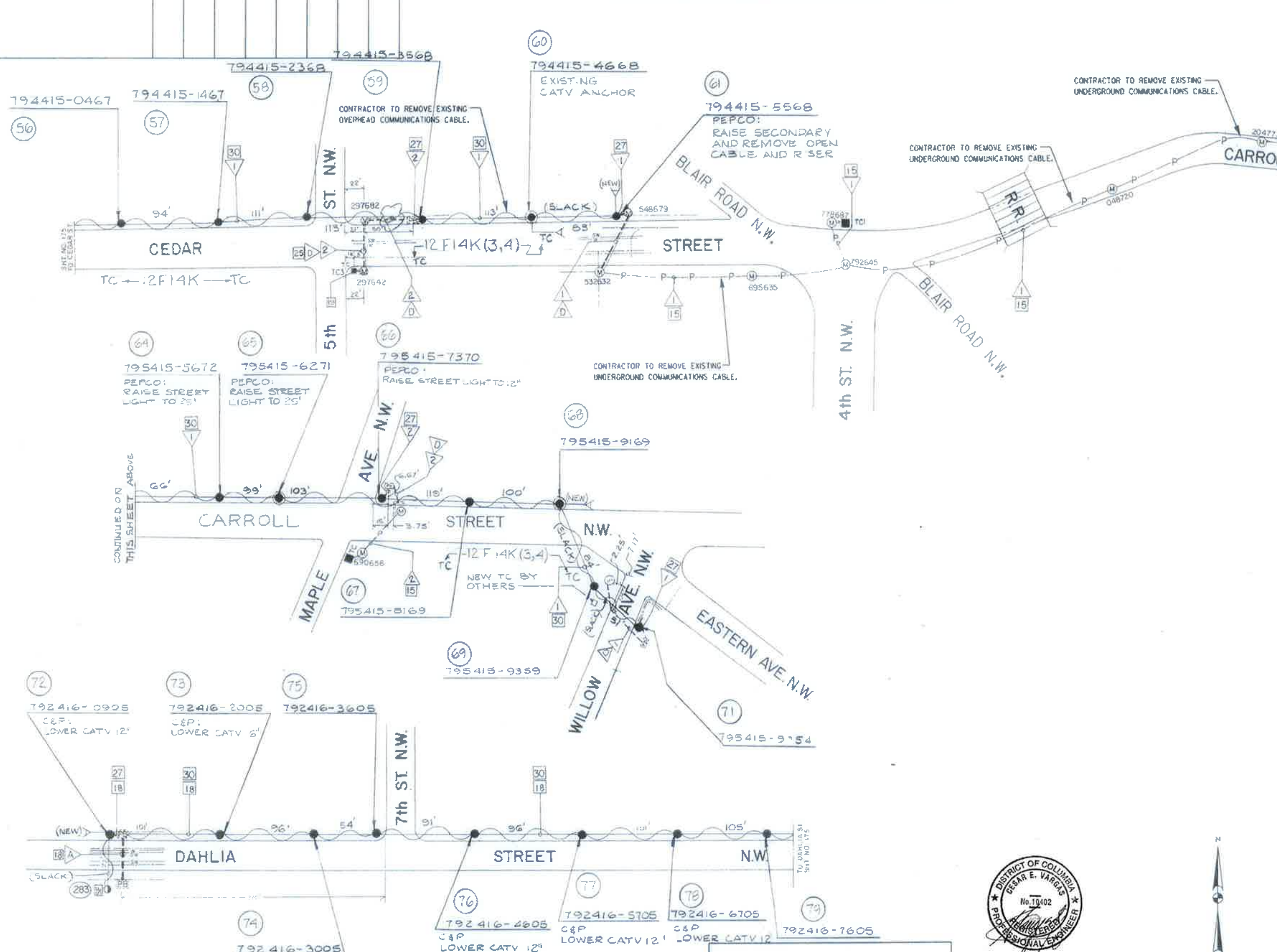
APPROVED: TRAFFIC SIGNAL PROGRAM MANAGER — DATE 4-6-18

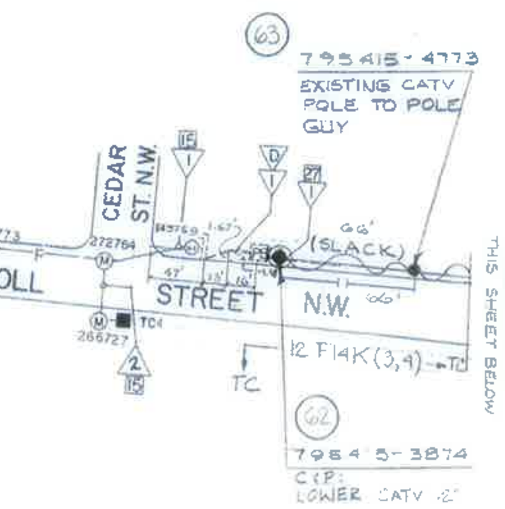
FIELD CHECKED BY	MR
DESIGNED BY	MR
DRAWN BY	JG
REVIEWED BY	MG
DATE	04/2018
SCALE	1" = 20'
SHEET 3 OF 3	
DRAWING NO.	S-2398

REVISION								
DESCRIPTION	DATE	CDR	CHK	APP	APP	APP	APP	APP

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
3	D C	STP-8888 (416)	73	75

EXISTING COMMUNICATIONS CABLE





NOTE:

1. CONTRACTOR SHALL REMOVE EXISTING UNDERGROUND AND OVERHEAD 12 PAIR COMMUNICATIONS CABLE ALONG CEDAR STREET BETWEEN CONTROLLERS TC1 AND TC3; AND BETWEEN CONTROLLERS TC1 AND TC4

LEGEND:

- (D) 1-4" ELECTRICAL PVC CONDUIT
- (E) 2-4" ELECTRICAL PVC CONDUIT
- (1) 1-12 PAIR COMMUNICATION CABLE
- (2) 2-12 PAIR COMMUNICATION CABLE
- [15] COMMUNICATION CABLE IN EXISTING PEPCO DUCT
- [27] 50mm (2") CONDUIT RISER
- [30] OVERHEAD MESSENGER AND COMMUNICATION CABLE

SYMBOLOGY:

- ■ EXISTING TRAFFIC SIGNAL CONTROLLER CABINET
- (M) EXISTING PEPCO MANHOLE *
- --P-- EXISTING PEPCO CONDUIT
- EXISTING OVERHEAD COMMUNICATION CABLE

TS - 8

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATIONS ADMINISTRATION

CEDAR STREET, CARROLL STREET AND DAHLIA STREET
EXISTING COMMUNICATION PLAN
FROM 5TH ST N.W. TO 7TH ST N.W.

EX. COMM.

SUBMITTED: TRAFFIC/SIGNAL PROJECT ENGINEER — DATE 4-6-2018

RECOMMENDED: TRAFFIC SIGNAL DESIGN PROJECT MANAGER — DATE

TRAFFIC SIGNAL MAINTENANCE DIVISION MANAGER — DATE

APPROVED: TRAFFIC SIGNAL PROGRAM MANAGER — DATE 4-6-18

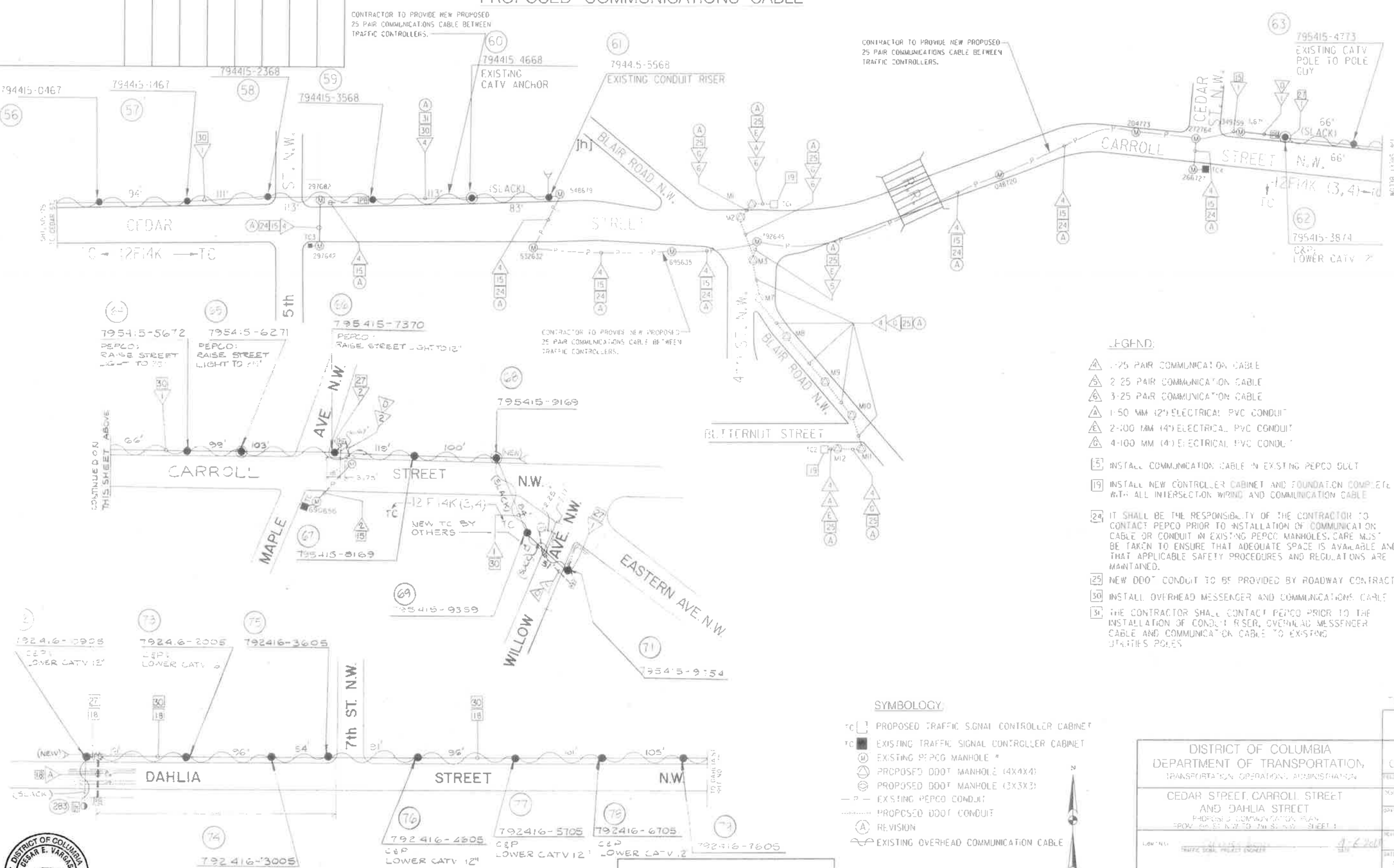
CHECKED BY: UR
DESIGNED BY: MR
DRAWN BY: JG
REVIEWED BY: MC
DATE: 04/2018
SCALE: N.T.S.
SHEET 1 OF 3
DRAWING NO. 73 OF 75

DISTRICT OF COLUMBIA ★ CESAR E. VARGAS ★ No. 10402 REGISTERED PROFESSIONAL ENGINEER

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

APPROVED BY: — DATE

PROPOSED COMMUNICATIONS CABLE



LEGEND:

- 4 1-25 PAIR COMMUNICATION CABLE
- 5 2-25 PAIR COMMUNICATION CABLE
- 6 3-25 PAIR COMMUNICATION CABLE
- A 1-50 MM (2") ELECTRICAL PVC CONDUIT
- E 2-100 MM (4") ELECTRICAL PVC CONDUIT
- G 4-100 MM (4") ELECTRICAL PVC CONDUIT
- 15 INSTALL COMMUNICATION CABLE IN EXISTING PEPCO DUCT
- 19 INSTALL NEW CONTROLLER CABINET AND FOUNDATION COMPLETE WITH ALL INTERSECTION WIRING AND COMMUNICATION CABLE
- 24 IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT PEPCO PRIOR TO INSTALLATION OF COMMUNICATION CABLE OR CONDUIT IN EXISTING PEPCO MANHOLES. CARE MUST BE TAKEN TO ENSURE THAT ADEQUATE SPACE IS AVAILABLE AND THAT APPLICABLE SAFETY PROCEDURES AND REGULATIONS ARE MAINTAINED.
- 25 NEW DDOT CONDUIT TO BE PROVIDED BY ROADWAY CONTRACTOR
- 30 INSTALL OVERHEAD MESSENGER AND COMMUNICATIONS CABLE
- 31 THE CONTRACTOR SHALL CONTACT PEPCO PRIOR TO THE INSTALLATION OF CONDUIT RISER, OVERHEAD MESSENGER CABLE AND COMMUNICATION CABLE TO EXISTING UTILITIES POLES

SYMBOLOGY:

- TC PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET
- TC EXISTING TRAFFIC SIGNAL CONTROLLER CABINET
- M EXISTING PEPCO MANHOLE *
- PROPOSED DDOT MANHOLE (4X4X4)
- PROPOSED DDOT MANHOLE (3X3X3)
- — P — EXISTING PEPCO CONDUIT
- PROPOSED DDOT CONDUIT
- A REVISION
- EXISTING OVERHEAD COMMUNICATION CABLE

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATIONS ADMINISTRATION

CEDAR STREET, CARROLL STREET AND DAHLIA STREET
PROPOSED COMMUNICATION PLAN
FROM 5th ST. N.W. TO 7th ST. N.W. - SHEET 1

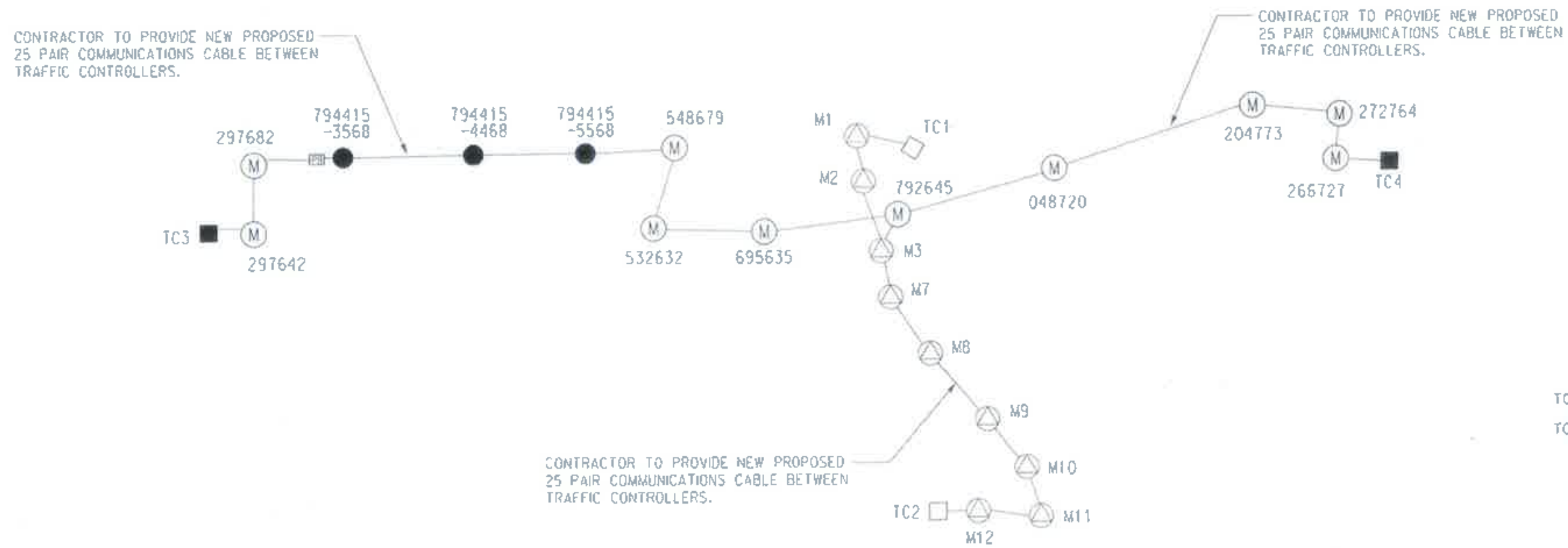
SUBMITTED: TRAFFIC SIGNAL PROJECT ENGINEER — DATE 4-6-2018
RECOMMENDED: TRAFFIC SIGNAL DESIGN PROJECT MANAGER — DATE
APPROVED: TRAFFIC SIGNAL PROGRAM MANAGER — DATE 4-6-18

PR COMM.
FIELD CHECKED BY: MR
DESIGNED BY: MR
DRAWN BY: JG
REVIEWED BY: MO
DATE: 04/2018
SCALE: N.T.S.
TS-9

REVISION								
DESCRIPTION	DATE	COR	CHK	APP	APP	APP	APP	APP

FED.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
3	D.C.	STP 8888 (416)	75	75

PROPOSED COMMUNICATIONS CABLE SCHEMATIC



LEGEND:

- TC ☐ PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET
- TC ■ EXISTING TRAFFIC SIGNAL CONTROLLER CABINET
- (M) EXISTING PEPCO MANHOLE *
- ● EXISTING PEPCO POLE *
- △ PROPOSED DDOT MANHOLE (4X4X4)

PROPOSED COMMUNICATIONS CABLE ROUTING

TC1 - M1 - M2 - M3 - M7 - M8 - M9 - M10 - M11 - M12 - TC2

TC1 - M1 - M2 - M3 - 792645 - 695635 - 532632 - 548679 - 794415(5568) - 794415(4468) - 794415(3568) - PB - 297682 - 297642 - TC3

TC1 - M1 - M2 - M3 - 792645 - 048720 - 204773 - 272764 - 266727 - TC4

CONDUIT SUMMARY						
SCHEDULE				QUANTITY		
FROM - TO		SIZE (DIA.) INCH	NUMBER OF CONDUITS	CONDUIT FEET	2 INCH BEND (EA)	4 INCH BEND (EA)
M3- 792645	PROPOSED	4	2	25	-	-

NOTES:

1. CONTRACTOR TO COORDINATE THIS SHEET WITH PROPOSED COMMUNICATION PLAN SHEETS I.E. TS-7.
2. CONTRACTOR SHALL INSTALL COMMUNICATIONS CABLE AS PER CABLE SCHEMATICS AND CABLE ROUTING SHEET. CONTRACTOR SHALL REFER TO SHEETS TS-7 AND TS-8 FOR SIZE AND NUMBER OF COMMUNICATION CABLES.

DISTRICT OF COLUMBIA CESAR E. VARGAS No. 10402 REGISTERED PROFESSIONAL ENGINEER

VOLKERT ENGINEERING, P.C.
80 M ST. SE, SUITE 725, WASHINGTON, DC 20003

TS - 10

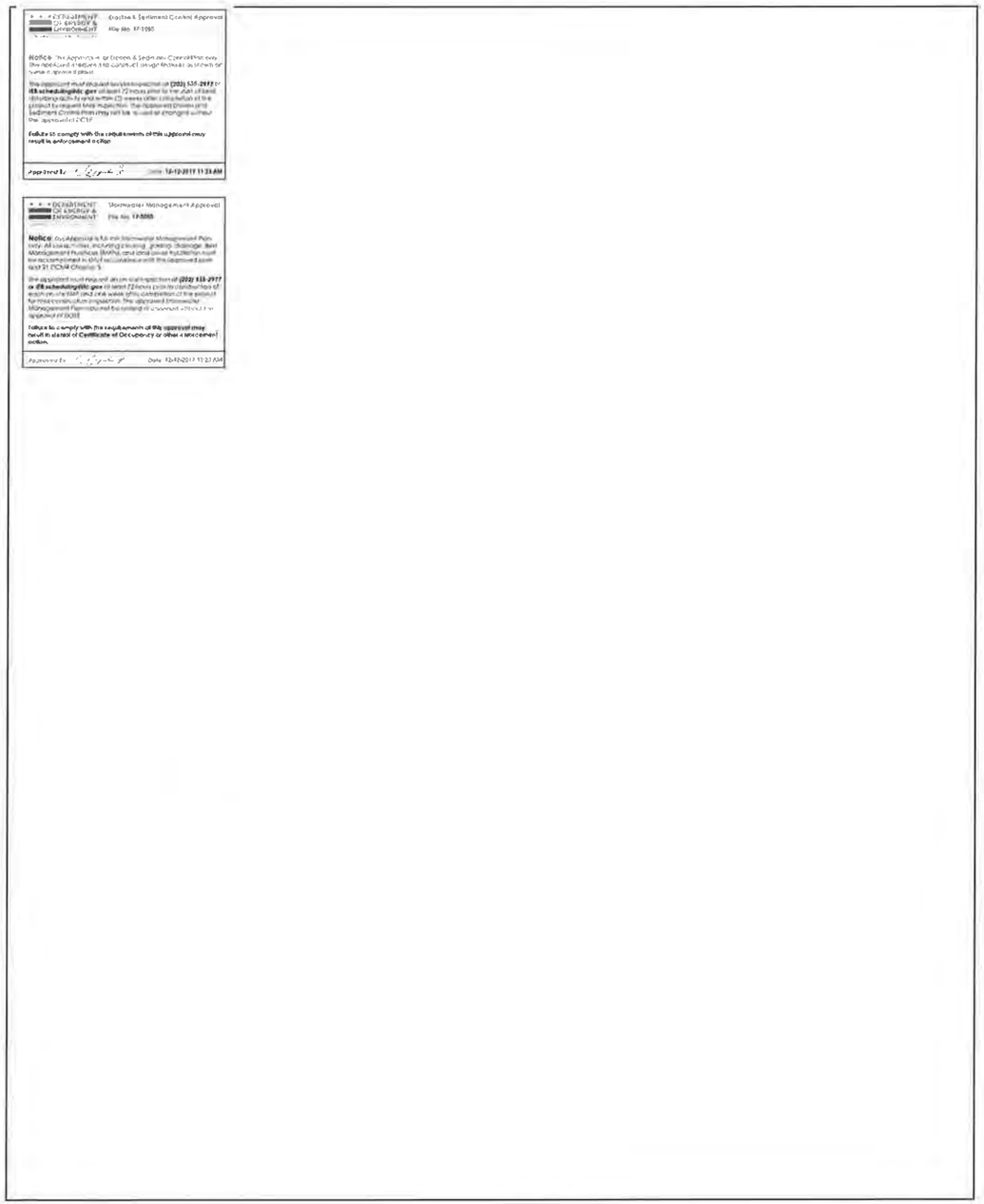
DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATIONS ADMINISTRATION

CEDAR STREET, CARROLL STREET AND DAHLIA STREET
PROPOSED COMMUNICATION PLAN
FROM 5th ST N.W. TO 7th ST N.W. SHEET 2

SUBMITTED: TRAFFIC SIGNAL PROJECT ENGINEER — DATE 4-6-2018
RECOMMENDED: TRAFFIC SIGNAL DESIGN PROJECT MANAGER — DATE
TRAFFIC SIGNAL MAINTENANCE DIVISION MANAGER — DATE
APPROVED: TRAFFIC SIGNAL PROGRAM MANAGER — DATE 4-6-18

PROP COMM	
FIELD CHECKED BY	MR
DESIGNED BY	MR
DRAWN BY	JC
REVIEWED BY	MG
DATE	04/2018
SCALE	N.T.S.
SHEET 3 OF 3	
DRAWING NO.	75 OF 75

The following stamps were applied via the Stormwater Database. Each stamp was signed electronically at the indicated time.



DOEE Cover Sheet

Project Name: Blair Road/Cedar Street/4th Street, NW Intersection Improvements

Plan Number: 5065

Building Permit Number: BCIV1600046

Contact Information: Bharat Bhargava, P.E. (Volkert Engineering, P.C.)

Tel: 703-642-8100

Sheet Index: Paving/Grading Plans, Stormwater Management Plans, Composite Utility / Drainage Plans, Maintenance of Traffic , Pavement Marking and Signing Plans, Erosion & Sediment Control Plans.